

CURRICULUM VITAE

CARL F. CHRIST

Address:

Department of Economics
The Johns Hopkins University
34th and Charles Streets
Baltimore, MD 21218
(410) 516-7604

Personal:

Born 1923, Chicago, Illinois.

Education:

Colorado College, 1940-42.
University of Chicago, 1942-43.
B.S. in Physics, University of Chicago, 1943.
Ph.D. in Economics, University of Chicago, 1950.

Positions Held:

Junior Physicist,
Manhattan Project, 1943-45.
Instructor in Physics,
Princeton University, 1945-46.
Fellow,
Social Science Research Council, 1948-50.
Research Associate,
Cowles Commission for Research in Economics, 1949-50.
Assistant Professor of Political Economy,
Johns Hopkins University, 1950-53.
Associate Professor of Political Economy,
Johns Hopkins University, 1953-55.
Senior Fulbright Research Scholar,
Cambridge, England, 1954-55.
Associate Professor of Economics,
University of Chicago, 1955-61.
Visiting Professor of Economics,
University of Tokyo, spring semester, 1959.
Fellow,
Center for Advanced Study in the Behavioral Sciences, 1960-61.
Professor of Economics,
Johns Hopkins University, 1961- 2005.

Department Chairman,
Johns Hopkins University, 1961-66, 1969-70.
Abram G. Hutzler Professor.
Johns Hopkins University, 1977-89.
Keynes Visiting Professor of Economics,
University of Essex, England, 1966-67.
Lecturer,
Kyoto American Studies Summer Seminar, 1977.
Consultant,
Federal Reserve Board, 1979.
Foreign Lecturer,
Brazilian Econometric Society, December, 1981.
Visiting Scholar,
Bank of Japan, January-June, 1986.
Foreign Lecturer in Macroeconomics,
Chinese University Development Project II,
Fudan University, Shanghai, July-August, 1987.

Honors and Awards:

Phi Beta Kappa,
University of Chicago, 1943.
Sigma Xi,
Princeton University, 1946.
Fellow,
Econometric Society, 1967.
Fellow,
American Statistical Association, 1970.
Recipient,
George E. Owen Teaching Award, Johns Hopkins University, 1985.
Recipient,
Professional Achievement Citation, University of Chicago Alumni Association, 2001.

Other Activities:

Program Chairman,
Annual December Meeting, Econometric Society, 1957.
Member,
Economics Advisory Panel, National Science Foundation, 1965-66, 1967-68.
Chairman,
Universities-National Bureau Committee for Economic Research, 1967-74.
Member,
Nominating Committee, American Economic Association, 1969.
Member,
Board of Editors, American Economic Review, 1969-73.
Member,
Maryland Governor's Council of Economic Advisers, 1969-77.

Member,
 Board of Directors, National Bureau of Economic Research, 1975-2002.

Vice Chairman,
 Board of Directors, National Bureau of Economic Research, 1996-1999.

Chairman,
 Board of Directors, National Bureau of Economic Research, 1999-2002.

Council Member,
 Econometric Society, 1976-81.

Member,
 Committee on Honors and Awards, American Economic Association, 1977-82.

Vice President,
 American Economic Association, 1980.

Chairman,
 Nominating Committee, American Economic Association, 1981.

Member,
 Advisory Board, Carnegie-Rochester Conference on Public Policy, 1979-90.

Member,
 Committee on Awards, Omicron Delta Epsilon, 1981-83.

Member,
 Editorial Board, Johns Hopkins University Press, 1982-85.

Member,
 Advisory Board, Journal of Monetary Economics, 1983-94.

Member,
 Nominating Committee, American Economic Association, 1992-93.

Member,
 Julius Shiskin Award Committee, Washington Statistical Society, 1995-2002.

Publications:

I. Books

1. Econometric Models and Methods (New York, Wiley, 1966), pp. 705 + xxiii. Japanese translation, 1973. Spanish translation, 1974.
2. Notes on Western Macroeconomics (a volume in the series of Lecture Notes of Foreign Economists in the Chinese University Development Project II), with Chinese translation by Zhang Jun and others. (Shanghai, Fudan University Press, 1992. ISBN 7-309-00761-1/F.162), pp. 171 (Chinese) + 219 (English).
3. Simultaneous Equations Estimation, edited with an introduction by Carl F. Christ (Aldershot, England, Edward Elgar, 1994. ISBN 1-85278-661-2), pp. 534 + xxii.
4. Econometrics, Macroeconomics and Economic Policy: Selected Papers of Carl F. Christ (Cheltenham, England and Brookfield, VT, Edward Elgar, 1996. ISBN 1-85898-135-2), pp. 520 + xx.

II. Papers and Articles

1. "A Test of an Econometric Model for the United States, 1921-1947," in Universities-National Bureau Committee, Conference on Business Cycles (New York, National Bureau of Economic Research, 1951), pp. 35-107, 123-126. Reprinted as Cowles Commission Paper, New Series, No. 49, 1952.
2. "History of the Cowles Commission 1932-52," in Economic Theory and Measurement: A Twenty Year Research Report (Chicago, Cowles Commission for Research in Economics, 1952), pp. 3-65. See also item 32a below.
3. "A Review of Input-Output Analysis," in Conference on Research in Income and Wealth, Input-Output Analysis: An Appraisal (Studies in Income and Wealth, Vol. 18) (Princeton, Princeton University Press for National Bureau of Economic Research, 1955), pp. 137-169.
4. "Aggregate Econometric Models," American Economic Review 46 (No. 3, June, 1956), pp. 385-408. Reprinted in American Economic Association Readings in Business Cycles (Homewood, Illinois, Irwin, 1965), pp. 307-333.
5. "On Econometric Models of the U. S. Economy," in Milton Gilbert and Richard Stone (editors), Income and Wealth, Series VI (London, Bowes and Bowes for International Association for Research in Income and Wealth, 1957), pp. 1-23.
6. "Patinkin on Money, Interest, and Prices," Journal of Political Economy 65 (No. 4, August, 1957), pp. 347-354.
7. "Resource Allocation, Economic Stabilization, and Public Policy Toward Prices," in U. S. Congress, Joint Economic Committee, The Relationship of Prices to Economic Stability and Growth: Compendium, (Washington, U. S. Government Printing Office, 1958), pp. 345-360.
8. "Free Enterprise vs. Government Control: A Theoretical Economic Analysis," (in Japanese translation), Sekai Keizai (World Economy), February, 1960, pp. 19-32.
9. "Simultaneous Equation Estimation: Any Verdict Yet?" Econometrica 28 (No. 4, October, 1960), pp. 835-845.
10. "On the Report of the Commission on Money and Credit," Review of Economics and Statistics 44 (No. 4, November, 1962), pp. 418-427.
11. "Interest Rates and 'Portfolio Selection' among Liquid Assets in the United States," in Carl F. Christ and others, Measurement in Economics: Studies in Mathematical Economics and Econometrics in Memory of Yehuda Grunfeld (Stanford, Stanford University Press, 1963), pp. 201-218.
12. "Econometrics and Model-Building," Annals of the American Academy of Political and Social Science 370 (March, 1967), pp. 164-175.

13. "A Short-Run Aggregate-Demand Model of the Interdependence and Effects of Monetary and Fiscal Policies with Keynesian and Classical Interest Elasticities," *American Economic Review* 57 (No. 2, May, 1967), pp. 434-443.
14. "Econometrics in Economics: Some Achievements and Challenges," *Australian Economic Papers* 6 (No. 9, December, 1967), pp. 155-170
15. "A Simple Macroeconomic Model with a Government Budget Restraint," *Journal of Political Economy* 76 (No. 1, January/February, 1968), pp. 53-67.
16. "Econometric Models, Aggregate," in *International Encyclopedia of the Social Sciences* (New York, Macmillan and Free Press, 1968), Vol. 4, pp. 344-350. See also item 26a below.
17. "Monetary and Fiscal Policy in Macroeconomic Models," in *The Economic Outlook for 1969* (Ann Arbor, University of Michigan Department of Economics, 1969), pp. 93-112.
18. "A Model of Monetary and Fiscal Policy Effects on the Money Stock, Price Level, and Real Output," *Journal of Money, Credit, and Banking* 1 (No. 4, November, 1969), pp. 683-705.
19. "Cash or Credit," in *Family Life Education Series* (Baltimore, Baltimore Urban League, 1970), pp. 32.
20. "Econometric Models of the Financial Sector," *Journal of Money, Credit, and Banking* 3 (No. 2, May, 1971), pp. 419-449.
21. "Econometrics and Model Building, 1967-1972," *Annals of the American Academy of Political and Social Science* 403 (September, 1972), pp. 153-162.
22. "Monetary and Fiscal Influences on U. S. Money Income," *Journal of Money, Credit, and Banking* 5 (No. 1, February, 1973), pp. 279-300.
23. "The 1973 Report of the President's Council of Economic Advisers: A Review," *American Economic Review* 63 (No. 4, September, 1973), pp. 512-526.
24. "Judging the Performance of Econometric Models of the U.S. Economy," *International Economic Review* 16 (No. 1, February, 1975), pp. 54-74. Reprinted in Lawrence R. Klein and Edwin Burmeister (editors), *Econometric Model Performance: Comparative Simulation Studies on the U.S. Economy* (Philadelphia, University of Pennsylvania Press, 1976), pp. 322-342.
25. "An Evaluation of the Economic Policy Proposals of the Joint Economic Committee of the 92nd and 93rd Congresses," in Karl Brunner and Allan H. Meltzer (editors), *Institutions, Policies, and Economic Performance* (Vol. 4 in the Carnegie-Rochester Conference Series on Public Policy, a supplementary series to the *Journal of Monetary Economics*), (Amsterdam, North-Holland Publishing Co., 1976), pp. 15-49. See also item 33a below.
26. "Some Dynamic Theory of Macroeconomic Policy Effects on Income and Prices under the Government Budget Restraint," *Journal of Monetary Economics* 4 (No. 1, January, 1978), pp. 45-70

- 26a. "Econometric Models, Aggregate," in *International Encyclopedia of Statistics* (New York, Free Press, 1978), Vol. 1, pp. 181-188. A reprint of item 16 above, with Postscript and additional references.
27. "The Economic Policy Proposals of the Joint Economic Committee of the 94th and 95th U.S. Congresses, 1975 through September 1978," *Journal of Monetary Economics* 5 (No. 3, July, 1979), pp. 375-395.
28. "On Fiscal and Monetary Policies and the Government Budget Restraint," *American Economic Review* 69 (No. 4, September, 1979), pp. 526-538.
29. "Regression When Each of Two Variables Is Dependent Some of the Time," in Lawrence R. Klein et al. (editors), *Quantitative Economics and Development* (New York, Academic Press, 1980), pp. 115-122.
30. "Changes in the Financing of the Federal Debt and their Impact on the U.S. Economy, 1948-90," in U. S. Congress, Joint Economic Committee, *Special Study on Economic Change*, Vol. 6, *Federal Finance: The Pursuit of American Goals* (Washington, U.S.G.P.O., December 23, 1980), pp. 93-185.
31. (with Alan A. Walters), "The Mythology of Tax Cuts," *Policy Review* 16 (Spring, 1981), pp. 73-86.
32. "Analysis of Stability in Macroeconomic Models with a Government Budget Restraint," *Revista de Econometria* 2 (No. 1, April, 1982), pp. 5-27.
- 32a. "The Founding of the Econometric Society and *Econometrica*," *Econometrica* 51 (No. 1, January, 1983), pp. 3-6. Reprinted from pp. 5-12 of item 2 above.
33. "Rules vs. Discretion in Monetary Policy," *CATO Journal* 3 (No. 1, Spring, 1983), pp. 121-141.
- 33a. "An Evaluation of the Economic Policy Proposals of the Joint Economic Committee of the 92nd and 93rd Congresses," in Karl Brunner and Allan H. Meltzer (editors), *Theory, Policy, Institutions: Papers from the Carnegie-Rochester Conferences on Public Policy* (Amsterdam, North-Holland Publishing Co., 1983), pp. 349-383. A reprint of item 25 above.
34. "Early Progress in Estimating Quantitative Economic Relationships in America," *American Economic Review* 75 (No. 6, December, 1985), pp. 39-52.
35. "Unemployment and Macroeconomics," in Thomas M. Gannon (editor), *The Catholic Challenge to the American Economy* (New York, Macmillan, 1987), pp. 116-127.
36. "The Financing of the Government Budget in Japan and Its Relation to Macroeconomic Variables," *Bank of Japan Monetary and Economic Studies* 5 (May, 1987), pp. 1-32.
37. "On Free Banking: Essay Review of The Theory of Free Banking by George Selgin," *Market Process* 7 (Spring, 1989), pp. 5-10.
38. "A Philosophy of Life," *The American Economist* 34 (Spring, 1990), pp. 33-39.

39. "Economics and Public Policy," in Shripad Pendse (editor), *Perspectives on an Economic Future: Forms, Reforms, and Evaluations* (Contributions in Economics and Economic History, No. 116) (New York, Greenwood Press, 1991), pp. 15-29.
40. "Pitfalls in Macroeconomic Model Building," in T. J. Kaul and J. K. Sengupta (editors), *Economic Models, Estimation, and Socioeconomic Systems: Essays in Honor of Karl A. Fox* (Contributions to Economic Analysis, No. 186) (Amsterdam, North-Holland, and New York, Elsevier, 1991), pp. 257-289.
41. "Decomposition of the Expected Squared Error of Forecast from a Linear Forecasting Equation," *Indian Economic Review* 27 (Special Number in memory of Sukhamoy Chakravarty, 1992, but published in 1994), pp. 325-328.
42. "When Is Free Banking More Stable Than Regulated Banking?" in Haim Barkai, Stanley Fischer and Nissan Liviatan (editors), *Monetary Theory and Thought: Essays in Honour of Don Patinkin* (London, Macmillan Press, 1993), pp. 185-209.
43. "Assessing Applied Econometric Results," *Federal Reserve Bank of St. Louis Review* 75 (No. 2, March/April 1993), pp. 71-94.
44. "The Cowles Commission's Contributions to Econometrics at Chicago, 1939-1955," *Journal of Economic Literature* 32 (No. 1, March 1994), pp. 30-59.
45. "Simultaneous Equation Estimation: Overview", in *International Encyclopedia of the Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Baltes, Amsterdam, Pergamon (Elsevier Science), 2001.
46. "Sutton on Marshall's Tendencies", in *Economics and Philosophy* 18 (2002), pp. 21-27.

III. Other Publications: Discussions, Comments, Reviews, Abstracts, Hearings, Notes, etc.

1. Review of *Variability in Recognizing Scientific Inquiry: An Analysis of High School Science Textbooks* by Richard H. Lampkin, Etc.: *A Review of General Semantics* 7 (No. 1, Autumn 1949), pp. 54-56.
2. Discussion of "Productivity in the Airframe Industry" by Herman Bergman, presented at Chicago meeting of Econometric Society, December, 1950. Abstract in *Econometrica* 19 (No. 3, July, 1951), pp. 329-330.
3. Comment on "Business Cycle Analysis and Public Policy" by Arthur Smithies, in *Universities-National Bureau Committee, Conference on Business Cycles* (New York, National Bureau of Economic Research, 1951), pp. 420-422.
4. Review of *The Role of Measurement in Economics* by Richard Stone, *American Economic Review* 41 (No. 5, December, 1951), pp. 953-955.

5. Review of The Problem of Summation in Economic Science by Goran Nyblen, *Journal of Political Economy* 60 (No. 4, August, 1952), p. 365.
6. "What Kind of Data for Econometrics?" presented at East Lansing meeting of Econometric Society, September, 1952. Abstract in *Econometrica* 21 (No. 2, April, 1953), pp. 338-339.
7. Discussion of "The Development of the Concepts of Mechanism and Model in Physical Science and Economic Thought" by Gregor Sebba, *American Economic Review* 43 (No. 2, May, 1953), pp. 271-274.
8. Review of Econometrics by Gerhard Tintner, *Journal of Political Economy* 61 (No. 3, June, 1953), pp. 262-263.
9. "Pitfalls in Econometrics," presented at Washington meeting of Econometric Society, December, 1953. Abstract in *Econometrica* 22 (No. 4, October, 1954), pp. 521-522.
10. Review of Post Keynesian Economics edited by Kenneth K. Kurihara, *Political Science Quarterly* 70 (No. 3, September, 1955), pp. 436-439.
11. Review of Mathematical Economics by R. G. D. Allen, *Journal of Farm Economics* 40 (No. 4, November, 1958), pp. 971-974.
12. Relationship of Prices to Economic Stability and Growth, Hearings, U. S. Congress, Joint Economic Committee, May 12-22, 1958 (Washington, U. S. Government Printing Office, 1958), pp. 247-8, 252-284.
13. Employment, Growth and Price Levels, Hearings, Part 8, U. S. Congress, Joint Economic Committee, September 28 - October 2, 1959 (Washington, U. S. Government Printing Office, 1959), pp. 2483-2485, 2503-2513.
14. Comment on "On the Design of Consistent Output and Input Indexes for Productivity Measurement" by Irving Siegel, in *Conference on Research in Income and Wealth, Output, Input, and Productivity Measurement (Studies in Income and Wealth, Vol. 25)* (Princeton, Princeton University Press for National Bureau of Economic Research, 1961), pp. 41-46.
15. Review of Economic Forecasts and Policy by H. Theil, *Econometrica* 30 (No. 1, January, 1962), pp. 209-210.
16. Comment on "Money and Business Cycles" by Milton Friedman and Anna J. Schwartz, *Review of Economics and Statistics* 45 (No. 1, February, 1963), pp. 154-155.
17. Discussion of three papers on empirical investment functions by Robert Eisner, Dale Jorgenson, and Edwin Kuh, *American Economic Review* 53 (No. 2, May, 1963), pp. 269-270.
18. (with Michael Kolodny) "Efficiency, Economics and Engineering," *The [Johns Hopkins] Vector* 18 (January, 1964), pp. 16, 26, 28.

19. Comment on "A Forecast Determination of National Product, Employment, and Price Level in Canada from an Econometric Model" by T. M. Brown, in *Conference on Research in Income and Wealth, Models of Income Determination* (Studies in Income and Wealth, Vol. 28) (Princeton, Princeton University Press for National Bureau of Economic Research, 1964), pp. 86-92.
20. Review of *Academic Encounter: The American University in Japan and Korea* by Martin Bronfenbrenner, *Journal of Political Economy* 72 (No. 2, April, 1964), pp. 207-208.
21. Review of *The New Science of Economics* by George Soule, *Baltimore Sunday Sun* (May 10, 1964).
22. Discussion of "A Structural Approach to the Impact of Monetary Policy" by R. L. Teigen, *Journal of Finance* 19 (No. 2, May, 1964, Part 1), pp. 309-310.
23. "National Product," in *A Dictionary of the Social Sciences*, edited by Julius Gould and William L. Kolb (Glencoe, Illinois, The Free Press, 1964), pp. 453-455.
24. "Elasticity," in *A Dictionary of the Social Sciences*, edited by Julius Gould and William L. Kolb (Glencoe, Illinois, The Free Press, 1964), pp. 232-233.
25. Review of *Capital Formation in Japan 1867-1940* by Henry Rosovsky, *Journal of Political Economy* 72 (No. 6, December, 1964), pp. 622-623.
26. Review of *Econometric Theory* by Arthur Goldberger, *Journal of Farm Economics* 47 (No. 1, February, 1965), pp. 156-158.
27. Discussion of "Pitfalls in Financial Model Building" by William C. Brainard and James Tobin, *American Economic Review* 58 (No. 2, May, 1968), pp. 150-154.
28. *Standards for Guiding Monetary Action, Hearings*, U. S. Congress, Joint Economic Committee, May 8-16, 1968 (Washington, U. S. Government Printing Office, 1968), pp. 77-83, 101-118.
29. Review of *Input-Output Economics* by Wassily Leontief, *Journal of Political Economy* 76 (No. 6, November/December, 1968), pp. 1247-1249.
30. Review of *Topics in Regression Analysis* by Arthur Goldberger, *Journal of Economic Literature* 7 (No. 1, March, 1969), p. 100.
31. Discussion of three papers on price determination by Lawrence R. Klein, Albert A. Hirsch, and George deMenil and Jared J. Enzler, in Otto Eckstein (editor), *The Econometrics of Price Determination: Conference* (Washington, U. S. Board of Governors of the Federal Reserve System, 1972), pp. 325-332.
32. "Nixonomics vs. McGovernomics," *Johns Hopkins Magazine* (Fall, 1972), pp. 10-13.
33. Discussion of "Is Verification Possible? The Evaluation of Large Econometric Models" by Harold T. Shapiro, *American Journal of Agricultural Economics* 55 (No. 2, May, 1973), pp. 271-273.
34. Letter on the U. S. oil problem, *Congressional Record* (March 8, 1974), pp. S3190-S3191.

35. Discussion of "Econometric Studies of Health Economics" by Martin S. Feldstein, in M. D. Intriligator and D. A. Kendrick (editors), *Frontiers of Quantitative Economics*, Vol. II (Contributions to Economic Analysis, Vol. 87) (Amsterdam, North Holland and New York, American Elsevier, 1974), pp. 434-436.
36. Monetary Policy Oversight, Hearings, U. S. Senate, Committee on Banking, Housing, and Urban Affairs, Feb. 25-26, 1975 (Washington, U. S. Government Printing Office, 1975). Written Statement to the Committee, pp. 150-151.
37. First Meeting on the Conduct of Monetary Policy, Hearings, U. S. Senate, Committee on Banking, Housing, and Urban Affairs, April 29-30 and May 1, 1975 (Washington, U. S. Government Printing Office, 1975), pp. 76-80, 101-115, and 135-161.
38. Discussion of "Segregation on a Continuous Variable" by Thomas G. Schelling and "A Model of Attitude Change" by Frank L. Adelman and Irma Adelman, in Joel Bergsman and Howard L. Wiener (editors), *Urban Problems and Public Policy Choices* (New York, Praeger, 1975), pp. 118-120.
39. Controlling Inflation, Hearings, U. S. Senate, Committee on the Budget, February 26, 1976 (Washington, U. S. Government Printing Office, 1976), pp. 77-80, 83-99.
40. Discussion of "Inside the Monetarist Black Box" by Jerome Stein, in Jerome Stein (editor), *Monetarism* (Studies in Monetary Economics, Vol. I) (Amsterdam, North-Holland, 1976), pp. 233-240.
41. "A Modest Proposal," in Jerome Stein (editor), *Monetarism* (Studies in Monetary Economics, Vol. I) (Amsterdam, North-Holland, 1976), p. 337.
42. "On Economic Policies," *The [Johns Hopkins] News Letter* (Oct. 15, 1976), p.3.
43. "Karl Brunner at the Cowles Commission: A Reminiscence," *Journal of Money, Credit, and Banking* 9 (No. 1, February, 1977, Part 2), pp. 245-246.
44. "Stop Rocking the Boat, or The Misery Index and How to Deflate It," *Johns Hopkins Magazine* Vol. 28, No. 6 (November, 1977), pp. 21-25.
45. Review of Monetary Policy in 1977, Hearings, U. S. House of Representatives, Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban Affairs, January 30, 1978 (Washington, U. S. Government Printing Office, 1978), pp. 4-24 and 42-54, together with replies to questions posed by the Subcommittee Chairman, pp. 76-78 and 100-101.
46. The 1979 Economic Report of the President, Hearings, U. S. Congress, Joint Economic Committee, February 6, 1979 (Washington, U. S. Government Printing Office, 1979), pp. 189-204, 213-230.
47. Comment on "Statistical Analysis of Econometric Models" by Arnold Zellner, *Journal of the American Statistical Association* 74 (No. 367, September, 1979), pp. 645-646.

48. Budget Policy Outlook for Fiscal Year 1981, Hearings, U. S. House of Representatives, Committee on the Budget, February 26, 1981 (Washington, U. S. Government Printing Office, 1981) pp. 570-582.
49. (with Louis J. Maccini), "What's Wrong with the Economic Plan," Baltimore Sun (March 26, 1981), page A-23.
50. (with Alan A. Walters), "Reply" (to comments by Paul Craig Roberts and by Alan Reynolds on No. 31 in Section II above, "The Mythology of Tax Cuts"), Policy Review 17 (Summer, 1981), pp. 5-7.
51. (with Louis J. Maccini), "Deficits: The Truth," Baltimore Sun (March 10, 1982), page A-11.
52. Comment on "How Much Is Owed by the Federal Government?" by Rudolph G. Penner, in Karl Brunner and Allan Meltzer (editors), Monetary Regimes and Protectionism (Vol. 16 in the Carnegie-Rochester Conference Series on Public Policy), (Amsterdam, North-Holland Publishing Co., 1982), pp. 257-264.
53. (with Louis J. Maccini) "The Course Ahead," Baltimore Sun (April 5, 1983), p. A-7.
54. Comments on "Structural Econometric Modeling and Time Series Analysis: An Integrated Approach" by Franz C. Palm, in Arnold Zellner (editor), Applied Time Series Analysis of Economic Data (Economic Research Report ER-5, U. S. Bureau of the Census, Washington, U.S.G.P.O., 1983), pp. 234-236.
55. (with Louis J. Maccini) "What's the Matter with Deficits?" Baltimore Sun (March 29, 1984), p. A-11.
56. Comment on "Forecasting by Extrapolation: Conclusions from 25 Years of Research" by J. Scott Armstrong, Interfaces 14 (No. 6, November - December 1984), pp. 62-63.
57. (with Louis J. Maccini) "To Avert the Crisis," Baltimore Sun (May 15, 1985).
58. Review of Advanced Econometrics: A Bridge to the Literature by Edward Greenberg and Charles E. Webster, Jr., Journal of the American Statistical Association 80 (No. 391, September, 1985), pp. 781-783.
59. "Accuracy of Forecasting as a Measure of Economic Uncertainty" (a discussion of "Some Evidence on the Comparative Uncertainty Experienced under Different Monetary Regimes" by Allan H. Meltzer), in Colin D. Campbell and William R. Dougan (editors), Alternate Monetary Regimes (Baltimore, Johns Hopkins University Press, 1986), pp. 154-160.
60. "Government Budget Restraint," in John Eatwell, Peter Newman, and Murray Milgate (editors), The New Palgrave (New York, Stockton, 1987), Vol. 2, pp. 554-556.
61. (with Leonid Hurwicz) "Tjalling Charles Koopmans," in John Eatwell, Peter Newman, and Murray Milgate (editors), The New Palgrave (New York, Stockton, 1987), Vol. 3, pp. 62-67.

62. Review of *The History of Statistics: The Measurement of Uncertainty before 1900* by Stephen Stigler, *Journal of Economic Literature* 25 (No. 4, December, 1987), pp. 1859-1860.
63. Zero Inflation, Hearing, U.S. House of Representatives, Subcommittee on Banking, Finance, and Urban Affairs, Part 3, February 22, 1990 (Washington, U.S. Government Printing Office, 1990), pp. 2-6, 1-33, 35-44.
64. "Teaching Economics in China," in Richard T. Gill (editor), *The National Economists Club Reader* (Bristlecone Books, Mountain View, California, 1991), pp. 62-63.
65. "U.S. Demographics and Saving: Predictions of Three Saving Models. A Comment," in Allan H. Meltzer and Charles I. Plosser (editors), *Carnegie-Rochester Conference Series on Public Policy*, Vol. 34 (Amsterdam, North Holland, 1991), p. 163.
66. "Hopkins economist dies" [an obituary for Bela Balassa], *Johns Hopkins Magazine* 43 (August, 1991), p.15.
67. "Policy undertakings by the seven 'summit' countries: ascertaining the degree of compliance. A comment," in Allan H. Meltzer and Charles I. Plosser (editors), *Carnegie-Rochester Conference Series on Public Policy*, Vol. 35 (Amsterdam, North-Holland, 1991), pp. 309-313.
68. "In Memoriam: Bela Balassa (1928 - 1991)," *Journal of Comparative Economics* 15 (No. 4, December, 1991), pp. 577-581.
69. Review of *A History of Macroeconometric Model Building* by Ronald Bodkin, Lawrence R. Klein, and Kanta Marwah, *Journal of the History of Economic Thought* 14 (No. 1, Spring, 1992), pp. 110-112.
70. Review of *The Formation of Econometrics* by Qin Duo, *Economica* 62 (No. 246, May, 1995), pp. 273-274.
71. Review of *Statistical Visions in Time* by Judy L. Klein, in *Journal of the History of Economic Thought* 21 (No. 2, 1999), pp. 198-200.

Additional note:

Studies in Econometrics in Honor of Carl F. Christ, edited by Lawrence Klein, was published in the *Journal of Econometrics* as Volume 83 (Nos. 1-2, March-April, 1998), pp. 365.