



Heterodox influences on Schumpeter

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Abstract

Purpose – Joseph Alois Schumpeter's ideas are in the discussion agenda of various economists working in different theoretical traditions. However, several aspects of his work remain unexplored. In particular, the origin of his ideas in the context of the then prevalent economic theories of the German-speaking camp, have not been widely discussed. The purpose of this paper is claim that the elaborations of certain German-speaking heterodox economists and/or schools of economic thought may be traced in Schumpeter's *oeuvre*.

Design/methodology/approach – The influence of the German Historical School and specifically of Gustav von Schmoller, Max Weber and Werner Sombart on typical Schumpeterian themes is examined. In a similar vein, it is argued that Schumpeter's analysis presents striking similarities with the works of the Austro-Marxist Economist Rudolf-Hilferding and the Austrian Social Democrat Emil Lederer.

Findings – In this context, certain Schumpeterian insights appear less original.

Originality/value – Conclusively, it may be inferred that a deeper understanding of Schumpeterian economic analysis presupposes an acquaintance with certain heterodox theoretical traditions of the German-speaking world.

Keywords Influence, Economic doctrines, Economics, Economic theory

Paper type Research paper

1. Introduction

The purpose of this paper is to analyze the influence of heterodox economists on Joseph Alois Schumpeter. More precisely, Schumpeter's affinities with certain heterodox theoreticians and/or schools of economic thought such as the German Historical School (GHS), the Austro-Marxist Rudolf Hilferding and the Austrian Social-democrat Emil Lederer, have been less widely discussed in the literature so far, despite the fact that – apart from Keynes – Schumpeter, Vienna's enfant terrible of economic theory, was probably “the only truly great economist’ of the 20th century” (Kessler, 1961, p. 334).

In this study, we claim that the flamboyant economist's views were strongly influenced by the GHS, Rudolf Hilferding and Emil Lederer. In this spirit, much of this paper is dependent on previous relevant works by the authors, such as Michaelides and Milios (2009, 2005) and Michaelides *et al.* (2009), respectively, although a considerable amount relies on other significant contributions in the literature (Haberler, 1950;



MacDonald, 1965; Swedberg, 1989; Andersen, 1991; Streissler, 1994; Chaloupek, 1995; Diebolt, 1997, 2006; Shionoya, 1997, 2005; Ebner, 2000; Hodgson, 2001, 2003; Allgoewer, 2003; Becker and Knudsen, 2002).

The paper is organised as follows: Section 2 discusses the impact of the GHS (namely of Schmoller, Max Weber and Sombart) upon Schumpeter; Section 3 investigates the influence of Rudolf Hilferding's work on the famous economist; Section 4 presents Emil Lederer's affinities with Schumpeter's research agenda; and Section 5 concludes the paper.

2. Schumpeter and the German Historical School

2.1 *Schumpeter and Schmoller*

Gustav von Schmoller, the "towering figure" of the GHS (Shionoya, 2005), led the so-called "Younger" Historical School (Schumpeter, 1954, p. 809) and was a firm supporter of extending the boundaries of economics as a science while emphasizing the need for blending the historical, ethical and institutional aspects of economic reality (Ebner, 2000, pp. 356-7). In addition, he emphasized the applied and normative aspects of economics and explicitly linked economic analysis to the formulation of policy recommendations and the design of institutions (Ebner, 2000).

The defining characteristic of Schmoller's research programme, labelled as *Schmollerprogramm* by Schumpeter (1954, Chapter 4), was its emphasis on the historical-ethical element and as such it contrasted sharply to the axiomatic approach of mainstream economics (Ebner, 2000). Underlying Schmoller's methodology was a vision of the economic process, which originated from the "Older Historical School", considering it as emerging from the interaction of the natural-technical environment and the psychological-ethical societal factors (Ebner, 2000; Shionoya, 2005).

Schmoller did not reject theory altogether, but considered that it should be preceded by historical-empirical investigations. Theoretical explanations could be formulated only after a historical analysis has been conducted (Schmoller, 1911, pp. 460-64). His belief that empirical data should constitute the starting point for every attempt at theorizing is not too far from Schumpeter's approach as it was expressed, for instance, in his *Business Cycles* where he later noted that he aimed at "filling the bloodless theoretical schemata and statistical contour lines with live fact" (Schumpeter, 1939, Vol. 1, p. 222).

Schmoller's (1911) broad view of the economic process was particularly concerned with the role of human agency and more specifically with the moral and ethical values underpinning the actions of economic actors (Ebner, 2000). In this context, Schmoller identified the role of leadership as a crucial element in the functioning of a capitalist economy and Schumpeter's stress on the role of entrepreneurs, who innovate, in contrast to the routine behaviour of the majority of people, is a specific instance of leadership in the Schmollerian sense (Ebner, 2000; Michaelides and Milios, 2005).

Consistent with his rejection of axiomatic theories, with regards to the behaviour of economic agents, Schmoller proposed a view of individual behaviour, which contrasted sharply with the neoclassical emphasis on self-interest and maximization. His alternative was to give priority to the "community" values shared by individuals and shaping their behaviour (Ebner, 2000). This approach built on the concept of *Volkswirtschaft* ("popular economy" or "national economy"). Schumpeter also acknowledged the role of "hyperindividual components" (Schumpeter, 1954, p. 812)

in influencing individual behaviour (Ebner, 2000; Shionoya, 2005). Overall, however, Schumpeter's theses are not aligned neither with the neoclassical emphasis on individual preferences nor with the Schmollerian thesis of social determination of the individual's mode of behaviour.

Despite their differences on particular issues, Schmoller and Schumpeter shared a similar interest in the historical analysis of modern capitalist societies viewing them as social formations undergoing constant evolution. In addition, they attempted to provide a richer framework for thinking about individual behaviour, compared to neoclassical economics, emphasizing the role of shared values and personality characteristics such as leadership. These concerns distinguished both economists from the standpoint characteristic of neoclassical economics.

2.2 Schumpeter and Weber

Weber (1904, 1905) published his controversial *Die Protestantische Ethik und der Geist des Kapitalismus* when Schumpeter was at the age of 22 and in the process of formulating his own theoretical system (Haberler, 1950; Smithies, 1951; Michaelides and Milios, 2005). Weber's analysis is often juxtaposed (MacDonald, 1965, p. 375) to the historical materialist interpretation of history. According to Marx, the transition to capitalism entailed the prevalence of a specifically capitalist *Geist* moulded from social regularities inherent in the capitalist mode of production (Weber, 1904, p. 27-9). Capitalist *Geist* was characterized by rationality combined with a staunch belief in the capabilities of technical progress and it proceeded to sweep away and substitute traditional beliefs and modes of behaviour (MacDonald, 1965).

On the other hand, Weber did not conceptualize capitalist development as entirely discontinuous from traditional elements. In an excerpt of his protestant ethic he described the typical life of the putter-out in the textile industry and considered his life to be comfortable and leisurely (MacDonald, 1965, p. 375). More generally, he described a form of "traditional capitalism" which, actually, reproduces:

[...] the traditional manner of life, the traditional rate of profit, the traditional amount of work, the traditional manner of regulating the relationships with labour, and the essentially traditional circle of customers and the manner of attracting new ones (Weber, 1930, p. 67).

In a similar vein, Schumpeter in his *Business Cycles* had begun his theoretical exposition by describing a stationary capitalist world, a "circular flow", where change was absent (Schumpeter, 1939, pp. 40-1). Thus, the traditional element was considered, by both theoreticians, to be essential to the understanding of the capitalist process as it provided a reference point (being an "ideal" situation) from which to examine the historical evolution of capitalism.

Of course, capitalism is marked for its dynamic character and as a result both Weber and Schumpeter had to introduce an element of change so that their theoretical analysis corresponded to empirical reality. Weber and Schumpeter resorted to human agency and in particular to the effects of entrepreneurial action which disturbs, the stationary state by introducing innovations and consequently forcing violent adjustments upon the economic system. For Weber, entrepreneurial activity consisted in setting up a factory, changing the marketing methods and introducing the principle of low prices and large turnover (Weber, 1930, p. 68). Meanwhile, as we all know, for Schumpeter (1912, p. 66) innovation may take the following forms:

The introduction of a new good [...] or a new quality of good. 2. The introduction of a new method of production [...]. 3. The opening of a new market [...]. 4. The conquest of a new source of supply [...]. 5. The carrying out of the new organisation of any industry.

The similarity of Schumpeter's analysis with Weber's is striking. Besides, they both departed from the tenets of mainstream economics, by rejecting hedonism (MacDonald, 1965, p. 380) as the sole motivating force behind entrepreneurial activity (Weber, 1930, p. 70 and Schumpeter, 1939, p. 92).

At this point, it is important to stress a difference between the two theoreticians. While for Weber, the innovator is portrayed as the "ideal type" of the Protestant, Schumpeter emphasizes his creative attitude which stands in contrast to the routine behaviour of the majority of people (MacDonald, 1965)[1]. In other words, Weber focused exclusively on the religious background while Schumpeter did not narrow down the underlying mechanism leading to entrepreneurial behaviour. In fact, it seems that he questioned the validity of Weber's emphasis on Protestantism[2]. There are, of course, other points of disagreement, for example with regards to their methodological views (Shionoya, 2005, p. 109n).

Finally, Schumpeter's dynamic analysis of credit extended considerably the Weberian notion of credit, which remains static, as in the neoclassical theory. For Schumpeter, as it is well-known, credit is the "monetary complement of innovation". Credit, in capitalist societies, performs the role of directing production to new paths as it enables the innovator to withdraw capital goods from their previous employments. Schumpeter (1912, p. 106, emphasis added) emphasized the significance of "credit means of payment created *ad hoc*, which can be backed neither by money in the strict sense nor by products already in existence".

On the other hand, Weber (1978, p. 81) conceptualized credit's function primarily as a unit of account, which extends "the possibility of monetary calculation, that is, the possibility of assigning money values to all goods and services". In other words, credit money serves as a "common denominator" in the context of the "formal rationality" of economic agents: "[w]hen the use of money is completely absent, there is a difficult problem of finding a rational basis for calculation" (Weber, 1978, p. 81). In a similar vein, he noted that:

For the mere fact of the possibility of transactions involving compensation in the future does not tell us anything about the degree of rationality with which the parties agree on the conditions, especially in the case of long-term credit (Weber, 1978, pp. 81-2).

Conclusively, credit is seen by Weber as facilitating exchanges, arranged intertemporally, by enabling agents to calculate the cost and benefits of engaging in transactions.

Conclusively, the vision of a stationary condition whence capitalist development takes place as a result of the actions of entrepreneurs/innovators is common to both theoreticians. However, Weber focused on an extra-economic motivation in order to explain the transition to capitalism. On the other hand, Schumpeter was not very clear in specifying explicitly the deeper motivations behind entrepreneurial actions but mostly considered it as a result of personality attributes and more specifically on the creative response to the external environment. With regard to the role of credit, Schumpeter extended Weber's static notion of a "common denominator" and used it to complement his dynamic analysis of innovation.

2.3 Schumpeter and Sombart

Schumpeter (1927) authored a review on Werner Sombart's third volume of *Der moderne Kapitalismus* (the first two had already appeared in 1902) which had just been published[3]. It is clear, despite the expression of some reservations, that Schumpeter considered Sombart's book as a major contribution to the understanding of the historical evolution of capitalism (Chaloupek, 1995). One year after the publication of Sombart's last volume of *Der moderne Kapitalismus*, Schumpeter published his "The instability of capitalism" (1928) whereas 15 years later, he presented his own views on capitalist transformation with his classic *Socialism, Capitalism and Democracy* (1942)[4].

Schumpeter's thesis on the inevitable march to socialism, brought about by certain tendencies of capitalist transformation, were found to be extremely thought-provoking and contributed considerably to its author's fame and recognition. More specifically, Schumpeter pinpointed the gradual eclipse of the entrepreneurial function, which was being bureaucratized and carried out routinely within giant corporations. In addition, he linked this trend with the separation of ownership and control in modern corporations (Chaloupek, 1995; Michaelides and Milios, 2005) and saw a gradual "bureaucratization of economic life" (Schumpeter, 1942, p. 206) which was becoming compatible with a socialist organization of society despite being itself the result of capitalist development.

However, when compared with Sombart's elaborations on the subject, Schumpeter's insight appears less original. Sombart, alongside Schumpeter, considered the increasing size of enterprises as a crucial transformation. At a deeper level, he interpreted the formation of large-scale corporations as leading to the *Versachlichung* (reification) or *Vergeistung* ("spiritization" or spiritual reification) of the modern enterprise (Chaloupek, 1995). More specifically, the *bourgeois* virtues are "transferred" from the individual to the enterprise, which becomes an anthropomorphic unit which seems to be possessed by a rationality of its own (Parsons, 1928, p. 651).

In this context, the spirit of enterprise gradually recedes as it takes place from trained personnel, routinely, within the large enterprises. According to Chaloupek (1995, p. 135), this is the process of *Entseelung* (de-animation) and *Vergeistung* (spiritual reification), which is a consequence of the evolution of capitalism and denotes the gradual domination of the *bourgeois* spirit (with rationality as its principal component) over the spirit of enterprise (with creativity as its principal component) (Sombart, 1927, p. 895).

There are, however, also differences between the two theoreticians. Despite their belief on a gradual transformation of the capitalist system, Sombart expected a mixed economy with increasing involvement of the state in the economy to arise, while Schumpeter saw the coming of socialism (Chaloupek, 1995, pp. 148-9). Additionally, while Schumpeter, firmly believed that capitalism is a form of social organization which fosters "progress", the later term interpreted in a positive sense, Sombart, in contrast, doubted the direct association of daily life's improvement with "progress" (Chaloupek, 1995, p. 140).

Schumpeter (1927, p. 214) himself admitted Sombart's influence[5]. Generally, it seems that given the fact that Sombart was Schumpeter's senior by 20 years while having published his major works before him, and after having found relevant textual evidence, it is fair to conclude that Sombart was an important influence on Schumpeter[6].

3. Schumpeter and Hilferding

According to Schumpeter's colleague Gottfried Haberler: "Although he [Schumpeter] became one of the most cosmopolitan of men, the experience of those early years in Vienna never really left him" (Haberler, 1951, p. ix). In Böhm-Bawerk's seminar in 1905, many prominent Marxists participated (Taylor, 1951, p. 547). However, as Bottomore (1978) and Andersen (1991) have pointed out, for Schumpeter, very important "was the encounter with [...] the leading representative of the new Austro-Marxist School: Rudolf Hilferding" (Andersen, 1991, p. 20). At that time, in 1905, Hilferding was writing his path-breaking book, *Finance Capital* (Andersen, 1991, p. 21), which was published five years later (1910) in Germany. In fact, according to Faltello and Jovanovic (1997), during the seminar meetings in 1905 Hilferding was finishing the first full draft. Schumpeter seems to have been inspired by those discussions in the seminar meetings (Andersen, 1991, p. 21). As Schumpeter's colleague Haberler pointed out, he had conceived the fundamental ideas (fully expanded in the *Theory of Economic Development*) in 1905 (Haberler, 1950, p. 341).

The hypothesis that the market structure most conducive to economic growth is not perfect competition is commonly associated with the name of Schumpeter. Schumpeter (1942, p. 81) disputed even the possibility of an era of perfect competition as "wishful thinking". Schumpeter believed that perfect competition is inefficient as regards the motivation it provides for technical change because it erodes the profits while it hinders the undertaking of risky and uncertain profits. In contrast, he considered the large monopolistic enterprises as the vehicles of technological change and growth in the capitalist system.

However, it seems that Schumpeter was deeply indebted to Hilferding for this insight. In his seminal *Finance Capital*, Hilferding (1910, p. 233) had already declared that "Cartelisation brings exceptionally large extra profits" and had pointed out that the possibility of extra profits functions as an incentive for the undertaking of risky and uncertain entrepreneurial projects, which, in turn, lead to the further empowerment of the monopolistic corporations. Hilferding considered technical progress to be associated with a cartel's or a trust's domination of the market.

Both Hilferding and Schumpeter identified a distinct phase of capitalism emerging as large monopolistic firms came to dominate. Hilferding linked this trend to the creation of finance capital, which signifies the unification of different forms of capitals (industrial, commercial and bank capital) which, according to the Austrian economist, took place under the common direction of high finance. This development denotes for Hilferding (1910, p. 301, emphasis added) "the *elimination of free competition among individual capitalists by the large monopolistic combines*". Schumpeter also emphasized the historical transition towards monopolistic enterprises, despite the fact that he did not attribute great importance to the concept of finance capital. More specifically, Schumpeter placed the transition phase towards monopolistic capitalism as starting, roughly speaking, at about 1880 (Screpanti and Zamagni, 1993, pp. 243n).

An interesting aspect of Hilferding's analysis, which seems to have provoked a response from Schumpeter's part is his interpretation of imperialism. The "new" form of capital, finance capital, was regarded by Hilferding as the thread linking capitalism's "latest" stage with imperialism (Winslow, 1931, p. 727). Finance capital constituted, for Hilferding, the ultimate form of capital and is inherently expansive in its character. The colonies were regarded as the outlets for the export of finance capital.

In this sense, finance capital was considered to be helpless without political and military support: “capital export works for an imperialistic policy” (Hilferding, 1910, p. 406) since it “does not want freedom, but domination” (Hilferding, 1910, p. 426)[7]. Consequently, Hilferding (1910, p. 326) argued that:

The policy of finance capital has three objectives: (1) to establish the largest possible territory; (2) to close this territory to foreign competition [...] and consequently; (3) to reserve it as an area of exploitation for the national monopolistic combinations.

Schumpeter’s conceptualization of imperialism stands in opposition to that of Hilferding and other Marxist approaches which postulated an association between imperialist policies and a “latest phase” of capitalism. For Schumpeter, imperialism is an obsolete policy which should not be associated with capitalism but rather with remnants from previous forms of social organisations mainly absolutist and feudal ones. While he did not predict a complete disappearance of such policies in the future, he considered that they should not be attributed to endogenous forces within the capitalist system (Schumpeter, 1951, p. 69). However, Schumpeter (1919, pp. 296-7) gave credit to Hilferding’s analysis because he was of the opinion that forces leading to imperialist policies still existed within capitalist societies.

The changing role of the entrepreneur constitutes a common theme for both economists. Hilferding linked the “latest phase” of capitalism with the clear separation of roles between the entrepreneur (i.e. the head of the firm’s managerial staff) on the one hand, and the money-capitalist on the other. For Hilferding, this distinction signified the transition towards the new form of organization of the enterprise, namely the large monopolistic corporation (in contrast to the traditional individually owned firm of the previous period).

For Schumpeter, the separation of ownership from control is at the center of his analysis of the modern corporation (Heilbroner, 1998). For both theoreticians, this feature is linked to the transition towards socialism. In the first place, Hilferding argued that the capitalist had become obsolete and the socialisation of production was becoming possible. Schumpeter’s rationale was more complex: for him the entrepreneurs represented the element of change in the process of capitalist development. In addition, the entrepreneurs constantly revitalize the capitalist class, through a process of physical selection, as the more successful among them systematically showed the propensity of becoming capitalists themselves (Schumpeter, 1912, pp. 78-9). However, the routinization of innovation and the subordination of the entrepreneurs to managers led to a gradual eclipse of the role of entrepreneur. It was this tendency, which, for Schumpeter, paved the way from trustified capitalism to socialism.

Apparently, Hilferding constitutes an important influence on Schumpeter. The emphasis on the domination of the market by large monopolistic enterprises and the “incompatibility” of such kind of organizations with technological change is common to both theoreticians. Even with regard to the issue of imperialism, where a divergence is clear, Schumpeter’s analysis seems to have been formulated as a response (being a “mirror image”) to Hilferding’s elaborations. In addition, both authors commencing from a similar theoretical point namely, the separation of roles between the capitalist and the entrepreneur in the big enterprise of “trustified capitalism”, arrived at a similar conclusion: the inevitability of socialism[8].

4. Schumpeter and Lederer

Emil Lederer was a renowned economist of the German-speaking camp whose work reflects a deep acquaintance with many different theoretical traditions (Allgoewer, 2003; Diebolt, 1997, 2006). However, his work still remains, at least partly, neglected in the literature of political economy and the history of economic thought and his contribution seems largely undermined. In this section, we set out Lederer's major views and compare them with those of Schumpeter, by focusing on economic development, technological unemployment and credit.

Emil Lederer was Schumpeter's classmate at the University of Vienna and also an active member of the famous German Socialisation Committee. Also, in 1933, Lederer had the honor of succeeding the great Werner Sombart at Humboldt University of Berlin. However, the same year he was forced by the Nazis to leave Germany, and he decided to spend the rest of his life in the USA where he co-founded in 1933 the University in Exile at The New School for Social Research in New York City. According to Schumpeter (1954, p. 884), Emil Lederer was probably "the leading academic socialist of Germany in the 1920s".

To begin with, Lederer's approach in relation to the concept of equilibrium is very close to Schumpeter's. More precisely, they both considered the static analysis as insufficient to shed light on the functioning of a capitalist economic system. Lederer (1938, p. 78) was of the opinion that the idea of economic equilibrium could be applied under a static system, but such a system would be based on assumptions that remove it from most of the problems that have to be dealt with in every day real life. However, he regarded it as a benchmark model enabling the insight into the determinants of economic change that serves as a basis for comparison (Lederer, 1938, p. 86). In a similar way, Schumpeter used the same principle in his works (e.g. in his *Business Cycles*), where static equilibrium was used to explain the mechanism, which sets the system into motion.

As it is well-known (de Vecchi, 1995), in the Schumpeterian research programme, evolution begins with the entrepreneur introducing an innovation (Schumpeter, 1935, p. 4). However, the real cause of evolution and economic development should be traced at the level of entrepreneur's motives, lying behind his decision to undertake innovation (Schumpeter, 1935, p. 10). Lederer attempted to detect the very motive of economic acts, inducing economic evolution and pointed to the "[d]ynamic psychology on the part of individual economic subjects" involving persons who are not satisfied with the beaten track. This dynamic attitude, Lederer argued, is based on the fact that "man [is] always endeavouring to better his situation" (Schumpeter, 1935, p. 86).

Just like Schumpeter (1939), in his explanation of the business cycle (Schumpeter, 1939) Lederer (1931, 1933) too emphasized the role of technical development in the economic process. He thought that technical development brings about sudden change, which cannot be absorbed in a harmonious process (Lederer, 1938, p. 89) and rejected the assumption that it could be regarded as a non-economic phenomenon involving merely a change in data, without changing the nature of economic process. He stressed that "technical progress [...] is therefore a real factor which alone could have moulded the course of modern economic development" (Lederer, 1938, p. 90).

Meanwhile, Schumpeter (1939, Vol. 2, p. 515) considered technological unemployment as a side-effect of innovative activity and noted that "cyclical unemployment is technological unemployment", where the concept of cyclical

unemployment is defined as the “total by which unemployment varies in the course of cycles”. Schumpeter never claimed that the equilibrating forces of the free market could secure the automatic re-absorption of the displaced workers. However, he regarded innovation as a disruptive force with a positive net result in the long-run[9].

Meanwhile, Lederer in his *Technical Progress and Unemployment* investigated this phenomenon in great detail by raising an objection against claims that automatic adjustment is ensured by the free-market mechanism. He was of the opinion that there is a contradiction in the contention that technical progress does not alter the demand for labour, due to increased profits which will bring about new investments and expansion of production, on the one hand, and the allegation that “labour-saving technical improvements by which workers are displaced diminish the marginal productivity of labour and thus necessitate a reduction of wages” (Lederer, 1938, p. 9) which characterized the laissez-faire school[10].

Regarding the concept of credit, both theoreticians linked its creation to economic development. As we all know, Schumpeter recognized the fact that if someone wants to function as entrepreneur, she must raise funds, and the provision of credit comes from the capitalist. In his *Theory of Economic Development* Schumpeter (1912, p. 64) regarded economic development as a “spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing”, so that the famous “new combination of means of production” and “credit” were the “fundamental phenomena of economic development” (Schumpeter, 1912, p. 74). In this spirit, for (Schumpeter (1912, p. 107), credit provided an additional purchasing power that fosters economic development: “Granting credit in this sense operates as an order on the economic system to accommodate itself to the purposes of the entrepreneur”[11].

No doubt, Lederer’s (1938, p. 230) analysis is in line with Schumpeter’s view that anyone who is in the pursuit of profit must raise funds: “Heavy demands on the credit market are therefore only likely to arise as the result of sudden prospects of large profits”. In this spirit, both thinkers considered credit as an indispensable tool for economic expansion: “fresh opportunities arise of expanding production through credit” (Lederer, 1938, p. 230)[12]. At this point it should be noted that economic expansion is financed from additional credit (or new savings) which is equal to the creation of supplementary productive capacity and not by the savings of the past: “The additional credit with the well known effect of constrained saving shall be identified with the creation of additional means of production” (Lederer, 1930, p. 514). In fact, for Lederer, additional credit is the driving force of the business cycle. “[N]o cyclical development can be explained or described without taking account of the monetary aspect, additional credit providing the fuel” (Lederer, 1936, p. 156).

Also, Lederer (1936, p. 230) just like Schumpeter focused on the discontinuous character of the need for credit arguing that in the more advanced stages of economic development “the demands for credit [...] arise spasmodically on the capital market” and emphasized the importance of innovation in raising credit since technical improvements is the main reason for credit creation by the part of the entrepreneur[13].

To conclude, we may say that there are important affinities between Schumpeter’s and Lederer’s theses on economic development and equilibrium. Both theoreticians placed innovation at the heart of their theoretical schema. Also, they both agreed on the discontinuous and destabilizing effect that the introduction of technology

has on labour. Last but not least, both economists linked, in a fine Austrian fashion, money and credit with entrepreneurial action and regarded it as a precondition for the introduction of innovations into the economic system.

5. Conclusion

There is no doubt that Joseph Alois Schumpeter made a significant contribution to comprehending the largely unstable nature of economic evolution by placing technology and innovation in the center of his schema and incorporating credit into his analysis of the economic system. In this paper, after examining the affinities of Schumpeter's work with other influential theoreticians of the German speaking camp, we came to the conclusion that Schumpeter's analyses seem to draw heavily from the works of the heterodox economists presented in this paper. Table AI (see the Appendix) compares Schumpeter with these heterodox economists and summarizes the converging points based on the previous analysis. In this context, it may be inferred that Schumpeter's *oeuvre*, shares a close affinity with certain heterodox traditions of the German-speaking literature that are less widely discussed, so far. Of course, much of this similarity could be attributed to their common socioeconomic environment and influences. Obviously, further research on the subject would be of great interest.

Notes

1. Weber (1930, p. 172) argued: "The religious valuation of restless, continuous, systematic work in a worldly calling, as the highest means to ascetism, and at the same time the surest and most evident proof of rebirth and genuine faith, must have been the most powerful conceivable lever for the expansion of that attitude toward life which we have called the spirit of capitalism. When the limitation of consumption is combined with this release of acquisitive activity, the inevitable practical result is obvious: accumulation of capital through ascetic compulsion to save. The restraints which were imposed upon the consumption of wealth naturally served to increase it by making possible the productive investment of capital".
2. Specifically, Schumpeter in his *History of Economic Analysis* argued that capitalism did not begin with the Industrial Revolution but in the fourteenth century Italy (Rothbard, 1995, p. 142).
3. At that time, Schumpeter wrote another article on the GHS, namely on *Gustav von Schmoller und die Probleme von heute*.
4. Chaloupek and Appel, respectively, emphasized the similarities of Schumpeter's analysis to Sombart's (Chaloupek, 1995, p. 129; Appel, 1992, p. 260).
5. Even more telling, especially as regards to Schumpeter's indebtedness to Sombart (and Schmoller) concerning the role of the dynamic entrepreneur in the social life is the following passage: "The work of Sombart is very valuable, however, because more than anyone else who preceded him "he saw the business man as a dynamic factor in economic life and gave that man something of an individuality" (Larson, 1948, p. 14). It is the blend of Schmoller's innovator and Sombart's reckless and acquisitive enterpriser that [...] was accepted and employed to such advantage by Joseph A. Schumpeter. Schumpeter is the great economic synthesizer of our age" (Waters, 1952, pp. 76-7).
6. Of course, other important economists and members of the Historical School, such as Schäffle (1831-1903) might have shaped Schumpeter's thought (Borchardt, 1961; Balabkins, 2003). Also, as pointed out, Goldscheid is another German speaking theoretician whose

work has influenced, among other scholars, Schumpeter's oeuvre. No doubt, other heterodox economists outside of the German speaking Camp might have as well shaped his thoughts. One can find supportive evidence, among other books, in Dempsey's little-known book entitled *Interest and Usury* originally published in 1943. Bernard W. Dempsey (1903-1960), a heterodox economist, was one of Schumpeter's graduate students at Harvard who later founded the Catholic Economic Association.

7. On the "monopolistic-imperialist stage" of capitalism, Milios (1999).
8. Schumpeter made an effort to discuss the relationship between socialism and entrepreneurship in the second German edition (1926) of the *Theory of Economic Development*.
9. "The primary long-run interest of the working class is in the effects of innovation on the total real wage bill and not in the incident variation of employment, which is but an element of the mechanism that produces the changes of the former and can be separately handled by public policy" (Schumpeter, 1939, Vol. 2, pp. 515-16).
10. Mongiovi (2005) pointed out that one of Lederer's criticisms on Keynes's General Theory was exactly Keynes's neglect of the phenomenon of technological unemployment.
11. In de Vecchi's (1995, p. 6) excellent formulation: "With credit [...] what counts in explaining economic change is the bank's method of permitting some innovation projects to be carried out, rather than others: this is creating credit *ex novo*, presented by Schumpeter as one of the distinctive features of the capitalist form of production. All other bank activities in a capitalist system (starting from the intermediary operations between saving and investment) are secondary from this point of view".
12. As a result, the only way of preventing expansion would be the absence of credit: "the introduction of a new process of production can only be held up by the absence of extra means of payment" (Lederer 1938, p. 224). See Lederer (1925, pp. 354-413).
13. "Heavy demands on the credit market are therefore only likely to arise as the result of sudden prospects of large profits, created in particular by the opening up of new markets, the manufacture of new products, and improved methods of production in the broadest sense of the term. But [...] technical progress [...] may be regarded as the main cause of the demands for credit which arise" (Lederer, 1936, p. 230).

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	Schumpeter	Schmoller	Weber	Sombart	Hilferding	Lederer
1. Interdisciplinary approach to economics	X	X	X	X		
2. Focus on institutions and organizations	X	X	X	X		
3. Emphasis on psychology, customs and culture	X	X	X	X		
4. Leadership as a source of economic change	X	X	X			
5. The economy is split to independent "Individuals"	X	–			X	
6. Crucial role of history in economic analysis	X	X	X	X	X	
7. Crucial role of theory in economic analysis	X	–				
8. Conflict between routine and innovation	X		X		X	X
9. Innovator's disturbance to the circular flow	X		X			
10. Rejection of hedonism as the motive power	X		X			
11. A Religious personality acts as the innovator	–		X			
12. The entrepreneur acts as the innovator	X		–			X
13. Crucial role of money and credit	X		–		X	X
14. Gradual decline of the entrepreneurial function	X			X		
15. Mechanization of progress	X			X		
16. March to socialism	X			–	X	
17. March to a mixed system	–			X		
18. Rejection of competition	X				X	
19. Domination of large monopolistic corporations	X			X	X	X
20. Large monopolistic formation favor technical change	X				X	
21. Imperialism as a trend of the "Latest Phase" of capitalism	–				X	
22. Separation between capitalist and entrepreneur	X		X		X	
23. The entrepreneur is a manager	–				X	
24. Use of the concept of static equilibrium	X		X			X
25. Technical change as the distinguishing characteristic	X					X
26. Introduction of technological unemployment	X					X
27. Automatic adjustment consistent with <i>laissez-faire</i>	–					X
28. Credit acts an "order" to the economic system	X				X	X
29. Credit as precondition for the introduction of innovations	X				X	X
30. Discontinuity in the need for credit	X					X
31. Existence of business cycles and fluctuations	X				X	X

Table AI.

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