

# **Austrian Economics and Entrepreneurship**

**Other titles in Foundations and Trends® in Entrepreneurship**

*Entrepreneurs' Search for Sources of Knowledge*

Albert N. Link

ISBN: 978-1-63828-296-9

*The Evolution of Hidden Champions as Niche Entrepreneurs*

Erik E. Lehmann and Julian Schenkenhofer

ISBN: 978-1-63828-258-7

*Entrepreneurship in the Long-Run: Empirical Evidence and  
Historical Mechanisms*

Michael Fritsch and Michael Wyrwich

ISBN: 978-1-63828-108-5

*Minority Entrepreneurship 2.0*

Timothy Bates

ISBN: 978-1-63828-048-4

*From the Metaphor to the Concept of the Entrepreneurial Journey  
in Entrepreneurship Research*

Tönis Mets

ISBN: 978-1-63828-016-3

*Student Entrepreneurship: Reflections and Future Avenues for Research*

Bart Clarysse, Philippe Mustar and Lisa Dedeyne

ISBN: 978-1-63828-012-5

# Austrian Economics and Entrepreneurship

---

**Matthew McCaffrey**

The University of Manchester  
matthew.mccaffrey@manchester.ac.uk

**Per L. Bylund**

Oklahoma State University  
Per.Bylund@okstate.edu

**Peter G. Klein**

Baylor University  
Peter\_Klein@baylor.edu

**now**

the essence of knowledge

Boston — Delft

## Foundations and Trends® in Entrepreneurship

*Published, sold and distributed by:*

now Publishers Inc.  
PO Box 1024  
Hanover, MA 02339  
United States  
Tel. +1-781-985-4510  
[www.nowpublishers.com](http://www.nowpublishers.com)  
[sales@nowpublishers.com](mailto:sales@nowpublishers.com)

*Outside North America:*

now Publishers Inc.  
PO Box 179  
2600 AD Delft  
The Netherlands  
Tel. +31-6-51115274

The preferred citation for this publication is

M. McCaffrey *et al.*. *Austrian Economics and Entrepreneurship*. Foundations and Trends® in Entrepreneurship, vol. 20, no. 1, pp. 1–108, 2024.

ISBN: 978-1-63828-381-2

© 2024 M. McCaffrey *et al.*

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, mechanical, photocopying, recording or otherwise, without prior written permission of the publishers.

Photocopying. In the USA: This journal is registered at the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by now Publishers Inc for users registered with the Copyright Clearance Center (CCC). The 'services' for users can be found on the internet at: [www.copyright.com](http://www.copyright.com)

For those organizations that have been granted a photocopy license, a separate system of payment has been arranged. Authorization does not extend to other kinds of copying, such as that for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. In the rest of the world: Permission to photocopy must be obtained from the copyright owner. Please apply to now Publishers Inc., PO Box 1024, Hanover, MA 02339, USA; Tel. +1 781 871 0245; [www.nowpublishers.com](http://www.nowpublishers.com); [sales@nowpublishers.com](mailto:sales@nowpublishers.com)

now Publishers Inc. has an exclusive license to publish this material worldwide. Permission to use this content must be obtained from the copyright license holder. Please apply to now Publishers, PO Box 179, 2600 AD Delft, The Netherlands, [www.nowpublishers.com](http://www.nowpublishers.com); e-mail: [sales@nowpublishers.com](mailto:sales@nowpublishers.com)

**Foundations and Trends® in Entrepreneurship**  
Volume 20, Issue 1, 2024  
**Editorial Board**

**Editors-in-Chief**

**Albert N. Link**

University of North Carolina at Greensboro

**David B. Audretsch**

Indiana University

**Editors**

Howard Aldrich

*University of North Carolina*

Sharon Alvarez

*University of Pittsburgh*

Per Davidsson

*Queensland University of Technology*

Michael Frese

*Asian School of Business*

William B. Gartner

*Babson College*

Magnus Henrekson

*IFN Stockholm*

Michael A. Hitt

*Texas A&M University*

Joshua Lerner

*Harvard University*

Jeff McMullen

*Indiana University*

Maria Minniti

*Syracuse University*

Simon Parker

*University of Western Ontario*

Holger Patzelt

*TU Munich*

Saras Sarasvathy

*University of Virginia*

Roy Thurik

*Erasmus University*

## Editorial Scope

Foundations and Trends® in Entrepreneurship publishes survey and tutorial articles in the following topics:

- Nascent and start-up entrepreneurs
- Opportunity recognition
- New venture creation process
- Business formation
- Firm ownership
- Market value and firm growth
- Franchising
- Managerial characteristics and behavior of entrepreneurs
- Strategic alliances and networks
- Government programs and public policy
- Gender and ethnicity
- New business financing:
  - Business angels
  - Bank financing, debt, and trade credit
  - Venture capital and private equity capital
  - Public equity and IPOs
- Family-owned firms
- Management structure, governance and performance
- Corporate entrepreneurship
- High technology:
  - Technology-based new firms
  - High-tech clusters
- Small business and economic growth

### Information for Librarians

Foundations and Trends® in Entrepreneurship, 2024, Volume 20, 4 issues. ISSN paper version 1551-3114. ISSN online version 1551-3122. Also available as a combined paper and online subscription.

## Contents

---

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>The Historical Development of Austrian Entrepreneurship Research</b>	<b>5</b>
<b>3</b>	<b>Recent Developments in Austrian Entrepreneurship Theory</b>	<b>74</b>
<b>4</b>	<b>Conclusion</b>	<b>90</b>
	<b>References</b>	<b>92</b>

# Austrian Economics and Entrepreneurship

Matthew McCaffrey<sup>1</sup>, Per L. Bylund<sup>2</sup> and Peter G. Klein<sup>3</sup>

<sup>1</sup>*Alliance Manchester Business School, The University of Manchester, UK; [matthew.mccaffrey@manchester.ac.uk](mailto:matthew.mccaffrey@manchester.ac.uk)*

<sup>2</sup>*Spears School of Business, Oklahoma State University, USA; [Per.Bylund@okstate.edu](mailto:Per.Bylund@okstate.edu)*

<sup>3</sup>*Hankamer School of Business, Baylor University, USA; [Peter\\_Klein@baylor.edu](mailto:Peter_Klein@baylor.edu)*

---

## ABSTRACT

This monograph surveys the rich history of entrepreneurship research within and inspired by the “Austrian” school of economics. Unlike most schools of the past 150 years or so, the Austrian tradition places entrepreneurship at the heart of economic theory and practice. Understanding the entrepreneurial “function” in society is vital for explaining the real-world market process, but also for a proper understanding of the fundamental concepts and theories of economics. These include action, choice, exchange, prices, supply and demand, money, capital, competition, economic development, and business cycles, to name only a few. In this monograph we survey the development of Austrian theories of entrepreneurship, examining the contributions of leading members of the tradition in addition to those of some lesser-known writers, adjacent scholars, and fellow-travelers. We then explore some ways in which Austrian work contributes to modern entrepreneurship research, especially through the

---

Matthew McCaffrey, Per L. Bylund and Peter G. Klein (2024), “Austrian Economics and Entrepreneurship”, *Foundations and Trends*<sup>®</sup> in Entrepreneurship: Vol. 20, No. 1, pp 1–108. DOI: 10.1561/0300000118.

©2024 M. McCaffrey *et al.*



Judgment-Based Approach. We conclude with a discussion of the professional roles now played by Austrians in the contemporary entrepreneurship discipline.

---

**Keywords:** Austrian economics; action; economic calculation; judgment; alertness.

# 1

---

## Introduction

---

The modern scholarly study of entrepreneurship began as a branch of economic theory many decades before it emerged as a distinct discipline. It is no surprise then that today, entrepreneurship research continues to draw on economic themes and controversies, even while it also incorporates insights from management, sociology, psychology, organization studies, and many other disciplines and social sciences. Sad to say though, this influence has usually not been mutual, and for decades it has been common to lament the disappearance of entrepreneurship from mainstream economics teaching and research, ever since the subject was shunted aside in order for theoretical economics to become increasingly abstract and formal, trading realism for “rigor” (mortis).<sup>1</sup> Indeed, this shift was natural given the way economics developed over the course of the 20th century: there is little room for entrepreneurship in any economics that emphasizes equilibrium over action, statics over dynamics, risk over uncertainty, and mechanistic decision functions over genuine choice.

---

<sup>1</sup>To paraphrase Robert Heilbroner, who was most certainly *not* an Austrian economist.

However, one tradition continues to place entrepreneurship at the center of economic theory and practice: the Austrian school of economics. It has long been a trope of Austrian work to cite Ludwig von Mises's remark that the entrepreneur is the "driving force of the market economy" in order to explain the importance of this role in economic affairs. Yet entrepreneurship is even more significant than this, as it provides a crucial foundation for economic analysis, one that unites and builds upon core concepts like action, choice, exchange, prices, supply and demand, money, capital, competition, economic development, and business cycles. In fact, according to Austrians these concepts can only be properly understood in light of their relation to entrepreneurial behavior.

This Austrian emphasis on entrepreneurship flows naturally from its "causal-realist" methodological standpoint, the view that economics should be concerned with the study of fundamental causal relationships in the existing world. Entrepreneurship is an obvious and profoundly important aspect of this world, and therefore deserves a place at the heart of economics and social science.

## References

---

- Abu-Saifan, S. (2012). “Social entrepreneurship: Definitions and boundaries”. *Technology Innovation Management Review*. 2(2): 22–27.
- Alvarez, S. A. and J. B. Barney (2007). “Discovery and creation: Alternative theories of entrepreneurial action”. *Strategic Entrepreneurship Journal*. 1(1–2): 11–26.
- Alvord, S. H., L. D. Brown, and C. W. Letts (2004). “Social entrepreneurship and societal transformation an exploratory study”. *Journal of Applied Behavioral Science*. 40(3): 260–282.
- Araujo, C. F., M. Karami, J. Tang, L. B. Roldan, and J. A. dos Santos (2023). “Entrepreneurial alertness: A meta-analysis and empirical review”. *Journal of Business Venturing Insights*. 19: e00394.
- Barbieri, F. (2023). “Lachmann’s transformation”. *Review of Austrian Economics*. 36(3): 417–439.
- Baumol, W. J. (1990). “Entrepreneurship: Productive, unproductive, and destructive”. *The Journal of Political Economy*. 98(5): 893–921.
- Bjørnskov, C. and N. Foss (2013). “How strategic entrepreneurship and the institutional context drive economic growth”. *Strategic Entrepreneurship Journal*. 7(1): 50–69.
- Bjørnskov, C. and N. J. Foss (2008). “Economic freedom and entrepreneurial activity: Some cross-country evidence”. *Public Choice*. 134(3): 307–328.

- Bjørnskov, C. and N. J. Foss (2016). “Institutions, entrepreneurship, and economic growth: What do we know and what do we still need to know?” *Academy of Management Perspectives*. 30(3): 292–315.
- Boettke, P. J. and C. J. Coyne (2009). “Context matters: Institutions and entrepreneurship”. *Foundations and Trends in Entrepreneurship*. 5(3): 135–209.
- Böhm-Bawerk, E. v. (1913a). “Eine “dynamische Theorie des Kapitalzinsens”. *Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*. 22: 520–585.
- Böhm-Bawerk, E. v. (1913b). “Eine “dynamische Theorie des Kapitalzinsens”. *Schlußbemerkungen.* *Zeitschrift für Volkswirtschaft Sozialpolitik und Verwaltung*. 22: 640–656.
- Böhm-Bawerk, E. v. (1962a). “The Austrian economists”. In: *Shorter Classics of Böhm-Bawerk*. South Holland, Ill: Libertarian Press. 1–24.
- Böhm-Bawerk, E. v. (1962b). “Whether legal rights and relationships are economic goods”. In: *Shorter Classics of Böhm-Bawerk*. South Holland, Ill: Libertarian Press. 30–138.
- Böhm-Bawerk, E. v. (1959a). *History and Critique of Interest Theories*. South Holland, Ill: Libertarian Press.
- Böhm-Bawerk, E. v. (1959b). *Positive Theory of Capital*. South Holland, Ill: Libertarian Press.
- Böhm-Bawerk, E. v. (1987). *Earlier Lectures on Economics by Böhm-Bawerk: A Transcript of “Nationalökonomie Nach Prof. Dr. Eugen von Böhm.* Ed. by S. Tomo. Hitotsubashi University: Center for Historical Social Science Literature.
- Bradley, S. W., P. H. Kim, P. G. Klein, J. S. McMullen, and K. Wennberg (2021). “Policy for innovative entrepreneurship: Institutions, interventions, and societal challenges”. *Strategic Entrepreneurship Journal*. 15(2): 167–184.
- Bradley, S. W. and P. Klein (2016). “Institutions, economic freedom, and entrepreneurship: The contribution of management scholarship”. *Academy of Management Perspectives*. 30(3): 211–221.
- Bylund, P. L. (2015). *The Problem of Production: A New Theory of the Firm*. Abingdon, U.K: Routledge.

- Bylund, P. L. (2020). "Finding the entrepreneur-promoter: A praxeological inquiry". *Quarterly Journal of Austrian Economics*. 23(3–40): 355–389.
- Bylund, P. L. (2021). "The Austrian free enterprise ethic: A Mengerian comment on Kirzner". *2019 Review of Austrian Economics*. 34(4): 495–501.
- Bylund, P. L. (2022). "Entrepreneurship and the market process". In: *A Modern Guide to Austrian Economics*. Ed. by P. L. Bylund. Cheltenham UK: Edward Elgar. 84–102.
- Bylund, P. L., P. G. Klein, and M. McCaffrey (2024). "Entrepreneurship and economic freedom". In: *Handbook of Research on Economic Freedom*. Ed. by N. Berggren. Northampton, MA: Edward Elgar. 245–260.
- Bylund, P. L. and M. McCaffrey (2017). "A theory of entrepreneurship and institutional uncertainty". *Journal of Business Venturing*. 32(5): 461–475.
- Campagnolo, G. (2022). "Carl Menger on time and entrepreneurship". *European Journal of the History of Economic Thought*. 29(5): 817–835.
- Campagnolo, G. and C. Vivel (2012). "Before schumpeter: Forerunners of the theory of the entrepreneur in, 1900s, German political economy—Werner Sombart, Friedrich von Wieser". *European Journal of the History of Economic Thought*. 19(6): 908–943.
- Campagnolo, G. and C. Vivel (2014). "The foundations of the theory of entrepreneurship in Austrian economics—Menger and Böhm-Bawerk on the entrepreneur". *Revue de Philosophie Économique*. 15(1): 49–97.
- Candela, R. A. and K. J. Lambert (2022). "Transcending the Schumpeter-Kirzner dichotomy: The role of the entrepreneur in Carl Menger's theory of price formation". *Cosmos + Taxis*. 10(5&6): 35–46.
- Casson, M. (1982). *The Entrepreneur: An Economic Theory*. Rowman & Littlefield.
- Chavoushi, Z. H., M. R. Zali, D. Valliere, N. Faghieh, R. Hejazi, and A. M. Dehkordi (2021). "Entrepreneurial alertness: A systematic literature review". *Journal of Small Business and Entrepreneurship*. 33(2): 123–152.

- D'Andrea, F. A. M. C. (forthcoming). "Man of action: Murray N. Rothbard contributions to the theory of entrepreneurship". *Quarterly Journal of Austrian Economics*.
- D'Andrea, F. A. M. C. (2023). "Entrepreneurship and institutional uncertainty". *Journal of Entrepreneurship and Public Policy*. 12(1): 10–31.
- Daniel, A. D., S. Adeel, and A. Botelho (2021). "Entrepreneurial alertness research: Past and future". *SAGE Open*. 11(3): 1–12.
- Dekker, E. and P. Kuchař (2019). "Lachmann and shackle: On the joint production of interpretation instruments". *Research in the History of Economic Thought and Methodology*. 37: 25–42.
- Demsetz, H. (1983). "The neglect of the entrepreneur". In: *Entrepreneurship*. Ed. by J. Ronen. Lexington, MA: Lexington Books. 271–280.
- DiLorenzo, T. J. (1988). "Competition and political entrepreneurship: Austrian insights into public-choice theory". *Review of Austrian Economics*. 2(1): 59–71.
- Dong, Z., X. Wei, and Y. Zhang (2016). "The allocation of entrepreneurial efforts in a rent-seeking society: Evidence from China". *Journal of Comparative Economics*. 44(2): 353–371.
- Dorobat, C. E. and M. V. Topan (2015). "Entrepreneurship and comparative advantage". *Journal of Entrepreneurship*. 24(1): 1–16.
- Dorobat, C.-E., M. McCaffrey, and M. V. Topan (2024). "Exploring the microfoundations of hybridity: A judgment based approach". *Journal of Business Venturing*. 39: 1065606.
- Ekelund Jr., R. B. (1970). "Power and utility: The normative economics of Friedrich von Wieser". *Review of Social Economy*. 28(2): 179–196.
- Elert, N. and M. Henrekson (2016). "Evasive entrepreneurship". *Small Business Economics*. 47(1): 95–113.
- Elert, N. and M. Henrekson (2021). "Entrepreneurship prompts institutional change in developing economies". *Review of Austrian Economics*. 34(1): 33–53.
- Emmett, R. B. (2013). "Frank H. Knight on institutionalism and economics". *Research in the History of Economic Thought and Methodology*. 31b: 117–124.
- Emmett, R. B. (2015). *Frank H. Knight and the Chicago School*. ASU Center for the Study of Economic Liberty Research Paper.

- Endres, A. M. (1991). "Austrian capital and interest theory: Wieser's contribution and the Menger tradition". *Review of Austrian Economics*. 5(1): 67–90.
- Evans, A. J. and J. Friedman (2011). "Search vs. browse: A theory of error grounded in radical (not rational) ignorance". *Critical Review*. 23(1–2): 73–104.
- Fetter, F. A. (1905). *The Principles of Economics, with Applications to Practical Problems*. New York: The Century Co.
- Fetter, F. A. (1915). *Economic Principles*. New York: The Century Co.
- Fetter, F. A. (1936). "Cost-prices, product-prices, and profits". In: *Economic Principles and Problems: Volume I*. Ed. by W. E. Spahr. 3rd. Vol. I. New York: Farrar and Rinehart.
- Fetter, F. A. (1977). In: *Capital, Interest, and Rent: Essays in the Theory of Distribution*. Ed. by M. N. Rothbard. Menlo Park, CA: Institute for Humane Studies.
- Foss, K., N. J. Foss, and P. G. Klein (2007a). "Original and derived judgment: An entrepreneurial theory of economic organization". *Organization Studies*. 28(12): 1893–1912.
- Foss, K., N. J. Foss, P. G. Klein, and S. K. Klein (2007b). "The entrepreneurial organization of heterogeneous capital". *Journal of Management Studies*. 44(7): 1165–1186.
- Foss, N. J. (1997). "Austrian insights and the theory of the firm". *Advances in Austrian Economics*. 4: 175–198.
- Foss, N. J. and G. Garzarelli (2007). "Institutions as knowledge capital: Ludwig M. Lachmann's interpretative institutionalism". *Cambridge Journal of Economics*. 31(5): 789–804.
- Foss, N. J. and P. G. Klein (2010a). "Alertness, action, and the antecedents of entrepreneurship". *Journal of Private Enterprise*. 25(2): 145–164.
- Foss, N. J. and P. G. Klein (2010b). "Entrepreneurial alertness and opportunity discovery: Origins, attributes, critique". In: *The Historical Foundations of Entrepreneurship Research*. Ed. by H. Landström and F. Lohrke. Cheltenham, UK: Edward Elgar). 91–120.
- Foss, N. J. and P. G. Klein (2012). *Organizing Entrepreneurial Judgment: A New Approach to the Firm*. Cambridge: Cambridge University Press.



- Foss, N. J. and P. G. Klein (2014). “Why managers still matter”. *MIT Sloan Management Review*. 56(1): 72–80.
- Foss, N. J. and P. G. Klein (2015). “Introduction to a forum on the judgment-based approach to entrepreneurship: Accomplishments, challenges, new directions”. *Journal of Institutional Economics*. 11(3): 585–599.
- Foss, N. J. and P. G. Klein (2022). *Why Managers Matter: The Perils of the Bossless Company*. New York: Public Affairs.
- Foss, N. J., P. G. Klein, L. B. Lien, T. Zellweger, and T. Zenger (2021). “Ownership Competence”. *Strategic Management Journal*. 42(2): 302–328.
- Funk, R. J. and D. Hirschman (2017). “Beyond nonmarket strategy: Market actions as corporate political activity”. *Academy of Management Review*. 42(1): 32–52.
- Garrison, R. W. (1999). “Eugen von Böhm-Bawerk: Capital, interest, and time, 15 great Austrian economists”. In: ed. by R. G. Holcombe. Auburn, AL: Ludwig von Mises Institute. 113–122.
- Giménez Roche, G. A. and D. Calcei (2021). “The role of demand routines in entrepreneurial judgment”. *Small Business Economics*. 56(1): 209–235.
- Godley, A. C. and M. C. Casson (2015). “‘Doctor, Doctor...’ entrepreneurial diagnosis and market making”. *Journal of Institutional Economics*. 11(3): 601–621.
- Gordon, D. (1991). “Review of discovery, capitalism, and distributive justice, by Israel M. Kirzner”. *Review of Austrian Economics*. 5(1): 117–122.
- Greaves Jr, P. L. (1974). “Review of competition and entrepreneurship by Israel M. Kirzner”. *Wertfrei: A Review of Praxeological Science*. 1: 17–20.
- Grechenig, K. and M. Gelter (2008). “The transatlantic divergence in legal thought: American law and economics vs. German Doctrinalism”. *Hastings International and Comparative Law Review*. 31(1): 295–360.
- Gross, G. (1884). *Die Lehre vom Unternehmervergewinn*. Leipzig: Duncker & Humblot.

- Hawley, F. B. (1892). "The fundamental error of "Kapital und Kapitalzins". *Quarterly Journal of Economics*. 6(3): 280–307.
- Hayek, F. A. (1931). "Reflections on the pure theory of money of Mr. J.M. Keynes". *Economica*. 33: 270–295.
- Hayek, F. A. (1937). "Economics and knowledge". *Economica*. 4(13): 33–54.
- Hayek, F. A. (1941). *The Pure Theory of Capital*. London: Routledge and Kegan Paul.
- Hayek, F. A. (1945). "The use of knowledge in society". *American Economic Review*. 35(4): 519–530.
- Hayek, F. A. (1975). *Profits, Interest and Investment*. Clifton, NJ: Augustus M. Kelley.
- Hayek, F. A. (1983). "Coping with ignorance". In: *Knowledge, Evolution and Society*. London: Adam Smith Institute. 17–27.
- Hayek, F. A. (1992). "Ludwig von Mises (1881–1973)". In: *The Fortunes of Liberalism*. Ed. by P. G. Klein. Indianapolis, IN: Liberty Fund. 126–159.
- Hayek, F. A. (1994). "Introduction". In: *Principles of Economics*. Ed. by C. Menger. Grove City, PA: Libertarian Press. 11–36.
- Hayek, F. A. (2002). "Competition as a discovery procedure". *Quarterly Journal of Austrian Economics*. 5(3): 9–23.
- Hayek, F. A. (2008). *Prices and Production and Other Works: F.A. Hayek on Money, the Business Cycle, and the Gold Standard*. Ed. by J. T. Salerno. Auburn, AL: Ludwig von Mises Institute.
- Hazlitt, H. (1974). "Review of competition and entrepreneurship by Israel M. Kirzner". *The Freeman*. 24(December): 756–760.
- Hébert, R. F. and A. Link (1988). *The Entrepreneur: Mainstream Views and Radical Critiques*. 2nd. New York: Praeger.
- Herbener, J. M. (1999). "Frank A. Fetter: A forgotten giant, 15 great Austrian economists". In: ed. by R. G. Holcombe. Auburn, AL: Ludwig von Mises Institute. 123–141.
- High, J. (1982). "Alertness and judgment: Comment on Kirzner". In: *Method, Process, and Austrian Economics: Essays in Honor of Ludwig von Mises*. Ed. by I. M. Kirzner. Lexington, MA: Lexington Books. 161–168.

- Hirshleifer, J. (1967). "A note on the Bohm-Bawerk/Wicksell theory of interest". *Review of Economic Studies*. 34(2): 191–199.
- Holcombe, R. G. (1998). "Entrepreneurship and economic growth". *Quarterly Journal of Austrian Economics*. 1(2): 45–62.
- Holcombe, R. G. (1999). "Entrepreneurship and economic growth: Reply". *Quarterly Journal of Austrian Economics*. 2(2): 73–78.
- Holcombe, R. G. (2002). "Political entrepreneurship and the democratic allocation of economic resources". *Review of Austrian Economics*. 2(3): 143–159.
- Holcombe, R. G. (2018). *Political Capitalism: How Political Influence is Made and Maintained*. Cambridge: Cambridge University Press.
- Holmes Jr, R. M., S. A. Zahra, R. E. Hoskisson, K. DeGhetto, and T. Sutton (2016). "Two-way streets: The role of institutions and technology policy in firms' corporate entrepreneurship and political strategies". *Academy of Management Perspectives*. 30(3): 247–272.
- Huang, L. (2018). "The role of investor gut feel in managing complexity and extreme risk". *Academy of Management Journal*. 61(5): 1821–1847.
- Huang, L. and J. L. Pearce (2015). "Managing the unknowable: The effectiveness of early-stage investor gut feel in entrepreneurial investment decisions". *Administrative Science Quarterly*. 60(4): 634–670.
- Hülsmann, J. G. (1997). "Knowledge, judgment, and the use of property". *Review of Austrian Economics*. 10(1): 23–48.
- Hülsmann, J. G. (2007). *Mises: The Last Knight of Liberalism*. Auburn, AL: Ludwig von Mises Institute.
- Jaffé, W. (1976). "Menger, jevons and walras de-homogenized". *Economic Inquiry*. 14(4): 511–524.
- Kaul, A. (2013). "Entrepreneurial action, unique assets, and appropriation risk: Firms as a means of appropriating profit from capability creation". *Organization Science*. 24(6): 1765–1781.
- Kirzner, I. M. (1960). *The Economic Point of View*. Menlo Park, CA: Institute for Humane Studies.
- Kirzner, I. M. (1963). *Market Theory and the Price System*. Princeton, NJ: Van Nostrand.

- Kirzner, I. M. (1966). *An Essay on Capital*. New York: Augustus M. Kelley.
- Kirzner, I. M. (1973). *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I. M. (1978). "Economics and error". In: *New Directions in Austrian Economics*. Ed. by L. M. Spadaro. Kansas City: Sheed, Andrew and McMeel. 57–76.
- Kirzner, I. M. (1979). *Perception, Opportunity, and Profit: Studies in the Theory of Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I. M. (1982). "Competition, regulation, and the market process: An "Austrian" perspective". In: *Cato Policy Analysis*. Vol. 18. Washington, DC: Cato Institute.
- Kirzner, I. M. (1985). *Discovery and the Capitalist Process*. Chicago: University of Chicago Press.
- Kirzner, I. M. (1989). *Discovery, Capitalism, and Distributive Justice*. New York: Basil Blackwell.
- Kirzner, I. M. (1997). "Entrepreneurial discovery and the competitive market process: An Austrian approach". *Journal of Economic Literature*. 35(1): 60–85.
- Kirzner, I. M. (1999). "Creativity and/or alertness: A reconsideration of the schumpeterian entrepreneur". *Review of Austrian Economics*. 11(1–2): 5–17.
- Kirzner, I. M. (2009). "The alert and creative entrepreneur: A clarification". *Small Business Economics*. 32(2): 145–152.
- Kirzner, I. M. (2010). "The meaning of 'Economic Goodness': Critical comments on Klein and Briggeman". *Journal of Private Enterprise*. 25(2): 55–85.
- Klein, D. B. and J. Briggeman (2010). "Israel Kirzner on coordination and discovery". *Journal of Private Enterprise*. 25(2): 1–53.
- Klein, P. G. (1996). "Economic calculation and the limits of organization". *Review of Austrian Economics*. 9(2): 3–28.
- Klein, P. G. (2008). "Opportunity discovery, entrepreneurial action, and economic organization". *Strategic Entrepreneurship Journal*. 2(3): 175–190.

- Klein, P. G. (2009). "Risk, uncertainty, and economic organization". In: *Property, Freedom, and Society: Essays in Honor of Hans-Hermann Hoppe*. Ed. by J. G. Hülsmann and N. S. Kinsella. Auburn, AL: Ludwig von Mises Institute. 325–337.
- Klein, P. G. (2016). "Why entrepreneurs need firms, and the theory of the firm needs entrepreneurship theory". *Revista de Administração (São Paulo)*. 51(3): 323–326.
- Klein, P. G. and P. L. Bylund (2014). "The place of Austrian economics in contemporary entrepreneurship research". *Review of Austrian Economics*. 27(3): 259–279.
- Klein, P. G., R. M. Holmes Jr, N. Foss, S. Terjesen, and J. Pepe (2022). "Capitalism, cronyism, and management scholarship: A call for clarity". *Academy of Management Perspectives*. 36(1): 6–29.
- Klein, P. G., J. T. Mahoney, A. M. McGahan, and C. N. Pitelis (2010). "Toward a theory of public entrepreneurship". *European Management Review*. 7(1): 1–15.
- Klein, P. G. and M. McCaffrey (2022). "Entrepreneurial judgment". In: *A Modern Guide to Austrian Economics*. Ed. by P. L. Bylund. Cheltenham, UK: Edward Elgar. 64–83.
- Kleinwächter, F. (1884). "Review of Viktor Mataja, *Der Unternehmergewinn—Ein Beitrag zur Lehre von der Gütervertheilung in der Volkswirtschaft*; Gustav Gross, *Die Lehre vom Unternehmergewinn*; Eduard August Schroeder, *Des Unternehmen und der Unternehmergewinn vom historischen, theoretischen und praktischen Standpunkte*". *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*. 8: 1277–1282.
- Klump, R. and O. de La Grandville (2000). "Economic growth and the elasticity of substitution: Two theorems and some suggestions". *American Economic Review*. 90(1): 282–291.
- Knight, F. H. (1916). "Letter to Frank A. Fetter, dated 8 March. Frank A. Fetter mss., 1875–1988. Lilly Library, Indiana University Bloomington, Box 1, Folder: Correspondence 1911–1919".
- Knight, F. H. (1950). "Introduction". In: *Carl Menger, Principles of Economics*. Glencoe, IL: Free Press. 9–35.
- Knight, F. H. (1964). *Risk, Uncertainty and Profit*. New York: August M. Kelley.

- Lachmann, L. M. (1970). *The Legacy of Max Weber*. London: Heinemann.
- Lachmann, L. M. (1978). *Capital and its Structure*. Kansas City: Sheed, Andrews, and McMeel.
- Lachmann, L. M. (1994). In: *Expectations and the Meaning of Institutions: Essays in Economics by Ludwig Lachmann*. Ed. by D. Lavoie. London: Routledge.
- Langlois, R. N. (1992). “Transaction-cost economics in real time”. *Industrial and Corporate Change*. 1(1): 99–127.
- Langlois, R. N. and M. M. Cosgel (1993). “Frank Knight on risk, uncertainty, and the firm: A new interpretation”. *Economic Inquiry*. 31(3): 456–465.
- Langlois, R. N. and P. L. Robertson (1995). *Firms, Markets and Economic Change: A Dynamic Theory of Business Institutions*. London: Routledge.
- Lanivich, S. E., A. Smith, L. Levasseur, R. J. Pidduck, L. Busenitz, and J. Tang (2022). “Advancing entrepreneurial alertness: Review, synthesis, and future research directions”. *Journal of Business Research*. 139: 1165–1176.
- Lewin, P. (1998). “Capital structure and organizational structure: An Austrian market-process theory of the firm”. In: *Preliminary Paper*. Dallas (University of Texas, School of Management).
- López, E. J. (2002). “The legislator as political entrepreneur: Investment in political capital”. *Review of Austrian Economics*. 2(3): 211–228.
- Martin, D. T. (1979). “Alternative views of Mengerian entrepreneurship”. *History of Political Economy*. 11(2): 271–285.
- Martin, R. L. and S. Osberg (2007). “Social enterprise: The case for definition”. *Stanford Social Innovation Review*. 5(2): 28–39.
- Mataja, V. [1884] (1966). *Der Unternehmervergewinn: Ein Beitrag zur Lehre von Gütervertheilung der Volkswirtschaft*. Osnabrück: Otto Zeller.
- Mataja, V. (1888). *Das Recht des Schadensersatzes vom Standpunkte der Nationalökonomie*. Leipzig: Dunker and Humblot.
- Mataja, V. (1916). *Die Reklame: Eine Untersuchung über Ankündigungswesen und Werbetätigkeit im Geschäftsleben*. 2nd. Dunker und Humblot: München.

- Mazzucato, M. (2013). *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. London: Anthem Press.
- Mazzucato, M. (2021). *Mission Economy: A Moonshot Guide to Changing Capitalism*. New York: Harper Business.
- McCaffrey, M. (2014). “On the theory of entrepreneurial incentives and alertness”. *Entrepreneurship Theory and Practice*. 38(4): 891–911.
- McCaffrey, M. (2015). “Economic policy and entrepreneurship: Alertness or judgment?” In: *The Next Generation of Austrian Economics: Essays in Honor of Joseph T. Salerno*. Ed. by P. Bylund and D. Howden. Auburn, AL: Ludwig von Mises Institute. 183–199.
- McCaffrey, M. (2016). “Good judgment, good luck: Frank Fetter’s neglected theory of entrepreneurship”. *Review of Political Economy*. 28(4): 504–522.
- McCaffrey, M. (2018). “Economic calculation and the limits of social entrepreneurship”. In: *The Economic Theory of Costs: Foundations and New Directions*. Ed. by M. McCaffrey. Abingdon, UK: Routledge. 243–263.
- McCaffrey, M. (2019). “Pure theory and progressive liberalism: Frank Fetter and the Austrian economists”. *Journal of Institutional Economics*. 15(3): 469–486.
- McCaffrey, M., N. J. Foss, P. G. Klein, and J. T. Salerno (2023). “Breaking out of the Kirznerian box: A reply to sautet”. *Review of Austrian Economics*. 36(3): 461–481.
- McCaffrey, M. and J. T. Salerno (2011). “A theory of political entrepreneurship”. *Modern Economy*. 2(4): 552–560.
- McCaffrey, M. and J. T. Salerno (2014). “Böhm-Bawerk’s approach to entrepreneurship”. *Journal of the History of Economic Thought*. 36(4): 435–454.
- McMullen, J. S. (2015). “Entrepreneurial judgment as emphatic accuracy: A sequential decision-making approach to entrepreneurial action”. *Journal of Institutional Economics*. 11(3): 651–681.
- McMullen, J. S. and D. A. Shepherd (2006). “Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur”. *Academy of Management Review*. 31(1): 132–152.

- Menger, C. [1903] (2022). “An interview with Carl Menger”. In: *Carl Menger, a Public Engaged Intellectual, and Five Translations of His Newspaper Articles*. Ed. by R. Cubeddu and M. Menon. Vol. 10 (5and6). Cosmos + Taxis. 7–23.
- Menger, C. (1994). *Principles of Economics*. Grove City, PA: Libertarian Press.
- Menger, C. (2016). “The social theories of classical political economy and modern economic policy”. *Cosmos + Taxis*. 13(3): 473–488.
- Mises, L. v. (1944). *Bureaucracy*. New Haven, CT: Yale University Press.
- Mises, L. v. (1998). *Human Action Scholar’s Edition*. Auburn, AL: Ludwig von Mises Institute.
- Mises, L. v. (2007). *Profit and Loss*. Auburn, AL: Ludwig von Mises Institute.
- Mises, L. v. (2009). *Memoirs*. Auburn, AL: Ludwig von Mises Institute.
- Mises, R. v. (1939). *Probability, Statistics and Truth*. New York: Dover Publications.
- Mitchell, W. C. (1969). *Types of Economic Theory: From Mercantilism to Institutionalism*. Ed. by J. Dorfman. Vol. 2. New York: Augustus M. Kelley.
- Möller, U. and M. McCaffrey (2021). “Levels without bosses? Entrepreneurship and valve’s organizational design”. In: *The Invisible Hand in Virtual Worlds: The Economic Order of Video Games*. Ed. by M. McCaffrey. Cambridge: Cambridge University Press. 211–240.
- Möller, U. and M. McCaffrey (2023). “Entrepreneurship and firm strategy: Integrating resources, capabilities, and judgment through an Austrian framework”. *Entrepreneurship Research Journal*. 13(4): 997–1031.
- Nee, V. (1998). “Sources of the new institutionalism”. In: *The New Institutionalism in Sociology*. Ed. by M. C. Brinton and V. Nee. New York: Russell Sage Foundation. 1–16.
- Newman, P. (2021). *Cronyism: Liberty versus Power in Early America*. Auburn, Ala: Ludwig von Mises Institute.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. C. (1991). “Institutions”. *Journal of Economic Perspectives*. 5(1): 97–112.



- Packard, M. D. (2017). "Where did interpretivism go in the theory of entrepreneurship?" *Journal of Business Venturing*. 32(5): 536–549.
- Packard, M. D., P. L. Bylund, and B. B. Clark (2021). "Keynes and Knight on uncertainty: Peas in a pod or chalk and cheese?" *Cambridge Journal of Economics*. 45(5): 1099–1125.
- Packard, M. D., B. B. Clark, and P. G. Klein (2017). "Uncertainty types and transitions in the entrepreneurial process". *Organization Science*. 28(5): 840–856.
- Pribram, K. (1983). *A History of Economic Reasoning*. Baltimore: Johns Hopkins University Press.
- Rapp, D. J. and M. Olbrich (2023). "From knightian uncertainty to real-structuredness: Further opening the judgment black box". *Strategic Entrepreneurship Journal*. 17(1): 186–209.
- Ricketts, M. (1987a). *The New Industrial Economics: An Introduction to Modern Theories of the Firm*. New York: St. Martin's Press.
- Ricketts, M. (1987b). "Rent seeking, entrepreneurship, subjectivism, and property rights". *Journal of Institutional and Theoretical Economics*. 143(3): 457–466.
- Ricketts, M. (1990). "How important is the discovery element?" *Journal des Economistes et des Etudies Humaines*. 1(2): 179–182.
- Ricketts, M. (1992). "Kirzner's theory of entrepreneurship—a critique". In: *Austrian Economics: Tensions and New Directions*. Ed. by B. J. Caldwell and S. Boehm. Boston: Kluwer Academic Publishers. 67–84.
- Ricketts, M. (2006). "Theories of entrepreneurship: Historical development and critical assessment". In: *The Oxford Handbook of Entrepreneurship*. Ed. by A. Basu, M. Casson, N. Wadeson, and B. Yeung. Oxford: Oxford University Press. 33–58.
- Ricketts, M. (2010). "Israel Kirzner on coordination and discovery: A comment". *Journal of Private Enterprise*. 25(2): 129–143.
- Rothbard, M. N. (1974). "Review of *Competition and Entrepreneurship* by Israel M Kirzner". *Journal of Economic Literature*. 12(3:20): 902–904.
- Rothbard, M. N. (1977). "Introduction". In: *Capital, Interest, and Rent: Essays in the Theory of Distribution*. Menlo Park, CA: Institute for Humane Studies. 1–23.

- Rothbard, M. N. (1985). "Professor Hébert on entrepreneurship". *Journal of Libertarian Studies*. 7(2): 281–286.
- Rothbard, M. N. (1987). "Breaking out of the Walrasian box: The cases of Schumpeter and Hansen". *Review of Austrian Economics*. 1(1): 97–108.
- Rothbard, M. N. (2004). *Man, Economy, and State Scholar's Edition*. Auburn, AL: Ludwig von Mises Institute.
- Saebi, T., N. J. Foss, and S. Linder (2019). "Social entrepreneurship research: Past achievements and future promises". *Journal of Management*. 45(1): 70–95.
- Salerno, J. T. (2008a). "Böhm-Bawerk's vision of the capitalist economic process: Intellectual influences and conceptual foundations". *New Perspectives on Political Economy*. 4(2): 87–112.
- Salerno, J. T. (2008b). "The entrepreneur: Real and imagined". *Quarterly Journal of Austrian Economics*. 11(3): 188–207.
- Salerno, J. T. (1990a). "Ludwig von Mises as social rationalist". *Review of Austrian Economics*. 4(1): 26–54.
- Salerno, J. T. (1990b). "Postscript: Why a socialist economy is 'Impossible'". In: *Economic Calculation in the Socialist Commonwealth*. Auburn, AL: The Ludwig von Mises Institute.
- Salerno, J. T. (1999a). *Carl Menger: The founding of the Austrian school, 15 great Austrian economists*. Ed. by R. G. Holcombe. Auburn, AL: Ludwig von Mises Institute. 71–100.
- Salerno, J. T. (1999b). "The place of Mises's human action in the development of modern economic thought". *Quarterly Journal of Austrian Economics*. 2(1): 35–65.
- Salerno, J. T. (1980). *The Doctrinal Antecedents of the Monetary Approach to the Balance of Payments*. Rutgers University.
- Salerno, J. T. (1991). "The concept of coordination in Austrian macroeconomics". In: *Austrian Economics: Perspectives on the Past and Prospects for the Future*. Ed. by R. M. Ebeling. Auburn, AL: Ludwig von Mises Institute. 325–343.
- Salerno, J. T. (1993). "Mises and Hayek dehomogenized". *Review of Austrian Economics*. 6(2): 113–146.
- Salerno, J. T. (2010). *Money: Sound and Unsound*. Auburn, AL: Ludwig von Mises Institute.

- Salerno, J. T. (2018). "Are ownership rent and pure profit separate returns to the entrepreneur?" *Quarterly Journal of Austrian Economics*. 21(3): 193–208.
- Salerno, J. T., C. E. Dorobat, and K. F. Israel (2020). "Two views on neutral money: Wieser and Hayek versus Menger and mises". *European Journal of the History of Economic Thought*. 27(5): 682–711.
- Samuels, W. J. (1983). "The influence of Friedrich von Wieser on Joseph A Schumpeter". *History of Economics Society Bulletin*. 4(2): 5–19.
- Sautet, F. (2000). *An Entrepreneurial Theory of the Firm*. London: Routledge.
- Sautet, F. (2002). "Kirznerian economics: Some policy implications and issues". *Journal des Economistes et des Etudes Humaines*. 12(1): 131–151.
- Sautet, F. (2018). "The battle for the essence of entrepreneurship: A review essay on Nicolai Foss and Peter Klein's *Organizing Entrepreneurial Judgment: A New Approach to the Firm*". *Review of Austrian Economics*. 31(1): 123–139.
- Schulak, E. M. and H. Unterköfler (2011). *The Austrian School of Economics: A History of its Ideas, Ambassadors, and Institutions*. Auburn, AL: Ludwig von Mises Institute.
- Schumpeter, J. A. [1934] (1949). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, Mass: Harvard University Press.
- Schumpeter, J. A. [1950] (2003). *Capitalism, Socialism, and Democracy*. 3rd. London: Routledge.
- Schumpeter, J. A. (1908). *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*. Duncker and Humblot.
- Schumpeter, J. A. (1954). *History of Economic Analysis*. New York: Oxford University Press.
- Schumpeter, J. A. (1989). "Economic theory and entrepreneurial history". In: *Essays on Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism*. Ed. by V. C. Richard. New Brunswick, NJ: Transaction. 253–271.
- Scott, W. R. (1995). *Institutions and Organizations*. Thousand Oaks, CA: Sage.

- Seelos, C. and J. Mair (2005). "Social entrepreneurship: Creating new business models to serve the poor". *Business Horizons*. 48(3): 241–246.
- Selgin, G. A. (1987). "Praxeology and understanding: An analysis of the controversy in Austrian economics". *Review of Austrian Economics*. 2: 19–58.
- Shane, S. A. (2003). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Cheltenham, UK: Edward Elgar Publishing.
- Streissler, E. W. and M. Streissler (eds.). (1994). In: *Carl Menger's Lectures to Crown Prince Rudolf of Austria*. Ed. by E. W. Streissler, M. Streissler, M. Streissler Trans., and D. F. Good. Cheltenham UK: Edward Elgar.
- Topan, M. V. (2012). "A note on Rothbardian decision-making rents". *Quarterly Journal of Austrian Economics*. 15(1): 75–88.
- Wennberg, K. and C. Sandström (eds.) (2022). *Questioning the Entrepreneurial State: Status-Quo, Pitfalls, and the Need for Credible Innovation Policy*. New York: Springer.
- Wieser, F. v [1914] (1927). In: *Social Economics*. Ed. by A. F. Hinrichs Trans. London: George Allen and Unwin.
- Wieser, F. v [1926] (1983). In: *The Law of Power*. Ed. by W. E. Kuhn Trans. University of Nebraska-Lincoln: Bureau of Business Research.
- Wieser, F. v. (1893). In: *Natural Value*. Ed. by C. A. Malloch Trans. London: Macmillan and Co.
- Williamson, O. E. (2000). "The new institutional economics: Taking stock, looking ahead". *Journal of Economic Literature*. 38(3): 595–613.
- Witt, U. (1998). "Imagination and leadership: The neglected dimension of an evolutionary theory of the firm". *Journal of Economic Behavior & Organization*. 35(2): 161–177.
- Yu, T. F.-L. (1999). "Toward a praxeological theory of the firm". *Review of Austrian Economics*. 12(1): 25–41.