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2008

20th International Conference of the European Association for Evolutionary Political Economy, University of Rome, La Sapienza, November 2008

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(A first sketch)

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September 2008

European Association for Evolutionary Political Economy, 20th Annual International Conference,
University of Rome, La Sapienza, Faculty of Economics "Federico Caffe", November 6-8, 2008

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Abstract: Emil Lederer was characterized as the "leading academic socialist of Germany in the 1920's" by Joseph Schumpeter and was a highly respected economist of his time. However, most aspects of his work remain totally unexplored. This paper focuses on Emil Lederer's theory of economic fluctuations. It defends the thesis that certain aspects of Lederer's conceptualization of economic fluctuations underwent considerable modifications when his 1925 article *Konjunktur und Krisen* is compared with his 1938 book *Technical Progress and Unemployment.* In his first attempt to tackle the issue, in *Konjunktur und Krisen* (1925), Lederer had constructed an explanation consistent with the so-called "disproportionality theory" introduced by Tugan-Baranowsky and later adopted by Hilferding and others (codified as "early Lederer"). However, Lederer's conception of the business cycle in *Technical Progress and Unemployment* underwent considerable modifications. Lederer's (1938) analysis is, apparently, very 'Schumpeterian' (codified as "late Lederer"). In this version of his theory, the cycle is explained by supply-side factors, and more specifically by technical change. Additionally, Lederer's view on the role of financial institutions (credit and banks) with regards to business cycles is analysed. Lederer avoided attributing a causative role to monetary factors. The interrelation between 'real' factors and financial institutions, combined with his consideration of psychological motives behind individual's behaviour constitute essential elements in his analysis of the business cycle.

Key words: Lederer, Schumpeter, Hilferding, Tugan-Baranowsky, economic fluctuations, credit.

JEL classifications: B15, B25, B31, B52.

1. Introduction

Emil Lederer had been characterized as the "leading academic socialist of Germany in the 1920's" (Schumpeter 1954, p. 884) and was a highly respected economist of his time. He studied law and economics at the University of Vienna. Among others, his professors were Carl Menger, Friedrich von Wieser, Eugen von Böhm-Bawerk and Eugen von Philippovich, while Ludwig von Mises, Otto Bauer, Joseph Schumpeter and Rudolf Hilferding were among his friends or classmates. He taught at the University of Heidelberg while he held lectures as guest professor at Tokyo Imperial University. Lederer was active in Social Democratic circles and in 1919, he was appointed member of the *German Socialisation Committee*, along with Hilferding and his old Vienna classmate, Joseph Schumpeter (Michaelides and Milios, 2005). In 1931 he succeeded Werner Sombart at the *German Faculty for National Economy and Financial Sciences* at Humboldt University of Berlin. However, in April 1933 the Nazis began to suspend professors on political and other grounds and Lederer was forced to immigrate[1] to Japan and then to the USA where he stayed until his death in 1939.

Lederer exemplified a type of versatile economist whose analysis reflected a rich background of diverse influences and theoretical traditions. His 1936 paper "Developments in Economic Theory" presented at the 48th Annual Meeting of the American Economic Association is a proof of his encyclopaedic knowledge of the trends in economic theory and methodology. His interests extended to other scientific disciplines as his posthumously published book *The State of the Masses* testifies[2]. As Allgoewer noted: "Lederer's work combines approaches that were at other times the subject of fierce professional debates […] Therefore it is impossible to fit Lederer into any one school of thought; he does not conform to expected patterns. In his writings he comes off as a fascinating, if idiosyncratic, thinker" (Allgoewer 2003, p. 328).

[1] For Lederer's attempt to sociologically understand the main features of war, especially World War I, see Lederer (2006).
[2] Odegard (1941, p. 203) characterized it as a "profound analysis of modern fascism".

However, Lederer's contribution remains unexplored as very few papers have been devoted to his work (Allgoewer 2003, Diebolt 2006; Michaelides *et al.* 2007; Michaelides *et al.* 2008a; Michaelides *et al. 2008b*). This paper focuses on Emil Lederer's theory of economic fluctuations. It defends the thesis that certain aspects of Lederer's conceptualization of economic fluctuations underwent considerable modifications when his 1925 article *Konjunktur und Krisen* is compared with his 1938 book *Technical Progress and Unemployment.*

In his first attempt to tackle the issue, in *Konjunktur und Krisen* (1925), Lederer had constructed an explanation consistent with the so-called "disproportionality theory" introduced by Tugan-Baranowsky and later adopted by Hilferding and others (codified as "early Lederer"). However, Lederer's conception of the business cycle in *Technical Progress and Unemployment* underwent considerable modifications. Lederer's (1938) analysis is, apparently, very 'Schumpeterian' (codified as "late Lederer"). In this version of his theory, the cycle is explained by supply-side factors, and more specifically by technical change.

Furthermore, Lederer's view on the role of financial institutions (credit and banks) as regards business cycles is analysed. Lederer avoided attributing a causative role to monetary factors. However he considered the interrelation between 'real' factors and financial institutions, as an essential element in his theory of the business cycle.

The paper is structured as follows: in section 2 Lederer's demand driven theory of the business cycle is presented ('early Lederer'); in section 3, Lederer's supply-driven theory of the business cycles is described ('late Lederer'); in section 4 an analysis of the credit mechanism especially with regards to its effect on economic fluctuations takes place; finally, section 5 summarizes and concludes the paper.

2. The Demand Side Approach (1925) [Early Lederer]

Lederer attempted to provide a theoretical explanation of the business cycle, an issue which he regarded as being of great importance: "We can say without exaggeration that the bulk of modern theory is business-cycle theory" (Lederer 1936, p. 157). Lederer's vision of business cycles, as an endogenous phenomenon inseparably linked with the growth process of a capitalist society, remains unchanged in all his works. However, Lederer's conceptualization of business cycles underwent modifications in certain aspects and when his 1925 article *Konjunktur und Krisen* is compared to his 1938 book *Technical Progress and Unemployment* the differences are discernible as we are about to analyze below.[3]

In his first attempt, in *Konjunktur und Krisen* (1925), Lederer had constructed an explanation consistent with the so–called "disproportionality theory" introduced by Tugan–Baranowsky and later adopted by Hilferding, Bucharin and others. Lederer argued that: "Almost all the cycle theories agree about the nature of these disturbances-they are disproportionalities" (*ibid*, p. 156).[4]

According to Lederer, in order to understand the business cycle, a clarification of the interconnection between the processes of production and distribution is needed. In this respect, it is necessary to distinguish between different social groups according to the sources of their income. Lederer deems it necessary to extend the Marxian dipole class division between workers and capitalists. More specifically, he uses the distinction between a productive and an unproductive sector

[3] Additionally, Lederer's vision of the role of the state in alleviating the impact of economic fluctuations underwent a change after his emigration in the United States: "[Lederer] adopted a less pessimistic view of the ability of market mechanisms to compensate for the labor displacement effects of technological change; and he moved away from his earlier insistence on the need for comprehensive economic planning, advocating instead a greater reliance on traditional policy interventions such as deficit spending and public works. His change of stance on these matters no doubt reflected an increased concern about the State's potential to abuse its power" (Mongiovi 2005, p. 431). See also Allgoewer (2003, p. 337).

[4] Disproportional developments in the producer and consumer goods sectors in the course of the business cycle constitute a common point between Lederer's 1925 analysis and Schumpeter's work on business cycles (Allgoewer 2003, p. 333). While Schumpeter acknowledged the importance of disproportionality ("[T]his idea […] is moreover easy to substantiate from certain very obvious facts" [Schumpeter 1954, p. 1133]) he avoided attributing a causative role to it. He stressed the importance of looking for "the definite factors that are to account for it" and concluded that "those factors and not disproportionality per se will individuate an author's theory" (*ibid*, p. 1133).

with the later obtaining income through taxes and interest payments. The productive sector is subdivided between the industrial and the agricultural sector. As a result, his social groups include capitalists and workers, in the industrial sector, along with farmers and agricultural workers. In addition, he considers the group of public employees whose income is derived from the taxes paid by the productive sector. Finally, rentiers also receive their income as transfers from the productive sectors in the form of rent. The incomes of the "unproductive" social groups (public employees and rentiers) are less volatile compared to profits and wages and this is a crucial aspect of Lederer's business cycle theory.

In Lederer's analysis, the boom period starts due to an increase in effective demand, which is attributed to the social groups with fixed incomes (i.e. public employees and rentiers). Credit creation follows as an essential component of the booming period. This phase is characterized by an increase in prices although this increase is disproportional in the various sectors of the economy: prices in the producer's goods sector will typically raise more compared to consumer's goods. In addition, the increase in wages will be also at lower rates compared to those of prices thus the real wages will decrease. The slower rate of increase in wages is the explanation for the existence of *extra profits* during this phase of the cycle. A redistribution of income will take place from wage-earners to capitalists. The composition of demand will as a result, contain a greater part of demand for investment goods than demand for consumer goods (on the assumption that profits are invested and wages are spent on consumption). The general trend will therefore be of a disproportional growth rate between the sectors of producer goods and consumer goods. This discrepancy will be revealed at the turning point of the cycle when it will become clear that the growth which took place in the producer goods sector is not matched by a corresponding growth in the demand for final goods.

The insufficiency of demand, which signals the initiation of the depression phase, will be felt, according to Lederer, most probably in heavy industries[5]. However, it will spread through the

[5] Lederer mentioned the decrease in employment as the most reliable leading indicator for a phase change in the economic cycle. More specifically, a deceleration of demand, either in the capital or the consumer's goods sector, will inevitably lead to dismissal of workers.

whole of the economy and decreases in prices and profits will be observed. Wages will fall at a slower rate than prices and the explanation offered is that the contracts which determine them are less prone to change than prices. The redistribution of income will be reversed compared to the prosperity period. The real wages will rise in parallel with the increase in purchasing power of the fixed income group. The later social category is again considered to play a pivotal role in the revival of the economy. The relative stability of their incomes is a decisive factor in restoring the levels of effective demand and initiating a new prosperity period.

Haberler (1937) regarded Lederer as an underconsumptionist due to the latter's focus on demand insufficiency at the end of the booming phase[6]. More specifically, he classified Lederer's theory, as presented in *Konjunktur und Krisen,* as an over-investment version of under-consumption theories. Over-investment refers to forced savings due to excessive profits of the entrepreneurs: "This profit-inflation can and must arise because wages and certain other incomes fail to advance in harmony with rising prices" (Haberler 1937, p. 137). Allgoewer, on the other hand, stressed the differences between Lederer and typical underconsumptionist theories. In the first place, Lederer, unlike underconsumptionists, "considers the crisis as necessary to bring about the adjustments in the production sphere" (Allgoewer 2003, p. 342). Furthermore, she noted that for Lederer, "savings are desirable as they allow accumulation and growth, a classical concern separating Lederer from underconsumptionists" (*ibid*, p. 342).

In Lederer's early explanation of the business cycle, it is not very clear what the ultimate cause of the boom period is. Allgoewer (2003, p. 331) described Lederer's vision of the business cycle as demand-driven and assigned the leading role to classes with fixed incomes, the purchasing power of which increases during the crisis phase. Meanwhile, Allgoewer regarded credit as an essential precondition but not as the ultimate cause of the cycle. In a similar vein, Kuznets classified Lederer

[6] Certain passages in Lederer's work are of an underconsumptionist character. In his 1934 article on technology he wrote: "The question of equitable distribution of the social product is a difficult one because of the antinomy in capitalist production whereby wages not only figure as costs of production but are at the same time also a source of purchasing power. Whereas the lowering of wages up to a certain level is often a necessary condition for the realization of profits, it may likewise involve a danger for profits" (Lederer 1934, p. 554).

in the group of theoreticians who stress the comparative stability of wages as compared to the movement of prices of commodities. Such wage "stickiness" leads to a demand-driven revival phase succeeding a depression (Kuznets 1930, p. 312)[7].On the other hand, Moszkowska (1935), classified Lederer's analysis as a credit theory of the cycle. These conflicting views probably reflect Lederer's ambiguity on the issue (Moszkowska 1935, p. 69).[8]

3 The Supply Side Approach (1938) [Late Lederer]

Lederer's analysis of the business cycle in his *Technical Progress and Unemployment* (1938) was differentiated from that of his 1925 work. His conception of the business cycle in 1938 is, apparently, very 'Schumpeterian'. The initiation of a boom is explained by supply-side factors, and more specifically by technical change. Technical change is decomposed into two types, which have entirely different effects, namely 'rationalization' and 'inventions'.

The term 'inventions' was used by Lederer to describe "technical innovations as led to the production of goods which enlarge the scale of needs" (Lederer 1938, p. 7) and create "hitherto unknown 'genuine' or 'social' needs" (Lederer 1938, p. 24). The new firms, which adopt inventions compel 'old' firms to react to the new situation or become obsolete: "most of these commodities have a double character: they lead on the one hand to the realization of new necessities and lead so far to an expansion of the total production, but in most cases they compete with other branches of production too" (Lederer 1938, p.23). The introduction of inventions leads to a general expansion of the economic system: "inventions lead to an expansion of the whole system of production and a parallel increase in the total purchasing power of the community, through the creation of money or a rise in the velocity of circulation. These effects cannot be regarded as disturbances but must be

[7] Haberler's (1937) presentation of Lederer's views is consistent, in general terms, with Kuznets.
[8] According to Diebolt (2006, p. 4) the deeper roots of Lederer's views could be traced even to Malthus (1836) and Sismondi (1827).

recognized as one of the fundamental forms of the growth of the industrial system" (Lederer 1938, p. 135). Lederer's analysis of the booming period after the introduction of inventions does not mention the possibility of a depression phase following it.

Rationalization is the second type of technological change responsible for the appearance of fluctuations. In Lederer's work it is a general concept covering every cost-saving process (either capital-saving or labor-saving) related to increased efficiency in organization[9]. In contrast to the application of inventions, rationalization and especially labor-saving technical improvements do not ensure unhindered growth and can have serious social repercussions. The boom period signaled by the application of technical progress "creates a new initial situation enabling employment capacity to be enlarged by a fresh combination of capital and labor, which can be financed by recourse to extra short and long-term credit" (Lederer 1938, pp. 233-4).

As we have already noted, for Lederer credit expansion was a necessary complement to the new undertakings in a way analogous to the Schumpeterian description of the process. He even stressed the importance of credit creation in explaining business cycles by emphatically arguing that: "The discussions of the last fifteen years, however, have led to the general conviction that no cyclical development can be explained or described without taking account of the monetary aspect, additional credit providing the fuel without which any dynamic power would spend itself very quickly" (Lederer 1936, p. 156).

However, when the initial wave of expansion, caused by rationalization, new investments and credit creation, has subsided, and firms are forced to repay the loans from their profits, depression will set in, resulting in unemployment: "the decline in employment in the mechanized industries, which was concealed by the general increase in employment and activity while the boom lasted, will begin to make itself generally felt" (Lederer 1938, p. 244). His analysis is mainly focused

[9] De Vecchi (1995, pp. 164-165) commented very briefly on Lederer's and Schumpeter's views with respect to the concept of 'rationalization of life'.

on the prospects of re-absorption of the displaced workers that rationalization has produced and so he does not provide a detailed theoretical description of the depression phase.

Regarding the prospects of a revival that are reinforced through the course of the depression phase, Lederer explicitly mentioned the possibilities of a new phase of expansion that are created during phases of depression in the monetary sphere: "Every depression […] will, owing to the severe shrinkage of production, renew the possibilities of monetary expansion; the total circulation of money diminishes, the velocity of circulation is retarded, and reserves increase. This means that side by side with the displacement of the factors of capital and labour from production, fresh opportunities arise of expanding production through credit" (*ibid*, p. 227).

Despite Lederer's lack of a theoretical exposition of the business cycle phases and effects, he shared common insights with Schumpeter. One theme they have in common was the role that unsound credit plays in the causation of a depression phase. Lederer warned that there are dangers inherent in the process of credit expansion which takes place in the prosperity phase. As was already mentioned, the function of credit expansion is the financing of new investments especially during boom periods. The initial credit expansion will be spent on working capital but in the long-run the need will arise for additional fixed capital. This need will manifest itself first of all as increasing demand for working capital in the capital goods industries and later on as an investment demand both in the consumption goods and in the capital good industries. The danger inherent in this sequence of events was, according to Lederer, the inability to consolidate the provoked credit expansion from the savings (profits): "It is true that every expansion of production implies a possible increase in the volume of savings, but dangerous stresses may arise if the reserves of idle savings are small and if business credit is expanded to an extent exceeding the rise in savings which may be expected as a result of the boom, an eventuality which is all too probable, because modern systems of payments permit of a rapid increase in the supply of money and therefore in business credits" (*ibid*, pp. 230-1).

The process described here parallels with the phase of depression in Schumpeter's schema which is characterized by unsound credit and ill-founded undertakings (Schumpeter 1928). Both writers attributed this state to the uncertainty which prevails during booms and may lead to erroneous expectations. Another obvious similarity exists in the abstract model that both Lederer and Schumpeter used to describe the onset of the boom period. They both conceptualized a stationary economy without savings and unused reserves. As it has been mentioned, the impulse which sets the system in motion is the application of innovations. Both writers in their exposition of their respective model made the simplifying assumption that these innovations will be implemented by the setting up of new enterprises and the building of new plants. The new enterprises demand the creation of new credit in order to finance their plans. Due to the assumptions concerning the initial state, the materialization of their business plans forces them to exercise a demand for producer's goods and labor force. Prices of producer's goods and wages rise up (wages will rise at a slower rate) and a shift of demand from consumer's to producer's goods will be observed leading simultaneously to an increase in the price of consumer's goods (Dielbolt 2006, p. 10). Differential profits will be earned in the course of the prosperity period (Schumpeter 1939, Vol. 1, pp.130-8; Lederer 1938, pp. 236-8).

4. The Role of Financial Institutions

Lederer laid emphasis to the role of financial institutions (credit and banks) in both of his theoretical approaches to business cycle, and throughout the whole body of his work. In his *Technical Progress and Unemployment* (1938) he emphasized that "it would be wrong to disregard the effect of monetary phenomena through which the real factors act upon the economic process" (Lederer 1938, p. 220).

Lederer discerned two forms of credit. First, there is the "static" view which regards credit simply as a transfer of savings. However, there exists a second and more dynamic conception of credit taking into account the possibility of "additional credit" (in German *zusätzliche Kredit*) defined as credit not backed by existing means of payment. Lederer considered the latter as a distinguishing feature of modern financial institutions.

Initially, Lederer analyzed the static view and argued that credit mechanism functions in a twofold manner. In the first place, it provides an argument in favor of Say's law by enabling savings to be utilized effectively in the production process. Seen from this angle, credit tends to facilitate the equalization of supply and demand and, thus, it performs a stabilizing role. This conceptualization of credit is, roughly speaking, consistent with the mainstream view of the credit mechanism as improving efficiency and economic welfare.

However, Lederer acknowledged that credit, even in its static form, could act, under certain circumstances, as a factor of instability. More specifically, credit may favor the disproportional growth of the capital and consumer goods sectors which constitutes, as was analyzed earlier, the business cycle explanation of the "early Lederer". Excessive growth of the capital goods sector is caused by the investment of excess savings and subsequently a discrepancy between production and consumption arises. Conclusively, credit market makes saving an economically sensible option and thus it tends to favor relatively higher growth of the capital goods sector compared to the consumption goods sector.

The static conception of credit overlooks the possibilities offered in modern financial institutions to create new means of payment by granting "additional credit". Lederer attributed great importance to the later form of credit where new means of payment are created *ex novo*. In analogy with the static form of credit, Lederer discerned a twofold role for additional credit. Its first function is to enable innovative undertakings which hold promise for high profitability. Once again, in a 'Schumpeterian' spirit, Lederer regarded credit, in this sense, as the selection mechanism of a capitalist economy which directs the means of production towards their higher value-producing uses[10]. Thus, additional credit is, according to Lederer, an indispensable device for growth: "The

[10] The following excerpt is typical: "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

extra purchasing power will go to form the incomes corresponding to the services rendered by the extra workers, and to provide the interest and amortization on the new capital invested in the previous year. […] The whole process, which implies a permanent expansion of annual production from year to year, can only develop without raising the value of money if there is a simultaneous and corresponding increase in the money supply" (Lederer 1938, p. 229).

Nevertheless, additional credit is also a source of instability as the expectations of profitability for the funded enterprises may be ill-founded. The direction of additional credit towards certain industries which hold promise for high profitability entails also a risk and creates the possibility of a devastating crisis if these expectations are not realized: "Of the credits granted during the preceding boom period, special attention is due to those which would not have been granted without an expansion of credit. These are the credits granted to the least profitable undertakings will be the first to collapse […]" (Lederer 1933, p. 20). Lederer argued that the market structure of the financial sector is crucial for the degree of instability caused by additional dcredit. Specifically, he considered that a more concentrated banking sector would be able to accurately evaluate the funding proposals and lead subsequently to a "right", capitalistically, distribution of additional credit.

Lederer believed that the form of additional credit dominated boom periods. Only additional credit is a sufficiently quick transmission channel through which firms are able to respond to increasing demand with an expansion of production. In contrast, credit originating from savings and realized profits lags behind the immediate needs of firms for new means of payment.

Apparently, Lederer gave emphasis on the instability of financial institutions with regards to the emergence of crises. Instability is caused by the extension of the means of payment and more specifically the granting of additional credit to enterprises whose profitability cannot be accurately predicted beforehand. In his *Konjunktur und Krisen*, he noted that the absence of institutions delegated to supervise the functioning of financial markets may lead to devastating crises. This could be the

manufacture of new products, and improved methods of production in the broadest sense of the term" (Lederer 1938, p. 230) case, for example, if big credit institutions connect their fate too much to a certain group of enterprises and therefore lack sufficient risk compensation in their debtors.

Lederer noticed, in his 1925 article, a tendency of the banking system for concentration which echoed the corresponding tendency of the industrial system to cartelization. He considered such a development to be positive in the sense that it ensured greater stability of the economic system and a decreased volatility of business cycles. Lederer assumed that concentration of the banking sector would enhance the reliability of credit granting decisions and additional credit would ideally function as a selection mechanism. However, Lederer, noted, in 1927, that regulation through credit policy would probably be insufficient in the context of a highly monopolistic industry as monopolistic firms rely on internal financing and can therefore circumvent credit markets (Allgoewer 2003, p. 336).

5. Conclusion

This paper presented Lederer's contribution to the business cycle theory. It seems that Lederer ascribed to two distinct theories of the cycle. In his first attempt, in *Konjunktur und Krisen* (1925), economic fluctuations are demand-driven and his theoretical analysis seems influenced from the so-called disproportionality theories such as the ones formulated by Tugan-Baranowsky, Hilferding and others. Moreover, in one of his last works, *Technical Progress and Unemployment* (1938), the explanation of the cycle is sought in supply-side factors and more specifically, in a purely 'Schumpeterian' spirit, in technical change which cannot be absorbed immediately by the economic system (see also Michaelides and Milios 2008). Furthermore, Lederer's views regarding the function of credit and the banking system were analysed. In addition to the mainstream view of credit as a transfer of savings, he conceptualized credit in a more dynamic and 'Schumpeterian' way as the creation of new means of payment (see further Michaelides and Milios, 2005). The credit mechanism in his view constitutes an essential element of a modern capitalist economy and its effect is both increased efficiency but also infusion of instability into the economic system. Finally, Lederer placed emphasis on the role of the banking system in ensuring the granting of additional credit into profitable enterprises.

Despite the differences in Lederer's respective analyses, some central aspects of his vision remain unchanged. Lederer regarded economic fluctuations as an endogenous phenomenon, inseparably linked with the growth process of a capitalist economy. In addition, he did not consider a dichotomy of the real and the monetary economy but placed emphasis on their interconnection. Lastly, his emphasis on the credit and its two-fold function as an efficiency-enhancing institution but also as a destabilizing factor remained unchanged. However, an interesting question for future research would be to investigate the reasons for Lederer's shifting attitude towards business cycle fluctuations.

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