

THE ENTREPRENEURIAL ROLE
IN Menger's SYSTEM

by

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It is by now fairly well recognized that the mainstream of modern equilibrium microeconomics has, particularly since its decisive absorption of Walrasian influence, assumed a form in which scope for entrepreneurial role is conspicuous by its absence.¹ One broad modern tradition in which the place of the entrepreneur~~ship~~ was, however, never squeezed out, was that which drew its source from Carl Menger and his followers. Writers with such sharply varied approaches to economics as Schumpeter and Mises shared, at least, a high disdain for the dominant perfectly-competitive-equilibrium view of price theory, and a lively sense of the crucial significance of entrepreneurship for an understanding of the capitalist-market process. Yet the history of economic thought does not, in its treatment of the place of entrepreneurship in economic theory, assign much importance to the founders of the Austrian school. In the considerable economic literature, during the three or four decades beginning with the eighties, in which the nature of entrepreneurship and of entrepreneurial profit was explicated, there were few contributions from the founding Austrians.² It is of some interest, therefore, to examine the work of Carl Menger himself to determine rather carefully the extent to which his system, explicitly or implicitly, found room for the entrepreneurial role (or to which his system might, at the hands of his followers, be expected to lead to the clear identification and explication of this role).

This interest is perhaps heightened by the existence of some intriguing discussions concerning the extent to which Menger's work in

fact influenced later writers on entrepreneurship. Knight, in his highly unsympathetic Introduction to the first English translation of Menger's Grundsätze,³ remarks that, on the questions of entrepreneurship and profit "later economists got little help from Menger or his contemporaries, or even his successors in the Austrian School."⁴

(Knight presumably meant by this, not that Menger altogether ignored these questions, or that he exerted no influence on later writers, but that he and his followers pursued an approach that Knight in his own work on the matter,⁵ found unhelpful. This interpretation would fit in with what seems to be Knight's grossly inadequate references, in Risk, Uncertainty and Profit, to the work on entrepreneurship of Schumpeter, presumably one of the "successors" to Menger, whom Knight has in mind in the above citation.) On the other hand, Streissler has recently expressed the view that, while Menger's immediate followers ignored his stress on problems of information, Schumpeter built his own theory of entrepreneurial innovation largely on Menger's foundations.⁶

Now Streissler's view that Schumpeter built on Mengerian foundations is difficult to document. In his 1911 book, where his distinctive ideas on entrepreneurship were most definitively stated early in his career, Schumpeter hardly referred to any Austrian literature. Beyond a disparaging reference to Mataja,⁷ Schumpeter cited only Böhm-Bawerk's "friction" theory of entrepreneurial profit;⁸ Menger's writings are not mentioned at all in regard to the entrepreneurial function. Even more revealing, perhaps, is Schumpeter's indirect, but very clear, dismissal--in his History, written so many years later--of Menger's work on entrepreneurship. Again referring to Bohm-Bawerk's

theory of entrepreneurial profit, ^{Schumpeter} ~~Menger~~ remarked that "excepting Böhm-Bawerk, the Austrians had very little to say about the matter."⁹ Nonetheless, Streissler's conjecture that Menger's ideas on information might have provided a broad source for Schumpeter's later ideas--even if it were to prove the case that in fact they did not so serve--remains a fascinating possibility.

We turn, then, to examine Menger's view of the market process, both to explore this latter possibility as well as to confront the possibility of a paradox: on the one hand, a flourishing modern Austrian tradition (claiming its paternity from Menger even more emphatically than from Böhm-Bawerk¹⁰) with its stress on entrepreneurial processes, on the other hand what appears at first glance to be a decided lack of attention, in Menger's own work, to the nature of the entrepreneur, of his role, and of entrepreneurial profit.

In what follows, we will successively discuss: a) Menger's own treatment of the entrepreneurial role; b) Menger's recognition of the importance of knowledge, or error, and of uncertainty, in economic process; c) Menger's position with respect to the role of equilibrium analysis of economic phenomena; d) Menger's understanding of the nature of competition, and of product quality variation, in market processes. We will then, in the light of these discussions, return to appraise Menger's system from the perspective of the purposes of this study, as described above. It should be mentioned at the outset that this study owes a great deal to several important papers by Professor Streissler.¹¹ Although we shall have occasion to take serious issue with many of Streissler's conclusions, it is to Streissler, rather than to the earlier

and better known surveys of Menger's contribution,¹² that we owe an awareness of Menger's unique understanding of the crucial importance of knowledge, error and uncertainty. Ultimately, any examination of the place for entrepreneurship in Menger's system must, as ours will, take this awareness as its point of departure.

Menger on Entrepreneurship

Menger's explicit treatment of entrepreneurship is brief, consisting of two or three passages, the longest of which is a footnote.¹³ For Menger, entrepreneurial activity is a special kind of labor service. Such activity is, as a rule, valuable to economizing men. However, since these kinds of services cannot be bought and sold,¹⁴ they have no market price.¹⁵ A necessary prerequisite for the provision of such services, moreover, is possession of the appropriate amounts of capital. The specific functions of which entrepreneurial activity consists are listed by Menger as involving (a) "information about the economic situation; (b) economic calculation--all the various computations that must be made if a production process is to be efficient . . .; (c) the act of will by which goods of higher order . . . are assigned to a particular production process; and finally (d) supervision of the execution of the production plan so that it may be carried through as economically as possible."¹⁶ Menger is explicit in rejecting Mangoldt's view that risk bearing is the essential function of entrepreneurship.¹⁷

Entrepreneurship is a good of higher order, one of the complementary higher order goods needed for production. The "prospective value of the product determines the total value [of the complementary goods of

higher order] only if the value of entrepreneurial activity is included in the total."¹⁸

It seems not unfair to understand Menger's entrepreneurial activities as being quite similar, say, to those of Marshall's entrepreneur-manager.¹⁹ Despite the special (and quite unusual) attention paid by Menger to the "information", and to the "act of will" involved in the entrepreneurial role, we find no attempt (such as we find later in Schumpeter or in Knight) to identify analytically the essential entrepreneurial role in such a way as to distinguish it from that of the hired manager. And Menger had no qualms in treating entrepreneurial profit as a species of factor return, the value of a useful service. In a long footnote discoursing on the "morality" of property incomes (in which Menger simply points out that given the social conditions of the moment, the efficient market simply assigns each factor its true value--whether or not we approve of it aesthetically), Menger finds no need to give pure entrepreneurial profit any separate treatment.

Nor is there any hint of a relentless competitive market process continually and repeatedly operating to grind down entrepreneurial profit to zero; nor of the associated possibility that "in equilibrium" there might be a situation in which no scope at all would exist for the entrepreneur.

Certainly, insofar as any deliberate discussion of entrepreneurship finds a place in Menger, it is understandable that Schumpeter and Knight saw little in Menger from which either of them could claim to have drawn inspiration.

Menger on Knowledge, Error and Uncertainty

Despite the limited attention paid explicitly by Menger to the entrepreneurial function, it is nonetheless yet possible that Menger's exposition of the operation of the market system may be discovered to embody implicit understanding of the pivotal role played by the pure entrepreneur in the capitalist process. Such implicit understanding must, if it is to be found to exist, relate especially to the importance of changing knowledge as the propelling force behind the process; to the concomitant continual discovery in the market of earlier errors by decision makers; and to perception of the closely related phenomenon of uncertainty which necessarily conditions and suffuses all market decisions. We will, that is, be searching for possible signs of recognition by Menger of the systematic tendencies generated in the markets by the dynamics of interacting decisions that are made under a wide range of degrees of mutual ignorance.

Menger's system provides, indeed, a fascinating opportunity for such a search. As emphasized by Streissler, Menger's Grundsätze provides numerous instances of his "constant stress on problems of information" with its variability "over time and, at any given moment, over individuals."²⁰ Moreover, Menger's emphasis on the time dimension led him to pay a good deal of attention to the uncertainty which this dimension entails.²¹ This Mengerian emphasis on the role of knowledge is a quite remarkable feature of his work, one to which (as mentioned above) the commentators before Streissler unaccountably failed to draw attention. And even Streissler, it may be argued, does not quite do

complete justice to the extent to which Menger's whole system revolves around questions of knowledge.

Menger on Knowledge

Menger's Gründsatze is not merely a treatise containing scores of reference to knowledge. Nor is the crucial role of knowledge in Menger's system quite captured, it may be argued, even in his "remarkable sentence, 'the quantities of consumption goods at human disposal are limited only by the extent of human knowledge.'"²² Menger's awareness of the importance of knowledge emerges as central to an impressive variety of different ~~aspects~~ aspects of his theory, including (perhaps, for the purposes of our own study, most significantly) the very foundation of his system, that of "economizing" activity.

Menger states, of course, that it is the perceived usefulness of goods that makes them goods in the first place, and upon which the notion of economic value must depend.²³ Changes in perception, correct or otherwise, change value.²⁴ To the extent to which planful provision for the future occurs, it must depend on foresight and expectations.²⁵ As mentioned, economic progress depends for Menger, in the last analysis, upon the progress of human technical understanding.²⁶ The very first component of entrepreneurial activity, we have seen in a previous section, involves "information about the economic situation."²⁷ Opportunities for mutually beneficial exchange, Menger makes very clear, can be expected to be acted upon only if both parties are able to perceive the existence and worthwhileness of these opportunities.²⁸ Of particular interest, in this last respect, is Menger's footnote reference to advertising as a means whereby producers can make their products

known to potential customers.²⁹ Finally, we must draw attention to Menger's highly impressive analysis of the spontaneous market process by means of which a money can emerge. This process is one of spontaneous discovery, and is worth quoting at some length:

The exchange of less easily saleable commodities for commodities of greater marketability is in the economic interest of every economizing individual. But the actual performance of exchange operations of this kind presupposes a knowledge of their interest on the part of economizing individuals. . . . This knowledge will never be attained by all members of a people at the same time. On the contrary, only a small number of economizing individuals will at first recognize the advantage accruing to them from the acceptance of other, more saleable, commodities in exchange for their own whenever a direct exchange of their commodities for the goods they wish to consume is impossible or highly uncertain. . . . Since there is no better way in which men can be enlightened about their economic interests than by observation of the economic success of those who employ the correct means of achieving their ends, it is evident that nothing favored the rise of money so much as the long-practiced, and economically profitable, acceptance of eminently saleable commodities in exchange for all others by the most discerning and most capable economizing individuals.³⁰

Of special interest for our purpose, is the place which knowledge occupies in relation to the activity of economizing. Economizing is the basic activity upon which Menger's elaborate microeconomic theoretical structure is built. (We shall, in a later section, have further occasion to comment on the character of the Mengerian "economizing

individual".) Knowledge appears to enter into Menger's elaboration of the requirements and characteristics of economizing activity in at least two different ways (although it must be confessed that Menger does not himself articulate these differences).

a) First, in order for economizing activity to become engaged in, it is required that the individual perceive that his needs exceed his means. "Wherever . . . men recognize that the requirements for a good are greater than its available quantity they achieve the further insight that no part of the available quantity, . . . may lose its useful properties or be removed from human control without causing some concrete human needs, previously provided for, to remain unsatisfied . . . A further effect . . . is that men become aware . . . that any inappropriate employment of particular quantities of this good must necessarily result in part of the needs that would be provided for by appropriate employment of the available quantity remaining unsatisfied."³¹ At this level, knowledge of scarcity is called upon to impress upon the individual the very need to economize, to realize that he lives, not in a land of Cockaigne but under circumstances in which avoidance of waste is of some importance.

b) Second, in order to effectively engage in provident economizing activity, it is required that the individual know not merely that he lives in a world of scarcity, but also the specifics of his anticipated requirements and of the expected quantities of goods that will be at his disposal. It is at this level of discussion that we encounter some of Menger's remarks concerning uncertain expectations. It is in relation to this kind of specific knowledge that Menger

discusses the deliberate efforts of men to obtain knowledge. "To the degree to which men engage in planning activity directed to the satisfaction of their needs, they endeavor to attain clarity as to the quantities of goods available to them at any time."³² And it is here that Menger (no doubt drawing on his own earlier experience as an economic journalist surveying the state of the markets for the Wiener Zeitung) discusses the various concrete methods by which reports on commodity stocks in grain, sugar and cotton markets are assembled and used by traders.³³ And, in perhaps his closest linking of knowledge with entrepreneurship, Menger explains how a widening market permits "the development of a special professional class . . . [which has an interest] in compiling data about the quantities of goods, currently at the disposal of the various people and nations whose trade they mediate . . . They have, moreover, an interest in many other general kinds of information . . ."³⁴

All this emphasis of Menger on knowledge is certainly of great significance, and it acquires even greater significance in the context of his parallel emphasis upon ignorance and error (to which we will shortly give separate attention). Nonetheless it must be pointed out that it is not quite enough, in order to build a case for Menger as a pioneer in entrepreneurial theory, to cite his ubiquitous references to knowledge. It seems far more likely that this aspect of Menger's system stems from his central concern to establish the subjectivist perspective on economic phenomena as the starting point in economic theory. From the subjectivist viewpoint, of course, economic changes arise not so much from the circumstances relevant at the moment of decision, as from man's awareness

of these circumstances. So that Menger's carefully constructed methodological individualism required him at each turn to emphasize the decision maker's knowledge and awareness of economic constraints, rather than the force exercised by those constraints in themselves. This does not, at least without further extension, imply the existence in the market of a systematic process set in motion and fuelled by continual entrepreneurial discovery. We shall find ourselves compelled to recognize the validity of this restrained interpretation of Menger, by a consideration of his treatment of ignorance and error, to which we now turn.

Menger on Ignorance and Error

Almost as a corollary to his emphasis on knowledge in economizing activity, Menger paid attention to the possibility of error and uncertainty.³⁵ If man's valuation of goods depends on their knowledge of need of availability, then it follows that "men can be in error about the value of goods just as they can be in error with respect to all other objects of human knowledge."³⁶ "Error is inseparable from all human knowledge."³⁷

Moreover, at one point, Menger recognizes that the gains from new trade, between individuals or between nations, are closely related to ignorance. If, Menger explains, "the full gains from the new trade are sometimes not immediately forthcoming, the reason is that . . . knowledge of the trading opportunities and power to carry through exchange operations recognized to be economic, are ordinarily acquired by the participants only after a certain period of time."³⁸ While the context of this sentence clearly shows that Menger did not see that the

high initial gains from new trade are associated with the very imperfection of knowledge to which he refers, the passage does touch on the market process as one which gradually overcomes ignorance.

One recent writer has in fact treated Menger's recognition of the possibility of error as a major characteristic of his system, distinguishing him sharply from his fellow pioneers in the so-called "Marginal Revolution", Jevons and Walras. Thus, Jaffé writes, "Veblen's strictures upon what he considered the Austrian preconception of human nature fit Jevons's or Walras' theory much better than they do Menger's. In Menger, man is not depicted as a hedonistic 'lightning calculator of pleasures and pains . . .'. Man, as Menger saw him, far from being a 'lightning calculator' is a bumbling, erring, ill-informed creature, plagued with uncertainty, forever hovering between alluring hopes and haunting fears, and congenitally incapable of making finely calibrated decisions in pursuit of satisfactions."³⁹

This interpretation by Jaffé of the character with which Menger endowed his economizing individuals, is highly interesting. To the extent to which one can agree with Jaffé, one is in a position to ascribe to Menger's individual economizing men scope for the same kind of "entrepreneurship" which, for Mises, is involved in the notion of individual human action.⁴⁰ This is not the place to embark on a full scale analysis of the role of economizing man in Menger. Nonetheless, we may remark that Jaffe's position seems to be closer to the truth than that apparently taken by Knight in his Introduction to Menger's Principles. In that essay Knight understands (or rather misunderstands) Menger's use of the notion of the economizing individual as "naive

economism." Menger's "economizing man" is the "economic-man who has been the butt of so much sarcasm."⁴¹ Moreover Knight appears to believe that error plays no role in Menger's theory! "Menger notwithstanding," Knight writes, quite astonishingly, "economic behavior is more than mechanical cause and effect. Its indubitable affection by error proves that . . ."⁴² Certainly Jaffe's quite different understanding of Menger is closer to the truth. (In fact, in the translator's note to Menger's Preface--in the very edition to which Knight was providing an Introduction--it is carefully explained that Menger's economizing man is not a reference "to 'the profit motive' or to 'the pursuit of self-interest,' but to the act of economizing."⁴³ As will be evident from the discussion in the preceding section of the role of knowledge in economizing activity, there is ample scope, as Jaffé believes, for interpretation in knowledge as a context within which economizing activity may be carried on. Menger's reference, at one point, to "economizing individuals aware of their advantage"⁴⁴ must, therefore, be understood to refer to economizing individuals whom, for the sake of a particular problem in hand, we choose to imagine to happen to be so aware.)

It would be tempting, then, to seize on Jaffé's interpretation of Menger in order to proceed to maintain that Menger's perception of the market process was indeed an entrepreneurial one, one which understands it as a systematic modification of error on the part of market participants and of steadily improving mutual knowledge. Unfortunately, it does not seem possible to maintain such a reading of Menger.

This becomes apparent in Menger's famous fifth chapter, "The Theory of Price"--the chapter which Hayek describes as the "crowning achievement" of the entire work and as revealing "the clear aim which directs [Menger's] exposition" from the very beginning.⁴⁵ In Menger's entire theory of price error is carefully excluded--completely confirming Knight's reading of Menger! At all the stages of the argument, Menger abstracts from error--in the discussion of bilateral monopoly, of one-sided competition, and of bilateral competition. The possibility of error, in the decisions which determine price, is not forgotten, it is deliberately brushed aside. Moreover, the possibility is not simply assumed away as a matter of analytical convenience, it is assumed away as being an abnormality! In concluding the theory of monopoly price policy, Menger declares that "of course, error and imperfect knowledge may give rise to aberrations, but these are the pathological phenomena of social economy and prove as little against the laws of economics as do the symptoms of a sick body against the laws of physiology."⁴⁶ Menger's discussion of competition, too, explicitly proceeds on an assumption "[b]arring error and ignorance on the part of the economizing individuals involved."⁴⁷

Clearly, Menger's willingness to incorporate error into his system was neither as totally absent as Knight believed nor as complete as understood by Jaffé. Either we have here a curious inconsistency in Menger, or else there is a subtlety which has as yet to be plumbed. (We will return to this question later in the paper). Certainly a theory of price in which error is assumed away as a pathological abnormality cannot qualify as a process theory of the modern Hayekian variety, as a

discovery process. We turn our attention now to Menger's position in regard to the role of equilibrium analysis of economic phenomena.

Menger on Equilibrium and Disequilibrium

The discussions in the preceding section (and in particular our remarks on the apparent inconsistency, in Menger's treatment of error in his price theory as compared with his emphasis on error elsewhere) have considerable bearing on the question of the extent to which Menger's economics must be described as "disequilibrium economics." Were it indeed possible to show that Menger's theory was primarily disequilibrium theory, then indeed Menger's claim to be perceived as a forerunner of entrepreneurial theories of market process would be considerably strengthened.

The view that Menger's economics is disequilibrium economics has been put forward recently by Streissler⁴⁸ and has been strongly endorsed by Jaffé.⁴⁹ (An apparently contradictory statement by Schumpeter: "We must see in the Jevons-Menger utility theory an embryonic theory of general equilibrium . . .,"⁵⁰ is itself too terse and the context not sufficiently clear to enable us to be sure that Schumpeter is disagreeing with Streissler. In any event, against Schumpeter's statement we may balance the recent statement by Hayek that there is in Menger's work an "absence . . . of the conception of a general equilibrium. If he had continued his work it would probably have become even more apparent . . . that what he was aiming at was rather to provide tools for what we now call process analysis than for a theory of static equilibrium."⁵¹)

Neither Hayek, Streissler nor Jaffé offer explicit citations from or references to Menger's work to support their view. Evidently they

base their view on a general reading of Menger that found him, in Streissler's phrase to "shirk away from too precise a statement of equilibrium theorems,"⁵² as well as on passages in which it is not supposed "that one and the same good had at a given moment of time everywhere the same price."⁵³ Streissler and Jaffé both understand the disequilibrium economics which they ascribe to Menger, not primarily as offering scope for an entrepreneurial process (or as evidence that Menger in fact saw the market process as an entrepreneurial one), but rather simply as a refusal "to glorify entrepreneurial ability into a high speed adjustment mechanism."⁵⁴ As Jaffé puts it: "With his attention unswervingly fixed on reality, Menger could not, and did not, abstract from the difficulties traders face in any attempt to obtain all the information required for anything like a pinpoint equilibrium determination of market prices to emerge . . ."⁵⁵

Nonetheless, even if the emphasis is more on the delay in the communication of information, that the state of disequilibrium reflects (rather than upon a process of learning which equilibration might represent), yet the Mengerian refusal to be trapped in the equilibrium mould could at least open the way to theories of a market process being one of learning. Streissler does in fact refer to what he describes as a tâtonnement process in Menger--one which (in contrast to Walrasian tâtonnement, which takes a minute) takes a century.⁵⁶ And this Mengerian tâtonnement is, as explained by Streissler, indeed a kind of social learning process, involving the standardization of goods, the creation of institutions for gathering information, and the emergence of a class of middlemen.

But here again we encounter the very same puzzle in Menger which we found in the preceding section. Surely Menger's theory of prices, monopolistic or competitive, is emphatically not a disequilibrium theory! An examination of Menger's fifth chapter on the theory of price provides no hint of any time-consuming market process (entrepreneurial or otherwise) through which prices are systematically formed. On the contrary, as we saw in the preceding section, Menger explicitly assumes absence of all error--an assumption guaranteeing instantaneous equilibrium, and one which in fact starts out by giving entrepreneurs nothing to do.

Now Streissler, in what must be considered a less than satisfactory passage, does seem to have been aware, to some extent, of this difficulty. "If Menger did not believe in equilibrium," Streissler asks, "how is it possible that we find in his founding treatise all the laws of the determination of price and especially of the determination of the prices of productive inputs?"⁵⁷ This is not, however, a clear statement of the difficulty we have encountered. Our difficulty is not so much with Menger's offering a theory of price determination; our problem is that, in Menger's theory, prices are shown to be determined instantaneously and inexorably by the ruling economic circumstances. It follows that our puzzlement is not immediately lessened by Streissler's attempted answer to his question: "Menger would have replied that he had to show the fundamental causes that determined economic processes"--to which Streissler adds the (even more puzzling) remark that "Menger did not try to outline the equilibrium points, the solutions of a set of

differential equations . . ." Our difficulty is that Menger's price theory surely is an outline of the equilibrium situation!

The Role of Error and Disequilibrium in Menger: A Suggestion

We have encountered what appears to be a fundamental inconsistency between Menger's Theory of Price, on the one hand, and the rest of his Grundsätze on the other. Except for his chapter on price, Menger's work displays sensitive awareness of the inescapable influence of error and ignorance, of the resulting continuous state of flux in which the economic system must find itself at all times. Yet in his chapter on price Menger seems unaccountably to lapse into a world in which equilibrium prices are instantaneously determined, under conditions from which any suspicion of less than perfect omniscience is dismissed as pathological. A possible solution to this difficulty may be suggested. The solution depends on the distinction which Menger implies at several points between "economic prices" and "uneconomic prices".

Menger's chapter on the theory of price does indeed assume absence of error, and is, therefore, not a disequilibrium theory. But Menger does not claim that market prices will at any time in fact correspond to the prices whose determination this chapter explains. This chapter deals only with economic prices, the price which would emerge if economizing individuals in fact acted in their own best mutual interests without the hindrance of incomplete information. Menger is fully aware that the world will, at any given moment, display prices which are, to greater or lesser degree, uneconomic. And Menger's later chapter seven, dealing with the "marketability" of commodities, is the locus for his

insights concerning the imperfectly economic character of market prices in the real world.

So that the prices discussed in Menger's chapter five are not primarily equilibrium prices (in the sense that at any given moment Menger is especially concerned to postulate a powerful tendency for actual market prices to converge towards them). Rather they are "correct" prices in a normative sense, i.e., the prices which sensible market participants would (each in his own interest) immediately agree to were they aware of all the relevant circumstances. "Uneconomic prices" are, in this sense, "wrong" prices.

The century-long tâtonnement to which Streissler has referred should be understood as a social process in which men devise institutions, and in the course of which specialists emerge, that help uneconomic prices to be avoided. Due to the complicated character of trading relationships, Menger explains in a footnote to his chapter on prices, "the formation of economic prices becomes virtually impossible" without the institutions of markets, fairs, and exchanges.⁵⁸ "The speculation that develops on these markets has the effect of impeding uneconomic price formations . . ."⁵⁹ This idea is expanded upon in his chapter seven in the course of the discussion on marketability. "The institution of an organized market for an article makes it possible for the producers . . . to sell . . . at any time at economic prices."⁶⁰ In the successful achievement of economic prices knowledge is explicitly accorded an important role. "If every consumer knows where to find the owners of a commodity, this fact alone increases to a high degree the probability that the commodity will, at any time, be sold at an economic

price." The absence in retailing of local concentration of sellers "constitutes the major cause of less economic prices being established in this branch of commerce . . ." ⁶¹

More fundamentally, perhaps, it may be explained that for Menger "economic" prices are those which faithfully reflect the underlying valuations, by market participants, of the relevant goods or resources. Uneconomic prices incorrectly, or distortedly, reflect these valuations. In a remarkable footnote to his chapter on the theory of value, in the course of which Menger declares the moral character of rent and interest to be beyond the scope of economics, he explains that wherever "the services of land and of capital bear a price, it is always as a consequence of their value, and their value to men is . . . a necessary consequence of their economic character. The prices . . . are therefore the necessary products of the economic situation under which they arise, and will be more certainly obtained the more developed the legal system of a people and the more upright its public morals." ⁶²

It follows from all this, it may be suggested, that Menger had every reason not to introduce error into his chapter on the theory of price. For the determination of economic price, error is indeed to be viewed as a pathological aberration. The absence, therefore, of any hint in that chapter of the need and scope for an equilibrating process, should occasion no puzzlement at all.

It should, despite our attempt to solve the apparent contradiction in Menger, not be thought that Menger's theory of market price determination is fully absolved from difficulties. Although Menger's theory has, as we have seen, been described as disequilibrium theory by

several writers, it cannot be said that he gave us an adequate theory of price equilibration. The century-long tâtonnement which Streissler identified certainly does not give us such a theory. Rather, that glacial tâtonnement consists of slow but ultimately dominant forces which for Menger generate a climate in which the costs of avoiding error are reduced towards zero. This process is not, therefore, a learning process in the course of which prices are, through entrepreneurial grasping of arbitrage opportunities, gradually shaken down towards equilibrium. It is, instead, a process which brings change to the environment within which prices are on each day--instantaneously--determined.

In this view of the market there appears no systematic process linking today's prices directly to those which prevailed yesterday. Yesterday's prices were struck in reflection of yesterday's valuations, as distorted (possibly) by yesterday's ignorance (or lack of "upright public morals"). Today's prices are struck in reflection of today's valuations as distorted (possibly) by today's ignorance. There is no hint that today's prices might reflect any process of learning (about other people's valuations) that might have been set off by the experience of yesterday's prices. If any link at all is to be seen, in Menger's system, between present prices and those of the past, this must be merely in that the superior present institutions facilitating the communication of information (e.g., organized markets) evolved out of the inadequate results experienced in earlier environments.

Our conclusion, then, must be that--at least as far as concerns the role of entrepreneurial alertness to existing error in bringing about adjustments in prices not yet in equilibrium--Menger's theory

was not a disequilibrium theory, and it did not make use of the phenomena of ignorance and error. This conclusion, it will be observed, does not necessarily deny the validity of what might seem the contrary view of Streissler and of Jaffe (that Menger's theory was distinguished precisely by its recognition of scope for the entrepreneur, of error, and of disequilibrium). That no such denial is necessarily involved, can perhaps be shown most effectively by recalling Hayek's sharp criticism of Schumpeter, on a matter closely resembling those features of Menger's theory to which we have ourselves been drawing critical attention.

In one of the papers in which Hayek developed his ideas on the role of knowledge in market processes, he drew attention to Schumpeter's view "that the possibility of a rational calculation in the absence of markets for the factors of production follows for the theorist 'from the elementary proposition that consumers in evaluating ("demanding") consumer's goods ipso facto also evaluate the means of production which enter the production of these goods.'" ⁶³ Hayek reacts sharply: "What Professor Schumpeter's 'ipso facto' presumably means is that the valuation of the factors of production is implied in, or follows necessarily from, the valuation of consumers' goods. But this . . . is not correct. Implication is a logical relationship which can be meaningfully asserted only of propositions simultaneously present to one and the same mind. . . . To assume all the knowledge to be given to a single mind in the same manner in which we assume it to be given to us as the explaining economists is to assume the problem away . . ." ⁶⁴ Most significantly, Hayek can find an explanation for the circumstance that "an economist of

Professor Schumpeter's standing should thus have fallen into a trap . . ." only in that "there is something fundamentally wrong with an approach which habitually disregards an essential part of the phenomena with which we have to deal: the unavoidable imperfection of man's knowledge and the consequent need for a process by which knowledge is constantly communicated and acquired."⁶⁵ That such a criticism can be levelled against Schumpeter in no way obstructs our view of him as a pioneer in the explication of the entrepreneurial role. Quite similarly, our own criticism of Menger's theory of market price determination as (like Schumpeter's) demonstrating no insight into Hayek's "process by which knowledge is constantly communicated and acquired," does not rule out a possibly pioneering role for Menger in the economics of entrepreneurship, or of imperfect knowledge, or of disequilibrium.

Menger on Competition and Product Variation

A further aspect of economic analysis in which we may explore possible adumbrations of entrepreneurial processes in Menger's system, is that which relates to the nature of competition and of product variation. Both competitive activity in general and product variation as a form of competitive activity in particular can be best understood as manifestations of entrepreneurial search and experiment.⁶⁶ (In fact, perhaps the most powerful force which pushed entrepreneurship out of post-Marshallian price theory was the attempt to force that theory into the perfectly competitive mold--within which product variation was carefully excluded, and in which competition was a state of affairs, not an activity at all.)

Here too Streissler and Jaffé have emphasized the difference between Menger and his non-Austrian contemporaries. "The important point to be remembered about Menger's vision of the market structure of an economy is that in contrast to most economists he did not consider monopoly as an odd exception to a world of competition. He much rather thought of monopoly as the general state of the market and competition as a limiting case to 'monopolies' . . . [M]ore precisely, Menger considers isolated exchange as the basic type of economic intercourse, . . . a particular case of bilateral monopoly."⁶⁷ Moreover, "Menger, as far as he thought of competition generally thought of it as imperfect competition in the modern sense: again and again he stresses product differentiation and qualitative dimensions in competition."⁶⁸

For Streissler, in fact, product variation emerges as the very central theme of Menger's entire system. "Much more than a dissertation on utility," Menger's Grundsätze "is an enquiry into the diversity of goods. Its central thesis is the following: The increase in the variety of goods . . . enhances the wealth of nations just as much as the division of labour."⁶⁹

Now it must be observed that this latter view of Streissler's is not only quite bizarre but appears to be wholly unfounded. There is a passage in Menger's opening chapter⁷⁰ in which he vigorously disputes Adam Smith's thesis that the economic progress of mankind is primarily the result of the increasing division of labor. Menger, on the other hand, argues that historically progress has resulted from the willingness of men to extend their attention to the provision of goods of progressively higher order, instead of continuing their activity merely to the acqui-

tion of naturally available goods of lowest order. If "men abandon this most primitive form of economy, investigate the ways in which things may be combined in a causal process for the production of consumption goods, take possession of things capable of being so combined, and treat them

as goods of higher order . . . the available quantities of [consumption] goods will no longer be independent of the wishes and needs of men."⁷¹ In this process, Menger points out, not only will the volume of consumption

produced. (Menger appears to be moved to make this observation in order to explain how increasingly important becomes Smith's division of labor as a result of economic progress.) There is no suggestion here, as Streissler repeatedly asserts, that it is product variation which is responsible for economic progress. (Moreover, this entire passage in which Menger takes issue with Smith, was in the second edition of the Grundsätze removed from the opening chapter and inserted towards the end of the fourth chapter,⁷² where it appears on pages 94-96--in a manner which hardly supports the view that this passage is of central importance to Menger's system as a whole.)

But Streissler's identification of product variation as a recognizable feature of Menger's economics is, of course, untouched by our criticism of Streissler's own excessive emphasis on this feature. And since it is entrepreneurial innovation which is surely responsible for experimentation with new products, new qualities and varieties of products, this feature of Menger certainly invites our examination from the viewpoint of interest in this paper.

Unfortunately Menger's perspective on the market--while it unquestionably transcends the perfectly competitive model with respect to numbers of market participants and to product homogeneity--offers little

direct support for any discovery of recognition by Menger of the entrepreneurial role. While the perfectly competitive model came later to be viewed as the very core of neoclassical price theory, the truth is that the early post-1870 theorists worked in fact with more realistic perceptions of the market.⁷³ Menger certainly had his feet planted firmly in a world of heterogeneous products and of exchanges taking place between finite numbers of market participants (and, as Streissler points out, often between isolated buyers and sellers). But all this is, after all, entirely consistent with a perfect knowledge view of the universe in which no scope is permitted to exist for entrepreneurial alertness.

We have already noticed that Menger's chapter on the theory of price (upon which Streissler relies heavily for his conclusion that monopoly plays the more important role in Menger's system) does in fact assume complete information. So that our initial inclination must be one of scepticism toward any attempt to read entrepreneurial insights into Menger's realism.

Nonetheless, one passage does seem to support the conclusion that Menger, at least implicitly, recognized the dynamic, rivalrous quality of competition--precisely that aspect of competition from which its entrepreneurial quality emerges. Menger concludes his chapter on price with a passage ascribing to competition a powerful role in avoiding economic waste. "Competition leads therefore to large-scale production with its tendency to make many small profits and with its high degree of economy, since the smaller the profit on each unit the more dangerous becomes every uneconomic waste, and the brisker the competition the less the less possible becomes an unthinking continuation of business according to old-established methods."⁷⁴

This is perhaps less than a ringing declaration that bold entrepreneurial innovation is the source of economic change (from less efficient to more efficient ways of conducting business). But neither, on the other hand, is it consistent with a perfect knowledge view of the competitive condition in which all existing technological knowledge is fully available to all market participants alike. In the italicized portion of this passage, Menger recognizes that both the information concerning more efficient methods, and the incentive to utilize that information, is impressed upon market participants by rivalrous competition. Whether this is quite consistent with the spirit of the rest of Menger's chapter on the theory of price may indeed be questioned, but the "feel" for the entrepreneurial process which this passage displays is not to be denied.

The Entrepreneurial Role in Menger's System

Our survey of the various aspects of Menger's economic system which relate to scope for the entrepreneurial role, has yielded somewhat paradoxical conclusions. **T**here can be no doubt that Menger--as shown and emphasized by Streissler--displayed remarkable insights into the role of knowledge, the phenomenon of error in economic activity, the resulting shadow of uncertainty beneath which economizing activity is carried on. Nor, again, can it be doubted that Menger perceived the economic world as an arena of dynamic, rivalrous competition--a world totally unlike the equilibrium world of the perfectly competitive model. Certainly Menger's world was one within which we would have expected the entrepreneurial role to have been not only clearly perceived but in fact boldly underlined. That we have found this not to be the case is paradox enough.

This paradox, we found, became all the more puzzling when Menger's theory of price is examined. This theory, we saw, appeared to be constructed only through the careful exclusion of all error and ignorance. The prices explained through Menger's theory become, therefore, prices fully consistent with equilibrium, and totally inconsistent with competition understood as an entrepreneurial process generated by error and its spontaneous discovery. How are we to account for this surprising gap in Menger? How could a writer so steeped in non-equilibrium perspectives on the economic process, fail to recognize the pivotal character in this process of the entrepreneurial role?

Streissler, while not directly confronting this question, has already provided, it might be maintained, an answer to it. In a discussion of the sociological milieu from which the early Austrian economists sprang, Streissler attributes to them a "political" bias that must have operated against any thorough recognition of the role of the entrepreneur. The early Austrians faced the problem of explaining the great Austrian economic revival in the third quarter of the last century (especially after the military defeat of 1866). The question was: "to which social group does Austria owe its prosperity? In similar contexts the English classicists would have replied without hesitation: to the businessmen, the entrepreneurs. But this kind of answer could not be given by the three founders of the Austrian School, all of them sons of noble civil servants. This answer could only be given by Schumpeter, the son of a wealthy businessman. The answer would furthermore have enclosed political dynamite of the highest explosiveness. For who would have been responsible for the sole successes? An entrepreneurial class which in Austria was particularly strongly socially disparaged and which

was, to boot, nearly exclusively of alien extraction: Germans, Protestants, Jews! Who would, on the other hand, have failed in their specific, the political, task? Their own class, the bureaucracy and the crown, the 'House of Austria'."⁷⁵ In this vein Streissler explains the emphasis of the Austrians (particularly of Wieser) upon marginal utility, as ideologically inspired. "In the shift of responsibility for economic prosperity from the embarrassing businessmen to the innocuous consumers, to everybody, the ideological charge of the idea of marginal utility can be found . . ."⁷⁶ But this approach can hardly be deployed to answer our question.

Not only is Streissler's suggestion little more than pure conjecture--and a conjecture not only bizarre but also highly uncomplimentary to the intellectual integrity of the early Austrians--it would not even be fully consistent with Streissler's own view of Menger's system. For Streissler, marginal utility was not at all the central theme of Menger's economics; it was only the later followers, particularly Wieser, who chose to emphasize this aspect of their system.⁷⁷ In Menger himself, Streissler maintains, the "idea of marginal utility is only of more or less secondary importance."⁷⁸ (In this regard it is therefore not quite clear why Streissler finds it important or even relevant to document that Menger--like Wieser and Böhm-Bawerk--belonged to the class of noble civil servants.)

A more intriguing explanation for the "entrepreneurial gap" in Menger has been suggested (in oral discussion with the writer) by Professor Lachmann. Schumpeter's recognition of the role of the entrepreneur, Professor Lachmann argues, arose out of his profound pre-

occupation with the Walrasian general equilibrium model. Precisely because of the more than obvious discrepancies between this model and the real world, Schumpeter was led to discover the source of these discrepancies in the dynamic role of the entrepreneur. Menger, on the other hand, not being encumbered by excessive attention to general equilibrium conditions, was not led to emphasize the specifically dynamic role of the entrepreneur--in fact he had no need to do so. This suggestion of Professor Lachmann's is highly attractive, yet it does not appear to take into account the extent to which (as emphasized in this paper) Menger's theory of price is an equilibrium theory and the extent to which he does in fact find it necessary to account for a process of institutional change that bears on the degree to which the real world has not yet attained the full equilibrium of Menger's "economic prices."

Perhaps a more simple but plausible understanding (of the unevenly profound recognition of scope for entrepreneurship in Menger) may be gained from the traditional view of Menger's system which Streissler finds so unacceptable. Surely the traditional view of Menger is wholly correct, if not in its emphasis of "marginal utility" as being the central theme of Menger's system, then at least in its emphasis upon subjective value. It is almost impossible to see how any reader of the Grundsätze can fail to agree that its single theme is the way in which all valuation in an economic system takes its source from the final valuations of those to whose desires the system is to minister. This theme was so profoundly important and exciting for Menger, and one so revolutionary, he believed, that it consumed all his energy and attention. Precisely because of this, Menger's view of economizing man is so complete, so sensitive to notions

of knowledge, error and alertness. Nonetheless, in pursuing his theme with single-minded concentration, Menger was simply not led to see the market process as an entrepreneurial one; he was not led to see how his own profound insights into the scope for error in economizing decisions provided the key to a view of the market as a process of social discovery--the very process through which the valuations of Menger's consumers come in fact to be translated into complex chains of production decisions ministering to their desires. It remained for later followers of the Mengerian tradition, in particular Mises and Hayek, to perceive the character of this process. In this task they were unquestionably able to draw upon a tradition--Mengerian in origin--in which error, uncertainty, diversity and rivalrous competition were always, to some degree, in sight. But the process itself was not seen by Menger.

It should come as no surprise that Menger himself was unable to see how his own ideas pointed to these powerful insights concerning the entrepreneurial process. It is always so with great pioneers. And in the case of Menger we have direct evidence that he himself, in fact, saw how this was occurring! In his 1923 review article (of the second German edition of Menger's Grundsätze) Franz X. Weiss recalled an illuminating (and touching) conversation with Menger in 1910 (when the latter was, therefore, not quite seventy). When Weiss suggested to Menger certain ideas, built on Menger's own foundations, for the advancement of the theory of the value of money, Menger replied that he too saw how these ideas are the implications of his own teachings, yet he was unable to accept them!⁷⁹ Weiss uses this remark of Menger to throw light on Menger's general failure to cite or use almost any of the work of his own followers. The

intellectual effort required to escape and to overthrow the deeply entrenched classical view of the economic system, Weiss believes, may have itself hindered Menger from being able to see and accept all the implications drawn from his own work by his followers. This appears to be the case, we would argue, in regard to entrepreneurship. As Weiss emphasizes,⁸⁰ one's realization of this circumstance in no way diminishes in the slightest, of course, the greatness of Menger's own pioneering contribution to the history of economic thought--and, for that matter, to the development of the theory of the entrepreneurial market process.

Footnotes

1. See, e.g., W.J. Baumol, "Entrepreneurship in Economic Theory," American Economic Review 58 (May 1968), 72.
2. Important exceptions were two monographs on profits: V. Mataja, Der Unternehmergeinn (Vienna, 1884); G. Gross, Lehre vom Unternehmergeinn (Leipzig, 1884). Hayek describes both Mataja and Gross as "immediate pupils" of Menger, (F.A. Hayek, "Carl Menger," in Vol. I of The Collected Works of Carl Menger [London School of Economics and Political Science, 1934], p. xxiii.)
3. Carl Menger, Principles of Economics, translated and edited by J. Dingwall and Bert F. Hoselitz (Glencoe, Ill.: Free Press, 1950). This is a translation of the first edition (1871) of C. Menger's Grundsätze der Volkswirtschaftslehre. Unless otherwise specified, all references made in the present paper to Menger's writings will be to this English translation.
4. F.H. Knight, "Introduction" to Menger, Principles of Economics, p. 30.
5. F.H. Knight, Risk, Uncertainty and Profit (Boston and New York: Houghton Mifflin Company, 1921).
6. E. Streissler, "To What Extent Was the Austrian School Marginalist?," History of Political Economy, Vol. 4, No. 2 (Fall 1972), 432f.
7. J.A. Schumpeter, The Theory of Economic Development, translated by R. Opie (Harvard University Press, 1934), p. 76.
8. Ibid., p. 32.

9. J.A. Schumpeter, History of Economic Analysis (New York: Oxford University Press, 1954), p. 893.

10. Hayek's remark is well known: "The reputation of the [Austrian] School in the outside world . . . were due to the effort^s of his brilliant followers, Eugen von Böhm-Bawerk and Friedrich von Wieser. But it is not unduly to detract from the merits of these writers to say that ^{its} fundamental ideas belong fully and wholly to Carl Menger." F.A. Hayek, "Carl Menger," in Vol. I of The Collected Works of Carl Menger, p. v. See also L.M. Lachmann, "On Austrian Capital Theory," in E.G. Dolan (ed.), The Foundations of Modern Austrian Economics (Kansas City: Sheed and Ward, 1976), pp. 145ff.

11. E. Streissler, "Structural Economic Thought, On the Significance of the Austrian School Today," Zeitschrift für Nationalökonomie 29 (1969), 237-66; "To What Extent Was the Austrian School Marginalist?", History of Political Economy, Vol. 4, No. 2 (Fall 1972), 426-41; "Menger's Theories of Money and Uncertainty--A Modern Interpretation," in J.R. Hicks and W. Weber (eds.), Carl Menger and the Austrian School of Economics (Oxford: Clarendon Press, 1973). Further references to these papers by Streissler will for brevity be keyed respectively to Zeitschrift, H.O.P.E., and Hicks-Weber.

12. F.A. Hayek, "Carl Menger," op. cit.; G.J. Stigler, "The Economics of Carl Menger," Journal of Political Economy 45 (April 1937), 229-50 [also in G. Stigler, Production and Distribution Theories (New York: Macmillan, 1944), Ch. VI]; F.H. Knight, "Introduction" to Menger's Principles of Economics (1950).

13. These passages appear in the English translation on pages 160,

172. The passage appearing in the English text on page 160 was a footnote in the original German.

14. Nonetheless, Menger at one point talks of the "entrepreneur himself" requiring "helpers" to assist him in his entrepreneurial activities, if the firm is large (p. 160).

15. Menger, p. 172.

16. Menger, p. 160. In the citation here given I have omitted the word "obtaining" (which appears in the English translation under task (a) before the word "information"). Streissler has (H.O.P.E., p. 432, n. 24) valuably pointed out that "the German text does not make it clear whether [entrepreneurs] have to inform others or themselves."

17. Menger, p. 161.

18. Ibid.

19. A. Marshall, Principles of Economics, 8th edition (London: Macmillan, 1920), Book VI, Chapters VII, VIII.

20. Streissler, H.O.P.E., 431-32.

21. Streissler, H.O.P.E., 433; Zeitschrift, p. 249 and p. 250, n. 44; Hicks-Weber, passim.

22. Streissler, H.O.P.E., 431. The citation from Menger is from Principles, p. 741.

23. Menger, pp. 112f, 115.

24. Menger, p. 148.

25. Menger pp. 68, 80, 89.

26. Menger, pp. 71-74.

27. Menger, p. 160.

28. Menger pp. 179f, 188f, 195.

29. Menger, p. 242, n. 9.

30. Menger, pp. 260-61.

31. Menger, p. 95.

32. Menger, p. 90. The entire section, pp. 80-94 is relevant to this level of discussion.

33. Menger, pp. 92-93.

34. Menger, p. 91.

35. In an important sense Menger's treatment of uncertainty was simply as an aspect of the consequences of error. See, e.g., his section (pp. 67-71), entitled "Time and Error," which in fact deals with uncertainty.

36. Menger, p. 120.

37. Menger, p. 148.

38. Menger, p. 188.

39. W. Jaffé, "Menger, Jevons and Walras De-Homogenized," Economic Inquiry, Vol. XIV (December 1976), 521. Jaffé's reference to the "lightning calculator . . ." is, of course, cited from Veblen.

40. L. Mises, Human Action (New Haven: Yale University Press, 1949), Ch. I, VI. "The term entrepreneur as used by catallactic theory means: acting man exclusively seen from the aspect of the uncertainty inherent in every action" (p. 254).

41. Knight, "Introduction," op. cit., p. 16.

42. Ibid., p. 21.

43. Menger, p. 48, n. 4. For the classic reply to those ridiculing the role of economic man in economics, see L. Robbins, An Essay on the Nature and Significance of Economic Science, 2nd edition (London: Macmillan, 1935), pp. 94ff. Robbins (p. 16 n.) cites Menger as the

earliest source for his own conception of economics as dealing with "human behavior as a relationship between ends and scarce means which have alternative uses"--i.e., with economizing.

44. Menger, p. 213.

45. F.A. Hayek, "Carl Menger," op. cit., p. xvii. For a view diametrically opposed to that of Hayek on this point, see Jaffé, op. cit., p. 519.

46. Menger, p. 216.

47. Menger, p. 224.

48. Streissler, H.O.P.E., 438f; Hicks and Weber, p. 167.

49. Jaffé, op. cit., p. 520.

50. J.A. Schumpeter, History of Economic Analysis, p. 918.

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51. F.A. Hayek, "The Place of Menger's Grundsätze in the History of Economic Thought," in J.R. Hicks and W. Weber, Carl Menger and the Austrian School of Economics (Oxford: Clarendon Press, 1973), p. 10.

52. Streissler, Zeitschrift, p. 254.

53. Streissler, H.O.P.E., p. 436 (italics in original); see also Hicks-Weber, pp. 169ff.

54. Streissler, Zeitschrift, 254.

55. Jaffé, op. cit., p. 520.

56. Streissler, H.O.P.E., 439f.

57. Ibid., 439.

58. Menger, p. 218, n. 7.

59. •. Menger, p. 219.

60. Menger, p. 249.

61. Ibid. It is worthwhile to cite at length Menger's discussion of the character of "economic prices", in his 1883 treatise on methodology. "There is scarcely need to remark that . . . as a rule real prices deviate more or less from economic ones (those corresponding to the economic situation). In the practice of economy people in fact endeavor only rarely to protect their economic interests completely. Many sorts of considerations, above all, indifference to economic interests of lesser significance, good will toward others, etc., cause them in their economic activity not to protect their economic interests at all in some cases, in some cases incompletely. They are, furthermore, vague and in error concerning the economic means to attain their economic goals; indeed, they are often vague and in error concerning these goals themselves. Also the economic situation, on the basis of which they develop their economic activity, is often insufficiently or incompletely known to them. Finally their economic freedom is not infrequently impaired by various kinds of relationships. A definite economic situation brings to light precisely economic prices of goods only in the rarest cases. Real prices are, rather more or less different from economic." C. Menger, Problems of Economics and Sociology (L. Schneider, editor), (Urbana: University of Illinois Press, 1963), p. 69.

62. Menger, pp. 173-74.

63. F.A. Hayek, "The Use of Knowledge in Society," Individualism and Economic Order (London: Routledge and Kegan Paul, 1949), p. 90. Hayek's citation from Schumpeter is from Capitalism, Socialism and Democracy (New York: Harper & Bros., 1942), p. 175.

64. Ibid., p. 90f.

65. Ibid., p. 91.
66. I.M. Kirzner, Competition and Entrepreneurship (Chicago: University of Chicago Press, 1973), Chapters 3, 4.
67. Streissler, Hicks-Weber, pp. 168f.
68. Ibid., p. 169; H.O.P.E., 435. See also Hicks-Weber, pp. 230f.
69. Streissler, Zeitschrift, 249; see also H.O.P.E., 427, 430f.
70. This is the passage cited by Streissler as the source for his assertion.
71. Menger, pp. 73-74.
72. C. Menger, Grundsätze der Volkswirtschaftslehre, 2nd edition, edited by K. Menger, Jr. (Vienna and Leipzig, 1923).
73. On this see S. Peterson, "Antitrust and the Classic Model," American Economic Review, Vol. XLVII (March 1957), 60-78.
74. Menger, p. 225 (italics added).
75. Streissler, Zeitschrift, 257f and see relevant footnotes.
76. Ibid., 259.
77. Ibid., 244-247.
78. Ibid., 248.
79. F.X. Weiss, "Zur zweiten Auflage von Carl Mengers "Grundsätzen," "Zeitschrift für Volkswirtschaft und Sozialpolitik, N.F. IV (1924), 154.
80. Ibid.