D'Andrea, Fernando M. 2024. "Man of Action: Murray N. Rothbard's Contributions to the Theory of Entrepreneurship." *Quarterly Journal of Austrian Economics* 27 (2). https://doi.org/10.35297/001c.117692.

ARTICLES

Man of Action: Murray N. Rothbard's Contributions to the Theory of Entrepreneurship

Fernando M D'Andrea[1][a]

[1] O'Malley College of Business, Embry–Riddle Aeronautical University

Keywords: Rothbard, Entrepreneurship, Kirzner, Judgment, Uncertainty, Profit

https://doi.org/10.35297/001c.117692

Quarterly Journal of Austrian Economics

Vol. 27, Issue 2, 2024

Even though entrepreneurship underlies Rothbard's economic theorizing, his contributions to this topic are spread among many writings. This paper traces a comprehensive idea of Rothbard's "Man of Action," the capitalist-entrepreneur in the causal-realist tradition of the Austrian School, organizing his thinking. Rothbard defines the entrepreneur as the economic agent who judges at the present about the future and directs production processes by controlling and allocating productive resources in search for profit. By organizing his ideas, I demonstrate how they differ from arguably similar approaches—notably Kirzner's and Schumpeter's—and argue that his strand of theorizing is the one in line with praxeology in the lineage of Menger, Böhm-Bawerk and Mises. I show that his contributions influenced others and are reflected in contemporaneous developments in both causal-realist and mainstream discussions. To close, I suggest how to use his ideas to continue to advance the theoretical understanding of the engine of the market process.

Austrian economists have always dealt with entrepreneurship. Viktor Mataja, a student of Carl Menger, published the first standalone theoretical treatment of the entrepreneur, *Der Unternehmergewinn: Ein Beitrag zur Lehre von der Gütervertheilung in der Volkswirthschaft* (Entrepreneurial profit: A contribution to the doctrine of distribution of goods in the national economy) in 1884.[1] Joseph Schumpeter, influenced early on by the Austrians, also dealt extensively with entrepreneurship in his *Theorie der wirtschaftlichen Entwicklung*, published in 1911.[2] However, the book's second and best-known edition, published in English in 1934 as *The Theory of Economic Development* (Schumpeter 1983), downplays most of the Mengerian discussions that were present in the first edition (Becker and Knudsen 2002). Ludwig von Mises also dealt with the entrepreneur—in an indirect manner in "Economic Calculation in the Socialist Commonwealth" (Mises 1935), and more directly in his 1952 essay "Profit and Loss" (Mises 2008). Chapters in

a Fernando A. M. C. D'Andrea (Fernando.DAndrea@erau.edu) is assistant professor of entrepreneurship at Embry-Riddle Aeronautical University in Daytona Beach, Florida.

1 Written in German, the book remains untranslated (see Möller and McCaffrey 2023, 999–1000).

2 Along similar lines, Frank Knight's (1921) *Risk, Uncertainty, and Profit*, albeit not directly associated with the Austrian school, also emphasized the entrepreneurial function.

both Mises's (1998, esp. chap. 15, pts. 8 and 9) *Human Action*, published in 1949, and Murray Rothbard's (2009, esp. chap. 8) *Man, Economy, and State*, published in 1962, also deal extensively with the entrepreneurial function.

Israel Kirzner (1973) built upon Mises's developments to engage in a debate with the mainstream of the economic profession at the time. He placed entrepreneurship at the forefront of the equilibrating market process. Many others, both within and outside the causal-realist tradition, have theorized on the topic (e.g., Bylund 2016; Casson 2003; N. Foss and Klein 2012; Hébert and Link 2006). More recently, entrepreneurship ideas from important Austrians such as Menger (Campagnolo 2022; Campagnolo and Vivel 2014), Eugen von Böhm-Bawerk (Campagnolo and Vivel 2014; McCaffrey and Salerno 2014), F. A. Hayek (Ebner 2005; Kirzner 2018; cf. Hayek 1945), and Ludwig Lachmann (Horwitz 2019) have been systematized in standalone papers. But Mises's (1935; see also Bylund 2020a) and Rothbard's ideas remain spread throughout their writings.

Rothbard's writings often mention the entrepreneur (e.g., Rothbard 1991, 56; 1994, 559; 2011, 174). He also deals with entrepreneurship more specifically a few times (Rothbard 1974, 1985, 2009, chap. 8). While Rothbard's writings on entrepreneurship can in part be considered restatements and clarifications of Mises's due to the latter's "uncharacteristic lack of clarity" on the matter (Rothbard 1985, 284), this collection of Rothbard's developments will help the interested reader in several ways. First, the clarification of Mises's ideas is helpful to those wishing to better understand Rothbard and Mises. Second, Rothbard offers some important original contributions that advance Mises's theorizing. And third, because of the influence Rothbard gained within and beyond Austrian circles through his students (Bylund 2016, 2020b; Foss and Klein 2012, 2017; Klein and Bylund 2014; McCaffrey 2015, 2018; Salerno 2008), both Austrians and mainstream scholars (cf. Alvarez, Audretsch, and Link 2016; Townsend et al. 2018) will benefit from a single work that organizes his ideas. Finally, collecting and presenting Rothbard's ideas on entrepreneurship allows me to suggest how they may be used to continue the development of theory.

To execute this task, I made a comprehensive search of Rothbard's writings. In this search, I included his comments on other theoretical approaches and on the Austrian school (Rothbard 1987, 1990, 2011); his book reviews (Rothbard 1974, 1985, 1994, 1997); and contributions of others that clarify his ideas (Boettke and Coyne 2004; Gordon 2019; Salerno 2009, 2008). I then constructed the most complete account of Rothbard's contributions to entrepreneurship theory to date, structuring his thinking by major themes, thus facilitating understanding of his approach, ideas, and nuances.

My scholarship positions Rothbard as an important developer of causal-realist ideas about entrepreneurship and as a contributor to current theoretical developments both within and outside causal-realist circles.

Additionally, this article provides a starting point for future research to (a) clarify the microfoundations of a theory of entrepreneurial organization; (b) clarify the differences between (market) entrepreneurs and political or institutional entrepreneurs (e.g., Elert and Henrekson 2017; McCaffrey and Salerno 2011); (c) facilitate discussion on the cluster of entrepreneurial errors that occurs in the boom phase of the business cycle; and (d) clarify the debate on how to deal with different types of publicly traded companies' stock owners in the theory of entrepreneurship.

The work is organized as follows: I first deal with the main characteristics of the entrepreneur in Rothbard's writing. I then talk about his explanation of profits, losses, rents, costs, and interest and briefly summarize his original contributions. I go on to present Rothbard's analysis of other authors and conclude with comments and suggestions for further development of theory.

The Entrepreneur and the Market

A large part of Rothbard's contributions to the topic of entrepreneurship is aimed at clarifying earlier statements by Mises (e.g., 1935, 1998). Rothbard (2009, 64–65) builds upon these accounts and recognizes that all human action has entrepreneurial aspects. He then asserts that a narrower definition of entrepreneurship is necessary for economic analysis and postulates that in this narrower definition, entrepreneurship is an economic function. He defines entrepreneurship as the "process of forecasting the future conditions that will occur during the course of [the entrepreneur's] action" and states that the entrepreneur is the agent who shapes production, conceiving "the entrepreneurial function . . . as presupposing the ownership of property, specifically capital" (Rothbard 1985, 282). For Rothbard, the "act of entrepreneurship" (2009, 64) consists in the fact that the entrepreneur must predict what will happen in the time between his actions and their outcomes and use resources accordingly. He specifies that entrepreneurship is "production for the market" (2009, 158).

Rothbard says that all agents who invest resources in a productive endeavor—any endeavor that leaves the product closer to consumption—are putting resources to use today and anticipating/speculating on a future revenue. This implies that all investors become entrepreneurs (Rothbard 2009, 211, 509). Thus, the distinction between entrepreneur and capitalist (the agent who advances money for an entrepreneurial venture, also called an investor) is only theoretically possible, having no practical effect and no real-world existence. For Rothbard, in the real world, the economic functions of the two abstract entities, the entrepreneur and the capitalist, are integrated in the same concrete agent, the capitalist-entrepreneur[3] (Salerno

3 In this article, I sometimes use only the term "entrepreneur" to refer to the capitalist-entrepreneur. Whenever this is not the case, and I am referring to a different economic agent, it will be noted in the text.

2009, xxxvi). This term was originally coined by Böhm-Bawerk (1890) to define the economic agent who organizes and directs production processes aimed at fulfilling future market demands (Salerno 2008, 204). Böhm-Bawerk—and Rothbard following him—chooses to use this term to emphasize the connection between theory and real-world manifestations of the economic function, and thus also avoiding confusion that may emerge from the theoretical separation of these two functions (see Mises 1998, chap. 14, esp. pt. 7). The real-world impossibility of the theoretical separation is the focus of Rothbard's critique of Kirzner's entrepreneur, as discussed below.

Rothbard also builds on Ludwig Lachmann (1956) to say that "the driving force in shaping the actual structure and patterns of production in the market economy, are the capitalist-entrepreneurs, the ones who commit and risk their capital in deciding when, what, and how much to produce" (Rothbard 1985, 282).[4] Using this definition, Rothbard (2009, 509–55) clarifies that (a) entrepreneurs are at the center and must guide all production processes and (b) the capitalist-entrepreneur is the most important manifestation of entrepreneurship (Rothbard 2009, 509; Salerno 2009, xxvii).

Rothbard states that success or failure of entrepreneurship is time dependent and can only be evaluated ex post. For him, successful entrepreneurs are commonly correct in their predictions about the future, which allows them to reap financial profits, while entrepreneurs who fail do so because they err in their predictions and thus in their investment decisions in the present, leading to financial losses (Rothbard 2009, 64–65; 2011, 173).

Entrepreneurs in the ERE

The evenly rotating economy (ERE) is an imaginary construct initially introduced by Mises (1998, chap. 14) to facilitate the study of economics. Rothbard (2009, chap. 5, pt. 2) explains the ERE and uses it as a fundamental tool to theorize about entrepreneurship. In short, the ERE is a theoretical abstraction in which value scales, technologies, and original resources remain unchanged. In this state, action persists, but the economy "rotates" because there is no reason to change previous decisions; the dynamism of the market process that brings uncertainty disappears (see also Elias et al. 2020 for a comparison between the ERE and other equilibrium and equilibrium-like constructs). Rothbard (2009, 356, 510), possibly misunderstanding Mises (1998, 246), says that markets tend toward the ERE but never reach it.[5]

---

4 Among other actions, buying for consumption *is* entrepreneurship in the broad sense. But this type of action implies foreseeing only one's own future wants. Buying for production is much harder. It implies predicting *others'* future valuations. In addition, timing also matters: the further in time consumption is from production, the harder it becomes to predict future valuation. The longer the production process is, the easier it is to recognize this difficulty.

5 In this point, Rothbard (2009, 510) seems to confuse the ERE with the Misesian final state of rest (FSR)—defined as an imaginary state in which the market would have reached a point of no-action because all attainable ends had been attained, thus all the cause for action disappears (Mises 1998, 246). When dealing with the entrepreneur in *Man, Economy and State*, Rothbard does not mention the FSR. Thanks to one of the reviewers to pointing this inconsistency.

Rothbard uses the ERE to separate economic functions (and their derived sources of income) and investigate which of these theoretically possible functions (and their consequent rewards) persists in the ERE. Consequently, it is through using this tool that he both clarifies Mises and offers a theoretical definition of the entrepreneur.

Using the ERE, Rothbard (2009, 602) identifies four sources of income to the entrepreneur—managerial payment, return on capital, entrepreneurial rent, and pure profit—and states that the first two, respectively derived from managerial work and capital investment, remain in the ERE. He adds that the "decision-making" or "ownership" function related to ultimate responsibility over hiring services and means of production, over the resources, over the production process, and over the property of goods produced cannot be transferred to hired personnel (Salerno 2008, 204). This is the theoretical role of the capitalist (Rothbard 2009, 332–33, 349) and generates entrepreneurial rent, which also remains in the ERE. This entrepreneurial rent, or rate of return, is the pure ratio of exchange between present and future goods. Because there is no uncertainty in the ERE, there is no premium for bearing uncertainty. The rate of return is the pure interest rate and is uniform and constant throughout all lines of production in all periods (Rothbard 2009, 351). Lastly, pure profit, the return to the entrepreneur for bearing uncertainty, corresponds to returns higher than the interest rate, but again, in the ERE there is no uncertainty and thus no return higher than the interest rate. Therefore, it is impossible to have entrepreneurial profit in the ERE. Consequently, pure profit is the part of the return to the entrepreneur that *disappears* in the ERE (Rothbard 2009, 457).

The analysis of the four sources of entrepreneurial income is probably the major clarification Rothbard made about Mises's contributions. Although in reality it is impossible to detach these four sources from one another (Rothbard 2009, 415), this analysis allows Rothbard to postulate that bearing uncertainty *is what theoretically defines* the real-world entrepreneur. He then defines entrepreneurship as the act of bearing uncertainty in the carrying out of production processes aimed at producing goods or services to be exchanged in the market for profit (Rothbard 2009, 434; 2011, 173).

The Rothbardian Entrepreneur: Beyond the ERE

Rothbard (2011, 173–74) says that the entrepreneur faces "the world emphatically knowing some things about his world and not knowing others" (cf. McMullen 2015). For example, he knows that if the quantity of money increases and the quantity of goods stays the same, nominal prices will rise. However, he does not know exactly when or by how much every single price will rise. He also does not perfectly know the future demand for his product, who his future competitors will be, or how much people will (if ever) be willing to pay for his product. This means that the entrepreneur can foresee some characteristics of future markets and have minimal possibility of predicting others. Thus, Rothbard sees the future as imaginable to a reasonably certain extent. Therefore, to bear uncertainty, the entrepreneur must know a great deal about the market he is interested in (Rothbard 2011, 177; 1988); this includes but is not limited to knowledge about prices—including salaries, rents, and interest rates. At the same time, qualitative information not present in prices is also needed in the decision-making process, and this information is also found in the market.

Building again on Mises, Rothbard emphasizes that without prices, rational calculation is impossible. Calculation can only happen when a genuine price system, based on the possibility of the exchange of resources among private agents, exists for the means of production (Rothbard 2011, 188; see also Mises 1935). If this is not the case, the allocation of resources to their most valuable present uses, in accordance with what the entrepreneur believes consumers will value in the future, becomes impossible. The importance of calculation is also demonstrated in Rothbard's (2009, 609–16) discussion of the impossibility of a socialist economy. There he expands on Mises (1935) and suggests that total vertical integration, even under private management, would make economic calculation impossible. In such an arrangement, there would be no way of knowing which parts of the production chain are profitable. It would also be impossible to judge the opportunity costs associated with other investment possibilities (see Boettke and Coyne 2004; Klein 1996).[6]

But in addition to the information that comes from a genuine price system, Rothbard writes, entrepreneurs possess (or at least believe they possess) qualitative knowledge that is useful to their endeavor. Among other things, they believe they know what kind of consumer will be served, what products will be demanded, where to find raw materials, and how to transform them. The knowledge that comes from the price system is necessary but *insufficient*; it is not the only source of entrepreneurial knowledge (Rothbard 2011, 179). Qualitative knowledge, which is *not* contained in prices, is also essential to economic calculation and entrepreneurial action (Rothbard 2011, 188).

Furthermore, because entrepreneurship is "production for the market" (Rothbard 2009, 158), the capitalist-entrepreneur must estimate, to the best of his knowledge and using the means he deems most appropriate, a somewhat precise prediction of the demand for and the future prices of the goods he wants to offer. In essence, the agent needs to try to foresee the future valuations of other agents, including potential future consumers and other entrepreneurs (Rothbard 1988; see also McMullen 2015). In this process, the quality of entrepreneurial judgment that leads to greater accuracy of predictions is fundamental (Rothbard 2009, 509).

6 I thank an anonymous reviewer for suggesting this important point.

Capitalist-entrepreneurs bear uncertainty with the purpose of profiting (Rothbard 1988, 10). As Rothbard (2009, 604) explains, because they bear uncertainty, they are the only economic agents capable of incurring losses—or negative incomes in production—which draws a sharp difference between them and other economic agents, such as public and private employees.

The capital allocation function is exercised exclusively by capitalist-entrepreneurs (Rothbard 1991, 58). This entails acquiring capital goods, or their services in the present, and allocating them to production processes, while the selling of the resulting goods occurs in the future. An example of the capital allocation function occurs when creating or finding an investment one believes to be profitable; this is an entrepreneurial task (Rothbard 1988). It can be done by opening one's own business or—and probably more easily—by becoming a partner in an already established firm. The agent can rely on specialized institutions to inform him about possible investments and can choose among different investing channels (Rothbard 2009, 440). Nevertheless, the decision of whether, where, when, how, and how much to invest remains with the agent. He needs to estimate future gains and decide if the inherent uncertainty (and the possibility of losing at least part of the invested resources) is worth the capital allocation (Rothbard 2009, 509).

In this sense, in the Rothbardian system, corporate capitalists (stockholders of *all* sizes) assume the entrepreneurial function and become responsible for guiding the production processes in the companies where they own shares. Managers in those organizations exercise power, using derived judgment, as long as the entrepreneur allows them to (cf. K. Foss, N. Foss, and Klein 2007). If the stockholder is not satisfied, he can fire the manager(s). This is the case even if the stockholder has no power to change management, because he can sell his participation, getting rid of his ownership rights and thus essentially "firing" the manager while releasing himself from bearing uncertainty.[7] In both cases, whether the entrepreneur is directly managing or is using a manager, residual judgment must be *exercised by the entrepreneur* (Rothbard 2009, 434–35; see also N. Foss and Klein 2012). Along similar lines, the individual can observe a company whose value he believes to be currently lower than it should be. By becoming a partner, he becomes an entrepreneur. If the value of the company rises,[8] he will have demonstrated his entrepreneurial wisdom to direct capital (Rothbard 2009, 1175) and will be compensated with profit.

7 By choosing cash instead of ownership in the firm, the individual is choosing the certainty of money against the uncertainty of possible future business results (Ammous and D'Andrea 2022).

8 Rothbard was discussing not speculative stock market activities, but the activity of the entrepreneur who judges the value of a company by its capacity of satisfying future consumer demand in exchange for money. The discussion on whether to classify stock traders as entrepreneurs in the context of the firms in which they currently own stocks remains open.

Further, the capitalist-entrepreneur, while bearing the business's uncertainty, spares his wage-earning workers from that burden. By hiring workers, the entrepreneur buys their uncertainty. Instead of waiting for the goods they contribute to be sold before being able to benefit (as entrepreneurs do), employees get paid and, thus, benefit immediately from their work. This payment occurs regardless of the results of the venture (Rothbard 2009, 1314).[9] Also, by supplying tools, entrepreneurs improve workers' productivity, increasing their scarcity compared to other productive factors, leading to higher salaries (Rothbard 2009, 578).

In short, entrepreneurship is about adjusting to the uncertainty of future market conditions (Rothbard 2009, 858) and releasing workers from this task. Capitalist-entrepreneurs possess quantitative (price) and qualitative knowledge. They are active, they bear uncertainty, and they use resources to try to build the future they imagine. They are "the driving force of the economy, . . . those who own or partially own capital resources and risk them in projects hoping for future returns" (Rothbard 2011, 179).

Profit, Loss, Rents, Interest, and Costs

The end goal of entrepreneurship is profit (Rothbard 1988). The capitalist-entrepreneur provides speculative resources to factors of production, believing that he will recover those resources—not only adjusted by the interest rates derived from time preference, but also added to the entrepreneurial profit (Rothbard 2009, 355). Entrepreneurial rents, derived from property and decision-making, and pure profit (Rothbard 2009, 604; Salerno 2009, xliv) are what producers look for in their productive processes (Rothbard 2009, 298). As mentioned before, Rothbard demonstrates that these two are different from and complementary to management salary and return on capital.[10]

When the same individual occupies all four theoretical positions in the same firm at the same time, these sources of revenue will be collected by the same agent, the entrepreneur (Salerno 2008, 204). His total revenue will be a mix of those four factors, which, as previously discussed, are likely impossible to separate in reality. In addition, profits must be understood as *economic profits*; as a consequence, total entrepreneurial return must be higher than the pure interest rate. When the return is *lower* than the pure interest rate, the entrepreneur incurs economic loss (Rothbard 2009, 354, 513).

9 Similar reasoning can be used to analyze capital owners that rent their capital for fixed return.

10 A debate between Mihai Topan (2012) and Joseph Salerno (2018) discusses whether entrepreneurial rents can and should be separated from pure profit. I thank an anonymous reviewer for pointing this out.

Rothbard also uses another perspective to explain profit. He says that profit occurs when the production factors chosen by the entrepreneur were underpriced (if unit services were bought) or undercapitalized (if factors were bought) (Rothbard 2009, 510). In either of these cases, the market expectations about these economic goods' capacity for generating future rents were lower than they should have been. The entrepreneur found this misallocation/underestimation and relocated productive resources from other production chains to where these resources were better capable of generating revenue. According to this way of theorizing, profits are the prize the entrepreneur gets for his capacity to reorganize production processes according to the future demand he foresees (Rothbard 2009, 510). If, on the other hand, the entrepreneur overprices, or overcapitalizes, the assets he chooses to allocate, he will incur losses (Rothbard 2009, 513).

In the ERE, because there is no uncertainty, both over—and undercapitalization are impossible. This again demonstrates that profit and loss cannot exist in that imaginary construction (Rothbard 2009, 513). In the real world, profit generation is a self-regulating process. When an entrepreneur bids for the means of production, he thereby increases the demand for these resources, starting the process of reducing his own profits. The demand is increased even further, and thus the prices for the resources, when other entrepreneurs compete for the same productive factors.

By bearing uncertainty, the entrepreneur transforms the risk into a cost of operating the business (Rothbard 2009, 555). This is done when he relocates resources to serve on lines of production that he believes will be more highly positioned in consumers' value scales and, consequently, consumers will pay more for. Rothbard (2009, 511) writes that the entrepreneur "detected that the factors' prices did not adequately reflect their potential discounted marginal value products (DMVP); by bidding for, and hiring, these factors, he was able to allocate them from production of lower DMVP to production of higher DMVP." More simply, profits are the flip side to *the increase* in entrepreneurial capital, while losses reflect *a reduction* in capital (Rothbard 1985, 282).

Rothbard (2009, 513) finds that it is a grave mistake to exclusively consider the possibility of profits in entrepreneurship, as losses are fundamental to understanding the market process. Both matter in the economy (see the discussion on Kirzner below). Profits indicate that misallocations in the market process are being met by the entrepreneur. Losses indicate the opposite, that entrepreneurial action is increasing the amount (and depth) of misallocations. The greater the profit, the more the entrepreneur is adjusting the structure of production; the greater the loss, the more he is disorganizing the same structure (Rothbard 2009, 514–15). Further, entrepreneurs who consistently lose will be expelled from the entrepreneurial market and will go back to being wage earners (Rothbard 2009, 515).

In addition, all other things being equal, financial profit, measured in money and used in economic calculation, prevails in entrepreneurial decision-making. But Rothbard (2009, 509) strongly defends the proposition that the total profit is formed by both financial and psychic (or subjective) parts. Psychic profit is the agent's perception of an improvement that came from his action. This improvement cannot be measured by an external agent; it is fully subjective. In commercial ventures, the entrepreneur collects both parts of the profit—the financial and the psychic (see also Mises 1998, 286–91). Consequently, the way entrepreneurs deal with profit and its distinct parts is dependent upon each individual's value scale at every given time (Rothbard 2009, 212).

If the entrepreneur chooses to abstain from part of the possible financial profit to look for nonmonetary gains (e.g., for more leisure time), he is acting as a consumer and putting his personal will ahead of his consumers'. To Rothbard this suggests that consumers do not directly guide the market, but do so subject to the value scale of the entrepreneur. Thus, he considers the term "consumer sovereignty" a metaphorical abuse that should be avoided: "In a purely free society, each individual is sovereign over his own person and property, and it is therefore this self-sovereignty which obtains on the free market. No one is 'sovereign' over anyone else's actions or exchanges. Since the consumers do not have the power to coerce producers into various occupations and work, the former are not 'sovereign' over the latter" (Rothbard 2009, 630).

Another issue is that entrepreneurial activity impacts the natural interest rate. This materializes in a tendency to push that rate to the same uniform point in all markets, at all times (Rothbard 2011, 183). Thus, Rothbard (2009, 445) states that in an intervention-free market, interest rates tend toward uniformity, without achieving it (Rothbard 2009, 372).

Finally, Rothbard follows Friedrich von Wieser (1891) on imputation, suggesting that costs are determined by the future valuation of final products as foreseen by the entrepreneur. Money prices are a function of demand for goods, which is a function of the subjective consumer valuation of these same goods at the time of exchange (Rothbard 2009, 356). It is the role of the entrepreneur to anticipate the price he will be able to charge for his goods. Only after having done so can the entrepreneur determine what costs he can incur in production.

In Rothbard, profits *and* losses are fundamental to the market process; rents (including interest rates) tend toward an equilibrium that is never reached. Expected future prices guide the entrepreneurial organization of production, and costs depend on the entrepreneur's perception of consumers' future valuations.

Applying Theory: Booms and the Cluster of Entrepreneurial Errors

Building upon theoretical developments, Rothbard looks at how entrepreneurs would react in the real world. In particular, he is interested in explaining what happens to entrepreneurs during the phases of a business cycle. He uses part of his discussion on the US Great Depression to elaborate on how macroeconomic developments influence entrepreneurial action.

Rothbard (2000) explains how so many entrepreneurs, even acting in different industries, commit a similar mistake at the same time, leading to simultaneous losses when a bubble bursts. A less careful reading of Rothbard would suggest that the existence of such a cluster of errors would invalidate the entrepreneurship theory Rothbard helped to build; after all, entrepreneurs should be specialists in foreseeing the future. This is, in fact, the approach taken by the rational expectations theorists (e.g., Evans and Baxendale 2008). In this tradition, because entrepreneurs should specialize in foreseeing the future, it would be contradictory for many of them to err at the same time (see, e.g., Cowen 1997; Wagner 1999). A careful reading of Rothbard, however, clarifies that the cluster of errors occurs because the entrepreneurs have been *misled* by monetary policy (see also Engelhardt 2012). Entrepreneurs acquire knowledge in and of the market, as previously discussed, but they cannot specialize in scrutinizing every single aspect of the knowledge they acquire. They use the price system as a communication mechanism (cf. Hayek 1945) and will not necessarily distrust the information that comes from it (cf. D'Andrea 2023).

In particular, Rothbard (2000, 9–14) shows that credit expansion reduces the interest rate for loans. This reduction misleads agents into thinking that the availability of investment funds is greater than it really is. In other words, entrepreneurs are misled by the nominal prices, especially the price of money, that incorrectly reflect the availability of funds to be invested. This misleads them into borrowing these funds and applying them to productive endeavors. Given the lower nominal rates and the easier access to the loans, marginal entrepreneurs, who otherwise would not have the willingness or the ability to access loanable funds, suddenly become willing and able to do so: they start and expand ventures. In short, in the expansionist phase of the cycle, artificially low interest rates increase the availability of credit and incentivize individuals who would not otherwise take entrepreneurial action to do so and individuals who are already entrepreneurs to take more uncertain actions. The consequences are that the skill of the average entrepreneur in reading market signals decreases, and the average entrepreneur is now more prone to misinvest.

This lower average skill becomes clearer when some of these investments are discovered to be unprofitable, initiating the bust phase of the cycle (see also Ammous 2021; Ammous and D'Andrea 2022). The crisis sets in when the credit expansion is no longer capable of sustaining the boom. At this point, entrepreneurs either try to save (part of) their capital by liquidating or simply abandon these resources. The widespread reproduction of this asset liquidation or abandonment is the symptom of the bust. In the accompanying depression, the least skilled entrepreneurs, usually the ones that entered the entrepreneurial market in the expansionist phase, are expunged from the market and rejoin the labor force as wage earners. If allowed by policy, the more skilled ones gain access to more affordable resources to reorganize the production structure.

In sum, for Rothbard (2009), many entrepreneurs err at the same time because they are misinformed by manipulated interest rates about the real time preference. To use an aphorism, when boom-generating credit expansion occurs, entrepreneurs do not become stupid, stupid people become entrepreneurs. The consequence of this lower average entrepreneurial skill is that when the market is forced to return to somewhere closer to the natural interest rates, a cluster of entrepreneurial errors becomes clearer. Seen from this standpoint, the cluster of errors in a bust is a point in favor of the Rothbardian account of the business cycle and defies the suggestion of the proponents of rational expectations theory.

The Rothbardian Theory of Entrepreneurship

The Rothbardian capitalist-entrepreneur has a few fundamental characteristics: he owns and guides the production process (and its outcomes before sales) as time passes and situations change; he produces for the market in search of profit; and he uses judgment to face uncertainty and to try to fulfill what he believes will be future consumer demands. Further, when employing wage earners, the entrepreneur releases them from the need of bearing uncertainty.

When successful, entrepreneurs are rewarded with four diverse sources of money profit that cannot be disentangled in practice: return on capital (for renting the capital to the firm), managerial payment (for acting as a manager), entrepreneurial rent (for the decision-making function), and pure profit (for bearing uncertainty). Profit also has a psychic part which must be considered in theoretical analysis. Further, entrepreneurs strive for economic profit—that is, financial profit that is higher than the average market interest rate—and unsuccessful entrepreneurs will incur economic and financial losses. A consequence of Rothbard's theorizing is the strong ties between the theories of entrepreneurship and of the firm. For him, no production for the market can take place outside of the entrepreneur's guidance,[11] and firms cannot exist without the exercise of entrepreneurial function (cf. Bylund 2016).

A large portion of these characteristics is arguably present in Mises (1998). Rothbard contributes by adding clarity and explanatory power to Mises's (and others') developments. But Rothbard also brings original contributions in three main areas: the benefits to employees that derive from the entrepreneur bearing uncertainty and allocating capital; the importance of knowledge beyond prices, complementing the developments derived from Hayek (1945); and the central role of the entrepreneur as mediator between the will of the consumer and the outcomes in the market.

Controversies: Kirzner, Lachmann, Schumpeter, and More

Common in Rothbard's contributions are his accounts of and disagreements with other authors' theoretical approaches, in particular his reading of Israel Kirzner (1973).[12]

On Kirzner's "Man of Ideas" and Lachmann's Radical Subjectivity

Kirzner talks about the "pure entrepreneur" who takes advantage of previously existing opportunities by relying on his special state of "alertness." In his review of *Competition and Entrepreneurship* (Kirzner 1973), Rothbard (1974) points to the differences between the Misesian and Kirznerian treatments of the entrepreneur (see also Rothbard 1985, 284; 1994, 2011). Rothbard (1974, 902) starts by recognizing that Kirzner's book "is an outstanding contribution to the Mises-Hayek analysis of microeconomics" and, up to that point in time, the best elaboration of their approach to entrepreneurship and competition as well as an important critique of the then-dominant approach to microeconomics. Rothbard also praises Kirzner for stating that entrepreneurs are responsible for informing consumers not only through prices, but also through business communication, advertisement, to present other features of the product or service on offer. Rothbard agrees that the task of the entrepreneur is not finished until his product's potential consumers are aware of the product's availability and features.

11 Even in cases where there is no identifiable owner of the firm (when the ownership rights are diffused), there are always people exercising the entrepreneurial function (cf. K. Foss, N. Foss, and Klein 2007).

12 It must be emphasized that the goal of this article is not to analyze Rothbard's ideas or how he addresses others' ideas. Rothbard is well known for using harsh words to refer to whoever and whatever he disagrees with. This article is not aimed at amending his comments or investigating whether his criticisms are well placed. The goal is to organize and present Rothbard's ideas. See Kirzner (1997) for a response to Rothbard, and Garrison (1987) and Lewis (2018) for explanations of Lachmann's kaleidic future, dealt with toward the end of this section.

At the same time, Rothbard points to what he sees as Kirzner's mistakes: "Unfortunately, this valuable work is permeated with a basic error that played a minor role in Mises' theory but is here elaborated into a central role. That is the 'un-Austrian,' neo-classical view of the entrepreneur as a non-owning, almost ethereal being, who owns no capital and only operates by the pure force of his ideas and alertness" (Rothbard 1974, 903).

For Rothbard, the Kirznerian figure of the entrepreneur is unrealistic because it requires the separation two economic roles that cannot be separated in practice: the capitalist and the entrepreneur (see also Mises 1998). Rothbard (2011, 178) points out that the Hayekian entrepreneur (who serves as Kirzner's starting point) starts from a state of complete ignorance and, little by little, learns about the market through the price system, including through profits and losses. This approach is clearly at odds with Rothbard's capitalist-entrepreneur, who needs to acquire information not only from prices, but also qualitatively from many other sources (Rothbard 1988).

Rothbard (1974, 1985, 2011) sees the Kirznerian entrepreneur as a curious and passive being: one who does not need to bear uncertainty, does not need to possess or control capital, and, de facto, hardly acts as an entrepreneur in the Austrian tradition that existed before Kirzner's writings. Besides, the Kirznerian entrepreneur cannot be a monopolist because a monopoly implies the ownership of capital that nobody else has access to. Therefore, profits cannot be related to return on capital because, again, the alert individual does not need to possess capital. The Kirznerian entrepreneur, says Rothbard, is a "man of ideas" who knows nothing beyond what he learned in the market through the price system (Rothbard 2011, 176). He depends only on his state of alertness to opportunities and can profit because of, and *exclusively* because of, this state (Rothbard 1985, 282).

Using his own explanation of the source of profits in the ERE, Rothbard asks: Since the Kirznerian entrepreneur bears no uncertainty, would he be able to profit and lose? He then states that the Kirznerian entrepreneur cannot lose financially (Rothbard 2011, 176), and that his only possible loss is missing a profit opportunity for lack of alertness. (Rothbard 1994, 559). Rothbard clarifies that the type of loss in the Kirznerian system is not related, let alone equivalent, to his own explanation of losses as the counterpart of a reduction of the capital that the entrepreneur controls.

Kirzner (1997; cf. Gordon 2019) responded to Rothbard's criticism by essentially saying that the "man of ideas" can find a capitalist to invest based on his ideas and still maintaining that by not having to invest his own capital, the entrepreneur does not bear uncertainty. This reasoning does not satisfy Rothbard (1985, 283), who explains that the capitalist, when investing money with the man of ideas, becomes an entrepreneur; and that the man of ideas, in accepting this money, becomes a capitalist. Both agents, the money man and the idea man, will face uncertainty when (if) they become partners. Together they own the invested capital, the results of the production processes, and the profit or loss (if any) when the products are sold. In the case of an unsuccessful endeavor, the man of ideas does not owe money to the capitalist, but both will be worse off than they were when the venture was active. Both will have their wealth reduced compared to when they were operating the endeavor. Rothbard states that uncertainty is always present in entrepreneurship, even in arbitrage situations, the best-case scenario for a Kirznerian entrepreneur.

Rothbard recalls that Mises *does* make the theoretical distinction between the capitalist and the pure entrepreneur, but that Mises himself explicitly states that this is only a theoretical caveat and would be an impossible distinction in the real world (see Mises 1998, chap. 14, pt. 7). Rothbard (1985, 284; 1974, 903) says that a lack of attention to this explanation would have led Kirzner to incorrectly use and extend a minor idea in Mises' writings, making that non-reality-oriented theoretical side note the center of a different, maybe "new," Austrian theory of entrepreneurship. Joseph Salerno (2008) explores this debate and judges that Rothbard's, not Kirzner's, entrepreneur is the one that builds upon the Austrian methodological and ontological approaches.[13]

Kirzner (2018) later recognized problems in his theory, but Rothbard believed that Kirzner did not offer theoretically sound solutions to Rothbard's points. The core of the issue for Rothbard lies in the practical impossibility of separating the entrepreneur and the capitalist, a fact that Kirzner later recognized (see Gordon 2019). In the debate, Kirzner maintains that the pure entrepreneur and the capitalist can and should be theoretically separated. At the same time, he states that even if, in the real world, the two functions are carried out by the same agent, this does not imply that the possible losses are entrepreneurial. In the Kirznerian account, negative returns are to be associated exclusively with the capitalist function; there is no possible loss for the pure entrepreneur, a position that directly contradicts a crucial point in Rothbard's explanation.

Rothbard (1994, 559; see also Gordon 2019, 500) recognized that Kirzner was moving closer to the capitalist-entrepreneur idea. In later developments of Kirzner's theory, "alertness" becomes one of the characteristics of the agent, not the only one (Kirzner 2018). Another positive note comes when Rothbard (1985) suggests that Kirzner developed his theory of the alert

13 In a dialogue with the author, Dr. Fábio Barbieri, professor at the Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto da Universidade de São Paulo (FEA-RP/USP) in Ribeirão Preto, SP, Brazil, reported that in a private conversation between him and Kirzner, Kirzner explained that his contributions can be interpreted as a dialogue with the neoclassical theory of distribution, especially with J. B. Clark, who is extensively discussed in Kirzner (1973, esp. chap. 3). In this account, Kirzner's separation between the capitalist and the entrepreneurial functions served to distinguish the source of profit from the marginal product of capital. In other words, by inserting the entrepreneur into the conversation, Kirzner was criticizing the mechanistic view of the market proposed by J. B. Clark and his followers. Kirzner inserted the entrepreneur because entrepreneurial activity cannot be operationalized as a production factor with previously known marginal productivity. I thank Dr. Barbieri for this explanation. Also, as pointed out by a reviewer, whom I thank, Kirzner (1973) intentionally abstracts away the "real entrepreneur" so that he can focus on the ideal "pure entrepreneur" to distinguish this agent's unique equilibrating effects on the market process.

entrepreneur in response to another deviation from the core Austrian concepts—one seen in Lachmann's radical subjectivism, a position that Lachmann took later in his life (Barbieri 2023). While Rothbard (2009) was influenced by Lachmann's (1956) early treatment of entrepreneurship, he fundamentally disagreed with Lachmann's later writings (e.g., Lachmann 1976). In this later version, Lachmann did not believe in a tendency toward equilibrium (Barbieri 2023). Rothbard (1985, 285; 2011) thought that developing the concept of entrepreneurial alertness, with its correction of market errors and its tendency to guide the market to equilibrium, was Kirzner's response to Lachmann's kaleidic future.

When commenting on Lachmann's later radical subjectivist writings which emphasize subjective knowledge and subjective expectations, Rothbard (2011, 179) says that this later Lachmannian entrepreneur has no meaning or sense. The later Lachmann did not believe in underlying economic realities. For him, in the long run, the imagination of the agents is not especially useful, because even though the market process demonstrates some order, orderly patterns do not last for long. In the long run, thus, the future is kaleidic, unpredictable (see Garrison 1987). If this were the case, says Rothbard, the role of the entrepreneur as an organizer of production processes to serve future needs would be pointless and entrepreneurial profit would derive from luck (see also Rothbard 1985).

The Rothbardian understanding of Lachmann's points is disputed. In particular, Lachmann says that to compensate for the uncertainty and subjective expectations of the agents, institutions would serve as "instruments of interpretation of reality" (Lachmann 1956, 22) and would orient entrepreneurs to understand other people's future conduct more easily. By bundling knowledge about prices and institutions, entrepreneurs would be able to better imagine the future and adjust their production plans accordingly, thus having a better chance of success (see Lachmann 1971; Lewis 2018).

On Schumpeterian Mistakes

Albeit not formally affiliated with the Austrian school, Joseph Schumpeter studied under Böhm-Bawerk and Wieser and was a contemporary of Mises at the University of Vienna (Vanberg 2015). In brief assessments of Schumpeter's work, Rothbard (1985, 285) criticizes his account of the entrepreneur who is locked in the "[Léon] Walrasian [equilibrium] box" and can only break out of it with new credit created by banks (Ferrero 2019; Rothbard 1987; Schumpeter 1983). Schumpeter says that entrepreneurial profits would flow to entrepreneurs that introduce radical innovation, that they would use these profits to pay back bank credit that allowed them to innovate. An economic bubble would be created by bank credit for the innovators to break the equilibrium. As a consequence, a crisis would be necessary to pop the bubble and bring about a new equilibrium (Rothbard

Table 1. Comparison of characteristics of the entrepreneurial function across different authors

Characteristic	Rothbard	Kirzner	(Later) Lachmann	Schumpeter
Control of capital and other resources	Controls the allocation of capital and other resources	Unnecessary; the (pure) entrepreneur simply needs to be alert to opportunities	Controls the allocation of capital and other resources	Controls the allocation of capital and other resources
Funding	From previous savings available on the market	Provided by the existing savings of capitalists	From previous savings available on the market	From newly created bank credit
Profit (and loss)	Profits composed of financial and psychic, and subject to the possibility of losses	Profits from finding opportunities, losses only when failing to see opportunities	Profits when able to bundle knowledge of prices and knowledge about institutions to imagine future behavior	Profits when innovating to disrupt present equilibrium
Information	Taken from market prices and other qualitative sources	Taken from market prices	Market prices alone are useless; entrepreneurs need institutional knowledge	Taken from market prices and other qualitative sources
Consequence to equilibrium	Unimportant, can be both equilibrating and disequilibrating	Equilibrating	No tendency to equilibrium can be established	Disequilibrating
Major influences	Böhm-Bawerk (1890) and Mises (1998)	Mises (1998) and Hayek (1945)	Shackle (1949) and Mises (1998)	Walras (1874) and Böhm-Bawerk (1890)

1985, 85; 1987), and this boom-and-bust process would repeat endlessly. Rothbard (1987, 2000, 72–75) says that Schumpeter's explanation for the entrepreneur and his tentative escape from the Walrasian box was made using complex but flawed argumentation.

Rothbard (1974, 902–3) praises Kirzner's refutation of Schumpeter and Kirzner's demonstration that the entrepreneur is not a disruptor of equilibrium but an instrument of the continuous market process in search of equilibrium. Along similar lines, Rothbard (1987, 104–5) says that the Schumpeterian system is not capable of satisfactorily explaining the dynamism of the market.

Table 1 compares some characteristics of the Rothbardian entrepreneur with characteristics of those of the other authors.

Rothbard's critiques of the aforementioned authors and their contributions on entrepreneurship are grounded upon his conviction about the theoretical and conceptual foundations of the Austrian school. He stresses that his approach focuses on the analysis of the real world, not on abstract models or theoretical concepts and that this approach differentiates his analyses from the ones offered by authors he criticizes (Rothbard 1985, 286).

More on Entrepreneurship and Good Theory

Rothbard (2011, 196–97) talks about the positive *unintended consequences* of entrepreneurial activity in order to discuss and applaud its intended consequences. He suggests that because of the division of labor, not all individuals will be successful entrepreneurs, and some would be better off being employees. Further, he states that entrepreneurs act to improve, above all, their own personal conditions (Rothbard 1988, 10).

Rothbard (2011) asks if entrepreneurs would benefit from knowing that their actions also improve the life of consumers and society at large. In other words, do entrepreneurs benefit from knowing about the good they do in seeking their subjective profit? Could this knowledge be detrimental? He answers that this type of knowledge influences action and that entrepreneurs *should* be aware of the intended and unintended benefits of their activities. If entrepreneurs believe in fallacious claims, for example, about the "immorality" of profits, says Rothbard, they may act to deliberately reduce their profits. Such a movement would make entrepreneurs and the whole of society comparatively *worse off*.

Rothbard (1994) criticizes Caldwell and Boehm's (1992) treatment of entrepreneurship and stresses the differences between Mises's and Knight's concepts of uncertainty (see also Bylund and Manish 2016). To the latter, risks that could not be bought by insurers would be unpredictable or random. This leads Rothbard to conclude about Knight's theory something similar to what he concluded about Lachmann's later system—that is, that success in facing uncertainty is a matter of luck. Consequently, the role of entrepreneurs as knowledgeable and purposeful agents, as they are for Rothbard and the Austrian tradition that preceded him, is reduced or even eliminated.

In Mises, on the other hand, while perfect prediction is not possible, human beings, particularly successful entrepreneurs, can use their personal insight, comprehension, art (Rothbard 2011, 174), judgment, and/or Verstehen (see Mises 1998, 49–50) to foresee the future, at least to some extent. And since some individuals have better judgment (Packard and Bylund 2019; see N. Foss, Klein, and McCaffrey 2019), this difference in skill is reflected in higher profits. At the same time, entrepreneurs whose skill is not well developed acquire smaller profits and losses. In an unhampered economy the productive resources will eventually be directed to the most capable entrepreneurs, while the less capable ones become employees again.

Rothbard (1985) also states that the discussion on entrepreneurial action's being equilibrating or disequilibrating matters only in the Hayek-Kirzner approach (see also D'Andrea and Mazzoni 2019; Packard and Bylund 2018). For Hayek and Kirzner, the equilibrium is close: "General equilibrium, while not actually extant, is right around the corner. . . . It is only in near, or virtual, equilibrium, whether that of Hayek, Kirzner, or Schumpeter, that entrepreneurial creativity would be at all disruptive or disequilibrating; in a Misesian market economy, . . . creativity would simply and smoothly change the remote equilibrium toward which the economy will be tending" (Rothbard 1994, 560).

Rothbard (2011, 184) says that entrepreneurs act because they believe ex ante that their action will lead them to a more satisfactory state. Since the market process works, it follows that some entrepreneurial actions will, ex post, prove to be equilibrating. In this sense, entrepreneurial action would be equilibrating because it would lead to a state in which the successful entrepreneur is more satisfied (Rothbard 1987, 102). However, the fact that the successful entrepreneur is better off *does not* mean that the economy will be more equilibrated. For Rothbard, the discussion on equilibration and disequilibration in relation to entrepreneurship does not help in economic analysis or understanding.

Rothbard (2011) says that the latest ideas are not necessarily better than older ones; thus, the latest ideas should not be accepted just because they are new. He exemplifies this with the Kirznerian alert-to-opportunities entrepreneur who took the place of the Böhm-Bawerk–Mises capitalist-entrepreneur. The Kirznerian approach became, and is still sometimes considered, "the Austrian theory" of entrepreneurship and is even seen as the only treatment of the topic in the Austrian tradition (Salerno 2008, 189). Rothbard (2011) says that theoretical developments should be grounded on a strong core of ideas that should not be stretched to accept all related contributions.

Summary and Suggestions for Future Scholarship

The Rothbardian contributions to entrepreneurship theory clarify and build upon precedent authors in the causal-realist tradition—Menger, Böhm-Bawerk, Frank A. Fetter, et cetera (see, for example, Campagnolo and Vivel 2014; McCaffrey 2016)—especially the "uncharacteristic lack of clarity in Mises' discussion of entrepreneurship" (Rothbard 1985, 284). Indeed, some ideas in the Rothbardian framework are restatements and clarifications of Mises (1998). These clarifications (a) demonstrate that the entrepreneur is the one entitled to the profit or loss because he bears uncertainty; (b) make explicit the connection between the entrepreneur and the production process and, thereby, between the entrepreneur and the firm; and (c) solve the confusion sowed by Kirzner's presentation, properly repositioning the theory of entrepreneurship within the previously established causal-realist background.

The clarification of the theoretical debate over the Kirznerian "opportunity" idea (Alvarez and Barney 2007; N. Foss and Klein 2020; Shane and Venkataraman 2000) shows the lack of theoretical consistency of this approach, suggesting that conclusions built upon this background, quite common in the mainstream discussion of entrepreneurship, should be revisited. Entrepreneurship scholars will benefit from knowing about the Rothbardian approach and should consider how it can guide their theoretical developments and reshape their practical conclusions.

Authors such as Salerno (2008) and Peter Klein (N. Foss and Klein 2010, 2012, 2020; Klein 2010, 2017) have continued the theoretical development of the capitalist-entrepreneur, which Salerno calls the "integral entrepreneur" (Salerno 2008, 190). Consequently, the judgment-based approach (e.g., N. Foss, Klein, and McCaffrey 2019) has become one of the main theoretical strands in mainstream entrepreneurship research (Klein 2017). Also rooted in Rothbardian contributions are works by Mark Packard (2019; Packard, Clark, and Klein 2014), Matthew McCaffrey (2018; N. Foss, Klein, and McCaffrey 2019), and especially Per Bylund (2016, 2020a, 2022).

By organizing Rothbard's ideas into a single article, I have uncovered his contributions to the theory of entrepreneurship that became influential within and outside Austrian circles—specifically, the benefits to employees that derive from the entrepreneur bearing uncertainty and allocating capital; the importance of knowledge beyond prices; and the debate about consumer sovereignty and the role of the entrepreneur as mediator between the will of the consumer and market outcomes. Without Rothbard's intransigent defense against what seemed to have been established as "the" Austrian view—the Kirznerian idea of entrepreneurship as alertness to opportunities that are ontologically existent "out there"—theoretical developments and practical comprehension about the entrepreneur would not be as profound as they currently are; the Austrian treatment of this economic agent would be profoundly different.

Rothbard (2000, e.g., 3–4, 35–36, 63–68) also explained how entrepreneurs respond to distinct phases of the business cycle. In this area, despite some developments (see Engelhardt 2012; Hülsmann 1998), much remains to be uncovered. In particular, more evidence is needed for the reduced average quality of entrepreneurs during the artificial credit expansion. Moreover, Rothbard (2009, esp. chap. 12) suggested pathways for separating what he says are distinct types of agents: market entrepreneurs and coercion/power-based agents. His point of view contradicts very influential mainstream scholarship (e.g., Baumol 1990 and followers), which considers market and political (or institutional) entrepreneurs under the same economic function. Building upon Rothbard's suggestions on this topic would bring much needed clarity.

Rothbard (1995) wrote about how different scholars through time dealt with entrepreneurship, thereby providing guidance for continuing to study the matter from a historical perspective. Comparisons of his ideas on the relation between the entrepreneur and the firm with those presented by Böhm-Bawerk, Fetter, Knight, and others would be fruitful from the point of view of the history of economic thought. From an applied perspective, scholars dealing with the theory of the firm should pay attention to Rothbard's suggestions, especially in their efforts to provide microfoundations for the emergence of organizations. Moreover, the Rothbardian approach can help to clarify the discussion on individuals who work mostly (or exclusively) for psychic profit. Are they part of the same economic function as market entrepreneurs? What can be said about those who organize noncommercial ventures such as nongovernmental organizations, churches, and think tanks? How should we understand "social entrepreneurship" and hybrid entrepreneurship (cf. Dorobat, McCaffrey, and Topan 2024)?

Furthermore, scholarship reconciling the Rothbardian position that the entrepreneur must bear uncertainty with the idea of derived judgment (N. Foss and Klein 2012)—where entrepreneurs transfer judgment to hired managers—is needed. This could elucidate, for example, whether intrapreneurs—managers who exercise derived judgment but do not carry the financial burden—are an economic role that is distinct from entrepreneurs. What would the "junior partners" suggestion by Mises (1998, 301) mean in this regard?

Additionally, Rothbard is not clear regarding speculative active stock owners (traders) or passive stock owners (holders) who choose not to interfere with the management of the business. These two types are, of course, stockholders, but they are not in the same category as entrepreneurial stock owners who actively participate in a company's decisions—those covered by the Rothbardian theory. Traders are trying to profit by buying and selling stocks, so these agents can be seen as being "alert" to stock market movements. Passive stockholders are investing in the business and expect to make money from the part of the profits to which they are entitled when the business distributes profits, but they do not have (or want to have) much say in how the company is managed. How can these different approaches to owning shares (actively participating, trading, and holding) be integrated into the theory of entrepreneurship?

From a broader perspective, Rothbard (1990) agrees with Mises that ideas matter and will influence the public. The word "entrepreneur" has not (yet) been completely resignified to mean something negative—unlike words such as "liberal" and "capitalist," used mostly as synonyms of "greedy." As soon as one accepts that, for example, "political entrepreneurs," rent seekers, robbers, and thieves are as entrepreneurial as the "man of action," much of the work of Rothbard (and the Austrians in general) regarding entrepreneurship is lost. Defending entrepreneurs (including the word itself) from attacks is necessary.

Conclusion

This review gives individuals interested in entrepreneurship theory from an Austrian perspective, and particularly in Murray N. Rothbard's thinking on the matter, a comprehensive exposition of Rothbard's thoughts on entrepreneurship. He both clarifies ideas that were circulating before him and offers original contributions; his theorization on entrepreneurship cannot be logically disentangled from his theory of production (and of the firm). The article also demonstrates how Rothbard has influenced modern scholars and how their contributions would not exist without Rothbard's clarifications and contributions.

The Austrian theory of entrepreneurship is one of this school's major contributions to general economic knowledge. The impact of the ideas defended, clarified, (re)launched, and advanced by Rothbard lingers and spreads within and outside economics: in the theory of the firm, in strategy, and beyond. There is room to continue this expansion. It is hoped that this systematization of Rothbard's clarifications of and contributions to entrepreneurship theory becomes a go-to source to understand his ideas and contributions to the topic and that it helps future scholarship that develops entrepreneurship research within and beyond the causal-realist tradition.

Submitted: July 09, 2023 CDT, Accepted: March 19, 2024 CDT

REFERENCES

Alvarez, Sharon A., David Audretsch, and Albert N. Link. 2016. "Advancing Our Understanding of Theory in Entrepreneurship." *Strategic Entrepreneurship Journal* 10 (1): 3–4. https://doi.org/10.1002/sej.1216.

Alvarez, Sharon A., and Jay B. Barney. 2007. "The Entrepreneurial Theory of the Firm." *Journal of Management Studies* 44 (7): 1057–63. https://doi.org/10.1111/j.1467-6486.2007.00721.x.

Ammous, Saifedean. 2021. *The Fiat Standard: The Debt Slavery Alternative to Human Civilization*. N.p.: Saif House.

Ammous, Saifedean, and Fernando Antonio Monteiro Christoph D'Andrea. 2022. "Hard Money and Time Preference: A Bitcoin Perspective." *MISES: Interdisciplinary Journal of Philosophy, Law and Economics* 10. https://doi.org/10.30800/mises.2022.v10.1495.

Barbieri, Fabio. 2023. "Lachmann's Transformation." *Review of Austrian Economics* 36 (3): 417–39. https://doi.org/10.1007/s11138-021-00555-8.

Baumol, William J. 1990. "Entrepreneurship: Productive, Unproductive, and Destructive." *Journal of Political Economy* 98 (5, pt. 1): 893–921. https://doi.org/10.1086/261712.

Becker, Markus C., and Thorbjørn Knudsen. 2002. "Schumpeter 1911: Farsighted Visions on Economic Development." *American Journal of Economics and Sociology* 61 (2): 387–403. https://doi.org/10.1111/1536-7150.00166.

Boettke, Peter J., and Christopher J. Coyne. 2004. "The Forgotten Contribution: Murray Rothbard on Socialism in Theory and in Practice." *Quarterly Journal of Austrian Economics* 7 (2): 71–89. https://doi.org/10.1007/s12113-004-1047-1.

Böhm-Bawerk, Eugen von. 1890. *Capital and Interest: A Critical History of Economical Theory*. London: MacMillan.

Bylund, Per L. 2016. *The Problem of Production: A New Theory of the Firm*. New York: Routledge.

———. 2020a. "Finding the Entrepreneur-Promoter: A Praxeological Inquiry." Special double issue on entrepreneurship, *Quarterly Journal of Austrian Economics* 23 (3–4): 355–89. https://doi.org/10.35297/qjae.010074.

———. 2020b. "Introduction to the Entrepreneurship Special Issue." Special double issue on entrepreneurship, *Quarterly Journal of Austrian Economics* 23 (3–4): 255–64. https://doi.org/10.35297/qjae.010070.

———. 2022. "Entrepreneurship and the Market Process." In *A Modern Guide to Austrian Economics*, edited by Per L. Bylund, 84–102. Northampton, Mass.: Edward Elgar. https://doi.org/10.4337/9781789904406.00011.

Bylund, Per L., and G. P. Manish. 2016. "The Mises-Knight Theory of Uncertainty and Its Implications for Entrepreneurship, Equilibrium, and the Theory of the Firm." In *Including a Symposium on Albert O. Hirschman*, 305–36. Research in the History of Economic Thought and Methodology 34B. Bingley, U.K.: Emerald. https://doi.org/10.1108/S0743-41542016000034B002.

Caldwell, Bruce, and Stephan Boehm, eds. 1992. *Austrian Economics: Tensions and New Directions*. Boston: Kluwer Academic. https://doi.org/10.1007/978-94-011-2186-6.

Campagnolo, Gilles. 2022. "Carl Menger on Time and Entrepreneurship." *European Journal of the History of Economic Thought* 29 (5): 817–35. https://doi.org/10.1080/09672567.2022.2111451.

Campagnolo, Gilles, and Christel 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. https://doi.org/10.3917/rpec.151.0049.

Casson, Mark Christopher. 2003. *The Entrepreneur: An Economic Theory*. Cheltenham, U.K.: Edward Elgar. https://doi.org/10.4337/9781843765639.

Cowen, Tyler. 1997. *Risk and Business Cycles: New and Old Austrian Perspectives*. New York: Routledge.

D'Andrea, Fernando Antonio Monteiro Christoph. 2023. "Entrepreneurship and Institutional Uncertainty." *Journal of Entrepreneurship and Public Policy* 12 (1): 10–31. https://doi.org/10.1108/JEPP-01-2022-0018.

D'Andrea, Fernando Antonio Monteiro Christoph, and João Fernando Mazzoni. 2019. "For a Less Dramatic Creative Destruction: Innovation and Entrepreneurship as Features of the Market Process." Special issue on entrepreneurship, *MISES: Interdisciplinary Journal of Philosophy, Law and Economics* 7 (3). https://doi.org/10.30800/mises.2019.v7.1245.

Dorobat, Carmen-Elena, Matthew McCaffrey, and Mihai Vladimir Topan. 2024. "Exploring the Microfoundations of Hybridity: A Judgment-Based Approach." *Journal of Business Venturing* 39 (4): 106406. https://doi.org/10.1016/j.jbusvent.2024.106406.

Ebner, Alexander. 2005. "Hayek on Entrepreneurship: Competition, Market Process and Cultural Evolution." In *Entrepreneurship, Money and Coordination*, 131–49. Northampton, Mass.: Edward Elgar. https://doi.org/10.4337/9781845427955.00010.

Elert, Niklas, and Magnus Henrekson. 2017. "Entrepreneurship and Institutions: A Bidirectional Relationship." *Foundations and Trends in Entrepreneurship* 13 (3): 191–263. https://doi.org/10.1561/0300000073.

Elias, Sara R. S. T. A., Todd H. Chiles, Qian Li, and Fernando Antonio Monteiro Christoph D'Andrea. 2020. "Austrian Economics and Organizational Entrepreneurship: A Typology." Special double issue on entrepreneurship, *Quarterly Journal of Austrian Economics* 23 (3–4): 313–54. https://doi.org/10.35297/qjae.010073.

Engelhardt, Lucas. 2012. "Expansionary Monetary Policy and Decreasing Entrepreneurial Quality." *Quarterly Journal of Austrian Economics* 15 (2): 172–94. https://cdn.mises.org/qjae15_2_2.pdf.

Evans, Anthony J., and Toby Baxendale. 2008. "Austrian Business Cycle Theory in Light of Rational Expectations: The Role of Heterogeneity, the Monetary Footprint, and Adverse Selection in Monetary Expansion." *Quarterly Journal of Austrian Economics* 11 (2): 81–93. https://doi.org/10.1007/s12113-008-9034-6.

Ferrero, Bernardo. 2019. "Are Structural Fluctuations Natural or Policy-Induced? Analyzing Mises's and Schumpeter's Contributions to Business Cycle Theory." *Quarterly Journal of Austrian Economics* 22 (2): 181–217. https://doi.org/10.35297/qjae.010011.

Foss, Nicolai J., and Peter G. Klein. 2010. "Alertness, Action, and the Antecedents of Entrepreneurship." *Journal of Private Enterprise* 25 (2): 145–64. http://journal.apee.org/index.php?title=Spring_2010_8.

———. 2012. *Organizing Entrepreneurial Judgment: A New Approach to the Firm*. New York: Cambridge University Press.

———. 2017. "Entrepreneurial Discovery or Creation? In Search of the Middle Ground." *Academy of Management Review* 42 (4): 733–36. https://doi.org/10.5465/amr.2016.0046.

———. 2020. "Entrepreneurial Opportunities: Who Needs Them?" *Academy of Management Perspectives* 34 (3): 366–77. https://doi.org/10.5465/amp.2017.0181.

Foss, Nicolai J., Peter G. Klein, and Matthew McCaffrey. 2019. *Austrian Perspectives on Entrepreneurship, Strategy, and Organization*. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108777742.

Garrison, Roger W. 1987. "The Kaleidic World of Ludwig Lachmann." *Critical Review* 1 (3): 77–89. https://doi.org/10.1080/08913818708459496.

Gordon, David. 2019. Review of *Reflections on Ethics, Freedom, Welfare Economics, Policy, and the Legacy of Austrian Economics*, by Israel M. Kirzner, edited by Peter J. Boettke and Frédéric Sautet Carmel. *Quarterly Journal of Austrian Economics* 22 (3): 498–502. https://mises.org/quarterly-journal-austrian-economics/reflections-ethics-freedom-welfare-economics-policy-and-legacy-austrian-economics.

Hayek, F. A. 1945. "The Use of Knowledge in Society." *American Economic Review* 35 (4): 519–30. https://www.jstor.org/stable/1809376.

Hébert, Robert F., and Albert N. Link. 2006. "Historical Perspectives on the Entrepreneur." *Foundations and Trends® in Entrepreneurship* 2 (4): 261–408. https://doi.org/10.1561/0300000008.

Horwitz, Steven. 2019. "Ludwig Lachmann as a Theorist of Entrepreneurship." *Studies in Logic, Grammar and Rhetoric* 57 (1): 19–40. https://doi.org/10.2478/slgr-2019-0002.

Hülsmann, Jörg Guido. 1998. "Toward a General Theory of Error Cycles." *Quarterly Journal of Austrian Economics* 1 (4): 1–23. https://doi.org/10.1007/s12113-998-1024-1.

Kirzner, Israel M. 1973. *Competition and Entrepreneurship*. Chicago: University of Chicago Press.

———. 1997. "Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach." *Journal of Economic Literature* 35 (1): 60–85. https://www.jstor.org/stable/2729693.

———, ed. 2018. "Hayek, Knowledge, and Market Processes." In *The Essence of Entrepreneurship and the Nature and Significance of Market Process*, 134–55. Indianapolis, Ind.: Liberty Fund.

Klein, Peter G. 1996. "Economic Calculation and the Limits of Organization." *Review of Austrian Economics* 9 (2): 3–28. https://doi.org/10.1007/BF01103327.

———. 2010. *The Capitalist and the Entrepreneur: Essays on Organizations and Markets*. Auburn, Ala.: Ludwig von Mises Institute. https://mises.org/library/book/capitalist-and-entrepreneur-essays-organizations-and-markets.

———. 2017. "An Austrian Perspective on Firms and Markets: My Contributions to Entrepreneurship Theory." In *The Routledge Companion to the Makers of Modern Entrepreneurship*, edited by David B. Audretsch and Erik E. Lehmann, 146–53. New York: Routledge.

Klein, Peter G., and Per L. Bylund. 2014. "The Place of Austrian Economics in Contemporary Entrepreneurship Research." *Review of Austrian Economics* 27 (3): 259–79. https://doi.org/10.1007/s11138-014-0256-x.

Knight, Frank Hyneman. 1921. *Risk, Uncertainty, and Profit*. New York: Houghton Mifflin.

Lachmann, Ludwig M. 1956. *Capital and Its Structure*. Kansas City, Mo.: Sheed Andrews and McMeel.

———. 1971. *The Legacy of Max Weber*. Berkeley, Cal.: Glendessary.

———. 1976. "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society." *Journal of Economic Literature* 14 (1): 54–62. https://www.jstor.org/stable/2722803.

Lewis, Paul A. 2018. "Lachmann on Varieties of Subjectivism, Expectations-Formation, and the Role of Institutions in Facilitating Economic Order." *Liberty Matters*, July 11, 2018. https://oll.libertyfund.org/publications/liberty-matters/peter-lewin-ludwig-lachmann-austrian-economics#lm-lachmann_conversation2.

McCaffrey, Matthew. 2015. "Economic Policy and Entrepreneurship: Alertness or Judgment?" In *The Next Generation of Austrian Economics: Essays in Honor of Joseph T. Salerno*, edited by Per Bylund and David Howden, 183–99. Auburn, Ala.: Ludwig von Mises Institute. https://mises.org/library/book/next-generation-austrian-economics-essays-honor-joseph-t-salerno.

———. 2016. "Good Judgment, Good Luck: Frank Fetter's Neglected Theory of Entrepreneurship." *Review of Political Economy* 28 (4): 504–22. https://doi.org/10.1080/09538259.2016.1207870.

———. 2018. "Extending the Economic Foundations of Entrepreneurship Research." *European Management Review* 15 (2): 191–99. https://doi.org/10.1111/emre.12158.

McCaffrey, Matthew, and Joseph T. Salerno. 2011. "A Theory of Political Entrepreneurship." *Modern Economy* 2 (4): 552–60. https://doi.org/10.4236/me.2011.24061.

———. 2014. "Böhm-Bawerk's Approach to Entrepreneurship." *Journal of the History of Economic Thought* 36 (4): 435–54. https://doi.org/10.1017/S1053837214000558.

McMullen, Jeffery S. 2015. "Entrepreneurial Judgment as Empathic Accuracy: A Sequential Decision-Making Approach to Entrepreneurial Action." *Journal of Institutional Economics* 11 (3): 651–81. https://doi.org/10.1017/S1744137413000386.

Mises, Ludwig von. 1935. "Economic Calculation in the Socialist Commonwealth." In *Collectivist Economic Planning*, edited by F. A. Hayek, 87–130. London: Routledge and Kegan Paul. https://mises.org/library/book/collectivist-economic-planning.

———. 1998. *Human Action: A Treatise on Economics*. Scholar's ed. Auburn, Ala.: Ludwig von Mises Institute. https://mises.org/library/human-action-0.

———. 2008. "Profit and Loss." In *Planning for Freedom: Let the Market System Work. A Collection of Essays and Addresses*, edited by Bettina Bien Greaves, 143–72. Indianapolis, Ind.: Liberty Fund. https://oll.libertyfund.org/titles/greaves-planning-for-freedom-let-the-market-system-work-a-collection-of-essays-and-addresses.

Möller, Ulrich, and Matthew McCaffrey. 2023. "Entrepreneurship and Firm Strategy: Integrating Resources, Capabilities, and Judgment through an Austrian Framework." *Entrepreneurship Research Journal* 13 (4): 997–1031. https://doi.org/10.1515/erj-2020-0519.

Packard, Mark D. 2019. "Entrepreneurship: Toward the Nirvana State of Rest." Special issue on entrepreneurship, *MISES: Interdisciplinary Journal of Philosophy, Law and Economics* 7 (3). https://doi.org/10.30800/mises.2019.v7.1222.

Packard, Mark D., and Per L. Bylund. 2018. "On the Relationship between Inequality and Entrepreneurship." *Strategic Entrepreneurship Journal* 12 (1): 3–22. https://doi.org/10.1002/sej.1270.

———. 2019. "What Is Entrepreneurial Judgment, Anyway?" *Academy of Management Proceedings* 2019 (1): 17838. https://doi.org/10.5465/AMBPP.2019.17838abstract.

Packard, Mark D., Brent Clark, and Peter G. Klein. 2014. "An Exploration into the Nature of Entrepreneurial Uncertainty." *Academy of Management Proceedings* 2014 (1): 16840. https://doi.org/10.5465/ambpp.2014.16840abstract.

Rothbard, Murray N. 1974. Review of *Competition and Entrepreneurship*, by Israel M. Kirzner. *Journal of Economic Literature* 12 (3): 902–4.

———. 1985. "Professor Hébert on Entrepreneurship." *Journal of Libertarian Studies* 7 (2): 281–86.

———. 1987. "Breaking out of the Walrasian Box: The Cases of Schumpeter and Hansen." *Review of Austrian Economics* 1 (1): 97–108. https://doi.org/10.1007/BF01539335.

———. 1988. "The Libertarian Family and Entrepreneurship." *Liberty*, July 1988. https://libertyunbound.com/wp-content/uploads/2020/08/Liberty_Magazine_July_1988.pdf.

———. 1990. "The Future of Austrian Economics." Lecture given at Mises University, Stanford University, Stanford, Calif., July 14, 1990. Video, 49:38. https://www.youtube.com/watch?v=KWdUIuID8ag&t=55s.

———. 1991. "The End of Socialism and the Calculation Debate Revisited." *Review of Austrian Economics* 5 (2): 51–76. https://doi.org/10.1007/BF02426928.

———. 1994. "Review of Austrian Economics: Tensions and New Directions." *Southern Economic Journal* 61 (2): 559–60. https://doi.org/10.2307/1060018.

———. 1995. *An Austrian Perspective on the History of Economic Thought.* 2 vols. Auburn, Ala.: Ludwig von Mises Institute. https://mises.org/library/book/austrian-perspective-history-economic-thought.

———. 1997. "Professor Kirzner on Entrepreneurship." In *The Logic of Action Two: Applications and Criticism from the Austrian School*, 245–53. Lyme, N.H.: Edward Elgar. https://doi.org/10.4337/9781035335183.00019.

———. 2000. *America's Great Depression*. 5th ed. Auburn, Ala.: Mises Institute. https://mises.org/library/book/americas-great-depression.

———. 2009. *Man, Economy, and State with Power and Market*. 2nd ed. Auburn, Ala.: Ludwig von Mises Institute. https://mises.org/library/man-economy-and-state-power-and-market.

———. 2011. "The Present State of Austrian Economics." In *Economic Controversies*, 161–224. Auburn, Ala.: Mises Institute. https://mises.org/library/book/economic-controversies.

Salerno, Joseph T. 2008. "The Entrepreneur: Real and Imagined." *Quarterly Journal of Austrian Economics* 11 (3–4): 188–207. https://doi.org/10.1007/s12113-008-9043-5.

———. 2009. Introduction to *Man, Economy, and State with Power and Market*, 2nd scholar's ed., by Murray N. Rothbard, xix–l. Auburn, Ala.: Ludwig von Mises Institute. https://mises.org/library/man-economy-and-state-power-and-market.

———. 2018. "Are Ownership Rent and Pure Profit Separate Returns to the Entrepreneur?" *Quarterly Journal of Austrian Economics* 21 (3): 193–208. https://mises.org/quarterly-journal-austrian-economics/are-ownership-rent-and-pure-profit-separate-returns-entrepreneur.

Schumpeter, Joseph A. 1983. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Translated by Redvers Opie. New Brunswick, N.J.: Transaction.

Shackle, George Lennox Sharman. 1949. *Expectation in Economics*. Cambridge: Cambridge University Press.

Shane, Scott, and S. Venkataraman. 2000. "The Promise of Entrepreneurship as a Field of Research." *Academy of Management Review* 25 (1): 217–26. https://doi.org/10.5465/amr.2000.2791611.

Topan, Mihai Vladimir. 2012. "A Note on Rothbardian Decision Making Rents." *Quarterly Journal of Austrian Economics* 15 (1): 75–88. https://doi.org/10.2139/ssrn.1776422.

Townsend, David M., Richard A. Hunt, Jeffery S. McMullen, and Saras D. Sarasvathy. 2018. "Uncertainty, Knowledge Problems, and Entrepreneurial Action." *Academy of Management Annals* 12 (2): 659–87. https://doi.org/10.5465/annals.2016.0109.

Vanberg, Viktor J. 2015. "Schumpeter and Mises as 'Austrian Economists.'" *Journal of Evolutionary Economics* 25 (1): 91–105. https://doi.org/10.1007/s00191-013-0330-8.

Wagner, Richard E. 1999. "Austrian Cycle Theory: Saving the Wheat While Discarding the Chaff." *Review of Austrian Economics* 12 (1): 65–80. https://doi.org/10.1023/A:1007765427200.

Walras, Léon. 1874. *Éléments d'économie politique pure; ou, Théorie de la richesse sociale*. Lausanne, Switz.

Wieser, Friedrich von. 1891. "The Austrian School and the Theory of Value." *Economic Journal* 1 (1): 108–21. https://doi.org/10.2307/2955844.