Portrait of the economist as a young man: Raúl Prebisch's evolving views on the business cycle and money, 1919-1949

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ABSTRACT

This paper analyses Raúl Prebisch's lesser-known contributions to economic theory, related to the business cycle and heavily informed by the Argentine experience. His views of the cycle emphasize the common nature of the cycle in the centre and the periphery as one unified phenomenon. While his rejection of orthodoxy is less than complete, some elements of what would become a more Keynesian position are developed. In particular, there is a preoccupation with the management of the balance of payments and the need for capital controls as a macroeconomic management tool, well before Keynes and White's plans led to the Bretton Woods agreement. In the process it is clear that Prebisch developed several ideas that are still relevant for understanding cyclical fluctuations in the periphery and that he became more concerned with the ability to take advantage of cyclical booms to maintain sustained economic growth.

KEYWORDS Raúl Prebisch, economics, business cycles, <money, monetary policy, economic growth, Argentina

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I
Introduction

Raúl Prebisch (1901-1986) is mostly known for his extensive analysis and diagnosis of the development problem of Latin America, which he set out in full in *The Economic Development of Latin America and its Principal Problems* (1950), also known as the Prebisch manifesto, and in *Growth, Disequilibrium and Disparities: Interpretation of the Process of Economic Development* (1949). Another major concern, expressed in previous writings and more particularly during the period 1919-1949, was business cycle fluctuations and their relationship to money and finance. To a great extent, this concern was a direct result of his experience with the management of the Argentine economy.

Prebisch's interest in the business cycle was inspired by the frequent and severe fluctuations experienced by the Argentine economy in both the nineteenth and the twentieth centuries. While the episodes he analyses are very specific to their particular historical context, he argued that they were, for the most part, examples of a more generic type of cycle, a "boom and bust cycle." According to Prebisch, cycles were "natural," "recurrent" and inevitable facts of economic life. Moreover, he argued that the cycle phases were related (the sharpness of the contractionary phase was directly related to the excesses of the expansionary phase).

Initially, Prebisch held a monetary view of the business cycle, where financial flows played a crucial role as a triggering factor. In his analysis of the cycle he highlighted the role of expectations and speculation in ways that are reminiscent of the modern analyses of financial crises that were typical of the Cambridge and Scandinavian schools of the time.[1] Eventually, under the influence of the Great Depression he assigned a more prominent place to exports and external demand. This led him to introduce an antecedent to the Prebisch-Singer declining terms-of-trade hypothesis. At the same time, notwithstanding his disagreement with Keynes's savings-investment process in *The General Theory of Employment, Investment and Money* (1936), he provided an early development of Harrod's foreign trade multiplier, which highlighted the balance-of-payments constraint to economic growth in developing countries.[2]

A key component of his analysis of the cycle was to devise a policy to smooth out "booms" and "busts." Prebisch thought that the creation of a central bank could indeed perform this task. These views not only led him to play an instrumental role in the creation of the Central Bank of Argentina but also to introduce and recommend countercyclical economic policy actions including the undertaking of public works and infrastructure, the financing of industry, and the introduction of foreign exchange and capital controls, a discussion that preceded Keynes and White's defense of capital controls at Bretton Woods. As part of his policy recommendations and in consonance with current-day views, Prebisch also favoured international reserve accumulation as a precautionary measure to weather downturns.

Eventually, after having concentrated mainly on devising policies for mitigating economic contractions in Argentina, Prebisch's attention turned, during and following the Second World War, towards taking advantage of cycle upswings to achieve improved and sustained rates of growth. This led him to focus on the problem of economic growth in general, as he termed it, highlighting and underscoring the need to capture the domestic policy

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[1] Hawtrey and other Cambridge economists, like Keynes, emphasized monetary shocks, in contrast to Wicksell and Schumpeter, who emphasized the role of real shocks as central for the trade cycle. Hawtrey worked at the United Kingdom Treasury but was educated at Cambridge and was seen as a peripheral member of the same school of thought. On Cambridge monetary ideas at that time, see Bridel (1987). On the role of the Scandinavian, or Swedish, school, in particular its preoccupation with expectations and macroeconomic dynamics, see Leijonhufvud (1981).

[2] This suggests, in fact, that Toye and Toye's (2003) suggestion that Singer first formulated the thought in his anonymous United Nations study in 1949 and that it was then used and quoted by Prebisch when the latter wrote his development manifesto the following year is incorrect.

space and autonomy required to isolate, as much as possible, the national economy from the fluctuations of developed countries. Central to this viewpoint was the substitution of domestic production for foreign production through the promotion of local industry.

These ideas, jointly with the recognition that the observed economic cycle was part of a single global process rather than a country-specific phenomenon, whose impulses triggered by the cyclical centre (first the United Kingdom and then the United States) were transmitted to the countries of the periphery (including Latin America), paved the way for the development of his later conceptual framework set out in the development manifesto and in *Growth, Disequilibrium and Disparities*.[3]

[3] *The Economic Development of Latin America and its Principal Problems*, or 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 *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, year 38, Series III, No. 22, March-April. In 1962 it appeared in the *Boletín Económico de la América Latina*, vol. 3, No. 1, February 1962. "*Growth, Disequilibrium and Disparities: Interpretation of the Economic Development Process*" constituted the first part of the *1949 Economic Survey of Latin America*.

This paper traces, analyses and critically interprets Prebisch's evolving views on the cycle and on money and highlights their current relevance in the face of changing economic circumstances. Most of the focus is placed on the cycles prior to the Second World War. The article shows how Prebisch, starting with a very orthodox economic theory, was led by the force of events to change his ideas and adopt alternative views. It is clear that he did incorporate and develop elements of what would be Keynesian theory, adapted to the context of peripheral countries.

The paper is structured as follows. Section II presents Prebisch's categorization of the Argentine cycle and examines his thinking about the initiating factors of the cycle, the change from boom (expansionary phase) to bust (contractionary phase) conditions and the transmission mechanism in both phases. Section III centres on Prebisch's views on the foreign trade multiplier and its role in the business cycle, emphasizing the importance of monetary factors in the functioning of the multiplier. Sections IV and V analyse Prebisch's changing views on monetary policy during the cycle and, in particular, those pertaining to policy autonomy, which led to the development of his dynamic growth theory (unfinished) and the policy advice that made him famous worldwide.

II

Prebisch's views on the Argentine business cycle

According to Prebisch, boom and bust cycles were a pervasive feature of Argentina's economic history. In the writings examined in this paper, covering the period from 1820 to 1944, he identified and analysed, albeit not with the same depth and detail, eight business cycles, the majority of which took place under a convertibility regime.[4] As did other economists at the time, Prebisch perceived cycles as recurrent and inevitable facts of economic life, or more precisely as "natural" economic phenomena. Cycles were by definition generic, with symmetrical and necessarily continuing upward and downward phases and independent of historical time and space. Moreover, the intensity of the bust (downward phase) was dependent on the excesses of the boom (upward phase).[5]

The regularity of their occurrence and movement, and their lack of specificity and historical contingency, held sway in Prebisch's thinking even until the start of the Great Depression (Prebisch, 1991, vol. 1, p. 618).

[4] See Cortés Conde (2001), Gurrieri (2001), Mallorquín (2006; 2007) and O'Connell (2001) for different analyses of Prebisch's thinking on business cycles and monetary issues. According to our analysis, Prebisch's cycles include 1820 to 1826; 1867 to 1880; 1881 to 1885; 1886 to 1891; 1899 (1903) to 1914; 1927 to 1933; 1935 to 1937; and 1939-1944. See Pérez Caldentey and Vernengo (2011) for a fuller treatment.

[5] This view is made explicit in Pareto (1896-1897), with which Prebisch was familiar (Fernández López, 2002). Pareto (1896-1897) also believed that the term "crisis" should apply to both the boom and the bust (expansion and contraction), that is to the complete cycle; Prebisch was in agreement (1991, vol. 1, p. 118, note 54).

Cycles, their phases and their turning points were mainly driven by external factors including the conditions in international liquidity and financial markets. While throughout his writings he presents examples of the effects of internal monetary expansion on the economy, he did not believe that the cycle was generated by domestic factors. As he put it (Prebisch, 1991, vol. 3): "I have not observed, neither in the cycles I have seen closely nor in those that I have studied in our history, the existence of domestic elements with the sufficient force to promote, by itself, our wave motion."

Up until the time of the Great Depression, Prebisch gave predominance to "changes in the flow of money" as the main cause of business cycle fluctuations. At first he placed the emphasis on financial flows, determined on the demand side by Argentina's financing needs and on the supply side by the liquidity stance of developed countries (the United Kingdom and the United States), as the triggering factor leading to a subsequent expansion of liquidity, prices and the improvement in business outlook and conditions. In so doing, he underscored what he termed to be the "subjective factors" of the cycle, such as speculation, business expectations, euphoria and contagion, as important factors in maintaining the momentum of the boom (expansionary phase) very much in line with a Kindleberger and Aliber (1991) type explanation "*avant la lettre*."[6]

During this time, Prebisch tenaciously held on to a monetary theory of the trade cycle throughout his writings, conceptually articulated around the quantity theory of money and the circulation velocity of money. These concepts were, in fact, also used to explain the cycle in the more developed countries. In this regard, besides the influence of Argentine figures such as Norberto Piñero and Juan B. Justo, or Luis Roque Gondra, Prebisch's cycle analysis bore the visible and obvious stamp of Irving Fisher, Ralph Hawtrey, Frank Taussig, Vilfredo Pareto and Clément Juglar.[7]

Prebisch came to the realization that, besides monetary and financial flows, changes in the conditions that affected export performance could also act as initiating factors of the economic cycle. But he introduced export performance as a triggering cause of economic fluctuations in the cycle as he became aware that agricultural prices had been trending down since the middle of the 1920s and that the Great Depression sharply aggravated this contraction.

Available data presented by Prebisch for 1900-1933 shows that the agricultural price trend rose between 1900 and 1925 (5% yearly average) and thereafter declined (falling by 7% on average between 1925 and 1933). The decline was steeper following the start of the Great Depression. In fact, Prebisch argued that the contraction was so sharp that around 1933 the agricultural price index reached levels that it had not witnessed since the nineteenth century. The comparison with the situation in industrialized countries whose manufacturing export prices had not decreased and in some cases had actually risen inevitably led to terms-of-trade considerations (Prebisch, 1991, vol. 2, pp. 188-191), most likely providing an antecedent to the Prebisch-Singer hypothesis more concerned with the cyclical terms-of-trade downturns than with the secular trend.[8]

Thus by the early 1930s the fluctuations in the economic cycle were seen as dependent on both the conditions in international monetary markets and export performance, as well as specific structural features. Prebisch explains it in the following way in an article entitled "The Economic State" (1930) (Prebisch, 1991, vol. 1, p. 634): "Recently, we referred to the predominating influence on our monetary cycle of the events in the international money market in New York, as used to happen before the war with that of London. It is now helpful to point out the consequences… for variations in foreign purchasing power."[9]

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[6] Also note that at the time Prebisch distinguished between the objective and subjective elements of the cycle. Expectations were part and parcel of the explanation of the trade cycle in Cambridge (England). One year after Prebisch wrote his *Annotations of our own circulating medium* (1921), Lavington published the first edition of his trade cycle, where confidence, anticipations and contagion played an essential role.

[7] By 1921, when he wrote his *Annotations of our own circulating medium*, Prebisch was well acquainted with the North American and European economic literature on the cycle.

[8] Prebisch (1991, vol. 2, p. 191) quotes from the League of Nations (1932-1933) *World Economic Survey* and illustrates how structural features affect the export and internal performance of countries by making the point that in those years the purchasing power (terms of trade) of agricultural countries declined while that of industrialized countries increased due to a relatively greater fall in the latter's import prices compared with their export prices. Data presented for five industrialized countries (France, Germany, Switzerland, United Kingdom and United States) show that all managed to improve their terms of trade between 1929 and 1933 (by 16%, 45%, 12%, 20% and 33% respectively). By contrast, data for five agricultural countries (Argentina, Australia, Canada, Denmark and New Zealand) for 1929-1931 show a worsening of the terms of trade (by 32%, 35%, 10%, 16%, and 38%, respectively). The Prebisch-Singer hypothesis refers to a secular decline in developing countries' terms of trade with industrialized countries. The hypothesis was put forward by Prebisch and Singer independently in 1950. See Prebisch (1993, vol. 4), Singer (1950 and 1987), Palma (1987).

[9] Prebisch similarly argues (ibid. p. 201): "It is a well known fact that that the movements of our external trade constitute the decisive factor in the great changes of the Argentine economic situation. We are linked in a very straight manner with the international economy and exposed to all of its changes. When the world market increases its absorption

For Prebisch, the boom (expansionary phase) was "naturally" and unavoidably followed by a bust (downward phase). And in this sense the point of inflection from boom (expansion) to bust (contraction) was bound to occur. Moreover, the depth of the latter maintained a direct relationship with the intensity of the former. The greater the excesses of the boom (expansion) the more drastic would be the bust (contraction). At the same time, the bust (contraction) was not only unavoidable but in fact necessary to prepare the stage for the next upward phase.

Coherently with this view, until Prebisch became convinced that a central monetary authority possessed the tools to attenuate the cycle phases (see section IV on "Money, the cycle and economic policy"), he thought that attempts to avoid the contractionary phase of the cycle (and more specifically a bust) could only have temporary effects and were in fact ultimately useless in a process that was necessary to restore external equilibrium–a *sine qua non* condition for internal equilibrium. Moreover, by postponing what is viewed as a natural process, these measures are ultimately seen as artifices that tend to aggravate the required correcting forces.

For Prebisch, the turning point and triggering factor of the bust (contraction) is the same for all cycles considered, namely an unsustainable external position and, more precisely, an unsustainable current account deficit. This position is brought about by a combination of three factors or the presence of one of them: rising imports, higher debt service obligations and lower financial flows. The weight attributed to each of these factors depends on the specific cycle under consideration.

As with his analysis of the initiating factors of the cycle, Prebisch was aware of and understood the importance of external conditions in influencing the change from boom (expansion) to bust (contraction), and in particular that of international financial markets, which tended to behave procyclically.[10] After recognizing how economic structure shapes external and domestic performance, Prebisch gave paramount importance to external conditions and argued in 1944 that the Argentine cycle is a mirror of the international monetary cycle (Prebisch, 1991, vol. 3, pp. 321-322). Nonetheless, until that time he argued that the appropriate management of internal conditions, especially prudence in the conduct of economic policy during the boom (expansion), could substantially attenuate the impact of external "shocks" on domestic activity.[11]

In consonance with his understanding that the boom (expansion) and bust (contraction) are symmetric phases of the same process, Prebisch argued that the same forces pushing economic activity in the boom (expansion) would act in the opposite direction in the bust (contraction).

Initially he labelled the effects of the bust (contraction) as natural and healthy and as a cleansing of the bad elements as did some of the prominent economists of the time, such as Schumpeter (see, for example, Prebisch, 1991, vol. 2, p. 601 and footnote 13 below). As he put it in the early 1920s with regard to one of the cycles he analysed (Prebisch, 1991, vol. 1, p. 171): "With the beginning of the first outflows of metallic currency and consequently of the rarefaction of money [bills] in circulation, lack of confidence abounds and banks restrain their credit. The more imprudent the previous policy is the more intense the restriction will be". This monetary reaction is particularly harsh on speculators and those that have abused the easiness of credit conditions. Furthermore, while it affected "true and sound" businesses, these managed to weather the storm and remain in business. All in all, this was, according to Prebisch, the logical reverse, a natural and healthy reaction to a previous false and artificial prosperity.

However, by the end of the 1920s he eventually came to recognize the painful and protracted effects of adjustment and deflation on economic activity.[12]

of our products…the purchasing power of the population increases immediately; first in rural production … propagating throughout our domestic economy and translating into a more active demand for merchandises, both foreign and domestically made."

[10] Curiously enough, while Prebisch recognized the importance of external conditions in the initiation of the cycle he did not always attribute the same significance to their role in the bust. As an example, when analysing the factors that led to the bust (contraction) in the 1867-1876 cycle he states (Prebisch, 1991, vol. 1, pp.199-120): "A goodly part of the gold had been exported in payment of public debts, dividends of firms with foreign capital… etc.; in other words, the liabilities of the loan balance grew. It also not unsafe to say that the asset side of this balance declined due to the tension in the European monetary markets in 1873 resulting from the continental panic that began in Vienna; this tension must have made it difficult to recruit new loans in the European financial markets."

[11] In this regard he writes (Prebisch, 1991, vol. 1, p. 554): "If we had administered the increase in metallic reserves prudently, the export of gold provoked by high foreign interest rates would have caused only a mild dip in the prosperity of our commerce. But if it were employed generously in the expansion of money and credit without forestalling speculative excesses, the outflows of gold would have set off a more or less severe crisis."

[12] 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 nineteenth century in Argentina, Gesell stated: "The increase in the value of money is the common cause for all the country's economic troubles" (Gesell, 1898). Keynes, in his *Tract on Monetary Reform* (1923) also pointed out the negative effects of deflation. Finally, it is to be noted that these were highlighted by the early Chicago School

This resulted to a great extent from the existence of imperfections and, in particular, contracts fixed in money terms, rigid and fixed costs such as wages and, in general, production costs. Deflation as well swelled the debt burden (Prebisch, 1991, vol. 1, pp. 59-60, also p. 135). These arguments formed the basis on which to question the benefits of "liquidation" during the downward phase of the cycle.[13]

The relationship between liquidity and prices, and economic expansion and imports in the boom (upward phase) and the bust (downward phase), was mediated not only by the capacity of the banking system to expand and contract its credit base but also by the behaviour of the circulation velocity of money and the propensity to import. The circulation velocity of money was partly driven by expectations encapsulated in what Prebisch termed "the subjective factors."

These included, in the case of the boom (expansionary phase): "The appreciation of the opportunities offered by Argentina and of the probabilities of rapid enrichment… stimulated the governing class…to contract European money…It's something subjective, the confidence that…permits and accelerates the development of an ascending phase; thanks to it [confidence], businesses expand on the basis of credit and financial fantasy takes flight" (Prebisch, 1991, vol. 1, p. 161). In the bust (downward phase) during which the contraction in credit produces the collapse of economic activity, "the resulting insecurity, depression and mistrust keep businesses stagnant until the remembrance of tragic epochs becomes blurred and reborn confidence opens the way for a new cycle" (Prebisch, 1991, vol. 1, p. 162).[14]

As Prebisch became more concerned with the balance of trade and, more precisely, exports as an initiating factor of the cycle, the analysis of the transmission mechanism focused in more detail on the linkage and pass-through between economic performance and exports and imports. He argued that exports and imports "vary correlatively," that is, a persistent upwards/downward movement in either imports (exports) tends to be accompanied by a movement in the same direction of exports (imports). Credit conditions, the circulation velocity of money and the propensity to import determined the pass-through (Prebisch, 1991, vol. 3, pp. 336-343).

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 for recommending reflationary policies (e.g. Simons, 1934).

[13] See also "Scholastic Inflation and Argentinean Currency" (Prebisch, 1991, vols. 2 and 3, pp. 336-350). "Liquidation" was one the phases of the cycle identified by Juglar (1860) that became associated with the Austrian business cycle theory (see, for example, Schumpeter, 1989; Hayek, 1933) and with passive policies adopted by the Federal Reserve and the Herbert Hoover administration that deepened the Great Depression (see White, 2010 for a contrary opinion). Eichengreen (1999) 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.

[14] Again it is to be noted that Prebisch's depiction bears resemblance to Kindleberger's (1978) cycle of manias and panics that is triggered by "procyclical changes in the supply of credit" leading to a boom (expansion) and a process of euphoria, overtrading, and speculation (manias). Eventually, there follows a period of financial distress, revulsion, panic and crash. Both Prebisch and Kindleberger emphasize the recurring character of manias and panics.

III
The coefficient of expansion and the foreign trade multiplier

Prebisch developed his analysis of the pass-through between export receipts, domestic activity and imports by introducing a concept (*circa* 1935) termed the "coefficient of expansion" (Prebisch, 1991, vol. 3, pp. 249-298; 301-310; 335-342; 349-370) or, in better known terms, as the foreign trade multiplier.[15] According to Prebisch, the coefficient of expansion measured the intensity with which an increment in incomes, resulting from a given increase in exports or financial flows, produces an expansion of greater amplitude in domestic economic activity. His analysis of the foreign trade multiplier was a static one, an explanation of a change from one position of equilibrium to another.

Beginning with a position of full equilibrium, he explains the workings of a one-time increase in exports in the following way (Prebisch, vol. 3, p. 250):

> "If for example, the volume of Argentine exports increases–either due to an increase in exports or to a rise in prices–the agricultural sector will receive correlatively higher incomes allowing it to increase its demand for goods and services produced by other sectors and also for imported goods. There will be 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, which will have received more income, will increase their demand for goods and services produced within the same sector and in other sectors; in this way the influence or effect of the initial growth in agricultural sector income thanks to rising exports will 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 to the rest of the world.

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

$$k = 1/(1\text{-}c+m) \Leftrightarrow k = 1/(s+m) \text{ with } s = 1\text{-}c; \quad \text{given } s = 0 \Rightarrow k = 1/m \tag{1}$$

Where,

k = multiplier.
c = marginal propensity to consume.

The use of equation (1) to determine the increase in income brought about by an autonomous change in exports yields,

$$\Delta Y = 1/m\ \Delta X \Leftrightarrow (\Delta Y/\Delta X) = 1/m \tag{2}$$

Besides the import propensity to consume, Prebisch identified the circulation velocity of money ("the number of times money changes hands") as the other limiting factor to the potency of the "coefficient of expansion." This led him to distinguish his "coefficient of expansion" from Keynes's "multiplier" as set out in Keynes's General Theory.[16]

Prebisch saw the multiplier effect as being explained by Keynes only for a closed economy with marginal references to the import propensity, with no reference to the circulation velocity of money, and limited mainly in its effects by the savings propensity, "which constrains the expansion of economic activity and conspires against the full employment of resources" (Prebisch, 1991, vol. 3, p. 359). Moreover, Prebisch also criticized the multiplier and the associated savings-investment process on the basis of their being a timeless representation of capitalist economies (Prebisch, 1993, vol. 4, p. 277) with little relevance for developing economies.[17]

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15 See also Fernández-López (1996).

16 John Maurice Clark also emphasized the importance of monetary circulation for the working of the multiplier process (Fiorito and Vernengo, 2009).

17 Throughout 1949 Prebisch still maintained that savings determined investment and that one of the major problems of developing economies such as Argentina was the lack of savings. See Prebisch, 1991, vol. 3, pp. 361 and 367.

In the General Theory, 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. Kahn, 1984; Chick, 1997). 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 the United Kingdom's multiplier and the comparison with that of the United States (Keynes, 1936).[18]

This follows from the fact that the propensity to import was part of the framework and, indeed, logic with which the multiplier was conceived (Kahn, 1972). 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's *The Means to Prosperity* (1933), published three years prior to the General Theory, which deals with an open economy, fully incorporates the propensity to import as part of the multiplier analysis presented. Moreover, treatments of the foreign trade multiplier could be found in several authors of the time including Giblin (1930), Warming (1932), Kalecki (1933) and Harrod (1933). 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, 1945).

As mentioned above, besides the propensity to import, Prebisch identified the circulation velocity of money as the other key variable absent from Keynes's General Theory multiplier analysis, allowing him to draw a distinction between his approach and that of Keynes. Prior to the publication of the General Theory, J.M. Clark (1935) had made the distinction between "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."

Following upon J.M. Clark's distinction, some authors have argued that the logic of the multiplier implicitly includes assumptions regarding the behaviour of the circulation velocity of money and that the analysis is incomplete without its explicit incorporation into the analysis. Haberler (1945) 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 (Prebisch, 1991, vol. 3, p. 359) that following an increase in income, primary employment will expand but that this will not produce an expansion in secondary employment unless there is another round of new expenditure or unless the circulation velocity of money increases.

[18] Keynes's writings denote an important concern with the external sector; in fact, in the General Theory 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 (Keynes, 1936, p. 339): "The weight of my criticism is directed 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" (Keynes, 1936).

IV
Money, the cycle and economic policy

For the most part until 1931, the action of the government and the monetary and financial system during the upswings and downswings of the Argentine economic cycle had been procyclical. This stance was easily justifiable since the business cycle was a "natural," recurrent and predictable phenomenon with inevitable symmetrical upward and downward phases. Moreover as emphasized in an earlier section, avoiding downturns through "artificial policy measures" simply made the adjustment harsher.

The first policy reactions to the Great Depression did not constitute an exception. On the monetary front, the prevailing ideas, including those of Prebisch at the time, argued in favor of undertaking severe stabilization and adjustment measures to put the country, in spite of its contractionary effects in the short run, on a ready stand to take advantage of the inevitable upcoming recovery. On the fiscal front, a similar logic dictated the reduction of public salaries and State expenditures and the paralysis of public works (Prebisch, 1993, vol. 4, pp. 116-117).[19]

Since the cycle was bound to occur, the role of policy was limited and could at most ensure the orderly occurrence of its phases. On the one hand, policy could avoid the excesses of the boom (upward phase), including the characteristic processes of speculation and over-indebtedness, since the greater the excesses of the boom (in the upward phase) the harsher the following inevitable contraction would be. On the other hand, it could mitigate the effects of the downward phase on business conditions and real activity.[20]

A necessary condition to allow policy to play this role was the abandonment of the gold standard, which tended to aggravate the amplitude of the phases of the cycle, making it more unstable. Prebisch identified three key weaknesses of the gold standard. First, its workings required the unnecessary contraction of imports at the same time as that of internal activities. Second, the natural trend for banks was to increase their lending in the ascending phase of the cycle, helping heighten the amplitude of the boom (expansionary) phase and the contraction in the downward phase. Third, the stability of the exchange rates under a gold standard regime helped stimulate rapid silver capital inflows, aggravating the phases of the economic cycle (Prebisch, 1991, vol. 3, pp. 233-242; vol. 2, pp. 565-575; vol. 4, p.141). Linked to these criticisms was the argument that metallic currency regimes such as the Caisse de Conversion were "fair weather boards", giving an appearance of smooth functioning in good times as capital flowed in, yet requiring violent deflations in bad times when capital flowed out (Prebisch, 1991, vol. 3, p.4 and vol. 1).

The abandonment of the gold standard in Argentina in 1929 introduced the possibility of tinkering with discretionary policy measures to smooth out the fluctuations of the economic cycle. However, these measures did not have their intended consequences as they increased the instability and flimsy foundations of the current conditions. It would become obvious that managing, to the extent possible, the fluctuations of the economic cycle required a strong, central and independent monetary authority.

At first, to avoid depreciation of the currency, the government decided to export significant quantities of gold, reducing its supply and thus raising the foreign exchange price of the currency. The effect of the reduction of domestic gold supply on money supply, credit and, in general, liquidity conditions forced the introduction of the rediscount (Prebisch, 1991, vol. 3, pp. 4 and 89; 1993, vol. 4. p. 138).

The idea of using the rediscount was actually devised but not implemented in 1914 (Prebisch, 1991, vol. 1, p. 173). In April 1931 Prebisch suggested its use with the aim of restoring banks' liquidity to pursue their day-to-day operations and meet their immediate obligations, avoiding recourse to a brisk credit contraction and avoiding a financial crash. The rediscount was not created to be used to stimulate new business or expand existing ones and certainly not to spur or facilitate long-term investment (Prebisch, 1991, vol. 2, p. 2., vol. 3, p. 89 and 1993, vol. 4, pp. 118-119).

The use of the rediscount was followed by the imposition of exchange controls to allay fears of further exchange rate depreciation due to the United Kingdom's departure from the gold standard regime in October 1931(Prebisch, 1991, vol. 2, pp. 4-6). The imposition of

[19] 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).

[20] These types of measures should be distinguished from those aimed at unnecessarily prolonging the boom (expansion). See Prebisch, 1991, vol. 1, p.123.

exchange controls lasted from October 1931 until late 1933 and fixed the value of the peso at an artificially high value. The consequences were to prolong the external imbalance and the decline in agriculture and industrial prices thus aggravating the effects of the Great Depression, including growing unemployment and expanding debt. The measures also provided the incentives for the creation of a foreign exchange black market (Prebisch, 1991, vol. 3, pp. 16-17).

Eventually, the pernicious unintended effects of these measures led to a change in the monetary stance in 1933, consisting of exchange rate devaluation coupled with the establishment of a dual exchange rate system comprising an official, market-based exchange rate (affecting the export of traditional products) and the imposition of import permits.[21]

Prebisch would later sustain that foreign exchange and import controls had been successful in helping to restore the external equilibrium in 1933. He passed a similar judgment on similar measures applied in 1937 and in the period running from 1938 to 1940, also stating that these measures provided a way to stimulate domestic industry (Prebisch, 1993, vol. 4, p. 194). This experience, coupled with the analysis of the foreign trade multiplier (see equation (2) above) probably constituted important steps leading towards his proposal of reducing the "import coefficient" as one of key pillars of his later policy proposal to achieve "general economic growth" (Prebisch, 1993, vol. 4, pp. 207-215).

Prebisch argued that the use of discretionary measures such as the rediscount (notwithstanding its lack of success) and exchange controls paved the way for the creation of the central bank, although he claims that he had seen the need to create a central monetary authority before the First World War. As he puts it (Prebisch, 1991, vol. 1, p. 7):

> "When I was at the Banco de la Nación as Director of Economic Research, I realized that the Caisse de Conversion did not work, that it worked when gold flowed into the country and ceased to work when gold flowed out of the country, and that a fundamental reform was necessary. This was before the great crisis. I began to consider the idea of creating an Argentine central bank. When the crisis came it was necessary to take emergency measures, and that convinced me even more that a central bank was necessary; that the rediscount could not be applied without first having an organization; that it was necessary to combine it with a series of other instruments; and that was the central bank."

The Central Bank of Argentina was created in 1935. The project for the bank was drafted by Prebisch himself in 1934 at the request of Minister of Finance Federico Pinedo.[22] It was conceived as an institution independent of the government ("It is not conceivable that a central bank be managed by governments")[23] permitting a more rational distribution of monetary functions and more efficient management of reserves, whose main objective was monetary stability, along conventional lines.

Prebisch thought that the central bank had a role to play in cushioning the effects of economic cycles, although he it found illusory to think that it could offset the movements of the cycle. As he put it: (Prebisch, 1991, vol. 2, p. 64) "To expect that fluctuations in the country's economic activity can be offset by the excellence of a monetary system would be to fall into the same illusion harboured by many economists in the United States with respect to the Federal Reserve, prior…to the… collapse. But it cannot be doubted that the amplitude of those movements could be cushioned by an efficiently run central bank."[24]

It is important to understand that the reason for cushioning business cycle fluctuations was not to maintain domestic output stability but rather to maintain price and currency stability. It is in this sense that the lean-against-the-wind monetary policy was, in essence, of an orthodox nature (see Prebisch, 1991, vol. 3, p. 90).

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[21] From Prebisch's point of view, during this period Argentina undertook the first attempts, albeit tepid and temporary, at countercyclical policy. These consisted of sustaining the price of agricultural goods through government purchases, and the undertaking of public works. No doubt the influence of J.M. Keynes's *The Means to Prosperity*, which Prebisch had read in 1933, was paramount in the design of these measures (Prebisch, 1991, vol. 2, p. 146). In his interview with Prebisch in 1983, Julio González del Solar (Mallorquin, 2006) terms the use of the rediscount and the creation of the Commission for Foreign Exchange Control in 1931 as 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 (Prebisch, 1991, vol. 3, p. 89). See also, Prebisch (1984). 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 Prebisch, 1993, vol. 4, p. 226).

[22] He had been commended with the same task earlier (in 1931) by the then minister of finance Enrique Uriburu. See Prebisch, 1991, vol. 2, pp. 7 and 351.

[23] The independence of the central banks was seen by Prebisch as a protection against the temptation to inflate the currency due to fiscal imbalances (Prebisch, 1991,vol. 2, p. 363).

[24] See also Prebisch, 1991, p.358 for a similar statement and pp. 664-665.

This lean-against-the-wind monetary policy was reflected in one of the key objectives of the central bank as set out in Prebisch's 1934 project: to ensure an adequate level of reserve accumulation as a precautionary motive of building buffer stocks to confront export shocks and sudden capital stops. As he put it (Prebisch, 1991, vol. 2, pp. 610-111): "The ascending movements are, in general, of a limited duration. The opportunity to repair the consequences of past wrongs and accumulate reserves for difficult times, whose return it is prudent to expect, should then not be wasted."

The first article of the draft proposal for the creation of a central bank in Argentina dealing with its functions stated: "The Bank will have as an objective: (a) The concentration of sufficient reserves to moderate the consequences of fluctuations in exports and foreign capital investments on money, credit and commercial activities, in order to maintain the value of money" (Prebisch, 1991, vol. 2, p. 383).[25]

Following the creation of the central bank, the Argentine economy experienced an expansion in economic activity lasting until 1937. During this time the central bank, in line with the orthodox spirit of its creation, used open-market operations, interventions in the foreign exchange market and moral suasion to avoid an over-expansion and overheating of the economy (see Prebisch, 1991, pp. 64 and 359, and pp. 610-622; and vol. 3, pp. 88-119).

However, the force of events prompted by the beginning of the downward phase of the cycle in 1937 led the bank to progressively evolve into a less orthodox institution whose goal became more ambitious than just "cushioning" the phases of the business cycle to ensure their orderly occurrence and maintain the stability of money. The central bank became aware that it had a double objective (real and nominal price and output stability) and that the balance of payments was central for both.

Initially, in 1937 "the central bank…was predisposed to consider this contraction of domestic economic activity as a logical and natural event, indispensable to reduce imports and establish balance of payments equilibrium" (Prebisch, 1991, vol. 3, pp. 101-102). Yet, as the contractionary effects wreaked havoc, the central bank decided to change and stabilize domestic activity. According to the 1938 Central Bank Report (Prebisch, 1991, vol. 3, p. 104):

> "… monetary policy can propose two objectives in the face of the economic cycle. The first consists of keeping the expansion of credit from heightening the intensity of the waves… The second objective goes further. It is not limited to avoiding the heightening of these fluctuations, but it also seeks to limit their amplitude and reduce the intensity of the variation of purchasing power during the cycle, in order to attenuate the consequences of such variations on the volume of domestic economic activity."

The need for countercyclical action resurfaced soon after the start of the Second World War, as Argentina was faced with a growing external imbalance and the "perception of decline in business activity and, in particular, in the construction sector" leading to a fear of general economic prostration (Prebisch, 1993, vol. 4, pp. 156-157). The plan for countercyclical action (the Plan for National Reactivation) contemplated an expansionary monetary policy coupled with exchange rate controls. More specifically, the plan sought to purchase agricultural surpluses to avoid price declines, increase construction activity and promote the financing of industrial development.

Within the logic of the plan, fiscal policy played mainly a supporting role by creating the required conditions, incentives and space for private activity to flourish. The details of the plan, which also argue for the necessity of circumscribing the intervention of the State, are reminiscent of the "crowding-out" argument highlighting how attached the Argentine authorities remained to orthodox economic thinking.

The Plan for National Reactivation was never approved. The force of political and external events, in particular the United States war effort that led to an increase in domestic demand and imports, superseded it. As put by Prebisch (Prebisch, 1993, vol. 4. p. 160): "The United States, which in 1940 had been virtually absent from the market for certain Argentine products, starts to purchase very actively. This soothes our balance-of-payments concerns, allows a more flexible distribution of foreign exchange, increases domestic purchasing power and rapidly changes the context of the situation."

The change in external conditions led to the suppression of import permits and the flexibilization of the exchange rate regime, even though a dual exchange rate remained in place. It is also important to note that in 1943 the central bank imposed capital controls to deter

[25] In his *International Currency Experience: Lessons of the Inter-war Period* (Nurske, 1944), Nurske thought highly successful the policy of neutralization, mainly international reserve accumulation, pursued by the Argentine central bank under Prebisch's direction. Triffin also entertained a similar opinion and praised non-orthodox instruments such as foreign exchange controls. Following a similar line of thought, in 1945, Prebisch helped to draft the legislation for the newly created Central Bank of Paraguay and the reform of the existing system of foreign exchange controls. See Helleiner (2009).

the inflow of short-term capital and avoid its destabilizing effects, and to stimulate foreign direct investment. While this countercyclical measure was in force for only three months, it is worthwhile to quote Prebisch at length due to its current relevance (Prebisch, 1993, vol. 4, p. 183):

> "This capital [short-term capital] went to further inflate the categories of goods or assets that were already inflated and did not translate, except on very rare occasions, into a real increase in the country's output… the measures adopted by the government allow the central bank to make an exception, to allow the inflow of this capital if it is shown that it will be used for a real increase in output".[26]

[26] In Latin America, and elsewhere, proponents of capital controls base their case precisely on the argument put forward by Prebisch, that is, the change in the composition of financial inflows from short-term to long-term investment.

V

The quest for national policy autonomy and the global economic cycle

Prebisch viewed the change in external conditions after the start of the Second World War and its effects on Argentina as a validation of his business cycle approach. The business cycle and its phases was a recurrent and natural phenomenon. The phases were related, and the more exaggerated the boom (expansionary) phase the sharper the contraction would be. The change from boom (expansionary) to bust (contractionary) conditions occurred rapidly and unpredictably, requiring flexibility in economic policy and, more important, moderation and prudence and an active policy of neutralization.[27]

While he did recommend avoiding excessive fiscal spending and lax monetary policies, and increased savings during the boom (expansion) to face and weather the inevitable contraction to follow, he argued that a country like Argentina should not be forced to forego higher growth and improved material well-being during the upward phase of the cycle, only to face the consequences of a downturn.

He ultimately recommended shielding the domestic economy from ups and downs by substituting domestic industry and production for foreign imports. This was a basis for arguing for the promotion and development of domestic industry and the expansion of internal activity.

These ideas were already embedded in his book proposal *Money and Economic Activity* on which he began working in 1943, the year in which as a result of a military coup marking the eventual ascendancy of Peronism, Prebisch lost his post in the administration, including his central bank appointment, that had been essential for the development of his ideas since the early 1930s.[28]

In *Money and 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.[29]

[27] As he explains: "We are exposed, in our country, to rapid and unpredictable changes in the economic situation. We skip from gloomy pessimism, as in 1940, to the opposite …It suffices to reflect on what would have happened if the plan for construction [under the National Plan for Reactivation] had been launched and if the resulting purchasing power had been coupled with new purchasing power derived from the increase in exports: circulation would have expanded excessively, with the pernicious consequences that always follow" (1993, vol. 4, p. 160).

[28] Following his resignation from the central bank in 1943 and until his appointment to the Economic Commission for Latin America (ECLA), he remained committed to teaching and was also an international consultant. According to him, at this time he began rethinking his past experiences and developing his periphery-centre and development theories. See Pollock, Kerner and Love (2002).

[29] As explained above, Prebisch had conceived maintaining stability in the value of money as one of the main functions of the central bank. 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. 4, p. 229.

The success of these policies required an import policy and fiscal reform. The import policy consisted of "the rational modification of their composition to serve certain objectives" rather than their "systematic restrictions". Prebisch thought that a policy of autarky was as absurd as a policy of free trade and agreed that Argentina should participate to the extent possible in the international economy but avoid a "constant subordination of the national economy to external movements and contingencies." Accordingly, the country needed to "develop inwardly, strengthening its internal structure, and achieve an autonomous functioning of its economy."[30]

Prebisch's defense of national policy autonomy eventually took on a regional tone, as he became convinced that the Argentine cycle and its features were not specific to Argentina but that they were rather the manifestations and characteristics of the workings of a global process, a universal cycle. In this sense Prebisch argued, as mentioned above, that the Argentine cycle was a mirror, a reflection, of the international monetary cycle.

The global or universal cycle was triggered by developed countries and more specifically by what Prebisch termed to be the cyclical centre. The cyclical centre referred to the country (perhaps group of countries) whose repercussions due to its economic importance were transmitted to the rest of the world. In the nineteenth century and up until the First World War, the United Kingdom held the cyclical centre title, which was taken by the United States thereafter. The countries subject to the influence of the impulses of the centre–periphery included all those in Latin America. As Prebisch put it (Prebisch, 1993, vol. 4, p. 224):

> "The United States… actively fulfills the role of the main cyclical centre, not only within the continent but also throughout the world; the Latin American countries are in the periphery of the economic system….Why do I call the United States the cyclical centre? Because the magnitude and economic characteristics of this country are such that it is the source of the expansionary and contractionary impulses of the economic life of the world, particularly in the Latin American periphery, whose countries are under the influence of those impulses just as they had been before, when the United Kingdom was the main cyclical centre." [31]

The universal or global cycle was thus divided into two phases with different characteristics, one affecting the centre and the other the periphery, that is, Latin American countries.[32] The cycles in the centre and periphery were different due to their structural characteristics.[33] Moreover, since the periphery faced a binding external constraint while the centre did not, they faced markedly different restrictions in their use of domestic policy space.

Faced with a contraction of economic activity and price declines, the cyclical centre could always resort to the use of monetary instruments such as the money supply or interest rates without regard for exchange rate parity or international reserve adequacy conditions.[34] Contrarily, the periphery, bereft of the use of this privilege by the binding character of its external constraint, had to turn to the use of exchange rate variations or quantitative restrictions and controls (Prebisch, 1993, vol. 4. pp. 225-226).

Prebisch also contemplated a policy of reserve accumulation by the countries of the periphery. In fact he argued, very much in line with his earlier views, that the countries of the periphery had "the responsibility" to generate the financial resources during the upward phase of the cycle (including international reserves) so as to face and weather contractions (Prebisch, 1993, vol. 4. p. 232).

Prebisch also thought that the White and Keynes plans for a new international order had great merit in their proposal of a credit system allowing temporary alleviations of balance-of-payments imbalances. However, according to him, they failed to address the

[30] See Prebisch (1943, p. 7; and 1993, vol. 4, pp. 209-214). In line with the balance-of-payments approach he argued that a country like Argentina needed to import in order to export. Had Prebisch been aware that in his framework, formalized in part by equation (2) above, exports (X) can equal the propensity to export times the level of external demand (or income), as in McCombie and Thirlwall (1994), he could have been a step away from realizing that a policy for general economic growth could be based in part, on the reduction in the import coefficient, on an increase in the export coefficient or on a combination of both. The reduction in the import coefficient may well be conceived alternatively as in an increase in the productivity of imports. In many respects the simple numerical example presented in section III on "The coefficient of expansion and the foreign trade multiplier" prefigures the literature on the balance-of-payments constraint to growth.

[31] The centre-periphery cycle dichotomy was a historical and evolutionary concept. Not all developed countries belonged to the centre. Indeed, Prebisch asked himself whether Canada should be part of the periphery or of the centre. Also, besides a main cyclical centre, Prebisch introduced the notion of second cyclical centre–a role he attributed to the United Kingdom. See Prebisch, 1991, vol. 4, pp. 224-231.

[32] Prebisch did not develop the different phase characteristics of centre and periphery.

[33] See also Prebisch, 1991, vol. 3, pp. 319-329.

[34] This is remindful of the debate surrounding the policy of quantitative easing pursued since 2008 by the Federal Reserve Bank of the United States.

more fundamental problem of creating a balanced and equitable trading system.[35]

As he progressed in his thinking about cycles, Prebisch continued to underscore the relevance of a general cycle theory but argued that a cycle theory must converge towards a more general "dynamic theory." Prebisch understood that the growth process of a capitalist economy was that of a growth cycle and that this process encompassed the entire spectrum of economic activity. In his own words (Prebisch, 1993, vol. 4, p. 414):

> "I am more and more convinced that the cycle is the way through which a capitalist economy grows. A capitalist economy expands only in wave motion, and any disruption…can only give rise to a wave motion movement. …If the cycle is the way to grow…and if the economy moves incessantly in this manner, it would seem that all the events of the economy together, not only those of production and employment, but also those of distribution, must be integrated into a general dynamic theory."

Prebisch outlined his dynamic economic theory in 1949, but it remained at the level of a series of lecture and conference notes. Nonetheless, it included (albeit at a rough stage, apart from the centre-periphery dichotomy and the idea that the main constraint to economic expansion in the periphery was the balance of payments) the workings of technological progress in both development poles, as well as other notions and concepts that were key to justify State-led industrialization and also regional integration. These are central tenets of his manifesto *The Economic Development of Latin America and its Main Problems* and of ECLA —and later ECLAC— development thinking.

(Original: English)

[35] As he put it (Prebisch, 1943, pp. 8-9): "In spite of their great merits they [the Keynes and White plans] do not resolve the fundamental problem that depends essentially on the restoration of international trade. If the United States does not buy as much from the rest of the world as the world buys from the United States, there is no monetary system that will resist in the long run."

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