The Quarterly Journal of Austrian Economics

VOL. 21 | NO. 3 | 287–306
FALL 2018

Review Essay

The Economic Theory of Costs: Foundations and New Directions

Matthew McCaffrey, Ed.
London and New York: Routledge, 2018, xiv + 270 pp.

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This collection of essays edited by Dr. Matthew McCaffrey deals with one of the most fundamental fields of economic research: *The Economic Theory of Costs*. Indeed, it is so fundamental because of its close connection to all other central areas of research in theoretical economics, such as the theory of choice, value, price, capital, production, risk, uncertainty, and entrepreneurship. All of these are covered in some way in the book.

It spans over 263 pages and is separated into five parts, each containing two essays. Only the last part includes a third essay by the editor himself. Almost all of the eleven chapters are published for the first time in this collection and constitute pieces of original

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research. The one exception is chapter 4. It contains the first but ultimately discarded draft of Rothbard's fifth chapter for *Man, Economy, and State* that was uncovered in the Rothbard archives at the Mises Institute a couple of years ago by Dr. Patrick Newman. He has re-edited and published it previously in this journal (Rothbard and Newman, 2015).[1]

McCaffrey sets the stage with an introductory chapter, explaining that the contributions contained in the volume stand in the "causal-realist" tradition (McCaffrey 2018, p. 2), which is closely related to the distinctly Mengerian variant of the *Marginalist Revolution* and the research program that emerged out of it: Austrian economics. The purpose of the book is "to showcase a variety of research strands within the modern Mengerian tradition that relate in some way to the theory of cost" (p. 3). Menger and his intellectual heirs reconstructed economic theory on thoroughly subjectivist grounds, showing that costs in their various forms are derivatives of the subjective values of ends pursued or foregone. The subjective nature of costs is highlighted directly in the first part of the book entitled "Cost and Choice." From there on the contributions proceed to different areas, applying the basic insights of the theory of costs to some relevant theoretical problems. We will go over them in the order maintained in the book, expanding on a number of selected issues that are of particular importance according to the undoubtedly subjective assessment of the reviewer.

PART 1 – COST AND CHOICE

In the first chapter of the book, Dr. Jonathan Newman clarifies some of the foundations of the notion of costs, which he ultimately always considers to be opportunity costs. In particular,

[1] In the volume it is also indicated that chapter 5 by Dr. Guido Hülsmann is a reprint of an earlier publication in the *Quarterly Journal of Austrian Economics*. This is incorrect. Hülsmann's essay has only been published very recently as a GRANEM working paper (Hülsmann, 2017). The provided reference actually corresponds to the earlier publication of Rothbard's draft chapter (fn. *, p. 144). The page numbers in the earlier reference to the first publication of the draft chapter given in the book are wrong (fn. *, p. 126). The reviewer earnestly promises that the rest of the review will be less pedantic. In fact, these are the only errors of this sort that have been spotted.

he highlights their subjectivity and forward-looking nature: "The ordinality and subjectivity of preferences applies to both value and cost. Just as value is appraised in action *ex ante*, so are costs" (p. 12). An opportunity cost, in this *ex ante* sense, is the subjective value of the next best perceived alternative course of action, all expected consequences taken into account.

Newman identifies two common but contradictory notions of opportunity costs in the standard literature. The first simply defines them as the subjective value attached to the next best choice alternative. According to the second they are objective physical production trade-offs. Both notions are typically presented side by side in modern standard textbooks. This might account, as Newman persuasively argues, for some of the confusion on the topic identified in the literature and by experimental research (Ferraro and Taylor, 2005).

Probably more interesting for readers of this journal, however, is Newman's discussion of George Reisman's stance on opportunity costs as well as the recent back-and-forth between Dr. Eduard Braun and Dr. David Howden on the topic (Howden, 2015, 2016b, 2016a; Braun, 2016a, 2016b). Howden criticized Braun in a review of his book *Finance Behind the Veil of Money* (Braun, 2014), for among other things abandoning the opportunity cost concept. This critique triggered the debate. Newman sides with Howden and reiterates and expands on his convincing arguments for why the notion of opportunity costs, understood as forward-looking subjective expectations of the value of alternative courses of action, is important and useful to analyze human choice. Howden also showed why the *ex post* evaluation of opportunities is indispensable to find out whether one could have done better than one actually did. Yet these points are not even disputed by Braun. Both Howden and Newman fail to appreciate the actual problem hinted at in Braun's analysis, namely, the identification of profit in human action and, more specifically, the *ex post* identification of monetary profits.

Taking *ex post* opportunity costs as the relevant benchmark for identifying monetary profit leads to a very strange result: A profit could only be made if one had actually invested in the best (or shall we say *most* profitable) project out there. Imagine tech investor Pete who happens to have picked the project *FB* for his investment. *FB* turns out to be the best among all the projects. Pete strikes it rich

and actually makes a monetary profit. The latter is determined by the difference between the generated monetary income from *FB* and the unrealized monetary income Pete could have earned by investing an equal amount of money in the next best alternative.

Now assume that instead it turned out that there was an even better project. Let us call it *Twttr*. It has generated, for some other investors, an even higher monetary return than *FB*. This means that Pete would have made a loss instead, as Reisman and Braun lament by providing a number of other examples of this kind. Under this notion of opportunity costs, only investments in *Twttr* would have generated a monetary profit. This led Braun to focus instead on costs understood as historically incurred monetary outlays for his analysis of financial markets and interest rates. In fact, Newman implicitly acknowledges that Braun has a point when he considerably narrows down the applicability of the opportunity cost concept by stating "that opportunity costs cannot be identified in hindsight and that opportunity costs may only be identified for one choice at a time" (p. 20). If that is so, then good for Braun that he got rid of it for his purposes.

Moreover, it is not quite correct to accuse Braun of denying the importance of alternative uses of resources and foregone opportunities altogether. They are precisely what determines the monetary outlays necessary to acquire the means of production for any given investment project. The higher the expected subjective value of the alternative ends, to the attainment of which those factors could have been dedicated instead, from the perspective of the relevant market participants, the higher will be their money prices, and hence the monetary outlays necessary for the realization of the project.[2] The investor thus has to compensate for the alternative ends forgone. Costs understood as monetary outlays are indeed, in this very important sense, opportunity costs.

In the second chapter of McCaffrey's book, Dr. Joseph Salerno presents a very dense theoretical discussion of the "unitary valuation process" (p. 32) that gives rise to money prices paid for goods on the market. He tries to show why there is no such thing as an income effect as a result of price changes along the demand

[2] This argument is made, for example, in chapter 10 of the book by Dr. Per Bylund.

curve for a specific good in causal-realist price theory, and thus responds to a long-standing debate in neoclassical economics.

He argues first of all, following the causal-realist approach to price theory, that an individual's demand curve for a certain good is a higher-order abstraction. It can be derived on the basis of an ordinal value scale, on which all relevant goods including money are ranked, as well as the existing stocks of these goods in possession of the individual at the given moment. Second, the ranking of money relative to other goods presupposes a given purchasing power—"or rather, a definitely anticipated purchasing power of money" (p. 36). In other words, the purchasing power of money has to be held constant in order to derive the demand curve at the given moment in the first place.

All that happens in response to changes in prices along the demand curve are then substitutions with other goods according to the value scale of the agent. There is no income effect, or as Salerno terms it, *purchasing power effect*, because a given purchasing power is a prerequisite for the derivation of the demand curve. The income effect is then merely an "illusion" (p. 35) stemming from the misapplication of demand curves.

However, the reviewer is puzzled by the question of how a price change could be possible without also changing the purchasing power of money. If the purchasing power of money is to be understood as the array of goods that can be bought with a given amount of money, then surely a price change for some good necessarily changes the purchasing power of money. But if a constant purchasing power is presupposed for the derivation of a demand curve, must the very idea of a price change along a given demand curve then not be considered bogus? Rather, under these assumptions, an exogenous change in the supply curve of a good that causes "price changes along the demand curve" must also trigger an alteration of the demand curve itself, to the extent that the subjective value of money changes in light of changes of its purchasing power.

To the reviewer it seems wrong to assume that the purchasing of money as such needs to be held constant in order to construct the demand curve for a specific good. Rather, one has to hold constant the purchasing power of money *with respect to other goods* and of

course the actor's subjective value scale. In other words, the *opportunity costs* of spending money on the specific good for which the demand curve is derived need to be held constant. If that is done, there seems to be a way to reconcile a kind of "income effect" with causal-realist price theory. In the reviewer's eyes, a better term would be "wealth effect."[3]

Salerno goes on to show why his result does not contradict the possibility of a backward-bending labor supply curve. The latter is possible without an income effect, solely on the basis of the law of marginal utility and a given value scale on which leisure is ranked against money balances. Salerno thus counters a critique raised by Caplan (1999) against Rothbard's denial of the income effect, while still assuming that the backward-bending supply of labor is possible.

PART 2 – THE EVOLUTION OF CAUSAL-REALIST PRODUCTION THEORY

The next two chapters are dedicated to production theory in the causal-realist tradition. Dr. Patrick Newman provides a review of Rothbard's evolving thought on the topic in chapter 3, which is geared to Rothbard's original draft chapter on production theory for *Man, Economy, and State* (Rothbard 2009), republished as chapter 4 in this volume. Rothbard ended up thoroughly revising his production theory and rejected this early version of the chapter. It therefore illustrates the evolution of Rothbard's thought on the topic. Newman's accompanying chapter is of great value for the student as well as the historian of economic thought as a brief comparative outline of different approaches to production theory.

Rothbard's original draft chapter is much closer to the Marshallian partial equilibrium approach to production theory, although it already emphasized a number of weaknesses, such as the fact that one cannot develop a robust theory of investment from the perspective of an isolated firm. Rothbard's final theory of production, however, adopts an Austrian general equilibrium approach as described by Newman. The latter is distinct from the

[3] This idea is further developed in Israel (2018).

Walrasian general equilibrium approach and essentially characterized by four features.

First, Rothbard rejects the conceptual distinction between competitive and monopoly prices for the analysis of a market economy as being arbitrary. The formal conditions that define a competitive situation are never met in the real world. As Rothbard pointed out even in his earlier draft chapter: "In this interpretation, every seller of an individualized commodity is a 'monopolist'" (p. 85). Second, no firm can be a mere price taker. Every firm has some impact on the prices of its products and in that sense always acts under imperfect competition in neoclassical standard terminology.

Third, the standard isocost-isoquant derivation of factor demand curves is rejected as it obfuscates the causal link of price determination that runs from the money prices of the final product to the prices of the factors of production by backward imputation. In the causal-realist analysis, actual and expected output prices explicitly determine the capitalist-entrepreneur's willingness to pay for factors of production according to their discounted marginal revenue product.

Lastly, the perspective taken in causal-realist production theory is not the one of a manager of some selected firm who in isolation—that is, at specified and constant factor costs—expands production until marginal revenue equals marginal costs. Instead, the vantage point of the capitalist-entrepreneur is taken, who can invest in a variety of different lines of production, which in a dynamic setting will have unequal rates of return. For any individual project it might therefore not be optimal to actually expand production to the point of optimality derived in the Marshallian partial equilibrium approach.

PART 3 – RISK, UNCERTAINTY AND COST

In chapter 5 of the book, entitled "The Myth of the Risk Premium," Dr. Guido Hülsmann sets out to defend a rather bold theoretical claim. He argues that

> the prevailing conception of risk as related to the gross rate of interest is ill-founded. It is wrong to conceive of the gross interest rate as the sum of separate components. A closer analysis reveals that the whole idea of

> a risk premium within the gross rate of interest is a myth and should be discarded from economic science. (p. 134)

His analysis of risk is based on the Misesian distinction between class and case probability as well as the principle of subjective value. The most fundamental claim in Hülsmann's essay is that probability is not an ontic category, but an epistemic one—that is, probability and more specifically risk is nothing out there in the real world, but it instead refers to our imperfect state of knowledge about the latter. The real world and its transformation is simply what it is: "It is subject to the inexorable laws of cause and effect" (p. 136). These laws are not risky or probable as such, but there is risk involved as far as our knowledge and value judgments about them are concerned.

Case probability refers to the type of imperfect knowledge relevant in the sciences of human action. It refers to cases where actors know some causal relationships, but they know neither all of the related causal chains nor everything there is to know about the relationships that they are aware of, such as their relative importance as compared to other casual factors. Hülsmann explains that subjective value judgments function as a filter through which our partial knowledge becomes relevant for human action. To the extent that one subjectively conceives of a case-probable risk associated with some investment project—that is, a factor that would negatively change its outcome—one attempts to eliminate or diminish that risk as far as possible. At the same time, one tries to amplify the factors that positively influence the outcome. This is the task of entrepreneurship or, as Hülsmann calls it, "the production of success" (p. 138). To the extent that subjectively conceived case-probable risks cannot be eliminated, they have an impact on one's *ex ante* subjective assessment of the future value of that investment, and on the assessment of the marginal value product of related factors, but it has no impact on the discounting of these values as such.

Hülsmann argues that the differences in observable gross interest rates can thus not be explained by a risk premium as part of the gross interest rate. Instead, they simply "result from different subjective appreciations of available investment opportunities" (p. 142). He concludes that

> the risk component in the gross interest rate is a sort of optical illusion. Different prices for different assets result from the fact that buyers and sellers appreciate them subjectively. From a microeconomic perspective, the implied differences in yield might be called risk premia. And one might use such premia in computations with an internal interest rate, to distinguish more interesting ventures from less interesting ones. But this does not alter the fact that the idea of a risk premium is an intellectual short-cut. It does not correspond to any real object. (p. 144)

The following essay by Dr. Jeffrey Herbener presents the theory of cost as an "example of the mistreatment of time in economic analysis" (p. 147). He incorporates cost curves, which Rothbard thought would not add anything, into the causal-realist framework of the analysis of production decisions and factor pricing. Herbener uses them very effectively to illustrate two implications of the passage of time.

In a pedagogically useful reconstruction of the theory of factor pricing, he first contrasts the timeless neoclassical general equilibrium theory, in which prices of factors of production correspond to the factor's *marginal revenue product* and are determined simultaneously with final output prices, with the Austrian analysis of price determination in the evenly rotating economy (ERE). The latter takes production time, or the *time structure* of production, into account. Hence, factor prices correspond to the *discounted marginal revenue product* (DMRP). Future output prices determine the capitalist-entrepreneur's demand for factors of production and thus determine factor prices in the present. Since there is no uncertainty in the ERE, the capitalist-entrepreneur's factor demand is always such that the money prices paid for the factors used in production correspond to the DMRP and are thus consistent with future output prices. Any change in consumer preferences alters the equilibrium state as output prices change and hence factor demand and factor prices adjust accordingly.

As Herbener points out: "In actual markets, this adjustment process is rarely, if ever, completed, because the underlying causal factors are continuously changing" (p. 160), and because there exists *uncertainty* of the future. Uncertainty is the second implication of the passage of time for the theory of costs. The passage of time implies change, and change implies uncertainty. According to Herbener, this had not yet been satisfactorily incorporated into

the theory of cost in the causal-realist tradition (pp. 160, 165). Capitalist-entrepreneurs discount the MRP, but in the real world they can only anticipate the latter. Hence, factor prices in the present are determined by the factor's *anticipated discounted marginal value product* (ADMRP).

It is in Herbener's words the "spectrum of foresight possessed by the various entrepreneurs" (p. 166) that determine the "speed and accuracy" of the adjustment process toward the equilibrium state as well as the distribution of profits during that process. As he summarizes:

> Those with superior foresight move earlier into what prove to be profitable lines of production and earn profits which will then be capitalized into the prices of assets more specific to that line of production as the less-astute entrepreneurs follow suit. Even when the adjustment process reaches its climax and no additional profit can be earned from a further expansion of production because cost structures have been pushed up by rising prices for the more-specific assets used, the entrepreneurs with superior foresight will have earned capital gains by buying the more-specific assets earlier in the process than less-astute entrepreneurs. (p. 166)

PART 4 – CAUSAL-REALIST PRICE THEORY: DEBATE AND SYNTHESIS

Chapter 7 of the collection contains a revision of the theory of monopsony, a concept that has been dismissed almost completely by both Mises and Rothbard. Dr. Xavier Méra argues that they and their followers "may have gone too far" (p. 170). Méra offers a brief overview of theories of monopsony, arguing that the new standard theory is essentially at a dead end in that it defines a monopsony in very much the same way as a monopoly is commonly defined, namely, in terms of a deviation from the pure and perfect competition model—that is, a situation in which supply and demand schedules from the perspective of the individual buyers and sellers, respectively, are less than perfectly elastic. Méra argues that this criterion "implies a nirvana fallacy," since "such perfection is beyond anybody's reach" (p. 174). Instead, in Rothbardian spirit, monopolies and monopsonies are to be regarded as the result of government intervention, whereby sellers or buyers are granted

privileges over potential competitors. The consequences are to be analyzed in terms of more or less elastic supply and demand curves and how the interventions affect these elasticities.

Elaborating on one of his earlier publications on the topic (Méra, 2010), he argues that, when dealing with a producer, monopoly and monopsony are separable from each other only in so far as there could exist perfect competition on the other markets—that is, either the factor markets in case of a monopolist or the output markets in case of a monopsonist. Since perfect competition never exists, a producer is always both a monopolist and a monopsonist, or indeed neither of the two. A monopsony privilege on the factor markets always amounts to some form of monopoly privilege on the output market, albeit not in the absolute sense, and *vice versa*. Méra explains:

> If it is often noticed that a monopoly is a monopsony or a monopsony is a monopoly, this is rarely considered a necessity. And it is true that, with an exclusive grant of monopoly privilege on the sale of a good, one may be its sole seller while still one among many buyers of its non-specific factors of production. However, even in this case competition is hampered on the factors' markets since no competitor is allowed to hire them for the production of the monopolized good. With an exclusive grant of monopsony privilege, one may be the sole buyer of a factor of production while still one among many sellers of a good it helps to produce, provided this factor is not indispensable to its production. Yet even in this case competition is hampered in the product market, because competitors are not allowed to produce the product using this factor. (p. 178)

The important question is to what extent the granted privileges increase the price differential between factors of production and output in response to a restriction of output and factor demand, and thus to what extent they allow for monopoly-monopsony gains. Thus, Méra develops a "theory of monopoly price-gap" (p. 176).

In his discussion of non-specific factors (e.g., labor), Méra makes a very valuable theoretical contribution within the causal-realist framework. He shows that a monopolist-monopsonist could conceivably push money prices even for non-specific factors (e.g., wages) under certain conditions below the market-clearing rate. If the demand for the output that the monopolist-monopsonist sells is *inelastic*, then the buyers' overall sum of money spent on

that output will increase in response to a restriction of supply. This implies a reduction of money spent on other goods. The selling prices of those goods will fall along with the other producers' demand for the non-specific factors of production. Hence, prices of the non-specific factors will, as a result, be pushed downward.

This, however, in and of itself, does not seem to be a sufficient condition for what Méra attempts to show. He neglects a potential offsetting effect. While nominal expenses of the buyers of the monopolist-monopsonist's product on other goods will go down, nominal expenses of the monopolist-monopsonist on various other goods, in his or her capacity as consumer or investor, will go up as a result of the realized monopoly-monopsony gains. This will have exactly the reverse effect, increasing monetary revenues of other producers and hence their demand for the non-specific factors of production. It is not clear where the net effect lies.

Of course, this does not change the fact that Méra has nicely illuminated the mechanism by which prices for non-specific factors, such as wages, might be pushed below the market clearing level as a result of monopoly-monopsony power.

In the next essay, Dr. Mateusz Machaj deals with some Post-Keynesian criticisms of the neoclassical marginalist theory of product pricing and shows that the Austrian theory is mostly immune to those criticisms. Yet, he holds that "in some cases the Post-Keynesian contribution to price theory strengthens Austrian arguments about the market process, especially in those aspects where Post-Keynesians are anti-neoclassical" (p. 195).

Post-Keynesians tend to highlight the relative importance of quantity and inventory adjustments instead of price adjustments in response to changing conditions of demand. Prices tend to be more or less "sticky." Moreover, they argue that output prices are rarely set in such a way that marginal revenue equals marginal cost. Machaj shows that Austrians have at least implicitly already addressed these considerations, which he argues could be interpreted as being "the result of a plain state of rest perspective" (p. 196). In contrast, neoclassical economists "seem to talk about the final state of rest," which is another way of saying that they abstract from uncertainty, change and time as shown and discussed in Herbener's essay in chapter 6 of the

volume. The Post-Keynesian qualms stem from these unrealistic assumptions in the standard neoclassical theory, but "economic reasoning can rely on the realistic momentary equilibrium of the plain state of rest for analyzing the pricing process," (p. 196) as Machaj argues.

In his discussion of the imputation process (pp. 198–200), Machaj gives the hypothetical example of shirt production. He supposes that blue and green shirts are produced and sold at the same price even though demand for blue shirts is much higher. Sellers have adjusted quantities instead of prices. He argues correctly that such a case would not prove the limitations of the marginalist approach, but his explanation strikes the reviewer as somewhat unsatisfactory. He writes:

> According to Böhm-Bawerk, the law of costs is actually an idea about marginal utility in disguise. In the shirts example, for instance, it does not matter that demand (and marginal utility) for blue shirts is higher relative to green shirts. What matters are the marginal utilities of other goods and services that would have to be given up in order to reproduce blue shirts. And since green and blue shirts require basically the same sacrifice, virtually the same marginal utility would have to be lost. If we lose the last-produced blue shirt, we only have to give up the production of the last green shirt and switch green dye for blue (just as when we lose the most important blue shirt we only have to use the marginal shirt as the first). Therefore we have a perfect explanation of why the costs of both shirts are the same—in the end, their marginal utilities of reproduction are the same. (p. 199)

This does not really explain why their selling prices remain the same. In the plain state of rest analysis, they remain the same because of the price-elasticity of demand anticipated by the producers. If they anticipate that price-elasticity is high for whatever reason, they might not raise the price for blue shirts, and instead start to expand blue shirt production as far as this appears to be profitable—that is, simply to the point where marginal revenue equals marginal costs or demand is anticipated to be satisfied at the prevailing price. This in turn increases demand for blue dye and exerts upward pressure on its price. Whether or not "in the end, […] [the] marginal utilities of reproduction" of green and blue shirts are the same, depends on whether or not blue dye production can be expanded without significant increases in marginal costs.

In the end, the pricing of the factors of production depends on the prices of the final output. Indeed, Machaj puts this fundamental Böhm-Bawerkian insight very vividly:

> From the perspective of an individual producer, it may seem that sellers practice cost-based pricing. Yet at the same time, this fact in no way validates the broad marginalist point that costs themselves result from other potential investment avenues that could be undertaken. Once we look at the economy as a whole, we see price-based costing despite the fact that firms attempt to engage in cost-based pricing. (p. 200)

PART 5 – ECONOMIC ORGANIZATION, ENTREPRENEURSHIP AND THE FIRM

The first chapter of the last part of the book is by Dr. Mihai-Vladimir Topan. It contains a discussion of the compatibility of Austrian economics and "transaction cost economics" as developed most notably by Ronald Coase and Oliver Williamson. Topan comes to the conclusion that transaction cost is a "chameleonic instrument which raises more questions than it solves" (p. 220). Consequently, incorporating transaction costs as a general abstract notion into Austrian economics would in his eyes not improve the theoretical analysis, neither in the areas of economics of property rights nor the theory of the firm, which he specifically investigates.

The most obvious problem with the notion of transaction costs is that it is not well-defined. Topan argues that it is based on a misleading dichotomy between *production* and *exchange*, or the *firm* and the *market*. Transaction costs are somehow related to the latter but not the former. Topan explains the problem:

> Praxeologically, as Mises would say, any human action has the structure of an exchange—autistic exchange or interpersonal (direct or indirect) exchange—involving the giving up of a certain state of affairs in favor of another that is expected to be more satisfactory. […] Thus, the general category of costs, understood as opportunity costs of the actions undertaken by human agents, cannot *theoretically* be split into two categories—production costs and exchange (or transactions) costs. They are simply part of the same general category of cost with no substantive difference to set them apart. (pp. 209–210)

The vague notion of transaction costs has thus been applied to all kinds of questions in economics. There is what Topan calls a "transaction cost imperialism" (p. 217), in which attempts are made to explain not only firms, but markets themselves as well as all kinds of market phenomena, such as money, in terms of transaction costs. The notion ends up proving too much: "Coase suggests that the effects of transaction costs are 'pervasive in the economy.' The problem is that if transaction costs explain everything, they end up explaining nothing" (p. 218).

The next essay in McCaffrey's volume does not deal with the elusive concept of transaction costs, but rather applies the more common notion of opportunity costs in order to show, in a first step, that *value* logically precedes *costs* even if understood as outlays for production. Indeed, Dr. Per Bylund explains that it is the anticipated value of investment projects that leverages the costs in existing lines of production in an entrepreneurial economy. This is because the demand for factors of production increases when new lines and methods of production are explored. This is again an application of Böhm-Bawerk's theory of factor pricing via imputation that was discussed and applied previously in the book.

The new element in Bylund's chapter, with respect to the rest of the book, is his discussion of *entrepreneurship* and *management* as distinct economic functions. He draws certain implications from this distinction for the socialist calculation debate. His analysis seems to be targeted towards rebutting a recent contribution to the debate by Denis (2015). The latter has argued that one could have public ownership of, but decentralized decision making and control over, the means of production. This arrangement, which he terms "several control," would provide market prices and thus allow for economic calculation.

Without having studied Denis's contribution and judging solely from Bylund's brief description, the reviewer suspects that such an arrangement of "several control" could strongly resemble what we observe in the real world today, for example, in Sweden or the US. After all, there is no full-blown private property, but rather a "fiat property" arrangement. There is decentralized "ownership" or control over the means of production and their revenue product only to the extent that a centralized state, or, if you like, a democratic collective, grants it.

Bylund argues that in Denis's world there could be no entrepreneurship. There would merely be management. The validity of this claim depends, of course, on the definition of the terms. However, from Bylund's outline, one gets only an intuition, and by no means a clear-cut answer as to where exactly the line is drawn. At one point, he states: "The entrepreneurial function is here one that provides value creation relative to other types of production that already exist in the market" (p. 230). The entrepreneur develops "new supply functions that disrupt the market and discover previously unknown demands […] [T]hey require new uncertainty-bearing and are consequently entrepreneurial" (p. 232). In contrast,

> within the firm's production process, the manager can improve its technical efficiency […] or the effectiveness of the already-established production process by reducing waste and lead times, and consequently increasing overall resource utilization. […] The product can also be refined in its functionality, features, and quality, particularly as the firm learns about its customers' specific wants and can therefore better target those most highly valued. (p. 235)

What precisely distinguishes refinement of an existing good and the creation of new ones is not perfectly clear, but surely both, if successful, create value and thus economic growth. So does the reduction of waste.

At one point, the distinction is made more specific, when Bylund claims that entrepreneurship, that is, the "creation of a new supply function entails the withdrawal of capital from its existing use and the subsequent investment in the new endeavor, which requires ownership" (p. 232). If ownership is a necessary condition, then indeed in Denis's world there can be no entrepreneurs by definition.

However, a lot seems to depend on how such an arrangement of "several control" is exactly exercised. As mentioned above, it could look more or less exactly like the US or Sweden today, where presumably there are at least some entrepreneurs. To what extent there will be interference with the free exchange of rights to *control*, exchange, and combine resources and factors of production in different endeavors is simply an extra layer of uncertainty. Successfully bearing this uncertainty requires entrepreneurial skill.

Now, one might not want to call that entrepreneurship, but this is a semantic issue and actually not the most important point of the essay. More importantly, Bylund argues that a pure management economy would be regressing or shrinking even if there are market prices. It is important to note that he does not directly criticize and reject Denis's claim that one could have market prices under "several control." Thus, Bylund seems to accept the idea that a pure management economy could have market prices.

It seems to the reviewer that a well-managed economy without entrepreneurial innovation, where market prices exist, would not necessarily be shrinking. It could expand and grow in at least three respects, namely, as mentioned above, by the reduction of waste, the refinement of existing goods, and through the accumulation of capital and the expansion of the physical output of known goods in existing lines of production. If the relative demand in terms of known goods changes, a well-managed economy would also be capable of redirecting factors of production from one existing line to another. The managers who are confronted with increases in demand could bid away factors of production from others.

There are, of course, undeniable problems if there truly is no innovation in the economy. Exhaustion of non-renewable resources might serve as an example. But this does not change the fact that Bylund's conclusion that in a management-driven economy "value will not only not be created but will be actively destroyed" (p. 239) is exaggerated. The theoretical discussion does not suffice to support this claim.

The last essay is entitled "Economic Calculation and the Limits of Social Entrepreneurship." It is written by the editor of the volume. McCaffrey links the Misesian theory of economic calculation to aspects of "social entrepreneurship." In the introduction, social enterprises are defined as follows:

> Social enterprises are business organizations that are not motivated by the desire to generate monetary profits for traditional shareholders. Instead, the profits of social enterprise are used to solve "social" problems, often by addressing the same kinds of needs as charitable organizations. Social enterprises are special, however, because they support their missions through successful commercial ventures rather than through donations. (p. 244)

Indeed, the weasel word "social" requires further explanation here. McCaffrey explains that "action is 'social' to the extent it fosters cooperation and thereby encourages specialization and the division of labor" (p. 245). It is thus ultimately "inaccurate to contrast social with non-social enterprises" (p. 246) in this broad sense of the word. Enterprises are always social, but may be so in different ways.

Moreover, using Fetter's notion of *psychic income*, and the Misesian derivative of *psychic profit*, McCaffrey shows that it is likewise untenable to call any enterprise strictly "not-for-profit." Social enterprises are bound up with a kind of profit motive too. If the "social cause" pursued by the enterprise involves giving money in some form or another to certain groups, it must generate monetary income if it attempts to be more than a mere charity organization, as McCaffrey points out (p. 249).

These considerations show that it is much more difficult to clearly distinguish the social and mundane types of entrepreneurship. There is no clear-cut theoretical distinction between them that makes their analysis in terms of economic calculation fundamentally different. This is the underlying point of McCaffrey's essay. He nonetheless maintains that "[e]conomics provides wide-ranging theories of social interaction, value, calculation, profit, and pricing that can be used to rigorously define the domain of social entrepreneurship" (p. 259). However, the "social element" is ultimately simply one form of consumption, which has to be financed in some way.

McCaffrey discusses *complementary social enterprises*, which operate exactly like mundane enterprises, except that they donate their profits to some "social" cause and let their costumers know it. Yet, when it comes to *integrated social enterprises*, the pursuit of the "social" cause is tied up into the production process itself. In practice, this means that the entrepreneurs are willing to pay *more* for some factors of production. They might hire homeless workers and pay them a salary above their discounted marginal revenue product (p. 257).

In so far as the pursuit of the "social" cause is valued by the customers, the entrepreneurs will attract additional revenue. It might turn out after all that the homeless workers are really not paid

above their marginal revenue product as McCaffrey shows. If the pursuit of the "social" cause does not attract additional revenue from costumer spending, it must be financed out of other sources. These could be the "entrepreneur's profits, the capital of the enterprise, the land of the enterprise, or the wages of other employees if they are willing to forego part of their potential earnings, as in the case of volunteers for a charitable cause" (p. 257).

McCaffrey thus shows in his article that enterprises in pursuit of a "social" cause are limited by profit and loss and hence by economic calculation, just like mundane enterprises. If they generate monetary profits, they can better promote the cause. If they incur losses, the continued existence of the enterprise and promotion of the cause becomes a matter of charity on the part of the entrepreneurs or other stakeholders. One way or the other, the subjective value creation, that is, the psychic income or want satisfaction, created by the enterprise has to be strong enough to attract finance of its expenses.

CONCLUSION

McCaffrey's edited volume *The Theory of Costs* is a worthwhile read for both students and researchers. It contains valuable criticism of the standard neoclassical approach and some original ideas on how to develop causal-realist economics in the Mengerian tradition further. It is rich in content and will hopefully stimulate further research and debate. The points criticized in this review are thought of as a first step in that direction.

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