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Reading Keynes in Buenos Aires:

Prebisch and the Dynamics of Capitalism

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Key words: Business Cycles, Interest Rate, Multiplier, Center-Periphery.
JEL Codes: B22, E32, E40, F55

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Esteban Pérez Caldentey and Matías Vernengo[1]

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[1] The authors are Economic Affairs Officer at ECLAC (Santiago, Chile) and Senior Research Manager, Central Bank of Argentina (Buenos Aires, Argentina). The opinions here expressed are the authors' own and may not coincide with those of the institutions with which they are affiliated. All English translations of sources in Spanish including Prebisch's Works (Vols. I to IV) are by the authors of this paper. The authors thank the comments by Carlos Mallorquín and Carlo Panico, without implicating them.

Introduction

John Maynard Keynes profoundly influenced the thought of Raúl Prebisch. Prebisch came into contact with Keynes's works in the early 1930's 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 an *Introduction to Keynes*, six year 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). 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 diagnostic 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, Prebisch was critic of Keynes's *magnum opus*. He 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 complete break with Classical Theory.[2] 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 classical theory]" (Prebisch, 1993, Vol. IV, p. 278). 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. Prebisch criticism was even more emphatic regarding, the third point. 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" (Prebisch, 1991, Vol. III, p. 504).

[2] Prebisch followed Keynes definition of Classical Economics (GT, p. 3), which is actually closer to the Marginalist or neoclassical school, and differs significantly from the old classical political economy school of Smith, Ricardo and Marx.

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 in the analysis of the cycle. Prebisch understood that the reality of market economies is eminently cyclical. This meant not only that economic theory must focus on the causes, intensity and perhaps duration of the cycle, but also 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, 2012). 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 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 growth into a single and coherent approach.

Contrary, to Prebisch's focus on the cyclical reality of capitalism Keynes' 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.[3] This difference in object and method between both authors explains Prebisch's partial 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 and its effects on the periphery.

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 benefitted the developed economies (or the center) and paid scarce attention to the periphery (developing countries).

[3] 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. Dynamics analysis was developed later on the basis of Keynes's core contributions by other authors in the Cambridge tradition like Harrod, Kaldor, Kalecki and Joan Robinson (Vernengo and Rochon, 2001). These authors emphasized the cyclical nature of the growth process like Prebisch. Besomi (2002) suggests that Harrod was, like Prebisch, more than trying to extend Keynesian economics to the long run, developing a truly dynamic theory of capitalism.

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 respectively. 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.

Keynes' influence on Prebisch

Inspired by his research on the financial and economic history of Argentina during the period (1823-1914), Prebisch began his career as an economist at the beginning of the 1920's decade, focusing on the study of the fluctuations in the business cycle and its relation to money and finance. According to Prebisch cycles were 'natural', 'recurrent' and inevitable facts of economic life, characterized by expansionary (booms) and contractive (busts) phases. Further, he argued that the sharpness of the bust phase was directly related to the excesses of the boom phase. The bust was a 'natural' and unavoidable sequence of the boom and the point of inflection from boom to bust was bound to occur. At the same time, the bust 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.

Similarly to other authors at the time, such as Schumpeter, Prebisch was a staunch supporter of the theory of liquidation. However, towards the end of the 1920's decade, 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.[4] Most likely, on the basis of Chapter I of the *Tract*, which examines, among other aspects, the real and social consequences of the changes in the value of money, Prebisch recognized that market imperfections prevented the required adjustment postulated by the theory of liquidation to restore the economy to its full health.

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 pursued by Prebisch and formed the basis of his critique of the beneficial aspects of liquidation in the downward phase of the cycle. 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).[5]

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

[4] The negative effects of deflation were also highlighted by Gesell (1898), a German economist who resided in Argentina from 1886 to 1900. Keynes in his *Tract on Monetary Reform* ([1923], 1971) also pointed out the negative effects of deflation. Curiously enough Keynes argued that Gesell was one of the few economists that had grasped '*avant la lettre*' some of the key elements introduced in the GT. On the liquidation school in Chicago see Pérez Caldentey (2003).

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

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. The need to adopt counter-cyclical measures resurfaced, albeit temporarily, following the start of World War II 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 including the creation of the monetary conditions that stimulate the development and maintenance of full employment of the workforce and foster and support the highest possible rate of growth of economic activity.

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, 2012). After his abrupt exit from the Central Bank of Argentina in 1943, Prebisch 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*.

Prebisch's *Introduction to Keynes*

Prebisch's purpose with his *Introduction to Keynes* was to find 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. Prebisch also sought to assess whether the GT was able to provide 'a rational explanation of the economic dynamics 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). Yet, Prebisch did not find in Keynes an alternative explanation of the cyclical dynamics of capitalist economies.

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 the level of employment. 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 even under complete price and wage flexibility. The cycle plays a secondary role in the GT and its analysis is concentrated in Chapter 22 (Notes on the Trade Cycle). The cycle is explained by the fluctuations in the rate of investment, which, in turn, are dependent on the state of long term expectations. Cycle fluctuations are aggravated by other factors and in particular by changes in liquidity preference.

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 & 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.[6]

Leaving to the side the occurrence of crises, what is most interesting and that attains 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

[6] In his Exchange with Harrod on the latter's dynamic model, Keynes is quite clear that he dismissed the accelerator and other mechanical formalization of cyclical behavior (CW, vol. XIV, pp. 321–50).

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 of 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. But 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 in the monetary nature of the rate of interest and was also critical of Keynes' formalization of the multiplier process.

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 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 is generally 'steady,' given that decisions are based in conventions which grants them certain stability (p. 152).

Prebisch also 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 was 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 ("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). 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 cyclical growth, 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." This vision of capitalism was not exclusive to Prebisch's views.[7] As a general rule, Prebisch dismissed the explanations based on 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 an endogenous phenomenon. In his words: "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).

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 step 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).

[7] Kaldor's (1940) non-linear endogenous cycle model is closer to Prebisch ideas, although more mechanical and without capturing the center-periphery dynamics.

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, and to distinguish himself for the economists that had preceded him, Keynes classified them under one label, that of the Classical School. But Prebisch's 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 the 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. Prebisch (1991, Vol. III, p.501) was clear that in "trying to escape from the classics, Keynes [fell] into a type of explanation of unemployment that is eminently classical."

Further, Prebisch sustained that interest rate rigidity was itself explained by liquidity preference, and he was thinking of interest rate rigidity in terms of the liquidity trap.[8] This is reflected in Prebisch's own explanation (Ibid. p. 275): "¿For what reason, according to Keynes, does the rate of interest stop falling? Due to the phenomenon of liquidity preference that is

[8] For a modern view of the liquidity trap see Krugman (1998).

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 negative 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 and increase in aggregate demand.

In fact, while for Keynes, liquidity preference is fairly regular demand for money function (1936, p. 166), the liquidity trap refers to a situation in which liquidity preference is absolute, and he 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, interest rate flexibility was necessary too.[9] However, Keynes did argue that the special characteristics of money were behind the possibility of persistent unemployment.

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. Further, for him 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. Hence if the own rate of interest that guarantees full utilization of a particular commodity falls below that of money than the system might be prevented from reaching 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 commodity whose own rate of interest does not decrease below a certain limit when its quantity increases, even in a moneyless economy."[10] Perhaps it was such an interpretations that led him to assert: "there are periods in history during which the desire for owning land played a

[9] In Chapter 19 of the GT Keynes puts forward the so-called Keynes effect, which suggests that with interest rate flexibility the system might reach full employment, and the causes why it might be inoperative (GT, p. 266). Also, it is important to note that, in spite of his rejection of the natural rate of interest, his acceptance of the marginal efficiency of capital meant that there still was a rate of interest low enough to bring investment to equilibrium with full employment savings (Camara and Vernengo, 2012).
[10] In this passage Prebisch seems closet o Sraffa's critique of Chapter 17 of the GT. Sraffa, however, was critical of the very notion of a marginal decreasing productivity of assets or commodities. On Sraffa's critique see Kurz (2011).

similar role as that played by money today in maintaining a high rate of interest" (Ibid. p. 112). From our perspective what is important is that Prebisch was critical of imperfectionist arguments for persistent 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 in 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).

This follows from the fact that the propensity to import was part of the framework and indeed 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' '*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 Kalecki (1933), and Harrod (1933). By the time of

Prebisch's full treatment of the export expansion coefficient, the foreign trade multiplier was a well established concept in the literature.

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 Classical School and differ from Keynes."[11] 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' artifice was the rate of interest and Keynes's artifice was 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.[12] 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.

[11] In this respect, Prebisch remained always adamant that consumption was negative for growth. In his last work, Prebisch (1981) he suggests that the patterns of consumption of Latin American elites, which emulate those of developed countries, were a hindrance on capital accumulation. See also Palma and Marcel (1989) for a similar view regarding Kaldor. This implies that for Prebisch growth in Latin America, at least, was profit-led, i.e. based on savings out of profits, hence the relevance of savings for accumulation. Prebisch's views have more to do with the old classical political economy than with the neoclassical model, since in the Solow model the rate of growth does not depend on savings (Cesaratto, 1999).

[12] 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). This and his insistence on the role of forced savings in the explanation of inflation suggest that for Prebisch, as much as Keynes, escaping from old modes of thought was a difficult task. On Keynes' logical multiplier see Bortis (2008).

Curiously enough, in spite of these critiques, Prebisch developed in 1935, a concept very similar if not identical to the multiplier termed the coefficient of expansion (Prebisch, Vol. III, pp. 249-298; 301-310; 335-342; 349-370).[13] 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.

Prebisch (1991, Vol. III, p. 250) explains after a one-time increase in exports the system would return to equilibrium when the rise in domestic incomes brought about by the expansion in exports leaked 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 thus determined by the rise in exports times the foreign trade multiplier, very much like in Thirlwall's Kaldorian model (e.g. McCombie and Thirlwall, 1994).

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, in a way not completely disconnected from Clark's (1935) views on the multiplier. Following Clark, 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 (Fiorito, 2001; Fiorito and Vernengo, 2009). 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 increased employment unless there is another round of new expenditure or unless the circulation velocity of money increases.

[13] See also Fernández-López (1996).

Bretton Woods as if there was a Center 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. 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.[14] In other words, prior to the publication of the development Manifesto in 1949, Prebisch had developed a sophisticated conception of the process of historical development of capitalism. 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 the less well-known by 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.

For Prebisch, 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,

[14] 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). On Keynes' views of history see Crotty (1990).

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. 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 in the growth of output and employment in the countries of the periphery.

Prebisch proposed an alternative plan, a full employment plan in line with that of John Williams. This consisted in that the governments of the countries belonging to the center (and in particular in the United States) compensate the fall in economic activity with increased public expenditure, 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 consistent with Keynes GT views regarding to the need to sustain rather than abolishing expansions.

For Prebisch the benefits of a full employment plan were immensurable, yet, he was not overly optimistic that the more developed economies (i.e. the economies belonging to the center) would ever adopt full employment policies (Pérez Caldentey and Vernengo, 2011, 2012). This view point would endure as a crucial component of Prebisch'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 and also of their respective regions (developed and developing world). In spite of their commonality of interest and objectives, Prebisch was critical of certain aspects of Keynes's GT. He argued that the GT suffered from flagrant inconsistencies and did not represent a complete break with Classical theory. Prebisch's criticisms were to some 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 in part by differences in the object and method of analysis. For Prebisch the main characteristic feature of capitalist economies was cyclical growth. As a result, Prebisch thought that economics should focus on developing dynamic analysis, which had to encompass the entire spectrum of economic movement and evolution in both the center and the periphery. Further, economic dynamics should be concerned with the structural transformation of production and the social transformations, including the changes in income distribution. For that reason, and because Prebisch based his analysis of economic dynamics on a historical understanding of the differences between center and periphery, it is not difficult to understand why he was, not only critical of certain elements of GT, but also of the post-war monetary reconstruction plans. But in spite of their differences, the intellectual affinities explain why the so-called Structuralist School, center around the Economic Commission for Latin America (ECLA) that Prebisch directed, was to be seen as the counterpart in the South to Keynesianism in the North.

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