

The Relevance of Post-Keynesian Economics

Giancarlo Bertocco*, Andrea Kalajzić**

*University of Insubria, Department of Economics

**University of Insubria, Department of Economics

A review essay on G.C. Harcourt, Peter Kriesler (eds.), *The Oxford Handbook of Post-Keynesian Economics*, Oxford University Press, 2013, volume 1, *Theory and Origins*, pp. xii-623, volume 2, *Critiques and Methodology*, pp. x-516.

The handbook edited by G.C. Harcourt and Peter Kriesler aims to “cover all the approaches and issues under the broad rubric of post-Keynesianism” (vol. 1, p. 1). The realization of this work involved thirty-one authors who produced forty-six chapters collected in two volumes. This essay will not present and comment on all the forty-six chapters of the handbook, as this has already been done masterfully by the two editors in the introduction to the two volumes. The purpose of this paper is to share some thoughts, stimulated by the reading of this handbook, concerning five key aspects of post-Keynesian economics: i) the central role of Keynes; ii) the influence of Marx, Schumpeter, Sraffa, and Kalecki; iii) the developments elaborated by post-Keynesian economists; iv) the criticism of the neoclassical theory; v) the relationship between post-Keynesian economics and the contemporary crisis.

1. The central role of Keynes

All the essays in the two volumes stress the fundamental importance of Keynes’s theory, whose content was completely distorted in the interpretation that was disseminated in the 1950’s and 60’s, which became known as the ‘Neoclassical Synthesis’. The three chapters written by Jan Kregel, Paul Davidson, and Edward Nell describe the origins of post-Keynesian economics, specifying three basic elements of Keynes’s theory: i) the non-neutrality of money; ii) the relevance of uncertainty; iii) the principle of effective demand.

The core element of the post-Keynesian monetary theory consists in the endogenous money theory, which is characterized by the explicit consideration of the process of bank money creation through bank lending. The three essays authored by Randall Wray, Victoria Chick and Sheila Dow, and Giuseppe Fontana present different versions of the

theory of the endogeneity of money, showing that the explicit specification of the process of bank money creation does not nullify Keynes's liquidity preference theory.

The essential role of the dimension of uncertainty is emphasized in the four essays by Thomas Boylan and Paschal O'Gorman, Sheila Dow, Gay Meeks, and Rod O'Donnell, who underline the importance of Chapter 12 of the *General Theory*.¹ These chapters of the handbook focus on the analysis of investment decisions that entrepreneurs make under conditions of uncertainty. Gay Meeks debates whether there are grounds to contend, as George Shackle has done, that the central message of the *General Theory* is that "investment is an *irrational* activity or a non-rational one" (vol. 2, p. 104). Meeks concludes his detailed analysis of Keynes's thought by stating that "I had been excited to detect in Keynes, that our means of reaching decisions is as good as possible *given* the context of uncertainty, with presence of non rational or irrational elements not eliminating rationality" (vol. 2, p. 108)..

In Chapter 12 of the *General Theory*, Keynes describes the behavior of a second group of economic agents who act under conditions of uncertainty: the speculators. The Keynesian analysis of the phenomenon of speculation identifies two elements that define the kind of rationality that may reveal itself in markets characterized by the presence of uncertainty. The first element is the distinction between ignorant speculators, who trade corporate shares "and have no special knowledge of the circumstances, either actual or perspective, of the business in question" (Keynes 1936, p. 153) and professional speculators "possessing judgment and knowledge beyond that of the average private investor" (Keynes 1936, p. 154). This classification, which distinguishes two groups of people making choices based on different kinds of rationality, makes no sense in the traditional markets, in which the dimension of uncertainty is completely absent. In the world described by Adam Smith, no ignorant butchers, bakers or brewers, that is, people incapable of doing their job, could survive. Not even the presence of asymmetric information can justify the structural presence of ignorant subjects. In the famous used car market depicted by George Akerlof (1970),

¹ A different review of Chapter 12 is given by Richard Kahn, whose words are quoted in the essay written by Vela Velupillai "Chapter 12 was apparently written less carefully and in a more light-hearted spirit than most of the *General Theory*. It was not subjected to the scrutiny of the group of younger colleagues assembled by Keynes to help him" (vol. 1, p. 419)..

information asymmetries between buyers and sellers favor the emergence of specific players, such as mechanics, specialized in assessing the quality of used cars. Within this market it is impossible to introduce the distinction between professional mechanics and ignorant mechanics who are unable to assess the quality of used cars, because ignorant mechanics would soon disappear from the market.

The second element emerging from the Keynesian analysis of speculation, consistent with the first, is the conclusion that it is not at all obvious that the market is driven by the choices of professional speculators. In fact, Keynes points out that the choices of ignorant speculators, which are influenced by “factors which do not really make much difference to the prospective yield” (Keynes 1936, p. 154), could prevail, since professional speculators may consider it more profitable to forecast “the psychology of the market” (Keynes 1936, p. 158) than to base their choices on their knowledge of the real conditions of an enterprise.

2. The influence of Marx, Sraffa, Kalecki (and Schumpeter)

Claudio Sardonì's chapter analyzes the relationship between Marx and post-Keynesian economics recalling that Keynes uses the sequence Money (M) → Commodity (C) → Money (M) introduced by Marx, in order to emphasize the fundamental role of money and of the dimension of uncertainty in a monetary economy.

The three chapters written by Heinz Kurtz, Richard Arena and Stephanie Blankenburg, and Ajit Sinha, focus on the relationship between Sraffa and the post-Keynesians. In their introduction, Harcourt and Kriesler underline that: “the inclusion of [Sraffa's contributions] as a part of the core of post-Keynesian economics is not a universal view” (Vol. 1, p. 4). Kurtz recalls Sraffa's doubts about the relevance and effectiveness of Keynes's criticism of the mainstream theory “Sraffa [...] was critical of [Keynes's] explanation of why liquidity preference was to prevent the money rate of interest from falling sufficiently not only in the short period, but also in the long. [...] Keynes's liquidity preference theory - which Sraffa called ‘Keynes's system’ - could not bear the brunt of the explanation of a downward rigidity of the interest rate” (vol. 1, pp. 67-68).

As shown in the two essays by Robert Dixon and Jan Toporowski, and Philip Arestis and Malcolm Sawyer, Kalecki's contribution to the post-Keynesian theory covers the

following points: i) the theory of prices based on the production costs; ii) the theory of income distribution that demonstrates how profits depend on the investment decisions made by entrepreneurs; iii) the political aspects of full employment. With regard to the latter argument, Kalecki emphasizes that the availability of effective policy tools is not a sufficient condition to ensure full employment of the labor force. He observes that the industrial leaders may oppose government spending because of their fears about the social and political changes that might occur once full employment is achieved.

Besides Sraffa and Kalecki, there is another economist who worked independently from Keynes in the first half of the twentieth century and represents an important reference for post-Keynesian economists: Joseph Schumpeter. Several authors emphasize Schumpeter's influence. Vela Velupillai, for example, citing his maestro Richard Goodwin, states that "there is no incongruity or inconsistency in harnessing Schumpeter for post-Keynesian purposes" (vol. 1, p. 417). In *A 'Second Edition' of the General Theory*, edited by G.C. Harcourt and P.A. Riach (1997), a chapter written by Alessandro Vercelli was devoted to analyzing the relationship between Keynes and Schumpeter. In this handbook, however, no chapter is dedicated to Schumpeter.

In Schumpeter's theory two elements can be identified that allow to overcome Sraffa's doubts about the strength of the criticism of neoclassical economics contained in 'Keynes's system'. The first concerns the role that Schumpeter attributes to bank money, while the second is the importance that he assigns to the innovations introduced by entrepreneurs. Schumpeter considers bank money as an essential element of capitalism.² This point is consistent with the importance attributed by post-Keynesians to the theory of the endogeneity of money. Post-Keynesians tend to believe that the mere presence of a banking system capable of providing credit through the creation of new money allows to neglect the causal link between saving and investment decisions, and thus to demonstrate the inconsistency of Say's Law.³

² "Capitalism will be defined by three features of industrial society: private ownership of the physical means of production; private profits and private responsibility for losses; and by the creation of means of payments – banknotes or deposits – by private banks. The first two features suffice to define private enterprise. But no concept of capitalism can be satisfactory without including the set of typically capitalistic phenomena covered by the third." (Schumpeter 1943, p. 179).

³ Marc Lavoie, for example, emphasizes that "post-Keynesians argue that investment is not constrained by current saving or loanable funds, but that instead investment determines saving. [...] This reversed

Nevertheless, the existence of a banking system capable of providing credit through the creation of money is not sufficient to elaborate a solid critique of Say's Law. In fact, the mainstream theory has embraced the teachings of Knut Wicksell, who, on the one hand, recognizes that banks create money and control the price of money by fixing the monetary rate of interest, but on the other hand, continues to base his analysis on the existence of a natural rate of interest. This way, Wicksell shows that the use of bank money does not change the underlying structure of the economic system, which essentially remains that of a barter economy, in which capital goods are exchanged in kind without using money.

Schumpeter, instead, provides an effective explanation of the reasons for the non-neutrality of money that can be illustrated by referring to the notion of innovation. The Schumpeterian concept of innovation is very useful to illustrate the relationship between investment decisions and uncertainty that characterizes the Keynesian theory. Keynes (1937) points out that the dimension of uncertainty becomes relevant in an economy in which investments account for a significant share of the social product. Furthermore, the examples of investments he quotes in Chapter 12 of the *General Theory* reflect the innovations described by Schumpeter. Similarly to the Keynesian entrepreneur, the Schumpeterian entrepreneur-innovator is also driven by his *animal spirits*.⁴

Paul Davidson (2007) emphasizes the link between Keynes and Schumpeter by using the concept of 'crucial decisions'. In particular, he introduces the distinction between ergodic and non-ergodic systems "If entrepreneurs have any important function in the real world, it is to make crucial decisions. Entrepreneurship [...] involves cruciality. To restrict entrepreneurship to robot decision making through ergodic calculations in an ergodic stochastic world [...] ignores the role of the Schumpeterian entrepreneur - the creator of technological revolutions that bring about future changes that are often inconceivable even to the innovative entrepreneur" (Davidson 2007, p. 112).

macroeconomic causality is evidently closely related to the monetized production economy, where banks can grant loans without disposing of previously acquired deposits" (vol. 1, p. 205).

⁴ Schumpeter (1912) describes the behavior of the entrepreneur-innovator in similar terms to those used by Keynes a few years later, when he introduced the concept of *animal spirits*.

Schumpeter remarks that usually innovations are not implemented by existing businesses, but by ‘new men’ who possess special skills, other than those necessary to conduct an already existing business. Being ‘new men’, entrepreneurs do not have control over productive factors, which basically correspond to the work needed to implement innovations. They will develop innovative projects only if they manage to obtain control over productive factors already employed by the existing businesses. According to Schumpeter, bank money is the instrument that allows entrepreneurs-innovators to hire the necessary workforce. In fact, by creating money, banks allow for events that otherwise would not have occurred, because it is impossible to imagine a direct exchange of labor between existing businesses and new entrepreneurs.

The relationship between bank money, innovations and uncertainty that characterizes Schumpeter’s theoretical approach makes it possible to elaborate an explanation of the principle of effective demand that is more effective than that based on the liquidity preference theory. This theory explains the reasons why the rate of interest “does not automatically fall to the appropriate level” (Keynes 1936, p. 31) and it “may fluctuate for decades around a level which is chronically too high for full employment” (Keynes 1936, p. 204). Sraffa, as noted by Heinz Kurz, had many doubts about the possibility of developing a solid critique of the mainstream theory based on the liquidity preference theory. In fact, by presenting the latter theory, Keynes implicitly assumes that there is indeed an ‘appropriate’ level of the rate of interest that would allow to achieve full employment.

This hypothesis is perfectly suited to a world in which Say’s Law holds true, that is, a world in which production decisions determine the level of income, and in which unconsumed resources are offered in kind to businesses that will use them to implement their investment projects. In such an economy, there is always a positive value of the interest rate ensuring that all saved resources will be invested. However, this condition does not apply when the relationship between bank money, investment decisions, innovations and uncertainty defined on the basis of Keynes’s and Schumpeter’s lessons is considered.

In a monetary economy, achieving an investment flow that allows for full employment of the available workforce depends on two conditions: i) the presence of a sufficiently large number of entrepreneur-innovators who, guided by their *animal*

spirits, are willing to realize exactly that investment flow; ii) the willingness of banks to finance the investment projects submitted by the entrepreneurs-innovators. Fulfilling these conditions does not depend on the achievement of a specific level of the rate of interest. In other words, even a rate of interest equal to zero may not be sufficient to reach a full employment condition.

In a monetary economy, the rate of interest is a monetary phenomenon determined by the banking system that can take any value greater than or equal to zero. Nevertheless, in this kind of economy, also an interest rate equal to zero may not be sufficient to ensure full employment. In fact, given the level of the rate of interest set by the banking system, the flow of investments depends on the *animal spirits* of entrepreneurs willing to carry out innovative projects. Should no such entrepreneur exist, there would be unemployment even if the rate of interest is equal to zero.

It should also be added that, given the level of the rate of interest set by the banking system, the presence of entrepreneurs-innovators willing to create a flow of investments that would enable full employment is not a sufficient condition for achieving full employment. Reaching this goal depends on the existence of banks willing to finance the projects of the entrepreneurs-innovators, but nothing ensures that the banks will be willing to finance the entrepreneurs' plans, since in a monetary economy they are not mere intermediaries lending out resources previously collected (in kind) from savers. Banks, instead, finance investments by creating new money and, like the entrepreneurs-innovators, they must take decisions in conditions of uncertainty. Thus, their evaluations of investment projects could sharply differ from those formulated by the entrepreneurs. For example, they may consider an entrepreneur who plans to build a railway as an eccentric or visionary individual, whose investment project has no chance of success. In this case, the innovative investments would not be realized and the system would not reach full employment of the available workforce.

Moreover, the analysis of Schumpeter provides significant arguments to explain the importance of another element of the Keynesian theoretical approach, i.e. the phenomenon of speculation. Keynes replaces the causal relationship between savings and investments that characterizes the classical theory with the relationship between saving decisions and the accumulation of wealth: "the act of saving implies [...] a desire for 'wealth' as such, that is for a potentiality of consuming an unspecified article at an

unspecified time” (Keynes1936, p. 211). Keynes points out that saving implies the accumulation of money, and, in general, the accumulation of wealth. A saver is a wealth-owner and, according to Keynes, he becomes a speculator who has to choose the composition of his wealth.

The relationship between wealth and saving decisions is consistent with the sequence Money (M) → Commodity (C) → Money (M) used by Keynes to emphasize that the final goal of an entrepreneur is not to produce goods, but to accumulate money. The production of goods is rather the tool that allows an entrepreneur to obtain an amount of money greater than that used to finance the initial investment. This relationship separates a *monetary economy* from a *real-exchange economy*, which instead is reflected by the sequence Commodity (C) → Money (M) → Commodity (C). In other words, in a *real-exchange economy* the production of goods is a necessary condition to obtain other goods, while money represents a mere medium of exchange.

When comparing the structures of these two economic systems, it is necessary to clarify the reasons why the aim of accumulating money and the relationship between wealth and saving decisions are important only in the context of a *monetary economy* and not in a *real-exchange economy* described in the neoclassical tradition. Schumpeter’s analysis highlights that the economy described by the sequence C → M → C is a static system made of self-producers, such as the bakers, butchers and brewers of Adam Smith’s world, in which only a few, unchanging goods are produced over time. In this economy, what matters is the principle of satiety of needs, while the process of wealth accumulation is irrelevant. In fact, it is unrealistic to assume that a farmer wants to accumulate an unlimited amount of corn, or that an artisan wishes to amass an endless amount of hand-made tables.

However, the process of wealth accumulation becomes relevant within an economic system where the principle of insatiability of needs is valid, that is, in an economy where individuals have unlimited needs, and resources are, by definition, scarce. In a monetary economy, the presence of individuals who accumulate wealth because their resources are scarce compared to a set of unlimited needs, can be explained through the concept of innovation. This concept allows Schumpeter to emphasize that businesses cannot be considered simple tools that meet a given set of needs, as established by the principle of consumer sovereignty. On the contrary, the introduction of innovations by

businesses constantly changes the consumption patterns of households and expands the size of the needs to be met.⁵ Thus, the continuous introduction of innovations leads households to accumulate purchasing power, as they do not know the quality or the quantity of goods they will desire in the future.

3. The developments that followed the publication of the *General Theory*

Many chapters of the handbook describe the theoretical developments produced by the generations of economists who took Keynes's work as reference. These developments include: a) the long-term analysis; b) the financial instability theory; c) the theory of income distribution; d) the theory of prices and wages; e) economic policies; f) the less-developed countries economies; g) the relationships with other social disciplines.

Since the publication of the *General Theory*, many works, aimed at extending Keynes's analysis, tried to provide an explanation of the evolution of a monetary economy over time. The seven chapters written by Mark Setterfield, Prue Kerr and Roberto Scazzieri, Robert Blecker, Vela Velupillai, Peter Kriesler, A.P. Thirwall, Joseph Halevi, Neil Hart and Peter Kriesler, place a lot of emphasis on the contributions of Roy Harrod, Joan Robinson, Richard Stone, Nicholas Kaldor, Richard Goodwin, and Luigi Pasinetti.

Two different approaches were taken to the long-term analysis. The first one, which has its theoretical roots in Marx, Keynes, and Schumpeter, and was developed especially by Kaldor and Goodwin, points out that a capitalist economy undergoes a continuous process of evolution that depends on its specific institutional set-up, the behavior of social classes, and the influence of technological changes. This evolutionary process does not lead to a particular equilibrium and may be characterized by phases of profound instability. Conversely, the second approach, which is associated with Luigi Pasinetti's work, is based on the theoretical insights provided by Keynes and Sraffa.

⁵ "Railroads have not emerged because any consumers took the initiative in displaying an effective demand for their service in preference to the services of mail coaches. Nor did the consumers display any such initiative wish to have electric lamps or rayon stocking, or to travel by motorcar or airplane, or to listen to radios, or to chew gum. The great majority of changes in commodities consumed has been forced by producers on consumers who, more often than not, have resisted the change and have had to be educated up by elaborate psychotechnics of advertising." (Schumpeter [1939] 1964, p. 47).

This approach “is concerned with the identification of permanent and ‘natural’ features that are in principle independent of specific institutional assumptions” (Kerr and Scazzieri, vol. 1, p. 259).

The second important development regards the financial instability theory elaborated by Hyman Minsky, which is analyzed in the chapter written by J.E. King. Following a perspective consistent with that of Minsky, Wynne Godley developed an approach that, as illustrated by Marc Lavoie, aims at studying “in a systematic manner intertwined real and financial issues, dealing both with immediate short-run effects and the possible traverse toward longer-run consequences” (vol. 1, p. 214).

The post-Keynesian theory of income distribution is examined in the four chapters authored by Mauro Baranzini and Amalia Mirante, J.E. King, Peter Riach and Judith Rich, and James Galbraith. The two chapters written by Ken Coutts and Neville Norman, and Frederic Lee, present the post-Keynesian price theory. The post-Keynesian principles of economic policy are analyzed in the three chapters developed by Philip Arestis and Malcolm Sawyer, Heinrich Bortis, and J.W. Nevile and Paul Dalziel. Neil Perry wrote a chapter on environmental economics in a post-Keynesian perspective, while the chapter elaborated by Amitava Dutt investigates the post-Keynesian achievements in the research areas concerning the problems of the less-developed economies.

In her essay on the post-Keynesian methodology, Sheila Dow stresses that post-Keynesianism and other heterodox economic schools of thought “in a systematic manner intertwined real and financial issues, both dealing with immediate short-run effects and the possible traverse toward longer-run consequences” (vol. 1, p. 214). Finally, the three chapters written by Stephen Pratten, Wylie Bradford, and J. Barkley Rosser Jr., analyze the relationship between post-Keynesian economics and other social sciences.

4. The post-Keynesian criticism of the mainstream theory

Some chapters of the handbook deal with the post-Keynesian criticism of mainstream economics. The essay written by Abu Rizvi highlights the limits of an analysis based on the need to elaborate the micro-foundations of macroeconomics. Jesus Felipe and J.S.L. McCombie question the foundations of the aggregate production function. A criticism

of the theory of inflation based on the L-shaped aggregate supply curve and the Phillips curve is the topic discussed in the chapter developed by James Forder.

Colin Rogers considers the New Keynesian version of the ‘consensus’ model as a “scientific illusion” (vol. 1, p. 167). Jörg Bibow emphasizes the theoretical limits of the modern monetary theory, which supports the need for central banks’ independence from the political power based on the monetary policy time-inconsistency problem. Finally, the chapter written by Richard Holt provides a critique of the mainstream theory of the state.

5. Post-Keynesian Economics and the Contemporary Crisis

The last two chapters of the handbook, those authored by Gary Dimsky and Lance Taylor, analyze the relationship between the economic theory and the contemporary crisis. The financial crisis erupted in 2007 and the subsequent Great Recession have deeply undermined the reputation of economists, whom the public opinion accused of being unable to predict what was going on.

Mainstream economists and post-Keynesian economists reacted to the crisis in very different ways. Mainstream economists defended themselves from the charge of failing to predict the crisis by underlining that, like earthquakes, economic crises are unpredictable external shocks. Conversely, according to post-Keynesian economists, the contemporary crisis brought out the limits of the mainstream theory, whereby, in a market economy in which the price system is allowed to work without major obstacles, no disastrous crisis can occur. Thus, mainstream economists were unable to foresee the crisis because their theoretical model excludes the possibility that an economic crisis may occur.

In two books with very eloquent titles, Robert Skidelsky (2009) and Lance Taylor (2010) point out that the deep contrast between reality and the prevailing economic theory clearly shows the need to revive Keynes’s teachings. Many observers, e.g. John Cassidy (2009), Richard Posner (2010), Jeff Madrik (2014), and Martin Wolf (2014), recognized that the crisis proved the importance of the analysis made by Hyman Minsky and the post-Keynesian economists. Wolf, for example, argues that “The crisis has revealed deep misunderstandings of the way the modern economy works that resulted in huge policy mistakes. [...] It is necessary to ask how much of the orthodox economics of

the past few decades holds up in the light of events. Were [...] post-Keynesians closer to the truth than orthodox economists who run central banks and advised treasuries? The answer will be that the heterodox economists were indeed more right than the orthodox.” (Wolf 2014, p. 5).

These acknowledgements are mainly provided by people who do not belong to the academic circles. Indeed, despite the crisis, most economists have remained stubbornly tied to the dominant theoretical model. Because of this paradoxical situation, the commitment of post-Keynesian economists to highlight the limits of the mainstream theory becomes particularly relevant.

An effective way to accomplish this task is to show the contradictions found in the explanations of the causes of the contemporary crisis elaborated by the mainstream economists. It is actually difficult to explain the origin of the contemporary crisis by using a theoretical model that states that economic crises do not exist. In fact, mainstream economists are forced to use concepts and relationships that are completely at odds with the fundamental propositions of the dominant theory. Their explanations refer to an economic system that is very different from that described by the orthodox theory, and reveal that the traditional theory is not able to explain the functioning of the economies in which we actually live.

An excellent example of these contradictions is the analysis developed by Raghuram Rajan (2006, 2010), who argues that the crisis was caused by the misconduct of the US banking system, which created an excessive amount of risk. The expression ‘create risk’ should not be confused with the concept of ‘risk assumption’. Rajan maintains that the US banking system created risks because, through the exponential rise of the supply of subprime mortgages, it fueled the formation of a housing bubble, which increased the likelihood that its burst could trigger a disastrous financial crisis. Rajan’s explanation contrasts with the traditional theory according to which banks do not create risks. On the contrary, they are supposed to reduce risks as, in the presence of imperfect information, they prevent that saved resources may be entrusted to incompetent entrepreneurs.

Moreover, Rajan’s explanation of the causes of the crisis is based on the concepts of speculation and speculative bubble, which are completely outside the traditional theory. This theory is founded on the efficiency market hypothesis which assumes that financial

markets are populated only by professional speculators; neglecting the Keynesian distinction between ignorant and professional speculators, the mainstream theory holds that asset bubbles are impossible. In order to explain the conduct of the banks, Rajan makes use of typical Keynesian concepts such as that of ‘herd behavior’, without even quoting Keynes.

Rajan justifies the mainstream economists’ choice to develop theoretical models that neglect the presence of the financial system, which he compares to the hydraulic system of a house, by noting that economists usually build models that ignore the irrelevant aspects of an economic system. In a historical period such as that of the Great Moderation, when the economy of developed countries seemed to work without significant fluctuations, the choice to overlook the financial system appeared to be perfectly rational. Nevertheless, the crisis showed that hydraulic systems can break down, and led Rajan to recognize the need to introduce also financial parameters into the standard macroeconomic models.

However, the financial system cannot be explicitly taken into consideration without the willingness to radically change the structure of the mainstream macroeconomic models. In fact, these models do not neglect the financial magnitudes for the sake of simplicity, but because, according to the orthodox theory, the financial markets are completely irrelevant. In the mainstream theory, the supply and demand of credit are an expression of saving and investment decisions. Thus, the financial system coincides with the real sector of the economy. As McCallum explains “it is seriously misleading to discuss issues in terms of possible connections between ‘the financial and the real sectors of the economy’ [...] because it fails to recognize that the financial sector *is* a real sector.” (McCallum 1989, p.30).

From the viewpoint of the mainstream theory, neglecting the financial system is not a mere simplification, but the logical consequence of the identification of the demand and supply functions of credit with saving and investment decisions. In other words, credit is deemed to be a real phenomenon, which does not depend on the presence of banks and bank money. In order to develop theoretical models that attribute a significant role to the financial system, it is necessary to abandon the principle of neutrality of money and credit, and to consider the lessons of economists such as Keynes, Schumpeter, Kalecki, Kaldor and Minsky, who are a reference for post-Keynesian economists.

It is therefore essential that post-Keynesians present the results of their analysis in the most appropriate way. In the words of Gary Dimsky, they “must think holistically about the overall insights that come from linking the analysis of power, uncertainty, inequality along different dimensions, and aggregate demand-supply analysis” (vol. 2, p. 452). The handbook edited by G.C. Harcourt and Peter Kriesler is an indispensable tool for achieving this goal.

References

- Akerlof G. 1970, The market for ‘lemons’: qualitative uncertainty and the market mechanism, *Quarterly Journal of Economics*, 84, pp. 488-500.
- Cassidy J. 2009, *How Markets Fail. The Logic of Economic Calamities*, New York, Farrar, Straus and Giroux.
- Davidson P. 2007, *John Maynard Keynes*, London, Macmillan.
- Harcourt G.C. and Riach P. (eds.) 1997, *A ‘Second Edition’ of The General Theory*, London, Routledge.
- Keynes J.M. 1973 [1936], *The General Theory of Employment, Interest, and Money*, in: J.M. Keynes, *The Collected Writings*, London, Macmillan, vol. VII.
- Madrik J. 2014, *Seven Bad Ideas. How Mainstream Economists Have Damaged America and the World*, New York, Alfred A. Knopf.
- Posner, R. 2010, *The Crisis of Capitalist Democracy*, Cambridge MA, Harvard University Press.
- McCallum B. 1989, *Monetary Economics. Theory and Policy*, New York, Macmillan Publishing Company.
- Rajan R. 2006, Has finance made the world riskier?, *European Financial Management*, 12 (4), pp. 499-533.
- Rajan R. 2010, *Fault Lines. How Hidden Fractures Still Threaten the World Economy*, Princeton, Princeton University Press.
- Schumpeter J. 1934 [1912], *The Theory of Economic Development*, Cambridge t, Harvard University Press.
- Schumpeter J. 1964 [1939], *Business Cycles. A Theoretical, Historical and Statistical Analysis of the Capitalist Process*, New York, McGraw Hill.
- Schumpeter J. 1943, Capitalism in the postwar world, in Harris S. (ed.) *Postwar Economic Problems*, McGraw-Hill, London, reprinted in: Schumpeter J. *Essays on Economic Topics of J.A. Schumpeter*, Port Washington, NY, Kennikat Press.
- Skidelsky R. 2009, *Keynes. The Return of the Master*, New York, Allen Lane.
- Taylor L. 2010, *Maynard’s Revenge. The Collapse of Free Market Macroeconomics*, Cambridge Massachusetts, Harvard University Press.
- Wolf M. 2014, *The Shifts and the Shocks. What we’ve Learned – and Have Still to Learn - from the Financial Crisis*, New York, Penguin Press.