

JOSEPH A. SCHUMPETER

Leben und Werk eines grossen Sozialökonomen

(Life and Work of a Great Social Scientist)

by

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INTRODUCTION

Erich Schneider, who during the quarter-century following World War II gave the teaching of economics at German universities an impetus and reach comparable to those emanating from Paul Samuelson in the United States, was born in Westfalia, Germany, in 1900. He died in 1970.

Schneider received his Ph.D degree, with primary concentration on mathematics and physics, at Frankfurt/Main in 1922. Although for a number of years thereafter he was "just" a secondary school teacher, he began to publish articles on economic subjects as early as the mid-1920s. The decisive formative event of his career, however, was his encounter in 1929 with the great Schumpeter, an Austrian star before World War I who had gone into eclipse in the early 1920s, only to rise to new brilliance in Germany (and beyond) in the late 1920s. It was Schumpeter's seminars at the University of Bonn that young Schneider attended with intense zeal.

Later in his life, Schneider always considered the years immediately prior to Schumpeter's acceptance of a call to Harvard University in 1932 as the most stimulating and fruitful episode of his life. Hence the latent but unceasing urge, brought to fruition shortly before Schneider's death, to communicate to his academic colleagues the impact of this mentor on the evolution of his own thought as well as of economic science in general.

Schneider's first major work, the habilitation-dissertation presented to Bonn University in 1932, dealt with the *Pure Theory of Monopolistic Forms of Economy*. This was followed in 1936 by his *Theory of Production*, a book widely acclaimed by leading theorists and subsequently translated into Italian.

A second significant turning point in Schneider's life was his appointment in 1936 to a professorship at the University of Aarhus, Denmark. Here he undertook incisive investigations of problems of managerial economics and helped to give direction to incipient work in the field of operations research, aiming at a synthesis between economics and business administration. His abiding concern in this area found expression in many subsequent papers, a selection of which was published as a separate volume, *Economics and Business Management*, in 1964. During his Aarhus years he

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laid the foundations for his *magnum opus*, the four-volume *Introduction to Economic Theory*. It is subdivided as follows: I. Theory of Social Accounting (1st ed. 1947, 14th ed. 1969); II. Economic Plans and Economic Equilibrium in the Market Economy (1st ed. 1949, 12th ed. 1969); III. Money, Credit, National Income, and Employment (1st ed. 1952, 11th ed. 1969); IV. Selected Chapters of the History of Economic Thought, vol. 1 (1st ed. 1962, 3rd ed. 1970). Frankly committed to the use of quantitative methods in the formulation of economic theory, the *Introduction* benefited from Schneider's linguistic ability to incorporate into his overview not only the leading Anglo-Saxon works but the most important Scandinavian contributions as well.

With no regard to personal comfort and well-being, Schneider in 1946 accepted an invitation to return to his native Germany—at that time a hungry, prostrate, and demoralized nation. His intellectual leadership soon became evident in subsequent installments of his *Introduction*, whose first three parts were published at intervals of less than three years. Schneider's scientific career probably achieved its zenith after the publication of part III, in which he did much to make Keynesian theory broadly accepted in the German-speaking world and to defend it against heedless or ill-founded attacks.

It may be noted that the *Introduction* not only performed invaluable services for the development of economic theory in Germany, Austria, and Switzerland, but—thanks to translations into Romance languages, English, Japanese, and even Persian—before long its fame spread into the far corners of the globe. Its success was seconded by a companion workbook, *Problems and Exercises on Economic Theory*, first published in 1965.

During the 1960s, the last decade of his creative activity, Schneider also assumed various administrative duties: as rector of the University of Kiel (1959-60), as director of the Institute of World Economics at the University of Kiel (1961-69), and as president of a branch of the *Verein für Socialpolitik* (1963-66), a prestigious professional association. Coupled with his directorship of the Kiel Institute was his role as editor-in-chief of the journal *Weltwirtschaftliches Archiv*. During these years, in addition to the many revisions of his leading work, Schneider still found time to write books on *Balance of Payments and the Exchange Rate* (1968) and *Economics in School Curricula* (1968).

His retirement from academic teaching in 1968 and his relinquishment of the Institute directorship were intended to be followed by renewed research, free from the distractions of public responsibilities. Alas, except for the book on Schumpeter, whose translation from German into English is hereby presented, most of his projects

remained unfinished when, days before the completion of his 70th year, death suddenly overtook him in December of 1970.

Even so, the list of honorary degrees received by Schneider is impressive, including doctorates from the University of Berlin, Handelshochschule Stockholm, University of Paris, Wirtschaftshochschule Helsinki, the University of Louvain (Belgium), the University of Rennes (France), and the University of Madrid (which awarded him the degree posthumously in 1971). Of the two *Festschriften*, one written for his 60th birthday and the other planned for his 70th, the second unexpectedly became a commemorative publication; it appeared as the December 1970 issue of *Weltwirtschaftliches Archiv*.

W. E. KUHN

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June, 1975

W. E. Kuhn

In that which follows, the numbers in the right margin refer to page numbers in the original (Schneider) book.

PREFACE

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Invited by the "Instituut voor Economische Wetenschappen" at the University of Louvain, I gave six guest lectures there in English on the life and work of Joseph A. Schumpeter. I hereby offer them in an enlarged version in the German language to the general public.

In preparing the lectures, I availed myself of every accessible source—all of Schumpeter's writings, including his book reviews, and everything that has been published about him and his work (including the reviews of his writings). Thanks to the unparalleled library of the Institute of International Economics,* these sources were available to me without lacunae. In addition, I have used both my correspondence with Schumpeter and my notes about conversations with him.

To my colleagues and friends at Louvain I am indebted for the fact that their invitation has led to the realization of my long-cherished wish to keep alive, by means of such a publication, the memory of one of the most prolific and ingenious economists of this century. To him I owe a greater debt than I do to any other of my academic teachers.

My thanks go to Mrs. Ursula Genrich for the typing of the manuscript and for her help in proof-reading.

Kiel, May 1970

ERICH SCHNEIDER

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Joseph Alois Schumpeter (1883-1950) belongs to the few truly great exponents of the economic and social sciences in this century. Perhaps he was the last one in the series of those who wielded a sovereign mastery of the entire domain of the economic and social sciences and who were capable of comprehending economy and

society in their mutual and interacting relationships from a historical, analytic, and philosophic point of view. Scarcely a single subject of our discipline has remained untouched by the stream of ideas emanating from this all-encompassing and highly refined mind. Whatever problem he broached, he always infused into it something creative and original. The depth of his thoughts, the brilliance and precision of the language in which he expressed them, made all of his writings masterpieces of a high rank. His works radiate the same fascination as did his personality. Their contents are part and parcel of the inalienable, classic achievements within the broad realm of the economic and social sciences. Until some far-off future time, their message will continue to appeal to new generations and will fructify their work. For this very reason it is tempting to examine the evolution of the various phases of this opus—i.e., the progress of an opus which is downright inseparable from the man to whom we owe it. Work and life of this singular personality are therefore the focus of this series of lectures. "The most distant generations still (are to) know that (Schumpeter) was only a human being, but they are also to know what kind of a man he was."¹

I.

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Joseph A. Schumpeter was born on February 8, 1883, in Triesch (Moravia) the son of a cloth manufacturer married to the daughter of a Vienna physician. His father died when Schumpeter was four years old. Seven years later his mother was wedded to Sigismund von Kéler, a high-ranking officer (field-marshal lieutenant) of the army of the Austro-Hungarian monarchy. Von Kéler's position—he was commander of the troupes stationed in Vienna—necessitated the removal of the family to Vienna. Here begins the first decisive phase in the life of the now ten-year-old Schumpeter: his entry into one of Austria's most famous grammar-schools, the Vienna *Theresianum*—a preparatory school patronized by the Austrian aristocracy. The richly gifted young Schumpeter found here not only eminent teachers. In these highly significant formative years of his life he also came into contact with the world of the Viennese aristocracy. The culture and life-style of these circles left as deep an imprint on him as did the time spent in the *Theresianum*. To the end of his life he remained the cultured Austrian gentleman of the old school.¹

With a splendid scholastic record, well trained in Latin and Greek, and through self-study equally familiar with the French, English, and Italian² languages, he left the *Theresianum* in 1901 in order to matriculate in the "school" of jurisprudence at the University of Vienna. Like all economists educated in Austria, he came upon the economic sciences by way of studying law and took the courses in economics and statistics required for the doctorate

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along with the core courses in Roman law and its history as well as in canon law. His teachers in economics and the related sciences were Eugen von Böhm-Bawerk, Karl Theodor von Inama-Sternegg, Eugen von Philippovich, and Friedrich von Wieser.³ Unquestionably it was E. von Böhm-Bawerk who exerted the strongest influence on him, especially after 1904. Schumpeter's obituary⁴ is a peerless testimony to the extraordinary esteem in which he held Böhm-Bawerk as a teacher, scholar, and human being.⁵ In Böhm-

Bawerk's seminars, which exerted a magnetic pull on the best students, Schumpeter came into contact with Emil Lederer, Ludwig von Mises, Felix Somary, and such eminent heads of the Marxist world of ideas as Otto Bauer and Rudolf Hilferding. Often and gladly he later talked about the fruitfulness of those very seminar discussions which through intellectual stimulation gave rise to permanent friendships. Nor did he ever conceal that the seminar discussions awakened in a decisive way his interest in the problems of socialism. In those years he presumably studied for the first time the works of Marx and other theoreticians of socialism. In this circle Schumpeter was undoubtedly one of the most brilliant and fertile thinkers. As early as 1905—at the age of 22—he published in the *Statistical Monthly*⁶ [*Statistische Monatsschrift*] three papers originating in his work as a member of the Inama-Sternegg statistics

seminars: "the Method of the Standard Population"; "the Method of Index Numbers"; "International Pricing"—papers all bearing the stamp of vigor and creative power. In the following year—in 1906, when he took his doctor of laws degree—there came the big surprise: a 23-year-old youthful holder of a Ph.D in laws at the University of Vienna, who had never heard a lecture on mathematical economics and in courses on economic theory had never seen a mathematical formula on the blackboard, published a 19-page paper, "On the Mathematical Method in Economic Theory."⁷ One must read this piece of work *today* in order truly to appreciate the achievement embodied therein. It is based on a most intimate knowledge of all the existing literature inasmuch as this literature makes use of the language of mathematics. At 23 years of age, Schumpeter had not only *read* the works of people such as Auspitz and Lieben, Barone, Bortkiewicz, Cournot, Cunyngame, Edgeworth, Garibaldi, Gossen, W. St. Jevons, Launhardt, Lexis, Marshall, Pareto, Thünen, Walras, Wicksell, but had worked his way, page-by-page, through the relevant propositions and theorems until he had achieved complete command over them.* All the arguments for and against use of the language of mathematics in economic theory are masterfully expounded and tested for their validity: "I must say"—he concludes—"that so far I have not heard any [objection] which appeared sound to me, none which . . . would have shaken my belief that on *this method* rests the future of economic theory as a science—as Jevons puts it: If economics is to be a science at all, it must be a mathematical one."⁸ And, with a sure instinct, he perceived in the writings of Augustin Cournot, William Stanley Jevons, Léon Walras "those standard works on which contemporary mathematical economics rests." In the writings of these masters young Schumpeter found the clarity and tidiness of reasoning which

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was to distinguish his own work. And from among these three, it is Léon Walras to whom he awards the title of greatest of all theorists.⁹ Apart from Eugen von Böhm-Bawerk and Karl Marx, no thinker so influenced and shaped him as did Léon Walras. A few years later he wrote in his obituary on Walras: "The simple grandeur which lies in the unconditional devotion to *one* task becomes apparent to our eyes when today we look back upon this life of a scientist. It strikes us as equally necessary, self-evident, and powerful as does a natural phenomenon. Single-minded reflection upon the problems of pure economics forms its substance. Nothing else." He thus describes his own scientific ideal, one which he retained to the end of his life. The world of Lausanne, Vienna, and Cambridge found in Schumpeter the man who absorbed all the currents of thought emanating from these three centers and combined them into a synthesis.

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In 1908 (at the age of 25) he published his first great work, *The Essence and Principal Contents of Economic Theory*.¹⁰ It still bears the strong imprint of his study of the standard works of mathematical economics, above all that of Walras, and in a way represents a systematic elaboration and continuation of ideas which, seminally, are already contained in the essay, "On the Mathematical Method of Economic Theory." At the same time, however, it is also a work pointing to the future. This will shortly have to be discussed further. It is probable that Schumpeter as early as 1906, the year of his doctorate, if not earlier yet, began drafting this 626-page book. In 1906 and 1907, in the course of a stay in England extend-

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ing over several months, he continued to occupy himself with the topic and engaged in comprehensive bibliographic studies in the British Museum. The work was completed in Cairo on March 2, 1908.¹¹

The sojourn in England impressed him deeply. The English way of life and institutions, especially life at a college like Oxford or Cambridge, conformed to his inclinations in every respect. Basing my judgment on numerous remarks of his, I have no doubt that it was his innermost wish to be able one day to devote himself entirely to scientific studies within the setting of such an institution.

In 1907 he married an English woman 24 years his senior and traveled with her by way of Vienna to Cairo, where he practiced law at the International Court of Justice while at the same time looking after the finances of an Egyptian princess. This appears to have been the only time when he was successful in matters of practical financial policy. His marriage soon turned out to have

been ill conceived. Divorce, however, did not follow separation until the year 1920.

In 1909 Schumpeter returned to Vienna, where Böhm-Bawerk was instrumental in getting him appointed as a university lecturer* on the strength of the book he had completed in Cairo. The same year he obtained a regular professorship in Czernowitz (Bukowina), a little town at the extreme eastern end of the Danubian monarchy. This town with a university founded in 1875 was at the same time a center of German culture in that portion of the Balkans. Life there, which he still shared with his wife, appealed to him in certain ways. He found most of his colleagues provincial in outlook, however, and did not hesitate to express this view of his in various ways. At 26 the youngest full professor, he became before long the *enfant terrible* in his department. His wish to return to Vienna as quickly as possible went unfulfilled. The Vienna faculty resisted with all its might the idea of admitting this *enfant terrible*—and a mathematical economist to boot—to its circle. Only thanks to the great influence of his teacher and benefactor Böhm-Bawerk, who

had discovered earlier than anyone else the strength of this genius, was it possible to secure Schumpeter a chair at the University of Graz, albeit against the vote of its faculty. In 1911 he began his teaching in Graz. The years he spent amidst a faculty who disapproved of him were not pleasant ones. He found some compensation in his frequent trips to nearby Vienna and in a visiting professorship at Columbia University in New York in 1913-14. Shortly before his return to Austria, just a few weeks before the outbreak of World War I, Columbia University bestowed distinction on him by awarding him the degree of doctor *honoris causa*. At that time he was 31 years old!

He remained in Graz until 1918. Then began a new epoch in Schumpeter's life. Before turning to events in this period (chapter IV), let us examine closely his scientific output during the 1908-1918 time span.

II.

As already mentioned, in 1908 Schumpeter's first great work, *The Essence and Principal Contents of Economic Theory*,¹ was published. It can only be understood against the background of the state of economic theory in Germany at that time. Schumpeter wanted to make plausible to German economists, who had become estranged from theory by the dominance of the Historical school, the world of ideas of so-called pure economic theory as represented by L. Walras. "It is one of my purposes to familiarize the German public with many things—concepts, doctrines, modes of perception—which have hitherto remained foreign to it because the evolution of theory has not been sufficiently observed. The German economist often has only a very vague notion about the real object of inquiry of a pure theorist. And even when acquaintance with theory may be taken for granted, many things can be undertaken with a view to bringing foreign theories closer to German academic scholars.

"In this context, one of the most important points concerns the question of 'mathematical method.' Presumably many a reader has heard hardly anything about it, and probably only few can be expected to have encountered more than general arguments pro and con. It would avail nothing were we to adduce such general reasons which, in consonance with the rapid advance of this method of thought, increasingly tend to become incorporated at least in the English-language textbook literature. It would be just as inappropriate to present extensive mathematical deductions, for whose comprehension the preconditions are lacking and which would only act as a deterrent. We believe, though, that if one wants to pursue theory at all, he needs to do so in as exact a manner as possible and that the notions of higher mathematics plainly force themselves into our thinking. With this we are not trying to suggest, however,

that mathematics is necessary because our concepts are quantitative in nature or that true accuracy, especially in the case of complicated problems, can only be achieved in mathematical language. We confine ourselves to working out the substance of accurate reasoning in

our discipline, pointing to a few places where the train of thought becomes mathematical in form whether we like it or not, and explaining carefully what happens on this occasion, what the process means, and what may be its outcome. The reader himself may then judge whether there is anything objectionable to it, whether it appears to be worth his while to concern himself more closely with it, and how to assess the arguments against it. We nowhere proceed so far that mathematical knowledge really becomes a necessary key to understanding. This would run counter to the purpose of this book. And we hope that we may thereby be able to render a better service to these new trends and may be more likely to succeed in winning converts to them than if we engaged in general argumentation about them and blamed the reader for a lack of preparatory training." (Preface, p. XXI ff.)

"In the center [of the book] stands the problem of equilibrium, *the importance of which is only slight from the viewpoint of practical applications of theory, but which is nevertheless fundamental for science.* In Germany not enough attention has been given to it, and it is important to emphasize that it is the foundation of our exact system. The theory of exchange, price, and money, and its most significant application, the exact theory of distribution, are based on it, and to these matters the bulk of the following analysis will be devoted. They constitute that part of economics which is ripe for an exact treatment and on which no such treatment has been bestowed so far.

"My presentation rests on the *fundamental separation of 'statics' from 'dynamics'* in economics, a point whose importance cannot be overemphasized. The methods of pure economics for the time being suffice only for the former, and the most important results have validity only for it. 'Dynamics' differs from 'statics' in every respect, in method as well as in substance. This distinction is certainly not new. It has been especially emphasized by American theorists. In Germany, however, it has been little noted, and even abroad its

full import has not been appreciated. We will see, in particular, that in it lies the key for the solution of many controversies and of many apparent contradictions, that it cannot be disposed of with a short note in the Introduction but intrudes itself upon every concrete problem. We will deal here only with statics, presenting merely vistas of, and casual remarks about, the province of dynamics." (Preface, p. XIX ff.—Schneider's emphasis.)

The central idea of the book, then, is the *static theory of economic equilibrium* developed by Walras. The author is interested in making plain to the reader, without using the language of mathematics,² the meaning and significance of this Walrasian system of

equations which describes equilibrium and general economic interdependence. But the book contains more. The author also endeavors to make clear to the reader the limits of static and comparative-static analysis (part IV: the method of variations) and to show him just *what* in the realm of this form of analysis has been accomplished and firmly established.

"*Secure* is the theory of price and its principal applications, namely, monetary and distribution theory, etc. For these the methods of statics suffice, and these problems constitute its real domain."³

After this statement he continues: ". . . not accessible to it is all that which is connected with the phenomenon of *development.* Yes—development and all that belongs to it lies outside our focus; the purely economic system (i.e., a stationary economy—Schneider) is essentially non-developmental in nature. We will yet have to bring up many more times this limitation, which is the most painful of all but follows naturally and ineluctably from the nature of our system. Crucial for that great problem are moments altogether different from those which our system depicts, and the *complexity of the relevant relations probably will defy exact treatment for a*

long time to come. Still one cannot fail to appreciate that *development is the most important of all those phenomena whose explanation we strive for.*⁴ Apart from this we will ourselves have occasion to point out how unsatisfactory is the portrait of reality which statics gives us. Nevertheless, its scientific importance is great, and it thus deserves a quite scrupulous treatment."⁵

Here we find the first hint of that broad subject which apparently engrossed Schumpeter as early as during his college days and continued to occupy to the very end of his life a central place in his research work: the problem of economic development.

In yet another respect did Schumpeter's work point to the future. He asks the question: "Is it not possible to determine the demand function more precisely, so precisely that we do not merely get an 'unequivocal' result but a concrete one? I believe to hear the answer: What a fantastic undertaking—incalculability of economic processes—constant change—etc.! But to such generalities we, too, can give a general reply: Wherein, then, does the Utopia of such a procedure lie? Only laboriously and slowly can one forge ahead; through blunders and disappointments goes the path; but this is only natural, of course, for if the task were simple and everything already done, every word would be superfluous. Every advance encounters doubts and failures, and by throwing in the sponge a priori one ensures in fact that nothing will be accomplished. For we only continue to pave a way whose beginning already lies clearly

and securely delineated before us. Why should we not be able to go ahead with the 'questioning,' with the experimental establishment of our value functions?"⁶

Thus a brief is held for a "calculating procedure." Here a development is intimated ". . . which in the truest sense of the word is 'undreamt-of' and perhaps will turn out to occasion a complete revolution in the conception and evaluation of economics, to lead to a new era for it."⁷

It really goes without saying that such a book in the Germany of that time was not well received. In a world which—with few exceptions—was hostile to theory the organ to receive the message of young Schumpeter was wanting.⁸ The comprehensive review article by F. von Wieser⁹ was also negative in an overall sense, much as he gave recognition for certain points.¹⁰ Only abroad, where the mathematical school had been given the right of domicile a long time since, was the work well received, being viewed there as a useful written defense for the application of mathematics to economics. Schumpeter sent a dedication copy to V. Pareto, who for want of knowledge of the German language asked his friend M. Pantaleoni (an eminent Italian economist) to give him his opinion of the book. Pantaleoni's answer was contained in a letter dated December 8, 1908: "The book is rather diffuse, but good. It is useful, very useful for the Germans, but does not contain anything new. He must not be discouraged, however. He does not seem to know your *Manuale*. But he appears to know Italian because he cites the *Giornale degli Economisti*."¹¹

Schumpeter did not allow himself to become discouraged by the negative attitude of the profession in Germany: ". . . I look forward with calm to the new scientific day which, if I am not mistaken, is beginning to dawn."¹² ". . . though it may be admitted that at this time the number of interesting theorems is modest. But even this small group of established truths is still a beacon amidst a sea of darkness"¹³—prophetic words in which is instinctively expressed the evolution of economic theory to this day.

Schumpeter did not tire of telling his professional colleagues time and again that economic theory is *the* foundation of economic reasoning altogether and "that if one proposes to pursue theory at all, he must do so as accurately as possible, and that the modes of thought of higher mathematics plainly force themselves upon our chains of reasoning."¹⁴ Emphatically he notes: "I keep aloof from practical politics and know of no other striving than that for understanding."¹⁵ And he practically implores the world of scholars to

stop "preoccupying themselves with questions of the day. *For the exclusive or predominant concentration on events of the day threatens to suffocate the interest in work oriented to purely scientific criteria and thereby to jeopardize scientific progress*"¹⁶—an admonition which can hardly be heeded enough.

Mathematical economics engaged him to the end of his life, although he did not himself make any further contribution to it. The reason for this lies undoubtedly in the fact that he was lacking in systematic mathematical training. He incessantly tried to close his mathematical gaps. The study of mathematical books was no less a part of his *daily* (!) activities than was the reading of Greek

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literature. During all his life he remained the indefatigable promoter of mathematical thinking in economics. In *this* respect his influence extends farther than that of any other economist of his time. On this, more will have to be said below.

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I now turn to Schumpeter's second great performance during the period 1908-1918: the *Theory of Economic Development*.¹ It is the achievement which at a young age (29 years) made him world-famous and which perhaps will always be regarded as his greatest. The book appeared in 1912, or only four years after the publication of *Essence and Principal Contents*. Work on the book began in 1905 and was to be understood as a continuation of *Essence and Principal Contents*: "It is designed to fulfill the major portion of my promises as expressed in the latter work on the occasion of predominantly critical arguments. But since both mode of treatment and subject matter are distinctly different, I did not denote it as a second volume or a continuation of the first, the more so as I took pains to make sure that this work can also be read independently of the other."²

Indeed, the mode of treatment of the subject is substantially different from the one in *Essence and Principal Contents*. Not a single reference to mathematical forms of reasoning which could be useful here can be found—in keeping with the explicit reference that today (1912) the phenomenon of economic development is not (or rather: not yet) amenable to exact mathematical treatment. It therefore matters to him expressly to call to the attention of the reader that this second work does not imply a disavowal of the first: "The dissimilarity in the treatment of the subject matter and the difference of objectives in the two works may give this impression, but a closer look will, I believe, convince every reader that the

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contrary is true."³ It deals, indeed, with a matter of purely theoretical interest and aims at nothing else than an explanation and elucidation of the development process in a purely capitalistic social order.⁴ It is important to bear this clearly in mind since there are various kinds of theories of economic development:

a) theories which explain a concrete historical development process (e.g., the economic development of England in the 18th century),

b) theories which analyze the development process within the framework of a given economic order (such as a centrally directed administered economy or a free-market capitalistic economy),

c) theories which inquire into the conditions of economic development in any conceivable economic system,

d) theories which inquire into the conditions of balanced development.

Schumpeter's theory belongs to category b). It seeks, above all, to analyze the development process in every capitalistic, market-oriented social order in which the economic agents consist only of households and entrepreneurs.⁵

As mentioned, the origins of this theory go back to the year 1905, i.e., the time before Schumpeter's doctorate and before his habilitation.⁶

By his intensive study of the theoretical research undertaken in the United States since approximately the end of the 1880s young Schumpeter appears to have experienced notable impulses or confirmations of the soundness of the approach chosen by him. The result of his studies was a 51-page report about "The Recent Eco-

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nomical Theory in the United States"⁷ which, again, impresses by the author's comprehensive grasp of the literature as well as by his ability to expound the essential ideas of the American thinkers clearly and intelligibly. In the framework of these studies there were, above all, two names which attracted him, especially and precisely with regard to the theory of economic development: J. B. Clark and W. G. Langworthy Taylor:

"To begin with, there is a remarkable tendency to move the entrepreneur into the center of the theoretical image of reality and to look at the economic process from his point of view. . . . The change caused thereby in the total layout of our theoretical picture may perhaps lead to new results. At any rate, it leads us out of the conventional track of theoretical reasoning (i.e., out of the realm of statics—Schneider). . . . (The decisive step) was taken by J. B. Clark. For his theory, the distinction between statics and dynamics is essential. In a static state all economic activity has one and the same character. In a dynamic state, however, a new function is added, namely, the function of making decisions which alter the previous course of the economy, decisions concerning new production methods, forms of organization, new commercial combinations. The static economy goes its accustomed way all by itself, as it were; only in a dynamic one is there room for leading personalities."⁸

Before moving on to a portrayal of Clark's theory of economic development, Schumpeter deals with the crisis theory of W. G. Langworthy Taylor:

"The characteristic feature of this theory is that it is based on the fact of economic progress and includes crises as one of its phases. Not with one word does the author dwell on the disorderly phenomenon termed crisis in popular usage and whose explanation is still today the goal of most works devoted to this problem. He

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has his eyes focused only on the undulatory movement in the form of which the development of the economy takes its course. He resolutely declines to look for the causes of the crisis in the elements of the static system; rather he views crises as merely the response to a disturbance of static economic equilibrium caused by economic development. He describes the elements of the material and psychic environment, defines development in terms of changes therein due to inventions, etc., and then proceeds to explain the crisis as a process of restoring a new state of equilibrium. If this interpretation is correct—and it is not easy to see very clearly, given the not very lucid exposition of what is, moreover, a sketchily short piece of work—and I am not misled by a bias traceable to my own work,⁹ then Taylor comes closer to a real grasp of the crisis phenomenon than any other author known to me.

"To be sure, this interpretation of crises stands and falls with the development theory on which it rests. And in this respect Taylor did not go far . . . only Clark undertook an attempt to provide a rigorous theory of economic development, thereby extending the boundary line of theory to the very limits of economic life. According to him, the factors causing the static state of the economy not to be maintained but instead causing its very level to change gradually, can be reduced to the following five facts: increase of population, increase of capital, change in production methods, change in economic organization, and finally change in wants. The discussion of the effect of these five facts essentially constitutes its* dynamics. The first three of them were already emphasized by the Classicists, and Clark at this point goes into the old controversies which under the labels of population theory, law of the falling interest rate, and effect of the introduction of machines became 'citizens' in the realm of theory. He thereby gains many new viewpoints, e.g., the analogy between the effect of tech-

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nical progress on the workers and its effect on the capitalists. In both respects Clark arrives at an optimistic result, essentially by utilizing the reasoning of the compensation theory. Quite correct

is the idea that the change in production methods is the principal source of capital: accordingly, capital formation can be mainly explained by the profits derived from the introduction of new production methods—a sound and realistic view of the matter, which follows quite automatically from the fundamentals of his whole system.

"No economist today can pass over in silence the elements of organization changes. This gives Clark the opportunity to indicate that monopolies prevent the diffusion of profits which would otherwise always result from competition. He sees in it a 'perversion' of progress

"It can surely be said that these statements are right up to the mark of our present-day knowledge. They also contain a series of original phrases. Finally, Clark in this work joined pure theory with the social facts, thereby moving theory so close to practical life and to adjacent fields that we can derive a unified general view in which the economic factor interlocks with the other elements of social life. But it may be questioned whether this constitutes a satisfactory theory of economic development. The mere increase in population and capital may create the *conditions* for development, but not development itself. Without further changes this will result in nothing but a fall in wages and interest. It still needs to be explained in what manner these elements lead to the origination of something *new*. Technical progress does not win through on its own accord any more than does a change in organization. Certainly, economic development is largely reflected in the forms of technical and organizational progress. But how, and out of what, it arises still remains a problem. And the latter is not being solved by the fifth factor. It is not the large mass of consumers which induces production. On the contrary, this crowd is *mastered and led by the*

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key personalities in production. The former view originates from the realm of ideas governing statics. The big events, the stormy waves of development cannot be so explained. The very circumstance that Clark does not approach the problem of crises suggests that much is still missing here—for the problem of crises is nothing short of a touchstone for any theory of development."¹⁰

The first draft of Schumpeter's own ideas concerning the problem of development is found in the paper, "On the Nature of Economic Crises,"¹¹ which appeared in the same year as did his paper on recent economic theory in the United States. The central ideas are contained in the following sentences:

"The essence of economic development lies in the fact that the means of production, which hitherto have been put to certain static uses, are being deflected from this course and are devoted

to new purposes. We designate this process as the carrying-through of new combinations.* And these new combinations are not carried through on their own accord, as is true for the combinations familiar from statics, but for their realization *are in need of a kind of intelligence and energy which inhere only in a minority of economic agents. The intrinsic function of the entrepreneur consists in carrying out these new combinations.*

"The outward form of the development process varies with the legal forms and principles of organization of an economy. But it is crucial to realize that the gist of the process is the same everywhere. *However the economy may be organized, there always exists for it a static equilibrium state. And always does it require persons with leadership to direct the economy into new channels. In the market economy this occurs when the entrepreneur gains possession over the factors of production necessary for carrying out new combinations by exerting a demand for the factor services. For this he requires the necessary purchasing power in the form of either money or credit. We cannot specify here the manner in which this purchasing power is made available to him. But it is safe to say*

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that this process is characteristic solely of a market economy. In a communistic economy things take place in a different way. Here the leading personalities must either convince the rest of the people of the advantages which the realization of their plans would yield, or else be able to make use of some authority of command, however structured. But therein lies a difference of form and not of substance. Here as there, the fundamental contrast exists between static and dynamic processes. Here as there, the role of the leader stands out in the latter processes, but is unimportant in the former. In a similar sense as is true for static theory, dynamic theory, too, is independent, *per se*, of the concrete organization of an economy—though a closer examination shows that this is not valid in general. In what follows, though, we first focus on a market economy."¹²

Everything that is contained in the book published a year later is essentially nothing more than an elaboration of these root ideas:

The starting point of the analysis of the phenomenon of economic development is the theory of the economic process in a stationary economy in which the net national product is consumed in its entirety and thus gross investment equals depreciation. The stock of productive capital is just being maintained—neither decreased nor increased.¹³ In such a stationary world, the economic process runs in forever changing channels. Only against the back-

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ground of such a non-developmental economy does the phenomenon of a developing economy stand out. All theorists who have

occupied themselves with the phenomenon of economic development also began their analysis in this way: Karl Marx begins with the theory of simple reproduction (Marx's expression for a stationary economy), Böhm-Bawerk in the same manner guides the reader to his theory of capital formation. Only thus does it become immediately clear that *conditio sine qua non* for any kind of development is a new allocation, a different use of resources, a channeling into new uses. In this sense Schumpeter defines as economic development the *carrying through of new combinations (of resources)*, and in doing so it is essential for the development phenomenon that this reallocation of resources occurs *discontinuously*.¹⁴

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The core concept of the carrying-through of new combinations (of resources)—in brief: of innovations—comprises five cases:

- "1) Production of a new good, i.e., one not known yet to consumers, or of a new quality of a good.
- 2) Introduction of a new method of production, i.e., one not yet known to a particular industry. By no means does it have to be based on a new scientific discovery, but may consist of a novel way of marketing a product.
- 3) Opening up of a new market, i.e., of a market in which a given industry of a given country had not been established before, regardless of whether or not this market had existed before.
- 4) Capture of a new source of supply of raw materials or intermediate products, again regardless of whether this source existed before—and simply was not noted or was deemed to be inaccessible—or has to be created in the first place.
- 5) Establishment of a new organization, as creation of a monopoly position (e.g., by pooling), or breaking up of a monopoly."¹⁵

It is important to note that it is the *carrying-through* of new combinations — innovations, *not* inventions! — which characterizes every economic development. This statement applies to *all* types of economic order. It is only the *way in which* new combinations are brought about that varies with the economic order.¹⁶ In a capitalistic, free-market economy it is the private entrepreneurs who carry through new combinations, doing so for their own account and at their own risk. Here the private entrepreneur is the key figure and champion of any economic development. In the cen-

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trally directed administered economy, however, it is agencies of government which carry through the new combinations by fiat.

In order to obtain command over resources to effectuate new combinations, the entrepreneur in a capitalistic market economy needs purchasing power. It is made available to him through bank

credit. Along with the entrepreneur, the banker thus becomes the pivotal figure without whom no economic development is possible:

"The only role of credit essential in our scheme consists . . . in the fact that credit extension makes it possible for the entrepreneur to divert the required means of production from their previous uses by displaying a demand for them and thus forcing the economy onto new paths. Credit is thus the lever for this withdrawal of goods."¹⁷ One can become an entrepreneur only by previously becoming a debtor to a bank.¹⁸ "The banker therefore is not so much and not first of all a *dealer* in the commodity 'purchasing power,' but above all a *producer* of this commodity. But since nowadays normally all the reserves and savings flows also converge on him, and since the total supply of existing as well as potential (i.e., to be created) purchasing power is concentrated in his hands, he may be said to have replaced the private capitalist or put him under tutelage, as it were, and to have himself become *the* capitalist. He stands between those intent on carrying through new combinations and the owners of means of production. He is at bottom a manifestation of development, though of course only in circumstances where no authority of command directs the social-economic process. He makes possible the carrying-through of new combinations, issuing the authority in the name of the economy, as it were, to see them

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through. . . "¹⁹ Hence Schumpeter belongs to that group of theorists who recognized early that no credit granted by a bank is taken from any existing pool of money, but that *means of payments are being newly created in the course of any credit extension: the bank acquires a claim against the entrepreneur and pays with claims against itself which represent purchasing power.*

In this context the essential role played by the banker in the development process in a capitalistic market economy becomes plain. Thus, Schumpeter describes a capitalistic system by three characteristics:

"1) Private property of non-human means of production such as land, mines, manufacturing plants, and equipment.

2) Production on one's own account, i.e., production for profit based on private initiative.

3) The institution of bank credit is so essential for the functioning of the capitalistic system that it should be added to the other two criteria (creation of means of payment by private banks)."²⁰

Innovations (the carrying-through of new combinations)—by entrepreneurs being given the opportunity thereto through bank credit—are the decisive impulses of any economic development. Their discontinuous occurrence imparts a "shock" to a system in stationary equilibrium, actuating a process of adjustment to the

new reality and leading eventually to a new state of stationary equilibrium. It would take us too far to describe here this process of adjustment to the new data set by entrepreneurs. The vital point is that this process takes place in waves in the manner of the tides. The first innovator is followed by "imitators" who during the boom carry the system farther and farther away from the original state of equilibrium until the "wave" overturns and the system is led into a recession and eventually to a new equilibrium.²¹ In this

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sense business cycles (the wavelike movements of economic life) are the paths on which the achievement of technical progress occurs in a capitalistic economy. If one interprets the trend, as Schumpeter does, as a temporal sequence of discontinuously appearing equilibrium positions, or of discontinuously appearing points or brief phases of near-equilibrium ("points in the neighborhood of equilibrium"), then the development process emerges as an undulatory motion around the trend line. *Development processes therefore can be understood only as simultaneous trend and cyclical movements.*

Schumpeter's theory of economic development as I have presented it briefly here in its principal features is probably one of the most profound and persuasive of the available analyses of the development process in general and in capitalistic free-market systems in particular. Already at the time of its publication it created a sensation in international professional circles.²² Meanwhile, after more than half a century, this work has come to be counted—along with Karl Marx's *Capital*—among the foundations which no theory of economic development can ignore. It offers us more and deeper insights into the economic development process than do many modern growth theories. When Schumpeter in 1926 published the *second* edition, he wrote in the preface: "I have felt that what I

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have now formulated for a new presentation is really, and has been from the very beginning, the true solution of the business cycle problem."²³

The preface to the *first* edition closes with these words: "Economic theory must ignore the facts and arguments which are presented here and are based on the most conscientious work and the most accurate knowledge of the stage of development of the discipline. Apart from that, I wish nothing more than that this work may become antiquated and forgotten as soon as possible." The work has become neither antiquated nor forgotten. It will always rank among the great classic performances in our science.

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One should believe that the publication of two great works within the short interval of three years would have sapped the strength of the author to such an extent that he would have had to pause for inspiration. But already in 1914 (at the age of 31) Schumpeter surprised the professional world with a new work on an entirely different subject: he published an exposition of the *Epochs in the History of Doctrines and Methods*,¹ a book distinguished by exceptional compactness and maturity. In four chapters—the evolution of social economics to the status of a science; the discovery of the circular flow of economic activity; the Classical system and its offshoots; the Historical school and the marginal utility theory—he displayed before the reader over about 100 pages the lines of development of reasoning about economic phenomena and connections from the very beginnings to the year 1914. It is hard to say what one should admire most: the author's immense knowledge of the literature, his ability to work out with utter clarity the central ideas of the leading thinkers, the maturity of judgment of a thirty-one-year-old, or the luster of his language! He read every cited work in the original. He never referred to second-hand sources. In every instance he hit the essentials and concentrated on the elaboration of the main issues of an argument. In contrast with the prolixity of the exposition in *Essence and Principal Contents*—where Schumpeter was concerned to persuade a broad public—concentration and conciseness in the train of reasoning characterizes every page of this work. It is a veritable masterpiece whose worth can, strictly speaking, be appreciated only by the specialist. It is written by a master for experts in economic theory who are interested in the evolution of doctrines and tools which constitute the essence of economic theory: "Doctrines—not persons—are the heroes of our presentation."² This type of exposition gives the

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work its flavor and its charm. Read, for example, Schumpeter's description, unexcelled to this day, of the discovery of the circular flow by the Physiocrats or his characterization of the performance

of Adam Smith. How aptly he identifies the contrast between Ricardo and Malthus: "It is very common that scholars in a dispute reproach each other for using wrong methods when they make no progress with concrete arguments. Ricardo lost patience with the more ponderous opponent who, in turn, termed as 'too abstract' what did not make sense to him. That's all."³

The last chapter, "The Historical school and the marginal utility theory," in my view contains the best explanation existing to date of the background of the "dispute over methods": "What calls for an explanation here is the so pronounced preponderance of the Historical school in Germany, accompanied by a throwing overboard of theory, the circumstance that many economists see in the collection of facts an end in itself—at least in an immediate sense—as well as their scientific 'aim in life'. . . ." Schumpeter gives the only sensible answer possible: "It was a conflict over two work methods, a conflict between people with different mental habits who battled for airspace and dominion."⁵ That in Germany was "whipped into a storm" what in other countries scarcely managed to "ripple the waters" can be explained by the lack of a firm theoretical tradition in Germany. If in the course of time the fight diminished in intensity, this was more a sign of "fatigue rather than agreement."⁶ Add to this that a new generation was no longer content with a mere collection of facts but found its way back to the admittedly indispensable theoretical analysis.

The work ends with an optimistic vista: Economics is a science which must be taken seriously, which develops continuously in spite of all the antagonisms always arising in the course of scientific discussions; and the basic principles and instruments of thought emerging from this developmental process are the same for all

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economists who count at all. I cannot deny myself the pleasure of rendering verbatim the final chapter in which these ideas, so characteristic of Schumpeter, are expressed:

"The fierceness of antagonisms relative to methods and doctrines in our science, explainable in part by its nature and the political interest attached really or supposedly to its propositions, and in part by the relative recency of energetic scientific work in economics, often appears to disrupt the continuity of its evolution. And yet it is amazing how relatively little the pace of quiet work is actually affected by the disputes of the day. If one looks through the veil of the battle arguments, he notes much less of the opposing views which tend to be formulated with such acrimony of principle. He sees that these opposites are not always irreconcilable in substance and that it is not easy for the various schools of thought to conquer each other to the point of annihilation. In the final analysis, the Physiocrats already intended what we intend today, and if one

sticks to the substance rather than to the form in which it is clothed, it often becomes difficult to find for a vehemently conducted feud the correspondingly harsh formulation of the *substantive* issues of the parties associated with it. Thus our science does not appear to be lacking in organic development either. Having originated in the instinctive perception of the basic facts of economic life, it became consolidated in the 18th century in connection with the ideas formed by practical experiences. And its achievements were slowly and *steadily* extended, in defiance of all 'new departures' of the science. This consolidation did not proceed at a very fast pace, and in every case appearances to the contrary proved to be illusory—as anywhere else, here, too, great feats were rare. But it never came to a standstill. Much energy was wasted in the process of searching and experimenting, partly because economists almost never had perfectly like-minded other economists as their readers and therefore almost everyone had to struggle and to arm his contribution with a long introduction. This was so in the formative period of all sciences and in our science will remain so for a long time still. Phases of development cannot be leapt

over—not those of an organic body, not political and social ones, and scientific ones not either. But in time this will come about as a matter of course, and then it will become easier to *obtain a perspective of the uniformity in the basic features of the work done in the social sciences during the last 150 years.*"⁷

Throughout his life Schumpeter did not grow weary of heavily emphasizing, time and again, the continuity of development of our science. That true originality can fruitfully unfold only by a link to the extant, that every researcher stands on the shoulders of his predecessors, that the fundamental theoretical structure is the same everywhere, these were truisms to Schumpeter which he never shrank from repeating. In a detailed review of Gustav Cassel's *Theory of Social Economics*,⁸ written in 1927, he says: "Theory would indeed be in a sorry state if originality in the sense in which Cassel lays claim to it were possible at all, if only now we had found the 'true' basic structure, i.e., if we had once again been enriched by another school: There are no schools, just good work and bad. And none of us must do anything that would obscure the fundamental fact which constitutes a significant claim to authority of contemporary theory and cannot often enough be impressed upon the novice—the fact that the fundamental structure adopted by all authors who are to be taken seriously at all is *one and the same.*"⁹

At bottom, Schumpeter's entire life-work is inspired by his deep conviction concerning the steady growth of our theoretical structure and of the ever increasing serviceableness of economic theory. So lively was his faith in progress that he saw the time come when,

in addition to an always possible "scientific underpinning of a policy by the specification of means¹⁰ to the attainment of a *given objective*," the *setting of the objective itself in any given situation becomes possible with the aid of the means of science*: "But the time draws ever nearer when the social intentions will be uniform enough to permit in any given situation the setting of goals by the means of science."¹¹

In spite of the depth of thoughts and visions embodied in *Epochs in the History of Doctrines and Methods*, this masterpiece did not in the world of scholars meet with the kind of lively response which it deserves—for two reasons: it was not published separately, but as part of a compilation; moreover, the timing of publication coincided with the outbreak of the First World War. Both factors militated against a wide dissemination and discussion of the ideas presented therein. What is more, in the Germany of that time interest in the history of economic theory was still slight. Hence it is no wonder that this magnificent performance by Schumpeter won through only slowly and in a way gained its due appreciation only at the end of his life. More about that later.¹²

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In surveying Schumpeter's performance in the period 1908-1914 (thus within the space of six years!), one can only marvel at the fertility of this mind: 1908, *Essence and Principal Contents*; 1912, *Theory of Economic Development*; 1914, *Epochs in the History of Doctrines and Methods*—three attainments of the highest order—each in itself a masterpiece; and, in addition, some 20 papers still worth reading today and 50 book reviews! Arthur Spiethoff, his later colleague at Bonn, is indeed correct when he writes in his lofty obituary, "Joseph Schumpeter, In Memoriam": "What is more unheard of, a 25-year-old and a 27-year-old who stirs at the foundations of the discipline, or a 30-year-old who writes its history?"¹

And only three years later (1917) Schumpeter publishes an 88-page, comprehensive article, "The Social Product and the Counters. Comments and Contributions to Contemporary Monetary Theory."² With it, Schumpeter for the first time in his writing-for-publication entered an area which again and again attracted him and was a preferred subject of his in his future course lectures: the theory of money. This paper, addressed to the fundamental issues of monetary theory, owes its genesis to the conviction that particularly "in the area of monetary policy there is no sense in tackling practical problems *prior to having gained clarity about the principal questions pertaining to money* and having got rid of the paralyzing influence of differences in principle. More than anywhere else, practice in this field must and can be founded on theoretical insights. To be sure, theory in this area cannot dictate practical decisions either—the latter must always also depend on the goal aspired to, which is an offsprung of our party-line, and on the

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appraisal of the data of the situation, which *often* cannot help being a matter of more or less well-founded opinion and can *never* be the result of theoretical considerations. But theory is all the more a prerequisite for the taking of any practical position, and for this reason, too, every theoretical work contributes to contemporary

monetary policy. The work in hand springs from the conviction that of late the refinement of monetary theory in some particulars and the advance toward concrete results has been unnecessarily impeded by opposition in matters of principle which could have been bridged with a measure of good intentions. *All scholars who are to be taken seriously at all are closer to one another than they will admit.* This is also true of that antagonism which is dividing German writers in this field and for which there is nothing analogous in the literature on money in other nations, namely, the antagonism between adherents of and opponents to Knapp.³ The notion that there is a question here of radically different viewpoints which lead to results completely at variance and between which there is no room for agreement is equally as superficial as is the belief in a complete novelty of ideas, ideas falling entirely out of the scope of doctrinal developments and stopping them short completely. There are indeed supporters of the state theory of money with whose opponents one can only agree if they go so far as to refuse even a discussion. But this applies neither to the fundamental idea nor to the author of the theory, nor to the best representative of similar ideas. . . . I hope to be able to show that there is cause for the prevailing doctrine and that there is room for making peace with them and to keep an open mind for their performance even though it may contain many untenable views. Notwithstanding that, the present treatise continues to work along the lines pursued in German by Menger, Wieser, Wicksell, and Schlesinger, in Italian by Del Vecchio and Fanno, in French by Walras and Aupetit, in English by Marshall, Keynes, and in a few points by Irving Fisher and Kemmerer."⁴

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Schumpeter gains his theoretical insights into the fundamental connections by analyzing the role of money in the economy through the circular flow—i.e., from a vantage point which turned out to be suitable and fruitful to him in his investigation of other problems. It is certainly true that today we see many interrelations in a different light than did Schumpeter in this essay. All the same, the manner in which he approached the problem has proved fruitful. In any case, this pioneering study will always retain its significance as a milestone on the road to further knowledge.

The publication of this piece of work in monetary theory marks the end of the first period, comprising ten years, of Schumpeter's scientific labors. What was published during this interval was conceived and put on paper during the third decade of his life—the period which Schumpeter himself always called "the sacred decade of fertility" in human life. Schumpeter was indeed convinced that the truly creative ideas in the life of man are born during the third decade and that later work by and large merely amounts to elabora-

tions of ideas conceived during the third ten-year span in man's life. This is certainly applicable to Schumpeter himself, and it may also readily be granted that new ideas, as a rule, emerge only from young brains. Nevertheless, it is doubtful that Schumpeter's view in this manner can be generalized.

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In 1918—when he was 35 years of age—there began a new, dramatic period of seven years in Schumpeter's life. Of the few scientific writings which he composed during this time, "The Crisis of the Tax State" (1918) and the study "On the Sociology of Types of Imperialism"¹ are especially still worthy of note today. "The Crisis of the Tax State" is Schumpeter's first work in the area of public finance,² a field which was to become quite important to him later. Central to the treatise is the question whether a capitalistic free-market economy will be in a position to master the economic situation following the end of the war without too heavy burdens for the individual. Schumpeter answers this question with a clear "yes," adding however: for the given historical moment.³ But from a long-run perspective, this "yes" is not at all so obvious. It is here that Schumpeter for the first time poses and briefly argues the

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problem which will occupy his attention time and again to the end of his life: *the question of the future of the capitalistic system.* Here—at the age of 35—he writes: the hour of socialism will come, though he does not furnish a plausible reason for this thesis. His last paper (dated December 1949) is devoted to the same theme and is entitled, "The March into Socialism." He thereby closes the circle whose beginning was marked by the essay, "The Crisis of the Tax State." It will be necessary later to discourse on this in some detail (chapter IX).

Written in Graz, "The Crisis of the Tax State" signals Schumpeter's bidding farewell to the academic world. Though he remained formally a member of the Graz faculty until 1921, he discontinued his teaching in 1918. The reader knows that he had received the chair at Graz against the will of the faculty. In fact, the Graz position meant difficult years for him, something which he himself never concealed. Under these circumstances, the offer extended to him to collaborate with friends from the Böhm-Bawerk seminar on the Socialization Commission in Berlin set up by the German Socialistic government was too tempting to decline.

Schumpeter was assigned⁴ to the Commission as an adviser although he was not himself a Socialist. When asked why just he, who had so eminently analyzed the role of the entrepreneur and the efficiency of a capitalistic market economy, should have decided to join the Commission, he replied: "When somebody intends to commit suicide, it is well to have a doctor present."⁵

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After discharging his mandate, he returned to Vienna and was appointed finance minister in the Renner Cabinet, in which his fellow-student Otto Bauer was foreign minister. On March 15, 1919, he took up his work in the magnificent rooms of the city palace of Prince Eugene (located at Himmelpfort Alley in Vienna), one of Vienna's most splendid baroque structures. His activity as minister was only shortlived. As early as October 17, 1919—i.e., after seven months—he handed in his resignation. He had taken upon himself an insoluble task, one which probably nobody could have solved during that chaotic, inflation-shocked time of the collapse. Especially aggravating factors in his case were his lack of familiarity with the peculiarities and the mentality of the ministerial administration and his being forced to collaborate with ministerial bureaucrats who did not wish him well and were even opposed to him. Not immaterial was the further fact that, being without party ties, he was mistrusted by the Socialists, but also by the non-Socialists. Facts, circumstances, and bureaucracy were strikes against him from the start and made successful work impossible.⁶ Return to a university position was out of the question. The fact that the University of Vienna did not open its gates to one of its greatest sons will forever remain a blot in its history. Schumpeter had no other choice than to assume a position in business. A private Viennese bank, the Biedermann Bank, vested him with its management. But there, too, his luck was against him. In 1924 the bank became insolvent. Schumpeter not only lost all his personal assets, but, in addition, had to burden himself with considerable debt in order to be able to satisfy the claims of the creditors. So heavily was he indebted that—in spite of help received from friends—for many years thereafter he had to divert a portion of his income to the liquidation of debts. Under

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the prevailing circumstances a fresh start in academic life or in business was out of the question. In the Austria of 1925, Schumpeter was a "nonentity." Fortunately, he found in Annie Reisinger—a Viennese whom he had known for five years—the person who had a great affection for him and was willing to share his fate even in a time of distress. His marriage to Annie Reisinger gave his life happiness and support.⁷

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And then a miracle, the unexpected, happened: Shortly after his marriage, Schumpeter received a call to a vacant chair at the University of Bonn. The road back to the beloved world of science was now open again. The summons to Bonn meant for him at the same time liberation from misery and insecurity. Without hesitation he accepted the offer. Only one more time after his emigration to Bonn did he set foot on the soil of his native country: to lay to rest his mother, whom he had idolized.

About the ill-fated years he spent in politics and business Schumpeter never liked to talk—not even in the intimate circle of his friends. But when he chanced to mention them, it became clear very quickly why a man of Schumpeter's disposition had to suffer shipwreck on his excursion into the world of politics and business. Politics and business are worlds of action. The world of science is that of meditation and contemplation. The scholar lives in this world of meditation. The world of action is essentially foreign to his nature. It needs people of an entirely different mental predisposition as compared with the world of science; and for this very reason the *true* scholar, the scholar *from passion*, normally fails if he sets foot on the political parquet or on the floor of business. (Exceptions, here too, merely confirm the rule.) In private conversations Schumpeter repeatedly told this to young people professing to be inclined toward academic pursuits, especially when he felt that hidden behind the scientific aspirations was also a desire to

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help shape politics. He knew of what he was talking. The loss for science of seven invaluable years and the loss of his entire material wealth were the high price which he had to pay for his involvement in politics and business.

His removal to Bonn was the definitive return to the realm of science whence he came and in which he had already attained world fame in his young years. Never again did he step into the world of action.

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Schumpeter's call to Bonn (in 1925, at the age of 42) was an academic event of greatest moment and at the same time of crucial importance for the development of economics in Germany. The man who was instrumental in promoting the call, and who in spite of considerable difficulties encountered in the Prussian Ministry of Education in Berlin carried it through, was Arthur Spiethoff, full professor of economics at Bonn and former assistant to the founder and master of the younger branch of the Historical school, Gustav von Schmoller. This younger Historical school was Spiethoff's spiritual home. He was a stranger to economic theory such as it was taught in the leading centers of the world (Vienna, Lausanne, Cambridge). Nevertheless, he was unhampered by that one-sidedness which had led to the wretched "dispute over methods"* between his teacher, Schmoller, and the central figure of the Vienna school, Karl Menger. He saw plainly that access to an understanding of economic relations could not be gained by an exclusively historical approach, and he himself made a start toward an analytic one which differed somewhat from the prevailing brand of theory. He used to refer to his own approach as illustrative (or descriptive) theory.* He also felt that the zenith of the Historical school had already been passed and that in Germany there was a new stirring of interest in theoretical research. It may have been considerations of this kind which induced him to invite to Bonn the leading representative of the dominant theory. At any rate, the summons of Schumpeter to Bonn was the visible sign of the end of the "dispute over methods" in our science. Nowhere is this manifested more clearly than in the long essay by Schumpeter, "Gustav v. Schmoller and the Problems of Today," which was published in the periodical founded by Schmoller and continued by Spiethoff, *Schmoller's Yearbook for*

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*Legislation, Administration, and Political Economy.*¹ Schumpeter shows by way of examples what the historical approach can achieve, what its limitations are, and under what circumstances theory in the sense of reasoning via a model provides the only avenue whereby

to gain insights into economic relations. But he also explains why only cooperation between historical research and theoretical analysis can lead to a genuine understanding of economic relations. It may be said unhesitatingly that no theorist has ever so taken a hold of Schmoller's message and absorbed it in his own work as did Schumpeter.

The assumption of teaching by Schumpeter in Bonn was a sensation for the academic world of economics. For the first time after decades, theory was taught again at a German university. Names like Cournot, Walras, Pareto, Wicksell, Böhm-Bawerk, Wieser, Edgeworth, and others, were daily fare. Use of the language of mathematics in academic institutions was no longer confined to a small sect. It became a matter of course in lectures and seminars. In a next to incredibly short time Bonn became the Mecca for economists from all over the world. What Göttingen was for mathematics and physics, Bonn became for economics—and this in spite of the fact that Schumpeter did not officially represent economic theory as a field. In the negotiations pertaining to Schumpeter's employment Spiethoff had insisted on remaining solely in charge of general economic theory, with Schumpeter being limited to courses on public finance, money and credit, and history of economic theory. Schumpeter, who—as the reader knows—was in a weak bargaining position, had no other choice than to take this offer or leave it. And, though this may sound very strange, Schumpeter in Bonn never gave lectures on economic theory. He developed in the class sessions the theoretical tools necessary for the comprehension of his lectures. At bottom, this was no misfortune. During the first semester the student is in need of a *systematic*

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introduction into the discipline. Just such a systematic presentation was not Schumpeter's forte. He was the ideal teacher for advanced students whom he could acquaint with ideas from his own research workshop. Downright brilliant were his lectures about problems of the history of theory, about money and credit, or his seminars, in which time and again he startled the audience with new aspects and suggestions. Everybody sensed that an original mind—filled with new ideas—was creatively at work, letting the audience partake in the process of reasoning, offering known truths in a new light as well as developing new ideas while teaching. I cannot recall ever having listened to a more inspiring academic teacher. He always spoke freely. Only a few key-words had been put down on small scraps of paper² which he fetched out of his coat pocket. What he had to say he delivered in an elegant, consummate form. The students looked forward to each Schumpeter lecture and loved their teacher. He was to them all a sincere friend and helper. Often he devoted hours to a single student in order to clear up obscure

points relating to a question brought up in class. He was filled with heart-felt joy when a student approached him with an idea, however simple, of his own. Among his students he always felt happiest. Amidst young people—including children (I recall a very illustrious

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local gathering where he conversed only with the 6-10 year-old children of the host)—he was in his element. He rarely missed a party for and among colleagues, and wherever he emerged, he was the focus of attention. He was excellent company. Regardless of whether the conversation was about German domes, French castles, English history, or Chinese art, he always managed to offer apt comments manifesting remarkable expertise, and often he gave the discussion an unexpected turn. No wonder that the number of his students grew from semester to semester and that trained economists from all over the world sought his advice and his recommendation. A recommendation on his calling-card opened all doors. But it was not only Schumpeter's name that brought world-wide renown to the faculty at Bonn. The two other exponents of economics, A. Spiethoff and H. von Beckerath (who was mainly responsible for economic policy and business organization* courses), were stars in their specialties. Never again has there been in Germany a departmental faculty in which economics as a whole was so splendidly "manned" as was true at Bonn from 1925 to 1932.³

Shortly after his emigration to Bonn Schumpeter was struck by two heavy blows. He lost the two persons to whom he had been attached in deep love and devotion. His beautiful young wife died in childbed. Few months thereafter he lost his mother, who had lived in Vienna. Never did he overcome this harsh fate. Haberler is right when he writes: "After that time a streak of resignation and pessimism was unmistakable in his character."⁴ With still more energy and obsession than before he threw himself

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into his scientific work and into discussions with colleagues and students. His secretary, Mia Stöckel, tried hard to help him in the fulfillment of the many engagements resulting therefrom.

The reader will recall that Schumpeter viewed the third decade in human life as the truly creative period and regarded all the subsequent achievements as a mere elaboration of earlier ideas. In a certain sense this holds true for the Bonn period and for his later years in the United States. The first fruit of his labors at Bonn was the preparation of the second edition of the *Theory of Economic Development*, which he intended to be looked upon as the definitive version. In addition, he wrote 13 substantial articles addressed to the profession:

1925: "Edgeworth and Recent Economic Theory." In: *International Economic Archives* [*Weltwirtschaftliches Archiv*], vol. 22 (1925 II).

"Credit Control." In: *Archives for Social Science and Social Policy* [*Archiv für Sozialwissenschaft und Sozialpolitik*], vol. 54, 1925.

1926: "Gustav v. Schmoller and the Problems of Today." In: *Schmoller's Yearbook for Legislation, Administration, and Political Economy* [*Schmoller's Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*], vol. 50, 1926.

1927: "Cassel's Theory of Social Economics." In: *Schmoller's Yearbook for Legislation, Administration, and Political Economy* [*Schmoller's Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*], vol. 51, 1927.

"Sombart's Third Volume." In: *Schmoller's Yearbook for Legislation, Administration, and Political Economy*, vol. 51, 1927.

"On the Question of Marginal Productivity." In: *Schmoller's Yearbook for Legislation, Administration, and Political Economy*, vol. 51, 1927.

"Foreword" to the following work by Knut Wicksell. In: *Archives for Social Science and Social Policy*, vol. 58, 1927.

"The Golden Brake on the Credit Machine." In: *Cologne Lectures* [*Kölner Vorträge*], vol. I, part 1, 1927.

1928: "The Instability of Capitalism." In: *The Economic Journal*, vol. XXXVIII, London, 1928.

1929: "Economic Science and the Revised Examination for Junior Barristers." In: *Schmoller's Yearbook for Legislation, Administration, and Political Economy*, vol. 53, 1929.

1930: "Mitchell's Business Cycles." In: *The Quarterly Journal of Economics*, vol. 45, No. 1, 1930.

"Foreword" to F. Zeuthen, *Problems of Monopoly and Economic Warfare*, London, 1930.

1931: "Capital in the Circular Flow and in Economic Development." In: *Capital and Capitalism*, lectures delivered to the German Association for Advanced Training in the Social Sciences [*Deutsche Vereinigung für Staatswissenschaftliche Fortbildung*], ed. by Bernhard Harms, Berlin, 1931, vol. 1.

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There were also 10 book reviews and numerous articles, dealing in part with present-day topics of economic policy, which were published in the periodical founded by his friend Gustav Stolper,

The German Economist [Der deutsche Volkswirt], as well as in the press. Even the titles of his substantial articles indicate that they are all related to themes which Schumpeter already started on during the third decade of his life: economic theory, methodology, economic development, monetary problems, and capitalism.

When I met Schumpeter for the first time (summer 1929), it was especially the problem of instability of a capitalistic free-market economy for which he displayed a burning interest. The appearance of oligopolies and bilateral monopolies—i.e., of market structures which cannot be described by the classic model of atomistic free competition in all markets—gave rise to the question of the existence of stable equilibrium in markets so organized. Cournot in his *Researches on the Mathematical Principles of the Theory of Wealth* (1838) had answered this question in the affirmative, whereas Edgeworth in an article published in 1897, "The Pure Theory of Monopoly,"⁵ had arrived at the opposite view. It was a remarkable stroke of luck that this pioneering work by Edgeworth⁶—again made accessible to the specialist world at the very time when interest in the problem of the existence of economic equilibrium under various market structures came to life anew in both Europe and the United States. Moreover, the Englishman

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A. L. Bowley had attacked the problem in a generalized form in his book, published in 1924, *The Mathematical Groundwork of Economics*. The Swede K. Wicksell published in Swedish a detailed critique of this book in general and of the parts dealing with oligopolies and bilateral monopolies in particular. Schumpeter realized very quickly the importance of the Wicksellian argument and published—along with a detailed introduction which has already become a classic today—a German translation of the Wicksellian work in the journal *Archives for Social Science and Social Policy* [Archiv für Sozialwissenschaft und Sozialpolitik], of which he was a co-editor.⁷ Schumpeter's own view of this set of problems, which he developed in various places but primarily in the article, "The Instability of Capitalism," is practically identical with Wicksell's. Under oligopoly and monopolistic competition there also exists an equilibrium which corresponds to the respective constellation of data.⁸ The same is true for bilateral monopoly. Here, too, there exists a certain equilibrium position which can be deduced from the data of the problem. In this sense, therefore, the capitalistic system is not unstable. But it is unstable with respect to its future development. The capitalistic system is in a continuous process of transformation so that stability in this view is completely out of the question.⁹ Whereas this last proposition will certainly

not evoke much opposition even today, further investigations, above all by R. Frisch, E. H. Chamberlin, F. Zeuthen, H. v. Stackelberg, and others, have shown that the question of the existence of a determinate equilibrium position under oligopoly and bilateral monopoly is considerably more complicated and cannot be answered with such an unequivocal "yes" as Schumpeter still believed was possible. However, if today we have at our disposal a general theory of market structures, which makes it possible to deal with these problems within the framework of a general theory, Schumpeter certainly may be said to have provided fruitful stimuli for the emergence of such a theory.¹⁰

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The development of the theory of market structures spontaneously gave rise to a renewed critical analysis of seemingly so firmly established concepts as the supply curve. It very soon became obvious that there were cracks in the foundations, especially with respect to the underlying laws of return. This is not the place to dwell upon specifics. Let it merely be said that the works of Piero Sraffa,¹¹ Oskar Morgenstern,¹² Ragnar Frisch,¹³ Luigi Amoruso,¹⁴ and Henry Schultz¹⁵ occasioned a complete reconstruction of production and cost theory, which was advanced considerably by discussions with Schumpeter.

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I am passing over his writings during that time on monetary theory. They are fundamentally nothing but preliminary studies for (or a by-product of) a sizable and comprehensive presentation of the theory of money and credit which unfortunately was never published. Therewith I touch upon a phase in the scientific development of Schumpeter which is of highest interest from both a personal and doctrinal point of view. Schumpeter had taken upon himself responsibility for the volume "Money and Currency" of the *Encyclopaedia of Law and Social Sciences* [Enzyklopädie der Rechts- und Staatswissenschaft] approximately at the time of publication of the *Treatise on Money* by Keynes—the draft had been by and large completed. I will never forget that Saturday afternoon when Schumpeter told me that he would no longer be able to publish his manuscript. All the essential ideas, he declared, had been anticipated by Keynes in his *Treatise*. All that was left to do, he added, was to destroy the manuscript.¹⁶ Only he who knows the intensity with which he labored at this work and the high expectations with which he looked forward to its publication, will understand the vehemence of his reaction triggered by the publication of the *Treatise*. However, this did not prevent him from referring in his lectures emphatically to it as a "work fundamental for monetary theory" (Schumpeter's phrase). His relationship to Keynes, from

his own point of view, henceforth bore some hostile traits. A. Smithies, probably the one among Schumpeter's students in the United States who was closest to him, devoted a special study to the mutual relationship between these two giants of our discipline and took the view that "Keynes' indifference to Schumpeter and Schumpeter's hostility to Keynes stem largely from the fact that Keynes was a lineal descendant of the English Utilitarians, while Schumpeter had no Utilitarian blood in his veins."¹⁷ This view

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is mistaken. It is well known that Keynes could not read German. For this reason alone, if not for others, he could not come to terms with Schumpeter's scientific output. On the other hand, the fact that Schumpeter's intellectual roots were not in the soil of English Utilitarianism was certainly no reason for such an encompassing mind as his to feel hostile precisely to Keynes. Such an attitude would have been much rather expected of him vis-à-vis Edgeworth. But precisely this great analyst has probably not been more deeply admired by anybody else than he was by Schumpeter! No, the reason for the hostility vis-à-vis Keynes lies purely and simply in the fact that the publication of the *Treatise* shortly before the completion of his own work robbed Schumpeter of the fruits of many years' labors. How tense the relations were between the two geniuses the world of scholars could form an idea about by reading the review article on Keynes' *General Theory of Employment, Interest and Money* (1936) which Schumpeter wrote in the *Journal of the American Statistical Association* (1)¹⁸ Notwithstanding the esteem for "one of the most brilliant men who ever bent their energies to economic problems," the review is to be classed with the least friendly critiques that were published shortly after the appearance of the *General Theory*. Even such outstanding economists as Alvin Hansen (United States) and A. C. Pigou (Keynes' colleague in Cambridge, England) were among those who, at bottom, passed a devastating judgment on Keynes. But most of them later thoroughly revised their opinion. Alvin Hansen in the United States became the most ardent admirer and prophet of Keynes' teachings; and A. C. Pigou on the occasion of his London lectures in 1950 declared in all frankness that he had been mistaken in his assessment of Keynes' work: "In my original review article on the *General Theory* I failed to grasp its significance and did not assign

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to Keynes the credit due for it. Nobody before him, so far as I know, had brought all the relevant factors, real and monetary at once, together in a single formal scheme, through which their interplay could be coherently investigated."¹⁹ Schumpeter, however, persisted in his negative attitude to the end of his life. I am firmly

convinced, though, that his disapprobation in the course of time became increasingly mixed with traits of admiration and that the word "hate-love" reflects the attitude of Schumpeter to Keynes in later years much better than does the word "hostility." I can give no more conclusive proof for this conviction of mine—in addition to numerous utterances in private conversations—than the following sentences from Schumpeter's review of Keynes' life-work following the death of the great Englishman²⁰ and from his contribution to the Keynes Symposium in *The Review of Economic Statistics*:²¹

"And even those who had found their bearings before, and on whom the *General Theory* did not impinge in their formative years, experienced the salutary effects of a fresh breeze. As a prominent American economist put it in a letter to me: 'It (the *General Theory*) did, and does, have something which supplements what our thinking and methods of analysis would otherwise have lacked. It does not make us Keynesians, it makes us better economists.' Whether we agree or not, this expresses the essential point about Keynes's achievement extremely well. In particular, it explains why hostile criticism, even if successful in its attack upon individual assumptions or propositions, is yet powerless to inflict fatal injury upon the structure as a whole. As with Marx, it is possible to admire Keynes even though one may consider his social vision to be wrong and every one of his propositions to be misleading."²²

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And in another place:

"But the real thing to aim at is not quantitative theory—all economic theory is quantitative by nature—but numerical theory: the highest ambition of the economist is to be able to *figure out* developments from any given state of the economic system. And this goal that seemed so far off, now seems to be brought within reach, within easy reach even, by Keynes' analytic scheme. . . . Though he was not, to any significant extent, a statistical research worker himself, he gave an impulse to statistical research of a certain type that may outlive any other achievement of his. Can there be higher eulogy than is implied in saying that a man created even where he had no intention of doing so?"²³

There cannot be any doubt about the fact that in his later years Schumpeter admired Keynes even though, now as before, he held substantial mental reservations concerning the work of the man from Cambridge—reservations which fundamentally are rooted in the fact that Schumpeter and Keynes were men of different mental habits. Keynes was a man with eminent political interests. He was interested in present-day problems and he framed theoretical constructions to their solution as he felt their circumstances required. Schumpeter's interest was focused on analytical theorems *per se*—without regard to their immediate applicability or their

topical importance. It is probably here that we find the most profound explanation for the antagonism between these two truly great economists of the first half of the 20th century.

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Within the period of his activity at Bonn falls an event which some time in the future will perhaps be considered as one of the great turning points in the history of the economic sciences: the emerging econometric orientation of research in economics. As pointed out earlier,¹ Schumpeter was one among a small group of economists who at an early stage in their career already were convinced that only quantitative statements based on actual measurements can make the science of economics truly productive. He never ceased to bring out this conviction in his spoken and written words. Irving Fisher (Yale), François Divisia (Paris), Luigi Amoroso (Rome), Arthur L. Bowley (London), Ladislaus von Bortkiewicz (Berlin), Ragnar Frisch (Oslo), and a few others worked in the same vein, striving for the formation of an international society for the advancement of such a quantitative economic theory. That these endeavors led to rapid success is due, above all, to the personal effort of the Norwegian Ragnar Frisch. Preparatory discussions were held primarily in Schumpeter's home in Bonn and in the homes of Divisia in Paris and Irvin Fisher in New Haven. Frisch took on himself the sacrifice of the required travels, carried on the quite sizable correspondence, and undertook all the organizational work.² With preparations concluded in Cleveland, Ohio, on December 29, 1930, in the presence of 16 persons the "Econometric Society, an International Society for the Advancement of Economic Theory in its Relation to Statistics and Mathematics" was founded. The members of the first Council were: L. Amoroso (Rome), L. v.

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Bortkiewicz (Berlin), A. L. Bowley (London), I. Fisher (United States), R. Frisch (Oslo), C. F. Roos (United States), J. A. Schumpeter (Bonn), E. B. Wilson (Harvard), W. Zawadzki (Warsaw). Irving Fisher was elected as the first president.³

With an enthusiasm that put us all under his spell, Schumpeter saluted this day—December 29, 1930—as a milestone in the history of the science of economics. He now saw the fulfillment of the hopes and dreams of his youth. In 1933 appeared the first issue

of the first year of the Society's journal, *Econometrica*, whose initial editor was Ragnar Frisch. In his editorial capacity, Frisch wrote the introductory essay with the classic definition of the term "econometrics" as a combination ("unification," in the original) of economic theory, mathematics, and statistics, with each of these three approaches being a necessary, but not sufficient, condition for the understanding of economic relationships. Only the "unification" of the three approaches, Frisch stressed, constitutes the substance of econometrics.⁴ Schumpeter contributed the classic article, "The Common Sense of Econometrics," which should be made required reading for every student of the economic sciences. The little masterpiece presents a survey of previous econometric work and sets forth the significance of the econometric way of thinking for scientific findings and their practical applications. There is no better avenue than that afforded by this essay to an understanding of the nature of econometrics.

Those years at Bonn will remain unforgettable to everyone who witnessed them. It was a time when each of the seminar participants was swept along by the "dynamics of events," by the fertility of the Schumpeterian mind. Whether it concerned Frisch's method of

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measuring marginal utility, or Henry Schultz's method of measuring elasticities of demand, or Leontief's method of determining simultaneously elasticities of demand and supply, or H. L. Moore's concept of a "moving equilibrium," or the problem of economic accounting under socialism—in each case we sensed the pulse beat of a creative mind and felt that we were witnesses of developments pregnant with great potential for the future.

Two years after the exciting events prompting the formation of the Econometric Society, this unique period in the history of the University of Bonn and of economics at other German academic institutions came to an end. At the close of the summer semester of 1932 Schumpeter left Bonn. In him German economic theory lost the man who had roused it to new life. It lost him at the moment when theoretical labors had begun to bear new fruit and would have benefited more than ever before from his authority and radiating power.

As early as the end of the 1920s Harvard tried to win Schumpeter over to become a member of its staff. Twice during the Bonn period (1927-28 and in the winter of 1930⁶) he went to Harvard as a visiting professor; often Harvard friends visited him in Bonn and wooed him. In addition, Tokyo, too, wanted him. There is probably no other country than Japan where Schumpeter's theory of economic development fell on more fertile soil. Not wrongfully, Japanese economists saw in his work an explanation for their country's own economic development since the days of the Meiji Restoration

(1868). The message conveyed by Schumpeter's writings was absorbed in Japan with admiration and high esteem. Several invitations to visit Japan and to hold guest lectures at universities there went begging before he accepted one at the beginning of 1931. His journey across Japan resembled a triumphal procession. The Japanese celebrated his presence with an enthusiasm for which there are few parallels. Schumpeter himself could not but praise and admire Japanese culture in general and the scientific achieve-

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ments of this people in particular.⁶ All the same, he could not bring himself to accept a call to Japan. His decision fell in favor of Harvard. On the basis of several conversations with him I can state with certainty that it did not come easy to him. Nor did it occur under the influence of political developments in Germany at that time. Schumpeter knew that if the Third Reich should become a reality, most likely there would hardly be an opportunity left to him for useful work. Nevertheless, he did not leave Germany for this reason. He was so attached to Europe that he was prepared to perish with it.⁷ He would also have stayed in Bonn if his understandable wish to obtain a chair in Berlin, and thereby possibilities for empirical business cycle research, had been fulfilled. But the Berlin faculty as well as the Prussian Ministry of Education put obstacles in his way. Here—and here only—is the reason for his decision to leave Germany and to emigrate to the United States—motivated more by disappointment and defiance than by enthusiasm about the opportunities offered to him by the New World.

Only a few months before he departed from Germany, he still accepted invitations to visit Copenhagen, Lund, and Stockholm—invitations of long standing which he had been forced to disregard time and again because of the profusion of other tasks. Early in April of 1932 he started his trip to Copenhagen.⁸ The entire Danish economics fraternity—from the grand old men (L. V. Birck, Harald Westergaard) down to the rising stars (F. Zeuthen, C. Iversen, J.

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Pedersen)—gave him an overwhelming reception. His three lectures about the theory of economic development were nothing short of an extraordinary success, one still alive today in the memory of those who heard him on that occasion. Combined with his lectures were receptions, breakfasts, and dinners, and the Dean, Professor Birck, in his summary remarks following the last lecture concluded with a sense of humor: "It was a dream—too beautiful to last. Praise be to God, it is all over now!"

From Copenhagen Schumpeter rode to Lund in order to take a bow before the erstwhile scene of activity of Knut Wicksell, the

"Swedish Marshall," the "greatest name in Norse economics."⁹ He met there Sven Wicksell (Knut Wicksell's son), F. Sommarin (Wicksell's successor), and others. Here, too, he was highly honored.

The same veneration was shown him in Stockholm, where he met the grand old man Gustav Cassel (for the first time in his life) as well as the young rising stars B. Ohlin, G. Myrdal, and others. On his return to Bonn, when I inquired about his impression about Cassel, he said: "He is, after all, a great man."

Few months after his voyage to Scandinavia there came the hour of farewell. On June 20, 1932, he said good-bye in the presence of all the members of the social science faculty at Bonn. It was a celebration which none of the participants will forget. Schumpeter held a farewell speech about "The Whence and Whither of Our Science"—the same topic in which he had addressed himself at the beginning of his academic career in Czernowitz.¹⁰ Once more he set forth in front of the students his scientific credo: "Economics is not a philosophy of the economy nor a display of its essence. We have to philosophize less in order to grow stronger as economists.

If economics uses metaphysical elements, these are irrelevant to knowledge of economics *per se*. Consequently, there is no room either for schools in our discipline. As a matter of fact, we do find a great convergence of the really leading and capable brain-workers in our discipline. Many people get irritated by this view, for in Germany alone there are half a dozen people who fancy themselves as heads of such schools, as fighters for absolute light against absolute darkness. This manifests itself in the harsh review articles with which one school tries to cut down another one. But it does not make sense at all to fight about these things. There is no use fighting something which life will sooner or later eliminate anyway. Unlike in business and politics, what matters in science is not momentary success. All we can say is that if in science something wins through, it will have proved its right to exist; and if the thing is not worth anything, it will surely wither. For my part, I am prepared to accept the judgment of future generations."¹¹ And then he once more pounded into the heads of the audience what again and again he emphasized in his lectures: economic theory, statistics (methods and sources), and economic history are the indispensable foundations of every kind of study.

It was sweet melancholy and sorrow which characterized the evening. Everybody sensed the magnitude of the loss which economic science in Germany was about to suffer. A splendid period in the history of economics in Germany had come to its end in these evening hours.

IX.

In the fall of 1932 Schumpeter began his work at Harvard University. Here too, just as had been his habit in Bonn, he took his teaching—exclusively of advanced students—very seriously.¹ In the very center stood theory in all its aspects. He observed all new developments and thrashed them out critically in his lectures. In no time at all, the best and most demanding students were attracted by his method of dealing with theoretical trains of thought.² A group of highly gifted men gathered round him: Paul Samuelson, A. Smithies, David McCord Wright, W. Stolper, L. Metzler, R. Musgrave, and many others. When, after many years of separation, I saw Schumpeter again at Harvard in the fall of 1949 and heard his lectures on economic theory—which he gave at 2 p.m., as in Bonn—I found him to be exactly the same man as before. On that afternoon he talked about the nature of dynamic analysis and about the role of difference equations in the framework of such an analysis.³

Notwithstanding his considerable teaching load—and, from 1937 to 1941, the administrative duties connected with the presidency of the Econometric Society—he found time for intensive research and writing.

Three great works are the outcome of this aspect of his activities:

In 1939 the voluminous two tomes on *Business Cycles, A Theoretical and Statistical Analysis of the Capitalist Process* were published; in 1942 there followed *Capitalism, Socialism, and Democracy*. The third, a monumental work entitled, *History of Economic Analysis*, he had to leave unfinished. The extant chapters of the manuscript, which fortunately had been finished for the most part, were edited after his death (January 1950) by his wife Elizabeth Boody Schumpeter, in collaboration with friends, and the work was published in 1954.

In addition, he published a somewhat smaller piece, *Rudimentary Mathematics for Economists and Statisticians* (together with W. C. Crum, 1946) and 34 articles.⁴

The reader knows that Schumpeter always held the view that the main lines and foundations of a scholar's intellectual work are established during the creative third decade of his life, with all his later achievements being only the elaboration of ideas conceived in youth. Schumpeter's publications during the Harvard period confirm this proposition.

Let us begin with *Business Cycles*. Schumpeter himself writes in the preface that with respect to the fundamentals he had nothing new to offer. They are said to be the same as those he had sketched in his *Theory of Economic Development*.⁵ Now the time had come to erect a house on the frame: "to incorporate the results of later work, to add the statistical and historical supplements, and to expand old horizons." In brief: Schumpeter wanted to test or verify his theory by the examination of statistical and historical data (for the United States, the United Kingdom, and Germany).⁶ In this connection he attributed fundamental importance to the historical approach: "We want to understand the process of economic trans-

formation in historical time. We therefore hardly exaggerate by saying that our final objective is nothing more than a reasoned (i.e., conceptually clarified) history not only of crises, cycles, or waves, but of the entire economic process in all its aspects and consequences, for which theory furnishes only a few tools and models and statistics supplies only a portion of the material. Undoubtedly, only a very detailed historical knowledge can definitely answer most of the questions which deal with individual causation and mechanical interrelations; without this historical knowledge the investigation of time series cannot yield conclusive proofs, and without the latter theoretical analysis must remain without substance. But it should be equally clear that present-day facts, or even historical ones comprising the last quarter or half of a century, are wholly insufficient. One cannot expect that a phenomenon of a predominantly historical nature reveals itself unless it has been examined over a long period of time."⁷

It is important to take notice of this proposition which is basic to the entire work. The reader apprised of Schumpeter's enthusiasm for econometric methods (see chapter VIII) would expect that precisely in testing his theory he would have attempted to include, or even to emphasize, the econometric approach; and he would have expected this all the more because pregnant and promising work in this direction had already been performed by other researchers (especially by J. Tinbergen and R. Frisch).⁸ It is all the more astonishing that throughout the entire work these analyses are referred to only in passing, as it were. Schumpeter sees in them nothing more than exact representations of certain aspects of the repercussions on the economic system produced by innovations.⁹

They explain processes of adaptation actuated by innovations, but do not explain the so vital phenomenon of the discontinuous occurrence of the innovations. In the preface to the Japanese translation¹⁰ of his *Theory of Economic Development*, Schumpeter managed to express this view of his with particular clarity: "These more recent theories (I mean those of Tinbergen, Frisch, and others) do not constitute an alternative theory of the cycle or of the process of economic change in general. They describe repercussions and propagation, *without telling anything about the forces which set them in motion*. Whatever these causes may be, the way in which they operate, and the manner in which the system reacts on them are questions being illuminated by these methods. But they do not touch upon the question of *whether or not the really active force is being described by the principle of innovation*."¹¹ According to Schumpeter, this issue can be settled only by an exhaustive historical analysis. Only the cooperation between theory, statistics, and history can lead to an understanding of the development of the economy through time, and in this respect Schumpeter gradually came to place increasing emphasis on the central role of historical research. It is beyond doubt that Schumpeter in his later years experienced more and more disappointment about the evolution of econometrics¹² and that the historical approach increasingly gained ascendancy in his scheme of things. In the second chapter, "The Technique of Economic Analysis," of his *History of Economic Analysis* economic history even takes prior place. Explicitly he states: "Of these fundamental fields (economic history, statistics, theory, sociology of economics, political economy, applied fields—Schneider) economic history—which issues into and includes present-day facts—is *by far the most important*. I wish to state right now that if, starting my work in economics afresh, I were told that I

could study only one of the three but could have my choice, it would be economic history that I should choose. And this on three grounds. First, the subject matter of economics is essentially a unique process in historic time. Nobody can hope to understand the economic phenomena of any, including the present, epoch who has not an adequate command of historical facts and an adequate amount of historical sense or of what may be described as *historical experience*. Second, the historical report cannot be purely economic but must inevitably reflect also 'institutional' facts that are not purely economic: therefore it affords the best method for understanding how economic and non-economic facts are related to one another and how the various social sciences should be related to one another. Third, it is, I believe, the fact that most of the

fundamental errors currently committed in economic analysis are due to lack of historical experience more often than to any other shortcoming of the economist's equipment."¹³

This accentuation of the importance of economic history must not be misconstrued, however. In one of his last lectures¹⁴ which I was able to attend he once more made his point of view quite plain: "In order to protect the following comments from a not unnatural misunderstanding, I want to make it quite clear right away that I have no wish to advocate the historical approach to the phenomenon of business cycles at the expense, still less to the exclusion, of theoretical or statistical work upon it. As my own attempts in the field amply prove, I am, as much as anyone can be, convinced of the necessity of bringing to bear upon the study of business cycles the whole of our theoretical apparatus and not only aggregative dynamic schemata but also our equilibrium analysis."¹⁵

And in a later passage of this lecture he said: "It is . . . necessary to bear in mind that those ups and downs of (corrected or uncorrected) investment expenditure are themselves only a surface phenomenon, and that we must try to see what there is behind it—which means that we must investigate historically the actual industrial processes that produce it and in doing so revolutionize existing economic structures. Unless we do this, investment, especially autonomous investment, is a mere label for a blank space and if we fill this blank space by some such thing as 'expectations' we are filling a blank with another blank."¹⁶

Certainly, nobody will take exception. What mattered to him was to make quite distinct the limitations of theoretical analysis and to stress that theory is a necessary, but not a sufficient, instrument for the comprehension of economic reality. This non-controversial view pervades his entire life-work—from his first book, *Essence and Principal Contents*, to the *History of Economic Analysis*. Schumpeter remained true to himself to the end of his life.

At the end of this momentous, often misunderstood lecture he characterized as an utterly grave deficiency of modern business cycle theories that they completely miss the importance for the evolution of the economic process of the rise and fall, the growth and decline, of business firms.¹⁷ A real sense of understanding for the temporal sequences of economic events, however, can be gained only by looking "behind the aggregates," by devoting attention to the carriers of economic development, by studying the developmental processes in individual enterprises, and by looking into the causes of the genesis, growth, and death of these enterprises. This interest in microeconomic research as one of the foundations for macroeconomic analysis had already been alive in Schumpeter at an early time.¹⁸ It never ceased¹⁹ and found its latest manifestation,

among other things, in the above-mentioned lecture within the scope of the New York business cycle conference (1949).

It is with nothing but admiration that the reader of *Business Cycles*—a work of 1095 pages—will look upon this performance. The book contains a wealth of ideas such as cannot often be found. Nevertheless, to date it has not been given the resonance and attention which it deserves. This is due, no doubt, to the fact that it was published on the eve of the outbreak of the second world war, when the profession was occupied with other problems and especially with the absorption of the *General Theory* of Keynes. In addition, too, the mode of presentation of the empirical material makes the reading far from simple. All the same, the book will endure.

It was Schumpeter's hope that it would become for the younger generation of economists an occasion for criticism and a starting point for further work—a program for future research (preface), with the objective of comprehending the *process* of evolution of the economy over time which we continually try to control. On the road to this goal the book will be a guidepost for coming generations which they cannot ignore. It will win its place as perhaps the greatest work which since Mitchell's pioneering work has ever been written about this complex subject.

I now turn to the second great feat performed by Schumpeter during his Harvard years—one which he completed barely three years after the publication of *Business Cycles*—namely, *Capitalism,*

Socialism and Democracy.²⁰ In contrast to *Business Cycles*, this book immediately became a great success, confirmed time and again by numerous translations and new editions. The reason for this is not hard to find. It was written in a sparkling, non-technical style, comprehensible to the non-professional reader as well, and it deals with keenly topical themes: Can capitalism survive? Is a socialistic system workable? No wonder that such a book in an epoch characterized by discussion of the conflict between two social and economic orders attracted the attention of a large circle of readers and justly still does so today. The reader knows that Schumpeter already at an early time—first in his *The Crisis of the Tax State* (1918)—posed the question of the future of capitalism and expressed his conviction that "the hour of socialism will come." Twenty-four years later (1942) he gave in his new book the reasons for this proposition. They are found in the second part, which contains the core of the argument: "Can capitalism survive?" The answer is a clear-cut "no." In his view, the march into socialism is inevitable—being a march into a societal order in which ownership

of the means of production is in the hands of the State or is controlled by it and in which the production decisions concerning the what, how, where, and for whom are made by a public authority instead of by private entrepreneurs. The meaning of this answer must be clearly understood: ". . . my view is . . . , like that of any other economist who has expressed himself on this matter, quite uninteresting *per se*. What counts in every attempt at social forecasting is not the yes or no which summarizes the underlying facts and arguments, but these facts and arguments themselves. These comprise all that is scientific in the final result. *Everything else is not science but prophecy*. Every analysis, be it economic or of another kind, *will in any case never contain more than an identifica-*

*tion of tendencies inherent in an observed object. These never tell us what will happen with the object, but only what would happen if they continued to operate the way in which they operated during the period of observation and if no other factors entered in. 'Inevitability' or 'necessity' can never mean more than this. All that follows must be read with this proviso."*²¹ The thesis concerning the inevitability of the extinction of the capitalistic system and of the gradual and painless transition to a socialistic economic order is thus not the outcome of strictly logical reasoning. It is rather an interpretation of facts and arguments which are individually provable and which in their entirety suggest the above conclusion. It is Schumpeter's "vision," i.e., his flair for interrelationships, processes and things to come in a prescientific stage of an investigation, which manifests itself in this thesis. This is not the place to detail the facts and arguments with which Schumpeter substantiates his "vision." Let us list only briefly the material arguments:²²

1. Capitalism implies not only free consumer choice, free choice of employment, freedom of decision-making by private entrepreneurs about the what, how, where, and for whom of production. It implies, above all, an attitude toward life, a civilization (!) of inequality of family wealth, and an unresisting acceptance of involuntary unemployment. This civilization is fading away quickly, whether we like it or not. Nobody can shut his eyes to this process.

2. The process of destruction of the capitalistic order is not a consequence of its shortcomings and deficiencies but of its virtues and successes. It is precisely the increase in prosperity which has undermined the social and political position of the entrepreneurial class and makes it superfluous. Creative entrepreneurs are being replaced by bureaucrats.

3. Increasing prosperity and rising educational standards combine to produce discontented intellectuals in whom is manifested

the resentment against the very inequalities without which the capitalistic system cannot function.

4. The mentioned achievements of capitalism have a destructive effect on the family and undermine this social unit which is so significant for this system.

5. Inflationary processes as they occur in the wake of wars are important factors conducive to a destruction of the capitalistic order.

Schumpeter does not rule out the possibility of keeping the capitalistic system alive through deliberate government intervention (full employment policies, stabilization policies, changes in income distribution aimed at the elimination of excessive inequalities).²³ But these very measures destroy the foundations of the capitalistic system and result in transformations of the social order which mean a gradual transition to socialism—regardless of whether or not they are so referred to.

Schumpeter's thesis to the effect that the capitalistic system cannot survive and will be superseded by socialism coincides with Marx's view. All the same, there is a substantial difference. For Marx the march into socialism is a natural-law necessity, for Schumpeter the thesis of the inevitability of the transformation of the capitalistic system does not imply something inherently unavoidable but must be interpreted in the sense of the above-mentioned tendencies working in this direction in certain circum-

stances.²⁴ What is more, for Marx the destruction of the capitalistic system was a desirable end. Schumpeter, on the other hand, was no advocate of socialism. Nor was he intent on discussing its desirability or non-desirability.²⁵ And he did not want to engage in prediction. He was concerned to point out facts and tendencies indicated by these facts.²⁶ In spite of these differences Schumpeter was a great admirer of Marx. If we disregard Mehring's biography of Marx, there is hardly a more splendid appreciation of the personality of Marx in all its aspects than the one given by Schumpeter in the first part of *Capitalism, Socialism, and Democracy*.²⁷

The third great, truly monumental work of Schumpeter's Harvard period, his *History of Economic Analysis*, he was not able to complete. He began to compose it as early as the beginning of the 1940's. Fortunately, he had written the bulk of it when death prevented him from closing the still remaining gaps.

This probably most complete history of economic theory existing today, which after his death was edited by his wife,²⁸ is, strictly speaking, an extension and continuation of his *Epochs of the History of Doctrines and Methods* dating from 1914. It was his intention "to translate, revise, and bring up to date the 'little sketch of doctrines and methods'" (from the Introduction by the editor).

Hence the book is not—a fact stated explicitly by Schumpeter—a “history of economic thought” but a “history of economic analysis,” i.e., a history of efforts directed at a description of economic facts, at explaining them and forging the requisite explanatory tools. At the heart of the book are the models and instruments which in the course of the historical development of our discipline were used by the analytically oriented theorists. As has already been pointed out above, Schumpeter was convinced of the continuous advance in the formation of these tools and models; it is these lines of (analytical) development which he seeks to interpret.

The manner of organization and presentation of subject is in keeping with that of his early work. He deals at the outset with the period from the first beginnings (Greek and Roman economic thought) to the Mercantilists and Physiocrats (closing about 1790). There follows the period from 1790 to 1870, i.e., to the publication of the first writings of Walras, which denote a culmination of theory up to this point in the sense that in the Walrasian system all of the hitherto existing static theory was brought to its highest perfection and synthesis. Walras' system was for Schumpeter the “Magna Charta” of economic theory. All streams of economic thought converging on it and emanating from it are taken up in detail in the next part, comprising the span from 1870 to 1914. The tome closes with a somewhat sketchy delineation of modern developments (including macroeconomic theory in general and Keynesian theory in particular, the theory of production, and dynamic theory).

However, the basic conception of a continuous development of economic theory with its climax in the Walrasian system²⁹ may be judged,³⁰ the overall assessment of this work can—notwithstanding many justified criticisms of specific points—end only in highest

appreciation and admiration.³¹ It is, as Jacob Viner, one of the most competent critics, put it,³² “. . . the most constructive, the most original, the most learned, and the most brilliant contribution to the history of the analytical phases of our discipline which has ever been made.” In the pantheon of the great, imperishable works of our science it will always occupy a place of high honor.

As the reader knows, Schumpeter did not live to see the success of this work in the professional community. During the night from January 7 to 8, 1950, a cerebral apoplexy cut his life short—few days after the conclusion of the Annual Meeting of the American Economic Association in New York (end of December, 1949).

This meeting was impressively colored by the aplomb of its president.³³ Schumpeter had great plans for the time that lay

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ahead, when he would no longer be burdened with administrative duties. Among other things, he had envisaged a book about “the theoretical apparatus of economics.”³⁴ For the immediate future he had committed himself to a series of guest lectures in Chicago. Nobody had given thought to the possibility of an early passing of this man whose vitality and energy were apparently boundless. As suggested by the paper slips found on his bedside table, even during the night of his death he was at work on his Chicago lectures.

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The news of his sudden death struck like a bomb—and not only in the academic world. The great American papers—and the leading papers in Europe and Japan—printed lengthy obituaries. Harvard was filled with profound grief. One felt and knew that the gap left by his death could not be stopped and that in the future Harvard would not be what it was during Schumpeter's lifetime.³⁵

But the reach of his influence has not been terminated by his death. His publications and his teaching have inspired a large number of students to undertake fruitful work of their own. Many have developed his ideas further, many—stimulated by him—have gone their own ways to new frontiers. This very group of students would give him special joy if he could witness their achievements today; for he loathed nothing more than a pupil who only repeats his teacher.

In spite of the global success of his accomplishments and of the large number of students and friends—to whom he always remained a loyal, unselfish friend³⁶—he was a lonely man ever since the loss of his second wife and of his mother. It was his good fortune that a few years after his emigration to the United States he found in Elizabeth Boody the woman who provided for him the domestic setting in which he could unfold completely. It was especially their country home in Taconic (Connecticut) where he could find the quiet and the atmosphere needed for his work and especially for the composition of his writings. Without her understanding devotion³⁷ to such a lively, exuberant spirit as was Schumpeter's, the three great works of his Harvard period probably would not have been written. Without her, Smithies opines, he would have sunk into a state of unbearable melancholy and isolation.³⁸

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Without her presence he also could have hardly endured the war years. He could not approve of the war objectives of the Allies nor of the Morgenthau Plan. He was so obviously at odds with the prevailing climate of opinion that colleagues and even friends withdrew from him. “The years of the second World War”—so we

read in the Minute placed upon the records of the Faculty of Arts and Sciences, Harvard University, on February 7, 1950—"must have been among the most somber and depressing of his life. Out of sympathy with the policies of this country and out of touch with many of his friends, Schumpeter buried himself in his professional work, unhappily watching the decline of much that he considered valuable in the western world."³⁹ Having to witness, helplessly, the destruction of Europe gave him physical pain. Yesterday's world, as it has been masterfully portrayed by Stefan Zweig, was the world in which he had become and in which he was rooted. He loved it and remained to the end attached to it, despite all the gratitude he felt towards America.⁴⁰ When, only days before his death, I bade him farewell, I also invited him to come to Kiel and a few other German universities as a visiting lecturer. He declined right away. From what he said I am firmly convinced that he took fright at an encounter with a Europe in ruins. He wanted to preserve, unchanged, the picture of Europe which he bore in his heart. With such a picture in his heart he departed this life. His work will live. Far-off generations will still draw from the wealth of his thought.

NOTES

Preface

- 1) Variations of a dictum by the physicist Ernest Mach on Huygens (cited by Schumpeter by way of introducing a work of Knut Wicksell's, *Archives for Social Science and Social Policy* [*Archiv für Sozialwissenschaft und Sozialpolitik*], vol. 58, Tübingen, 1927).

Chapter I.

- 1) "Although he became one of the most cosmopolitan of men, the experience of those early years in Vienna never really left him. He remained to the end the cultivated Austrian gentleman of the old school . . ." (Minute placed upon the record of the Faculty of Arts and Sciences, Harvard University, at the meeting of February 7, 1950, in Seymour E. Harris, ed., *Schumpeter, Social Scientist*, 1951, p. ix.)
- 2) Italy's language and culture always held a special attraction for Schumpeter. He read Italian fluently and was able to speak it as effortlessly as English and French.
- 3) When Schumpeter began his studies, Carl Menger, founder of the Austrian school, was already emeritus and lived in Vienna in "austere seclusion." (Schumpeter.)
- 4) "Only after 1904 began that activity which will remain unforgettable for all of us . . . and that series of seminar discussions during the summer semesters." (J. Schumpeter, "The Scientific Life-work of Eugen von Böhm-Bawerk," *Journal of Economics, Social Policy, and Public Administration* [*Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*], vol. 23, 1914, p. 462, reprinted in J. A. Schumpeter, *Essays in Biography and the History of Doctrines*, Tübingen, 1954.)
- 5) "Among the great performances rendered in our science, his was certainly one of the greatest." (Ibid., p. 528.)
- 6) Vol. 31, 1905.
- 7) *Journal for Economics, Social Policy, and Public Administration* [*Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*], vol. 15, 1906, reprinted in J. A. Schumpeter, *Essays on Economic Theory*, Tübingen, 1952, p. 529 ff.
- * Translator's emphasis.
- 8) Ibid., p. 546. (Schneider's emphasis.)
- 9) Time and again in later years he emphasized that nobody can be a good economist who has not passed through the severe school of Walras' opus. When I met Schumpeter for the first time, he asked me whether I read French. To my question why he wanted to know this,

he replied: "You must read Walras in the original. This is a *conditio sine qua non* for every economist." He then went on to inquire whether I read English. To my question why he wanted to know that, too, he gave the answer: "Marshall's *Principles* are a must for every economist."

- 10) Leipzig, 1908. The work today belongs to the rarities in the world's second-hand bookshops.
- 11) Date of the 18-page preface.
 - * Translator's explanatory note: by speaking up for his *Habilitation*, the admission to teaching (*venia legendi*) based on a solid piece of scientific research.

Chapter II.

- 1) In brief: *Essence and Principal Contents*.
- 2) Renunciation of the use of mathematical language explains the breadth of the presentation (626 pages).
- 3) *Essence and Principal Contents*, p. 186.
- 4) Schumpeter's view in this matter coincides with Alfred Marshall's.
- 5) *Essence and Principal Contents*, p. 186. (Schneider's emphasis.)
- 6) *Ibid.*, p. 603 ff.
- 7) *Ibid.*, p. 603. (Schneider's emphasis.)
- 8) L. Pohle (full professor in Leipzig) aptly described the state of economics in Germany at that time: "In conjunction with the victorious advance of the Historical school, a state has been reached where genuine scientists in German economics have virtually become *rarae aves*." (In *The Present Crisis of German Political Economy*, Leipzig, 1911, p. V.) (Translator's emphasis.)
- 9) *Schmoller's Yearbook for Legislation, Administration, and Political Economy* [*Schmoller's Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*], vol. 35, 1911. Reprinted in F. von Wieser, *Collected Papers*, Tübingen, 1929, p. 10 ff.
- 10) "... one recognizes everywhere ... the richly educated and variedly trained mind which is open to all intellectual currents of the time ... He masters linguistic expression to an unusual extent, his presentation combines scientific acuity with artistic freedom." (*Ibid.*, p. 11.) "... he, who only got started a few years ago, may claim with justifiable pride that his book has not been written for beginners but presupposes a fairly detailed knowledge of the state of our science." (*Ibid.*, p. 33.)
- 11) (*Journal of the Economists*—translator.) Quotation from Vilfredo Pareto's *Lettere a Maffeo Pantaleoni* [*Letters to Maffeo Pantaleoni*], 1890–1933, vol. III, Rome, 1960.
- 12) *The Essence and Principal Contents of Economic Theory*, Leipzig, 1908, p. XXII.
- 13) *Ibid.*, p. 626.
- 14) *Ibid.*, preface, p. XXI. (Schneider's emphasis.)
- 15) *Ibid.*, preface, p. VII.
- 16) J. Schumpeter, "Past and Future of the Social Sciences," *Papers of the Social Science Academic Association in Czernowitz* [*Schriften des Sozialwissenschaftlichen Akademischen Vereins in Czernowitz*], No. VII, Munich and Leipzig, 1915, p. 115 ff. (Schneider's emphasis.)

Chapter III.

- 1) The exact title of the work is: *Theory of Economic Development. An Inquiry into Profit, Capital, Credit, Interest, and the Business Cycle*.
- 2) Preface to the first edition, Vienna, July, 1911.
- 3) From the preface to the first edition.
- 4) He addresses himself explicitly to people "who are capable of approaching the scientific description of social processes in a scientific spirit" and not to the kind who are looking for "weapons on behalf of or against social-minded political parties." (Preface to the first edition.)
- 5) However, references to the development process in a centrally directed socialistic society are not missing (see p. 27 and p. 30 ff.).
- 6) A significant portion of the manuscript must have been completed in Czernowitz.
- 7) *Schmoller's Yearbook for Legislation, Administration, and Political Economy* [*Schmoller's Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*], vol. 34, 1910.
- 8) *Ibid.*, p. 956 ff.
- 9) Schneider's emphasis.
 - * Translator's note: It is not clear what "seine" ("its") stands for in this sentence, which is marred by another grammatical error.
- 10) *Schmoller's Yearbook*, p. 960 ff. (Schneider's emphasis.)
- 11) *Journal for Economics, Social Policy, and Public Administration* [*Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*], vol. 19, 1910.
 - * Translator's note: "Innovating," though often used as a synonym, is less suggestive and fails to reflect the core characteristic of the process as a breakthrough.
- 12) *Ibid.*, p. 284 ff. (Schneider's emphasis.)
- 13) In these early writings Schumpeter uses the word "statics" in a double meaning: first, to designate a stationary economy; and second, to designate a method of analysis. Only later—initially in the important preface to the translation into Japanese (1937) of the *Theory of Economic Development*—did he distinguish (apparently under the influence of the terms coined by Ragnar Frisch) between a static theory and a stationary process:

"A static theory is nothing but a statement about the conditions of equilibrium and about the path by which equilibrium tends to be restored after any small disturbance. Such a theory can prove useful for the investigation of any kind of reality, however much the latter may have been thrown out of balance. In contrast, a stationary process is one which indeed does not change spontaneously but merely reproduces real income at a constant rate over time." (From the 1937 preface to the Japanese edition. Reprinted in the fifth, German edition, Berlin, 1952, p. XXII.)

Analogously, Schumpeter in his early works uses the term "dynamics" in two meanings: dynamic economy, to depict a non-stationary, i.e., developing, economy; dynamic theory, to designate a dynamic type of *analysis*. Only beginning with the Japanese translation does he distinguish sharply between dynamics in the sense of a developing economy and dynamics in the sense of a method of theoretical analysis of a phenomenon.

14) Thus economic development in the Schumpeterian sense does not exist when, for example, an economy steadily adjusts to continuing increases in demand as a consequence of a continuing rise in population. "These spontaneous and discontinuous changes in the channels of circulation and shifts of the center of equilibrium occur in the sphere of industrial and commercial life. Not in the sphere of consumer requirements for final products." (*Theory of Economic Development*, 2nd edition, p. 99.)

A line of reasoning very similar to Schumpeter's can be found in a too-little-known essay by Knut Wicksell, "Krisernas gåta" (The Puzzle of Crises), *Statsökonomisk Tidskrift*, Kristiania, 1907, p. 255 ff.: "New great discoveries and inventions are bound by their very nature to occur rather sporadically. Consequently, they cannot give rise to such a steadily rising flow as is given by an increase in population and a rising consumer demand." In the carrying-through of such discontinuously occurring discoveries and inventions Wicksell (like J. Schumpeter) sees "the intrinsic essence of cyclical movements." (*Ibid.*, p. 266.)

- 15) *Theory of Economic Development*, p. 100 ff.
- 16) *Cp. ibid.*, p. 27 ff. See also: E. Schneider, "Economic Growth and Economic Order," *International Economic Archives* [*Weltwirtschaftliches Archiv*], vol. 102 (1969 I).
- 17) *Theory of Economic Development*, p. 152. Or at another place: "Through credit entrepreneurs are given access to the flow of economic goods before they have acquired a regular claim to it. A fictional claim, as it were, temporarily replaces this claim itself. Credit extension in this sense acts like a command addressed to the economy to yield to the goals of the entrepreneur, like a claim given him on the needed goods, like an entrusting to him of productive forces." (p. 153.)
- 18) *Ibid.*, p. 148.
- 19) *Ibid.*, p. 110.
- 20) Article "Capitalism" in *Encyclopaedia Britannica*, 1946, vol. IV, p. 801 ff.
- 21) "Why does development not follow a steady course but proceeds in jerks, in such a way that the upward movement is followed by a downward one through which only the path leads to another upward movement? The answer cannot be short and precise enough: *exclusively because* the carrying-through of new combinations is not, as one would expect according to the general principles of probability, distributed evenly over time—in a way that if one were to choose equal time intervals there would regularly fall on each, e.g., on each week, day, or hour, the carrying-through of a new combination—but in such a way that the new combinations occur in clusters, if at all." (*Theory of Economic Development*, p. 334.)
- 22) By way of an example, an American reviewer writes: "The reviewer . . . knows no book that would be more stimulating to a class in economic theory, and he feels that the constructive doctrine of the book contains much that is destined to become a permanent part of economic theory." (B. M. Anderson, Jr., "Schumpeter's Dynamic Economics," in *Political Science Quarterly*, vol. 30, 1915, p. 600.)
- 23) *Theory of Economic Development*, p. XIII. (Schneider's emphasis.)

Chapter IV.

- 1) In *Outline of Social Economics* [*Grundriss der Sozialökonomik*], division I, Tübingen, 1914.
- 2) *Ibid.*, p. 54.
- 3) *Ibid.*, p. 60.
- 4) *Ibid.*, p. 102.
- 5) *Ibid.*, p. 106.
- 6) *Ibid.*, p. 108.
- 7) *Ibid.*, p. 124. (Schneider's emphasis.)
- 8) J. A. Schumpeter, "Cassel's Theory of Social Economics," *Schmoller's Yearbook for Legislation, Administration, and Political Economy*, vol. 51, 1927, reprinted in Joseph A. Schumpeter, *Essays in Biography and the History of Doctrines*, Tübingen, 1954, p. 220 ff.
- 9) *Ibid.*, p. 202 (Schneider's emphasis). Schumpeter expresses the same ideas in "The Instability of Capitalism," *The Economic Journal*, vol. 38, 1928, p. 363, and in the foreword to the German translation of D. H. Robertson's *Money* (Vienna, 1935).
- 10) J. Schumpeter, "Gustav v. Schmoller and the Problems of Today," *Schmoller's Yearbook for Legislation, Administration, and Political Economy*, vol. 50 (1926), p. 351, reprinted in Joseph A. Schumpeter, *Essays in Biography and the History of Doctrines*, Tübingen, 1954.
- 11) *Ibid.* (Schneider's emphasis.)
- 12) See ch. IX.

Chapter V.

- 1) A. Spiethoff, "Joseph Schumpeter, In Memoriam," *Kyklos*, vol. III, 1949, p. 289 ff.
- 2) *Archives for Social Science and Social Policy*, vol. 44, 1917–18, p. 627 ff., reprinted in Joseph A. Schumpeter, *Essays in Economic Theory*, Tübingen, 1952, p. 29 ff.
- 3) Meant is *The State Theory of Money* by G. F. Knapp.
- 4) "The Social Product . . ." *Archives for Social Science and Social Policy*, p. 628 ff. (Schneider's emphasis.)

Chapter VI.

- 1) *Archives for Social Science and Social Policy*, vol. 46, 1918–19, pp. 1–39 and 275–310. This comprehensive piece of work contains in my view the best analysis of the various forms of imperialism. It is doubtless the most significant one of J. A. Schumpeter's purely sociological essays written in German. These sociological essays have been collected in the volume, *Essays on Sociology*, Tübingen, 1953.
- 2) It is interesting that it appeared in a collection, *Questions of Today from the Field of Sociology* [*Zeitfragen aus dem Gebiet der Soziologie*], No. 4, 1918, reprinted in Joseph A. Schumpeter, *Essays on Sociology*, Tübingen, 1953, p. 1 ff.
- 3) This "yes" is valid "only for the concrete historical moment in which we live. In no way is it meant to exalt the free economy as the ultimate wisdom. I am not in the habit of binding wreaths of laurels for our bourgeoisie. All that is imperative now, *that* it can do. All

awareness of its narrowness and lack of culture does not alter this. Marx himself, if he appeared today, would not differ. And he would laugh grimly about those of his disciples who would welcome the 'administered economy' of today—the most undemocratic thing imaginable, this regression of the competitive economy which alone can create the prerequisites of true socialism and eventually socialism itself—as the dawn of socialism. The social form of future society cannot arise from an impoverished economy set back in its development nor from unruly instincts. It has been the tragedy of all attempts—most recently the Russian one—at bringing it about that so far people have always been won over only when they were aroused by distress and the situation was such that true success could not be hoped for in the very situation to which the bourgeois businessman because of his typical mentality and his typical experiences and methods would have been equal." (Ibid., p. 56 ff.)

- 4) Chairman was Karl Kautsky (the co-author of the Erfurt program of the German Socialistic party in 1891). The members included, among others, Rudolf Hilferding (author of the famous book, *Finance Capital*) and Emil Lederer. The Commission was charged with examining the possibility of nationalization of industries in the German Empire and to prepare for it.
- 5) Quoted from G. Haberler, "J. A. Schumpeter 1883–1950," *The Quarterly Journal of Economics*, vol. LXIV, No. 3, 1950, p. 345.
- 6) A detailed portrayal of this period in Schumpeter's life has been given by G. Haberler in "Schumpeter, Finance Minister, March 15 to October 17, 1919," *Applied Economics—Economie Appliquée*—vol. III, 1950, issue dedicated to Joseph Schumpeter.
- 7) "She was his romantic escape from the barren romanticism of his past." (A. Smithies, "Memorial: Joseph Alois Schumpeter, 1883–1950," in *Schumpeter, Social Scientist*, edited by Seymour E. Harris, Harvard, 1951, p. 13.)

Chapter VII.

* "Methodenstreit" (Translator).

* "anschauliche Theorie" (Translator).

- 1) Vol. 50, 1926, p. 337 ff., reprinted in Joseph A. Schumpeter, *Essays in Biography and the History of Doctrines*, Tübingen, 1954, p. 148 ff.
- 2) These Schumpeterian slips of paper are another story. He always carried a little package of slips in his pocket on which he noted, wherever he happened to be—on the road, in the train, in the street-car, on hikes—ideas occurring to him in a kind of short-hand notation which he, alone, could decipher. Even thoughts flying into his mind during lectures he wrote down on such scraps of paper. He was of the certainly correct opinion that an idea suggesting itself at one time will not necessarily come back and therefore needs to be held fast. A significant portion of the wealth of Schumpeter's ideas is hidden in these scraps of paper. Even on the eve of his death he put down thoughts on such scraps. In his books, too, he wrote all marginal notes in his short-hand. On his departure from Bonn he donated to me his Cournot edition. It contains a number of glosses—unfortunately not legible by anybody. Ideas entrusted to slips during a given day were transferred

to his diary in the evening, where each day was graded with respect to what had been accomplished. A day without mathematics and Greek was for him a day lost.

- * Translator's note: This probably comes closest to rendering the meaning of "Industriepolitik" ("industrial policy").
- 3) That the performance of such a staff radiated to other universities and imparted a strong impetus to theoretical work all over Germany goes without saying. In the foreword contributed by him to the German translation of Enrico Barone's *Fundamentals of Economic Theory* (Bonn, 1927) Schumpeter expresses his admiration for the rapidity with which an ever-increasing number of his colleagues have adapted themselves to the demand of the time for systematic cultivation of theoretical analysis.
 - 4) G. Haberler, "Joseph Alois Schumpeter 1883–1950," *The Quarterly Journal of Economics*, vol. LXIV, 1950.
 - 5) *Journal of the Economists* [*Giornale degli Economisti*], 1897.
 - 6) F. Y. Edgeworth, *Papers Relating to Political Economy*, 3 volumes, London, 1925. Schumpeter presented a detailed assessment of Edgeworth's life-work in the essay, "Edgeworth and Recent Economic Theory," *International Economic Archives* [*Weltwirtschaftliches Archiv*], vol. 22, 1925 II.
 - 7) J. A. Schumpeter, "Knut Wicksell's Mathematical Economics," *Archives for Social Science and Social Policy*, vol. 58, 1927, p. 238 ff.
 - 8) Cp. "The Instability of Capitalism," *The Economic Journal*, vol. XXXVIII, London, 1928, p. 55 ff.
 - 9) Ibid., p. 71 ff.
 - 10) See above all J. A. Schumpeter, "Cassel's Theory of Social Economics," *Schmoller's Yearbook for Legislation, Administration, and Political Economy*, vol. 51, 1927, p. 255 ff. "The professional theorist, however, is struck by something else when he reads these statements. Before his eyes emerges the ideal of a price theory which, unlike the present one, is not divided into a theory of pure competitive price and a theory of monopoly price and can explain price formation exhaustively, i.e., unequivocally, only in these two borderline cases, but which also has something to say about all the in-between cases of limited competition. The significance of an achievement along this line and the eager expectation of the theoretically oriented reader can be appreciated if one takes into account that in the very limitation to two equally unreal cases lies the whole world of reality which, if therefore not inaccessible, is nevertheless accessible to us only to the extent in which it represents a blend of those two pure cases. We all endeavor to remedy this deficiency and to solve a problem which Wicksell in his last work with good reason called a burning one. But so far without success." Precisely in view of the need to construct such a general theory of market structures, Schumpeter welcomed with particular joy the pioneer work of the Danish economist F. Zeuthen, *Problems of Monopoly and Economic Warfare* (London, 1930), for which he wrote a foreword commensurate with the importance of the book.

- 11) P. Sraffa, "About the Relationships between Cost and Quantity Produced," *Annals of Economics* [*Annali di Economia*], vol. II, No. 1, 1925–26.
- 12) O. Morgenstern, "Open Problems in the Theory of Costs and Returns," *Journal for Economics* [*Zeitschrift für Nationalökonomie*], vol. II, 1930–31.
- 13) R. Frisch, "Some Issues of a Price Theory with Land and Labor as Factors of Production," *Journal for Economics*, vol. III, 1931–32.
- 14) L. Amoroso, "The Statistical Offer Curve," *Journal of the Economists and Review of Statistics* (*Giornale degli economisti e rivista di statistica*), vol. 70, 1930.
- 15) H. Schultz, "Marginal Productivity and the General Pricing Process," *The Journal of Political Economy*, vol. 37, 1929.
- 16) An apparently partly revised copy of the manuscript was found after his death among the posthumous papers. The clearly unfinished manuscript was recently published by Fritz Karl Mann under the title, *The Essence of Money* (Göttingen, 1970). The present booklet was already in press when this book appeared on the market.
- 17) A. Smithies, "Schumpeter and Keynes," in *Schumpeter, Social Scientist*, Harvard University Press, 1951, p. 137. (As in the original—Translator.)
- 18) December, 1936, pp. 791–795. It deserves to be noted that Schumpeter declined to accept the invitation from a prestigious German periodical to write a review of the *Treatise*.
- 19) From A. C. Pigou, *Keynes' General Theory, A Retrospect*, London, 1950, p. 65. (Correct title: *General Theory, A Retrospective View*—Translator.)
- 20) J. A. Schumpeter, "John Maynard Keynes 1883–1946," *The American Economic Review*, vol. 36, 1946, reprinted in J. A. Schumpeter, *Ten Great Economists from Marx to Keynes*, New York, 1951. (Translator's note: Schneider availed himself of the translation into German by G. Bombach and K. Mecklenburg in J. A. Schumpeter, *Essays in Biography and the History of Doctrines*.)
- 21) Vol. 28, 1946 (J. A. Schumpeter, "Keynes and Statistics").
- 22) *Ten Great Economists . . .*, p. 291.
- 23) "Keynes and Statistics," *The Review of Economic Statistics*, vol. 28, 1946, p. 196. (As in the original—Translator.)

Chapter VIII.

- 1) See p. 18 ff.
- 2) Re the meetings between Schumpeter and Frisch on this occasion, see R. Frisch, "Some Personal Reminiscences on a Great Man," in S. E. Harris (ed.), *Schumpeter, Social Scientist*, p. 8 ff.
- 3) The following were elected as the first Fellows: L. Amoroso, Oskar N. Anderson, A. Aupetit, P. Boninsegni, A. L. Bowley, C. Colson, G. Del Vecchio, F. Divisia, G. C. Evans, I. Fisher, R. Frisch, C. Gini, G. Haberler, H. Hotelling, J. M. Keynes, N. D. Kondratieff, W. C. Mitchell, H. L. Moore, U. Ricci, C. F. Roos, J. Rueff, E. Schneider, H. Schultz, J. A. Schumpeter, J. Tinbergen, F. (sic) Viner, E. B. Wilson, W. Zawadzki, F. Zeuthen.

- 4) *Econometrica*, vol. I, 1933, p. 2.
- 5) The year when the Econometric Society was founded.
- 6) Over time this admiration became still greater. It found its visible manifestation in the donation of his private library and of his manuscripts to Hitotsubashi University. Economists visiting Japan today still sense everywhere the influence of the Schumpeterian spirit.
- 7) A. Smithies holds the same view as I do: "In 1932, he moved permanently to Harvard—in a mood of resignation rather than enthusiasm. In this I doubt that he was motivated by a desire to leave the sinking ship of Europe. Temperamentally, he was more inclined to go down with it." (*Schumpeter, Social Scientist*, p. 14.) For the rest he still believed up to the time of his departure that the federal German government and the Prussian Braun government would prevail.
- 8) He asked me to accompany him to Copenhagen. At that time he could not have had any idea that through this request he would decisively influence my own career.
- 9) J. A. Schumpeter, "Foreword" to the following work by Knut Wicksell, *Archives for Social Science and Social Policy*, vol. 58, 1927.
- 10) An inaccurate copy of the extemporaneous speech by Schumpeter may be found at the end of the *Essays on Economic Theory*, Tübingen, 1952.
- 11) *Ibid.*, p. 603.

Chapter IX.

- 1) He gave lectures on advanced theory, business cycle theory, history of economic analysis, and socialism.
- 2) How and what Schumpeter taught, P. Samuelson described in his essay, "Schumpeter as a Teacher and Economic Theorist," *The Review of Economics and Statistics*, 1951.
- 3) He dropped the sarcastic remark: "There are economists who do not know what a difference equation is; but there are also those who know nothing else."
- 4) The book, *Ten Great Economists from Marx to Keynes*, edited by his wife, Elizabeth Boody Schumpeter, in 1952, is a collection of biographical essays previously published elsewhere. There is only one parallel in the literature for these: *Keynes' Essays in Biography* (1933).
- 5) "The professional reader will have no difficulty in seeing their relation to the scaffolding which I published nearly thirty years ago." (*Business Cycles*, p. V.)
- 6) To my knowledge, Schumpeter gives initial information about this plan in the preface to the 4th edition of the *Theory of Economic Development* (1934).
- 7) J. A. Schumpeter, *Business Cycles*. Quoted from the German translation, Göttingen, 1961, vol. 1, p. 231.
- 8) J. Tinbergen, "Quantitative Business Cycle Theory," *Econometrica*, vol. 3, 1935. R. Frisch, "Propagation Problems and Impulse Problems in Dynamic Economics," in *Economic Essays in Honor of Gustav Cassel*, London, 1933. This paper deals, among other things, in a detailed manner with Schumpeterian innovations as factors in the preservation of oscillations and represents an extremely noteworthy attempt at a precise, mathematical formulation of his theory.

- 9) *Business Cycles*, p. 189.
- 10) 1937.
- 11) *Ibid.* (Schneider's emphasis.)
- 12) When I saw him again in 1949, Schumpeter made no secret of this disappointment.
- 13) *History of Economic Analysis*, p. 12 ff. (Schneider's emphasis.)
- 14) J. A. Schumpeter, "The Historical Approach to the Analysis of Business Cycles." (Universities National Bureau Conference on Business Cycle Research, New York, Nov. 25-27, 1949). Reprinted in J. A. Schumpeter, *Essays* (Cambridge, Mass.: 1951), p. 308 ff.
- 15) *Ibid.*, p. 308. (Schneider's emphasis.)
- 16) *Ibid.*, p. 312.
- 17) *Ibid.*, p. 315.
- 18) The high esteem in which he held Irving Fisher's writings is, as he told me repeatedly, in part explained by the fact that they are firmly anchored in microeconomic research.
For my public inaugural lecture following the appointment as a university lecturer (February 6, 1932) he suggested to me as a theme the relationship between economics and business administration. (This lecture has been partly embodied in the collection of my essays, *Economics and Business Administration*, Tübingen, 1964.)
- 19) When I was busy in Bonn with writings about the theory of production, he emphatically called to my attention the fact that Walras in his *Elements of Pure Economics* had inserted a chapter about book-keeping with the observation that from this vantage point it might very well be possible to gain access to a theory of production. My interest in questions of accountancy, above all of industrial accounting, is rooted here.
- 20) First edition 1942, third edition 1950. Many translations. German translation: Bern, 1946 (with an introduction by E. Salin).
- 21) Quoted from the excellent German translation of the first edition, p. 105. (Schneider's emphasis.)
- 22) Schumpeter repeated them in his presidential address before the American Economic Association in New York on December 30, 1949: "The March into Socialism." (In *The American Economic Review*, vol. 40, May, 1950, Papers and Proceedings of the Sixty-second Annual Meeting of the American Economic Association.)
He who would want to be quickly informed about Schumpeter's arguments in this question must read this speech. It is the last lecture held by Schumpeter before his death.
- 23) "Capitalism in the oxygen tent" (Schumpeter).
- 24) "Marx was wrong in his diagnosis of the manner in which capitalist society would break down, he was not wrong in the prediction that it would break down eventually." ("The March Into Socialism," *The American Economic Review*, May, 1950, p. 456.)
- 25) *Ibid.*, p. 447.
- 26) "I do not pretend to prophesy; I merely recognize the facts and point out the tendencies which those facts indicate." (*Ibid.*, p. 455.)

- 27) The respective chapter was incorporated in the collection of Schumpeter's biographies, *Ten Great Economists from Marx to Keynes*.
- 28) Elizabeth Boody Schumpeter, whom he married in 1937. The foreword by the editor bears the date of "July 1952." Shortly thereafter Mrs. Schumpeter died. Dr. Kuenne and Professor Leontief ensured the manuscript's going to press. The book appeared in 1954.
- 29) Schumpeter was searching for a second culmination point: a dynamic theory which would one day be able to join together the various contributions to dynamic analysis into a synthesis of the same order as Walras accomplished for static theory (see p. VI of the Introduction by the editor).
- 30) It has not met with unanimous approval (see, e.g., W. Stark, "Joseph Schumpeter's Revaluation of Values, a Critical Discussion of his 'History of Economic Analysis'," *Kyklos*, vol. 8, 1955).
- 31) Even the purely physical feat of preparation of the manuscript commands highest admiration. Schumpeter had no clerical help. The more than 1,000 pages were all written in long-hand!
- 32) J. Viner, "Schumpeter's 'History of Economic Analysis,' a Review Article," *The American Economic Review*, vol. 44, 1954, p. 895.
- 33) Schumpeter's presidency of the American Economic Association was an event: In the history of this famous Association he was the first president not born in the United States.
- 34) I suggested to him the preparation of a new edition of his first book, *Essence and Principal Contents*, which had become a rarity in the second-hand bookshops of the world. But the idea did not meet with his approval. "The book was intended for other times and other men. Its message is taken for granted today. If I should write another theoretical work, it will look quite different." (From notes on my conversations with him.)
- 35) See S. E. Harris, "Introductory Remarks," in *Schumpeter, Social Scientist*, p. 7.
- 36) With nothing but deep gratitude can I think of the interest which he took in my own scientific career. He was always ready to help, and he spared no pains to write me letters in long-hand (!) filling whole pages in order to set forth his views in a matter.
- 37) Elizabeth Boody Schumpeter was a very capable economist in her own right and thus was able to assist him in many discussions and reflections.
- 38) *Schumpeter, Social Scientist*, p. 15.
- 39) *Ibid.*, p. X.
- 40) On February 8, 1945—his 62nd birthday anniversary—he wrote in his diary: "Good morning, friend, how does it feel to be sixty-two—and definitely old and definitely to feel old? One thing to be recorded is my humble thanks to the United States. No repining, no sterile regrets, no sorrow about the state of things: acceptance rather and a feeling that it could be worse." (*Ibid.*, p. 15.)

TRANSLATOR'S APPENDIX

SCHNEIDER'S WORK on Schumpeter closes with a list of Schumpeter's writings—books, articles, and book reviews—arranged in chronological order. The list runs to more than eleven pages, four of which cover book reviews. These are of distinctly lesser interest to contemporary historians of economic thought. Many of the articles and most of the books were drawn upon by Schneider in the foregoing pages. In what follows, only writings in *book* form are listed; the method adhered to earlier in citing foreign-language journals will be used again, that is, the title of the book as originally published, if other than English, is given in brackets. Translations of Schumpeter's books into other languages are mentioned in the order in which they were listed by Schneider.

The Essence and Principal Contents of Economic Theory [*Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*], Leipzig, 1908.

Japanese translation: 2nd ed., 1950.

How Does One Study Social Science? [*Wie studiert man Sozialwissenschaft?*], (Papers of the Social Science Academic Association in Czernowitz, No. 2—see ch. II, footnote 16*).

1st ed., Munich and Leipzig, 1910.

2nd ed., Munich and Leipzig, 1915.

Theory of Economic Development [*Theorie der wirtschaftlichen Entwicklung*], Leipzig, 1912.

5th ed., Berlin, 1952.

Italian translation: Turin (Italy*), 1932.

English translation: Cambridge, Mass., 1934.

French translation: Paris, 1935.

Japanese translation: Tokyo, 1937.

Spanish translation: Mexico, 1944.

Epochs in the History of Doctrines and Methods [*Epochen der Dogmen- und Methodengeschichte*], in Outline of Social Economics [*Grundriss der Sozialökonomik*], division I, Tübingen, 1914.

2nd ed., Tübingen, 1924.

Japanese translation: Tokyo, 1950.

Past and Future of the Social Sciences [*Vergangenheit und Zukunft der Sozialwissenschaften*], (Papers of the Social Science Academic Association in Czernowitz, No. 7), Munich and Leipzig, 1915.

The Crisis of the Tax State [*Die Krise des Steuerstaates*], Graz and Leipzig, 1918.

On the Sociology of Types of Imperialism [*Zur Soziologie der Imperialismen*], Tübingen, 1919.

Fundamentals of Financial Policy for Now and the Next Three Years [*Grundlinien der Finanzpolitik für jetzt und die nächsten drei Jahre*], Vienna, 1919.

The German Financial Problem [*Das deutsche Finanzproblem*], Berlin, 1928.

Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process, New York and London, 1939.

German translation: Göttingen, 1961.

Capitalism, Socialism, and Democracy, New York, 1942.

Spanish translation: Buenos Aires, 1946.

German translation: Berne, 1946.

French translation: Paris, 1951.

Italian translation: Milan, 1956.

Japanese translation: Tokyo.

Rudimentary Mathematics for Economists and Statisticians, New York, 1946.

Spanish translation: Mexico and Buenos Aires, 1948.

Ten Great Economists: From Marx to Keynes, New York, 1951.

London, 1952.

Swedish translation: Stockholm, 1953.

Imperialism and Social Classes, Oxford, 1951.

History of Economic Analysis, ed. (from manuscript) Elizabeth Boody Schumpeter, New York, 1954.

German translation: Göttingen, 1965.

Essays of J. A. Schumpeter, ed. R. V. Clemence, Cambridge, Mass., 1951.

Essays on Economic Theory [*Aufsätze zur ökonomischen Theorie*], ed. E. Schneider and A. Spiethoff, Tübingen, 1952.

Essays on Sociology [*Aufsätze zur Soziologie*], ed. E. Schneider and A. Spiethoff, Tübingen, 1953.

Essays in Biography and the History of Doctrines [*Dogmenhistorische und biographische Aufsätze*], ed. E. Schneider and A. Spiethoff, Tübingen, 1954.

The Essence of Money [*Das Wesen des Geldes*], edited posthumously and introduced by Fritz Karl Mann, Göttingen, 1970.

* Addition by translator.