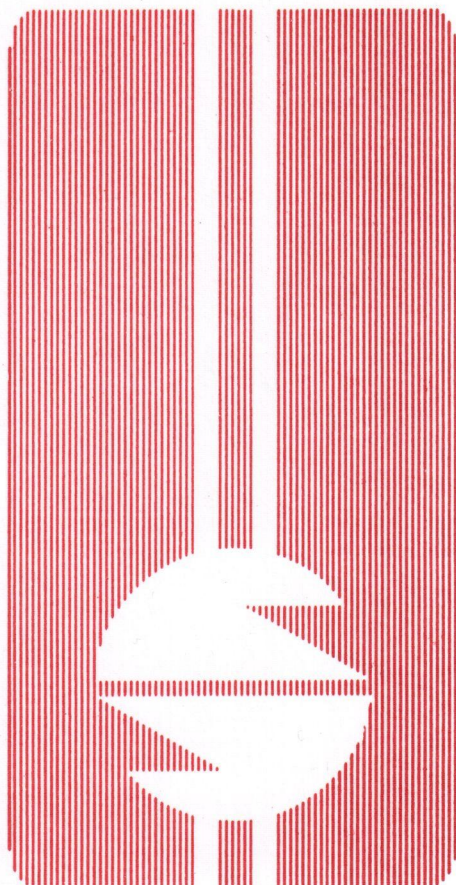


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# “KEYNESIANS”, MONETARISTS, NEW CLASSICALS AND NEW KEYNESIANS: A POST KEYNESIAN CRITIQUE

Fernando Ferrari Filho\*

## ABSTRACT

This article aims at presenting briefly a survey of main orthodox theoretical interpretations and criticisms of Keynes ideas that have become embedded in theoretical discussions on macroeconomic theory. Secondly, this article explains why, according to the post Keynesian view, most accepted theoretical interpretations and criticisms of Keynesian Theory (a) involve logical inconsistencies when compared with Keynes's theoretical analytical structure and (b) misrepresent the dynamic characteristics of modern entrepreneurial economies.

## 1. INTRODUCTION

Sixty years after the publication of *The General Theory of Employment, Interest, and Money* (hereafter referred to as *GT*), interpretations and critical reactions of Keynes's theory are still being discussed in Economics. This book was written during a time when Say's Law - that is to say, supply creates its own demand - was the foundation of orthodox economic thought.<sup>1</sup> Keynes's explanation for the chronic unemployment of the Great Depression revolutionized economic theory by arguing that in a monetary capitalist economy, even with flexible prices and wages, a lack of aggregate demand is a normal result of the economic process.

The primary purpose of this article is to present briefly a survey of main orthodox theoretical interpretations and criticisms of Keynes's ideas that have become embedded in theoretical discussions on macroeconomic theory. Secondly, this paper explains why, according to the Post Keynesian view, most accepted theoretical interpretations and criticisms of Keynesian theory (a) involve logical inconsistencies when compared with Keynes's theoretical analytical structure and (b) misrepresent the dynamic characteristics of modern entrepreneurial economies.

The article proceeds as follows: Section 1 summarizes (i) neoclassical Keynesian, (ii) monetarism and new classical, and (iii) new Keynesian theories. Section 2 indicates how these theories differ from Keynes's analytical structure, minimizing the revolutionary character of Keynesian theory, and why some hypotheses of these theories do not represent real world economic activities. Finally, some conclusive comments are presented.

\* Professor of Economics at The Federal University of Rio Grande do Sul, Brazil. I would like to thank Professors Peter Bearse, Paul Davidson, Charles Garrison, and Hans Jensen for commenting. The remaining errors, however, are the author's responsibility. The author is grateful to the National Research Council of Brazil (CNPq) for financial support of his post-doctoral program at The University of Tennessee.

<sup>1</sup> To emphasize the importance of Say's Law in the classical theory, Keynes wrote that "Ricardo's doctrine conquered England as the Holy Inquisition conquered Spain" (1964, p.32).

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# 1. THE EVOLUTION OF ORTHODOX MACROECONOMIC THEORY

## 1.1 The IS-LM and disequilibrium models: the neoclassical Keynesian approach

The neoclassical Keynesian approach argues that Say's Law does not hold because Keynes's theory, as presented in the *GT*, assumes some rigidities and imperfections in the markets. There are two theoretical structures representing the neoclassical Keynesian approach to Keynes's analytical framework. The first approach is Hicks's IS-LM analysis, which argues that Keynesian involuntary unemployment is due to the existence of the liquidity trap<sup>2</sup>. A different approach, called disequilibrium theory, interprets Keynes's principle of effective demand in a context in which the economy moves itself from one situation of partial equilibrium to another of general equilibrium.

### 1.1.1 Hicks analytical framework

Hicks's 1937 article, *Mr Keynes and the "Classics": a suggested interpretation*, aims at confronting Keynes's analysis with the classical theory. Assuming that the Keynesian and classical theories have the same basic structure, Hicks formalizes three models as follows:

| "Classical" model     | "Keynes's special" model | "Keynesian" model   |
|-----------------------|--------------------------|---------------------|
| (1) $M = kI$ ;        | (1) $M = L(i)$ ;         | (1) $M = L(i, I)$ ; |
| (2) $I_x = C(i)$ ;    | (2) $I_x = C(i)$ ;       | (2) $I_x = C(i)$ ;  |
| (3) $I_x = S(i, I)$ . | (3) $I_x = S(I)$ .       | (3) $I_x = S(I)$ .  |

where  $M$  is the total quantity of money,  $k$  is the Marshallian constant in the Cambridge quantity equation,  $I$  is the income level,  $I_x$  is the total investment,  $i$  is the interest rate, and  $S$  is saving. The first equation of each model defines the LM curve while the two other equations define the IS curve<sup>3</sup>.

The next step is the presentation of what Hicks considers to be the differences from the "Classical", "Keynes's special" and "Keynesian" models.

"Keynes's special" model differs from the "Classical" model in two points: the savings function and the demand for money function. Hicks argues that the essential difference between the referred models is associated with the demand for money: in "Keynes's special" model the demand for money is explained by the liquidity preference function, while in the "Classical" model it is explained by the Cambridge quantity equation. However, Hicks claims that this difference is irrelevant because, when comparing the "Keynes's special" model with the "Keynesian" model, the introduction of the rate of interest in the Keynes's demand for money is not contradictory to the Cambridge quantity equation. As a result, according to Hicks, the demand for money, as presented in the *GT*, "... is something appreciably more orthodox" (1937, p. 152). This is associated with what Hicks understands to be Keynes's return to the orthodox monetary theory. In Hicks's own words, "[w]ith this revision, Mr. Keynes takes a big step back to Marshallian orthodoxy, and his theory becomes hard to distinguish from the revised and qualified Marshallian theories, which, as we have seen, are not new" (*ibid.*, p. 153).

<sup>2</sup> The situation in which the demand for money is perfectly elastic with respect to a low positive rate of interest.

<sup>3</sup> The IS curve traces out a locus of combinations of interest rates and income levels associated with equilibrium in the goods market, while the LM curve presents combinations of interest rates and income levels along which the money market is in equilibrium.

Following Hicks's argumentation, when the demand for speculative money is infinitely elastic with respect to the rate of interest, the Keynesian and classical demands for money have a similar relation. In both models the demand for money depends only on the income level. Consequently, Hicks argues that Keynesian involuntary unemployment persists solely because monetary policy cannot lower the interest rate sufficiently to restore the economy to its full employment income level. Therefore, Hicks concludes that "... the General Theory of employment is the Economics of Depression" (ibid., p. 155).

As a result of this Hicksian conclusion, the Keynes's theory was interpreted as the situation in which unemployment is only a temporary phenomenon due to the existence of the liquidity trap in the demand for money. In this circumstance, the Hicksian analysis argued that Keynes's solution for unemployment is focused on fiscal policy as instrument of regulating the levels of output and employment. The identification of Keynes's theory with the liquidity trap and with activist government programs, i.e. fiscalism, dominated mainstream economics and became the standard approach to macroeconomic analysis.

### **1.1.2 The disequilibrium interpretation of Keynes' s theory**

Patinkin (1956) was the first economist to formalize a "Keynesian" model that treats unemployment as a disequilibrium situation. In chapter 13 of his *Money, Interest, and Prices*, Patinkin develops a theoretical structure in which involuntary unemployment is explained solely as a result of short-run wage rigidity.

Assuming that, in the long run, the markets behave according to the Walrasian *tâtonnement's* logic, Patinkin remarks that "... these forces [flexible prices and wages] will restore the economy to a state of full employment ..." (1965, p. 328). Besides, Patinkin emphasizes that, at least in the long run, "... an equilibrium position *always exists* and ... the economy *will always converge to it*" (ibid., p. 328; italics added). In this context, Patinkin expresses the view that the Keynesian theory can be interpreted as a dynamic disequilibrium analysis of a Walrasian general equilibrium system.

The "Keynesian" disequilibrium models were also explored in the writings of Barro and Grossman (1971), Benassy (1975), and Malinvaud (1977).

Unlike Patinkin, who analyzes the Keynesian disequilibrium as a result of failure to obtain short-run flexible wages in the labor market, Barro and Grossman develop a general disequilibrium model, both for booms and depressions, to specify rationing rules in the goods and labor markets when the vector of prices and wages is exogenous. The main insight of this model, according to Barro and Grossman, is that the economic system will always respond differently to a specific shock, depending on how prices and wages differ from the vector of prices and wages at full employment equilibrium.

Benassy and Malinvaud investigate the microfoundations of disequilibrium macroeconomics to explain the causes of price and wage rigidities. Despite some insights related to imperfect competition in the goods and labor market, such as uncertainties and transaction or information costs, the authors restrict themselves to suggesting further research in this area. For instance, Malinvaud states that "[t]he general equilibrium approach, in a world where prices are sticky in short run, is not only highly relevant but also highly challenging" (1977, p. 166).

In conclusion, the disequilibrium approach claims that cyclical fluctuations in the levels of output and employment are related to the fact that prices, in monetary units, adjust slowly to bring supply and demand back into a market-clearing equilibrium. In this context, the disequilibrium theory seems to accept the theory of the existence of the Walrasian equilibrium of long run as a matter of *faith*

## 1.2 The classical counter-revolution

### 1.2.1 Friedman and the Monetarists

In the late 1960s the neoclassical Keynesianism suffered attacks from a different school of thought, called monetarism, when many economies began to experience high rates of inflation. This theoretical attack came in the form of re-establishing the quantity theory of money to macroeconomic analysis. The debate between "Keynesian" and Monetarist economists was focused on two specific points: (i) the relationship between the money interest rate and the levels of price and output, and (ii) the role and conduct of macroeconomic stabilization policy

The Monetarists express the view that money is extremely important in macroeconomics, either because it affects temporarily the output and employment levels or by the fact that, in the long run, changes in the money supply affect only the price level. In Friedman's own words, "... money is all that matters for changes in *nominal* income and for *short-run* changes in real income" (1970, p.217).

If money matters, which should be the monetary rules to maintain stability in the economic system? Friedman's 1968 article, *The Role of Monetary Policy*, considers this subject. Arguing that the Keynesian theory does not have a monetary explanation for a long-run theory of unemployment, Friedman concentrates his analysis on two questions: What are the limitations of monetary policy? How should the monetary authorities run monetary policy?

The answer to the first question is related to the Friedman's expectations-augmented Phillips curve model. Friedman's argument is that, in the long run, the Phillips curve is unstable because policymakers incorrectly assume they can interfere in the economic system.<sup>4</sup> Friedman presents a modified version of the Phillips curve which incorporates expectations about inflation to explain why this view by policymakers is mistaken. The assumption made by Friedman is that economic agents adapt their expectations in light of past experience and revise their expectations for each period of time

Formally, the Friedman model can be represented as follows:

$$P_t^e = f(P_{t-\lambda}), \lambda \in \{1, 2, \dots\} \quad (1)$$

where  $P_t^e$  is the expected rate of inflation in period  $t$  and  $P_{t-\lambda}$  is the rate of inflation which occurred in the past

What will happen in this adaptive expectation model when the government attempts to reduce unemployment by monetary expansion? According to Friedman, the initial effect of monetary expansion will be to increase aggregate demand, specifically, consumption and investment. As a consequence, the rate of inflation will

<sup>4</sup> According to the Phillips curve, there is always a trade-off between the rates of inflation and unemployment. See, for instance, Phillips (1958)

also increase. In a context in which expectations are formed according to adaptive rules, as equation (1) shows, the economic agents, sooner or later, will learn about the inflation; consequently, the expected rate of inflation will adjust to equal the current rate of inflation. When this situation occurs, the unemployment rate will return to its initial position.

Friedman's conclusion is that, in the long run, monetary policy cannot cause real fluctuations in the economy. As a consequence, Friedman rejects the long-run stability of the Phillips curve. In Friedman's own words,

" there is always a temporary trade-off between inflation and unemployment; there is no permanent trade-off. The temporary trade-off comes not from inflation per se, but from unanticipated inflation, which generally means, from a rising rate of inflation" (1968, p 11)

The next step is Friedman's analysis concerning how monetary policy should be conducted by monetary authorities. Friedman's proposal is relatively simple: if the monetary authorities expand the money supply at a steady rate over time the economy will tend to settle down at the natural rate of employment with a steady rate of inflation.

To sum up, Friedman and the Monetarists believe that the economy is inherently stable - that is to say, the economy always returns to its long-run equilibrium at the natural rate of unemployment. In this context, monetary and fiscal policies only increase instability. Implicit is the view that free market is the solution for stabilizing the economic system at full employment.

### **1.2.2 The new classical theory**

In the early 1970s the classical economics underwent its own "revolution": the rational expectation hypothesis was incorporated in the general equilibrium models.<sup>5</sup>

Although initially developed by Muth (1961), the rational expectation hypothesis was incorporated into macroeconomic theory mainly through the works of Lucas (1972, 1973), Sargent (1973) and Sargent and Wallace (1975). These authors, so-called New Classical economists, aim at presenting an alternative view to the mainstream neoclassical Keynesian macroeconomics, i.e. IS-LM analysis, and at criticizing Friedman's version of the expectations-augmented Phillips curve.

The New Classicals became dissatisfied with neoclassical Keynesian models due to the fact that they could not provide a logical explanation for the "stagflation" process, i.e. both high unemployment and inflation, of the world's economy in the early 1970s. For instance, Lucas and Sargent argue that "... recommendations based on Keynesian models ... produced the highest unemployment rates since the 1930s. This was econometric failure on grand scale ... [The] central fact is that Keynesian policy recommendations have no sounder basis, in a scientific sense ..." (1981, p. 303).

Given that neoclassical Keynesian models have some econometric failures because they cannot predict the value of certain economic variables (e.g. the levels of output and employment and the price level), the New Classicals argue that Keynes's theory is not a good guide for monetary and fiscal policies.

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<sup>5</sup> Rational expectation hypothesis supposes that economic agents know the stochastic process which determines the behavior of the variables in each period of time. See, for instance, Muth (1961)

In contrast to the neoclassical Keynesian models, the New Classicals investigate the microfoundations of macroeconomic theory. The new classical approach to macroeconomics presents three main hypotheses: (i) the rational expectation hypothesis, (ii) the hypothesis that prices and wages are set at market-clearing levels, and (iii) the aggregate supply hypothesis.<sup>6</sup>

Regarding the criticism of Friedman's model, the new classical analysis concentrated on the following question: How are the expectations of economic agents formed? According to New Classicals, expectations about the future value of inflation is not necessarily a stable function of its past values. At this point, the new classical models introduce the idea that the expectations are rational.

Mathematically, rational expectations can be represented as follows:

$$P_{t+\lambda}^e = E(P_{t+\lambda} | I_t), \lambda \in \{0, 1, 2, \dots\} \quad (2)$$

where  $P_{t+\lambda}^e$  is the expected rate of inflation in period  $t+\lambda$ ,  $P_{t+\lambda}$  is the mathematical expectation of the rate of inflation in period  $t+\lambda$  and  $I_t$  is the available information set at the end of period  $t$ .

The introduction of the rational expectation hypothesis into the macroeconomic models permitted, according to Lucas, "... a treatment of the relation of information to expectations which is in some ways much more satisfactory than is possible with conventional adaptative expectations hypotheses" (1972, p.104). Thus, the analyses of the existence of a trade-off, either temporary or permanent, between inflation and unemployment, are questioned and rejected by the new classical approach. In this context, when the expectations are not persistently erroneous, the New Classicals argue that anticipated monetary and fiscal policies do not have impact in the levels of output and employment even in the short run. In other words, the New Classicals emphasize the real supply-side factors rather than monetary and fiscal impulses.

Given that demand shocks are neglected, how do the New Classicals explain the observed fluctuations on output and unemployment levels in the real world? According to New Classicals, cyclical fluctuations in real output can be explained as a real business cycle due to technological and productivity changes in the economy.

In conclusion, considering that cyclical fluctuations are explained by aggregate supply and taking into account the fact of new classical models suppose that economic system is always self-correcting, there is no doubt that the classical and new classical theories have the same basic foundations: Say's Law and/or Walras's Law and the quantity theory of money, i.e. money is neutral. It follows from this conclusion that New Classicals have attempted to bring back the same assumptions of "old" classical economics that Keynes's *GT* criticized and rejected sixty years ago. Thus, as we know, it is nothing "new".

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<sup>6</sup> There are two microeconomics assumptions related to the aggregate supply hypothesis: (i) workers and firms optimize their behavior, and (ii) the supply functions of labor and output by workers and firms depend upon relative prices



### 1.3 The new Keynesian theory: the “Keynesian” microfoundations of non-Walrasian equilibrium

New Keynesian theory, developed during the 1980s as a response to new classical theory, aims at presenting a theoretical structure, based on the microeconomic foundations of “Keynesian” economics, critical of the new classical models.<sup>7</sup> This new Keynesian structure investigates what the New Keynesians believe to be the essential aspect of Keynes’s theory: the existence of price and wage rigidities. According to Mankiw and Romer, “[b]ecause wage and price rigidities are often viewed as central to Keynesian economics, much effort was aimed at showing how these rigidities arise from the microeconomics of wage and price setting” (1991, p.1; italic added).

Why are prices and wages inflexible? What are the macroeconomic implications when prices and wages are sticky? The new Keynesian theory tries to answer these questions.

Gordon (1990) and Greenwald and Stiglitz (1993) identify some insights of the new Keynesian theory. Wage rigidity is explained by models related to disequilibrium in the labor market, such as efficiency wages, implicit contracts, and/or insider-outsider workers. On the other hand, price rigidity is explained by models related to imperfect competition in the goods market, such as the high marginal costs of price adjustment.

Since labor is not a homogenous good, the models of efficiency wages suppose that labor’s productivity is affected by the wage paid by firms. If the quality of workers is related to the wages received, any wage reduction proposed by firms will cause a fall in labor’s productivity; as a result, profit also falls. In this situation, firms will not cut wages when demand declines. Hence, unemployment results.

The models of implicit contracts argue that, in a context in which the workers are risk averse and have limited access to the financial markets, firms offer them an insurance against income fluctuations by stabilizing their real wages. If work contracts are negotiated according to this “clause”, fluctuations in the level of output do not cause changes in real wages. In other words, according to the implicit contract models, the wage rate not only represents payment for labor services but also represents an insurance against the risk of fluctuations in the levels of income and output due to exogenous shocks.

The insider-outsider workers model examines the implications of what happens when workers have some bargaining power. According to this model, the labor market is formed by hired workers (insiders) and unemployed workers (outsiders). Assuming that the insider workers have some bargaining power, there is a “tacit consensus” between firms and employed workers which militates against wage reduction in the face of reductions in aggregate demand. In this circumstance, firms accept the constant wage demand of insider workers because the substitution of an outsider worker for an insider one involves high costs of hiring and training for the firms. Further, this high cost of substitution provides insider workers with bargaining power to avoid dismissal and wage reduction.

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<sup>7</sup> According to New Keynesians, the new classical theory does not provide a consistent explanation why labor and output supply functions do not change when there are demand shocks.

The models of costs of price adjustment, so-called menu costs, consider that, according to Mankiw, the firm "... sets its price in advance, and changes that price ex post only by incurring a small menu cost" (1985, p.530). Even if there are demand fluctuations, therefore, prices do not adjust in the short run because there are some costs involved in changing prices. In other words, the concept of menu costs implies that firms are price-setters and have monopoly power.

Two questions related to the central hypothesis of the new Keynesian theory, price and wage rigidities determining macroeconomic fluctuations, deserve some reflections: What do price and wage rigidities imply in general equilibrium analysis? The answer was partly presented by the disequilibrium theory developed during the 1970s. The originality of the new Keynesian theory, however, lies in the attempt to find a consistent microeconomic theory of price and wage rigidities, showing how the economic agents optimize their behavior under such imperfections. Why are such models called Keynesian? The explanation seems to be associated with a misleading reading of the *GT*: Keynesian involuntary unemployment is interpreted by New Keynesians, not as the result of an insufficiency of effective demand, explained by the existence of money *per se*, but rather due to the fact that prices and wages are sticky. In other words, the New Keynesians argue that an underemployment equilibrium can only occur if prices and wages are not perfectly flexible.

## 2. A POST KEYNESIAN CRITIQUE OF ORTHODOX MACROECONOMIC THEORIES

Keynes wrote in the *GT*'s preface that "[t]he difficulty lies not in the new ideas, but in *escaping from the old ones*, which ramify, for those brought up as most of us have been, into every corner of our minds" (1964, p. viii; italics added).

The above quotation applies undoubtedly to the several theoretical structures presented in the previous section. When interpreting and criticizing Keynes's analysis, as presented in the *GT*, many macroeconomic theorists attempt to explain unemployment as short-run maladjustments due to (i) elasticities of the demand for money, i.e. the slope of the LM curve, (ii) price and wage rigidities, (iii) incorrect expectations, and/or (iv) macroexternalities, such as coordination failures. Unlike Keynes, who argued that long-run unemployment equilibrium is always possible, most orthodox macroeconomic theories seem to believe that, in the long run, the "invisible hand" and free market still continue to be the solution for keeping the economy at its long-run full employment equilibrium.

In the *GT* Keynes explained why in a monetary capitalist economy the economic system is not self-correcting in either the short-run or the long-run. Simultaneously, Keynes suggested economic institutions which could help to avoid periods of depression.

Keynes's analysis is developed on three theoretical propositions: the theory of income determination (propensity to consume and multiplier), the theory of investment (marginal efficiency of capital), and the theory of interest rate (liquidity preference). These theories, according to Post Keynesians, are developed in a context in which the real world has the following characteristics: (i) money matters in both the short-run and long-run, (ii) the future is uncertain, (iii) contracts are denominated in money terms, (iv) money has two specific properties that differentiate it from the other producible goods, and (v) unemployment in an monetary or entrepreneurial economy, i.e. an economy in which fluctuations of effective demand are explained as a monetary phenomenon, is a normal result.<sup>8</sup>

Most orthodox interpretations and controversies related to what Keynes meant in his *GT* have not been analyzed with reference to these propositions and characteristics.

The Hicksian interpretation of *GT* provided some logical misunderstandings of Keynes's theory.<sup>9</sup> For example, (i) it substituted the Walrasian system of general equilibrium for Keynes's Marshallian equilibrium; (ii) it dichotomized the real and monetary markets; and (iii) it did not analyze the role that expectation and uncertainty have on effective demand.

The Keynesian equilibrium in the *GT* is related to a process in which fluctuations in the economy always involve changes in the *ceteris paribus* conditions, i.e. other things being equal. In other words, Keynes uses Marshall's method of partial equilibrium in his equilibrium analysis in the *GT*.<sup>10</sup> Implicitly, Hicks (1974, 1980-81) recognized his interpretative misunderstanding regarding the Keynes's *GT* equilibrium method when he states that "... the idea of IS-LM diagram came to me as a result of the work I had been doing on three-way exchange, conceived in a Walrasian manner" (1980-81, p 141-2).

The dichotomy between real and monetary markets is not compatible with Keynes's theory when money is never neutral. In other words, Keynes insisted on analyzing a system where monetary theory is a theory of output as a whole. The following passage from the *GT* illustrates that the real and monetary markets are always interdependent and, therefore, cannot be dichotomized: "The division of Economics between Theory of Value and Distribution on the one hand and the Theory of Money on the other hand is, I think, a *false division*" (1964, p. 293, italics added).

Finally, Hicks admitted that the expectations, formed in a context of uncertainty, are left out in the IS-LM's analysis. In Hicks's own words, "... there is no sense in liquidity, unless expectations are uncertain. But how is an uncertain expectation to be realized? When the moment arrives to which the expectation refers, what replaces it is fact, fact which *is not uncertain*" (1980-81, p.152; italics added).

It is not surprising, therefore, that Keynesian theory has been earlier interpreted by Hicks as the "economics of depression". There is, however, another misunderstanding of Hicks which can be explained by chronological reasoning.

<sup>8</sup> See, for instance, Davidson (1994, p 17-8)

<sup>9</sup> These logical misunderstandings were admitted by Hicks years later. According to him, "... as time has gone on, I have myself become dissatisfied with it [IS-LM diagram]" (1980-81, p 139)

<sup>10</sup> A specific analysis about equilibrium in Keynes's theory can be found in Chapter 2 of Leijonhufvud's book (1968).

Keynes's 1940 article, *How to Pay for the War*, argued that Keynesian theory can be also associated with situations in which the economic restrictions are not only of demand. More specifically, in this article Keynes analyzed the macroeconomic equilibrium implications when the economy is at its full employment equilibrium.

The disequilibrium interpretation of Keynes's theory and, by extension, the new Keynesian theory believe, at least in the short run, that Keynesian unemployment occurs solely due to the fact that prices and wages are sticky. In other words, these theories argue that it is supply constraints and not an insufficiency of effective demand that causes unemployment.

Despite the fact that in Chapter 3 of the *GT* Keynes supposed, *only* to simplify his analysis about the principle of effective demand, that prices and wages are inflexible in the short run (1964, p. 27), this is neither a necessary nor a sufficient condition to explain Keynesian involuntary unemployment. According to Keynes, economic fluctuations appear because "... booms and depressions are phenomena peculiar to an economy in which ... *money is not neutral*" (1973a, p. 411, italics added). The following passages from the *GT* show that Keynesian disequilibrium can occur even when prices and wages are flexible

"... the Classical Theory has been accustomed to rest the supposedly self-adjusting character of the economic system on an assumed fluidity of money-wages, and, when there is *rigidity*, to lay on this rigidity the blame of maladjustment ... A reduction in money-wage is quite capable in certain circumstances of affording a stimulus to output, as the classical theory supposes. My difference from this theory is primarily a difference of analysis" (1964, p. 257, italic added)

"There is ... no ground for the *belief* that a flexible wage policy is capable of maintaining a state of continuous full employment ... The economic system cannot be made self-adjusting along [this line]" (ibid., p. 267, italics added)

In light of the above quotations, it is difficult to accept the idea that, in the Keynes's *GT*, price and wage rigidities are *the* cause of the underemployment equilibrium. In other words, according to Keynes's analysis, whatever the conditions of supply are, unemployment equilibrium can always occur. Further, the disequilibrium and new Keynesian models provide only an explanation of the lack of variability in prices and wages, but do not explain unemployment equilibrium.

The monetary theory of monetarist and new classical models is essentially different from Keynes's monetary theory in the sense that they consider that money must be, at least in the long run, neutral. Moreover, some hypotheses in these models misrepresent the dynamic characteristics of modern entrepreneurial economies.<sup>11</sup>

Keynes's monetary theory explores a specific question: What are the essential properties of money? In Chapter 17 of the *GT*, Keynes argues that money has two essential properties which follow from the existence of uncertainty: on the one hand, money's elasticity of production is zero (or negligible); that is to say, money is not producible by the use of labor in the private sector. Secondly, money's elasticity of substitution with respect to the products of industry is zero (or negligible), which means that any producible good cannot replace money as a liquid store of value when the relative price of money increases.

Given these elasticity properties, fluctuations in effective demand appear because, when the future is uncertain, people decide to hold money as a store of

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<sup>11</sup> The characteristics of an entrepreneurial economy are explored by Keynes (1979, p. 76-101).

value. As a consequence, they postpone their expenditure decisions out of current income. In other words, in a world where people cannot predict future, unemployment equilibrium can always occur because, when the future becomes more uncertain, people decide to increase their demand for liquid assets, especially money that is liquid *par excellence*, at the expense of purchasing producible goods. Consequently, people decide to buy fewer products and entrepreneurs, following their “animal spirits”, decrease employment hiring.

In this way, contrary to Friedman’s statement that money does not have importance in Keynes’s analysis (1968, p.1), money has an indispensable role in the Keynes’s theory. Keynes’s theory is a monetary theory of production, i.e. in a world with uncertainty, money affects the production process of an economy moving through time.

If money matters both for Friedman and Keynes, the central question is whether money is neutral in the economic system. In Keynes, money is never neutral, while Friedman accepts the long-run neutrality of money. On the other hand, the new classical models assume that money is always neutral in both the short-run and long-run.

Concerning the realism of some assumptions of the monetarism and new classical theories, there are at least three main criticisms. First, it is difficult to imagine that there is an “invisible hand” guiding the economy to the efficient allocation of resources. Contrary to this assumption, Keynes’s theory suggests that, in the real world, the “visible hand” of a State organization is “... the only means of securing an approximation to full employment” (1964, p. 378).

Second, in the real world, do economic agents form their expectations based on an ergodic stochastic process?<sup>12</sup> Davidson (1982-83, p.188-9) argues that the rational expectation hypothesis denies the risk-uncertainty distinction developed by Keynes. Thus, the New Classicals reduce uncertainty to situation of risk. Contrary to rational expectation hypothesis, Keynes argued that people form their expectations as “uncertain knowledge”.<sup>13</sup> According to Keynes, in an uncertain world, “... human decisions affecting the future, whether personal or political or economic, cannot depend on strict mathematical expectation, since the basis for making such calculations does not exist” (1964, p.162-3).

Third, accepting the new classical assumption of intertemporal substitution of leisure to explain unemployment is to believe, according to Greenwald and Stiglitz, that “... workers in 1932, for example, took more leisure because wages looked low” (1987, p.119). It follows from this quotation that New Classicals believe that the economic system has solely a temporary disequilibrium due to “frictional” and “voluntary” unemployment hypotheses.

### 3. CONCLUSION

This article has attempted to show that the orthodox interpretative theories of the GT (“Keynesian”) and the critical theories of the Keynesian revolution (monetarism and new classical) have some logical inconsistencies when compared with Keynes’s

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<sup>12</sup> In an ergodic stochastic process the expected value of a probability distribution can be always estimated from past observation.

<sup>13</sup> See, for instance, Keynes (1973b, p.113-4)

GT analysis. They also misrepresent the dynamic characteristics of modern entrepreneurial economies. The “Keynesians” (Neoclassical Keynesians and New Keynesians) suppose that Keynesian involuntary unemployment occurs due to either a liquidity trap and/or price and wage rigidities. In this context, they differ from the essence of Keynes’s analysis, i.e. the monetary theory of production, minimizing the revolutionary character of the Keynesian theory. The Monetarists and New Classicals bring back some assumptions from classical economics, such as Say’s Law, neutrality of money, at least in the long run, market-clearing and perfect competition and information, which seem not to be seen in real world economic activities. Paraphrasing Keynes’s argument (1964, p.16), when he attempted to explain why the fundamental classical axioms were wrong, the monetarist and new classical theories “resemble Euclidean geometers in an non-Euclidean world”.

Moreover, when analyzing unemployment and proposing unemployment policies, these orthodox macroeconomic theories seem to believe in the conclusions of the classical economics that, sooner or later, the “invisible hand” is capable to restore the economic system to its full employment output.

With the persistence of unemployment in the 1990s, how long will it be before the “invisible hand”, in the long run, restores the economy to its equilibrium at full employment? Despite the fact that “in the long run we will be dead”, the debate in Economics cannot neglect Keynes’s revolutionary analysis to explain and, maybe, solve the unemployment crisis observed in the world’s economy. This is the article’s message.

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#### SINOPSE

#### "KEYNESIANOS", MONETARISTAS, NOVOS - CLÁSSICOS E NOVOS - KEYNESIANOS: UMA CRÍTICA PÓS-KEYNESIANA

Este artigo apresenta uma resenha das principais interpretações teóricas ortodoxas da "Teoria Geral" e das concepções monetarista e novo-clássica, críticas às idéias de Keynes contidas na referida obra. Procura-se também mostrar, à luz da teoria pós-keynesiana, que essas interpretações e críticas apresentam inconsistências lógicas quando confrontadas com a estrutura teórico-analítica de Keynes e não representam as características da dinâmica das economias empresariais modernas