INFLATION AND INVESTMENT: THE CHILEAN CASE.

Over the last six years an increasing amount of literature and discussions trying to explain causes and effects of inflation has meant the apparition of two "schools": the "monetarist" and the "structuralist" school.

In very broad terms we can say that "monetarist" believe that inflation is due, principally, to bad economic policy. Specifically, government has been weak to face the excess of demand, decreasing the amount of money in circulation, increasing taxes, balancing fiscal budgets, freezing wages and salaries, etc. Inflation must be stopped quickly, because it is incompatible with economic development. "Structuralists", on the other side, point out that inflation is the result of rigidities of supply, rigidities that are due to the bad structure of some underdeveloped economies. Any increase in demand (or a fall of existent supply because problems in the balance of trade) cannot be faced increasing domestic supply because bottlenecks, inappropiate systems of cultivation of land, unstability of foreign trade, etc.

"Monetary" school, going on with this generalizations, is usually "backed" by International Monetary Fund and the "structuralists" by ECLA. Political implications of this controversy has been derived: "moneteritarists" views are applied by the more rightist, more conservative parties; "structuralits" the liberals one. (1)

Usually in economic literature causes of inflation are an excess of demand or an increase in costs (v. gr., an increase of wages in excess of any increase of productivity of labor). Both causes are taken as explanations of the "monetarist" school; the policy implications derived fron this causes are obvious. "Structuralists" are more unorthodox in their approach. Their conclusions, are conclusion gotten from the Latin America experience.

This paper will deal with the effects on inflation upon investment. We are going to develop this subject in the "structuralist" framework, not only because it provides a better explanation of the Chilean phenomenon, but also a better eposition of the subject.

I <u>The</u> "<u>structuralist</u>" <u>approach</u>.

When a country, as Chile, has during 100 years a steady deterioration on the value of money, it becomes very difficul to analize the "real" causes of inflation. Thus, in 1861 one Chilean peso was equal to 46 5/6 pennies, in 1880, 24 1/16, in 1900, 16 4/5, in 1920, 12.1, in 1935, 1,5. After that date comparison is better with the dollar: in 1932, one dollar costed 16.55 chilean pesos; in 1953, 110 pesos and in 1961, 1060. (2) (In this moment Chilean Government is thinking to rise the dollar to 1.600 pesos)

We will not analize the causes of that prolonged process. (3) Nevertheless, faced with this fact, it is very hard to think that this deterioration was due exclusively to monetary factors, to a wrong policy of the different Governments. Some economists began to realize that monetary factors, at least in underdeveloped countries, were a useful instrument of <u>propagation</u> of inflation <u>once the process had started</u>. They were not the primary cause. Keynesian ideas of excess of investment as cause of imflation were not applicable in underdeveloped countries, because capital is the scarce factor. (4) More realistic attemps were those of Kalecki and Henry Aujac, but here also that models were more appropiate to explain the developed world. (5)

By the 1950's some studies of ECLA and some papers of Latin American economists began to stress some structural imbalances as causes of inflation. The best work, we think, is an article of the Chilean economist Osvaldo Sunkel ("Inflation in Chile: An Unorthodox Approach"), published in some spanish speakig reviews, and traslated to english in International Economic Papers.

He distinguishes between "(a) the identification and classification of the various elements and categories involved in the process on inflation, and (b) analysis of their interrelationships. The first step might therefore be to distinguish between the different inflationary pressures, to be followed by an analysis of the mechanisms by which inflation spreads (propagation mechanism). This is a fundamental distinction, because the two types of factors constitute separate logical categories; the propagation mechanisms do not constitute causes of inflation, but may well keep it alive and even contribute to its cumulative character." The author goes on classifying the inflationary pressures in basic inflationary pressures, exogeneous inflationary pressures and cumulative inflationary pressures. The last pressures "are induced by inflation itself. Their effect is an increase in the intensity of the very phenomenon which has created them. In view of their character, they are an increasing function of the extent and of the rate of inflation itself." (6)

If we accept this framework, almost all effects of inflation on investment can be classified as "cumulative inflationary pressures".

Let us see those effects.

II Distortions on Investment caused by Inflation.

It is a well known fact that prolonged inflation generates distortions and imbalances in the economy. Specifically, if inflation takes place in a capitalistic economy, where prices has a vital role allocating resources, inflation, through its action on prices, destroys that mechanism. We will try to agrupate that principals disturbances, that we think, have existed in Chile.

a) Agriculture.- We must distinguish if agricultural product is dedicated to internal comsumption or to exports. If it is to internal consumption an inflationary process is without importance, at least directly. By the contrary, can have some benefical effects. But indirectly inflation can become an obstacle to agricultural output; usually, the most impopular rises in prices are in foods. Therefore, governments are very fond of fixing food's prices; this, in turn, normally discourages production. Of course here is not an explanation of the low productivity in agriculture in most underdeveloped countries; there are other reasons, but this effect of inflation actives the phenomenon decreasing the supply of foods and rising more their prices.

When agricultural output is expoted, inflation can act in several ways. The simplest is increasing internal costs and, therefore, making difficult the colocation in the world market if foreign exchange rates do not rises at the same rate of costs. Unsuccesfully, from this point of view, overvaluation of national currencies is normal in periods on inflation in underdeveloped countries, because inflation creates problems in balance of payments; therefater the

the Government take the control of foreign exchange and overvaluates the national currency to impede increases in prices of importes goods. A more sophisticated model can be created, in which the Government to encourage exports (and solve the problem on the balance of payments) devaluates the money. This also can have a result of more inflation, not only because import's goods rises, but also because part of domestic agricultural production can be deviated to exports, falling the supply of foods in the domestic market. (7)

b) Industry.- Here is where inflation causes the main inbalances. In general, we can say that inflation change investment from high intensity capital industry to low capital ones. People is afraid to invest money during a long time. At the same time everybody wish to invest in those sectors of the economy that are "inflation proof" such as real state and foreign exchange balances. (8)

Another characteristic of this misdirection of investment is that it tends to be in consumer goods rather than in capital goods. And within consumer goods industry, preferences are directed towards those goods which are out of control of prices; this goods, by obvious reasons, are commonly luxurious goods. This situations means that this very bad criteria of investment goes to those sectors of the economy which improvement is not quite urgent neither will it help the economic development.

With this framework is not hard to visualize the bottlenecks that could arise if the country want to launch a development program. Basic sectors (water, electricity, transportation) are not going to be prefered by investors because they require great amounts of capital during a long time. Moreover, this services normally are subject to a price control by the Government.

Let us see, briefly, if these statements are corroborated by Chilean experience.

During 1954 and 1955 (years in which the annual increase in the cost-of-living index averaged 71% and 83% respectively (9)) more than 50% of total investment was in construction, which is considered "inflation proof": gross domestic fixed investment in 1954 was 16.824 millions of pesos (of year 1950) and construction alone was 10.364; in 1955, total investment was 18.710 and construction was 11.077 (10). The relationship between inflation and this kind of investment is clear when we see that after the first antiinflationary effort was launched (1955) "construction activity declined by 38% in 1956 and by more than 35% in 1957. It thus fell to a level which is only comparable with that of the 1930 slump" (11) Of course this fall in construction was accompanied with an increase in unemployment: a sixth of construction's workers were unemployed in 1956 and 19% in 1957. (12)

Through a careful study about the evolution of Chilean corporations during the period 1937-1952 we can conclude that new corporations are less capitalized than the old ones. The average total assets of those corporations (deflated by the index prices) is lower in 1952 than in 1937, which means the preference of investors towards smaller enterprises. At the same time, the growth of new enterprises "has been extraordinary", usually at the expense of the old ones with more capital. "Therefore, inflation gave a great impulse to the creation of new enterprises, while efficiently applied a brake to those already in existence." (13) New private corporations in basic services are almost non existent

Nevertheless, this growth of new enterprises, in the form that has taken place, is far from beig benefical to the country: this new industries has a lower productivity than the old ones. Their technological methods of production have not improved a great deal, because the little amount of capital employed. On the other side, the capital output ratio has increased.

Unfortunately there are not a serious and comprehensive study about the effects that inflation has generated upon investment or production. "Nevertheless, it is possible to point out negative effects on the progress of agriculture in particular and upon the rate of investment in general. It is obvious that inflation has encouraged the shift of human and material resources from their use in activities of a higher priorite." (14)

c) Productivity.- The facts refered above explain quite easily why a prolonged inflation means a decrease in productivity: investment is made in activities with low capital use, and this, usually is a factor for low productivity. There are other factors derived from inflation, as social tension (the number of strikes increase), speculative activities with little or zero productivity, etc. The already quoted study of Prados Arrarte support this same conclusion. (15)

d) Public investment.- In underdeveloped countries, government shares a great part of total investment. When the tax system is inelastic (in the sense that revenues do not grow at the same rate with inflation), as is the case of Chile, inflation generates a deficit budget, which is by itself, usually, a new inflationary pressure. In order to have a balanced budget, government tries to reduce expenditures, which in fact means reduce investment because services and bureaucracies are "untouchables". In Chile over one half of total fixed investment was publicly financed between 1940-1955. When the antiinflationary effort began investment coefficient (gross investment as a percentage of gross product) fell from 10.2% in 1955 to 8.5% and 7.5% in 1956 and 1957 respectively. ECLA attributes this reduction of investment "to the contraction in public investment, construction, and, in part, to the rise in the rate of interest." (16)

e) <u>Monopolization</u>.- Inflation as an"indirect tax"redistributes income in a regressive fashion. This, and other factors caused by inflation, help to increase the degree of monopolistic competition that prevail in an economy. Bresciani-Turroni in his study about German inflation in the 1920's recognizes this fact and explains the different ways that made possible this increase.(17) Accepting this effect of inflation and accepting also that monopoly is not the best way to allocate resource we can deduct what are the discouraging effects of inflation from this point of view.

III) <u>Inflation</u> <u>and</u> <u>Development</u>.

This has been also a matter of great controversy. Development, to some extent is incompatible with stability by definition: development means change (in a broad sense) from primary to secondary and tertiary activities, from country to town, from one technology to other, etc. All this process, logically, in some time or other, can generate an increase or decrease in prices. Small inflation (deflation) or inflationary (deflationary) pressures are inherent in the different "stages of growth". But a different matter is that inflation takes a persistent rhythm; there, the process of development is not cause of inflation; probably that process made possible the apparition of factors which were latent, but not noticeables. That factors are the "real" causes of inflation. Of course, if development is stoped, inflation can disappear, and therefore it will not be necessary to remove that "latent factors"; but no development is a very expensive price that underdeveloped countries do not want to pay. The only real solution is the removal of those basic or "structural" factors, if we want development and stable prices at the same time.

Kaldor, very recently, has made a contribution on this problem arguing that "price stability only is compatible with a steady growth when the rate on increase of productivity and/or worker population is so high as to proportionate a rate of growth relatively high of the total national product. If that increase in productivity and/or labor is not very high, a little increase in prices takes place in order to induce investment and then growth." (18)

Inflation and development are not necessarily together; rather stability and development must be in that position. "Only through economic development can the economy be made more flexible and strengthened, so that it becomes less prone to inflation." (19) The problem arises when a sudden effort to increase the rate of growth is made in an underdeveloped country: the great increase of demand is answered only with rises in prices if supply is highly inelastic. This highly inelastic supply is, we think, the cause of inflation; this "structural" factors (insuficient supply) exists, and are not "largely reasons or excuses for lack of governmental backbone" as professor Machlup has said recently reviewing a paper about Chilean inflation.

We can conclude saying that the effects of inflation upon investment are only a part of the self accumulating process that inflation brings with itself. In economies as those of Chile, inflation will be stopped only when the deep factors that impedes an expansion of supply can be removed. In the meantime, any antiinflationary effort will mean only a decline on the rate of growth, indeed a very high price for an underdeveloped country, as we said before.

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NOTES.

(1) A fairly good descrption of this "schools" appears in Albert O. Hirschman (ed) Latin America Issues, Twentieth Cent. Fund., 1961, especially in papers of Roberto de Oliveira Campos, David Felix and Joseph Grunwald.

(2) Data taken from Francisco A. Encina, Nuestra Inferioridad Economica, Editorial Universitaria, 1955, pp. 6, 169. (First publication in 1912); and from Frank Whitson Fetter, Monetary Inflation in Chile, Princeton Univ. Press, 1931, p. 13ff.

(3) Fetter, op. cit., believes that inflation was due to the influence of agricultors who whished the devaluation of money(they exported some products) and easy credit. Others as Guillermo Subercaseaux (Monetary and Banking Policy of Chile, Oxford, 1922) blames the disorganization and ignorance about banking system; Anibal Pinto (Chile, un caso de desarrollo frustrado, Edit. Universitaria, 1959, p. 59ff and 93ff) thinks in the fall of exports prices (in four years, 1882-1886, nitrate fell 30% and copper 40%) and the consequent pressure of exporters to get a devaluation instead of increasing productivuty in those minerals. Moreover, the constant excess of imports over exports was other pressure in the fall of money. Also the dependence absolute of the budget upon the gains of foreign trade. Pinto analizes other domestic elements also.

(4) Nicholas Kaldor in an interesting study about Chilean economy, specifically disregard the possibility of an excess of investment as cause of inflation in that country. See "Problemas economicos de Chile", El Trimestre Economico, april,-june, 1959, p. 204.

(5) M. Kalecki in his Theory of Economic Dynamics (George Allen & Unwin, 1954) point out that long run development is not inherent in a capitalist economy, and therefore, will be rigidities on the supply side; Henry Aujac expresses the idea that inflation is the result of the "battle" between different social sectors to maintain or improve their shara of the national income ("Inflation as the Monetary Consequence of the Behavior of Social Groups", International Economic Papers, Nº 4, 1954, p. 109-123. This approach has been utilized to explain, at least partially, the inflationary process of Chile. See Jaime Barrios M., "Consideraciones acerca de la Inflacion en Chile", Economia, Nº 58, 1958, p. 45-61.

(6) Osvaldo Sunkel, "Inflation in Chile: an unorthodox approach", International Economic Papers, Nº 10, 1960, p. 109,110.

(7) See Roberto de Oliveira Campos, "Inflation and Balanced Growth", in Howard S. Ellis (ed) Economic Development for Latin America, St. Martin's Press, New York, 1961, p. 91.

(8) Francis H. Schott, "Inflation and Stabilization Efforts in Chile, 1953-1958", Inter-American Economic Affairs, Winter 1959, p. 9.

(9) David Felix, "Structural Imbalances, Social Conflicts and Inflation: an Appraisal of Chile's Recent Anti-inflationary Effort", ED&CC, January, 1960, p. 121.

(10) United Nations, Economic Survey of Latin America, 1957, p. 204.

(11) Ibid, p. 203.

(12) David Felix, op. cit., p. 138.

(13) Jesus Prados Arrarte, Inflacion y Desarrollo Economico, Aguilar, Madrid, 1956, p. 33.

(14) Instituto de Economia de la Universidad de Chile, Desarrollo Economico de Chile 1940-1956, Santiago, 1956, p. 22.

(15) Jesus Prados Arrarte, op. cit., p. 35.

(16) U.N., op. cit., p. 204.

(17) Constantini Bresciani-Turroni, The Economics of Inflation, George Allen and Unwin, 1953, p. 290ff.

(18) Nicholas Kaldor, "El crecimiento economico y el problema de la inflacion", El Trimestre Economico, January-March, 1961, p. 111. This article is a traslation of two conferences given by the author at the London School of Economics and were publidhed in Economica of August and November, 1959. I use the traslation because the original article was unavailable; therefore, the traslation to english is mine.

(19) U.N. Inflation and Growth: a summary of experience in Latin America, E/CN.12/563, 1961, p. 10. (mimeograph)

(20) Fritz Machlup reviewing Stabile Preise in wachsender Wirtschaft: Das Inflationsproblem. AER, December, 1961, p. 1059.