

## MATTHEW D. SHAPIRO

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### PRINCIPAL CURRENT POSITIONS

Lawrence R. Klein Collegiate Professor of Economics, University of Michigan  
Research Professor, Survey Research Center, University of Michigan  
Research Associate, National Bureau of Economic Research  
Editor, *American Economic Journal: Economic Policy*

### EDUCATION

B.A. *summa cum laude* with distinction in economics, Yale University, 1979

M.A. Yale University, 1979

Ph.D. Massachusetts Institute of Technology, 1984

### EMPLOYMENT

Council of Economic Advisers  
Junior Staff Economist, 1979-1980

Yale University  
Assistant Professor of Economics and Research Staff, Cowles Foundation for Research in  
Economics, 1984-1989

Council of Economic Advisers  
Senior Economist, 1993-1994

University of Michigan  
Economics Department  
Lawrence R. Klein Collegiate Professor (2004-2019), Professor (since 1995),  
Chair (2003-2007), Associate Professor (1989-1995)  
Institute for Social Research  
Survey Research Center, Research Professor/Senior Research Scientist (since 2000),  
Faculty Associate (1992-2000)  
Michigan Census Research Data Center, Senior Advisor (since 2002)  
Population Studies Center, Research Affiliate (since 2002)

## EDITORIAL

*American Economic Journal: Economic Policy*  
Editor, 2014-2019

*American Economic Review*  
Co-Editor, Nov 1996-Mar 2000  
Board of Editors, 1993-1996, 2000-2002  
Excellence in refereeing citation, 2009, 2010

*Journal of Money, Credit and Banking*  
Associate Editor, 1994-2001

Referee for journals, presses, foundations, and governmental agencies

## PROFESSIONAL AFFILIATIONS

National Bureau of Economic Research,  
Research Associate, since 1994  
Faculty Research Fellow, 1986-1994

U.S. Bureau of the Census, Special Sworn Status, 1995-1998, since 2004

Conference on Research in Income and Wealth, Member, since 1996; Executive Committee,  
1996-2010

Brookings Panel on Economic Activity, 1986, 1989, 1996

American Economic Association, Member; Executive Committee (by appointment), 2014-2019

Econometric Society, Member

## GOVERNMENTAL AND PROFESSIONAL ADVISORY ACTIVITIES—CURRENT

Federal Economic Statistics Advisory Committee (FESAC), 2003-2008, 2010-19; chair, 2006-2008, 2010-19

Federal Reserve Bank of Chicago, Academic Advisory Council, since 1995

## GOVERNMENTAL AND PROFESSIONAL ADVISORY ACTIVITIES—PREVIOUS

American Economic Association Committee on Statistics (AEASat), 2005-2010; chair, 2009-2010

Committee on National Statistics (CNSTAT), National Academy of Science-National Research Council, 1999-2002

Panel on Nonmarket Accounts, National Academy of Science-National Research Council, 2002-2004

US Monetary Policy Forum (USMPF), 2007-2010

Board of Governors of the Federal Reserve System, Academic Consultant, 2010

Board of Governors of the Federal Reserve System, advisor on capacity utilization statistics, 1995-1996

## VISITING APPOINTMENTS

National Bureau of Economic Research, Cambridge, MA, Olin Fellow, 1986-1987

Gadjah Mada University, Indonesia Second University Development Project, visiting scholar, February-March 1991

Board of Governors of the Federal Reserve System, visiting scholar, various

Federal Research Bank of Minneapolis, visiting scholar, September-December 1995

Reserve Bank of New Zealand and Victoria University of Wellington, visiting professor, January-April 2003

Reserve Bank of Australia, visiting scholar, January-March 2017

## AWARDS AND HONORS

Phi Beta Kappa, 1978

Charles Herbert Dickerman Prize for the Outstanding Senior Essay in Economics, Yale University, 1979

Paul A. Samuelson Certificate of Excellence for Outstanding Scholarly Writing, Awarded by TIAA-CREF (jointly with R. Barsky, F.T. Juster, and M. Kimball), 1997

University of Michigan, LSA Excellence in Research Award, 2000-2001

Rackham Faculty Fellowship Enhancement Award, University of Michigan, 1991 and 2003

## FELLOWSHIPS

Lyndon Baines Johnson Fellowship, U.S. Congress, 1976

National Science Foundation Graduate Fellowship, 1980-1983

National Bureau of Economic Research-Olin Fellowship (in residence in Cambridge, MA), 1986-1987

Alfred P. Sloan Fellowship, 1991-1993

Professorial Fellowship in Monetary Economics, Reserve Bank of New Zealand/Victoria University of Wellington (in residence in Wellington, NZ), 2003

## GRANTS—CURRENT SUPPORT

Sloan Foundation grant, “Census-Enhanced Health and Retirement Study,” (Margaret Levenstein, PI, Matthew D. Shapiro and others, co-PIs), 2011-2019

Sloan Foundation grant, “Database Development Project,” (Mathew D. Shapiro, PI; Daniel Silverman, Shachar Kariv, Steve Tadelis, co-PIs), 2014-2019

Sloan Foundation grant, “Reinventing Measurement of Key National Economic Indicators.” (Matthew D. Shapiro and John Haltiwanger, co-PIs), 2016-2019

Economic and Social Research Council grant (UK), “Credit and Labour Market Foundations of the Macroeconomy” (Matthew D. Shapiro, co-PI; Collaboration research with University of Edinburgh, John Hardman Moore, PI), 2015-2021

Michigan Institute for Data Science (MIDAS) grant, “Computational Approaches for the Construction of Novel Macroeconomic Data,” (Matthew D. Shapiro, PI; Michael Cafarella and Margaret Levenstein, co-PIs), 2017-2020.

## GRANTS—PREVIOUS SUPPORT

Social Science Research Council, Subcommittee on Monetary Economics grant, 1983-1984

National Science Foundation research grant, “The Dynamics of Output and Investment,” 1986-1990

National Science Foundation research grant, “Capacity and Macroeconomic Fluctuations,” 1991-1996

National Institute on Aging program project grant (P01), “Wealth, Savings and Financial Security Among Older Households” (F. Thomas Juster, PD/PI; Matthew D. Shapiro and others, co-PIs), 1992-1997

Michigan Exploratory Center on the Demography of Aging pilot award (NIA), “Measuring the Price of Cataract Surgery,” 1997-1998

National Science Foundation research grant, “Capital Mismatch and Sectoral Reallocation,” (Valerie A. Ramey and Matthew D. Shapiro, co-PIs), 1997-2002

National Institute on Aging program project grant (P01), “Wealth, Savings and Financial Security Among Older Households” (Matthew D. Shapiro, PD/PI), 1998-2003

Social Security Administration, “The Retirement Elasticity: Theory and Implications” (with Miles Kimball) Michigan Retirement Research Center, 2001-2002

Robert Wood Johnson Foundation Research Initiative on the Uninsured grant, 2001-2002

National Science Foundation research grant, “Michigan Census Research Data Center,” (Matthew D. Shapiro, PI), 2001-2004

National Science Foundation grant (ITR), “Information Technology Challenges for Secure Access to Confidential Social Science Data,” (John Abowd, PI, Matthew D. Shapiro and others, co-PIs), 2004-2007

National Institute on Aging program project grant (P01), “Behavior on Surveys and in the Economy using the HRS,” (Robert Willis, PD, Matthew D. Shapiro and others, co-PIs), 2005-2009

Social Security Administration, “Buffering Shocks to Well-Being Late in Life” Michigan Retirement Research Center, 2008-2009

Social Security Administration, “The Financial Crisis and the Well-Being of Social Security Recipients” Michigan Retirement Research Center, 2009-2010

National Poverty Center, “The Polarization of Employment in the United States” (Michael Elsbey and Matthew D. Shapiro, co-PIs), 2010

National Institute on Aging grant (R01), “Internet Interviewing and the HRS,” (Robert Willis, PD, Matthew D. Shapiro and others, co-PIs), 2002-2007. Renewed, 2008-2013 (Arie Kapteyn, PD)

National Science Foundation grant, “Investment: Theory, Estimates, and Public Policy,” (Christopher House, PI, Matthew D. Shapiro, co-PI), 2010-2014

Sloan Foundation grant, “Database Development Project,” (Mathew D. Shapiro, PI; Daniel Silverman, Shachar Kariv, Steve Tadelis, co-PIs), 2012-2014.

National Institute on Aging program project grant (P01), “Behaviors on Surveys and in the Economy: HRS and Beyond,” (Robert Willis, PD, Matthew D. Shapiro and others, co-PIs), 2010-2017.

Social Security Administration grant, “Shocks and Transitions from Career Jobs to Bridge Jobs and Retirement: A New Approach,” (Matthew D. Shapiro, PI; Pamela Giustinelli, co-PI), Michigan Retirement Research Center, 2016-2017.

Social Security Administration grant, “Using Subjective Conditional Expectations Relating Health to Retirement,” (Pamela Giustinelli, PI. Matthew D. Shapiro, co-PI), Michigan Retirement Research Center, 2016-2017.

National Science Foundation grant, “NCRN-MN: Linking Surveys to the World--Administrative Data, the Web, and Beyond,” (Matthew D. Shapiro, PI; Margaret Levenstein, co-PI), 2011-2018

## TESTIMONY

U.S. House of Representatives, Committee on Small Business. Hearing on The Shutdown: Economic Impact on Small Businesses, February 6, 2019.

U.S. House of Representatives, Committee on Government Reform and Oversight, Subcommittee on Human Resources. Hearing on the Bureau of Labor Statistics' Calculation of the Consumer Price Index, April 30, 1997.

## PUBLISHED PAPERS

The Permanent Income Hypothesis and the Real Interest Rate: Some Evidence from Panel Data. *Economics Letters* 14 (1984) 93-100.

Are Preliminary Announcements of the Money Stock Rational Forecasts? with N. Gregory Mankiw and David E. Runkle. *Journal of Monetary Economics* 14 (July 1984) 15-27.

An Unbiased Reexamination of Stock Market Volatility, with N. Gregory Mankiw and David Romer. *Journal of Finance* 40 (July 1985) 677-687.

Trends, Random Walks, and Tests of the Permanent Income Hypothesis, with N. Gregory Mankiw. *Journal of Monetary Economics* 16 (September 1985) 165-174.

Do We Reject Too Often? Small Sample Bias in Tests of Rational Expectations Models, with N. Gregory Mankiw. *Economics Letters* 20 (1986) 139-145.

News or Noise: An Analysis of GNP Revisions, with N. Gregory Mankiw. *Survey of Current Business* 66 (May 1986) 20-25.

Investment, Output, and Cost of Capital. *Brookings Papers on Economic Activity* (1:1986) 111-152.

Capital Accumulation and Capital Utilization: Theory and Evidence. *Journal of Applied Econometrics* 1 (July 1986) 211-234.

Risk and Return: Consumption Beta versus Market Beta, with N. Gregory Mankiw. *Review of Economics and Statistics* 68 (August 1986) 452-459.

The Dynamic Demand for Capital and Labor. *Quarterly Journal of Economics* 101 (August 1986) 513-542.

Personal Computers in the Economics Curriculum at Yale University. *IBM University AEP Conference Proceedings* (1986) 40-44.

Capital and Saving in a Share Economy. In *The Share Economy: A Symposium*, William Nordhaus and Andrew John, eds., *Journal of Comparative Economics* 10 (December 1986) 444-447.

Are Cyclical Fluctuations in Productivity Due More to Supply Shocks or Demand Shocks? *American Economic Review Papers and Proceedings* 77 (May 1987) 118-124.

Supply Shocks in Macroeconomics. *The New Palgrave*. London: MacMillan, 1987. [Revised version in *The New Palgrave Dictionary of Money and Finance*. London: MacMillan, 1992.]

Sources of Business Cycle Fluctuations, with Mark W. Watson, *NBER Macroeconomics Annual* 3 (1988) 111-148.

Forecasting the Depression: Harvard versus Yale, with Kathryn M. Dominguez and Ray C. Fair. *American Economic Review* 78 (September 1988) 595-612.

The Stabilization of the U.S. Economy: Evidence from the Stock Market. *American Economic Review* 78 (December 1988) 1067-1079.

Assessing Federal Reserve Measures of Capacity and Utilization. *Brookings Papers on Economic Activity* (1:1989) 181-225.

Capacity Utilization versus Capital Utilization: An Assessment Based on the 1982 Recession. *Conference on the Economics Outlook for 1991* (1990).

Market Value and Fundamental Value, with William C. Brainard and John Shoven. In *Money, Macroeconomics, and Economics Policy: Essays in Honor of James Tobin*, W.C. Brainard, W.D. Nordhaus, and H.W. Watts, eds. Cambridge: M.I.T. Press, 1991.

Stock Market Efficiency and Volatility: A Statistical Appraisal, with N. Gregory Mankiw and David Romer. *Review of Economic Studies* 58 (May 1991) 455-477.

Cyclical Productivity and the Workweek of Capital. *American Economic Review Papers and Proceedings* 83 (May 1993) 229-233.

Federal Reserve Policy: Cause and Effect. In *Monetary Policy*, N.G. Mankiw, ed. Chicago: University of Chicago Press, 1994.

Indicators of Monetary Policy: Lessons for 1994. *Conference on the Economics Outlook for 1995* (1994).

Consumer Response to the Timing of Income: Evidence from a Change in Tax Withholding, with Joel Slemrod. *American Economic Review* 85 (March 1995) 274-283.

Mismeasurement in the Consumer Price Index: An Evaluation, with David W. Wilcox. *NBER Macroeconomics Annual* 11 (1996) 93-142.

Macroeconomic Implications of Variation in the Workweek of Capital. *Brookings Papers on Economics Activity* (2:1996) 79-133.

Preference Parameters and Behavioral Heterogeneity: An Experimental Approach in the Health and Retirement Study, with Robert B. Barsky, F. Thomas Juster, and Miles S. Kimball. *Quarterly Journal of Economics* 112 (May 1997) 537-579. [Awarded Paul A. Samuelson Certificate of Excellence by TIAA-CREF.]

Alternative Strategies for Aggregating Prices in the CPI, with David W. Wilcox. *Federal Reserve Bank of St. Louis Review* 79 (May/June 1997) 113-125.

Costly Capital Reallocation and the Effects of Government Spending, with Valerie A. Ramey. *Carnegie-Rochester Conference Series on Public Policy* 48 (June 1998) 145-194.

Quality Improvements in Health Care: A Framework for Price and Output Measurement, with Irving Shapiro and David W. Wilcox. *American Economic Review Papers and Proceedings* 89 (May 1999) 333-337.



Measuring the Value of Cataract Surgery, with Irving Shapiro and David W. Wilcox. In *Medical Care Output and Productivity*, David M. Cutler and Ernst R. Berndt, eds. Chicago: University of Chicago Press, 2001.

Displaced Capital: A Study of Aerospace Plant Closings, with Valerie A. Ramey. *Journal of Political Economy* 109 (October 2001) 958-992.

Productivity Growth in the 1990s: Technology, Utilization, or Adjustment? with Susanto Basu and John G. Fernald. *Carnegie-Rochester Conference Series on Public Policy* 55 (2001) 117-165.

Labor and the Sustainability of Output and Productivity Growth, with Rebecca M. Blank. In *The Roaring Nineties: Can Full Employment Be Sustained?*, Alan B. Krueger and Robert M. Solow, eds. Russell Sage Foundation/New Century Foundation, New York: Russell Sage Foundation, 2002.

High-Frequency Substitution and the Measurement of Price Indexes, with Robert C. Feenstra. In *Scanner Data and Price Indexes*. Eds. Robert C. Feenstra and Matthew D. Shapiro. Chicago: University of Chicago Press, 2003.

Consumer Response to Tax Rebates, with Joel Slemrod. *American Economic Review* 93 (March 2003) 381-396.

Did the 2001 Tax Rebate Stimulate Spending? Evidence From Taxpayer Surveys, with Joel Slemrod. *Tax Policy and the Economy* 17 (2003).

Phased-In Tax Cuts and Economic Activity, with Christopher House. *American Economic Review* 96 (2006) 1835-1949.

Monetary Policy When Potential Output Is Uncertain: Understanding the Growth Gamble of the 1990s, with Yuriy Gorodnichenko. *Journal of Monetary Economics* 54 (2007) 1132-1162.

Why Do Computers Depreciate? with Michael Geske and Valerie Ramey. In *Hard-to-Measure Goods and Services: Essays in Memory of Zvi Griliches*. Ernst R. Berndt and Charles M. Hulten, eds. Chicago: University of Chicago Press, 2007.

Temporary Tax Incentives: Theory with Evidence from Bonus Depreciation, with Christopher House. *American Economic Review* 98 (2008) 737-768.

Imputing Risk Tolerance from Survey Responses, with Miles S. Kimball and Claudia Sahm. *Journal of the American Statistical Association* 103 (2008) 1028-1038.

Risk Preferences in the PSID: Individual Imputations and Family Covariation, with Miles S. Kimball and Claudia R. Sahm. *American Economic Review Papers and Proceedings* 99 (May 2009) 363-368.

Did the 2008 Tax Rebates Stimulate Spending? with Joel Slemrod. *American Economic Review Papers and Proceedings* 99 (May 2009) 374–379. . <http://dx.doi.org/10.1257/pol.4.3.216>

Oil and the Macroeconomy: Lessons for Monetary Policy, with Ethan S. Harris, Bruce C. Kasman, and Kenneth D. West. US Monetary Policy Forum Report, 2009.

Household Response to the 2008 Tax Rebates: Survey Evidence and Aggregate Implications, with Claudia R. Sahm and Joel Slemrod. *Tax Policy and the Economy* 24 (2010) 69–110.

Why Does Trend Growth Affect Equilibrium Employment? A New Explanation of an Old Puzzle, with Michael W.L. Elsby. *American Economic Review* 102 (2012) 1378–1413.  
<http://dx.doi.org/10.1257/aer.102.1.1378>

Check in the Mail or More in the Paycheck: Does the Effectiveness of Fiscal Stimulus Depend on How It Is Delivered?" with Claudia R. Sahm and Joel Slemrod. *American Economic Journal: Economic Policy* 4 (2012) 216–250.

Forecasting the Recovery from the Great Recession: Is This Time Different? with Kathryn M.E. Dominguez. *American Economic Review Papers and Proceedings* 103 (2013) 147–152.  
<http://dx.doi.org/10.1257/aer.103.3.147>

Ringtail: Feature Selection for Easier Nowcasting. with Dolan Antenucci, Michael J. Cafarella, Margaret C. Levenstein, and Christopher Ré. *WebDB* 2013.

Harnessing Naturally Occurring Data to Measure the Response of Spending to Income. With Michael Gelman, Shahar Kariv, Dan Silverman, and Steven Tadelis. *Science* 345 (July 11, 2014) 212–215. <http://dx.doi.org/10.1126/science.1247727>

Effects of a Government-Academic Partnership: Has the NSF-Census Bureau Research Network Helped Secure the Future of the Federal Statistical System? with D. H. Weinberg, J.M. Abowd, R.F. Belli, N. Cressie, D.C. Folch, S.H. Holan, M.C. Levenstein, K.M. Olson, J.P. Reiter, J. Smyth. *Journal of Survey Statistics and Methodology* (forthcoming).  
<https://doi.org/10.1093/jssam/smy023>

Portfolio Rebalancing in General Equilibrium. with Miles S. Kimball, Tyler Shumway, and Jing Zhang. Revised May 2018. (NBER Working Paper No. 24722.) *Journal of Financial Economics* (forthcoming).

Reconsidering the Consequences of Worker Displacements: Firm versus Worker Perspective. With Aaron Flaaen and Isaac Sorkin. Revised November 2017. (NBER Working Paper 24077.) *American Economic Journal: Macroeconomics* (forthcoming).

Older Americans Would Work Longer If Jobs Were Flexible. with John Ameriks, Joseph Briggs, Andrew Caplin, Minjoon Lee, and Christopher Tonetti. October 2017. (NBER Working Paper 24008.) *American Economic Journal: Macroeconomics* (forthcoming).

How Individuals Respond to a Liquidity Shock: Evidence from the 2013 Government Shutdown. with Michael Gelman, Shachar Kariv, Dan Silverman, and Steven Tadelis. February 2015. Revised June 2018. (NBER Working Paper 21025.) *Journal of Public Economics* (forthcoming).

Heterogeneity in Expectations, Risk Tolerance, and Household Stock Shares: The Attenuation Puzzle. with John Ameriks, Gábor Kézdi, and Minjoon Lee. 2016. Revised August 2018. (NBER Working Paper 21025.) *Journal of Business and Economic Statistics* (forthcoming).

Minding Your Ps and Qs: Going from Micro to Macro in Measuring Prices and Quantities. with Gabriel Ehrlich, John Haltiwanger, Ron Jarmin, and David Johnson. 2019. (NBER Working Paper 25465.) *AEA Papers and Proceedings* (forthcoming).

Long-Term-Care Utility and Late-in-Life Saving. with John Ameriks, Joseph Briggs, Andrew Caplin, and Christopher Tonetti. Vanguard Research Initiative Working Paper. January 2015. Revised March 2019. (NBER Working Paper 20973.) *Journal of Political Economy* (forthcoming).

## BOOK

*Scanner Data and Price Indexes*. Eds. Robert C. Feenstra and Matthew D. Shapiro. Chicago: University of Chicago Press, 2003.

## SELECTED WORKING PAPERS

Endogenous Liquidity Constraints: Explaining Over-withholding and Excess Sensitivity to Tax Refunds. with Michael Gelman, Shachar Kariv, and Dan Silverman. February 2019.

Re-engineering Key National Economic Indicators. with Gabriel Ehrlich, John Haltiwanger, Ron Jarmin, and David Johnson. Paper prepared for NBER/CRIW *Conference Big Data for 21st Century Economic Statistics* (Bethesda, March 2019).

Optimal Probabilistic Record Linkage: Best Practice for Linking Employers in Survey and Administrative Data. with John M. Abowd, Joelle Abramowitz, Margaret C. Levenstein, Kristin McCue, Dhiren Patki, Trivellore Raghunathan, Ann M. Rodgers, and Nada Wasi. January 2019.

SeaTE: Subjective *ex ante* Treatment Effect of Health on Retirement. with Pamela Giustinelli. February 2018.

The Long-Term-Insurance Puzzle: Modeling and Measurement. with John Ameriks, Joseph Briggs, Andrew Caplin, and Christopher Tonetti. November 2016. Revised June 2018. (NBER Working Paper 22726.)

Stimulus Effects of Investment Tax Incentives: Production versus Purchases. with Christopher L. House and Ana-Maria Mocanu. Revised February 2019. (NBER Working Paper 23391.)

The Response of Consumer Spending to Changes in Gasoline Prices. with Michael Gelman, Yuriy Gorodnichenko, Shachar Kariv, Dmitri Koustas, Dan Silverman, and Steven Tadelis. August 2016. Revised February 2019 (NBER Working Paper 22969.)

The Wealth of Wealthholders. with John Ameriks, Andrew Caplin, Minjoon Lee, and Christopher Tonetti. Vanguard Research Initiative Working Paper. December 2014. (NBER Working Paper 20972.)

Balance-Sheet Households and Fiscal Stimulus: Lessons from the Payroll Tax Cut and Its Expiration. with Claudia R. Sahm and Joel Slemrod. May 2015. Revised August 2016. (NBER Working Paper 21220.)

Using Social Media to Measure Labor Market Flows. with Dolan Antenucci, Michael Cafarella, Margaret Levenstein, and Chistopher Ré. April 2013. Revised April 2014. (NBER Working Paper 20010.)

Using the Survey of Plant Capacity to Measure Capital Utilization. with Yuriy Gorodnichenko. U.S. Census Bureau. Center for Economic Studies Discussion Paper 11-18, July 2011.

The Effects of the Financial Crisis on the Well-Being of Older Americans: Evidence from the Cognitive Economics Study. Michigan Retirement Research Center Working Paper 2010-228, September 2010.

Buffering Shocks to Well-Being Late in Life. Michigan Retirement Research Center Working Paper 2009-211, September 2009.

Labor Supply: Are Income and Substitution Effects Both Large or Both Small? with Miles S. Kimball. July 2008. (NBER Working Paper 14208.)

## PUBLISHED DISCUSSIONS

Comments on “Political vs. Currency Premia in International Real Interest Differentials” by J.A. Frankel and A.T. MacArthur. *European Economic Review* 32 (June 1988) 1114-1118.

Comments on “Inventories, Orders, Temporary and Permanent Layoffs: An Empirical Analysis” by J.C. Haltiwanger and L.J. Maccini. *Carnegie-Rochester Conference on Public Policy* 30 (Spring 1989) 367-374.

Discussion of “The Stock Market and Investment: Is the Market a Sideshow?” by R. Morck, A. Shleifer, and R.W. Vishney. *Brookings Papers on Economics Activity* (2:1990) 203-208.

Discussion of “Productivity and Real Wages: Is There a Puzzle?” by Barry Bosworth and George Perry. *Brookings Papers on Economic Activity* (1:1994).

Comment on “Do ‘Shortages’ Cause Inflation?” by Owen Lamont. In *Monetary Policy and Low Inflation*, C.D. Romer and D. Romer, eds. Chicago: University of Chicago Press, 1997.

Discussion of “Social Security Reform and National Saving in an Era of Budget Surpluses” by Douglas W. Elmendorf and Jeffrey B. Liebman. *Brookings Papers on Economic Activity* (2:2000) 53-58.

Comments on “Federal Government Debt and Interest Rates” by E. Engen and R.G. Hubbard. *NBER Macroeconomics Annual* 19 (2004) 148-156.

Comments on “Index Number Theory Using Differences Rather Than Ratios” by Erwin Diewert. *American Journal of Economics and Sociology* 64 (2005) 361-366. Also in *Celebrating Irving Fisher: The Legacy of a Great Economist*. Robert W. Dimand and John Geanakoplos, Eds. Blackwell: Oxford, 2005.

Discussion of “Taxes and Business Investment: Lessons from the Past Decade” by Alan J. Auerbach and Kevin A. Hassett. In *Tax Policy Lessons from the 2000s*. Ed. Alan Viard. Washington, DC: American Enterprise Institute, 2009.

Comments on “The Great Inflation in the United States and United Kingdom: Reconciling Policy Decisions and Data Outcomes” by Riccardo DiCecio and Edward Nelson. In *The Great Inflation: The Rebirth of Modern Central Banking*. Eds. Michael D. Bordo and Athanasios Orphanides. Chicago, University of Chicago Press, 2013.