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An Odd Couple? Prebisch, Keynes and the Dynamics of Capitalism

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Abstract

Keynes had a profound influence on Prebisch not only in terms of the diagnosis about the main failures of market economies but also on the need to pursue pro-active and anti-cyclical policies. Further, both economists dedicated their efforts to expand the policy autonomy of their respective countries and regions. However, Prebisch was critical of some aspects of Keynes' main work, The General Theory of Employment, Interest and Money (1936). This can be explained by a difference between the two economists in their object and method of analysis. Prebisch's interests focused on dynamics and the cycle, themes that were peripheral to the central message and analysis of the General Theory. Prebisch's Keynesian influence and his rejection of Keynes' magnum opus explain why Prebisch is often described as the Latin American Keynes, even as he is portrayed as concerned mainly with the long-run development problem of Latin America without consideration of demand factors.

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Prebisch, Keynes, cycles, classics, rate of interest, multiplier, center-periphery, Latin America, counter-cyclical policies

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An Odd Couple? Prebisch, Keynes and the Dynamics of Capitalism[1]

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Introduction

John Maynard Keynes (1883-1946) profoundly influenced the thought of Raúl Prebisch (1901-1986). Prebisch came into contact with Keynes's works in the early 1930s as the Great Depression wrecked havoc in both the developed and developing world, including in Prebisch's country Argentina. His interest on Keynes led him to publish in 1947 the *Introduction to Keynes*, six years prior to Alvin Hansen's *Guide to Keynes* (1953), which sought to make intelligible the new economic ideas contained in the *General Theory of Employment, Interest and Money* (GT) (1936).[3]

Keynes's influence is manifested in the critiques Prebisch raised against orthodox economic policies. It is also reflected in the fact that he shared Keynes's diagnosis of the outstanding faults of free market economies: the failure to provide full employment and the arbitrary and inequitable distribution of wealth and incomes. Moreover, Prebisch, like Keynes, advocated policy activism, in the monetary, fiscal and/or international spheres. Finally, both economists, under different contexts and for different economies, focused their efforts on increasing the policy space of governments to promote growth and full employment.

In spite of their similarities, following the publication of the *Introduction to Keynes*, Prebisch became a strong critic of Keynes's magnum opus. Prebisch made three criticisms of Keynes's work. First, he argued that the GT lacked consistency. Second, he claimed that the conceptual apparatus of the GT did not represent a break with Classical Theory, but rather shared many of its features. Third, he sustained that the book was divorced from the problems of the real world.

With respect to the first two points, Prebisch stated that the inconsistencies of the GT were glaring and that its ideas could not be used "as an instrument to explore reality, because [these] suffered from the similar grave defects [found in (neo) classical theory]" (Prebisch, 1993, Vol. IV, p. 278).[4] Prebisch's line of attack centered on Keynes's interest rate theory and on his analysis of the multiplier. This, notwithstanding the fact that Prebisch developed on his own, a version of the trade multiplier, which he called 'the coefficient of expansion.'

Prebisch criticism was even more emphatic regarding the third point, the absence of relevance of the GT. As he put it: "…Keynesianism has become a dogma that its disciples don't even discuss, but rather take it as the revealed truth…and place on the whole of the so-called Keynesian truths, new theoretical constructions that are each time farther away from reality, as is in my judgment, Keynes's own construction" (Prebisch, 1991, Vol. III, p. 504).

The difference in the object and method of analysis underlying both Keynes and Prebisch's views explains to a great extent, the latter's dismissal of the GT.

From the beginnings of his professional career in the 1920s, Prebisch's fundamental interests focused on the analysis of the cycle.[5] Prebisch understood that the reality of market economies is eminently cyclical. The cycle is the typical way through which capitalism grows. This meant not that economic theory must focus on the causes, intensity and perhaps duration of the cycle. It also implied that economics had to be built from a dynamic standpoint. Prebisch pursued this line of thought culminating in a series of lectures and unfinished writings on "The Theory of Economic Dynamics" (Vernengo y Pérez Caldentey, 2012b). It can also be argued that one of his major works, "The Economic Development of Latin America and Some of its Principal Problems" (1949 [1950]), which is often interpreted as a break with his focus on the short run and the beginnings of his long-run analysis of the development problem in Latin America, is really a work of continuity and an effort to integrate cycle and trend into a single and coherent approach.[6]

Contrary to Prebisch's focus on the cyclical reality of capitalism, Keynes's central theme of the GT was the explanation of the level of employment, output and use of existing capacity. And in fact, the cycle and the problematic of dynamics are peripheral to the main messages of the GT.[7] The theory of dynamics and cycles were developed later on the basis of Keynes's core contributions by other authors such as Roy Harrod and Joan Robinson, among the most renowned.[8]

This difference in object and method between both authors explains Prebisch's rejection of Keynes, notwithstanding his disillusionment with Classical Theory. Simply put, Prebisch could not find in Keynes what he was looking for, that is, an alternative explanation of the cyclical reality of capitalism. It is thus no wonder, that throughout a great part of his life, he held on to the Classical concept of 'forced savings' and loanable fund theory, perhaps unaware of their full meaning and implications, and gave them such a prominent role in the development of his 'Dynamic Theory' (1945-1948).

Prior to the development of his dynamic theory, the design of the post-WWII Bretton Woods plans by the British (drafted by Keynes) and the Americans (drafted by White) provided Prebisch with a further opportunity to highlight his discrepancies with Keynes's ideas. This time he emphasized his disagreement with both plans on the basis that both benefited the developed economies (or the center) and paid scarce attention to the periphery (developing countries).

This paper is divided into five sections and a brief conclusion. The first section examines Prebisch's first encounters with the work of Keynes. The second discusses his *Introduction to Keynes* (1947) and describes Prebisch's disconformities with the economic theory of the time, including with that of Keynes. The third and fourth sections analyze the critique of Prebisch towards the GT, and more particularly towards Keynes's theories of the rate of interest and the multiplier. The fifth section deals with Prebisch's assessment of the international monetary plans in the post-WWII period, including Keynes's Currency Union that provided the basis for Britain's position in the Bretton Woods negotiations, and briefly identifies the differences in the historical perspectives found in the analyses of Prebisch and Keynes. The conclusion provides a critical evaluation of the intellectual relationship between the work of Keynes and Prebisch.

Reading Keynes in Buenos Aires

Prebisch began his career as an economist in the beginning of the 1920s, focusing on the study of the fluctuations in the business cycle and its relation to money and finance. To a great extent, Prebisch's interest on the cycle was inspired by his research on the financial and economic history of Argentina during the period (1823-1914) and was further stimulated by his practical experience later on, in the Ministry of Finance and the Central Bank.

According to Prebisch, cycles were ‘natural’, ‘recurrent’ and inevitable facts of economic life, characterized by expansionary and contractive phases. Moreover, in line with the views of Clément Juglar (1819-1905), he argued that the phases were related. The sharpness of the bust phase was directly related to the excesses of the boom phase. In this sense, the bust was a ‘natural’ and unavoidable sequence of the boom, and the point of inflection from boom to bust was bound to occur. Moreover, the depth of the bust maintained a direct relationship with the intensity of the boom. The greater the excesses of the boom, the more drastic would be the bust. At the same time, the bust was not only unavoidable, but was in fact necessary to prepare the stage for the next upward phase (Prebisch, 1991, Vol. I, p. 618 and p. 634).

Coherently with this view, Prebisch thought that attempts to avoid a bust could only have temporary effects and were in fact ultimately useless to a necessary process required to restore external equilibrium; a *sine qua non* condition for internal equilibrium. Moreover, by postponing a natural process, these measures ultimately appeared as artifices tending to aggravate the required correcting forces.

Similar to other authors at the time such as Schumpeter, Prebisch was a staunch supporter of the theory of liquidation, and labeled the effects of the bust as natural and healthy, and as a cleansing of the bad elements (Prebisch, 1991, Vol. II, p. 601; Vol. I, p. 171). However, towards the end of the 1920s, influenced by Keynes’s *Tract of Monetary Reform* (1923), among other economists, Prebisch eventually came to recognize the painful and protracted effects of adjustment and deflation on economic activity.[9] In this regard it is useful to quote Prebisch at length (Vol. II, pp. 47-48):

> *“A well known economic theory, of orthodox lineage, teaches, in effect, that situations of this nature, in times of crisis, are solved through liquidation. The theory is perfectly exact judged on the hypothesis on which it is based. It assumes the case of a state of production which due to credit facilities has exceeded the consumption capacity of the market or the fictitious valorization of real estate property…sooner or later the market cannot absorb these goods or values at the prevailing prices…sales are paralyzed…The same theory provides the recipe: restrict credit and force liquidation…With liquidation banks recover their funds…the situation is cleared, through losses and bankruptcies, but the evil disappears…The inept are evicted and only the most gifted survive by selection. The most superficial reflection*

> *suffices to persuade that that theory of liquidation corresponds to factual data that are very distinct from the reality of Argentina."*[10]

Most likely, on the basis of Chapter I of the *Tract*, which examines, among other aspects, the real and social consequences of changes in the value of money, Prebisch recognized the organization of free market economies, which prevented the required adjustment postulated by the theory of liquidation to cure and restore the economy to its full health. Perhaps Prebisch was also influenced by the Economic Consequences of Mr. Churchill (1925) and other essays written by Keynes around that time, treating similar subjects (Keynes, 1932).

More precisely, Prebisch reasserted that contracts are established in terms of money, and that costs such as wages, and in general, production costs are rigid downwards. Moreover, deflation did not promote the expansion of employment and of production because it also increased the burden of the debt (Prebisch, 1991, Vol. I, pp. 59-60 and p. 135). These arguments were sued by Prebisch and formed the basis to question the beneficial aspects of liquidation in the downward phase of the cycle. As a corollary and logical sequence, by questioning the positive effects of liquidation, Prebisch also put in doubt the positive effects of pro-cyclicality in economic policy that he himself had advocated on several occasions (Prebisch, 1993, Vol. IV, pp. 116-117).[11]

The first recorded attempts by Prebisch to apply counter-cyclical policies date back to the early 1930s and more precisely to 1933. According to Prebisch, during this time, Argentina took the first steps, though timid and temporary, to put in place counter-cyclical policies for sustaining the price of agricultural products through government purchases and the undertaking of public works. There is no doubt that the influence of Keynes' *The Means to Prosperity,* which Prebisch read during that year, played a crucial role in the design of these measures (Prebisch, 1991, Vol. 2, p. 146).

As the thrust of this vision consolidated, the range of counter-cyclical policies expanded to include other instruments. A first step in this direction was the abandonment of the gold standard and the use of discretionary measures such as the rediscount (in spite of its lack of success) and foreign exchange controls that provided, in part, the conceptual foundations, for the creation of the central bank with Prebisch as its head, and the adoption of an autonomous and pro-active monetary policy.[12]

This monetary stance materialized in ensuring an adequate level of reserve accumulation as a precautionary motive of building buffer stocks to confront export shocks and sudden capital stops. At a more general level, Prebisch argued in favor of an activist monetary policy as follows:

> *"…monetary policy can propose two objectives in the face of the economic cycle. The first consists in avoiding that the expansion of credit accentuates the intensity of wave movement…The second objective goes further. It is not limited to avoid the aggravation of these fluctuations, but it proposes (se propone) furthermore to limit its amplitude and reduce the intensity of the variation of purchasing power during the cycle, in order to attenuate the consequences of its variations on the volume of domestic economic activity"* (Prebisch, 1991, Vol. III, p. 104).

The need to adopt counter-cyclical measures resurfaced, albeit temporarily, following the start of the Second World War with the Plan for National Reactivation, and in 1942 when Argentina confronted a growing external imbalance and there was a perception that an economic contraction was imminent. Also in 1943, Argentina introduced capital controls prior to Keynes and White's defense of capital controls at Bretton Woods (1944). Finally, in his unfinished book, *Money and the Rhythm of Economic Activity*, on which he had been working since 1943, Prebisch gave ample powers to monetary policy.

In *Money and the Rhythm of Economic Activity,* Prebisch argued that monetary and financial policy should have three main aims: (i) attenuate the impact of abrupt changes in harvest conditions, fluctuations and external contingencies; (ii) create the monetary conditions that stimulate the development and maintenance of full employment of the workforce; (iii) foster and support the highest possible rate of growth of economic activity.[13]

These ideas and considerations on monetary policy found an echo in the reforms that were undertaken by the United States Federal Reserve Bank in several Latin American countries under the direction of Robert Triffin (Vernengo and Pérez Caldentey, 2012a). After his abrupt exit from the Central Bank of Argentina, Prebisch was able to dedicate more time not only to his activities as an economic consultant but also to teaching economics and thinking about economic theory.

During this time he was able to delve more deeply into an analysis of the GT as shown in detail by the lectures he delivered in Buenos Aires beginning in April 1945 under the title Political Economy (Economic Dynamics). The first lectures dealt with a critique of Classical Economics and Keynes's GT. These lectures bore the title "The Crisis in Political Economy. Keynes and the Classics" These were followed by a detailed analysis of the GT, which gave rise to Prebisch's *Introduction to Keynes.*[14]

Prebisch's *Introduction to Keynes* (1947)

Prebisch published his *Introduction to Keynes* in 1947, six years prior to Hansen's *Guide to Keynes* (1953), which also sought to make intelligible Keynes's new economic ideas. Prebisch's purpose was clearly stated in the preface. Prebisch was looking for nothing other than an explanation of the economic cycle and a theory of dynamics in Keynes; an alternative explanation to that provided by conventional economic theory and more attuned to the problematic of the real world. As he explained (Prebisch, 1947, p. 13):

> *"This effort of mine to expose keynesian thinking responds to a justified concern for someone that has had some responsibility in the monetary policy of Argentina in the past years: to find in theory the rational explanation of the movements of economic reality, in order to act intelligently upon it…The theory of these movements, the dynamic theory of economics, has begun to develop in the last decades. It needed a vigorous impulse. Keynes has had undoubtedly a clear notion of it: from there follows the opportunity and transcendence of his work…Until what point has Lord Keynes been successful in providing that rational explanation of the economic movement clarifying the principles to whom it obeys?"*

The intention of Prebish was not simply to expose and summarize the theory of Keynes but also to assess whether the GT was able to provide 'a rational explanation of the economic movement and to clarify the principles to which it obeys.' In his own words: "This is what I propose to consider in a more in depth study on the Keynesian system" (Ibid., p. 14).

The *Introduction to Keynes* is divided into five parts. The first part (Introduction to the Keynesian System) covers Book I and II (Introduction and Definition of Ideas). The second part (The Marginal Propensity to

Consume and the Theory of the Multiplier) is centered on Book III of the GT (The propensity to Consume). The third part (The Efficiency of Capital and the Rate of Interest) includes Book IV (The Incentive to Investment) from chapters 11 to 14. The fourth part (The Conjunction of Savings with Investments) refers in part to Book IV (Chapters 13, 17), Book VI (Short Notes Suggested by the General Theory Chapters 22, 23 and 24). Part fifth (Significance and Social Projections of the Keynesian Scheme) focalizes on Book IV (Chapter 18), Book V (Chapters 19 and 21) and on Book VI (Chapter 24).

Prebisch did not find in Keynes an alternative explanation of the wave motion of capitalist economies to that of Classical analysis.

The objective of Keynes's theory (centered on the case of a developed capitalist economy) was to provide an explanation of the causes of the increase or decrease in employment and the utilization of existing capacity. Neither the analysis of the cycle, nor the study of dynamics constituted a central concern of Keynes's work, which was really about the demonstration of the existence of underemployment equilibrium. In other words, it was a question of demonstrating that market economies tend towards positions of equilibrium with unemployment even if all the conditions required for perfect competition and full price flexibility were fulfilled. For Keynes the persistence of unemployment lied in the fact that market economies are above all monetary economies, that is, economies where money plays a central role because it is the nexus between the present and an uncertain future.[15]

The cycle plays a secondary role in the *GT* and its analysis is concentrated in Chapter 22 (Notes on the Trade Cycle). In that Chapter, Keynes argues that the cycle is a complex phenomenon involving in its explanation several elements of Keynes's economic theory. The cycle is explained by the fluctuations in the rate of investment as a consequence of the variations in the marginal efficiency of capital. This in turn, is determined by changes in expected returns (i.e, changes in expectations) of newly produced capital goods. Cycle fluctuations are aggravated by other factors and in particular by changes in liquidity preference.[16]

Also, it should be added that part of Chapter 22 seems to pay more attention to crises than to the business cycle itself, that is, to a phenomenon that displays periodic patterns of regularity in its fluctuations and in the temporal sequence and duration of the phases of expansion and contractions.

It is in fact within the context of a crisis that Keynes makes references to violent and brisk fluctuations of the type Prebisch had in mind to describe the cycle as a succession of boom and bust phases (Keynes, 1936, p.314; Prebisch, 1947, p. 71; Pérez Caldentey and Vernengo, 2011 and 2012). Notwithstanding, Keynes emphasized the importance of dynamics, and this had an obvious print in his analysis of the cycle, even though he never fully developed this aspect.[17]

Leaving aside the occurrence of crises, what is most interesting and that pertains directly to Prebisch's vision of capitalism is Keynes's description of capitalist economies as economies in a state of perpetual movement, which appears clearly in his treatment of expectations in Chapter 5 of the GT (Expectation and Employment). Thus, for example, Keynes emphasized that at a general level a change in expectations can cause fluctuations which are similar to those of a business cycle: "…a mere change in expectations is capable of producing an oscillation of the same kind of shape as a cyclical movement…" (GT, p. 49). Moreover, market economies are subject to continuous changes: "…the state of expectation is liable to constant change, a new expectation being superimposed long before the previous change has fully worked itself out; so that the economic machine is occupied at any given time with a number of overlapping activities, the existence of which is due to various past states of expectations" (Ibid. p. 50). In this way, the volume of employment depends at any moment on the state of expectations that have existed in a given period of time.

Yet, in his *Introduction*, Prebisch does not mention Chapter 5 of the GT in spite of its importance to understand both its method and main messages. Moreover, he makes only a brief reference to Chapter 12, which is concerned with long-term expectations but within the context of the marginal efficiency of capital and financial markets.

There is hardly any doubt that the *General Theory* had a profound and long-lasting impact on Prebisch's thought. But the impact was both positive as well as negative. On the one hand, as we will explain later, Prebisch never accepted certain parts of the book even though they are essential to Keynes's thought. He strongly questioned the explanation of unemployment based on the monetary nature of the rate of interest, and also the logic and use of the multiplier.

On the other hand, he shared Keynes predicament with respect to the "outstanding faults of free market economies including its failure to provide for full employment, and its arbitrary and inequitable distribution of wealth and incomes." To these two outstanding faults, Prebisch added a third one, namely, instability, which is coherent with the weight and importance that Prebisch granted to the cycle as an inherent characteristic of the functioning of market economies (Prebisch, 1991, Vol. III, p. 500, Vol. IV, p. 301-303; p. 344 and 1947, p. 137). While Keynes emphasized the severe fluctuations of output and employment, he was careful to reiterate that the system was not 'violently unstable' (GT, p. 249) and that it could remain in a state of sub-normal activity without exhibiting a downward or upward trend. Within this context, it is opportune to recall the famous passage of Chapter 18 of the GT according to which the economy:

> "[…] *oscillates, avoiding the gravest extremes of fluctuation in employment and in prices in both directions, round an intermediate position appreciably below full employment and appreciably above the minimum employment a decline below which would endanger life"* (Ibid., p. 254).

Moreover for Keynes, the instability of the system does not depend on waves of irrational psychology, (p. 162) and the states of long-term expectations are generally 'steady', given that decisions are based on conventions which grant them certain stability (p. 152) by the mere fact that these imply that the current situation will continue indefinitely, notwithstanding its precariousness.

Prebisch asserted that economic fluctuations took place at what he called sub-optimal levels. In other words, he believed that economies operate at levels below full employment just as Keynes did. But perhaps due to the fact that he was from a country of the periphery, he also believed firmly that capitalist economies experience sharp variations in economic activity and were prone to instability.

The Crisis in Economic Theory and the Limits to the *General Theory*

In 1948, following the publication of his *Introduction to Keynes*, Prebisch argued that economic theory was in a state of crisis. He attributed the crisis to the fact that economic theory had no correspondence with reality[18]. Prebisch included in this category the group of thinkers that Keynes labeled in the GT, Classical Economics. But in addition, Prebisch also placed Keynes in the same category, in part because Keynes was more concerned with the levels of employment and hence with statics than with the cycle, i.e, with dynamics.

Prebisch thought throughout his life that the growth process of capitalist economies was eminently cyclical. As he put it (Ibid. p. 499):

> "*The cycle is the typical form of growth that capitalism has had historically and continues to have. Economic activity…expands and contracts continually in an interrupted succession of phases of growth in incomes, in employment, and in production, followed by phases of decline, with the consequent decrease in production and employment. There is no point of rest: it ascends to descend, and it descends in order to start ascending once again…In this movement there is no pint of equilibrium…it's a continuous sequence of disequilibria.*"

This understanding and more importantly, this vision of capitalism was not exclusive to Prebisch's views. They in fact echo those of a contemporaneous cycle theorist, Joseph Alois Schumpeter (1883-1950).[19]

As a general rule, Prebisch belittled the explanations of the then current theories of the cycle based either on the malfunctioning of the monetary system, in exogenous causes and shocks, or in arguments founded upon market imperfections. Instead, for Prebisch, the cycle is the logical and natural result of the functioning of market forces. And more than a simple flaw resulting from institutional or other market failures, the cycle is an endogenous phenomenon and as a matter of fact the faithful reflection of its natural workings (i.e. "a phenomenon inherent to the very workings of the capitalist process; that the cycle is the logical, spontaneous result, of the way entrepreneurs interact, and that these do not lead…to equilibrium, but rather precisely to the succession of disequilibria" (Prebisch, 1991, Vol. III, p. 502).[20]

Prebisch's dissatisfaction with economics, which he saw grounded in purely static analysis and completely ineffective to analyze and treat real world problems, in particular those of the periphery, turned into a harsh critique of Keynes, especially after the publication of his *Introduction.* Prebisch not only claimed that Keynes's theory of effective demand was not applicable to capitalism but also that it represented a step backward in comparison to his earlier thinking. Thus in June 1948, Prebisch comments on Keynes "…that is fundamental theories are inadequate to explain cyclical reality that is the form in which the economic process develops in the capitalist world" (Prebisch, 1991, Vol. III, p. 506). And later on he stated,

> *"And it is a psychological phenomenon –that I would not know how to explain at this moment- the reason for the abrupt change in Keynes when he evolved…from the Treatise on Money to the General Theory, forgetting what he told us about Wicksellian theory and the economic cycle to become fatally muddled in the theory of the multiplier wasting in this way the value of his theoretical contribution to economic phenomena."*

In spite of his strong criticism, Prebisch nonetheless rescued the importance and long-lasting influence of Keynes in the plane of economic policy, and even prophesized that: "[...] if a renewed economic depression were eventually to occur, Keynes would reach…, the same notoriety that he had during the great world depression" (Prebisch, 1991, Vol. III, p. 506). But at the same time, he thought that Keynes's policy recommendations, as well as their validity, were independent of his theory. In his own words: "Keynes has left practical solutions that are independent of his theory…these can be accepted or rejected with complete independence of his theory." Thus he concluded: "..there is no contradiction between my theoretical position on which to judge Keynes and my respect for some of his practical policies." (Ibid., p. 506).

Keynes' GT marked a fundamental break with the mainstream economic thinking at the time. He announced in the preface to the GT (December, 1935) that its 'composition had been a long struggle of escape from the habitual modes of thought and expression'. In the same way, to distinguish himself for the economists that had preceded him, Keynes classified them under one label, that of the Classical School. He also adopted the title the General Theory of Employment, Interest and Money (1936) to demarcate and mark a contrast between his arguments and those of the Classics. As he put it GT, 1936, p.3): "The object of such a title is to contrast the character of my arguments and conclusions with those of the *classical* theory of the subject, upon which I was brought up and which dominates the economic thought, both practical and theoretical, of the governing and academic classes of this generation, as it has for a hundred years past."[21]

But Prebisch argued consistently that Keynes, contrary to his intentions, was unable to emancipate himself from the confines of Classical theory. He had actually remained faithful to the logic of its economic arguments. For Prebisch, the GT maintained the theoretical continuity and conceptual unity with Classical theory.

More specifically, Prebisch made two main criticisms of the GT. The first related to Keynes' explanation of unemployment.

Prebisch argued that Keynes's explanation of involuntary unemployment was founded upon an imperfectionist argument, namely the rigidity in the rate of interest. In this sense, Prebisch did not see any difference between Keynes's explanation of unemployment and that of the Classics based upon money wage rigidity as both depended on the existence of nominal price rigidities, the rigidity in the interest rate in the case of the former and the rigidity in nominal wages in the case of the latter. As he argued (Prebisch, 1991, Vol. III, p. 501):

> *"…Lord Keynes, who made an important effort to emancipate himself from the teachings of the Classics, also falls in a type of explanation that is eminently Classical. What is the explanation of Keynes, with relation to the case of unemployment…? Simply that when the rate of interest does not fall to the extent of the decline in the marginal efficiency of capital, a part of the savings of the community lies idle provoking unemployment. For the Classical economists…wage rigidity…provokes unemployment…..In trying to escape from the classics, Keynes falls into a type of explanation of unemployment that is eminently classical. From my point of view both are mistaken…"*

And later on Prebisch explains (Prebisch, 1993, Vol. IV., p. 276): "What does Keynes's explanation consist of? In the resistance of the rate of interest to fall when the rate of return on capital falls. These are explanations that fall within the logical game of classical theory." Prebisch sustained moreover, that interest rate rigidity was itself explained by liquidity preference. In fact it seems that Prebisch was thinking of interest rate rigidity in terms of the liquidity trap. This is reflected in Prebisch's own explanation (Ibid. p. 275): "For what reason, according to Keynes, for the rate of interest to stop falling? Due to the phenomenon of liquidity preference that is produced when the rate of interest reaches a level that is too low and investors fear that having fallen so low, it can at any moment rise again with the effects that this would have on their holdings." Hence for Prebisch, the lower is the rate of interest the greater is its resistance to fall, and the greater the possibility that economic agents will maintain their levels of liquidity holdings preventing an increase in aggregate demand.[22]

In fact, for Keynes, liquidity preference referred to the volume of resources (valued in nominal terms or wage units) that an economic agent keeps under the form of money under different circumstances (1936, p. 166). The liquidity trap refers to a situation in which liquidity preference is absolute in the sense that the interest rate has fallen to such low levels that everyone prefers to hold money, the asset which possess absolute liquidity, rather than an alternative asset say a bond with such a low yield. Keynes was emphatic to note that he knew "of no example of it hitherto" (1936, p. 207).

In the GT, Keynes assigned a central role to the rate of interest. For Keynes, within the logic of classical theory, wage flexibility was a necessary but insufficient condition to achieve full employment positions. Full employment required, in addition to wage flexibility, interest rate flexibility (Pigou, 1944;p.16). Hence Keynes argued (GT, p. 266): "It is, therefore, on the effect of a falling-wage and price-level on the demand for money that those who believe in the self-adjusting quality of the economic system must rest the weight of their argument: though I am not aware that they have done so."[23]

The purely monetary nature of the rate of interest prevented its adjustment towards a position of full employment equilibrium.[24] This sets a limit to the decline in the marginal efficiencies of capital and thus to the rate of growth of real capital.

Prebisch failed to understand this point and seemed to have interpreted Keynes in the opposite way as stating that the rate of interest was supposed to adjust to the marginal efficiencies of capital. Only such an interpretation is compatible with the statement by Prebisch (1991, Vol. III, p. 501) according to which Keynes sustained that: "…when the rate of interest does not decline to the extent to which the marginal return on capital, or marginal efficiency of capital, has fallen, a part of the community's savings in not used and thus unemployment ensues.'

In Chapter 17 of the GT, Keynes explains that all goods have an expected rate of return that can be expressed in terms of their own units. The equality between these different types of own rates of interest expressed in monetary terms for a given group of commodities or assets implies that agents are indifferent between these. There is no relative advantage in the holding of one good/asset relative to the holding of another.

Keynes's reasoning can then be explained as follows assuming, for didactic purposes, a three asset economy (money and two another non-monetary assets), such that, the own rate of interest of money is fixed by the monetary authorities whereas the own rate of interest of one of the other assets varies inversely with its produced quantity given the existence of marginal decreasing returns. In a growing economy, costs increase and the return of the asset most intensely used tends to decline. As costs increase and the return declines, the asset most intensely used can be substituted by the other non- monetary asset.

However, this logic does not apply to the own-rate-of-interest on money. The own-rate-of-interest on money does not decline in a growing economy due to two essential properties: zero elasticity of production and zero elasticity of substitution. Increased production of money does not lead to a decline in its own rate of interest. Money is not subject to the law of marginal decreasing returns. Moreover, money due to its liquidity attribute, cannot be substituted by a non-monetary asset (i.e. the gross substitution theorem does not apply).

Hence in 'setting the pace for all other own-rates-of-interest, the own rate of interest on money holds back investment' and prevents reaching full employment. As a result, as stated by Keynes (1936, p. 235): "…in the absence of money and in the absence…of any other commodity with the assumed characteristics of money, the rates of interest would only reach equilibrium when there is full employment"

Prebisch was highly critical of this type of interpretation. For Prebisch, the phenomenon described by Keynes (Prebisch, 1947, p. 110): "can occur independently of money, as long as there is a good or commodity whose own rate of interest finds difficulties to decrease below certain limits when its quantity increases, even in a money less economy."[25] Perhaps it was such an interpretation that led him to assert: "..there are periods in history during which the desire for owning land played a similar role as that played by money today in maintaining a high rate of interest" (Ibid. p. 112).

From our point of view, the relevant element in Prebisch's critique is the correct perception that a veritable escape from the habitual modes of thought and expression of (Neo) Classical theory requires a break with imperfectionists arguments as an explanation of the majority of ills and flaws of market economies. It is certainly not obvious that Prebisch fully understood the meaning of the natural rate of interest and its implications. However, he was able to critique the use of the rigidity of the rate of interest as a cause of unemployment.

The Logical Multiplier and the Circulation Velocity of Money

Prebisch's second critique focused on Keynes's initial novelty of the GT (CW, XIV, p. 212) consisting of the fact that the equality between savings and investment was brought about by variations in income rather than through changes in the interest rate. More precisely, Keynes argued that investment is independent and logically prior to savings. Investment determines, through the marginal propensity to consume (his fundamental psychological law, GT, pp. 113-131 and CW, XXIX, p. 214) and the multiplier, the level of income to which savings adjusts.

Prebisch argued that Keynes's multiplier was applicable to a closed economy context with marginal references to the import propensity, that it made no reference to the circulation velocity of money and that its effects were limited by the savings propensity, "which constrains the expansion of economic activity and conspires against the full employment of resources" (Prebisch, 1991, Vol. III, p. 359).

In the GT, Keynes was mainly concerned with an entrepreneur economy and with the process of decision making under uncertainty. In this sense, the multiplier analysis appears in fact in a superficial and perhaps incomplete form ((e.g. Khan (1984, p. 134); Chick (1997, pp.162-184)). Nonetheless, he was well aware of the effects of the propensity to import on the multiplier as illustrated by the reasoning underlying his estimate of Britain's multiplier and the comparison to that of the United States (GT, pp.121-122). [26]

This follows from the fact that the propensity to import was part of the framework and indeed the logic with which the multiplier was conceived (Khan, 1931 and 1933). Imports along with savings and 'the non-transfer portion of the income of the unemployed', was considered a leakage, and leakages ensured that the multiplier could be expressed as an infinite but converging geometrical series. Accordingly, Keynes' '*The Means to Prosperity*' (1933) published three years prior to the GT which deals with an open economy, fully incorporates the propensity to import as part of the multiplier analysis presented. Moreover, by that time, treatments of the foreign trade multiplier could be found in Giblin (1930), Warming (1932), Kalecki (1933), and Harrod (1933) (which was fully incorporated into Keynes' theory of effective demand by 1939).[25] By 1941, roughly three years prior to Prebisch's full treatment of the export expansion coefficient, the foreign trade multiplier was a well established concept in the literature (Haberler, 1952).

Later on, Prebisch questioned the validity of the multiplier arguing that investment does not determine savings, as Keynes sustained. As put by Prebisch (Prebisch, 1993, Vol. IV, p. 299): “I am convinced that foregoing consumption is essential to capitalize investment. In this regard I am in agreement with the [Neo] Classical School and differ from Keynes.”

This view led Prebisch to criticize the way in which Keynes determined the volume of output and employment. The most fundamental objection put forward by Prebisch was that Keynes, in the same way as Classical analysis, dispensed with time, whose introduction in any economic analysis of market economies was essential. Furthermore, Prebisch argues that both the Classics and Keynes introduced artifices exactly for this purpose, that is, in order to dispense with time. The Classics’s artifice was the rate of interest and Keynes’s artifice was the multiplier. In Prebisch’s own words (Ibid., p. 277):

> *“…in the end Keynesian thinking amounts to saying: to undertake investments today, we will use future savings…This reasoning can be done if the future is confused with the present, eliminating completely the time factor in the process. Such is one of the great inconsistencies which invalidate Keynesian theory…Using a simile, for the Classics, in order to produce a chicken in the future, it is necessary to save an egg today, to forego the consumption of an egg today. All of this is not accepted by Keynes. Why should we have to save an egg today to produce that chicken and instead produce that chicken with the same egg the chicken will lay in the future? This is ultimately from my understanding the Keynesian theory of the multiplier.”*

In other words, Prebisch was critical of what Keynes termed (GT, p. 122) the logical theory of the multiplier. The logical theory of the multiplier is related in turn to logical underpinnings of Effective Demand, i.e., the determination of output and hence savings by investment from a logical point of view, when investment is taken as strictly autonomous from income, and not determined by a historical process, which occurs with lags and simultaneous processes of expenditure and generation of incomes.

As a follow-up to his criticism, Prebisch also mentioned that a timeless representation of capitalism, as that embodied in the concept of the multiplier (Prebisch, 1993, Vol. IV, p. 277), was also not relevant for developing countries.[28] In principle it can be said that the concern with historical processes of development in the periphery, and the difficulty Prebisch experienced to distance himself from traditional ideas explains, in part, his criticism of Keynes's multiplier.

Curiously enough, in spite of these critiques, Prebisch developed in 1935, ca, a concept very similar if not identical to the multiplier, termed the coefficient of expansion. Moreover, it suffered from the same flaws which he saw in Keynes's version of the multiplier (Prebisch, Vol. III, pp. 249-298; 301-310; 335-342; 349-370).[29] According to Prebisch, the coefficient of expansion, measured the intensity with which an increment in incomes, resulting from a given autonomous increase in exports or financial flows, produces an expansion of greater amplitude in domestic economic activity. His analysis of the multiplier was static; an explanation of a change from one equilibrium position to another.

Beginning with a position of equilibrium, he explains the workings of a one-time increase in exports in the following way (RP, Vol. III, p. 250):

> *"If for example, the volume of Argentinean exports increase –either due to an increase in exports or to the rise in prices- the agricultural sector will receive incomes correlatively higher allowing it to increase its demand for goods and services produced by other sectors and also for imported goods. There will be a higher demand for industrial goods; more commerce activity and in transportation; greater utilization of professional services and greater imports. At the same time, these sectors, that will have received more incomes will increase their demands for goods and services produced within the same sector and of other sectors and in this way will the influence or the effect of the initial growth in income of the agricultural sector produced by the increase in its exports successively expand."*

Eventually the system will return to equilibrium when the rise in domestic incomes brought about by the expansion in exports leaks out through a greater volume of imports and other payments through the rest of the world.

In the examples provided by Prebisch, incomes are eventually fully spent domestically or externally through imports. As a result, the marginal propensity to save is ultimately equal to zero and the effect of a change of exports on expenditure is reduced to the inverse of the marginal propensity to import or to the foreign trade multiplier. Hence, the increase in income is determined by the rise in exports times the foreign trade multiplier.

Besides the propensity to import, Prebisch identified the circulation velocity of money as the other key variable absent from Keynes' GT multiplier analysis, allowing him to draw a distinction between his approach and that of Keynes. Prior to the publication of the GT, J.M. Clark (1935a) had made the distinction between (p.16): "…two approaches, one via successive cycles of income and spending by ultimate recipients of income, the other via the volume of money and its velocity of circulation. The first has been…developed by…Kahn…and J.M. Keynes; the second has, so far as I am aware, not found its way into print." [30]

Following upon J.M. Clark's distinction, some authors have argued that the logic of the multiplier implicitly includes assumptions regarding the behavior of the circulation velocity of money and that the analysis is incomplete without its explicit incorporation into the analysis. Haberler ([1937], 1952, p. 232) pointed out that to determine the secondary effects of new public expenditure, information was needed about the marginal propensity to consume and the circulation velocity of money. Machlup (1939) argued that the time element is 'of great importance' to the theory of the multiplier and introduced period analysis to work out the primary and secondary effects of public works spending, where periods are seen as reciprocals of the circulation velocity of money. Prebisch seems to hold a similar view as he argues (RP Vol. III, p. 359) that following an increase in income, primary employment will expand but that this will not give to an expansion in secondary employment unless there is another round of new expenditure or unless the circulation velocity of money increases.

Bretton Woods as if there was a Centre and a Periphery

As Prebisch developed and refined his thinking, he realized on the one hand, that in order to be useful, economics needed to include as some of its central features, those aspects that traditional theory had ignored such as the time dimension, as well as a historical/institutional perspective. The historical/institutional perspective later became one of the hallmarks of the Latin American Structuralist School. Following his criticisms of the Classics and Keynes as he developed his Dynamic Theory, Prebisch moved on to underscore the crucial importance of the time dimension:

> *"It is precisely this concern that began to take center stage in my…practical activities and later on influenced me to systematically search the action of time not only in the phenomena related to the circulation of incomes, but also in other economic phenomena…and in this*

> *way I have arrived at this fundamental conclusion from which derives the entire theory that I am about to expound".* (Prebisch, 1993, Vol. IV, p. 416.) [31]

On the other hand, he became more aware of the interrelation and interconnectivity between the different countries and regions, and in particular, in the asymmetric relationship between center and periphery and its corresponding and distinct role in the international division of labor.[32] In other words, prior to the publication of the Manifesto in 1949, Prebisch had developed a sophisticated conception of the process of historical development of capitalism.[33] This allowed him to understand the cycle, as well as to approach dynamics from a global perspective, and more precisely, under the specific lens of the relationship between the center and the periphery.

Regarding the relationship with Keynes's ideas, Prebisch's concern with time and history had led him to address, previous to his attack on Keynes and the Classics, the potential effects of the international monetary and economic plans drafted in the aftermath of World War II. These include the plans of Keynes, Harry Dexter White and John H. Williams.

Prebisch highly approved the countercyclical element in Keynes's Clearing Union. He nonetheless expressed his reservations about the plan. He compared the Keynes plan (The Clearing Union) to a 'Closed International Monetary Fund' (Prebisch, 1993 Vol. IV, p. 97 and Prebisch, 1944).

This was due to the fact that, according to Prebisch, the balances of the members of the Clearing Union were to be deposited in a single institution and these had the obligation to spend their balances on commercial transactions between themselves. As a result, it did not promote the creation of a balanced and equilibrated commercial system that would benefit in any way the countries of the periphery.[34]

More to the point, Prebisch sought that the Keynes plan suffered from the same flaws of the Gold Standard, including, in particular, its automatism 'that had so gravely hurt the universal Gold Standard' (Prebisch, 1993 Vol. IV, p. 99). This automatism referred to the freedom of countries to use the credits granted within their respective quotas. Prebisch thought that this had an inherent inflationary bias and that this did not benefit the countries of the periphery.[35]

Moreover, Prebisch believed in a directed system of credits and thus that these should be granted according to countries' needs. All in all, in his final judgment on Keynes's plan, he asserted: "the very favorable [aspects] and other inconvenient aspects that are not difficult...to correct. This applies to the counter-cyclical policy of Keynes's plan, because if at the beginning of a depression countries have enough resources to equilibrate their balance of payments, they have no need to compress their imports and lead to a sharp contraction of their domestic economies"(Prebisch, 1993 Vol. IV, p. 100).

Notwithstanding his critical appraisal of Keynes's proposal, Prebisch reserved his harshest criticism for White's American plan. Prebisch argued that White's plan was even less favorable to the periphery than that of Keynes. Moreover, in spite of providing temporary relief to balance of payments disequilibrium, White's plan ultimately contained a strong contractionary bias. This could have a strong and negative effect on the growth of output and employment in the countries of the periphery. As Prebisch stated (Ibid. pp. 103-104):

> *"Let's assume that a strong economic and credit contraction occurs in the United States as the one which took place after the world crisis [the Great Depression] or…after the first [world] war. Let's assume further that the subsequent expansion is relatively mild…What would happen if…the countries of the periphery…saw a growing disequilibrium in their balance of payments?..That the countries that are affected will have to resort to credits...but these credits are limited…to pay for their credits they will have to resort to a contraction in their imports…to the contraction in economic activity".*

Prebisch proposed an alternative plan, a full employment plan in line with that of John Williams. This consisted of compensating the fall in economic activity with increased public expenditure by the governments of the countries belonging to the center (and in particular in the United States), including public works to sustain high levels of employment and output. This plan also contemplated directing the flow of credit to avoid unsustainable disequilibria.

Even though Prebisch did not realize, his plan was completely consistent with Keynes GT views regarding to the need to sustain rather than abolish expansions. As the latter put it (GT, p. 322): "The right remedy for the boom for the trade cycle is not to be found in abolishing booms and thus keeping us permanently in a semi-slump; but in abolishing slumps and thus keeping us permanently in a quasi-boom."

We believe that Prebisch arrived at a similar view point shortly before leaving the direction of the Central Bank of Argentina (BCRA) (Pérez Caldentey and Vernengo, 2011, 2012). For Prebisch, the benefits of a full employment plan were imensurable:

> *"the world can have a growth stimuli more or less intense than the one we saw in the XIX century, due to the massive growth power of the United States especially if…it is accompanied by technical innovations which without doubt are bound to occur…we are far from the exhaustion of the possibilities for investment, as some economists, including Keynes, sustain"* (Prebisch, Vol. IV, p. 108).

However, he was not overly optimistic that the more developed economies (i.e. the economies belonging to the center) would ever adopt full employment policies.[36] This view point would endure as a crucial component of Prebsich's thought even when he seemed, at the end of the 1940s, to shift his analysis towards the longer run problems of Latin America and the need to promote the industrialization of the periphery.

Final Thoughts

Keynes exerted a profound influence on Prebisch's thought not only in terms of the identification of the main flaws of free market economies but also in the recognition that counter-cyclical policies were needed to promote sustained growth and employment. Also both economists dedicated their efforts to promote the policy autonomy of their respective countries (Britain and Argentina) and also of their respective regions (developed and developing world).

In spite of their commonality of interest and objectives, Prebisch launched a harsh critique of Keynes's GT. In particular, he argued that the GT suffered from flagrant inconsistencies and did not represent a break with Classical theory. Prebisch's criticisms were to a great extent unjustified. Nonetheless, he correctly perceived that Keynes's had failed to fully escape from the habitual modes of thought and expression and relied in some instances on imperfectionist arguments.

From our point of view, Prebisch's criticism can be explained to a great extent by differences in the object and method of analysis. For Prebisch, the main characteristic feature of capitalist economies is their wave motion. These evolved and developed in growth cycles. As a result, Prebisch thought that economics should focus on developing a cycle theory and more precisely a dynamic analysis. For Prebisch, that analysis had to encompass the entire spectrum of economic movement and evolution in both the center and the periphery. Moreover, it had to be extended to explain not only fluctuations and their sequence in the center and periphery, but also their economic and social transformations occurring during the cycle. This also included the changes in the distribution of income.

For obvious reasons, Prebisch did not find in Keynes what he was looking for. Moreover, the GT appeared to Prebisch, as it did to Roy Harrod, as a static work. The former went so far as to treat the GT as a timeless representation of capitalism.

Prebisch moved on to develop a dynamic theory without trying to incorporate some of the notions or elements of GT. Instead, the route taken by Prebisch was to develop his dynamics on the basis of the Classical concept of forced savings. For Prebisch, forced savings provided the impulse needed to explain fluctuations in economic activity and in this sense he viewed it as a dynamic concept.

Prebisch's Keynesian influence and his rejection of Keynes magnum opus perhaps explains why at the same time that Prebisch is often described as the Latin American Keynes, he is portrayed as concerned mainly with the long-run development problem of Latin America, paying little attention to demand factors as fundamental determinants of the levels output, employment and their rates of growth.

Notes

[1] All English translations of sources in Spanish including Prebisch's Works (Vols. I to IV) are by the authors of this paper. Brackets in quotes were introduced by the authors. Throughout the text Prebisch's Works are cited as Prebisch, 1991, Vol I to III and by Prebisch, 1993, Vol. IV with the respective page(s) numbers.

[2] The opinions expressed here are the authors' own and may not coincide with those of the institutions with which they are affiliated.

[3] Some of the material used in the *Introduction to Keynes* (1947) was published in the Bulletin of the Central Bank of Venezuela in 1947 in Vol. VI in the January-February (No.23-24) and April-May (No.26-27) editions.

[4] Prebisch followed Keynes's definition of Classical Economics (GT, p. 3).

[5] Prebisch began his career as an economist in the 1920s. He held various posts in government and academia. He acted as Head of the statistical unit of the Argentinean Rural Society in 1922 and later on in 1928 as Advisor. He was Professor of Economic Policy at the Faculty of Economic Sciences of the National University of Buenos Aires (1924-1948); Deputy Director of the Argentine Department of Statistics (1925 to 1927); Director of Economic Research for the National Bank of Argentina (1927 to 1930); Under-Secretary of Finance (1930 to 1932); Advisor to the Ministries of Agriculture and Finance; and in 1935 he became the first Governor of the Central Bank of Argentina until 1943. See Dosman (2008).

[6] The Economic Development of Latin America and Some of its Principal Problems also known as the Prebisch 'Manifesto' was published in 1949 as an introduction to the 1948 Economic Survey of Latin America and also appeared in the same year in *The Revista Brasileira de Economia*, No.3, pp. 47-109 and in *El Trimestre Económico* 16(63); 347-431, July-September and in 1950, in *Revista de Ciencias Económicas*, Buenos Aires, año 38, Serie III, No.22, March-April. In 1962 it appeared in the *Boletín Económico de la América Latina*, Vol. III, núm.1, February 1962.

[7] Amadeo (1989) correctly argues that in the transition from the GT to the Treatise on Money (1930), Keynes moved from a cyclical theory that remained within the confines of Say's Law to a theory of equilibrium that incorporated the theory of effective demand and rejected Say's Law.

[8] Harrod and Robinson attempted to provide a dynamic interpretation of Say's Law and extend the theory of effective demand to the long-run. See Vernengo and Rochon (2001) on the limitations of these attempts. Two other essential authors within the Keynesian tradition were Kalecki and Kaldor. All these authors emphasized, as Prebisch did, the cyclical dynamics of the growth process and tried to show that the dynamic process was not one of equilibrium, in the sense that that the fluctuations did not take place around a center of optimal gravitation. Besomi (2002) suggests that Harrod, as Prebisch, was trying with his dynamics to revolutionize economic theory and thinking.

[9] The negative effects of deflation were also highlighted by Silvio Gesell (1862-1930), a German economist who resided in Argentina from 1886 to 1900. Referring to the specific period of the end of the 19th Century in Argentina, Gesell stated: "..The increase in the value of money is the common cause for all the country's economic troubles." (*La Anemia Monetaria*, 1898). Keynes in his *Tract on Monetary Reform* ([1923], 1971) also pointed out the negative effects of deflation. Finally, it is to be noted that these were highlighted by the early Chicago School of economics in terms similar to those of Prebisch at this stage of his thinking (that is, in terms of nominal price and wage rigidities) and became the basis to recommend reflationary policies (e.g. Simons ([1934], (1962), p. 5; Pérez Caldentey (2003)). Curiously enough, Keynes argued that Gesell was one of the few economists who had grasped 'avant la lettre' some of the key elements introduced in the GT such as the distinction between the rate of interest of interest and the marginal efficiency of capital, the fact that the rate of interest as a monetary phenomenon is the variable that prevents the marginal efficiency of capital to reach a level consistent with full employment, and the peculiarities of the own rate of return on money (GT, pp. 355-356).

[10] See also the "Scholastic Inflation and Argentinean Currency" (1934, Vol. II, pp. 336-350) and Vol. III, p.348. 'Liquidation' was one the phases of the cycle identified by Juglar (1860) and became associated with the Austrian Theory of the business cycle (see for example Schumpeter ([1939], 1989, Hayek 1933) and with passive policies adopted by the Federal Reserve and the Edgar Hoover administration that deepened the Great Depression (See White, 2010 for a contrary opinion). Eichengreen (1999, pp. 8, 12) defines it as: "..liquidationism, according to which business cycle downturns served the Darwinian function of weeding out the weak enterprises least well adapted to a dynamic economy." As can be seen, Prebisch understood liquidation and its effect in a very modern sense. Prebisch's arguments were framed in terms of the existence of imperfections, and in particular, contracts fixed in money terms, rigid and fixed costs such as wages and in general production costs.

[11] As Under Secretary of Finance, Prebisch implemented what he himself termed 'brutal budget adjustments', including a 15% reduction in government wages. See Pollock & Love (2002, p. 543).

[12] Prebisch argued that he perceived the need for the creation of a central monetary authority prior to World War I (Prebisch, 1991, Vol. I, p. 7).In his interview with Prebisch in 1983, Julio González del Solar (*apud* Mallorquin, 2006) terms the use of the rediscount and the creation of the Commission for Foreign Exchange Control in 1931 the first two heterodox steps in Prebisch's thinking. However, as explained above, the rediscount was an old idea and Prebisch himself considered it an orthodox instrument. He viewed exchange controls as somewhat of a departure from the mainstream doctrine (RP, Vol. III, p. 89). See also, Prebisch (1984, p.175). Curiously, later on in 1946, he claimed to be in disagreement and 'abominate' restrictions including exchange rate controls, but justified their use on the grounds that developing countries did not possess alternative instruments to confront and mitigate the effects of the business cycle (See, RP, Vol. IV., p. 226).

[13] As explained above, Prebisch had conceived maintaining stability in the value of money as one of the main functions of the Central Bank (created in 1935). Prebisch was aware that inflation and disinflation had important economic and social costs. The fact that a low and stable rate of inflation is not included as part of the aims of monetary policy in his 1943 draft responds to the belief that the Central Bank should expand its objectives and also aim at full employment. Nonetheless, maintaining full employment and the highest possible rate of growth of output does inevitably lead to situations of inflation and output trade-offs. Throughout the period covered in this article, Prebisch never abandoned the orthodox belief that inflation is the product of fiscal deficits. See for example, Prebisch, 1993,Vol. IV, p. 229.

[14] The final version of the *Introduction to Keynes* was the product of a series of articles published in the Bulletin of the Central Bank of Venezuela (January-February and April-May 1947, Nos. 23-24 and 26-27).

[15] As will be explained later on, unemployment has its ultimate roots in the existence of money, or more precisely, in a long-run conventional interest rate that does not allow the full employment of productive resources. Keynes suggested (GT, 1936, pp. 242-44) that the natural rate of interest, i.e., that rate of interest consistent with full employment, was a theoretical chimera and had to be abandoned. Keynes asserted that for each hypothetical level of employment there corresponded a natural rate of interest and that "similarly for every rate of interest there is a level of employment for which that rate is the 'natural rate', in the sense that the system will be in equilibrium with that rate of interest and that level of employment (ibid. p.242). Thus there are several 'natural' rates of interest and these do not necessarily correspond to full employment although the system may be in equilibrium. The 'tacit' assumption of Classical Theory regarding its interest rate theory was to assume that the level of employment is constant and at full employment. That level corresponded either to a situation where the actual rate of interest is equal to the natural rate of interest or to the 'neutral rate' (characterized a zero elasticity of employment in the aggregate).

[16] Thus the collapse in the marginal efficiency of capital (the most patent symptom of a crisis) leads to an increase in liquidity preference increasing in this way the rate of interest. This is the reason why a contraction or even more to the point a depression can become intractable (Keynes, 1936, p. 316). It is to be noted that in the GT, Keynes still hung to marginalist concepts. See Camara Neto and Vernengo (2012) on the need to abandon marginalist concepts to obtain Keynesian results.

[17] The most illustrative example is the treatment of expectations which is the central subject of Chapter 5 of the GT. In that chapter Keynes distinguishes between short and long run expectations. In his discussions with Harrod following the publication of An Essay in Dynamic Theory in the Economic Journal (edited by Keynes), Keynes made clear his opposition to ad hoc and mechanical formalizations of dynamics and also shows his rejection of the acceleration principle (CW, Vol. XIV, pp. 321-50).

[18] "Economics [the predominant economic theory] is insufficient to encompass, describe, and explain the problems of the real world, and as a result, to provide us with the means of acting upon it efficiently." (Prebisch, 1991, Vol. III, p. 496)

[19] See Schumpeter (1934, pp. 214-215; 1939). However, Sin Schumpeter believed that after each shock to the circular flow provoked by innovations, the economy would return to that circular flow, where the general equilibrium Walrasian theory. This type of analysis is very different than the one proposed by Prebisch, even though both shred their interest in the dynamics of capitalism. However, in the Marxist elements contained in the Schumpeterian analysis, that his vision of capitalism as a constant process of destructive creation there is a convergence with Prebisch's thought. In particular, Prebisch's visión of peripheral capitalism is what makes his analysis so significant and original.

[20] The non-linear cycle accelerator-multiplier models of Kaldor (1940) and Goodwin (1951) approximate Prebisch's cyclical vision of capitalism even though these tend to be mechanical aand are not able to capture the complexity of the relationship between centre and periphery.

[21] Keynes also adopted a distinctive terminology to express his ideas including expressions such as a liquidity preference, speculative demand for Money, the marginal propensity to consume, effective demand, and own rates of interests among others.

[22] Krugman (1998) has re-asserted the validity of the liquidity trap by which he means a nominal policy interest rate nearing zero and thus a situation in which monetary policy is ineffective. As he put it: "An economy is in a liquidity trap if aggregate demand consistently falls short of productive capacity despite essentially zero short-term nominal interest rates." Demand falls short of productive capacity because agents expect lower incomes in the future and thus do not spend. The solution is to reflate the economy, increase prices so as to bring about negative real rates of interest. This monetarist argument has little to do with Keynes's absolute liquidity preference which refers to a situation where short term interest rates are low but positive. However, the yield on debt is low and agents hold money. In this situation agents and not the central bank determine the short-term rate of interest. The central bank has lost control of monetary policy. Moreover, as stated earlier, Keynes argued that the absolute liquidity preference had no place in his theory nor basis on practical experience (GT, p. 205. See also, GT, p. 172).

[23] Keynes also argued that due to other motives (i.e., expectations), the effects of falling wages on the levels of output and employment could very well be opposite to those postulated by the Classics.

[24] It is important to note that even though Keynes explicitly criticized the neo-classical (Wicksellian) notion of the natural rate of interest, as we saw, his notion of the marginal efficiency of capital presupposes that there is a rate of interest that is sufficiently low to equate investment with full employment savings (Camara Neto and Vernengo, 2012). That is, there is a real rate of interest that 'permits' the attainment of full employment. In fact, Keynes developed his argument that free market economies do not tend towards full employment in Chapter 17 of the GT and is founded upon the particular characteristics of money in relation to all other assets (zero elasticity of production and substitution).

[25] In this quote, Prebisch's arguments bear similarity to Sraffa's criticism of Keynes. Sraffa had introduced Keynes to the notion of own-rates-of-interest in his debate with Hayek. Hayek argued contrarily to Sraffa that the own-rate-of-interest of money is not any different than that of other assets. Sraffa criticized Keynes' acceptance of the marginal productivity of assets. For a discussion of Sraffa's criticism to Chapter 17 of the GT, see Kurz (2011).

[26] Keynes writings denote an important concern with the external sector and in fact in the GT he argued that the lack of concern with the external position of a country was a by-product of *laissez-faire*. As he put it (GT, p. 339): "…the

weight of my criticism is direct against the inadequacy of the *theoretical* foundations of the *laissez-faire* doctrine upon which I was brought up...against the notion that the rate of interest and the volume of investment are self-adjusting at the optimum level, so that preoccupation with the balance of trade is a waste of time" (GT, p.339).

27 See King (1998). Harberler ((1941) [1952]) traces the marginal propensity to import to Paish (1914).

28 In 1949, Prebisch still sustained that savings determined investment and that one of the main problems of developing economies, such as the case of Argentina, was the low levels of domestic savings. See, Prebisch (1991, Vol. III, p. 361 y p. 367). See Bortis (2008) on the logical view of the multiplier.

29 See also Fernández-López (1996).

30 On this point see Fiorito and Vernengo, 2009.

31 See Vernengo and Pérez Caldentey, 2012b.

32 Prebisch's first reference to center and periphery dates back to 1921, in his analysis of the differences in the colonization of the Río de la Plata and the United States (1991, Vol. I, p. 149). This does not mean that at the time Prebisch had clearly thought out the conception of symbiotic development of the center and the periphery, connected by processes of cyclical growth. But it is obvious that early onwards he had a preoccupation with the periphery as a specific economic category.

33 Crotty (1990) suggests that Keynes also had a more sophisticated vision of the institutional and historical evolution of advanced capitalism that is generally presumed. Nonetheless, there is no author at the time, including Keynes that had a clear understanding of the problems of the countries of the periphery. The idea that the cycle of the periphery can only be understood as a complement of the cycle in the center is, in this sense, a contribution of Prebisch to the development of economics.

34 In his own words: "[…] in spite of their great merits the [compensation projects] do not solve the main problem which essentially depends on the restoration of international trade. If the United States does not not buy from the rest of the world as much as the rest of the world buys from the United States […] there will not be any monetary system that will, in the end, resist" (Prebisch, 1943, pp.8-9).

35 In fact, Prebisch pointed out the danger of the "excessive affluence of new money resulting from the use of international credit on the economy of the United States…" (Ibid. P.100). In the light of the recent experience, especially in all that concerns the Global Financial Crisis (2007-2009), Prebisch statement could be modified in order to argue that 'automatism' could lead to an asset inflation.

36 Prebisch underscored that the necessary condition for the plans to work is the proper operation of the financial center and that this required full employment plans in the most important countries in the world and especially the United States (Ibid., p. 96).

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