# Hayek's Hidden Critique of The General Theory

David Sanz<sup>1,#,\*</sup> and Juan Morillo<sup>2</sup>

**Abstract:** Hayek is seen as one of the main opponents of Keynes because of the debate about macroeconomics that they had in the early thirties. A few years after this controversy, Keynes published *The General Theory* ([1936] 1973), and Hayek was expected to criticize Keynes' new model. But, surprisingly, Hayek decided to remain silent and let his opponent go unchallenged. He regretted it ever after. However, this paper argues that in Hayek's work after 1936, there is a criticism of *The General Theory* that to a certain extent has remained unnoticed. Thus, this approach reopens the great debate between Hayek and Keynes just where they had apparently left it, that is, after the publication of *The General Theory*.

Keywords: Keynes, prices, business cycles, macroeconomic policy, unemployment.

#### 1. INTRODUCTION

The confrontation between John Maynard Keynes and Friedrich August Hayek is one of the most famous in the history of contemporary economic thought. The debate took place between 1931 and 1932, and its object was a book written by Keynes called Treatise on Money (1930). Although this debate is paramount, many of those who read this debate for the first time could be disappointed for three reasons. First, Treatise on Money is not a very well-known book, and moreover, if we compare it with The General Theory, its influence has been small. Second, Treatise on Money is an obscure book that is difficult to read. This led Hayek and Keynes to misunderstand each other (indeed one of the main topics discussed in this debate was the definition of saving and investment). This fact is also a strong handicap for anyone willing to study the debate. Third, saying that there was a debate between Hayek and Keynes in 1931–1932 is exaggerating what actually happened. During that time period, Hayek wrote a systematic review of Treatise on Money consisting of three articles (two of them very extensive). In response, Keynes wrote only a short article essentially accusing his Austrian rival of misinterpretation. Therefore, it would be appropriate to say that it was a somewhat one-sided debate. In March 1932 this controversy ended with Keynes' sudden withdrawal, arguing that he was retiring to "re-shape

and improve" his "central position" (Keynes [1932] 1995: 172). Therefore, we may say Hayek was the winner of this first engagement<sup>1</sup>.

In 1936, four years after this controversy, Keynes published a new book called *The General Theory of Employment, Interest and Money*, in which he presented a new elaboration of his model. This book became one of most influential economics treatises ever written. For most governments and economists throughout the world, it was a milestone in both economic theory and economic policy. Undoubtedly, as a direct consequence of *The General Theory*, Keynes became an immortal figure in economics.

When *The General Theory* was published in 1936, Hayek was expected to criticize Keynes' new model. However, surprisingly, Hayek decided to remain silent and let his opponent win. This lack of a response has always puzzled historians of economic thought. What would have happened if the intellectual battle between Hayek and Keynes had been renewed in 1936? Nobody knows for sure. But, probably, if there had been any further debate and Hayek had been the winner once again, this fact would have greatly influenced the subsequent development of economic theory and economic policy and, perhaps, we would all live in a very different society now. As Keynes himself once said:

the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful

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<sup>&</sup>lt;sup>1</sup>School of Social Science and Law of the Catholic University of Avila, Spain

<sup>&</sup>lt;sup>2</sup>Economics and Global Business at EAE Business School, Barcelona, Spain

<sup>\*</sup>Address correspondence to this author at the School of Social Science and Law of the Catholic University of Avila, Spain; Tel: (+34) 920 25 10 20; Fax: (+34) 920 25 10 30; E-mail: david.sanz@ucavila.es

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<sup>&</sup>lt;sup>1</sup>It is true that in 1932 there was a debate between Sraffa and Hayek, and Sraffa presented some criticisms of Hayek's model; however, the Hayek-Keynes controversy in 1931–1932 ended with Keynes' retreat, so it may be said that Hayek won this first round.

than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. (Keynes [1936] 1973: 382).

However, what we want to argue in this paper is that in Hayek's work after 1936, there is a criticism of The General Theory that to a certain extent has remained unnoticed. Thus, this paper picks up the great debate between Hayek and Keynes just where they had apparently left it, that is, after the publication of The General Theory. This perspective on the debate is completely different from the one traditionally taken. The vast majority of authors who have studied this controversy have examined the debate between Hayek and Keynes in 1931 and 1932<sup>2</sup>, while we have focused on the hidden criticism by Hayek of The General Theory.

Before discussing Hayek's main criticisms of The General Theory, it may be useful to present a brief summary of the book.

#### 2. A SUMMARY OF THE GENERAL THEORY

The 1930s were marked by a deep depression with high rates of unemployment and a sharp decline in production. These conditions led many economists to reconsider the causes of unemployment and economic fluctuations. This is the context in which Keynes presented his theory. The key idea of The General Theory is that there is a direct and positive relationship between employment and aggregate expenditure. Thus, according to Keynes, total demand determines the employment level in an economy and, therefore, existence of unemployment indicates that aggregate demand is insufficient to employ all the productive factors. As a consequence, full employment is defined as a situation where the expenditure level was sufficient to employ everyone. Keeping this in mind, one question arises: are there, in a capitalist economy, any mechanisms to ensure at all times an adequate and sufficient level of aggregate demand? To Keynes, the answer is negative mainly for two reasons.

First, Keynes argues that there is a psychological law that supposedly encourages individuals to save a rising proportion of their income as it increases. He states that, in general, a person with a high income tends to consume a smaller proportion of it than one with a low income. Thus, at a macro level, Keynes observed that a society with a growing real income tends to increase its savings more than proportionately. In other words, a society's marginal propensity to consume tends to be reduced, and consequently the society's investment multiplier will be lower. Therefore, in this situation, in order to maintain a constant level of spending it would be necessary for investment to increase in order to make up for this secular decline in consumption. But, for Keynes, there is no mechanism in the market capable of connecting savings and investment. According to The General Theory, the reason is that investment does not depend on savings. Instead, it depends on both business expectations and the liquidity preference of creditors (which determines the interest rate). Thus, for Keynes there is no guarantee that the secular increase in the propensity to save, which normally tends to occur when the social income increases, will be made up for by any increase current investment. Keynes concludes that capitalism is doomed to suffer a systematic lack of demand and, therefore, a chronic problem of unemployment.

Second, Keynes explains that the economic future is always uncertain and it makes entrepreneurs act more with an animal instinct ("animal spirits") than with rational calculation. The General Theory explains that business expectations are changeable and capricious, so investment (and therefore aggregate spending and employment) will always be volatile, leading the market process to continually suffer strong economic fluctuations

For these reasons, he concluded that in an unhampered capitalist system, the volume of market demand will be insufficient and volatile, and for this reason, the unemployment rate will also tend to be high and volatile. However, Keynes believed that the government could address these deficiencies in the market through the control of aggregate spending. Therefore, following the pattern of aggregate demand determination outlined in The General Theory, Keynes recommended several measures. First, he proposes the greatest possible reduction of interest rates to encourage private investment as far as possible. As a second measure, since people with a higher income are more likely to save, the government should impose

<sup>&</sup>lt;sup>2</sup>See, for example, Argandoña (1988), McCormick (1992), Tieben (1997), Selgin (1999), Feito (1999), Cochran and Glahe (1999), Tadeu ([2000] 2004) and Skidelsky (2006), White ([2012] 2014). There are exceptions: for example, Nicolò De Vecchi (2006) wrote a very good article about Hayek's criticism to The General Theory; also, Wapshott ([2011] 2013) comments some of the criticisms made by Hayek to The General Theory, but his book is mainly informative and it does not go into details.

a redistributive tax system to divert income from the wealthy to people with a greater propensity to consume—that is, those with a lower income. This way, the investment multiplier would be higher. This is Keynes' justification of progressive tax systems. As a third measure, the government should make public investments to supplement private investments in case the latter were insufficient.<sup>3</sup>

In Keynes' view, through these mechanisms the government could ensure that the volume of aggregate expenditure will always remain sufficient to maintain full employment.

#### 3. HAYEK'S CRITICISM OF THE GENERAL THEORY

Hayek did not answer when Keynes published *The General Theory*, and he regretted it ever after (Hayek 1983: 251). However, throughout his work after 1936 there are many explicit or implicit critical references to Keynes' ideas. There are criticisms of *The General Theory* in many of his works, including *Monetary Nationalism and International Stability* ([1937] 1971)<sup>4</sup>, "Profit, Interest and Investment" ([1939] 1975)<sup>5</sup>, *The* 

<sup>3</sup>Keynes also said "I conceive, therefore, that a somewhat comprehensive socialisation of investment will prove the only means of securing an approximation to full employment" (Keynes [1936] 1973: 378). However, Keynes probably meant to say that this would be the only solution once the profitable investment opportunities had been exhausted. In the meantime, reduction of interest rates, redistribution of incomes and complementary public investment policies would be Keynes' solutions to unemployment. Indeed, "[i]n 1938 [and in 1937] Keynes recommended that the British government set up a Board of Public Investment, whose function would be to make plans for increases in public investment to supplement private investment whenever an economic recession threatened" (Dillard 1948: 157; Keynes [1937a] 1977, 72). This might show that, for Keynes, socialization of investment would be just a medium-term to long-term solution. Finally, although Hayek explicitly criticized Keynes for his socialist views in The Fatal Conceit ([1988] 1991) and may have indirectly criticized him in The Road to Serfdom (1944), we do not want to stress this point in this paper because Keynesians usually defend public investment as a complement to private investment, and they usually do not propose a "comprehensive socialisation" of investment. Therefore, we think that these complementary public investment policies are the critical issue that must be discussed.

<sup>4</sup>In the second page of *Monetary Nationalism and International Stability*, Hayek states: "But let me say at once that when I describe the doctrines I am going to criticize as Monetary Nationalism I do not mean to suggest that those who hold them are actuated by any sort of narrow nationalism. The very name of their leading exponent, Mr. J. M. Keynes, testifies that this is not the case" (Hayek [1937] 1971: 2). That shows us that Hayek had Keynes in mind when he wrote this great essay.

There are at least two hints in "Profit, Interest and Investment" that show that this essay is a direct critique of The General Theory although it is not explicitly stated. First, Hayek says, "I hope to show why under certain conditions, contrary to a widely held opinion, an increase in the demand for consumers' goods will tend to decrease rather than to increase the demand for investment goods" (Hayek [1939] 1975: 3). He then explicitly mentions Keynes, "[i]t is rather instructive that the most elaborate and influential work dealing with these problems in recent years, Mr. Keynes' General Theory, does not contain, as far as I can see, any discussion of how a change in final demand affects the yield of the various types of investment goods" (Hayek [1939] 1975: 13n). And second, "Profit, Interest and Investment" is a reconstruction of the Hayekian model with some "Keynesian assumptions" as a starting point: "We shall start here from an initial situation where considerable unemployment of material resources and labour exists, and we shall take account of the existing rigidity of money wages and of the limited mobility of labour. More specifically, we shall assume throughout this essay that (...) money wages cannot be reduced (...)

Pure Theory of Capital ([1941] 1952)<sup>6</sup>, "The Campaign against Keynesian Inflation" ([1974] 1978b), The Fatal Conceit ([1988] 1991) and many other articles<sup>7</sup>. There are two features of Hayek's criticisms. First, they are scattered throughout the period of time from 1937 to 1988. Despite this, the consistency of these criticisms is remarkable. And second, it is a comprehensive criticism because it attacks *The General Theory* from many different angles, such as economic cycles, capital theory, theory of interest rates, methodology, wages and employment and international economics.

We will now explain some of Hayek's main objections to *The General Theory*. First, we will highlight the four conceptual errors Hayek believed Keynes had made in his model, and then we will explain his four main criticisms of *The General Theory*.

# 3.1. Keynes' Four Conceptual Errors

# Conceptual Error No. 1: The Theory of Capital and the Role of Time

From Hayek's point of view, the major deficiency in *The General Theory* is that it is not based on a theory of capital (Hayek [1941] 1952: 46–49). According to Hayek, the market is a network of millions of companies that complement and coordinate with each other intertemporally and synchronically, forming an extremely complex production structure. In order to understand how and why this structure is coordinated or discoordinated, we need to apply a theory allowing us to study the way it works. However, Keynes does not study this production structure, but suppresses it in

and finally, that the money rate of interest is kept constant" (Hayek [1939] 1975: 5). In our opinion, Hayek tried to present a new model capable of beating *The General Theory* using Keynes' assumptions of idle resources, a constant interest rate and sticky wages. In short, we believe that Hayek wrote "Profit, Interest and Investment" to challenge the Keynesian model. Indeed, Keynes wrote some letters in September and October of 1939 to Hayek after the publication of this essay and he asked him to clarify certain points. However, the war started and Keynes' attention turned to the problems of the war economy.

<sup>6</sup>This book contains many explicit references to Keynes and to *The General Theory* especially in chapters XXV–XXVIII and appendix III. Indeed, it is likely that Hayek did not review *The General Theory* in 1936 because he preferred to finish his new model first (*The Pure Theory of Capital*) that would refute Keynes' theories. However, he was not able to complete it and in 1941 he decided to publish what he had written so far. Then he gave up his effort in completing his new model. Bruce Caldwell supports this hypothesis (Caldwell 1998: 276).

<sup>7</sup>After the triumph of Keynes' ideas among the academia and among politicians, Hayek wrote many articles in which he explained why the Keynesian demand policies were dangerous. In most of them he explicitly mentioned Keynes. See: "Bad and Good Unemployment Policies" ([1944] 2009a), "Full Employment Illusions" ([1946a] 2009c), "Full employment, Planning and Inflation" ([1950] 1967b), "Inflation Resulting from the Downward Inflexibility of Wages" ([1958] 1967c), "Unions, Inflation and Profits" ([1959] 1967d), "The Outlook for the 1970s: Open or Repressed Inflation?" (1970), 1980s Unemployment and the Unions. The Distortion of Relative Prices by Monopoly in the Labour Market (1980), etc.

the concept of aggregate investment. This is why Hayek thought that Keynes was not able to understand the causes of and the solutions to economic fluctuations.

According to Hayek, the absence of a theory of capital meant that in the model developed in The General Theory, time is not considered as a relevant variable. In the Keynesian world, when demand increases, a parallel increase in the supply of goods appears almost instantaneously. Therefore, for Keynes, the structure of production does not need a significant amount of time to produce the necessary additional final goods to meet additional consumer demand (Hayek [1941] 1952: 395-396). Thus, The General Theory never considered that a shortage of supply may occur. In Hayek's opinion, this approach is wrong. According to him, time is a central variable in understanding any production process. The dynamic "balance" of any structure of production depends on an adequate coordination between the "ripening" of investments in the form of final goods and services and the income generated by such investments in the form of final demand. Thus, for Hayek, the biggest economic problem is that consumers should be willing to "wait" long enough to allow the consumer goods to emerge in final markets. Otherwise the phenomenon of inflation will appear, and, as it will be explained later, this phenomenon will seriously endanger the sustainability of the production structure. This is why, for Hayek, savings are so important (Hayek [1939] 1975: 38-56; [1941] 1952: 334-350).

# Conceptual Error No. 2: Monetary Analysis vs. Real Analysis

In Hayek's opinion, Keynes focuses his analysis mainly on the monetary surface of the market process while he neglects analyzing the underlying real process. Hayek believes that Keynes considers the market exclusively as a set of monetary flows and, therefore, in The General Theory everything is explained through the variation of monetary expenditure. For Hayek, this approach to the economic problem makes it impossible to construct theories to understand the market process. In fact, in Hayek's words, "[i]t is not surprising that Mr. Keynes finds his views anticipated by the mercantilist writers and gifted amateurs<sup>8</sup>: concern with the surface phenomena has always marked the first stage of the scientific approach to our subject." (Hayek [1941] 1952: 410)

# Conceptual Error No. 3: The Macroeconomic Approach

Keynes' model is clearly macroeconomic. According to Hayek, though, this approach is wrong, as it hides the fundamental mechanisms of change in the market from the economist. In his view, in order to understand the market process, economists need to study the economy from the point of view of the actors involved. Therefore, the relevant things are relative prices and the investment structure, and not concepts such as aggregate investment or the level of wages. Thus, Keynes' theory would not be enough to explain the market process (Hayek [1966] 1978a: 285-289; [1988] 1991: 98–100; Huerta de Soto [1982] 2004: 75-79).

### Conceptual Error No. 4: Short-Term Versus Long-Term

The General Theory is a model focused primarily on the short term. Hayek criticized Keynes because, in his opinion, only entrepreneurs have much to say in the short term, and economists do not have much to contribute in this field. In his view, an economist has the privilege and duty to analyze the medium term and long term effects of the economic policies undertaken. For Hayek, the Keynesian philosophy of "in the long run, we are all dead" is the height of scientific irresponsibility, and leads to policies which may give good results in the short term but can be extremely harmful in the long run. In Hayek's words,

> it is alarming to see that after we have once gone through the process of developing a systematic account of those forces which in the long run determine prices and production, we are now called upon to scrap it, in order to replace it by the shortsighted philosophy of the business man raised to the dignity of a science. Are we not even told that, "since in the long run we are all dead," policy should be guided entirely by short-run considerations? I fear that these believers in the principle of après nous le déluge may get what they have bargained for sooner than they wish. (Hayek [1941] 1952: 410)

# 3.2. The Four Major Criticisms of Hayek to The General Theory

According to Hayek's analysis, these are the four conceptual errors committed by Keynes. Thus, the

<sup>&</sup>lt;sup>8</sup>Hayek is referring to the chapter of *The General Theory* called "Notes on Mercantilism, the Usury Laws, Stamped Money and Theories of Under-Consumption" where Keynes states that the precursors of his theory are the mercantilists and Silvio Gesell and John A. Hobson.

Keynesian theory is flawed due to these initial errors. Hayek articulated numerous criticisms of *The General Theory* throughout his life, but it is worth drawing attention to four on which he placed a special emphasis.

Also, in this review of Hayek's major critiques to *The General Theory*, we will connect the different critiques with the four conceptual mistakes of the Keynesian theory that we have already listed. We will point this relation in brackets when appropriate.

# Criticism No. 1: Relationship between Employment and Aggregate Demand

The foundation on which *The General Theory* rests is the alleged existence of a direct positive relationship between aggregate demand and employment. According to this, unemployment would always be solved by increasing aggregate expenditure. However, in Hayek's view, this hypothesis, which at first glance may seem true, is totally wrong, and this is precisely Keynes' biggest mistake:

The conventional picture on which the whole of Keynesian analysis is based which represents the connection of final demand and employment as analogous to the relation between the suction applied at one end of a pipe and its intake at the other end, is thus very misleading. [However] Between the two lies an elastic or variable reservoir, the size of which is determined by a set of circumstances largely neglected in the Keynesian analysis. (Hayek 1981)

According to Hayek, there are three reasons why there is not a direct connection between the aggregate demand and employment:

The first reason is the structure of production: in a modern economy only a fraction of workers are employed in the final stage of production, so a good share of the productive resources (labor, capital goods, etc.) do not have a direct relationship with final markets. For example, if we think of all those companies that are dedicated to producing highly specialized capital goods, raw material extraction or research and development, it is obvious that the demand policies proposed by Keynes (which will cause spending increases primarily in final good markets) will not have a direct effect on these companies working further from consumption. Therefore, the increase in

consumption demand will not primarily affect the demand for workers by these entrepreneurs (Hayek [1939] 1975: 22–24) [Conceptual errors no. 1 and no. 3].

The second reason is what Hayek termed the "Ricardo effect": the permanence of a productive structure requires the permanence of a parallel structure of relative prices. Hayek noticed that Keynesian demand policies have the special feature of modifying the pricing structure so as to promote investments with reduced maturity periods (i.e., less intensive capital investments). Hayek explains that, after applying Keynesian demand policies, this peculiar modification takes place in relative prices, and as a result, many entrepreneurs will modify their production strategies and will try new, less capital intensive (and therefore more profitable in relative terms given the new pricing structure) production strategies. This change in production strategies will result in a change in the composition of the demand for capital goods of those entrepreneurs, and will also reduce the aggregate amount of money devoted to buying higherorder capital goods in the market. Therefore, Hayek notes, many entrepreneurs will stop buying capital goods from their usual suppliers. As a result, these suppliers will lose part of their market and many will be forced to lay off workers or even to cease business. Havek named this phenomenon the Ricardo effect<sup>9</sup>. Thus, the change in relative prices caused by Keynesian demand policies will encourage spontaneous process of disinvestment and, therefore, many of the business firms and jobs that were needed before to produce these specialized capital goods (which now will have significantly lower demand) will become useless. Hayek concludes that the demand policies proposed by Keynes will lead to an absolute reduction in the volume of employment (Hayek [1939] 1975: 8-16 and 24-37; [1941] 1952: 345-346 and 433-439; [1942] 1980b: 220-243; [1966] 1978a: 285-289) [Conceptual errors no. 1 and 3].

Finally, the microeconomic approach shows that the belief that there is a direct relationship between aggregate spending and employment is wrong. Hayek explains that unemployment is usually concentrated in certain sectors, industries and production stages (for example, let us assume that unemployment is mainly

<sup>&</sup>lt;sup>9</sup>Hayek named it the "Ricardo effect" because David Ricardo was the first economist who talked about the substitution between labor and capital goods when there were price changes.

concentrated in sectors A, B, C, D and E) (Hayek 1967b: 275–276). For the Keynesian employment policies to be able to create new jobs in those specific sectors of the market, it would be necessary for entrepreneurs and consumers to voluntarily decide to spend the additional revenue received from these Keynesian policies in those sectors that are in crisis. However, Hayek explains that "[i]f expenditure is distributed between industries and occupations in a proportion different from that in which labour is distributed, a mere increase in expenditure need not increase employment." (Hayek [1950] 1967b: 272) Hayek thinks that it is an illusion to believe that these policies would solve the unemployment problem, as the holders of the additional money will spend their money where they consider it most appropriate and not necessarily in areas where there is unemployment (for example, they might decide to spend their money in sectors O, P, Q, R, S and T). Indeed, Hayek points out that it is very unlikely for individuals to choose to spend their money in the specific sectors that are in crisis, since these sectors are in crisis precisely because entrepreneurs and consumers are not willing to buy the output offered by these sectors at current prices. For example, in 2008, if American consumers and entrepreneurs had had more money to spend, it is unlikely that the bulk of that money would have been directed to the purchase of houses. It would have been more likely spent in other sectors such as on mobile phones where there was no unemployment. However, Hayek admits that if the increase in aggregate expenditure is large enough, then a part of it would eventually reach those sectors in crisis and temporarily increase employment rates there. In Hayek's words, "Even though, during the process of increasing incomes [i.e. of applying Keynesian policies], enough expenditure may 'spill over' into the depressed sectors temporarily there to cure unemployment, as soon as the expansion comes to an end the discrepancy between the distribution of demand and the distribution of supply will again show itself" (Hayek [1950] 1967b: 272). But this would always happen at the expense of a high inflation rate (because in this situation there would be several "shortages of supply" in many sectors) and, furthermore, this "remedy" against unemployment would lead to the outbreak of a dangerous process of accelerating inflation with two possible endings: either it would cause a severe inflationary recession, or the government would approve extensive price controls that would transform the market economy into a

planned economy [Conceptual errors no. 2 and no. 3]. These ideas will be elaborated upon later<sup>10</sup>.

For all these reasons, Hayek states that there is no direct relationship between aggregate spending and employment levels. This conclusion is particularly important because it is a shot between the eyes of *The* General Theory. Indeed, according to Hayek, the Keynesian system was built upon a monetary illusion: "[i]t is all too naïve a way of thinking to believe that, since, if all workmen were employed at current wages, total income would reach such and such a figure, therefore, if we can bring income to that figure, we shall also necessarily have full employment" (Hayek [1950] 1967b: 272) [Conceptual error no. 2].

#### Criticism No. 2: Market and Economic Coordination

The debate between Hayek and Keynes is a debate about the existence or absence of coordination mechanisms on the market. According to Keynes, money would be a broken joint of the capitalist machinery that prevents savings from becoming investment (Garrison 1984: 203). Thus, according to his vision, the government should in one way or another induce the holders of money to spend it and not hoard it in order to maintain a socially acceptable level of employment and investment. Hayek's view is different. Money is like a joint that might become loose ("loose joint") and this is why there can be booms and recessions (Hayek [1941] 1952: 408). Nevertheless, once such a lack of coordination becomes evident, Hayek explains that the market has two mechanisms to correct these situations: the price system and entrepreneurship (Hayek [1945] 1980c; [1946] 1980d). Indeed, the outbreak of the crisis proves that there are forces in the market system tending to correct the underlying lack of coordination. So, there is a spontaneous tendency in the market toward economic coordination (Hayek [1936] 1980a). However, Hayek warns that this trend may be temporarily blocked if the price system is distorted or entrepreneurship is restricted. These processes are not understood by Keynes as his view of economics only takes into consideration the aggregate magnitudes while ignoring

<sup>&</sup>lt;sup>10</sup>Gottfried Haberler (1945, 107) came to the same conclusion: "It is the wellknown case of partial unemployment. There may be a large volume of unemployment that cannot be cured by increasing general expenditure. If the unemployed are concentrated in certain 'depressed' areas and industries, while there is full employment elsewhere, a general increase in expenditure would serve only to drive prices up in the full employment area, without having much effect on the depressed industries. Then the paradox of depression and unemployment in the midst of inflation would be experienced. This could, of course, not happen if labor were sufficiently mobile, but experience shows that this condition is rarely fulfilled."

the role of prices as highly efficient transmitters of information (Hayek [1936] 1980a; [1945] 1980c) [Conceptual error no. 3].

Moreover, contrary to what Keynes thought, there is no danger of the growing trend of the propensity to save. According to Hayek's theory, a richer society needs more capital per worker and, therefore, a greater volume of savings. Thus, the growing propensity to save is not a macroeconomic problem but a necessary condition to achieve a more prosperous society. Keynes also argued that capital accumulation is the way to achieve a more prosperous society, but he did not realize that the structure of production needs to be constantly renewed and, consequently, a growing volume of savings would become necessary (Hayek [1931] 1967a: 32–54; [1939] 1975: 38–63; [1944] 2009b: 154–155) [Conceptual error no. 1].

### Criticism No. 3: The Solution to Economic Crises

Keynes thought unemployment could be corrected through increases in aggregate spending. In his view, if spending increased sufficiently, unemployed workers would get their former jobs and the economic crisis would be overcome. Hayek contends that this strategy forgets the fact that crises occur precisely because the productive resources were incorrectly allocated during the previous economic boom. Therefore, reestablishing the same distribution of resources will not be a solution, as the outbreak of the crisis has proven [Conceptual errors no. 1 and no. 3]. The solution to economic crises requires a process both of liquidation of wrong investments and reallocation of productive resources (workers, capital goods, etc.) (Hayek [1939] 1975: 57-60; 1980; Huerta de Soto [1998] 2002: 340-346). In Hayek's words:

If the real cause of unemployment is that the distribution of labour does not correspond with the distribution of demand, the only way to create stable conditions of high employment which is not dependent on continued inflation (or physical controls) is to bring about a distribution of labour which matches the manner in which a stable money income will be spent (Hayek [1950] 1967b: 273)

Hayek's work focused on carefully studying the consequences of spending policies proposed in *The General Theory*, and he reached the following conclusions:

First, the creation, modification and/or maintenance of streams of expenditure by the government will maintain and even increase the amount of misplaced productive resources (Hayek [1971] 2009d: 128-129). According to Hayek, new enterprises will be created and the corresponding productive resources will find their place (workers, capital goods, etc.) because of these artificial flows of expenditure. When these spending streams change direction or disappear (which is very likely to happen when spending comes from a political decision), then much of the employment created by those streams of spending will become useless again. Therefore, a self-sustaining economy can only be built on the basis of expenditure flows arising from the real preferences of consumers [Conceptual error no. 2]. In Hayek's words:

The chief point I want to bring out is that the longer the inflation lasts, the greater will be the number of workers whose jobs depend on a continuation of the inflation, often even on a continuing acceleration of the rate of inflation. Not because they would not have found employment without the inflation, but because they were drawn by the inflation into temporarily attractive jobs which after a slowing down or cessation of the inflation will again disappear. (Hayek [1974] 1978b: 204–205)

Second, Keynesian spending policies will lead to shortages of supply as the production of goods and services is never instantaneous. The sudden increase in the spending flow on consumer markets caused by the demand policies recommended by Keynes will not correspond to a parallel flow of final goods and services, which will bring about increases in consumer prices, i.e. inflation [Conceptual error no. 1]. This, in addition to the spontaneous process of economic disinvestment (Ricardo effect), will create tensions within the labor market. Hayek admits that thinking that workers will suffer in the short-term from some degree of "monetary illusion" is reasonable (assumed also by Keynes) and therefore initially nominal wages will not rise (Hayek [1937] 1971: 52-53; [1958] 1967c: 298). But, in the medium term, this assumption is inadmissible because the trade unions will start to demand higher wages to protect their purchasing power. Also, the entrepreneurs will begin to increase the wages of the workers in a competitive bidding process for the existing workers (Hayek [1958] 1967c: 296). According to Hayek, it is naïve to think that if Keynesian spending policies are implemented, nominal

And third, Hayek argues that Keynesian policies

wages will remain stable in the medium term [Conceptual error no. 4]. In Hayek's words:

> Where Lord Keynes went wrong was in the naïve belief that workers would let themselves be deceived by this [inflationary policy that reduces real salaries] for any length of time, and that the lowering of the purchasing power of wages would not at once produce new demands for higher wages-demands which would be even more irresistible when it was recognized that they would not be allowed to have any effect on employment (Hayek [1959] 1967d: 282).

In addition, Hayek detects a corrupting effect on trade unions derived from the employment policies defended in The General Theory that Keynes did not consider: since the Keynesian philosophy exempts trade unions from any responsibility with regard to the unemployment rate, it is very likely that trade unions will continually demand higher wages to improve their purchasing power (Hayek [1944] 2009a: 141; [1974] 1978b: 204).

These two combined effects (the absence of "monetary illusion" in the medium term and the corrupting effect on trade unions) will tend to generate dangerous wage-price spirals: the demands for higher wages will be answered by the economic authorities with further expansionary policies to deliberately boost consumer prices and compensate employers for their increasing labor costs. In this scenario, the workers will ask for even higher wages and the economic authorities will again answer with higher monetary expansion and so on. So, Hayek argues that Keynesian policies tend to produce a process of continuous acceleration in the rate of inflation. Consequently, in the long run, there will come a time when this process of accelerated growth of prices will become socially unsustainable and politicians will have to make a decision (Hayek [1958] 1967c: 296-297): either to control prices by decree and maintain Keynesian expenditure policies, actually suppressing the market economy itself and leading to an economy of "German socialism" (in Mises's terminology) (Hayek [1971] 2009d: 129–131); or eradicating the Keynesian spending policies and facing an inflationary recession or stauflation [Conceptual error no. 4]. 11

pose a serious risk for international economic relations. He states that inflation caused by Keynes' spending policies will lead to high volatility in exchange rates, which will be harmful both for trade and international investment. In addition, Hayek points out that a monetary policy which aims to permanently reduce the national rate of interest (which is one of Keynes' main recommendations) is only compatible with a policy of semi-autarky (Hayek [1937] 1971: 54-72). There are three arguments that support this statement. First, if the national rate of interest is lower than the foreign rate of interest, this would cause a "flight of capital" which would lead to huge depreciation in the rate of exchange. This would force economic authorities to increase the interest rate. Therefore, in order to maintain this Keynesian policy of low interest rates, authorities would have to prohibit free capital movements (Hayek [1937] 1971: 66-67). Second, if the national rate of interest is lower than the foreign rate of interest and capital movements are not allowed, capitalists would use regular international trade practices to conceal the export of capital. This would force authorities to try to prevent it by imposing strict international trading regulations (Hayek [1937] 1971: 67). Finally, Hayek contends that interest rates affect the price structure of capital goods and thus, ceteris paribus, capital goods would be more expensive in the country with artificially low interest rates. In this situation, there would be a tendency to import foreign capital goods because they would be cheaper and to begin more capital intensive production processes. This would increase the demand for credit in that country and "unless the central bank is willing to allow an indefinite expansion of credit, it will be compelled (...) to raise its own rate of interest, even if any outflow of capital has been effectively prevented" (Hayek [1937] 1971: 70) [Conceptual error no. 1]. In short, a single country cannot maintain a permanent reduction in its interest rate and participate in the international economy; thus, Keynesianism in a single country is only compatible with a policy of semi-autarky. 12 Ironically, Keynes came to the same conclusion some years before:

> Indeed the transformation of society, which I preferably envisage, may require a reduction in the rate of interest towards vanishing point within the next thirty years.

<sup>&</sup>lt;sup>11</sup>As Sudha R. Shenoy points out, Hayek had predicted the appearance of the 1970s stagflation, almost 30 years before it happened. See Hayek ([1946a] 2009c: 145-146).

<sup>&</sup>lt;sup>12</sup>Of course, if there is an international coordination of monetary policies, it will be possible to maintain a policy of low interest rates everywhere.

But under a system by which the rate of interest finds, under the operation of normal financial forces, a uniform level throughout, after allowing for risk and the like, this is most unlikely to occur. Thus for a complexity of reasons, which I cannot elaborate in this place, economic free internationalism embracing the movement of capital and of loanable funds as well as of traded goods may condemn this country for a generation to come to a much lower degree of material prosperity than could be attained under a different system [because with the economic openness the interest rate cannot be maintained low enough to achieve full employment]. (...) The point is that (...) we all need to be as free as possible of interference from economic changes elsewhere, in order to make our own favorite experiments towards the ideal social republic of the future; and that a deliberate movement towards greater national self-sufficiency and economic isolation will make our task easier, in so far as it can be accomplished without excessive economic cost. (Keynes [1933] 1982: 240-241).

Hayek's conclusion is that Keynesian spending policies are not a solution to unemployment or economic crises. On the contrary, they are a real threat to economic stability (Hayek [1974] 1978b; 1980).

# Criticism No. 4: The Validity of The General Theory: The Economics of Abundance

Hayek thought that one of the big mistakes in *The General Theory* is its complete neglect of the concept of scarcity (Hayek [1941] 1952: 371–376). Keynes believed that the demand policies he proposed would reduce unemployment and would not produce crowding out effects on the market. According to his view, the creation of employment would by no means adversely affect third parties, as the additional workers would contribute to an increase in the wealth of that society. This is why Keynes believed that unemployment had a huge social opportunity cost. In Hayek's opinion, Keynes forgets the basic principle of economics: the scarcity of means.

Hayek admits that demand policies could increase employment (at least temporarily), but to employ these previously unemployed workers, employers will need to use (and therefore demand) additional inputs such as fuel, machinery, buildings, raw materials, specific not be available workers who may in unemployment lists, etc. Thus, in order to employ idle workers it will always be necessary to demand other complementary inputs that may be scarce. Therefore, the increase in employment brought about by the policies of Keynesian demand will result in increases in demand for various scarce inputs, whose prices will increase and, consequently, this will cause many entrepreneurs to face unexpected increases in their costs as some marginal companies will be forced to close. Thus, demand policies will tend to crowd out some private investment. Besides, in this process the income of some factors of production will increase and, as a consequence, the demand for final goods will increase more than the supply of goods and services available. Therefore, there will be a shortage of supply causing inflation and the Ricardo effect. For all these reasons, Hayek believed that Keynes' argument was, in general, false [Conceptual errors no. 1 and no. 3].

However, Hayek points out that Keynes' argument would be valid only in a situation in which there would be available idle reserves of all types of workers, all types of capital goods and stocks of finished goods and semi-finished products of all kinds. According to Hayek, while this situation continued, the application of Keynes' policies would be totally adequate and would not cause further damage. Hayek ([1966] 1978a: 286) states that in such a scenario of "abundance of means" "full unemployment", demand policies may encourage entrepreneurs to hire new workers and to demand additional inputs and, given the abundance of means, their prices would not increase. Consequently, there would be no crowding out effects on the market. Additionally, the increased income of the productive factors would increase the final demand for goods, but given the existence of stocks available to them, this would not cause inflation or the Ricardo effect. Thus, in a "full unemployment" situation, it would be advisable and feasible to undertake Keynesian demand policies; though. Havek points out that as soon as this situation of "abundance" ended, such policies would again be extremely dangerous.

But, is there any context in which the economy of "full unemployment" is conceivable? Hayek said that it is only conceivable in the deepest phase of a great depression when the overall decline in economic activity may have created a temporary situation in which there were unemployed workers of all kinds, a stockpile of capital goods of all types ready for use, and

available stocks of finished goods. Hayek contends that in the framework of this dramatic situation, which at most could last for a few months. Keynesian policies would not be harmful, but even recommended. Therefore, Hayek concludes that The General Theory is actually a "particular theory" which would be valid exclusively in the deepest stage of the worst depressions when the "economy of abundance" is conceivable, but only in these exceptional situations. In Hayek's words,

> such a situation [of "full unemployment"], in which abundant unused reserves of all kinds of resources, including all intermediate products, exist, may occasionally prevail in the depths of a depression. But it is certainly not a normal position on which a theory claiming general applicability could be based. Yet it is some such world as this which is treated in Mr. Keynes' General Theory of Employment, Interest and Money (Hayek [1941] 1952: 373-374).

Would have Keynes accepted this interpretation of the role of his own theory? Of course, not. However, as we will try to prove, after the publication of *The General* Theory. Keynes softened few of his propositions concerning the applicability of the demand policies. We think that these changes imply an (unconscious) approach with Hayek's theories.

Following Hutchinson (1977), it could be argued that Keynes was more orthodox than it is normally thought regarding the applicability of the demand policies. The proof lies in the articles he wrote in 1937, one year after the publication of The General Theory.

By that time, the British unemployment rate was 12.5% (Keynes [1937b] 1974, 75) and the government wanted to accelerate the rearmament policy to prepare the country for the eventual war with Germany. Since the tax collection was not sufficiently high to accomplish these objectives, the government had to finance the military expenditures of the rearmament program by borrowing money (that is, had budget deficit). Since there was a high unemployment rate in Great Britain in 1937, this rearmament efforts could be considered as a typical Keynesian demand policy to create employment.

In this context, Keynes warned about the inflationary dangers of this policy. In this sense, he explained clearly that "[w]e are in more need today of a rightly distributed demand than of a greater aggregate demand; and the Treasury would be entitled to economise elsewhere to compensate for the cost of special assistance to the distressed areas [i.e. for the cost of de demand policies in the depressed areas]" (Keynes, [1937a] 1977, 66). Sounds similar to Hayekian ideas. As we can see, with this statement Keynes acknowledged that in 1937 British unemployment was concentrated in certain sectors and places and the creation of new employment needed a better distribution of the aggregate demand (and not an increase in the total expenditure). Hayek would have certainly agreed with this diagnosis.

Also, for Keynes not all the unemployment rates have the same implications, nor require the same remedies. In 1937, Keynes saw the difference between "full unemployment" and "normal unemployment", and advised different policies to deal with each:

> I believe that we are approaching, or have reached, the point where there is not much advantage in applying a further general stimulus at the center. So long as surplus resources were widely diffused between industries and localities it was no great matter at what point in the economic structure the impulse of an increased demand was applied [situation of "full unemployment"]. But the evidence grows that - for several reasons into which there is no space to enter here - the economic structure is unfortunately rigid, and that (for example) building activity in the Home Counties<sup>13</sup> is less effective than one might have hoped in decreasing unemployment in the distressed areas. It follows that the later stages of recovery require a different technique [situation of normal unemployment]. To remedy the condition of the distressed areas, ad hoc measures are necessary." (Keynes, [1937a] 1973, 65-66)

Besides, facing the challenge of rearmament without inflation, Keynes ([1937b] 1977) recommended (among other measures like reductions of certain public expenditures to release resources for the military

<sup>&</sup>lt;sup>13</sup>The Home Counties are the counties of England that surround London. The counties generally included in the list are Berkshire, Buckinghamshire, Essex, Hertfordshire, Kent, Surrey, and Sussex (although Sussex does not border London). (Wikipedia)

industries, and encourage importation of final goods to reduce the demand of the products offered by the British consumption industries):

measures to ensure that all possible orders are placed in the Special Areas where surplus resources are available will greatly help [i.e., the areas with high unemployment rate]. It is a mistake to suppose that this is merely a form of charity to a distressed part of the country. On the contrary, it is in the general interest! Whether demand is or is not inflationary depends on whether it is directed towards trades and localities which have no surplus capacity. To organise output in the Special Areas is a means of obtaining rearmament without inflation. I am not sure that this is properly understood. One feels that the War Departments are inclined to regard a Special Areas measure as a form of charity, doubtless praiseworthy, which interferes, however, with their getting on with the job in the most efficient way. On the contrary, it is only by using resources which are now unemployed that the job can be got on with, except at the cost of great waste and disturbance. The Special Areas represent our main reserve of resources available for rearmament without undue interference with the normal course of trade. They are not a charity, but an opportunity. (Keynes, [1937b] 1977, 76)

As we can see, Keynes was aware of the dangers of the demand policies in a situation different from "full unemployment". These nuances, though, are not explicitly treated in *The General Theory*. It is very likely that Keynes was thinking of an economy in depression when writing his book. For this reason, we agree with Hayek that *The General Theory* describes a model suitable for a "full unemployment's economy". (Of course, this is not to say that Keynes and Hayek had the same concept of "full unemployment". Indeed, probably they would have disagreed in important details regarding its definition.)

Austin Robinson interpreted these Keynes's economic policy recommendations in the following manner:

[In 1937 Keynes] was primarily concerned with the fact that the economy had now temporarily come up against structural obstacles to further expansion and that structural changes - in particular industrial and infra-structure investment and increased exports - were a necessary prelude to any trouble-free further rapid expansion. These might take time to carry through. (Robinson, 1977, 59)

We think that Hayek would also agree with this diagnosis. According to the Hayekian theory, the economic expansion requires a liquidation of wrong investments and the transfer of capital goods and labor from economically stagnated sectors and places to the expanding sectors. In other words, after an economic crisis, economic growth needs economic restructuring and this process requires time.

Although, as we said, Hayek would probably have found Keynes's economic policy recommendations made in 1937 more plausible, he would still be skeptical regarding the possibility of implementing a demand policy in a way Keynes suggested. Hayek would have preferred leaving the entrepreneurs the initiative and leadership in the economic recovery.

In short, we think that the economic policy recommended in The General Theory could be useful only for a stagnated economy with high levels of unemployment (i.e., for "full unemployment" situations). Indeed, in 1937, Keynes, although he did not change the theoretical framework he had developed in 1936, had to adapt few policy recommendations to the new economic situation of lower unemployment (when the unemployment rate was "only" 12.5%). In this sense, we suspect many errors made by Keynes's disciples could come from the generalization of the conclusions and economic policy recommendations defended in The General Theory (which are only suitable in the "full unemployment" situations and not in the normal unemployment situations). For these reasons, we think that Keynes's General Theory and Hayek's business cycle model could be complementary models if the applicability of the former is restricted to the special situations of "full unemployment" and the latter is applied to normal unemployment situations.

#### 4. FINAL CONCLUSIONS

In conclusion, there is a criticism by Hayek of *The General Theory* that is scattered throughout his work

after 1936, that, to a certain extent, has remained unnoticed<sup>14</sup>. This critique is very consistent and addresses Keynes' theory from different angles. Indeed, in our opinion, Hayek presented very strong arguments against the principles on which the crowning work of Keynes rests. Thus, we believe that the study of this critique is paramount and may help us to understand and face the current economic crisis.

As a final reflection, we conclude that, if we compare the strategies of these two economists, we discover that they are complete opposites: Keynes intended to create and/or redirect flows of market spending to sectors where workers are unemployed so that they can recover their jobs, while Hayek proposes that the workers and other productive resources are the ones to move towards expenditure flows that are spontaneously created in the market on a basis of consumer preferences. We can infer from this that Keynes' solution at its best will be unsustainable in the medium and long term and Hayek's will result in a new. more sustainable productive structure, which will also be consistent with consumers' preferences.

#### **REFERENCES**

- Argandoña Rámiz, Antonio. 1988. "La Polémica entre Keynes y Hayek: Algunas Consideraciones de Interés para los Debates de los Años Ochenta." Pp. 235-269 in La herencia de Keynes, edited by R. Rubio de Urquía. Madrid: Alianza Universidad.
- Caldwell, Bruce. [1998] 2004. "Why Didn't Hayek Review Keynes's General Theory?". Pp. 260-281 In F.A. Hayek: Critical Assessments of Leading Economists, vol. III, edited by J. C. Wood and R. D. Wood. New York: Routledge.
- Cochran, John P. and Fred R. Glahe. 1999. The Hayek-Keynes Debate—Lessons for Current Business Cycle Research. New York: The Edwin Mellen Press.
- Dillar, Dudley. [1948] 1949. The Economics of John Maynard Keynes. The Theory of a Monetary Economy. New York: Prentice-Hall.
- Feito, José Luis. 1999. Hayek y Keynes: El Debate Económico de Entreguerras. La Polémica sobre las Causas y Remedios de las Recesiones. Madrid: Círculo de Empresarios.
- Garrison, Roger W. 1984. "Time and Money: The Universals of Macroeconomic Theorizing." Journal of Macroeconomics 6(2): 197-213. http://dx.doi.org/10.1016/0164-0704(84)90005-3
- Haberler, Gottfried, 1945. "Some observations on the Murray Full Employment Bill". Review of Economics and Statistics 27(3):
  - 106-109. http://dx.doi.org/10.2307/1928778

<sup>14</sup>In this paper, we have examined only four criticisms from Hayek to *The* General Theory. However, there are other criticisms by Hayek of great interest that we have not explained as it would far exceed the scope of this article. For example, there is an explicit critique of Keynes' interest theory (Hayek [1941] 1952: 356-368) and of Keynes' price theory (Hayek [1941] 1952: 374-375) and the elaboration of an alternative theory of chronic unemployment (Hayek [1939] 1975: 38-71).

- Hayek, Friedrich A. [1941] 1952. The Pure Theory of Capital. London: Routledge and Kegan Paul Ltd.
- Hayek, Friedrich A. [1931] 1967a. Prices and Production. New York: Augustus M. Kelly Publishers.
- Hayek, Friedrich A. [1950] 1967b. "Full Employment, Planning and Inflation." Pp. 270-279 in Studies in Philosophy, Politics and Economics. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1958] 1967c. "Inflation Resulting from the Downward Inflexibility of Wages." Pp. 295-299 in Studies in Philosophy, Politics and Economics. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1959] 1967d. "Unions, Inflation and Profits." Pp. 280-294 in Studies in Philosophy, Politics and Economics. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1937] 1971. Monetary Nationalism and International Stability. New York: Augustus M. Kelley.
- Hayek, Friedrich A. [1939] 1975. "Profits, Interest and Investment." Pp. 3-72 in Profits, Interest and Investment and other Essays on the Theory of Industrial Fluctuations. Clifton: Augustus M.
- Hayek, Friedrich A. [1966] 1978a. "Personal Recollections of Keynes and the 'Keynesian Revolution.'" Pp. 283- 289 in New Studies in Philosophy, Politics, Economics and the History of Ideas. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1974] 1978b. "The Campaign against Keynesian Inflation." Pp. 291-231 in New Studies in Philosophy, Politics, Economics and the History of Ideas. Great Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1936] 1980a. "Economics and Knowledge." Pp. 33-58 in Individualism and Economic Order. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1942] 1980b. "The Ricardo Effect." Pp. 220-254 in Individualism and economic order. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1945] 1980c. "The Use of Knowledge in Society." Pp. 77-91 in Individualism and Economic Order. Chicago: University of Chicago Press.
- Hayek, Friedrich A. [1946] 1980d. "The Meaning of Competition." Pp. 92-106 in Individualism and Economic Order. Chicago: University of Chicago Press.
- Hayek, Friedrich A. 1980. 1980s Unemployment and the Unions. The Distortion of Relative Prices by Monopoly in the Labour Market. London: Institute of Economic Affairs.
- Hayek, Friedrich A. 1981. "The Flow of Goods and Services." Unpublished manuscript.
- Hayek, Friedrich A. [1988] 1991. The Fatal Conceit. The Errors of Socialism. Chicago: University of Chicago Press.
- Havek, Friedrich A. [1983] 1995. "The Keynes Centenary: The Austrian Critique." In Contra Keynes and Cambridge: Essays, Correspondence, edited by B. Caldwell. London: Routledge. http://dx.doi.org/10.7208/chicago/9780226321141.001.000
- Hayek, Friedrich A. [1944] 2009a. "Bad and Good Unemployment Policies." Pp. 138-142 in A Tiger by the Tail. The Keynesian Legacy of Inflation, edited by S. R. Shenoy. Auburn, Ala.: Ludwig von Mises Institute and Institute of Economic Affairs.
- Hayek, Friedrich A. [1944] 2009b. "Review of Sir William Beveridge, Full Employment in a Free Society." Pp. 151-156 in A Tiger by the Tail. The Keynesian Legacy of Inflation, edited by S. R. Shenoy. Auburn, Ala.: Ludwig von Mises Institute and Institute of Economic Affairs.
- Hayek, Friedrich A. [1946] 2009c. "Full Employment Illusions." Pp. 142-151 in A Tiger by the Tail. The Keynesian Legacy of Inflation, edited by S. R. Shenoy. Auburn, Ala.: Ludwig von Mises Institute and Institute of Economic Affairs.
- Hayek, Friedrich A. [1971] 2009d. "The Outlook for the 1970s: Open or Repressed Inflation?" pp. 113-119 in A Tiger by the Tail. The Keynesian Legacy of Inflation, edited by S. R. Shenoy.

- Alabama: Ludwig von Mises Institute and Institute of Economic Affairs.
- Huerta de Soto, Jesús. [1998] 2002. Dinero, Crédito Bancario y Ciclos Económicos. Madrid: Unión Editorial.
- Huerta de Soto, Jesús [1982] 2004. "Método y crisis de la Ciencia Económica". Pp. 59-82 in Estudios de Economía política. Madrid: Unión Editorial.
- Hutchinson, Terrence W. 1977. Keynes versus the 'Keynesians'...?

  An Essay in the Thinking of J. M. Keynes and the Accuracy of its Interpretation by his Followers. Great Britain: The Institute of Economic Affairs
- Keynes, John Maynard. [1932] 1995. "Letter from Keynes to Hayek, March 29, 1932." Pp. 172-173 in Contra Keynes and Cambridge: Essays, Correspondence, edited by B. Caldwell. London: Routledge.
- Keynes, John Maynard. [1933] 1982. "National Self-Sufficiency." Pp. 233-246 in The Collected Writings of John Maynard Keynes. Vol. XXI: Activities 1931–1939. World Crisis and Policies in Britain and America, edited by D. Moggridge. London: Cambridge University Press.
- Keynes, John Maynard. [1936] 1973. The General Theory of Employment, Interest and Money. In The Collected Writings of John Maynard Keynes. Vol. VII. London: St. Martin Press.
- Keynes, John Maynard. [1937a] 1977. "How to Avoid a Slump". Pp. 65-73 Keynes versus the 'Keynesians'...? An Essay in the Thinking of J. M. Keynes and the Accuracy of its Interpretation by his Followers. Great Britain: The Institute of Economic Affairs
- Keynes, John Maynard. [1937b] 1977. "Borrowing for Defense. Is it Inflation?". Pp. 74-77 In Keynes versus the 'Keynesians'...? An Essay in the Thinking of J. M. Keynes and the Accuracy of its Interpretation by his Followers. Great Britain: The Institute of Economic Affairs

- McCormick, Brian. 1992. Hayek and the Keynesian Avalanche. London: Harvester Wheatsheaf.
- Robinson, Austin. 1977. "A Comment". Pp. 58-60 in Keynes versus the 'Keynesians'...? An Essay in the Thinking of J. M. Keynes and the Accuracy of its Interpretation by his Followers. Great Britain: The Institute of Economic Affairs
- Selgin, George. 1999. "Hayek vs. Keynes on How the Price Level Ought to Behave." In F.A. Hayek: Critical Assessments of Leading Economists. Vol. III, edited by J. C. Wood and R. D. Wood. New York: Routledge.
- Skidelsky, Robert. 2006. "Hayek vs. Keynes: The Road to Reconciliation." In The Cambridge Companion to Hayek, edited by E. Feser. New York: Cambridge University Press. http://dx.doi.org/10.1017/CCOL0521849772.006
- Tadeu Lima, Gilberto. [2000] 2004. "Capital Controversy in the Birth of Macrotheory: The Hayek-Keynes Exchange in Retrospect." In F.A. Hayek: Critical Assessments of Leading Economists. Vol IV, edited by J. C. Wood and Robert D. Wood. New York: Routledge.
- Tieben, Bert. 1997. "Misunderstandings and Other Coordination Failures in the Hayek-Keynes Controversy." In Austrian Economics in Debate, edited by Willem Keizer, Bert Tieben, and Rudy van Zijp. London and New York: Routledge.
- Vecchi, Nicolò De. 2006. "Hayek and *The General Theory*". In The European Journal of the History of Economic Thought.
- Wapshott, Nicholas. [2011] 2013. Keynes vs Hayek. El choque que definió la economía moderna. España: Deusto
- White, Lawrence H. [2012] 2014. El choque de ideas económicas. Los grandes debates de política económica de los últimos cien años. Barcelona: Antoni Bosch

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