I. Carl Menger’s Library

The Menger library is more than 100 years old. Carl Menger’s father, a small-town lawyer in former Austrian Poland, collected the first 4,000 volumes. Carl Menger, who was a famous economist, an avid reader and a book collector, enlarged the collection to 25,000 volumes. After his death the works dealing with the social sciences were acquired by the Japanese government and are kept at the Hitotsubashi University, Kunitachi, Tokyo. The books by themselves are of great literary and scientific value; they are especially important for the historian of economic thought, because they contain essential parts of Menger’s scientific legacy.

Menger’s collection reflects his working habits, his thinking, and his personality. He wrote corrections, short notes, and fragmentary essays on the flyleaves, margins and other empty spots of the books he owned. More often than not these notes have only an indirect connection with the printed text. They are monologues by which he clarified and developed his own thoughts. Most important are his notes in Rau’s *Grundsätze der Volkswirtschaftslehre* and his copy of his own Principles of 1871. Menger’s remarks in Rau’s handbook (abbreviated: Rm.) contain an early version of his theories of value, price, and money. Menger’s hand copy of his theory of 1871 (abbreviated: fragment) includes an unfinished correction of this work which was planned as an introduction for a four-volume handbook. He wrote his corrections on inserted sheets as well as on the printed pages. I have transcribed the two manuscripts, but only the notes in the fragment are mimeographed.

The following list gives a selection of those books in which I found Menger’s comments. It also indicates that the search is not finished; ample material still has to be investigated.

Selection of Menger’s annotated books.

A. Books investigated.


3. Menger, *Grundsätze der Volkswirtschaftslehre*. Wien 1871. The author's copy. Menger changed the title to *Allgemeine theoretische Volkswirtschaftslehre*. Attached newspaper clippings indicate that Menger started to work about 1873. He may have stopped writing on this manuscript after 1892, because a note on the cover asks the honest finder to deliver the book to Menger against the reward of 100 Kronen. The crown currency was introduced in Austria in 1892. (Abbreviated title: Fragment).


7. Rudolf Auspitz und Richard Lieben, *Zur Theorie des Preises*. Leipzig 1887. (MLb. Mon 91) This is the only mathematical treatise in the whole library which Menger had thoroughly studied.

B. Books, pamphlets and other material existing but not available.


6. Original manuscripts of the Sch.M. Property of Karl Menger?
II. Results of my Research

Twice I visited the Menger library. The first short visit of 1958 produced the following results: 1. Menger's Aristotelian background. I collected additional material reaffirming my thesis that Menger's methodology of the social sciences was influenced by the Aristotelian metaphysics and logic. 2. Menger's so-called plagiarism. The ugly reproach that Menger stole his ideas from Gossen (Pantaleoni) or from Mangoldt (Weinberger) could be disproved. 3. The Austrian roots of Menger's economy. A connection between Menger and Joseph Kudler, the foremost defender of classicism in Austria, could be established.

The second visit, September 1960 till July 1961, added new discoveries: 1. Menger's relation to earlier and contemporary economists. 2. A social philosophy existing prior to the Untersuchungen of 1883. 3. Menger's ideas about value, price and money before 1871. 4. Unfinished thoughts about many aspect of economic theory. Menger interlarded his reflections with many quotations. He argued his case before the theorists. His reasoning cannot be understood without knowing the economists he accepted or rejected. Therefore I begin this progress report with Menger's attitude to earlier and contemporary economists.

III. Menger and the Economic Literature

In an earlier paper I have already described the literary sources of the Principles. I deal here mainly with Menger's later studies of old and new economists.

Menger patterned his planned four-volume handbook after the big systems of Roscher and Rau. Following these models he compiled a huge amount of quotations. In the fragment 145 authors are mentioned: all the eminent writers from Aristotle to Jean Baptiste Say, the Socialists Proudhon and Karl Marx, the leaders of the older historical school, Knies and Roscher. It is understandable that Menger wanted these names in his new edition. Very strange, however, is the preferred treatment of second class epigones of classicism, especially Rossi, and Peshine Smith, an otherwise unknown follower of Carey. In the fragment Ricardo has been quoted 15 times, while Peshine Smith is mentioned 27 times and Rossi even 55 times. The names of Jevons and Walras, who discovered the marginal utility theory simultaneously with Menger, are not found in the whole manuscript! It is not surprising that the works of his own students are not included in the literature;

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1 See Kauder, "Menger and his Library," loc. cit.
3 Kauder, "Menger and his library," loc. cit.
4 My calculation
5 Count Pellegrino Rossi, 1787–1848. Cours d'économie politique. 1839 and later.
they did not publish before 1880. Only Boehm-Bawerk is mentioned, most likely a later addition.

It seems that a great part of this collection was a waste, especially the excerpts from Rossi and Peshine Smith. Menger did not learn anything from them, but he used up much time, paper and effort to correct their errors. About 1900 even he became convinced that he quoted the wrong literature; therefore he played, at least for a time, with the idea to reprint the first edition of his *Principles* unchanged.9

Already before 1900 he began to study those writers whose ideas had some bearing on his own discoveries. In an earlier paper I described his encounter with Gossen. According to his son Menger studied Wundt.10 In a letter from June 26th 1911 to Ismar Feilbogen, Privatdozent at the University of Vienna, Menger wrote that Cournot had also influenced him and that he was interested in philosophy, mathematics and anthropology. This letter is a mystery. Menger owned the three economic works of Cournot: they were not read, before they arrived in Japan. Traces of Cournot can be discovered neither in his published nor in his unpublished work. Although I have found some very modest attempts to express theorems in form of equations and geometrical figures, Menger, at least between 1870 and 1890, was an outspoken opponent of mathematical economy.11 Of all the contemporary mathematical economists he studied only Auspitz and Lieben.12 To judge from the many question marks he did not approve of their pricetheory. It is possible but not probable that he changed his attitude to mathematics in his later years. But the Sch. M. contains only a few mathematical remarks.

His alleged interest in Cournot and mathematics remains a puzzle, but we need not question his predeliction for ethnology and philosophy mentioned in the same sentence of the same letter. His fragment abounds with copious notes about technology and economics of primitive nations.13 That the author of a famous epistemology was very much interested in philosophy need not be proven. It was not known that his methodology is only a sector of a much more extensive philosophical investigation of which unfinished drafts are found in the Rm. and in the fragment.

IV. Menger's Unpublished Social Philosophy

Already in the Rm. Menger discusses philosophical questions. The first thirty pages of the fragment are dedicated to the same problems. Only a small part of the philosophical remarks in the fragment can be considered a first draft for the book of 1883. In the fragment Menger investigated mainly the connection between morals and economic action under the condition of personal freedom; in his methodological publication he justifies exact theory. In the fragment Menger is influenced by Cairnes and, strangely enough,
by Lorenz von Stein. His epistemology is patterned after the Aristotelian ontology. Only one major aspect is common to the fragment and the book of 1883, i.e. the demand for a neutral theory. The defense of this postulate is more detailed in the fragment than in the published book.

In the fragment Menger demanded that economic analysis ought to be purified from ethical additions. Theory deals with the existing facts and not with right or wrong. The defenders of the Manchester doctrine, of social reform, as well as the socialists, mix theory with politics. The working class is against economics, because the laborers identify free competition with theory. This spurious identification, Menger claims, is due to people like Bastiat. This advocate of free economy justifies those facts which the socialists denounce as crying injustice. Menger was not the earliest defender of neutrality. He followed Cairnes who tried to separate politics from scientific economy.

Like so many other adherents of value neutrality including Max Weber, Menger was not consistent. He had great sympathy for the poorer and classes was not the person who could merely register facts and keep his emotions under control. Besides is idea of freedom contradicted the postulate of value neutrality.

Freedom is the central idea of his social philosophy in the fragment. Menger belonged to the Austrian liberals. The men who led the March Revolution of 1848 and who later opposed the autocratic tendencies under Francis Joseph, demanded liberty for the Austrian citizens, who should be free to work out their own welfare. The all-pervading tutorship of Metternich's police state had to be abolished; the privileges of nobility, high clergy, and the army had to be reduced.

Quotations by Menger which prove his liberal partisanship have already been given in my first report. Menger underpinned his liberalism with a philosophy of social progress. Apparently Menger's thoughts were influenced by Lorenz von Stein's philosophy of history. Lorenz von Stein, Menger's older colleague at the University of Vienna, was not an Austrian by birth and tradition. He came from Slesvig Hollstein. His thinking was not rooted in the Austrian tradition but in the Hegelian philosophy. Like his teacher Hegel, Lorenz von Stein claimed that history is man's way to freedom. Freedom will be attained in an infinite and organic process. The absolute nature of freedom will be realized under special historical circumstances. In the fragment Menger worked freely with these ideas. One wonders why only faint traces of this reasoning can be found in his printed work. The suppression of these thoughts may be the outcome of Menger's growing aversion to Post-Kantian philosophy. In the unpublished preface of the Principles he complains

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16 Fragment. Inserted page before "Vorrede."
18 "Menger and his library."
24 See page 2 of this paper.
about the German philosophy after Kant and its dangerous influence on economic thinking. With these words Menger rejects his earlier theory of social progress. The self-realization of freedom is main theme of Hegel’s philosophy of history and Hegel is the head of Post-Kantian School. Unfortunately personal reasons may also have played a role in the elimination of this social philosophy. Time and again Menger held Stein up to ridicule. Menger could not poke fun out of Stein and at the same time accept the leading idea. For the understanding of Menger’s work it would have been better if he could have overcome his pride and prejudice.

Menger’s neutral science clashed with this idea of freedom. Menger’s concept of freedom has a double meaning: he blends the theory of free decision with a social goal. Man can only be understood as a free acting person. The free man is not a reality but a goal realized in the future. If man is free, then economic laws can be explored without reference to moral values; if man still has to be liberated, then a policy must be indicated by which freedom will be reached. Science is connected with political goals and cannot be neutral. For Menger these two sides of freedom form a unity. In our presentation the two aspects are separated.

The economic theorist has to describe rules and laws of human behavior. Menger claims that theoretical analysis reflects the uniform elements in man’s action. This regularity is, according to him, the outcome of rational and free decisions. Menger identifies free will with rational action; therefore he does not see a contradiction between freedom and determinism. He defends his position against Buckle, the British historian, who denied the existence of free will in history with the help of the same argument, i.e. the uniformity of human action, which Menger used for the defense of free will. Menger illustrates his position with the marriage frequency. If during a period of great prosperity many people marry, then, so Menger argues, these young men and women use only their freedom of rational decision. If the opposite happens, if people during a boom do not marry, then this would be indeed a proof against the freedom of will, and in favor of some unknown natural law which provides a reasonable explanation for such a surprising phenomenon.

This detailed criticism of Buckle’s position shows how much Menger was interested in this subject; in spite of this only a few traces can be found in Menger’s written work: only once in his methodology of 1883 he claims that exact analysis presupposes a definite direction of the will of the acting person. For the understanding of his work it would have been better if more of the Buckle debate had been transferred into his publications. His struggle with teleology and causality would have become more meaningful.

From the year 1867 till the end of his life Menger remains interested in the time sequence of social phenomena. Menger faces a dilemma: If man is free, then the chain of

\[\text{Footnotes:}\]


2. See Menger and his library.


4. Fragment. Blank page facing p. VIII.

events is determined by the end or the purpose of human action; if man is not free, then cause and effect tie together social facts. In consequence of his general assumption Menger ought to choose teleology and reject causality. But Menger is not always consistent. In the Rm. he was not quite sure about the way he has to choose. In the end he accepted a middle position. In social science causality and teleology can exist side by side. Man can break the chain of causality, e.g. by the usage of the fruits of production and by intervention. In the Principles he selected causality. In the fragment he changed his opinion; the word "causal" is replaced by the neutral term "connection." Whether or not this word has a causal or a teleological meaning is not explained. Only much later Menger claimed that teleology and not causality joins together social phenomena. In the Sch. M. he wrote, that it is the function of natural sciences to explain causal connections, while the economist has to investigate the relation of goods created by the goals of acting men. Why Menger hesitated so long till he selected the only way consistent with his philosophy, is not quite clear. It is possible that his early Leibnitz studies about which Karl Menger jr. spoke to me are partly responsible for the compromise between the two forms of ordering in the Rm.. Leibnitz taught "that the theological-teleological and the physical-mechanical world views are not excluding each other but ought to be completely united." This description is a quotation from Ueberweg and is marked by Menger.

Menger's and Stein's philosophy of history may have also contributed to this long hesitation. If man is really free, only a teleological sequence of social facts and events can exist. But freedom for Menger as well as for Stein is only in the process of realization; its complete materialization lies in the future. Men are free if they are ends but not means and not economic goods like the slaves of classical times. But not all people of Menger's society have reached this stage. Married women and especially the members of the lower classes are still half-slaves. They are somewhat better off than they were in earlier times. Their chains are longer than previously. A poor girl has often only the choice between becoming a prostitute or a seamstress. How will the poor people become free? We have to go back to the Rm. to find the answer.

Economic progress will improve the situation of the poor. The luxury of the rich hinders the advancement of the lower classes. Here the young Menger finds the root of social evil. "The more the rich people consume, the merrier one lives in the present disregarding future development. If the rich people did not live a gay life, all the workers would have good living quarters; there would be brick layers and carpenters instead of hairdressers and whores." But the youthful reformer is at a loss to find well defined targets for his attacks. What is luxury and who are the rich people? His definition of luxury has some
resemblance with Veblen's conspicuous consumption. "Luxury is the application of more means than are necessary for achieving a purpose." But this kind of waste is not the exclusive vice of the rich; Menger must concede that poor people especially indulge in reckless spending.

The rich spendthrift had not been clearly described in the Rm. Menger had always some sympathy for the entrepreneurs, the capitalists and the bankers. Yet he did not like "die Cavaliere." We can guess that he meant the scions of the high aristocracy. We can even improve on this guesswork. In the year 1878 an anonymous pamphlet was published in Munich: "The Austrian Nobility and its Constitutional Function. A word of warning to the aristocratic youth." The author strikes at the Austrian nobility, its laziness, its crude luxury, and its lack of education. In 1906 it leaked out that the ill-fated Crownprince Rudolf had written this booklet and that the educator of the prince, Carl Menger, together with his brother, the famous professor of law and socialist, Anton Menger, had taken care of the publication. It is the conjecture of Mitis, Gollwitzer, and my own, that Carl Menger had some influence on the text, because the young members of the high nobility are the "Cavaliere" or the rich spendthrifts of the Rm. and the vices in Menger's notes and in the pamphlet are similar.

It is wrong to give these attacks a social-revolutionary meaning. Menger recommends to substitute for luxury the old "capitalist" virtue of "abstinence." Saving steers consumption away from luxury to those consumer goods which are necessary for life. It is a consequence of his faith in freedom that Menger during his whole life time believed in the efficiency of private production and opposed socialism. This does not mean, however, that for Menger the undiluted free competition was the cure-all for all social evils. From Menger's scientific postulate "the methodical individualism" the conclusion was drawn that he is an unconditional defender of laissez faire. But his atomism forms the sociological basis of his economic analysis and not a political program. He agrees with Cairnes that laissez faire is not a scientific principle but only a practical guide whose application is limited by many exceptions. In the Rm. and in the fragment Menger demands that private egotism, the driving power behind free competition, must be prevented from encroaching on public welfare. Menger exclaims, that society cannot endure "the last consequences of private individual egotism." One of the many examples in the fragment which illustrates this discrepancy between egotism and welfare, is quoted here: "Who produces rice powdered or whiskey during a famine may earn a huge profit, but the welfare of the community will

\[\text{Rm. p. 437 Above the print.} \]
\[\text{Rm. p. 437.} \]
\[\text{Der österreichische Adel und sein konstitutioneller Beruf. Mahnruf an die aristokratische Jugend.} \]
\[\text{Von einem Oesterreicher. München 1878.} \]
\[\text{ Neue Freie Presse. Wien. April 10th 1906. N. 14959. p. 11. See also Oskar Freiherr von Mitis, Das Leben des Kronprinzen Rudolf. Leipzig 1928. P. 37. Heinz Gollwitzer, Die Standesherrn. Stuttgart 1957. p. 188. I owe an apology to Professor Gollwitzer. He was of the opinion that Menger cooperated with Crownprince Rudolf in the writing of this pamphlet. In a letter to Gollwitzer I criticized his opinion. I acted without knowing the documents.} \]
\[\text{Untersuchungen op. cit. 157 and p. footnote.} \]
\[\text{Fragment back of dedication page "dass das Princip des Laissez faire keine wissenschaftliche Basis habe" Menger quotes here Cairnes, Essays in Political Economy. op. cit. pp. 244. 251} \]
\[\text{Rm. p. 435. Upper right margin.} \]
In the Errors of Historism Menger emphatically denies that he is a defender of the Manchester doctrine; he declares that in spite of his opposition to Schmoller he is in favor of socialre form (Kathedersozialismus).\textsuperscript{40} The reasons behind his social sympathy and his attitude to teleology and causality can be understood now with the help of his social philosophy. Only one other result of my research has a significance comparable with the discovery of Menger's social ethics, the development of Menger's value theory.

V. The Development of the Value Theory

Menger told his friends and students that in 1869 when he was employed by the official "Wiener Zeitung" he discovered his solution of the value problem.\textsuperscript{41} Already on my first visit to the Hitotsubashi University I found out that this period of incubation lasted much longer.\textsuperscript{42} It must have begun when he was a student or a short time later. Joseph Kudler was one of his earliest teachers. Already in my first progress report I mentioned that Menger gained from Kudler's handbook some elementary knowledge of value. Menger underscored these remarks which had a great influence on the development of his thinking. For the sake of completeness Kudler's ideas which the young Menger accepted, are repeated here: Value indicates that a commodity serves a purpose. A hierarchy of values is determined by the different objectives for which goods are used. Purpose and rank have a great significance for Menger's later formulation of his theory. The third item which attracted Menger's attention, was the labor value theory. The doctrines of the book are no longer accepted; they serve only as points of departure for Menger's own thinking. The remarks reveal independent judgement and original ideas. Here is a catalogue of Menger's new thoughts:\textsuperscript{43}

First. The labor value theory is discarded. Yet traces of the old doctrine can still be found.
Second. He calls his own doctrine the law of quantity (Das Quantitatsgesetz), i.e. besides utility the quantity of the goods available determines value.
Third. Value has an individual character; it is a personal judgement derived from utility and quantity.
Fourth. Value cannot be measured; however it is possible to relate one value to another but this comparison is rather inexact.
Fifth. The imputation theory is almost completed. "The value unifies consumer and producer goods into one group."\textsuperscript{44} The value of the producer goods is determined by the value of the finished products and the value of the finished products is based on the value judgement of the consumer. Here Menger turns upside down the classical sequence: Labor sacrifice→costs of production→value of finished product. He gives a formula by which the value of complementary producer goods can be distributed among the individual

\textsuperscript{39} Fragment, inserted page after P. 164. There are also other examples.

\textsuperscript{40} Carl Menger, Die Irrthümer des Historismus in der deutschen Nationalökonomie. Wien 1884. (Mlb. 2146) p. 83.

\textsuperscript{41} F. A. von Hayek, "Carl Menger" loc. cit. p. XI.

\textsuperscript{42} Menger and his library.

\textsuperscript{43} Rm. p. 70.

\textsuperscript{44} Rm. p. 416.
factors of production. "In the production the lack of one element can reduce or even destroy the value of the other elements." The difference between the Rm. and the principles is only a matter of emphasis. In 1871 Menger wrote that the complete loss of value is an exception; in most cases the value will only be reduced.

Sixth. The exchange value can also be called public value. A short time later Menger must have become aware of the fact that this definition is neither clear nor useful, for during a later revision of his notes most of those about the public value were crossed out. Like labor value this term had only a short lived significance for his thinking.

In these notes of 1867 some essential elements are still missing. Menger has still to divide a group of consumer goods into pieces of equal quality, quantity and form. He has to identify marginal utility and the value of equal goods. He has not yet studied the maximisation of utility. All these essentials of Menger's doctrine must have been created between 1867-1871. Documents pertaining to these four years have not been found. The climax of his value investigations is reached in the Principles. According to the material known till this moment Menger added only one essential new thought between 1873 and 1921 to his value doctrine. In the principles and in his remarks to Gossen, Menger invariably claimed that man acts so that he can preserve and increase his personal welfare for his whole life. In the fragment he admits one exception to this rule: "Preservation of life is not the highest goal for everybody." Jevons and Walras have also seen this limitation of the "egotistical" motivation; they have come to the conclusion that marginal utility calculation cannot be applied to all human action. It is not quite clear whether Menger shared their opinion. Certainly, he did not read what the two Western economists had to say to this problem. We have already mentioned, how little Menger knew about the mathematical theory of his time. These loopholes in his scientific education are especially conspicuous in his price theory, for which some additions can be found in Menger's unpublished work.

VI. Additions to the Price Theory

In two respects the unpublished material enlarges our knowledge of Menger's price theory. First, Menger, the opponent of mathematical economics, used in his unpublished comments to price analysis calculations, simple equations and geometrical figures. It is puzzling, how the same man can be in favor and against mathematics. He draws a demarcation line which he sometimes does not observe. His antimathematical

44 Ibid.
46 Rm. 1.5.66.
48 Fragment, Blank page before table of contents.
50 P. 7.
pronouncements are directed against an opponent whose achievements are not completely known to him. In the fragment he claims that the doctrine of supply and demand had reached its climax with Malthus. This price explanation, so he writes in the fragment, in the remarks on Mill and later in his capital theory, leads to a vicious circle. Prices are determined by the costs of production and costs of production are nothing but prices of factors, so that prices are really explained by prices. The correct explanation ought to begin with the consumer valuation.

Second. The development of Menger’s value theory began with Kudler’s handbook and reached its climax with the Principles. He started to work on his price theory in the Rm., and added to the analysis as long as he lived. In the Rm. he already explained the isolated exchange between two individuals. For the sake of clarification his sketchy mathematical notations had to be completed. A. and B. are two isolated persons who establish exchange relations. A has a surplus of commodity a and a lack of commodity b, vice versa B has a surplus of b and a lack of a. Menger’s figure illustrates this situation:

Menger’s figure Rm. P.7.

My interpretations are added in square brackets.

![Menger's figure Rm. P.7.](image)

Under these circumstances A considers \( b + y > a + x \) and B estimated \( a + x > d + y \). Apparently \( x \) is any additional amount of a and \( y \) any additional amount of b. A wants more y and B more x. A will offer x against B’s surplus of y and B offers y against A additional x. Offer and demand will continue, as long as both “can gain by exchange.” A somewhat simplified explanation of the same case can be found in the Principles. During the intermittent four years Menger has become cautious. In the Rm. Menger claims that A and B. must gain the same value by this exchange. The Principles do not contain this claim and in the remarks on Gossen the validity of this equality is questioned.

In the fragment Menger adds to the market models of the Principles two new cases: He mentions the differentiated monopoly price, which he explains in more details in the Sch. M. Only the fragment but not the Sch. M. deals with the interdependence of prices.

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53 Fragment. p. 12
55 Rm. P. 7. 179.
Menger’s study of this problem did not go beyond the stage of preliminary note taking. In the beginning he remarks that “price formation has been explained for the case of two goods. Now an enlarged investigation has to include the price relation of all goods.” The exchange operations are determined by the quantities offered. The demand is regulated according to the formula \( y/x = 3y \). The good in demand is \( x \), the commodity which the consumer owns is \( y \), \( y/x \) is the price for \( x \). A decrease or increase of supply may lead to a new planning of consumption. The consumer who maximizes his utilities, may change the application of his available means. Apparently Menger himself was not satisfied with the result of his thinking: he asks himself at the end of these remarks whether or not the theory of money could be used for further investigations of price interdependence. He did not try this approach, although he had developed rather early a detailed theory of money, with which he could operate.

**VIII. Menger’s First Theory of Money**

In the year 1867 Menger had put his monetary analysis on a much broader basis than in his later article in the *Handwörterbuch der Staatswissenschaften*. In the *Rm.* the two sources of his thoughts are his personal observations of the monetary chaos in the Hapsburg monarchy and the Hume-Ricardo balancing of international prices. In the article of the *Handwörterbuch* Menger is influenced by Knies and the legal theories of money. The article in the *Hdw.* is a terminological study which seems somewhat obsolete today. The fragmentary remarks in the *Rm.* form an interesting variation of classical monetary theory.

In the *Rm.* Menger develops two parts of a monetary theory. He deals with the definition of money and the international effects created by increasing the means of payment. Already in the *Rm.* Menger was an outspoken metallist. He never changed this viewpoint. Money is a commodity. Its value is guaranteed by gold and silver. Paper money is no commodity; it is only a warrant. His aversion to paper money is understandable since he lived through the Austrian inflation. His defense of metallic currency, however, is not derived from his personal experience but from the Hume-Ricardo theory. Like Hume the young Menger claims that it does not make any difference whether much or little gold is circulating. But then Menger is frightened by the boldness of his own thought and adds that too much or too little gold could create difficulties. What is too much or too little is not explained. In general Menger follows Hume and Ricardo and claims that a surplus of a gold will not exist. Price-, capital-, commodity-movements prevent, in the long run, the formation of a gold surplus or deficit. Such an equilibrization does not exist, according to Menger, if paper money circulates. The international market-

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58 Fragment. p. 212 and attached page facing p. 212.
61 *Rm.* p. 318 et seq.
62 *Rm.* p. 319 et seq.
64 *Rm.* ibid.
reactions created by an increase of banknotes are only slightly indicated. In connection
with this analysis Menger discovers a price reaction which we call today the "sticky prices." The
prices of gold and silver, he asserts, react stronger to an increase of paper than the
prices of commodities. His explanations of this phenomena contain some valid observa-
tions. The uneducated people (das dumme Volk) calculate in small coins and are against
changes. Transport costs and custom duties hinder the export of many goods, although
prices abroad are higher than in the country of their origin.

This observation as well as his other monetary thoughts are not always original but
they could be used as a first draft for a broad treatment of the subject. Yet his early
monetary theory was buried between the covers of a book like many other remarks which
are hidden somewhere in his library.

IX. Capital, Productivity and National Income

I found unfinished remarks about many aspects of economic theory, but only his notes
about capital, productivity, and national income are worth repeating. Menger exchanged letters about capital and interest with his student Boehm-Bawerk. Bohm went his own way, but was most likely indebted to his teacher for one passage from the fragment. If for a certain period a farmer needs seed grain x and labor y, and if y=2x, then after a few months he may harvest 6x. As his expenditures are only 3x=x+y, y=2x, after the harvest he will have a surplus of 3x, i.e. 6x gross receipt minus 3x costs. If this farmer does not own an additional amount of x+y to wait for the crop, he must forego the gain of 3x. Menger used in the Sch. M. a similar calculation to determine present and future capital calculations.

The cost and profit accounting in the fragment has a great similarity with Boehm-
Bawerk's third reason explaining the origin of interest. Boehm taught "that generally
present goods are on account of technical reasons better equipped to satisfy our needs than
future goods."

I have pointed out that Menger was not only interested in the special problem
of capital productivity but also in the more general aspect of productivity, the law of di-
minishing returns. Due to the development during the last twenty years the contributions
of older economists in this field are mostly dated. But Menger in his remarks to Mill had
some modern viewpoints. He no longer believed that the law of diminishing return is
valid in agriculture only; it exists in all kinds of productions, for, according to his opinion, the
difference between industry and agriculture is only of practical and not of theoretical
nature. In industry the newly established factories are the better ones; in agriculture
the land last cultivated is the least productive. Menger saw in this law an explanation
of optimal productivity: "each fixed capital can only be fructified to a certain

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65 Rm. P. 379.
66 Rm. P. 379
67 About the correspondence see List P. 2
68 Fragment pp. 127, 129.
69 Sch. M. P. 155.
Jena 1921. P. 339.
Before the best combination of fixed and circulating capital is reached, a twofold application of labor may increase the return three times.

Although Menger was aware of an empty spot in his system, these remarks to Mill did not grow into a complete theory of productivity. In his theory of capital he complained that even the most learned economist cannot establish an accounting system which can be used by the business world. He regretted that this lack of scientific calculation was only one of many deficiencies in the theory of his time. Especially in the field of national income and income distribution prescientific thinking was still prevailing. Economists did not understand the character of national income.

Consistent with his methodical individualism he saw in the national income a fictitious concept. In spite of this verdict Menger did not intend to exclude the usage of this term. He even showed in the Rm. how this income can be added up, and warned against faulty computation: "The gross income of the baker contains the gross income of the farmer and after its deduction the gross income of the miller." In other words only the net revenues can be added. Menger understood the "value added" method and knew how to avoid its fallacies.

In the fragment, changes and distribution of national income attract his attention. The dynamic patterns of the great classicists are studied. Menger criticizes Say's and Ricardo's law of the market. The two economists had claimed that a general overproduction cannot exist, because nobody can buy who had not sold before. Since Malthus this theory was under continuous attack. Menger, who was on the side of Malthus, formulated two objections:

1. The theory is only a tautology. "Buying is in fact nothing but an exchange of products.
2. Menger blames Say for not paying attention to price changes. Here is, according to Menger, an essential omission, for during an overproduction caused by the destruction of credit all goods can be overproduced and sold only with loss. Say's system contains a defense against this objection which Menger rephrases: "Say will claim, that under these circumstances the products which the producer buys with his undervalued products are also underpriced and so everything remains as it was." Menger thinks that Say forgets the debit and credit position of the firm, because a producer who has spent 100,000 fl., has only a gross income of 60,000 fl. from selling his product and if he has accumulated a debt of 80,000 fl., he must become bankrupt. Here the study stops, the line of thought ends. Menger does not put forward his own explanation of crisis or income-distribution. The fragment is filled with such unfinished thoughts. A decline of Menger's productivity sets in. It passes away once. In his methodology Menger shows the same originality as in his Principles. But then the decline begins again. Menger writes a monetary theory which does not measure up to the broad scope of the original draft. He publishes less and less. His interest of studying new books decreases, fewer books are annotated and works of lasting scientific rank remain untouched.

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11 Menger's marginal notes to J.St. Mill (see list p. 3) p. 336.
13 Zur Theorie des Kapitals. p. 28.
14 Zur Theorie des Kapitals. p. 36.
17 Fragment. Inserted page before P. 241
18 Fragment. p. 241.
This decline is strange. Menger's surviving friends and students told me that he was active and alert till his end. He had resigned from his position at the age of 63 to devote all his time to writing a second edition of his Principles. He must have had full confidence in his intellectual abilities.

In his history of economic thought Othmar Spann explained Menger's decline of literary productivity differently. He wrote that Menger believed neither in a further development of his system nor in the ability of his students to continue his work. This is not a convincing explanation. If Menger lost his faith in the validity of his system, why did he try time and again to finish the second edition of his Principles? Spann's main reference is Menger's speech in memory of Eugen von Boehm-Bawerk, which is indeed a strange eulogy. The master degrades the scientific qualifications of his deceased follower. But this is a deplorable exception; mostly Menger had praised his students, Wieser, Boehm-Bawerk and others.

Richard Schuller gave me a more plausible explanation: Menger had no time for further publications as long as he taught, for he devoted all his time to helping his students. Here is undoubtedly one valid reason, but it does not explain Menger's silence after 1903. Still other causes are revealed by the unpublished work. Menger attempted to do too much and tried to reach his objectives with time-consuming and inappropriate means.

Menger wanted to solve too many problems at once. "Qui trop embrasse, mal etreint." In the fragment he wrote about many, too many problems of practical and theoretical economics, e.g. the absolute rent, the differential rent, labor value, the existence level of wages, the wages fund, the Malthusian doctrine of population, productive forces of the nation, free trade, the history of currency etc.; he penned lengthy notes about the technic of coinage, the etymology of the word "Geld" (money), the production of gold and silver, and travelling in North Africa. While he worked on his Principles he knew the secret of writing: to husband one's forces and to focus one's attention on a few clearly defined objectives. Later he forgot his method. He spread himself over too many topics, and he wasted his efforts. The useless study of Rossi and Peshine Smith has been mentioned before. He changed the goal of his investigations. Instead of refining and expanding his theoretical system he became more and more enamored with definitions and distinctions. His article on money and the chapters on needs in the Sch.M. became a filigree-work of refined differentiations and special criteria. Like the majority of Austrian economists Menger was trained in the legal sciences. It seems to me that the scientific approach
of the lawyer gained more and more influence on Menger's working habits. The creation of terminology replaced the deduction of economic theory.

These and other reasons prevented Menger from finishing his work. This was undoubtedly a tragic disappointment for him, but a blessing for the young Austrian school. A finished system creates fanatical disciples who faithfully accept every word of the master; an unfinished work attracts independent thinkers who search for their own solutions. It is quite possible that the unfinished theories of the fragment were mentioned in Menger's lectures and discussed in his seminars. His students may have used their master's ideas for further research. An exact proof for this relationship cannot be given, but some similarities are so obvious that they ought be mentioned.

Menger's influence on Boehm's capital theory has already been discussed. Menger's criticism of the labor value theory contains elements which have been integrated into Boehm's great and destructive attack on the system of Karl Marx. Hans Mayer based his critical analysis of the mathematical school on Menger's ideas. Following their mentor, Ludwig von Mises and his group reject the aggregate approach to this day. The problem of economic freedom, which Menger has described, reappears in Wieser's law of power. The two contradicting methods, atomism and organism, had their impact on two antagonistic economic thinkers, Ludwig von Mises and Othmar Spann. Spann fights against atomism as strongly as Mises combats the organic method.—It is probable that the members of the Austrian school learned more from Menger than the valuetheory.

It is understandable that the students admired their master. Richard Schüller described Menger as a friendly, courteous gentleman who was always willing to help the young scholars. This impression may have been shared by many young economists who were members of Menger's seminar. In this picture the darker shades are missing which his published and unpublished work reveals. His attitude to Schmoller, to Walras, and to Lorenz von Stein was neither courteous nor friendly, nor tactful. He was very moody, he could praise and reject his best students; he could hold up Lorenz von Stein to ridicule, or he could write a eulogy about him. It is possible that his changing moods, his bitter remarks about friend and foe are connected with his two great disappointments: that many economists did not accept his ideas and that he was not able to complete his work. But Menger had a healthy and strong personality; he did not allow these darker feelings to dominate him. A strong self reliance and pride helped him always to redress the balance of his complex nature. He was proud that he; the son of an impoverished nobleman, had become the educator of a prince and the author of famous works. With a feeling of pride and defiance he wrote: "For my small efforts I will be rewarded with the conviction that in the field of German economy I have done, in more than one respect, a good work".

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84 Louise Sommer, Walther Fröhlich, and Richard Schüller told me that Menger gave those problems he had no time to solve, to his students for further investigation. It is possible that Menger used the fragment for a time as his lecture notes.


86 Irrthümer des Historismus; op. cit. last sentence.