

INNOVATIVE ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT

PERSPECTIVES OF SCHUMPETERIAN DYNAMICS 'FROM WITHIN'



Prof. Dr. J. Hanns Pichler

Department of Economics
University of Economics & Business
President, Austrian Institute for SME Research, Vienna
University of Economics & Business, Augasse 2-6
A-1090 Vienna, Austria
Tel: +43-1-31336-4528 or 4527 • Fax: +43-1-31336-727
E-mail: j.hanns.pichler@wu-wien.ac.at

Abstract

In trying to paintbrush background and scientific “environs” when Schumpeter’s visionary “Theory of Economic Development” (1912) came out, classical and neoclassical thought as well as Marx’ “Capital” had been exposed already for some time to scholarly scrutiny by the learned community.

In neither classical-neoclassical nor Marxian visions, the entrepreneur explicitly figures. It is Schumpeter’s truly seminal interpretation of the capitalist process, wherein the entrepreneur as such takes centre stage as the “pioneering” and driving force in a dialectic sense as, in fact, sort of a villain, as the “antithesis” to the market system.

When relating this to modern entrepreneurship, its pivotal role in a regional and global context, Schumpeter’s vision, nowadays, more than ever in times of dynamic change, may serve as a guide for any entrepreneurially oriented policy formulation.

Underlying hypotheses and observations, Schumpeter states in the early German edition of his seminal “Theory of Economic Development” (1912)¹, were not invented or merely fictitious, but taken and gleaned from economic reality in contrast to – then prevailing equilibrium oriented and essentially “static” views of interpreting the market based capitalist process as “conditioned by given circumstances” (as he subtitled the very first chapter). Thus, the telling motto right on the title page of the first edition: “Hypotheses non fingo” (As such never appearing again in any later issues, including the English translation of 1934).

¹Newly edited and reprinted with an “Introduction” by J. Roepke and O. Stiller (2006). References and quotations in the following are being identified, respectively: if relating to the earlier German editions (in particular, the first or second) as “Theorie” followed by year; if relating to the English version as “Theory” (1934 or reprints). Quotations translated from the German editions being either omitted or referred to only passim in the 1934 English version, are marked “transl. J.H.P.”

²Witness the numerous university chairs and programs on “entrepreneurship” having sprung up, and still expanding, over the past decades. Cf. more recently also Thomas K. McCraw (2007) with extensive references to Schumpeter’s “Legacy”; or the relevance of innovative elements and factors in the context of the New (endogenous) Growth Theory (cf. P.M. Romer, 1990, et al.), as well as distinct Schumpeterian traits in the relatively new discipline of “Evolutionary Economics”.

³As essentially the basis for the subsequent English translation, published 1934 at Harvard after the 3rd and 4th – both largely unchanged – German printings (1931, 1934).

From hindsight one might be left wondering as to what, in fact, makes Schumpeter’s early conceived vision of the leadership role of the entrepreneur in “economic life” still so very topical, if not outright indispensable, for explaining the dynamics of the ‘capitalist’ system. In recognizing role and importance of entrepreneurially driven innovation with related forces of “creative destruction” as intrinsically market based phenomena, Schumpeterian notions indeed seem to have gained new momentum in today’s economic debate for the very understanding of entrepreneurial by driven systems, including competitive entrepreneurial behaviour with emphasis also on related entrepreneurship education². All that against a bibliographical background of his “Theory” which – intermittently nearly forgotten, widely misread or misinterpreted – took fully 14 years until its second, in parts radically revised and modified edition in 1926.³

Schumpeter explicitly voices his irritation in the foreword to the second edition that readers of the earlier version obviously “mistook” the book as a kind of “history” of economic development in line with the – methodologically more descriptive – German “Historical Schools” to which, nonetheless, the very flow and partly rather verbose style of the original text undoubtedly

shows a certain affinity. In restating and emphasizing the theoretical thrust of his argument, the somewhat lengthy subtitle⁴ was added from the second edition onwards (and retained also in the English translation) to bring home the very essence together with substantial revisions to the core second chapter on “The Fundamental Phenomenon of Economic Development”.⁵

In the context of such revisions Schumpeter, in our view, perpetrated two “sins”: Firstly, by trying to schematize, thereby narrowing down and kind of “sterilizing”, in the second chapter the very role of the entrepreneur to the meanwhile famous, again and again being referred to, “five cases” in “the carrying out of new combinations”,⁶ as such conveying a rather bloodless, sort of descriptive “listing” of implied entrepreneurial traits and “characteristics” lending itself to a rather limited, yet tempting interpretation as a sort of proxy for defining the “Schumpeterian entrepreneur”, quite in contrast to the

full blooded picture so vividly painted in the original version refraining from such schematization. Secondly, by omitting the entire seventh chapter (from 1926 onward)⁷, wherein Schumpeter tried to put his vision and overall conceptualization in a systemic context by way of a “holistic” topping off in form of a socio-economic synopsis to the expositions in the preceding chapters. It seems a pity that, especially the English reader, remains deprived of a possibly still more comprehensive and deeper understanding of the very thrust of the Schumpeterian message even if, admittedly, this chapter (of nearly 90 pages in the German original) might appear less rigorously argued.

A “Theory” against the mainstream

In order to fully appreciate the very boldness of Schumpeter’s message, his “Theory” needs to be viewed in

light of the prevailing mainstream of economic thought at the time of its first publication. Classics and Neoclassics, notably of the Viennese marginal (“Grenznutzen”) tradition with Eugen v. Boehm-Bawerk and Friedrich v. Wieser as principal advisers to Schumpeter’s habilitation at the Vienna University⁸, clearly were dominating the discipline’s common body of knowledge; and so was Marx’ quite different, non-market based (“socialist”) interpretation of the economic process, all of which Schumpeter was well familiar with, while more specifically having been exposed, of course, to neoclassical thinking in the Viennese academic “style”. His habilitation thesis as mentioned, submitted in 1908, indeed was devoted to a theoretical treatment and discussion of the “state of the art” at the time, including a rather shrewd reception and re-interpretation of Walrasian equilibrium as an exposition of “pure economics” on essentially static grounds.⁹

These scientific environs and ingredients are important to note as points of departure in Schumpeter’s own “Theory”, wherein his critical stand against the prevailing “mainstream” finds ample expression right in the first chapter¹⁰ by pointing at the intrinsically static, “circular flow”-type view of “economic life” and voicing his discontent over the obvious deficiency of such theorizing to adequately capture and explain the underlying dynamics of the market based “capitalist” process. By contrast, he explicitly commends Marx as - with his (dialectic) methodology - being able to indeed grasp the intrinsically dynamic nature of “economic development.”¹¹

To mention as of specific relevance in this very context is Eugen v. Boehm Bawerk’s profoundly neoclassical - and pointedly anti-Marxian - “The Positive Theory of Capital”¹² as for Schumpeter yet another bone of contention and point of critical departure since, despite its erudite theoretical

⁴In German: “Eine Untersuchung über Unternehmerrgewinn, Kapital, Kredit, Zins und den Konjunkturzyklus”; in English: “An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle” (“Profits” to be understood entrepreneurial or “private”).

⁵In German: “Das Grundphaenomen der wirtschaftlichen Entwicklung” (Theorie 1912, 103-198; 1926, 88-139; Theory 1934, 57-94).

⁶Theorie 1926, 100f.; Theory 1934, 66, by contrast to the German version not explicitly being “listed”, but less conspicuously integrated in the text as such (see Annex 3).

⁷In German: “Das Gesamtbild der Volkswirtschaft” (“Overall View of the Economy”, transl. J.H.P.), Theorie 1912, 463-548.

⁸Based on his first book, entitled: “Das Wesen und der Hauptinhalt der theoretischen Nationaloekonomie”, Leipzig 1908 (“The Nature and Content of Theoretical Economics”), repeatedly also being referred to (as “Wesen” for short) in Schumpeter’s subsequent “Theorie”.

⁹Cf. Walras, L.: *Elements d’économie politique pure ou theorie de la richesse sociale*, Lausanne 1874-77; English translation by Jaffe, W.: *Elements of Pure Economics*, Homewood, Ill.-London 1954.

¹⁰Entitled “The Circular Flow of Economic Life as Conditioned by Given Circumstances”, Theory 1934, 3-56; in German: “Der Kreislauf der Wirtschaft in seiner Bedingtheit durch gegebene Verhaeltnisse”, Theorie 1912, 1-102. Already the “Physiocrates”, Schumpeter argues, in grasping “the fact of circular flow ... ipso facto describe a static economy ... And this remained the objective of pure economics to our days.” Also with A. Smith, “wherever his arguments rest on firm ground, his view is essentially static ... Wherever he speaks of progress, he never explains this on the basis of economic processes in themselves ...” (Theorie 1912, 92f., transl. J.H.P.)

¹¹“The only major attempt toward the problem of development is the one of Karl Marx... He strived to treat the development of economic life itself on basis of economic theory. His accumulation, his immiserization, his crisis theories follow from pure economic reasoning ... aiming at the evolution of economic life as such ... not just its circular flow ...” (Theorie 1912, 98; transl. J. H. P.) And if he “had not been more than a purveyor of phraseology, he would be dead by now. Mankind is not grateful for that sort of service and forgets quickly the names of the people who write the librettos for its political operas.” (Schumpeter, 1942, 5.)

¹²Translated with a “Preface” by W. Smart, London-New York 1891. German original: “Positive Theorie des Kapitals (1889), as Vol. 2 of “Kapital and Kapitalzins”; a center piece til today of neoclassical capital theory, which propelled its author to international fame. Boehm-Bawerk by the way, as Schumpeter states himself, never really approved of his “Theory” (cf. Theorie 1926, “Vorwort”).

reasoning, again resting on essentially “static” grounds and, therefore, bound to miss the intrinsic nature of “capitalist” dynamics. (For an ingenious early re-interpretation of “The Positive Theory” with Boehm-Bawerk’s subtle theorizing on the “roundaboutness” of capitalist accumulation by his contemporary Swedish economist Knut Wicksell see graphical illustration, Fig. 1).¹³

It is against such background and dissatisfaction with mainstream “circular flow” concepts as prevailing then, that Schumpeter’s own “Theory” evolved and took shape: as a theoretical - and in its endeavor similar to Boehm Bawerk’s preceding, albeit “static” - attempt to, for his part, provide a non-Marxian dynamic interpretation of capitalist “development” driven by its inherent systemic forces “from within”.¹⁴

We shall try in the following to pinpoint – against such background – what seems to emerge as a kind of “hidden agenda” behind Schumpeter’s vision rendering it such lasting a legacy for interpreting capitalist development and its dynamics.

¹³Cf. Wicksell, K. (1893).

¹⁴“By development, therefore, we shall understand only such changes in economic life as ... arise by its own initiative, from within.” (Theory 1934, 63.) “Development in our sense is then defined by the carrying out of new combinations.” (Ibid., 66; with the “five points” to follow, see Annex 3.)

¹⁵Theory 1934, 66.

¹⁶Theorie 1912, 162 (transl. J. H. P.).

¹⁷Theorie 1912, 162 (transl. J. H. P.).

¹⁸Theory 1934, 81f.

¹⁹Ibid., 89; yet, such “leadership in particular ... must be distinguished from ‘invention’. As long as they (inventions, J. H. P.) are not carried into practice, inventions are economically irrelevant.” (Ibid., 88) However: “In as much as the carrying out of new combinations constitutes form and substance of development, so much so is the leader’s initiative its driving force.” Alas, not all are “equally far sighted and energetic ...” (Theorie 1912, 162, footnote; transl. J.H.P.)

²⁰Theorie 1912, 170f. (transl. J. H. P.); or somewhat more barren in the English version later on: “The carrying out of new combinations we call ‘enterprise’; the individuals whose function it is to carry them out we call ‘entrepreneurs.’” (Theory 1934, 74)

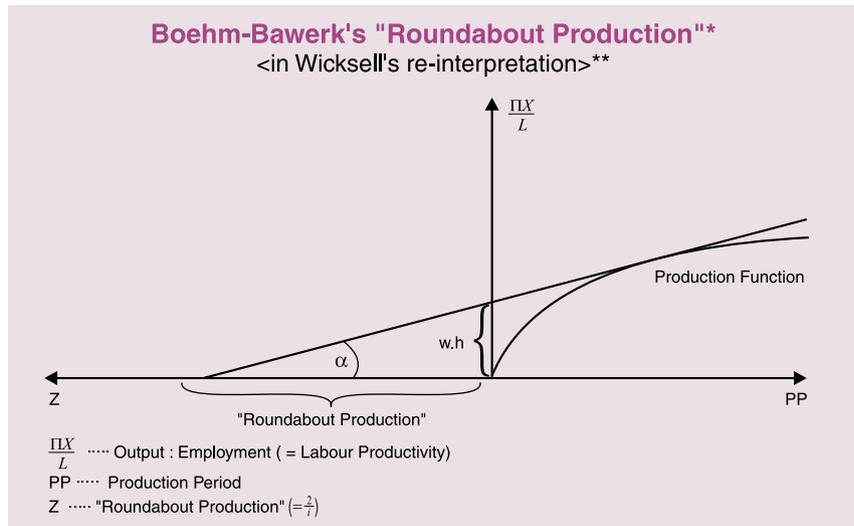


Fig. 1. Boehm-Bawerk’s “Roundabout Production”

**Positive Theorie des Kapitaless (1889)

**Cf. Wicksell, K. (1893; graph, p. 97)

Toward entrepreneurially driven “capitalism”

In taking a profoundly critical stand against mainstream “statics”, Schumpeter in his “Theory” endeavors to depict market based (long term) “economic development” as an ever changing – and as such never toward equilibrium tending - process of “economic life” generally. This, in fact, constitutes the all pervading thrust of his argument; and indeed no one – apart from Marx in his systemic theorizing – has done so before in a similarly rigorous fashion which, no doubt, lends such seminal and lasting fascination to his “Theory”.

The essence of capitalist dynamics, in Schumpeter’s view, thus boils down to a continuous pursuit of “carrying out ... new combinations”¹⁵ as an entrepreneurially driven process which proves “that economic life never is static; it lies in the very nature of development.”¹⁶ The question then arises: who is “carrying out”, what stands for the “new” and how are “new combinations” being carried through?

Schumpeter’s straightforward answer to that is: the entrepreneur, being depicted and singled out in the very “Schumpeterian” meaning (or “in our

sense” as he repeatedly emphasizes). In any given economic moment or situation, so his argument, there exist “numerous possibilities for new combinations”, yet only a small group has the drive and takes “leadership” to, in fact, carrying them through, while “most do not see them”.¹⁷ Thus, “... the carrying out of new combinations is a special function ... of people who are much less numerous than all those who have the ‘objective’ possibility of doing it. Therefore, ... entrepreneurs are a special type, and their behavior ... the motive power of a great number of significant phenomena.”¹⁸

Hence it is, with Schumpeter, the entrepreneur - and only he - who “leads” the means of production into new channels ... drawing other producers ... after him”, thereby rendering “a service, the full appreciation of which ... is not so easily understood by the public at large”.¹⁹

From there it follows, “the most typical incorporation of future value creating potentials is a new enterprise ...”, and the “specific type” as characteristic for “a special class of economically active individuals has taken on a name of its own, namely **entrepreneur**.”²⁰ The entrepreneur as the driving or “leading” force in economic life, be it as “busi-

ness founder”²¹ or as “creative innovator” who through “anti-hedonist”²² activity and initiatives creates future values. “They (these values, J.H.P.) correlate with new combinations, ... new combinations translated in value terms ... the shadows of things to come ...”²³

In carrying out new combinations, the entrepreneur, firstly, singles out from a “multitude of various moments... the related right decision ... which is given to few people only with specific capabilities, and secondly, carries them through. These are the characteristics of our entrepreneur, of our man of action. They are inseparable and of equal importance. And the result is economic development, progress”²⁴; development or progress being triggered by “our type” of (Schumpeterian) entrepreneur.

Uncovering the subtlety of implied “dialectics”

The role of the Schumpeterian entrepreneur, as inseparably being geared to the very essence of “economic development”, thus resembles a kind of “hidden” form of what might be

In carrying out new combinations, the entrepreneur, firstly, singles out from a “multitude of various moments... the related right decision ... which is given to few people only with specific capabilities, and secondly, carries them through.

called Schumpeterian “**dialectics**” for interpreting the dynamics of capitalist development from a (non-Marxist) systemic perspective.

The market system itself, under “given circumstances”, thereby constituting the **thesis**; the entrepreneur in the Schumpeterian sense as the driving (also the “creatively destructive”) force being the **antithesis** to the system, ever striving to “out compete” given circumstances by way of new combinations and thus - temporarily at least - trying to be or to become a kind of “monopolist”;²⁵ finally, the **synthesis** of such a scenario to be seen in prevailing market forces tending forever to catch up with, to “compete down” temporarily dominating entrepreneurial initiatives provoking, by force of such process, entrepreneurial creativity yet anew in trying to tackle or outmanoeuvre the system “from within” and, as such, quite distinct from Marxist “dialectics”.

The entrepreneur in such a scenario takes on the role of unsettling “disequilibrating”, as an ever disturbing element to static or “circular flow” tendencies toward equilibrium in the very sense of “creative destruction”; as a movens of forever challenging the system “conditioned by given circumstances”²⁶, of constantly trying to trick competitive market constraints and forces through innovative “new combinations” providing thus the intrinsic drive for (Schumpeterian) “economic development”.

Different from Marx, different also from the classical-neoclassical and as such essentially “static” concepts, Schumpeter in his “Theory” boldly presents

an alternative (non-Marxist) interpretation of the “capitalist” process with the entrepreneur taking center stage. It is this very boldness too, which in good measure seems to account for the lasting relevance, if not to say fascination of his “Theory” up till now (shortly, by the way, to celebrate the 100 year anniversary since its first printing).

Legacy and topical relevance in today’s perspective

By provocatively casting the entrepreneur – traditionally being considered the “epitome” of capitalism itself – as sort of villain or “antithesis” to the market system with its “mainstream” proclaimed tendencies toward (static) equilibrium, amply testifies to the originality of Schumpeter’s own theorizing. Thereby depicting the specific role of the entrepreneur under systems-related aspects further implies that the very same (“capitalist”) system essentially derives its inherent strength and dynamics from ever self-renewing entrepreneurial-drive and initiatives; dynamics and strength, in the end, for sustained reproduction of the system as such out of its own forces, or “from within”.

Notwithstanding Schumpeter’s later skepticism under changed economic conditions in the face of World War II whether entrepreneurially led capitalism indeed may “survive”,²⁷ we today can witness a sheer global revival of Schumpeter’s early vision: be it in form of a new and growing awareness of the need for entrepreneurial initiatives, values and attitudes as crucial for sustainable development and more broadly based welfare; be it in recognizing the specific relevance of “entrepreneurship education”, or the importance of diversified entrepreneurially based small and medium sized business structures; be it in the context of fostering business start-ups combined with venture capital financing and concomitant tenden-

²¹In merciless Schumpeterian understanding: If a business founder merely continues to manage his “enterprise ... in simply a static way, he ceases to be an entrepreneur!”. His very nature “is linked to creating (to combining, J. H. P.) something new.” (Theorie 1912, 174, footnote; transl. J. H. P.)

²²Theorie 1934, 94; the entrepreneur as – in a “non-hedonist” way - ever being absorbed by “the joy of creating, of getting things done, or of just exercising ... ingenuity.” (Theory 1934, 93)

²³Theorie 1912, 170 (transl. J. H. P.).

²⁴1912, 177 (transl. J. H. P.).

²⁵Since, with Schumpeter, “perfect competition” temporarily always having been “suspended whenever anything new is being induced ...”, thereby providing “the fundamental impulse that sets and keeps the capitalist engine in motion.” (Schumpeter, 1942, 104f.)

²⁶Cf. heading of the very first chapter of the “Theory” (in German: “...Bedingtheit durch gegebene Verhältnisse”; Theorie, both 1912 and 1926).

²⁷Cf. his famous “Capitalism, Socialism and Democracy” (1942) and numerous related references; it is in this his later work (not in his “Theory”) wherein Schumpeter explicitly coins the popular and much cited phrase of “creative destruction” (later on back-translated into German as “schoeperische Zerstörung”).

cies toward privatization worldwide (including related emphasis on economies “of scope” rather than just one-sidedly “of scale”)²⁸ – this all relates to the very notion of Schumpeterian “entrepreneurship” as being reflected in entrepreneurially driven initiatives, creativity and “leadership”. Leadership that in any market based system stands for structural diversification, for sustained viability and capabilities of success and sheer systemic “survival” under competitive conditions.²⁹

From a contemporary perspective, relevance and importance of Schumpeter’s vision nowadays seems to be demonstrated vividly in the ongoing - and partly still painful - restructuring from formerly centrally planned to market oriented systems in Central and Eastern Europe. A transformation whereby the final verdict over success or failure in large measure hinges on how effectively these economies are capable to build and rebuild their over decades ruthlessly weakened, if not outright ruined entrepreneurially based business structures as a prerequisite for economic dynamics and sustained development in an increasingly competitive environment with more and more diversified markets.³⁰

More than ever, as it seems, can under today’s regional as indeed world wide challenges Schumpeter’s erstwhile vision serve as a valuable guide, as a kind of compass with a view to policy formulation for entrepreneurially conducive

framework conditions, or more bluntly still: for creating conditions wherein entrepreneurial initiatives, creativity and leadership in the very Schumpeterian meaning can thrive and adequately are being rewarded. To conclude on that note in Schumpeter’s own words: “Look around - and you will see, things really are like that.”³¹ Or in conformity to his early motto again: “Hypotheses non fingo.”³²

References

Aiginger, K./G. Tichy: Die Groesse der Kleinen. Die ueberraschenden Erfolge kleiner und mittlerer Unternehmungen in den achtziger Jahren, Vienna (1984)

Allen, R. L. Opening Doors. The Life & Work of Joseph Schumpeter, 2 vols., New Brunswick 1991

Anderson, B. M.: Schumpeter’s Dynamic Economics, *Political Science Quarterly*, Vol. 30 (1915), Dec.

Backhaus, J. G. (ed.): Joseph Alois Schumpeter. Entrepreneurship, Style and Vision, Boston 2003

Becker, M. C./T. Knudsen: Schumpeter 1911. Farsighted Visions on Economic Development, *American Journal of Economics and Sociology*, Vol. 61 (2002), April

Boehm, S. (ed.): Joseph A. Schumpeter. Beitrage zur Sozialoekonomik, Vienna 1987

Boehm-Bawerk, E. v.: Positive Theorie des Kapitaes (Innsbruck 1889), 4th printing, ed. by F. v. Wieser, Jena 1921 (= Vol. 2 of “Kapital und Kapitalzins”)

Bottomore, T.: Between Marginalism and Marxism. The Economic Sociology of J. A. Schumpeter, New York 1992

Chandler, A. D. Jr.: The Visible Hand. The Managerial Revolution in American Business, Cambridge, Mass. 1977

Id.: Scale and Scope. The Dynamics of Industrial Capitalism, Cambridge, Mass. 1990

Clark, J. B.: Theorie der wirtschaftlichen Entwicklung, *American Economic Review*, Vol. 2 (1912), Nr. 4 (review)

Clemence, R. V. (ed.): Joseph A. Schumpeter. Essays on Entrepreneurs, In-

novations, Business Cycles and the Evolution of Capitalism, Cambridge, Mass. 1951

Dopfer, K.: The Phenomenon of Economic Change. Neoclassical vs. Schumpeterian Approaches, in Magnusson (Boston-Dordrecht-London 1994)

Ebner, A.: The Institutional Analysis of Entrepreneurship. Historist Aspects of Schumpeter’s Development Theory, in Backhaus (Boston 2003)

Elliott, J. E.: Schumpeter and the Theory of Capitalist Economic Development, *Journal of Economic Behavior and Organisation*, Vol. 4 (1983), Dec.

Fagerberg, J.: Schumpeter and the Revival of Evolutionary Economics. An Appraisal of the Literature, *Journal of Evolutionary Economics*, Vol. 13 (2003), Nr. 2

Giersch, H.: The Age of Schumpeter, *American Economic Review*, Vol. 74 (1984), May

Id.: Economic Policies in the Age of Schumpeter, *European Economic Review*, Vol. 31 (1987), Feb./March

Haberler, G.: Schumpeter’s Capitalism, Socialism and Democracy. After Fourty Years, ed. by M. Okada, Kyoto 1981 (also in Heertje, New York 1981)

Harris, S. E. (ed.): Schumpeter. Social Scientist, Cambridge, Mass. 1951

Hedtke, U./R. Swedberg (eds.): Joseph Alois Schumpeter. Briefe/Letters, Tuebingen 2000

Heertje, A. (ed.): Schumpeter’s Vision. Capitalism, Socialism and Democracy after 40 Years, New York 1981

Heertje, A./M. Perlman (eds.): Evolving Technology and Market Structure. Studies in Schumpeterian Economics, Ann Arbor (1990), 3rd printing 1993

Heilbroner, R. L.: Was Schumpeter Right?, *Social Research*, Vol. 48 (1981), Nr. 3

Id.: Was Schumpeter Right After All? *Journal of Economic Perspectives*, Vol. 7 (1993), Summer

Klausinger, H.: Schumpeter und die Grosse Depression. Theorie-Diagnose-Politik, Diskussionsbeitraege, Institut fuer Volkswirtschaftslehre der Universitaet Hohenheim, Nr. 78, 1993

²⁸Cf. Aiginger/Tichy (1984).

²⁹Cf. Heertje, (1981); Heertje/Perlman (1993); Heilbroner (1993); Scherer (1992); Scherer/Perlman (1992).

³⁰Cf. Becker/Knudsen (2002); Backhaus (2003); Giersch (1984, 1987); Scherer (1999); Shionoya/Perlman (1994).

³¹Theorie 1934, “Vorwort” (Preface) to 4th German printing (transl. J. H. P.).

³²As kind of an invitation to scientifically “creative destruction” Schumpeter, by the way, sums up the preface to the first edition wishing for himself “nothing more that this work as soon as possible be rendered obsolete and forgotten.” (Transl. J.H.P.) – And this invitation, after now almost 100 years, apparently still holds.

- Kurz, H. D.: Joseph A. Schumpeter. Ein Sozialökonom zwischen Marx und Walras, Marburg 2005
- Id.: Schumpeter on Innovations and Profits. The Classical Heritage, Paper, Conference on "Neo-Schumpeterian Economic. An Agenda for the 21st Century", Trest 2006 (mimeo)
- Langlois, R.: Schumpeter and Personal Capitalism, in Eliasson, G./C. Green (eds.), *Microfoundations of Economics Growth. A Schumpeterian Perspective*, Ann Arbor 1998
- Magnusson, L. (ed.): *Evolutionary and Neo-Schumpeterian Approaches to Economics*, Boston-Dordrecht-London 1994
- McCrae, R. C.: Schumpeter's Economic System, *Quarterly Journal of Economics*, Vol. 27 (1913), Nr. 3
- McCraw, T. K.: *Prophet of Innovation. Joseph Schumpeter and Creative Destruction*, Cambridge, Mass.–London 2007
- Mokyr, J.: *The Lever of Riches. Technological Creativity and Economic Progress*, New York 1990
- Mugler, J.: *Entrepreneurship and the Theory of the Firm*, in Donckels, R./A. Miettinen (eds.), *New Findings and Perspectives in Entrepreneurship*, Aldershot 1990
- Id.: *Strategic Development of SMEs in Turbulent Environments*, in Piasecki, B. (ed.), *Entrepreneurship and Small Business Development in the 21st Century*, Lodz 2002
- Nelson, R./S.G. Winter: *An Evolutionary Theory of the Firm*, Cambridge, Mass. 1982
- Nicholas, T.: Why Schumpeter was Right. Innovation, Market Power, and Creative Destruction in 1920s America, *Journal of Economic History*, Vol. 63 (2003), Dec.
- Perelman, M.: Retrospectives. Schumpeter, David Wells and Creative Destruction, *Journal of Economic Perspectives*, Vol. 9 (1995), Nr. 3
- Roepke, J.: *Der lernende Unternehmer. Zur Konstruktion und Evolution unternehmerischen Bewusstseins*, Marburg 2002
- Roepke, J./O. Stiller (eds.): *Joseph Schumpeter. Theorie der wirtschaftlichen Entwicklung*. Nachdruck der 1. Auflage von 1912, ergaenzet um eine Einfuehrung, Berlin 2006
- Romer, P. M.: Endogenous Technological Change, *Journal of Political Economy*, Vol. 98 (1990), Nr. 5
- Scherer, F. M.: *Innovation and Growth. Schumpeterian Perspectives*, Cambridge, Mass. 1984
- Id.: *Schumpeter and Plausible Capitalism*, *Journal of Economic Literature*, Vol. XXX (1992), Sept.
- Id.: *New Perspectives on Economic Growth and Technological Innovation*, Washington D.C. 1999
- Scherer, F. M./M. Perlman (eds.): *Entrepreneurship, Technological Innovation and Economic Growth. Studies in the Schumpeterian Tradition*, Ann Arbor 1992
- Schmidt, K.-H.: *Vorlaeuffer und Anfaenge von Schumpeters Theorien der wirtschaftlichen Entwicklung A-rbeitspapiere des Fachbereichs Wirtschaftswissenschaft, Neue Folge Nr. 8*, University Paderborn 1987
- Schumpeter, J. A.: *Das Wesen und der Hauptinhalt der theoretischen Nationaloekonomie*, Leipzig 1908
- Id.: *Theorie der wirtschaftlichen Entwicklung*, Leipzig 1912
- Id.: *The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. Translated by R. Opie, Cambridge, Mass. 1934
- Id.: *Capitalism, Socialism and Democracy* (New York 1942), 5th ed., Introduction by T. Bottomore, London 1976
- Id.: "Capitalism", *Encyclopedia Britannica*, London 1946
- Id.: *Science and Ideology*, *American Economic Review*, Vol. 39 (1949), March (=Presidential Address, Dec. 1948)
- Id.: *The Communist Manifesto in Sociology and Economics*, *Journal of Political Economy*, Vol. 57 (1949), June; reprinted in Clemence (Cambridge, Mass. 1991)
- Id.: *Economic Theory and Entrepreneurial History* (1948), in *Center for Research in Entrepreneurial History: Change and Entrepreneur. Postulates and Patterns in Entrepreneurial History*, Cambridge, Mass. 1949
- Id.: *Comments on a Plan for the Study of Entrepreneurship*, reprinted in Swedberg (Princeton 1991)
- Seidl, C. (ed.): *Lectures on Schumpeterian Economics*, Berlin etc. 1984
- Shionoya, Y./M. Perlman (eds.): *Innovation in Technology, Industries and Institutions. Studies in Schumpeterian Perspectives*, Ann Arbor 1994
- Stolper, W. F.: *The Theoretical Bases of Economic Policy. The Schumpeterian Perspective*, *Journal of Evolutionary Economics*, Vol. 1 (1991), Nr. 3
- Id.: *Joseph Alois Schumpeter. The Public Life of a Private Man*, Princeton 1994
- Stolper, W.F./C. Seidl (eds.): *Joseph A. Schumpeter. Aufsätze zur Wirtschaftspolitik*, Tuebingen 1985
- Streissler, E. W.: *The Influence of German and Austrian Economics on Joseph A. Schumpeter. Paper, Conference of the International Joseph A. Schumpeter Society*, Kyoto 1992 (mimeo)
- Swedberg, R.: *Joseph A. Schumpeter. His Life and Work*, Oxford 1991
- Id.: *Joseph A. Schumpeter. The Economics and Sociology of Capitalism*, Princeton 1991
- Id.: *Schumpeter's Early Work*, *Journal of Evolutionary Economics*, Vol. 2 (1992), Nr. 1
- Vecci, N. de: *Entrepreneurs, Institutions and Economic Change. The Economic Thought of J. A. Schumpeter (1905-1925)*. Translated by A. Stone, Aldershot 1995
- Wicksell, K.: *Ueber Wert, Kapital und Rente nach den neueren nationaloekonomischen Theorien*, Jena 1893; reprinted in *London School of Economics Series Nr. 15*, London 1933
- Id.: *Zur Lehre von der Steuerinzidenz*, Diss., Uppsala 1895; transl. as "Income Taxes and Duties", in Sandelin, B. (ed.): *Knut Wicksell. Selected essays in economics*, Vol. I., London-New York 1997 (esp. Part II, Appendix to Eugen v. Boehm-Bawerk)
- Winter, S. G.: *Schumpeterian Competition in Alternative Technological Regimes*, *Journal of Economic Behaviour and Organisation*, Vol. 5 (1984), Nr. 3-4 □