

Andreas Hornstein

SENIOR ADVISOR

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Education

University of Minnesota

PHD ECONOMICS

Minneapolis MN

1991

Universität Konstanz

DIPLOM

Konstanz, Germany

1984

Professional Experience

- 2012- **Senior Advisor**, Federal Reserve Bank of Richmond, Research Department
- 2005-2012 **Vice President**, Federal Reserve Bank of Richmond, Research Department
- 2002-2005 **Research Officer**, Federal Reserve Bank of Richmond, Research Department
- 2000-2002 **Associate Research Officer**, Federal Reserve Bank of Richmond, Research Department
- 1996-2000 **Economist**, Federal Reserve Bank of Richmond, Research Department
- 2001 **Visiting Lecturer**, University of Virginia, Department of Economics
- 1993 **Visitor**, University of Minnesota and Institute of Empirical Macroeconomics, Federal Reserve Bank of Minneapolis
- 1991-1997 **Assistant Professor**, University of Western Ontario, Department of Economics
- 1990-1991 **Lecturer**, University of Western Ontario, Department of Economics

Publications

PEER REVIEWED PUBLICATIONS

- Foerster, Andrew, Andreas Hornstein, Pierre-Daniel Sarte, and Mark Watson. "Aggregate implications of changing sectoral trends." *Journal of Political Economy*, 130 (2022), 3286-3333.
- Andreas Hornstein. "Quarantine, contact tracing, and testing: Implications of an augmented SEIR model." *The B.E. Journal of Macroeconomics*, 22 (2022), 53-88.
- Chang, Yongsung, and Andreas Hornstein. "Transition dynamics in the neoclassical growth model: The case of South Korea." *The B.E. Journal of Macroeconomics*, 15 (2015), 649-676.
- Hornstein, Andreas, Per Krusell, and Giovanni L. Violante. "Frictional wage dispersion in search models: A quantitative assessment." *American Economic Review* 101 (2011): 2873-98.
- Chang, Yongsung, Andreas Hornstein, and Pierre-Daniel Sarte. "On the employment effects of productivity shocks: The role of inventories, demand elasticity, and sticky prices." *Journal of Monetary Economics* 56 (2009), 328-343.
- Hornstein, Andreas, Per Krusell, and Giovanni L. Violante. "Technology-policy interaction in frictional labor markets." *Review of Economic Studies* 74 (2007), 1089-1124.
- Hornstein, Andreas, Per Krusell and Giovanni L Violante. "The replacement problem in frictional economies: An 'equivalence' result." *Journal of the European Economic Association* 3 (2005): 1007-1057.
- Dotsey, Michael, and Andreas Hornstein. "Should a monetary policy maker look at money?" *Journal of Monetary Economics* 50 (2003): 547-579.

- Fisher, Jonas D.M. and Andreas Hornstein. “Real wages, productivity, and fiscal policy in Germany 1928-37.” *Review of Economic Dynamics* 5 (2002): 100-127. Reprinted in Timothy J. Kehoe and Edward C. Prescott (eds.). 2007. *Great Depressions of the Twentieth Century*, Minneapolis: Federal Reserve Bank of Minneapolis: 139-166
- Fisher, Jonas D.M. and Andreas Hornstein. “(S,s) inventory policies in general equilibrium.” *Review of Economic Studies* 67 (2000): 117-145.
- Hornstein, Andreas, and Harald Uhlig. “What is the real story for interest rate volatility?” *German Economic Review* 1 (2000): 43-67.
- Hornstein, Andreas, and Mingwei Yuan. “Can a matching model explain the long-run increase in Canada’s unemployment rate?” *Canadian Journal of Economics* 32 (1999): 878-905.
- Hornstein, Andreas, and Jack Praschnik. “Intermediate inputs and sectoral comovement in the business cycle.” *Journal of Monetary Economics* 40 (1997): 573-595.
- Hornstein, Andreas. “Monopolistic competition, increasing returns to scale, and the importance of productivity shocks.” *Journal of Monetary Economics* 31 (1993): 299-316.
- Hornstein, Andreas, and Per Krusell. “Money and insurance in a turnpike environment.” *Economic Theory* 3 (1993): 19-34.
- Hornstein, Andreas, and Edward C. Prescott. “Insurance contracts as commodities: A note.” *Review of Economic Studies* 58 (1991): 917-928.
- Hornstein, Andreas, and Edward C. Prescott. “Measures of the insurance sector output.” *Geneva Papers on Risk and Insurance* 16 (1991): 191-206.

OTHER PUBLICATIONS

- Chang, Yongsung, and Andreas Hornstein. “Home production.” *The New Palgrave Dictionary of Economics*, 2nd ed. (2008).
- Hornstein, Andreas, Per Krusell, and Giovanni L Violante. “The effects of technical change on labor market inequalities.” In *Handbook of Economic Growth 1B*, P. Aghion and S.N. Durlauf (eds.), Amsterdam: Elsevier (2005): 1275-1370.
- Hornstein, Andreas. Book review of Jean-Pascal Benassy, “The macroeconomics of imperfect competition and nonclearing markets: A dynamic general equilibrium approach,” Cambridge and London: MIT Press. *Journal of Economic Literature* 42 (2004): 513-15.
- Hornstein, Andreas. Book review of Stephen L. Parente and Edward C. Prescott, “Barriers to Riches,” MIT Press. *Journal of Economic Literature* 40 (2002): 1246-1248.
- Hornstein, Andreas. “Computers and growth with frictions: Aggregate and disaggregate evidence. A comment.” *Carnegie Rochester Conference Series on Public Policy* 55 (2001): 217-228.
- Hornstein, Andreas, and Per Krusell. “New technology and productivity: A macroeconomic perspective.” In European Economy. European Commission. Directorate-General for Economic and Financial Affairs. Reports and Studies. Current Issues in Economic Growth. No.1 (2001).
- Hornstein, Andreas, and Per Krusell. “Can technology improvements cause productivity slowdowns?” In *NBER Macroeconomics Annual 1996*, B. Bernanke and J. Rotemberg (eds.), Cambridge MA: MIT Press (1996): 209-259.
- Hornstein, Andreas, and Edward C. Prescott. “The firm and the plant in general equilibrium theory.” In *General Equilibrium, Growth, and Trade II*, R. Becker, M. Boldrin, R. Jones, and W. Thomson (eds.), San Diego: Academic Press (1993): 393-410.

FEDERAL RESERVE BANK PUBLICATIONS

- Hornstein, Andreas. “Profits and inflation in the time of COVID.” *Federal Reserve Bank of Richmond - Economic Brief* 23-38 (November 2023).
- Hornstein, Andreas, Marianna Kudlyak, Brigid Meisenbacher and David A. Ramachandran. “How far is labor force participation from its trend?” *Federal Reserve Bank of San Francisco - Economic Letter* 2023-20 (August 2023).
- Hornstein, Andreas. “Unemployment changes as recession indicators.” *Federal Reserve Bank of Richmond - Economic Brief* 23-13 (April 2023).
- Hornstein, Andreas, Marios Karabarbounis, André Kurmann and Etienne Lalé. “How did pandemic UI benefits affect employment recovery in local industry markets?” *Federal Reserve Bank of Richmond - Economic Brief* 22-44 (November 2022).

- Hornstein, Andreas. "Recession predictors: An evaluation." *Federal Reserve Bank of Richmond - Economic Brief* 22-30 (August 2022).
- Dotsey, Michael, Andreas Hornstein and Alexander L. Wolman. "Interest rate smoothing." In *Essays in honor of Marvin Goodfriend: Economist and central banker*, R.G. King and A.L. Wolman (eds.), Federal Reserve Bank of Richmond 2022: 129-141.
- Hornstein, Andreas, and Marianna Kudlyak. "The pandemic's impact on unemployment and labor force participation trends." *Federal Reserve Bank of Richmond - Economic Brief* 22-12 (April 2022).
- Hornstein, Andreas. "Was there a better way to contain COVID-19?" *Federal Reserve Bank of Richmond - Economic Brief* 21-18 (June 2021).
- Chang, Yongsung, Andreas Hornstein and Marios Karabarbounis. "Labor-market wedge under Engel curve utility: Cyclical substitution between necessities and luxuries." *Federal Reserve Bank of Richmond - Economic Quarterly* v.106 no. 1 (First Quarter 2020), 1-17.
- Hornstein, Andreas, Marianna Kudlyak and John Mullin. "Projecting unemployment and demographic trends." *Federal Reserve Bank of Richmond - Economic Brief* 2019-09 (September 2019).
- Foerster, Andrew, Andreas Hornstein, Pierre D. Sarte and Mark Watson. "How have changing sectoral trends affected GDP growth?" *Federal Reserve Bank of San Francisco - Economic Letter* 2019-18 (July 2019).
- Hornstein, Andreas, Marianna Kudlyak and Annemarie Schweinert. "The labor force participation rate trend and its projections." *Federal Reserve Bank of San Francisco - Economic Letter* 2018-25 (November 2018).
- Hornstein, Andreas, and Marianna Kudlyak. "How much has job matching efficiency declined?" *Federal Reserve Bank of San Francisco - Economic Letter* 2017-25 (August 2017).
- Hornstein, Andreas, and David A. Price. "Assessing the effect of the Affordable Care Act on part-time employment." *Federal Reserve Bank of Richmond - Economic Brief* 16-10 (October 2016).
- Hornstein, Andreas, and Marianna Kudlyak. "Generalized matching functions and resource utilization indices for the labor market." *Federal Reserve Bank of Richmond - Economic Quarterly* v.102 no.2 (Second Quarter 2016), 105-126.
- Hornstein, Andreas, Joe Johnson and Karl Rhodes. "Inflation targeting: Could bad luck explain persistent one-sided misses?" *Federal Reserve Bank of Richmond - Economic Brief* 15-09 (September 2015).
- Hornstein, Andreas, Marianna Kudlyak and Fabian Lange. "Measuring resource utilization in the labor market." *Federal Reserve Bank of Richmond - Economic Quarterly* v.100 no.1 (First Quarter 2014), 1-21.
- Hornstein, Andreas, Marianna Kudlyak, Fabian Lange and Tim Sablik. "Does the unemployment rate really overstate labor market recovery?" *Federal Reserve Bank of Richmond - Economic Brief* 14-06 (June 2014).
- Hornstein, Andreas, and Karl Rhodes. "Will a surge in labor force participation impede unemployment rate improvement?" *Federal Reserve Bank of Richmond - Economic Brief* 13-08 (August 2013).
- Hornstein, Andreas, "Why labor force participation (usually) increases when unemployment declines." *Federal Reserve Bank of Richmond - Economic Quarterly* v.99 no.3 (First Quarter 2013), 1-23.
- Hornstein, Andreas, "Introduction to the special issue on modern macroeconomic theory." *Federal Reserve Bank of Richmond - Economic Quarterly* v.97 no.3 (Third Quarter 2011), 189-193.
- Hornstein, Andreas, Thomas Lubik and Jessie Romero. "Potential causes and implications of the rise in long-term unemployment." *Federal Reserve Bank of Richmond - Economic Brief* 11-09 (September 2011).
- Hornstein, Andreas and Thomas Lubik, "The rise of long-term unemployment: Potential causes and consequences." *2010 Annual Report*, The Federal Reserve Bank of Richmond, 4-23.
- Hornstein, Andreas. "Monetary policy with interest on reserves." *Federal Reserve Bank of Richmond - Economic Quarterly* v.96 no.2 (Second Quarter 2010), 153-177.
- Hornstein, Andreas. "Problems for a fundamental theory of house prices." *Federal Reserve Bank of Richmond - Economic Quarterly* v.95 no.1 (Winter 2009), 1-24.
- Hornstein, Andreas. "Introduction to *The New Keynesian Phillips Curve*." *Federal Reserve Bank of Richmond - Economic Quarterly* v.94 no.4 (Fall 2009), 301-309.
- Hornstein, Andreas. "Evolving inflation dynamics and the New Keynesian Phillips Curve." *Federal Reserve Bank of Richmond - Economic Quarterly* v.93 no.4 (Fall 2007), 317-339.

- Dotsey, Michael, and Andreas Hornstein, "Implementation of optimal monetary policy." *Federal Reserve Bank of Richmond - Economic Quarterly* v.92 no.2 (Spring 2006), 113-131.
- Hornstein, Andreas, and Alexander L. Wolman, "Trend inflation, firm-specific capital, and sticky prices." *Federal Reserve Bank of Richmond - Economic Quarterly* v.91 no.4 (Fall 2005), 57-83.
- Hornstein, Andreas, Per Krusell and Giovanni L. Violante. "Unemployment and vacancy fluctuations in the matching model: Inspecting the mechanism." *Federal Reserve Bank of Richmond - Economic Quarterly* v.91 no.3 (Summer 2005), 19-50.
- Hornstein, Andreas. "(Un)balanced growth." *Federal Reserve Bank of Richmond - Economic Quarterly* v.90 no.4 (Fall 2004), 25-45.
- Hornstein, Andreas, and Per Krusell. "Implications of the capital-embodiment revolution for directed R&D and wage inequality." *Federal Reserve Bank of Richmond - Economic Quarterly* v.89 no.4 (Fall 2003), 25-50.
- Hornstein, Andreas. "Towards a theory of capacity utilization: Shiftwork and the workweek of capital." *Federal Reserve Bank of Richmond - Economic Quarterly* v.88 no.2 (Spring 2002), 65-86.
- Hornstein, Andreas, and Per Krusell. "The IT revolution: Is it evident in the productivity numbers?" *Federal Reserve Bank of Richmond - Economic Quarterly* v.86 (4) (Fall 2000): 49-78.
- Hornstein, Andreas. "The business cycle and industry comovement." *Federal Reserve Bank of Richmond - Economic Quarterly* v.86 (1) (Winter 2000): 27-48.
- Hornstein, Andreas. "Growth accounting with technological revolutions." *Federal Reserve Bank of Richmond - Economic Quarterly* v.85 (3) (Summer 1999): 1-22.
- Hornstein, Andreas. "Inventory investment and the business cycle." *Federal Reserve Bank of Richmond - Economic Quarterly* v.84 (2) (Spring 1998): 49-71.

WORKING PAPERS

- Hornstein, Andreas, Marios Karabarbounis, André Kurmann, Etienne Lalé and Lien Ta. "Disincentive effects of unemployment insurance benefits." Federal Reserve Bank of Richmond Working Paper 23-11.
- Hornstein, Andreas. "Quarantine, contact tracing, and testing: Implications of an augmented SEIR model." *COVID Economics* 18, CEPR Press, Paris & London. https://cepr.org/publications/covid-economics-issue-18#392514_392894_390452.
- Hornstein, Andreas, and Marianna Kudlyak. "Estimating matching efficiency with variable search effort." Federal Reserve Bank of Richmond Working Paper 16-13R.
- Hornstein, Andreas. "Accounting for unemployment: The long and short of it." Federal Reserve Bank of Richmond Working Paper 12-07.
- Dotsey, Michael, and Andreas Hornstein. "On the implementation of Markov-perfect monetary policy." Federal Reserve Bank of Richmond Working Paper 09-06R.
- Hornstein, Andreas. "Notes on collateral constraints in a simple model of housing." Federal Reserve Bank of Richmond Working Paper 09-03.
- Hornstein, Andreas, Per Krusell, and Giovanni L. Violante. "Technical appendix to *Frictional wage dispersion in search models: A quantitative assessment*." Federal Reserve Bank of Richmond Working Paper 06-08.

Presentations

INVITED SEMINARS AND CONFERENCE PRESENTATIONS

- 2021.** Society of Economic Dynamics Meetings, Minneapolis MN.
- 2019.** NBER DSGE Workshop, Philadelphia.
- 2016.** Pennsylvania State University; NBER Summer Institute, Cambridge MA.
- 2015.** CREI Conference on "New Developments in the Macroeconomics of Labor Markets," Barcelona; CREST-ENSAI Workshop "On Labor Markets Instability," Rennes; HEC Conference on "New Developments in Business Cycle Analysis," Montreal.
- 2014.** Econometric Society Summer Meetings, Minneapolis; Society of Economic Dynamics Meetings, Toronto.

- 2013.** Universität Konstanz; Federal Reserve Bank of Richmond - IfW Kiel Conference on Labor Markets, Kiel
- 2012.** University of Virginia; Midwest Macroeconomics Meetings, Notre Dame; NBER Summer Institute, Cambridge MA.
- 2011.** CREI Conference on “Understanding Jobless Recoveries,” Barcelona.
- 2010.** Korean Labor Institute Conference on “Human Capital and Economic Growth,” Seoul.
- 2009.** Queens University, Ontario.
- 2008.** University of Rochester; Johns Hopkins University; Deutsche Bundesbank, Frankfurt.
- 2007.** University of Rochester; CERGE, Prague; Humboldt University, Berlin; NBER Economic Growth Conference, San Francisco; NBER Economic Fluctuations Conference, San Francisco; Federal Reserve Bank of Philadelphia and University of Pennsylvania Workshop on Macroeconomics and Money.
- 2006.** Institute for Advanced Studies, Vienna; European Central Bank, Frankfurt; Federal Reserve Bank of Chicago; European Summer Seminar on International Macroeconomics, Tarragona.
- 2005.** Bank of Korea, Seoul; Seoul National University; University of Tokyo; Universität Konstanz.
- 2004.** Society of Economic Dynamics Meetings, Florence; ASSA Meetings, San Diego; NBER EFG Meeting, Cambridge MA; NBER Summer Institute, Cambridge MA.
- 2003.** IZA workshop on search and matching, Bonn; Society of Economic Dynamics Meetings, Paris; International Seminar on Macroeconomics, Barcelona.
- 2002.** SIEPR Workshop on Technological Change, San Francisco.
- 2001.** European Central Bank, Frankfurt; Universität Tübingen; Humboldt Universität, Berlin; University of Rochester; ASSA Meetings, New Orleans; NBER Summer Workshop, Cambridge MA; Society of Economic Dynamics Meetings, Stockholm; NBER Universities Research Conference on “Macroeconomic Policy in a Dynamic, Uncertain Economy,” Cambridge MA.
- 2000.** Federal Reserve Bank of Minneapolis conference on “Great Depressions of the 20th Century,” Minneapolis; European Commission, Directorate General seminar on “Economic growth in the EU,” Brussels; ASSA Meetings, Boston.
- 1999.** Rutgers University; Catholic University of Brabant, Tilburg; Universität Konstanz; Federal Reserve Bank of Chicago; NBER Summer Institute, Cambridge MA.
- 1998.** University of Pennsylvania; Northwestern University; Canadian Macroeconomics Study Group Meetings, Montreal; Federal Reserve System Macroeconomics Meetings, Miami; NBER Summer Institute, Cambridge MA.
- 1997.** University of Virginia.
- 1996.** University of Waterloo, Ontario; University of Western Ontario, Ontario; Michigan State University; Federal Reserve Bank of Richmond; Annual Conference on Macroeconomics, NBER.
- 1995.** NBER Meetings, Stanford CA; Technion University Summer Workshop, Haifa; Northwestern University Summer Workshop in Macroeconomic Theory; Midwestern Macroeconomics Conference, Michigan State University; Canadian Macroeconomic Study Group, University of British Columbia; ASSA Meetings, Washington DC.
- 1994.** University of Rochester; University of Toronto, Ontario; University of Western Ontario, Ontario; University of Montreal, Quebec; University of Michigan/University of Western Ontario Joint Conference; Society of Economic Dynamics and Control Meetings, Los Angeles CA; Canadian Macro Economics Study Group, UQUAM, Quebec; Canadian Economic Theory Conference, University of Toronto, Ontario.
- 1993.** Federal Reserve Bank of Minneapolis; University of Texas, Austin TX; University of Western Ontario, Ontario; York University, Ontario.
- 1992.** University of Michigan/University of Western Ontario Joint Conference, Ann Arbor MI; ASSA Meetings, New Orleans.
- 1991.** University of Illinois, Urbana-Champaign IL; University of Western Ontario, Ontario; European Economic Association Meetings, Cambridge U.K.; Canadian Macro Economics Study Group, University of Waterloo, Ontario.
- 1990.** University of Western Ontario, Ontario; Conference on Research in Income and Wealth, Charleston SC.

DISCUSSIONS

2023 System Macroeconomics Meetings, Federal Reserve Bank of San Francisco, October 2023, “Supply chain constraints and inflation ” by Comin, Johnson, and Jones

- 2019 Micro Macro Labor Economics Conference, Federal Reserve Bank of San Francisco, November 2019, “Declining worker turnover: The role of short duration employment spells ” by Pries and Rogerson
- 2018 System Macroeconomics Meetings, Federal Reserve Bank of San Francisco, April 2018, “The macroeconomic effects of temporary and persistent changes in the monetary policy rate ” by Garriga, Kydland, and Sustek
- 2017 System Applied Microeconomics Meetings, Federal Reserve Bank of Philadelphia, May 2017, “Organizations, skills, and wage inequality” by Pinheiro and Tasci
- 2012 Federal Reserve Bank of Richmond - IfW Kiel Labor Market Conference, Richmond, November 2012, “Why did the U.S. unemployment rate used to be so low? (and why it will be very low again)” by Barnichon and Figura
- 2007 System Macroeconomics Meetings, Federal Reserve Bank of St. Louis, Spring 2007, “Sector-specific technical change” by Fernald
- 2007 Conference on Monetary Policy Strategy by Deutsche Bundesbank - Federal Reserve Bank of Cleveland, Frankfurt, June 2007, “Monetary policy and core inflation,” by Lenza
- 2006 ISIR Session at the ASSA Meetings, Boston MA, January 2006, “Input output inventories in general equilibrium,” by Iacoviello, Schiantarelli, and Schuh

Professional Services

REFEREE

American Economic Journal: Macroeconomics; American Economic Review; The B.E. Journals in Macroeconomics; Canadian Journal of Economics; Econometrica; Economica; Economic Inquiry; Economic Journal; Economic Letters; Economic Modeling; Economic Theory; European Economic Review; German Economic Review; International Economic Review; International Journal of Central Banking; International Review of Economics and Finance; Journal of Economic Dynamics and Control; Journal of Economic Growth; Journal of Applied Econometrics; Journal of Business and Economic Statistics; Journal of Economic Theory; Journal of European Economic Association; Journal of Labor Economics; Journal of Macroeconomics; Journal of Monetary Economics; Journal of Money, Credit, and Banking; Journal of Political Economy; Journal of Population Economics; Journal of the Japanese and International Economies; Quarterly Journal of Economics; Quarterly Review of Economics and Statistics; Review of Economic Dynamics; Review of Economic Studies; Review of Economics and Statistics; Scandinavian Journal of Economics. Past member of the editorial advisory board of the Canadian Journal of Economics (1995-1998).

REVIEWER

National Science Foundation, Social Sciences Research Council

CONFERENCES

- Co-Organizer, 2016 Federal Reserve Bank of Richmond Workshop on “The Role of the Zero Lower Bound in the Great Recession”
- Co-Organizer, 2014 Federal Reserve Bank of Richmond – IfW Kiel Joint Research Conference on “The Labor Market after the Great Recession”
- Co-Organizer, 2013 Federal Reserve Bank of Richmond – IfW Kiel Joint Research Conference on “New Developments in the Macroeconomics of Labor Markets”
- Co-Organizer, 2012 Federal Reserve Bank of Richmond – IfW Kiel Joint Research Conference on “New Developments in the Macroeconomics of Labor Markets”
- Co-Organizer, 2007 System Committee Meeting on Macroeconomics
- Co-Organizer, 2004 Federal Reserve Bank of Richmond Workshop on “Labor Markets and Technical Change”