CURRICULUM VITAE

Arthur M. Havenner

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Personal Data

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Education

B.A. Economics 1966, University of Maryland
M.S. Economics 1967, University of Michigan
Ph.D. Economics 1972, Michigan State University
I studied under Professor Jan Kmenta, a famous econometrician [Wikipedia]. In my doctoral dissertation I specified and estimated a moderate-sized macroeconomic model of the U.S. and used it to conduct hypothesis tests and policy simulations, and to make forecasts.

Professional Positions

Professor Emeritus, University of California at Davis, Department of Agricultural and Resource Economics, February 1, 2012 to present.

Professor, University of California at Davis, Department of Agricultural and Resource Economics, July 1985 to February 1, 2012, teaching graduate and undergraduate courses in econometrics and finance.

Visiting Associate Professor of Econometrics and Statistics, University of Chicago, Graduate School of Business, September 1985 to June 1986, teaching a Ph.D. level course in forecasting.

Associate Professor, University of California, Davis, Agricultural Economics Department, July 1979 to June 1985, teaching graduate and undergraduate courses in econometrics and statistics.

Visiting Professor, San Jose State University, September 1978 to June 1979, on one year leave of absence from New York University, teaching graduate and undergraduate courses in econometrics, forecasting, and macroeconomics.

Assistant Professor, New York University, Graduate School of Business Administration, September 1976 to June 1979, teaching graduate courses in econometrics and forecasting.

Economist, Board of Governors of the Federal Reserve System (Washington, D.C.), November 1971 to September 1976. Primary activities included development of optimal control algorithms for the MIT-Penn-SSRC quarterly econometric model (resulting in techniques now routinely used at the Board); econometric software and database access design; quarterly model development and general Federal Reserve staff econometric support; and policy analysis in macroeconomic and econometric areas.

Professional Activities

Associate Editor:

Journal of Economic Dynamics and Control, September 1987 to September 1996.

Program Chair:

Society for Economic Dynamics and Control, 1988 annual meeting.

Invited Sessions;

Invited sessions have been organized for various organizations, including the International Electrical and Electronic Engineers, and the American Statistical Association (1985 and 1995).

Refereeing:

Assorted journals including the American Economic Review, Journal of Economic Dynamics and Control, Federal Reserve Bulletin, Journal of the American Statistical Association, Journal of Econometrics, American Journal of Agricultural Economics, Optimal Control Applications and Methods, International Economic Review, and grant applications for HEW, NSF, and USDA.

Selected Seminars:

Formal seminars have been given at a number of institutions, including the University of California, Santa Barbara, Economics (twice); University of California Berkeley Agricultural Economics; Federal Reserve Board (twice from outside); Purdue University Agricultural Economics; University of Chicago Graduate School of Business Econometrics and Statistics Colloquium (twice); University of Rhode Island Campus Invited Scholar; Stanford Economics Seminar; M.I.T./ Harvard Econometrics Seminar; University of Arizona Agricultural Economics; University of California Davis Statistics; University of California San Diego Economics; and others.

Invited address:

"Multiperiod Optimal Control of the SSRC-MIT-Penn Quarterly Econometric Model," presented to the Federal Reserve Committee on Financial Analysis, Washington, D.C., 1976.

Panel member:

American Bar Association Litigation Section, Products Liability Panel Discussion, March 1, 1991, Palm Springs, CA.

Manhattan Institute Forum on Products Liability, San Francisco, July 10, 1990; attendance of California judicial leaders by invitation only.

Selected grants:

Multiple Giannini Foundation grants, approximately $10,000 each; USDA marketing fellowships, $90,000 (written for the department while chairing the Graduate Advisory Committee); USDA NRI marketing order study grant, $95,000; USDA NRI state space ARCH model development and application to live cattle price volatility, $40,711; others.

Teaching awards:

Selected for inclusion in Who's Who Among America's Teachers, 2004 Eighth Edition.

Twice nominated by students for Outstanding Teacher at U.C. Davis.

Presented with the Phi Beta Kappa of Northern California's Excellence in Teaching award and honorarium May 2008.

Publications and Papers

"Optimal Control of a Linear Macroeconomic Model with Random Coefficients," Proceedings of the IEEE Conference on Decision and Control, December 1973, with R. Craine.

"Optimal Control of Large Nonlinear Stochastic Econometric Models," Summer Computer Simulation Conference Proceedings, July 1975, with R. Craine and P. Tinsley.

"MINNIE: A Small Version of the MIT-Penn-SSRC Econometric Model," Federal Reserve Bulletin, November 1975, with D. Battenberg and J. Enzler.

"Optimal Macroeconomic Control Policies," Annals of Economics and Social Measurement, Vol. 5, No. 2, Spring 1976, with R. Craine and P. Tinsley.

"A Structural View of Intermediate Variables," Report to the Federal Reserve Committee on the Directive (reviewing the usefulness of intermediate variables as guidelines for the New York trading desk), June 1976.

"Derived Reduced Form Coefficient Covariances," Econometrica, Vol. 44, No. 4, July 1976.

"Coefficient Uncertainty and Policy Aggressiveness: An Empirical Assessment," Proceedings of the IEEE Conference on Decision and Control, December 1976, with R. Craine.

"A Stochastic Optimal Control Technique for Models with Estimated Coefficients," Econometrica, Vol. 45, No. 6, May 1977, with R. Craine.

"The Optimal Monetary Instrument: An Empirical Assessment," Journal of Cybernetics, Vol. 7, Nos. 1-2, January-June 1977, with R. Craine.

"Estimation from a Pooled Time-Series of Cross-Sections of Simultaneous Equations," Summer Computer Simulation Conference Proceedings, July 1977, with W. Donnelly.

"Estimating a Comprehensive County-Level Forecasting Model of the United States," invited paper, Proceedings of the First Annual Economics of Energy Workshop, Association of University, Business, and Economic Research, August 1977, with W. Donnelly, E. Hong, F. Hopkins, and T. Morlan.

"Model Estimation with FEDEASY," Proceedings of the American Statistical Association (Statistical Computing), August 1977, with R. Herman and J. Condie.

"Fixed Rules versus Activism in the Conduct of Monetary Policy," American Economic Review, Vol. 68, No. 5, December 1978, with R. Craine and J. Berry.

"Aggregating Disparate Individuals into Meaningful Macroeconomic Relations: The Case of Consumption," Proceedings of the Twelfth Asilomar IEEE Conference on Circuits, Systems and Computers, November 1978.

Modeleasy Level II: A Speakeasy Enhancement for Estimation and Simulation with Simultaneous Equations (User's Guide), Board of Governors of the Federal Reserve System, with several others, October 1978.

"Optimal Macroeconomic Control Policies," (see above) was selected for re-publication as <<Politicas Macroeconomicas de Control Optimo>> in Hacienda Publica Espanola Instituto de Estudios Fiscales, No. 51, 1978, Madrid.

"Aggregate Lifetime Income Data Incorporating Demographic Effects," June 1980.

"A Random Coefficient Approach to Seasonal Adjustment of Economic Time Series," Journal of Econometrics, February 1981 (lead article), with P.A.V.B. Swamy.

"On Control with Instruments of Differing Frequency," Journal of Economic Dynamics and Control, Vol. 3, No. 2, May 1981, with R. Craine.

"Choosing a Monetary Instrument: The Case of Supply Side Shocks," Journal of Economic Dynamics and Control, Vol. 3, No. 2, August 1981, with R. Craine.

"Soybean Market Forecast Errors," Applied Commodity Price Analysis and Forecasting (Chicago: Farm Foundation, 1981), pp. 466-481, with M. Cerchi.

"Computationally Expedient Openloop Stochastic Control," Proceedings of the IEEE Conference on Decision and Control, San Diego, December 1981, pp. 841-843.

"Estimation Analogies in Control," Journal of the American Statistical Association, Vol. 76, No. 376, December 1981, pp. 850-859, with R. Craine.

"A Brief Description of the FRB Modeleasy/Fedeasy Econometric Language," Journal of Economic Dynamics and Control, Vol. 5, No. 1, pp. 75-79, February 1983, with J. Condie, R. Herman, A. Norman, and R. Porter.

"Classical Versus Bayesian Models: On the Dangers of a Little Bit of Knowledge," International Journal of Systems Science, Vol. 14, No. 8, August 1983, pp. 871-875, with R. Craine.

"Nonlinear Estimation with SPEAKEASY," Proceedings of the Eleventh Annual Speakeasy Conference, August 1983, pp. 37-46.

"An Econometrician's Guide to Estimating Financial Market Models," November 1983, with M. Cerchi.

"In Tema Di Controllo Ottimale Quadratico Ad Anello Aperto," in Rivista Internazionale di Science Sociali, 1, Anno XCII gennaio-marzo 1984, pp. 74-87. ("On Quadratic Open Loop Optimal Control," International Review of the Social Sciences, January-March 1984.)

"Quadratic Openloop Optimal Control of Economic Systems," International Electrical and Electronic Engineers Transactions on Automatic Control, Vol. AC-29, No. 5, May 1984, pp. 392-39.

"Toward the Resurrection of Optimal Macroeconomic Policy," Applied Decision Analysis and Economic Behavior, pp. 23-32 in Vol. 3 of Advanced Studies in Theoretical and Applied Econometrics, Kluwer and Nijhoff publishers, Boston and The Hague, 1984, with L. Karp.

"Classical Econometrics and Stochastic Optimal Control," April 1983, revised June 1984.

Reply to Comments on "The Choice of Monetary Instrument," Journal of Economic Dynamics and Control, Vol. 7, No. 3, September 1984, with R. Craine.

"Approximations in Time Series Modelling from a System Theoretic Approach," Proceedings of the American Statistical Association, Business and Economic Statistics Section, August 1985, with M. Aoki.

"Markovian Models for Vector-Valued Time Series: A Unified Account for Approximate Model Construction," August 1985, with M. Aoki. (Presented at the Fifth World Congress of the Econometric Society, Boston, Massachusetts.)

"Approximate State Space Models of Some Vector-Valued Macroeconomic Time Series for Cross-Country Comparisons," Journal of Economic Dynamics and Control, Vol. 10, No. 1/2, June 1986, with M. Aoki. (Also presented at the Seventh Annual Conference of the Society of Economic Dynamics and Control.)

"Formulating and Estimating Dynamic Stochastic Production Models," June 1986, with J. Antle.

"Forecast Comparisons of Four Models of U.S. Interest Rates," Journal of Forecasting, Vol. 7, No. 1, January-March 1988, with R. Craine. (Republished online September 21, 2006.)

"Foreign Exchange Rate Revisions: A Multiple Currency and Multiple Maturity Analysis," Journal of Econometrics, Vol. 37, No. 2, February 1988, with B. Modjtahedi.

"An Instrumental Variable Interpretation of Linear Systems Theory Estimation," Journal of Economic Dynamics and Control, Vol. 12, No. 1, March 1988, pp. 49-54, with M. Aoki.

"Econometrics and Linear Systems Theory in Multivariate Time Series Analysis," (University of California, Agricultural Economics Department Working Paper 88-6), April 1988, with M. Aoki.

"Cointegration and Stock Prices: The Random Walk on Wall Street Revisited," Journal of Economic Dynamics and Control, Vol. 12, No. 2/3, June/September 1988, pp. 333-346, with M. Cerchi.

"State Space Modeling of Stationary Time Series: Theory and Applications," invited paper, American Statistical Association, 1988 Proceedings of the Business and Economic Statistics Section, pp. 51-58, with M. Aoki.

"A Discrete Dependent Variable Approach to Predicting the Success of Agricultural Futures Markets," February 1989 (University of California, Agricultural Economics Department, Working Paper 89-4), with S. Chambers.

"Forecasting Halibut Biomass Using System Theoretic Time Series Methods," American Journal of Agricultural Economics, Vol. 71, No. 2, May 1989, pp. 422-31, with K. Criddle.

"Optimal Cross-Year Agricultural Inventories Using State Space Models," May 1989 (Agricultural Economics Department Working Paper 89-11), with J. Dorfman.

"System Theoretic Time Series: An Application to Inventories and Prices of California Range Cattle," March 1988, Computers and Mathematics with Applications, Vol. 17, No. 8/9, 1989, System-Theoretic Methods in Economic Modelling I, with K. Criddle.

"A Method for Approximate Representation of Vector-Valued Time Series and Its Relation to Two Alternatives," Journal of Econometrics, Vol. 42, October 1989, pp. 181-99, with M. Aoki.

"An Optimal Control Model of Olive Inventories Using State Space Models," June 1989, Proceedings of the 6th IFAC Symposium on Dynamic Modelling and Control of National Economies, pp. 7-12, Edinburgh, U.K., With J. Dorfman.

"Deterministic and Stochastic Trends in State Space Models of Nonstationary Time Series," (University of California, Working Paper 90-9), June 1990, with M. Aoki.

"Not Quite a Revolution in Products Liability," Manhattan Institute Judicial Studies White Paper, 1990. [A column by Peter Huber in Forbes magazine in October 1990 was devoted to reviewing this paper, and it resulted in an interview on a video produced by the Manhattan Institute for Policy Research ("Liability: Injustice for All") narrated by Walter Cronkite.] An earlier expanded version titled "A Critique of 'The Quiet Revolution in Products Liability'," June 1990 (University of California, Agricultural Economics Department Working Paper 90-9) also received press attention.

"Forecasts from a State Space Multivariate Time Series Model," American Journal of Agricultural Economics, Vol. 72, No. 3, August 1990, pp. 793-798, with K. Criddle.

"Bayesian Forecasting with a Balanced Representation State Space Model," American Statistical Association 1990 Proceedings of the Business and Economic Statistics Section, pp. 79-88, with J. Dorfman.

"State Space Modeling of Multiple Time Series," Econometric Reviews, 1991, Vol. 10, No. 1, pp. 1-59 (lead article, most of the journal issue), with M. Aoki.

"Reply to Comments on State Space Modeling of Multiple Time Series," Econometric Reviews, 1991, Vol. 10, No. 1, pp. 93-96.

"State Space Modeling of Cyclical Supply, Seasonal Demand, and Agricultural Inventories," American Journal of Agricultural Economics, Vol. 73, No. 3, August 1991, pp. 829-840, with J. Dorfman.

"An Encompassing Approach to Modeling Fishery Dynamics: Modeling Dynamic Nonlinear Systems," Natural Resource Modeling, Vol. 5, No. 1, Winter 1991, pp. 55-90, with K. Criddle.

"Flooding on the Eel River: Systems Theoretic Time Series Versus Structural Model Forecasts," Natural Resource Modeling, Vol. 16, No. 2, Spring 1992, pp. 171-190, with J. Tracy.

"A Bayesian Approach to State Space Multivariate Time Series Modeling," Journal of Econometrics, Vol. 52, No. 3, June 1992, pp. 315-346 (lead article), with J. Dorfman.

"Multi-Market Arbitrage Using System Theoretic Time Series Forecasts," Papers of the 1993 Annual Meeting, Western Agricultural Economics Association, Edmonton, Alberta, July 1993, pp. 71-77, with K. Foster and A. Walburger.

"Improved Estimates of the Parameters of State Space Time Series Models," Journal of Economic Dynamics and Control Vol. 20, No. 5, May 1996, pp. 767-789, with Z. Leng.

"System Theoretic Forecasts of Weekly Live Cattle Prices," American Journal of Agricultural Economics, Vol. 77, No. 4, November 1995, pp. 1012-1023, with K. Foster and A. Walburger.

"Model Specification Tests for Balanced Representation State Space Models," Communications in Statistics: Theory and Methods, Vol. 24, No. 1, 1994, pp. 97-119, with J. Dorfman.

"A State Space Multivariate GARCH Approach to Modeling the Effects of Regulation on Telecommunication," 1995 Proceedings of the American Statistical Association, Business and Economic Statistics Section, (invited paper), pp. 39-46, with Z. Leng.

"Demand Systems Estimation with Censored Microdata: Practical Estimators," July 1995, draft, with D. Heien and Z. Leng.

"Stochastic Production Function Estimation: Small Sample Properties of ML versus FGLS," Applied Economics, 1997, Vol. 29, pp. 459-469, with A. Saha and H. Talpaz.

"The Economics and Econometrics of Damage Control," October 1995, American Journal of Agricultural Economics, Vol. 79, No. 3, August 1997, pp. 773-785, with A. Saha and R. Shumway. This paper was one of four finalists for best journal article of the year.

Applications of Computer Aided Time Series Modeling, 1997, M. Aoki and A. Havenner, editors (Berlin: Springer-Verlag).

"A Guide to State Space Modeling of Multiple Time Series," 1996, Applications of Computer Aided Time Series Modeling, M. Aoki and A. Havenner, editors (Berlin: Springer-Verlag 1997) Part I, Chapter 2.

"Evaluating State Space Forecasts of Soybean Complex Prices," 1994, Applications of Computer Aided Time Series Modeling, M. Aoki and A. Havenner, editors (Berlin: Springer-Verlag 1997) Part II, Chapter 1, with D. Berwald.

"Managing the Herd: Price Forecasts for California Cattle Production," 1995, Applications of Computer Aided Time Series Modeling, M. Aoki and A. Havenner, editors (Berlin: Springer-Verlag 1997) Part II, Chapter 3, with L. Egan.

"Is the Quality of Agricultural Products Guaranteed by Government Grades and Minimum Standards?" 1996, draft, with K. Weiss and R. Green.

"Dynamic Multiproduct Hedging Decisions for the Feedlot Operator," 1998, with Z. Leng.

"User Guide for SSATS 2.0 Procedure Module," 1996, distributed through Gauss with modules to do state space time series, with J. Dorfman.

"An Introduction to Model Specification and Estimation of Balanced Representation State Space Models," 1996, distributed through Gauss with modules to do state space time series, with J. Dorfman.

"Time Series Analysis of a Policy-Created Asset: The Case of California Dairy Quota," 1996, with N. Wilson and D. Sumner.

"Walnut Crop Forecasts," May 1996, Report to the Walnut Marketing Board.

"Walnuts in Japan: A Case Study of Generic Promotion under the USDA's Market Promotion Program," 1996, in Agricultural Commodity Promotion Policies and Programs in the Global Agri-Food System, J. Ferrero, K. Ackerman, and J. Nichols editors, with K. Weiss and R. Green.

"Analysis of Welfare Dependence Using A New Duration Model," 1997, with A. Saha and L. Hilton.

"Pistachio Crop Forecasts," July 1998, Report to the California Pistachio Commission.

"Cointegration and Settlement of Commodity Futures Contracts," Macroeconomic Dynamics, Vol. 3, No. 2, June 1999, pp. 226-242, with K. Foster.

"Agricultural Product Market Development by Grower Organizations," with K. Weiss and R. Green.

"Globally Flexible Asymptotically Ideal Models," American Journal of Agricultural Economics, Vol. 81, August 1999, pp. 703-710, with A. Saha.

"Asymptotically Ideal Models of Demand and Production," draft, 1999, with A. Saha.

"The Effect of Rate Regulation on Mean Returns and Non-Diversifiable Risk: The Case of Cable Television," Review of Industrial Organization, Vol. 19, 2001, pp. 149-164, with T. Hazlett and Z. Leng.

"The Arbitrage Mirage: Regulated Access Prices With Free Entry In Local Telecommunications Markets," Review of Network Economics Special Issue on Incentive Regulation, Vol. 2, Issue 4, December, 2003, pp. 440-450, with Thomas Hazlett.

"Pitfalls of Using White's Estimator with Indicator Variable Regressors," draft, 2006, with Atanu Saha.

"Premium Sex: Factors Influencing the Negotiated Price of Unprotected Sex by Female Sex Workers in Mexico," Journal of Applied Economics, May 2010 (Vol. XIII Number 1, with Adela de la Torre, Katherine Pittenger, and Justin Ng. [Ranked seventh of this journal's articles cited since 2010 as of October 2015; see http://www.journals.elsevier.com/journal-of-applied-economics/most-cited-articles/.]

"Discrete Sex: An Ordered Probit Model of Condom Use Among Female Sex Workers in Tijuana, Mexico," draft, 2010, with Katherine Pittenger, Adela de la Torre, and Justin Ng.

"They Don't Call It Stimulus No More" Real Clear Markets, March 26, 2010, with George Bittlingmayer and Thomas Hazlett. http://www.realclearmarkets.com/articles/2010/03/26/they_dont_call_it_stimulus_no_more_98394.html

"Obesity of Mexican-Origin Children in California's Central Valley: A Hedonic Model," draft, 2015, with Richard Green, Adela de la Torre, *et al.*

"Economic Explanations of Obesity," draft, October 2015, with Richard Green, Adela de la Torre, and Nan Zhang.

Selected Economic Consulting

I have been involved in numerous special projects ranging from reorganization of the Federal Reserve Board's data processing unit, to real-time forecasts of equilibrium quantities supplied based on non-representative sampling of market participants, to optimal risk management (with petroleum engineers and corporate finance staff) for a very large oil and gas firm, to management of non-qualified defined benefit plans, to forecasting the number of 800 telephone numbers in an increasingly internet-based economy, to analyzing the effects on private investment of government telecom pricing policy, among others.

Some examples of my consulting activities follow; court cases on request.

Consultant to Board of Governors, Federal Reserve System, on SPEAKEZ/FEDEASY econometric package design, 1977-1985.

Consultant to Federal Energy Administration (later Department of Energy) on estimation and simulation of the 2500 equation Regional Energy, Activity, and Demographic Model, 1977-1978.

Consultant to Technical Ventures, Sunnyvale, CA, on preparation of an electronics industry newsletter, "The VLSI Capital Equipment Outlook," 1979-1981.

Consultant to RMI, Sacramento, 1982, individual-account based energy forecasts for Redding, California.

Panel member, Board of Governors of the Federal Reserve System Program Improvement Project, December 1984-January 1985. Served as one of two outside members, with six other members drawn from the Senior Vice Presidents of the Federal Reserve Banks on a panel responsible for evaluating the effectiveness of the Board's entire gathering and information processing capabilities. This review culminated in a private presentation and question and answer session with then Federal Reserve Board Chairman Volcker and the six other Governors of the Federal Reserve System.

Consultant to The Manhattan Institute, New York, spring and summer 1990, analyzing changing products liability standards as established in the courts.

Consultant to the California Walnut Marketing Board and California Walnut Commission August, 1995, through March, 1998, and intermittently continuing. I worked with the California Agricultural Statistics Service to evaluate and improve the accuracy of walnut crop forecasts.

Consultant to the California Pistachio Commission, Fresno, California, spring and summer 1998. I worked with the California Agricultural Statistics Service to evaluate and improve the accuracy of pistachio crop forecasts during a particularly troubled time of rapid overall growth, diseased older orchards, and new rootstock introduction.

Consultant to Diamond Walnut Growers, summer 1998, advising on improving the estimates of Diamond's crop as early growers deliver their product, and on predicting the total crop using Diamond growers as a non-representative sample.

Met with U.S. Federal Communications Commission (Washington, D.C.) representatives on January 6, 2003 regarding a demand forecast and new tariff for toll-free numbers' administration cost recovery, with Thomas Hazlett and Coleman Bazelon.

Filed with the U.S. Federal Communications Commission (Washington, D.C.) on September 2, 2003 regarding the effect of FCC's TELRIC pricing on local telephone company investment decisions, with Thomas Hazlett and Coleman Bazelon.

Special Consultant to Econ One and Micronomics, Los Angeles, September 1994 to present. (Econ One split from Micronomics in September 1997.) I serve primarily as an econometrics and finance consultant. I have been involved in formal statistical determination of liability and damages in a number of court cases through Econ One including, among other issues, trading volume effects on stock prices when a white knight reneged, royalty tax assessment when some transactions are not arms-length, and price fixing in a variety of product markets. I have also participated with Econ One in a major consulting project involving both financial and production risk management in the oil and gas industry.

Consultant to Analysis Group and Compass-Lexicon on multiple matters of economics and finance too sensitive to list.

Special Consultant to Arlington Economics, Arlington, Virginia, 2008 to present, providing econometric, economic, and financial analysis primarily on telecom issues.