# On Böhm-Bawerk's Approach to Entrepreneurship

Revise-and-Resubmit, *Journal of the History of Economic Thought*

With Joseph T. Salerno

**ABSTRACT**

This paper explores the neglected theory of entrepreneurial profit proposed by Eugen von Böhm-Bawerk. Although historians of thought often dismiss Böhm-Bawerk's writings on this topic, we argue that he did develop a coherent theory of entrepreneurial decision-making and profit distinct from his theory of interest. We first discuss Böhm-Bawerk's ideas about futurity, uncertainty, and expectations in his theory of goods, which help form the foundation of his theory of entrepreneurship. We then turn to several of Böhm-Bawerk's ideas about entrepreneurial profit. Specifically, entrepreneurs purchase and allocate factors of production; these decisions are speculative because production takes time, and therefore entrepreneurs bear the uncertainty of the market. Their judgment thus yields profits or losses, based upon their ability to anticipate the future state of consumer demand. Finally, in order to put Böhm-Bawerk's theory in its historical context, we briefly discuss the similarities between his approach and that of Frank Fetter.

## I. INTRODUCTION

Despite tremendous erudition in the field of economic theory, Eugen von Böhm-Bawerk never dealt at great length with the theory of the entrepreneur, although his work on the theory of interest, and consequently on the separation of the different components of income, was closely related. This has led both historians of thought and entrepreneurial theorists to neglect his writings on the subject. For instance, contemporary surveys of Böhm-Bawerk's work have little

or nothing to say on this subject (Garrison, 1999; Hennings, 1987, 1997), and other examples are abundant. Frederick Hawley (1892) bases his criticism of Böhm-Bawerk's interest theory on the claim that interest cannot be explained without also explaining profit, which Hawley claims Böhm-Bawerk did not do. Frank Knight's survey of contemporary (at the time) profit theories in the Mengerian tradition does not even mention Böhm-Bawerk (Knight, 1933 [1921], pp. 28-30). Robert Hébert and Albert Link comment that Böhm-Bawerk largely neglected the entrepreneur, but do note that he briefly considered the problem of the determination of profit (Hébert and Link, 1988, p. 69). Karl Pribram likewise maintains that "Böhm-Bawerk did not advance a theory of profit strictly speaking" (1983, p. 330). Jack Hirshleifer (1967) claims Böhm-Bawerk falsely homogenized the entrepreneur and capitalist, combining the separate categories of entrepreneurial profit and interest, a criticism shared by Hawley (1892).[1] Joseph Schumpeter is more ambiguous, in one place considering Böhm-Bawerk's approach unsatisfactory because it combines classical with neoclassical insights (Schumpeter, 1954, p. 893n2). Yet in another place, he remarks that Böhm-Bawerk was to Schumpeter's knowledge the first to advance an uncertainty-bearing, entrepreneurial-judgment approach to profit (Schumpeter, 1989 [1951], p. 257).

The general view then is that Böhm-Bawerk's writings do not contain significant insights into the theory of entrepreneurship, due either to simple error or to complete neglect of the subject. These views, though intuitively plausible, warrant scrutiny from historians of thought. The purpose of this paper is to show that in fact, Böhm-Bawerk's approach, though not developed systematically, is more nuanced and coherent than is typically thought, and is deserving of more attention than the one or two sentences typically devoted to it. We begin by

[1] Other contemporaries of Böhm-Bawerk— e.g. S. MacVane (1890) and Charles Mixter (1902) — may also take this view, but an explication of their views is difficult because terms such as "profit" and "interest" are often used inconsistently or ambiguously.

analyzing Böhm-Bawerk's view of futurity, uncertainty, and expectations, and how these concepts underlie his approach to capital theory (and implicitly, entrepreneurship). Following this foundational analysis, we gather together Böhm-Bawerk's scattered discussions of entrepreneurship and profit in order to show, first, that he clearly differentiated between profit and interest payments, and second, that he did have a distinct theory of entrepreneurial profit. Furthermore, Böhm-Bawerk represents part of a tradition in entrepreneurial thinking harking back at least to Richard Cantillon, and continuing through the work of Frank Fetter and Frank Knight. To emphasize this point, we conclude with a brief discussion of the similarities between Fetter and Böhm-Bawerk.

## II. BÖHM-BAWERK ON UNCERTAINTY AND EXPECTATIONS

Before we address Böhm-Bawerk's theory of entrepreneurship proper, it is important to briefly describe his views on uncertainty and expectations. This is important for two reasons. First, as we argue below, for Böhm-Bawerk, speculative anticipations of uncertain future market conditions are the essence of entrepreneurship and the source of profit and loss. Second, some modern Austrian economists have characterized Böhm-Bawerk as an "incomplete subjectivist" and a "Ricardian" on capital theory, who took insufficient account of relative price variations. This widely accepted portrayal tends to deflect attention away from the fact that Böhm-Bawerk emphasized the subjectivity and futurity which are embodied in what he called "economic foresight," or the "'forward-looking' manner of considering our economizing" exercised by all economic agents (1962, pp. 87-88), but especially entrepreneurs, as we shall see. In particular, this caricature of Böhm-Bawerk's views obscures his insight that agents use the "anticipatory

method of computation," reckoning their wealth in the face of uncertain developments in future market conditions.[2]

Böhm-Bawerk's views on uncertainty, expectations, and wealth estimation were spelled out in his first publication, *Rechte und Verhältnisse vom Standpunkte der volkswirthschaftlichen Güterlehre. Kritische Studie*, a monograph that appeared in 1881 which was based on his *Habilitation* thesis submitted to the University of Vienna near the end of 1879 (Hennings, 1997, p. 10).[3] The work was not translated into English until 1962 under the misleading title *Whether Legal Rights and Relationships Are Economic Goods* (Böhm-Bawerk, 1962). A more accurate idea of the contents of the work is provided by the literal translation of the German title: *Rights and Relationships from the Standpoint of the Economic Theory of Goods*: *Critical Studies*.[4] The work is in effect a critical treatise on the theory of goods, which had been the starting point of German economic theory for almost the entire nineteenth century. Menger himself devoted the first two chapters (totaling 64 pages) of his *Principles*, which constitutes almost a quarter of the book, to the theory of goods.[5]

In his Preface to the monograph, Böhm-Bawerk contended that the "basic *economic doctrine of the theory of goods*… was in need of correction in several respects, or at least of such revision as to make it truly comprehensive and universally valid" (1962, p. 30; emphasis in

---

[2] For example, Ludwig Lachmann refers to Böhm-Bawerk as a "Ricardian capital theorist," and argues that Carl Menger rejected Böhm-Bawerk's theory on the same grounds that he rejected Walras' system of general equilibrium: neither accounted for "the diversity of the world" (1977, pp. 253, 264). Israel Kirzner (1979, pp. 79, 82) writes about the "nonsubjective, technical and empirical garb" which cloaked Böhm-Bawerk's basic ideas, and implies that, in comparison to Menger's capital theory, Böhm-Bawerk's theory is backward-looking. Kirzner also describes the "Böhm-Bawerkian concept of the capital structure of an economy" as pointing towards "an incomplete subjectivism" (1996, p. 11).

[3] Menger was one of the readers of the thesis and apparently actively campaigned for its acceptance, which was only grudgingly given by its other reader, Lorenz von Stein (1815-1890). The thesis was officially accepted in early 1880 (Hennings, 1997, pp. 10-11). Von Stein, a conservative or corporate state socialist, was influenced by Louis Blanc and other French Utopian socialists (Mai, 1975, p. 215).

[4] [Acknowledgment removed for blind review]

[5] On the importance of the theory of goods in nineteenth-century German economic theory, see Erich Streissler (1990).

original). Such revision was required because goods theory embodied "concepts and truths fundamental to every economic train of thought." Böhm-Bawerk then re-emphasized the importance of the theory of goods in his introductory chapter, where he wrote that goods "constitute the primary material with which economic science makes it its business to deal" (1962, p. 32).

What Böhm-Bawerk found lacking in goods theory is a clear and unambiguous answer to the question of whether legal rights and contractual relationships were to be classified as "goods" from the point of view of economic science (1962, pp. 32-33). Most important for our purposes, his interest in addressing this issue was motivated by his ongoing research into the theory of capital and interest.[6] Having recognized the crucial role of time in this theory, Böhm-Bawerk was intent on elaborating and clarifying the central concept of economizing by incorporating into it the phenomena of foresight, intertemporal valuations, uncertainty, causality, and "wealth computation" (i.e., monetary calculation).[7]

Böhm-Bawerk made some of his most significant contributions in this area when he addressed the question of whether "rights to the future yield of goods," or what we might today broadly refer to today as "financial assets," constitute a separate category of goods. In the case of a "payments-claim," the legal right to demand repayment of a debt, which Böhm-Bawerk considered to be theoretically the most important of this group of rights (1962, pp. 83-85), the "true goods" are "the objects themselves that constitute the matter of the debt." These are the anticipated "renditions of service" that the creditor is entitled to claim at some definite time in

[6] Böhm-Bawerk had begun working out his ideas on capital and interest, with his characteristic emphasis on time and futurity, as early as 1876, when as a student he presented an (unpublished) essay on A. R. J. Turgot to Karl Knies's seminar in Heidelberg. For a discussion of the essay, see Hennings (1997, pp. 56-60). The essay was written well before the publication of the first of Böhm-Bawerk three volumes on capital and interest theory in 1884.

[7] Of course, Menger had dealt with all of these topics, but in a cursory and less methodical fashion (Salerno, 1999).

the future.[8] The "payments-claim" thus endows its owner with power of future disposal over a real thing. Hence it is not a good *per se*, but merely one precondition of "future goods-quality," in the same way that a property right in a thing is one of the preconditions of "an already present goods-quality." Although the resolution of this issue was apparently straightforward, Böhm-Bawerk recognized that futurity was an inherent element of economizing activity and that it raised serious problems that had not previously been addressed by the theory of goods. Thus he initiated a profound investigation into the implications of futurity for the theory of economizing.

Böhm-Bawerk pointed out that "economic science is not concerned only with *today*," because human beings develop "economic foresight" as soon as they begin to strive after the "objective means" for ensuring future well-being (1962, p. 87; emphasis in original). Once this occurs, "the future has gained a sure and important place in our economizing," and we evaluate our anticipated wants and availability of goods against our existing wants and goods. Accordingly, "our economic behavior in the present" is "governed by the prospective presence of future needs just as if they were already upon us in the present." In this way Böhm-Bawerk introduces the concept of an intertemporal scale of valuations.

As Böhm-Bawerk crucially notes, however, "nothing that is future is for us *absolutely certain*" (1962, p. 90; emphasis is in original). Therefore when dealing with claims to future renditions of service—whether these be in the nature of a debt claim or the ownership of a durable good such as a house—neither the actual disposal over these future goods nor, *a fortiori*, their value is assured. Rather, our objective power to utilize them, as well as their subjective

[8] For Böhm-Bawerk, "renditions of service" denotes the flow of unit services yielded by a material good, each of which was capable of satisfying a concrete human want. It is the concrete rendition of service that is *directly* valued by the human agent, and not the good itself. As Böhm-Bawerk explains: "the concrete renditions of service are means for the satisfaction of want in a more real sense than are goods themselves… [I]t is not goods but… the renditions of service that emanate from those goods which constitute the smallest independent units of our economy and that the former (i.e., goods) constitute only complexes of the latter, that goods are therefore a secondary category" (1962, p. 77).

value to us, are subject to "probabilities of an infinite number of degrees of probability which will range from something bordering on complete certainty" to "mere doubtfulness" and on to "an almost disappearing possibility" (Böhm-Bawerk 1962, pp. 90-91). Nonetheless, the very nature of economizing dictates that such uncertain future advantages are taken account of and valued in some manner. Anticipating Frank Knight's famous distinction between "uncertainty" and "risk," Böhm-Bawerk did not believe that the expected values of uncertain future goods could be objectively calculated and summed up. According to Böhm-Bawerk, therefore,

> [W]e cannot differentiate 'sure dollars' from 'probable dollars' and again from 'possible dollars' and… if we could, we should not arrive at a final uniform total, any more than we arrive at a sum resulting from adding apples, pears and plums. Consequently, we can do no more than transfer the gradation in the degree of probability from the area where it exists but cannot be expressed, *the degree of probability*, to an area where it does not exist but where it can be expressed, namely, the magnitude of the prospective advantage. That is to say we modify *the magnitude of the prospective advantage* or modify the estimation of value we place upon it. (Böhm-Bawerk, 1962, pp. 91-92; emphases in original)[9]

In other words, appraising the value of a claim to a future good involves an individual's qualitative and subjective understanding or forecast of the unfolding of the unique events relating to the good's coming into being, and the transformation of this qualitative forecast into a quantitative uncertainty discount in objective and certain present dollars. Thus, for example, legal title to a house of given durability and quality built near the San Andreas fault may be appraised at a lower value by an individual than title to a house of the same durability and quality built elsewhere, because the power of disposal over its future renditions of service is less probable in the first case. Unfortunately, Böhm-Bawerk goes astray by comparing this subjective

[9] Böhm-Bawerk's novel approach to probability reflects implicit awareness of the gist of the criticism later leveled by Ludwig von Mises (1998, p. 107) against modern probability theory: "The problem of probable inference is much bigger than those problems which constitute the field of the calculus of probability. Only preoccupation with the mathematical treatment could result in the prejudice that probability always means frequency."

process of appraising uncertainty discounts for future goods to the very different case of objectively calculating the expected value of a lottery ticket. While correctly perceiving that its "true" expected value never equals the actual *ex post* value of any individual lottery ticket, Böhm-Bawerk leaps to an erroneous inference: "Objectively considered, this manner of computing wealth (except for the case of complete certainty) *always* leads to a result that is wrong" (1962, p. 92; emphasis in original). In fact, the appraisement of a future good or of an individual's overall wealth, *while always fallible*, is *not always wrong*, because the calculation is always instrumental to economizing or action. If the act of production or exchange that the calculation informs results in a surplus of utility gained over utility surrendered, then it is "correct." But this is a minor flaw in Böhm-Bawerk's original analysis of the fundamental futurity and uncertainty that characterize all valuations and choices.

By clarifying the nature of future goods and the method of their evaluation in the present, Böhm-Bawerk was preparing the ground for his foundational explication of the nature and productivity of capital goods. He begins by adopting Menger's conception of "orders of goods," and identifying as a class of future goods the present possession of goods of "more remote order"—the term he preferred to Menger's "higher order." This subclass of future goods was of "paramount importance" because "to it belongs the entire mass of goods which constitute the *capital* of our economy" (Böhm-Bawerk, 1962, pp. 100-107).

The theoretical construction of "a serial structure, or *succession of orders of goods*" embodies the idea of causality, which is intrinsic to the goods concept. For Böhm-Bawerk, then, his theory of capital was nothing more than the elaboration of the logical implications of German goods theory: "All goods, by the very terms of the concept 'good' itself have one feature in common. That feature is that they are capable of constituting a link in the chain of cause and

effect— the causal chain… between human needs and the satisfaction of those needs" (1962, p. 100). Although the value of goods of remoter orders is a "derived value," it is also "prospective in nature" and "anticipates the facts." The reason for the "anticipatory" or forward-looking character of the value of remoter-order goods is precisely that they must be transformed through time-consuming processes into goods of progressively less remote orders before they can finally release their future utility.

According to Böhm-Bawerk, moreover, the present value placed on goods of remoter order and on future goods in general is the result of an individual and uncertain process of "wealth computation" (1962, pp. 95). This process is "an operation replete with subjective interpretations and insinuations." It is a mental operation that is designed to give the economizing individual more than a mere listing of "the things comprising [his] wealth"; rather, it is designed to provide "some estimation of their significance, their economic importance… their *value*, in order that we may add them up and compare them with other accumulations of wealth" (Böhm-Bawerk, 1962, p. 86; emphasis added). The uncertain, subjective, and fluctuating "capital values" that are summed up into an individual's wealth are thus distinct from his objective possession of presently existing, concrete goods of remoter orders that constitute "capital."[10] Böhm-Bawerk characterized the relationship between capital value and capital in the following manner:

> All capital value is an *anticipation* of the value of the prospective consumptible end-product. Production, of which capital is the tool and the material (e.g., machines and raw materials) is the condition, the justification and the materialization of the value which has temporarily been ascribed to capital goods;

[10] Elsewhere, Böhm-Bawerk (1962, p. 97) differentiates "the materials of wealth" from the "forms of wealth." The former, which include, in addition to concrete capital goods, both durable and stored consumer goods, "are patently identical with the genuine goods which in actual fact lend support to our life and our well-being." The latter are the appraised values of our diverse rights and relationships that bear some probability of the promise of future renditions of service, and are "mere creatures of our subjective interpretations."

> it is the process by virtue of which the future value of a capital good is transmuted into the present worth of the matured consumptible end-product, the process which leads to capital's fulfillment and justification. (Böhm-Bawerk, 1962, p. 105; emphasis in original)

Böhm-Bawerk does not here address the issue of how monetary calculation of capital values guides entrepreneurs in allocating concrete capital goods. Nevertheless, his clear distinction between "capital good" and "capital value" is a seminal contribution to economic science and a crucial step forward on the road to the development of a theory of entrepreneurship.

## III. BÖHM-BAWERK'S THEORY OF ENTREPRENEURSHIP

In addition to the comments mentioned in the introduction, it is helpful to provide additional background by mentioning a criticism of Böhm-Bawerk by his contemporary, Frederick B. Hawley. Hawley's general contributions to entrepreneurial theory are discussed in Hébert and Link (1988, pp. 87-90), but we wish to focus on his criticism of Böhm-Bawerk, which inspired much of his other writing on the subject. Hawley's assessment of Böhm-Bawerk's approach to profit is fairly typical. He claims that it is

> evident that profit is… looked upon as simply the wages of management… and the undertaker as no more than the manager of the industry. The fact that he enjoys the sole control of the capital engaged is regarded as a mere incident of the personal efforts he expends in conducting the business. This view of the undertaker necessitates classing him among laborers. (Hawley, 1892)

Hawley intends with this critique to emphasize his own position, that profit is a composite income reflecting returns to several functions. From this claim, Hawley derives a number of other objections which we mention throughout this paper. We will show that such views of Böhm-Bawerk misrepresent his position: profit is for him more than a wage, and is in fact a distinct branch of income, Hawley's remarks notwithstanding.

At the beginning of his treatise on capital and interest, Böhm-Bawerk makes it clear that the problem of interest is his principal concern, to the exclusion of the problem of entrepreneurial profit:

> The difficulties which surround our subject, the problem of interest, are so great that I can have no desire to increase them by introducing the complication of a second difficult problem. I shall therefore refrain from investigating or deciding the problem of the entrepreneur's profit… The question of whether the so-called entrepreneur's profit is or is not income on capital I shall intentionally leave open. (Böhm-Bawerk, 1959, I, p. 7)

This claim however belies later arguments made by Böhm-Bawerk regarding the essence of entrepreneurship and entrepreneurial profit. It is possible that the above remarks are meant only to anticipate the discussions in the first volume of Böhm-Bawerk's treatise, and that they are to be relaxed in later volumes after the problem of interest has been addressed. Whatever the case, by carefully discussing the boundaries of interest theory, at the very least Böhm-Bawerk opened the way for a theory of the entrepreneur. The above passage also indicates in passing that Böhm-Bawerk did think of the problems of entrepreneurial profit and interest as distinct, even if it is the case that both are tied to the theory of capital. His exact thoughts in this regard are the subject of this paper.

In the opening pages of the first volume of his treatise, Böhm-Bawerk describes the scope of the problem of entrepreneurship, and speaks favorably of a theory which treats of a distinct entrepreneurial function capable of yielding profit. He appears to have several specific ideas in mind when he describes the entrepreneurial function:

> For it is not at all unreasonable to doubt whether the entire excess of proceeds over costs that is realized by an entrepreneur from a process of production should be credited to his capital. Certainly it should not be, if the entrepreneur simultaneously occupies the position of a worker in his own enterprise, for work performed. But even if he does not personally participate in the labor of production, he contributes

> a certain measure of personal effort, either by reason of the intellectual effort represented by his supervision, or by his formulating policies for the business to follow, or at the very least because of the act of will by which he determines that his means of production shall be enlisted in the service of that particular enterprise. One component would be the result of contributing capital— the originary interest, as it were, and the other the result of the entrepreneur's effort. (Böhm-Bawerk, 1959, I, p. 6)

Even if the entrepreneur were simply a wage earner in his own enterprise, his income would still be distinct from interest payments. But of course Böhm-Bawerk goes further, describing the "personal effort" of the entrepreneur which extends beyond simple wages: a personal judgment which the entrepreneur exercises which is peculiar to him, his "supervision." The judgment in question concerns the choice to allocate capital goods to competing processes of production. The entrepreneur is then an entrepreneur-capitalist; entrepreneurs exercise control over capital goods which are used in production. Böhm-Bawerk does not dwell on any possible differences between the capitalist and entrepreneur other than to note the two distinct returns earned by the capitalist-entrepreneur: an originary interest payment, and a return to an entrepreneurial decision-making function. The element of time is not discussed here, but as we shall see below, does play a role in this theory of entrepreneurship, as we would indeed expect from his earlier work on the theory of goods.

Böhm-Bawerk proceeds from this discussion to mention the practical difficulty in this theory in separating exactly the returns to capital and entrepreneurial decision-making. He gives a simple numerical example which portrays entrepreneurial profit as an income flowing to the entrepreneur (again, explicitly differentiated from interest on capital) as a return to successful investment decisions (1959, I, pp. 6-7). In his illustration, profit is determined by subtracting the prevailing interest rate from gross profits. Böhm-Bawerk describes all this as the "problem of no

small difficulty" of separating entrepreneurial profit from interest, and explicitly avoids further exploring the issue (1959, I, p. 7).

In the second volume, the *Positive Theory of Capital*, Böhm-Bawerk returns to the subject of entrepreneurial profit in more detail, in connection with the law of costs. In this section he more completely defines entrepreneurial profit, which in its simplest form is merely a differential between market prices and costs of production:

> If at any time the price does rise considerably above cost, then the production of that article becomes exceptionally profitable for the entrepreneurs. That not only supplies an incentive for them to expand their flourishing establishments, but it also encourages new entrepreneurs to enter this profitable line of business. The quantity of that particular product that is offered on the market is thereby increased, with the ultimate result that, in conformity with the law of supply and demand, the price begins to fall. Conversely, if at any time the market price falls below cost, continuation of the production of the good becomes a losing proposition and consequently the entrepreneurs abandon or restrict its production. (Böhm-Bawerk, 1959, II, p. 248)[11]

The question as to what causes this differential remains to be answered. It is clear from the quotation that Böhm-Bawerk views entrepreneurs as actively directing production so as to increase or decrease production. Entrepreneurs therefore control the means of production, and furthermore bear the uncertainties of the market, because it is they who reap the benefits of "flourishing establishments," or who suffer when production "becomes a losing proposition." The incentive to earn profits (or avoid losses) mentioned in this passage is what pushes prices in the direction of costs of production, and also influences the direction of production itself. It is apparent that this tendency is a distinctly entrepreneurial problem, to be solved by the careful adjustment of production by those who bear the weight of past errors in judgment regarding the state of the market.

[11] For a concrete example using the price of iron, cf. Böhm-Bawerk (1959, II, pp. 254-255).

Böhm-Bawerk uses the example of a fictional iron market to clarify his approach to prices and costs, and in doing so, further explores the role of the entrepreneur. In explaining the demand for iron, he implies much about the entrepreneurial function:

> Each manufacturer will want to buy just so much iron as he needs for producing such quantity of his commodity as *he anticipates he can sell to his own customers*… obviously no manufacturer will pay more for a hundredweight of iron than he can realize from it… in the purchase price that his customers *will* pay him. (Böhm-Bawerk, 1959, II, p. 249; emphases added)

This passage implies several important ideas regarding the entrepreneurial function. The producer-entrepreneur in this example is buying iron as a higher-order good which will eventually be transformed into a consumer good. The price at the last stage must justify the cost incurred by the producer. But the separation in time of the two prices means that the entrepreneur must speculate about the future state of the market (he must "anticipate" correctly). These speculative judgments play the key role in determining the demand for the factors of production: "the participation in the market demand for iron on the part of each producer depends on *his own estimate*, and that he derives from the market price of his own special kind of ironware" (1959, II, p. 250; emphasis added). Once again, the "estimate" implies an anticipation of some future state of prices and costs. Entrepreneurial decision-making allocates resources to production, committing them for the specified period. Future prices then determine whether or not the entrepreneur's earlier estimate was correct, and will result in either entrepreneurial profits or losses.

Given the above analysis, the claim made by Hawley appears somewhat weak. Hawley's conclusion is that Böhm-Bawerk's theory of profit cannot be sustained because it does not explain why the entrepreneur does what he does, because: "on the average, the undertaker will get back… just what he has paid to the laborer, the landlord, and the capitalist, plus his own

wages of management" (Hawley, 1892). But once we see that profit is not merely wages but a return to a distinct function, this critique collapses, because the average return is not zero, but some uncertain (possibly very great) value, and is not simply a wage. Hawley seems to recognize this last point, observing that for Böhm-Bawerk "the wages of management, *although earned by intellectual rather than physical exertion*, are yet wages" (Hawley, 1892; emphasis added). It is not clear why the difference alluded to does not distinguish wages from entrepreneurial decisions, and Böhm-Bawerk makes no such claim; quite the opposite in fact, as we show.

In his discussion of the law of costs, Böhm-Bawerk notes that exceptions to equivalence of price and cost are legion, and he points out two distinct reasons for this. One is of course the phenomenon of interest, with which Böhm-Bawerk's work is primarily concerned. The second is a category of causes which he describes broadly as "frictional obstacles."[12] Böhm-Bawerk uses this "comprehensive" term to mean anything which prevents factors at different stages of production from being uniformly valued, leading to "asymmetrical deviations in price as between earlier and later stages of production" (1959, II, p. 256). As he puts it,

> The stream of the means of production does not maintain uniform breadth on its course toward the final stage where they become consumption goods. Instead… the stream at some points is dammed up and it broadens, while at others it falls and the stream narrows. (Böhm-Bawerk, 1959, II, pp. 255-256)

He goes on to say that,

> In actual practice such "frictional obstacles" are infinite in number. There is no moment of time and no branch of production which could boast a complete absence of them. And that is what gives the law of costs its well known character of a law which has only approximate validity and which teams with exceptions. And those numberless big and little exceptions are the inexhaustible source from which flows the constant stream of entrepreneurs' profit— and of entrepreneurs' losses as well. (Böhm-Bawerk, 1959, II, p. 256)

[12] It is important to note that this type of friction is not the one criticized by Mises (Mises, 2009, pp. 44-47). Mises refers to Böhm-Bawerk's claim that "frictions" in the economy ensure monetary neutrality.

This appears to be consistent with Pribram's claim that this theory attributes profit to "a combination of fortuitous circumstances or to superior ability" (Pribram, 1983, p. 330). Further clarifications are necessary though. Frictions merely make profits possible by driving a wedge between prices and costs of production, a wedge which provides incentives for entrepreneurs to alter their demand for and allocation of capital. Frictions represent opportunities; if entrepreneurs are correct in their speculative judgments and successfully deploy capital goods, they can earn profits (or if they are incorrect, losses). Thus the true source of profits and losses is the entrepreneur, and not the environment, the "fortuitous circumstances," in which he acts. This is important, because although events might be fortuitous in the sense that they create opportunities, profits are not due to luck *per se*, but to superior judgment. Without resource allocation, no combination of frictions can produce either profits or losses.

Let us try to see this more clearly in Böhm-Bawerk's writing. Böhm-Bawerk does not elaborate on the specific causes of friction, referring only to "some disturbing cause or other" (1959, II, p. 256). Further remarks make it clear however that he attributes frictions in the production structure to speculative errors on the part of capital owners, whose demand, as we have seen, anticipates the demands of consumers. Böhm-Bawerk is quite clear on this point in a chapter explaining the relation between the price and cost of the factors of production:

> The divergence [between price and cost] is of two kinds: some of it [interest] is regular, some of it is random. Both kinds are attributable to the circumstance that production takes time. Often long periods of time will pass during which goods of sixth or eight order pass through all the intermediate stages before being converted into the final form as mature consumption goods. And during that time people and things can change. Wants can alter, so can the relations between want and coverage, and above all, *the insight into those relations can change*. Naturally the estimates of the value of the goods in the various stages of their progress toward maturity will change correspondingly. It can readily be seen that the fluctuations which

> arise from that source may be extreme or slight, may be upwards or downwards. They are deviations that know no rule. (Böhm-Bawerk, 1959, II, p. 172; emphasis added)

In other words, time introduces uncertainty into the data of the market.[13] This in turn necessitates correct judgments on the part of the entrepreneur in order for production to coincide with future demand. The element of randomness ("friction") refers to changes in the tastes of consumers, which of course are inextricably linked with the problem of time. In this sense, the *potential* to profit is a random occurrence to the entrepreneurs, who do not know which way the preferences of consumers will change. Actually reaping profits is, in Böhm-Bawerk's view, the result of prescient production decisions by the owners of capital goods who foresee these changes through the fog of Knightian uncertainty. Böhm-Bawerk explicitly singles out the entrepreneur's perception of the state of the market data (the relation of goods and scarcity to consumer demand) — his "insight"— as the most important implication of uncertainty. This perception is in fact the primary source for Böhm-Bawerk of the value differential which results in entrepreneurial profits and losses.[14]

While it is true, as Hébert and Link (1988) argue, that for Böhm-Bawerk the entrepreneur and capitalist are one, it would not be correct to infer from this that there is no distinct entrepreneurial function in Böhm-Bawerk's theory.[15] Rather, it is merely the case that two separate economic functions are combined in the person of the aptly-named capitalist-

[13] Böhm-Bawerk wrote before Knight introduced the distinction between quantifiable risk and unquantifiable, "true" uncertainty (Knight, 1993 [1921]). However, it is obvious from Böhm-Bawerk's discussion (and also Fetter's) of time in the context of profit that he refers to the latter. As one example, consider the discussion below of "random" changes in the market data over time.

[14] Schumpeter described this as "a friction or uncertainty theory, whichever the reader prefers: the source of entrepreneurs' profits was the fact that things do not work out as planned, and the persistence of positive profits in a firm was due to better-than-normal judgment." He goes on to claim that "the obvious common sense of this explanation may easily cover up its inadequacy" (Schumpeter, 1954, p. 893). This point is not clearly explained, but he appears to mean that Böhm-Bawerk adopted too much of a classical theory of profit. Cf. Schumpeter (1954, pp. 893-898).

[15] In this respect, note that it is not the combining of capitalist and entrepreneur *per se*, but rather their combination *to the exclusion of the entrepreneur*, which appears to have been the error of the British classical economists. Cf. the discussions in Hébert and Link (1988) for an explication of the problems involved.

entrepreneur; yet these functions remain distinct theoretically. The entrepreneur's judgment is the deciding factor in the determination of profit, which exists independent of pure interest. The comments of Pribram, Hirshleifer, and Schumpeter mentioned above do not do Böhm-Bawerk full justice as an entrepreneurial theorist. Likewise, Hawley's contention that Böhm-Bawerk's theory reduces entrepreneurship to the wages of management must also be rejected.

As a way of rounding out the discussion, let us briefly mention the place of Böhm-Bawerk's theory in the history of economic thought. It is clear that Böhm-Bawerk anticipated and influenced the theories of Ludwig von Mises and, perhaps ironically, Frank Knight (Hébert and Link, 1998, p. 69). It is not surprising though that Knight did not to see similarities between his own work and that of Böhm-Bawerk. Knight, for example, denied that Carl Menger developed a theory of the entrepreneur, and makes only a slight reference to Böhm-Bawerk (Knight, 1950), despite the fact that his own theory is close to that of Menger and the Austrians in general (Martin, 1979; Schumpeter, 1989 [1951], p. 257). Of his rough contemporaries however, Böhm-Bawerk's approach most closely resembles that of Frank Fetter (1915). Although Böhm-Bawerk was anticipated by Richard Cantillon and Frédéric Bastiat (among others),[16] we mention Fetter specifically because his work is also typically neglected in the literature. Fetter's theory is described more fully in Salerno (2008), but it is worthwhile to very briefly touch on the similarities between the two economists in several respects.

Fetter also describes the essence of entrepreneurial[17] activity as "active intervention and effort" in combining and arranging the factors of production (Fetter, 1915, p. 318). It is the successful combination of the factors that yields an income to the entrepreneur (Fetter, 1915, pp.

[16] The tradition stemming from Cantillon is discussed in Hébert and Link (1988) and Hébert (1985). The latter source elaborates on Cantillon's connection to the Austrian school specifically. Salerno (2008) surveys several economists in the tradition from Menger onward.

[17] Fetter uses the terms "enterprise" and "enterpriser."

320-321). Profits and losses appear in accordance with the amount of uncertainty borne by the owner of the factors in his investment decisions (Fetter, 1915, pp. 332-334). In sum, for Fetter, "the peculiar function of enterprise is investment and ownership" (Fetter, 1915, p. 326). Entrepreneurship is then a matter of the successful anticipation of a profitable future arrangement of the factors of production by their owners. On these major points, both Böhm-Bawerk and Fetter are in agreement, a fact which fits nicely with both economists' close relation to (and role in advancing) the tradition established by Menger. Fetter however, goes into far greater detail than Böhm-Bawerk, for example, in separating the function of entrepreneur on the one hand and manager and promoter on the other (Fetter, 1915, 322-334). A full explication of Fetter's view requires further research, but it is clear from this brief summary and the sources cited above that a common line of reasoning exists between Fetter and Böhm-Bawerk on the subject of entrepreneurial profit.

## IV. CONCLUSION

We have argued that Böhm-Bawerk's theory of the entrepreneur, although not systematically explored, is more developed that is commonly thought. First, Böhm-Bawerk conceives of economic affairs, especially those involving the capital structure, as fundamentally future-oriented, and largely as a matter of coping with uncertainties inherent in the market. Second, the above also comments clearly show that Böhm-Bawerk conceived of entrepreneurial profit as a return to successful adjustment of the structure of production through time, in anticipation of future consumer demand. This adjustment in performed by owners of capital, who exercise judgment in choosing the pattern of production, and earn profits or losses according to their ability. This theory is only clearly seen however after piecing together the relevant discussions in Böhm-Bawerk's writing.

**REFERENCES**

Böhm-Bawerk, Eugen von. 1962. "Whether Legal Rights and Relationships are Economic Goods." In *Shorter Classics of Böhm-Bawerk: Volume I*. South Holland, Ill: Libertarian Press, pp. 30-138.

----------. 1959. *Capital and Interest*. 3 vols. Trans. George D. Huncke and Hans F. Sennholz. South Holland, Ill: Libertarian Press.

Fetter, Frank A. 1915. *Economic Principles*. New York: The Century Co.

Garrison, Roger W. 1999. "Eugen von Böhm-Bawerk: Capital, Interest, and Time." In Randall G. Holcombe, ed., *15 Great Austrian Economists*. Auburn, Al: The Ludwig von Mises Institute, pp. 113-122.

Hawley, Frederick B. 1900. "Enterprise and Profit." *Quarterly Journal of Economics*.15 (1): 75-105.

----------. 1892. "The Fundamental Error of "Kapital und Kapitalzins"." *Quarterly Journal of Economics* 6 (3): 280-307.

Hébert, Robert F. 1985. "Was Richard Cantillon an Austrian Economist?" *Journal of Libertarian Studies* 7 (2): 269-279.

Hébert, Robert, and Albert Link. 1988. *The Entrepreneur: Mainstream Views and Radical Critiques*. 2nd ed. New York: Praeger.

Hennings, Klaus H. 1997. *The Austrian Theory of Value and Capital: Studies in the Life and Work of Eugen von Böhm-Bawerk*. Cheltenham, UK: Edward Elgar.

----------. 1987. "Eugen von Böhm-Bawerk." In John Eatwell, Murray Milgate, and Peter

Newman, eds., *The New Palgrave: A Dictionary of Economics*. London: Macmillan, pp. 254-259.

Hirshleifer, J. 1967. "A Note on the Bohm-Bawerk/Wicksell Theory of Interest." *Review of Economic Studies* 34 (2): 191-199.

Kirzner, Israel M. 1996. "Introduction." In *Essays on Capital and Interest: An Austrian Perspective*. Brookfield, VT: Edward Elgar.

----------. 1979. "Ludwig von Mises and the Theory of Capital and Interest." In *Perception, Opportunity, and Profit: Studies in the Theory of Entrepreneurship*. Chicago: University of Chicago Press, pp. 76-87.

Knight, Frank H. 1950. Introduction to *Principles of Economics*, by Carl Menger. Glencoe, Ill: The Free Press.

----------. 1933 [1921]. *Risk, Uncertainty, and Profit*. Series of Reprints of Scarce Works on Political Economy No. 16. London: London School of Economics and Political Science.

Lachmann, Ludwig M. 1977. "Sir John Hicks as a Neo-Austrian." In Walter Grinder, ed., *Capital, Expectations, and the Market Process: Essays on the Theory of the Market Economy*." Kansas City: Sheed, Andrews and McMeel, pp. 251-266.

MacVane, S. M. 1890. "Boehm-Bawerk on Capital and Wages." *Quarterly Journal of Economics* 5 (1): 24-43.

Mai, Ludwig H. 1975. *Men and Ideas in Economics: A Dictionary of World Economists: Past and Present*. Totowa, NJ: Littlefield, Adams & Co.

Martin, Dolores Tremewan. 1979. "Alternative Views of Mengerian Entrepreneurship." *History of Political Economy* 11 (2): 271-285.

Mises, Ludwig von. 2009. *Memoirs*. Auburn, Al: The Ludwig von Mises Institute.

----------. 1998 [1949]. *Human Action: A Treatise on Economics*. Auburn, Al: The Ludwig von Mises Institute.

Mixter, Charles W. 1902. "Böhm-Bawerk on Rae." *Quarterly Journal of Economics* 16 (3): 385-412.

Pribram, Karl. 1983. *A History of Economic Reasoning*. Baltimore: Johns Hopkins University Press.

Salerno, Joseph T. 2008. "The Entrepreneur: Real and Imagined." *Quarterly Journal of Austrian Economics* 11 (3): 188-207.

----------. 1999. "The Place of *Human Action* in the Development of Modern Economic Thought." *Quarterly Journal of Austrian Economics* 2 (1): 35-65.

Schumpeter, Joseph A. 1954. *History of Economic Analysis*. New York: Oxford University Press.

----------. 1951. "Economic Theory and Entrepreneurial History." In Richard V. Clemence, ed., *Essays on Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism*, ed., New Brunswick, NJ: Transaction, pp. 253-271.

Streissler, Erich W. 1990. "The Influence of German Economics on the Work of Menger and Marshall." In Bruce J. Caldwell, ed., *Carl Menger and His Legacy in Economics*. Durham, NC: Duke University Press, pp. 31-68.

See Hennings on von Manglodt, Kyklos, 1980, 33