A New Approach to Inflation through the Joint Analysis of Economics Efficiency and Social Welfare. A case study: Argentina[*]

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ABSTRACT

This paper points out the main e1ements under analysis in a study aimed at bringing out the relevant causes of inflation in each kind of economic structure. Thus, it stresses the necessity of a direct answer to questions like when, where, why and how an inflationary process is generated as well as its economic, political and social consequences. Further, it points out the necessity of analyzing the nature of inflation and its circumstances rather than contrasting structuralism vs. monetarism. Thus it seeks to specify the causes of inflation, their direction, intensity and interaction in a given type of economic and social structure. With that aim the ideas of economic efficiency and social welfare are introduced and applied to an interpretation of the Argentine case during the last hundred years.

Keywords: Inflation, Structural permanence, economics efficiency, social welfare.

Un nuevo enfoque sobre la inflación mediante la valoración simultánea de la Eficiencia económica y del Bienestar social. El caso argentino

RESUMEN

El artículo destaca los principales elementos a tener en cuenta cuando se desea localizar las causas relevantes de la inflación según cuál sea la estructura económica subyacente. De esta manera, hace hincapié en la necesidad de una respuesta precisa a preguntas como cuándo, dónde y por qué y cómo se genera un proceso inflacionario, así como en sus consecuencias económicas, políticas y sociales. Además, el trabajo destaca la necesidad de analizar la naturaleza de la inflación y sus circunstancias, más que de contrastar estructuralismo frente a monetarismo. En definitiva, pretende especificar las causas de la inflación, su dirección, intensidad, interacción para una estructura económica y social concreta.

Palabras clave: Inflación, Permanencia estructural, eficiencia económica, bienestar social.

Clasificación JEL: E31; E6.

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1. INTRODUCTION

1.1.

The inflationary process is a phenomenon originating in economic, social and political causes. The study and analysis of its causes overflow the bounds of strict economics and requires the interdisciplinary work of economists, mathematicians, statisticians, sociologists, historians, etc.; this requires the combined efforts of social scientists and statisticians.

The orthodox (pre-Keynesian) and neo-orthodox (Keynesian and post-Keynesian) theories of inflation explain only its secondary causes, which become operative once the inflationary process has begun. In such theories heavy emphasis is given to the dynamic process of inflation and its description. What is lacking is an explanation of why, when, where and how an inflationary process is generated as well as its economic, political and social consequences. Furthermore, all this should be related to the relative level of development of an economy, to its degree of efficiency, to the social welfare achieved by the community, to the degree of permanence of the structural parameters of the economy, and the measure of political stability, reached in the functioning of a defined institutional and legal order. The degree of acceptance of this order by the community and its efficiency plays a very important role as cause and effect of inflation.

Among the orthodox theories we must point out in particular the quantitative theory of money and the purchasing power parity theory of exchange rates. The neo-orthodox theories include in particular:

(a) Those that centre the analysis on excess demand through a consideration of aggregate variables such as income and total expenditures;

(b) Those which introduce costs as causes of inflation.

These theories set out very restricted assumptions which strongly limit the generality and validity of the analysis intended to explain the inflationary phenomenon.

To find an adequate response to the questions of *why*, *when*, *where* and *how* an inflationary process is generated will bring with it the elements for a more general theory of inflation which will serve likewise to explain particular cases of the various inflationary typologies. Among these, the most challenging are those presented by the developing countries whose distinguishing characteristics as they relate to those observed in developed countries, invite a precise causal and operative systematization.

1.2.

The rigor and inexorability of the inflationary phenomenon in Latin America has spurred non-conformist intellectuals to adopt unorthodox ideas about inflation; i.e.

ideas different from those appropriate in the developed countries. The Economic Commission for Latin America (E.C.L.A.) provided a favourable home for a critical discussion of existing theories, and the decision to analyse the reality of Latín American economics gave birth to the formulation of a heterodox theory of inflation: the *structuralism theory*. Its first systematic exposition was given by O. Sunkel[1].

The notable indifference with which academic centres in the developed countries greeted the structuralism theory of inflation severely hindered the formulation and evaluation of theories founded on the reality prevailing in countries in different stages of development: that is to say, hindered the formulation of a general theory, or less ambitiously and more immediately, the formulation of theories which are adapted to each category of social and economic reality and which are based upon a greater time-space generality of assumptions and a greater time-space validity of the final propositions. This would make feasible not only a rigorous causal explanation but also the practical utilization of a theory in order to formulate a decision model which would constitute the basis of a policy for stability and development.

2. STRUCTURALISM VS. MONETARISM OR THE NATURE OF INFLATION AND ITS CIRCUMSTANCES

2.1.

Structural inflation is an overwhelming reality in the developing countries while it has little significance in the developed countries. In the latter, inflationary forces carry their impact through the cyclical movement of economic activity. Here is rooted, perhaps, the principal reason for the slight interest shown by economists of these latter countries in the structural theory of inflation.

Instead of contrasting structuralism with monetary approaches, it would be more fruitful to make a classification according to the nature of inflation and its circumstances. The nature of inflation is determined by its causes, their direction, intensity and interaction. Its *circumstances*[2] are determined by the economic and social structure within which the causes or variables of inflation interact. Among these are:

(a) The type of institutional organization.

(b) The relations and levels of power among economic and social macro-organisms.

(c) The capacity for dialogue and agreement on a national plan for stability and development.

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[1] Sunkel, Osvaldo: La Inflación Chilena, un Enfoque Heterodoxo. El Trimestre Económico, October-December 1958.

[2] J. Ortega y Gasset states: "I am myself and my circumstance." This statement summarizes his philosophical thought. Further Ortega adds: "My work is, in essence and presence, circumstantial. By this I mean that it is deliberate, because without deliberation and moreover in spite of opposing purposes, it is clear that man never has done anything in the world that was not circumstantial."

(d) The measure of some structural parameters such as price and income elastic-ities of demand for each category of goods, income concentration,…

(e) The structural and cyclical flexibilities of prices.

(f) The rate of population growth.

(g) The sectorial capital-output coefficients.

(h) The employment structure.

(i) Composition of the labor force, et cetera.

These are the considerations which lead us to introduce the idea of national structure, which play a key role in the analysis of modern mass societies[3]. National structures are formed by:

i) Demographic structures.

ii) Economic structures.

iii) Cultural structures.

iv) Political structures.

2.2.

Analysis of the nature of inf1ation and its circumstances leads us to a first c1assification of inflation:

i) Structural inflation.

ii) Conjunctural inflation

In any particular case, the same causes may generate a process of inflation: changes in consumer tastes, changes in income distribution, fiscal deficits covered by issuing currency, expansion of bank credit, earnings expectations, et cetera. What will determine whether the inflation is conjunctural or structural are the *circumstances*. In the presence of certain structural properties which can be analyzed, the causes of inflation will be found in the conjuncture of the economy where they make their own contribution to the cyclical process of the economy. Conjunctural inflation can be attacked successfully with a monetary policy and will respond favourably in a short run[4] by reaching a satisfactory level of economic stability.

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[3] Dagum, C,amilo. Sociedad de Masas y Técnica Social. Cuadernos de los Institutos, Instituto de Sociología "Raul A. Orgaz". Universidad Nacional de Cordóba, No. 67, 1963.

[4] By a short run, we mean a period less than twenty-four months; by a medium run, a period between twenty-four and fifty-nine months, and by a long run, a period of five or more years.

The costs of stabilization of a conjunctural inflation can be summarized as follows:

1. A slight decrease in the rate of growth of the national product which will be however at a level higher than the rate of population growth;
2. A slight rise in unemployment;
3. Maintenance of the labor-share rate in the national income.

However, if the inflation is *structura1*, any effort to attack it using orthodox monetary po1icies will have completely contradictory results. The experience of some of the developing countries, particularly Argentina, has shown the following possible combination of consequences which are typical of an *economic depression* with **inflation**:

1. Reduction of the annual growth rate of the general price 1evel by approximately 50 % (i.e. from a level between 30 and 35 % to a 1evel of 15 to 20 %);
2. An increase in unemployment of more than 100 %;
3. An increase of idle capacity in the industrial sector, reaching an average of 50 %[5];
4. A growth rate in the Gross National Product (GNP) lower than the rate of population growth — this may even slow down to such an extent that it is not only less, but negative[6].
5. Lower labor— share rate in the national income.

3. ECONOMIC EFFICIENCY AND SOCIAL WELFARE

3.1.

The conceptual structure which will make it possible to give a causal and operationa1 exp1anation of *why*, *where*, *how*, and *when* an inflationary process takes place can be obtained analyzing the relation of causal interdependence existing, at a given moment, between social welfare and economic efficiency. Economic effi-

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[5] L. Sigaut (Desarrollo Agropecuario y Proceso de Industrialización en la Economía Argentina. Buenos Aires: FIAT, 1964) gives the following estimate of the industrial capacity utilized in Argentina in 1963 for the Industrial sector: machine tools 25 %; shipyards 40 %; capital machinery 45 %; agricultural machinery 55 %; automobiles 60 %; tractors 60 %; maintenance and construction equipment 70 %. The year 1963 is a typical year in Argentina in that completely orthodox monetary stabilization policy was applied. The studies finished in 1963 by the National Council of Development (CONADE) in the industrial area of Greater Buenos Aires, gave unemployment estimates as more than 8% of the labor force.

[6] The growth rate of the gross domestic product in Argentina for the year 1963 compared to 1962, was negative, reaching the value of −3.5. In comparison with 1961, it was −5.3 %.

ciency makes a social welfare possible and social welfare stimulates economic efficiency. Symbolically:

Economic efficiency $\longleftrightarrow$ Social welfare

The sign $\longleftrightarrow$ does not mean an implication statement. It serves to indicate that economic efficiency contributes to social welfare, i.e.

Economic efficiency $\longleftrightarrow$ Social welfare as well as social welfare contributes to economic efficiency, i.e.

Social welfare $\longleftrightarrow$ Economic efficiency.

The greater the disparity between the two, the greater the inflationary tensions. It is as impossible to seek to analyze inflation as a strictly economic phenomenon as to refer to the economy *in vacuo*, without running the grave risk of falling into abstractions far removed from reality and very dangerous as bases upon which to formulate an economic policy. Because of considering the economy *in vacuo* and worse still, because of not differentiating sufficiently between the national economies of developing countries and those of developed countries, the stabilization monetary policies supported by the International Monetary Fund, which were pursued in Latin American countries, in general failed.

3.2.

The contemporary world is characterized by evolution of and convergence between the demand for economic efficiency and the demand for social welfare. The extraordinary technological development which has become part of economic activity has produced the following effects:

(a) It increases the productivity of capital and labor, making possible a social justice for the entire population without discrimination of age, race, religion, etc.

(b) It raises the level of aspiration in the developing countries through the mass communications media such as television, films, transportation and multilingual magazines with worldwide circulation, which are produced in the developed countries, et cetera. These stimulate the so-called "demonstration effect" with respect to life and comfort patterns in the developed countries. And in turn, the social organization and particularly the development of unionism and social thought reinforce the demand for social welfare.

3.3.

Schematic study of the four extreme possible combinations of existing states of social welfare and economic efficiency, facilitates a clearer determination of the inflationary causes, which, in turn, will aid analysis of inflation according to its

nature and *circumstances*. This study will provide a solid base for the formulation of anti-inflationary policies intended to minimize the economic and social costs of stabilization.

Contemporary reality in any country (developed, developing, or underdeveloped) can be located in one of the infinite intermediate possibilities. Table 3.1 illustrates only the extreme combinations.

3.4.

In another paper, the concept of *structural risk of inflation* will be introduced and analyzed as a quantitative measure of economic efficiency and of social welfare. Such a measure will assume values in the interval between zero and one; e will denote the measure of economic efficiency and $\underline{s}$ the corresponding measure of social welfare. That is,

$$(3.1) \quad 0 \leq e \leq 1$$
$$0 \leq s \leq 1$$

The possible set of measures of these two structural parameters defines the sample space $R^{(2)}(R_2$, i.e., the rectangle OABC in Figure 3.l. To each country there will correspond a point in this sample space.

TABLE 3.1

	ECONOMIC EFFICIENCY	ECONOMIC INEFFICIENCY
SOCIAL WELFARE	A solid base for a stable political, economic and social situation. Economic development sustained and stimulated by a high growth rate of the national product.	Precarious and even fictitious social welfare. Fertile ground for inflation and for inflation and for modifications in established power relationships through coups d'états. Workers are politically dominant.
SOCIAL INJUSTICE	Precarious stability. Frequent social conflict. Income and wealth highly concentrated. Monopolies dominate economic and political activity. Capital is politically dominant.	(IN DEVELOPING COUNTRIES) Economic, political and social instability. Regressive distribution of income and backward fiscal system. Land and wealth ownership is highly concentrated. Anarchy and chaos alternate with military dictatorships. Capital is the dominating factor. The landowners oligarchy lacks the dynamic innovating mentality. (IN UNDERDEVELOPED COUNTRIES) Apparent stability of monarchic or military dictatorship owing to the ignorance of the people (illiteracy rates higher than 40%). The rest of the characteristics are like those above, but extremely aggravated.

Shifting the origin of the coordinates to the point (1/2, 1/2), have new variables e', s', given by:

$$(3.2.a) \quad e' = e - 1/2$$
$$(3.2.b) \quad s' = s - 1/2$$

Drawing the diagonal OB (Figure 3.1), the sample space is divided into six characteristic subspaces. The interpretation of these subspaces in terms of economic efficiency and social welfare is simple, taking into account the signs of the differences in (3.2.a) and (3.2.b). In effect:

(a) Subspaces E_1 and E_2 of the sample space $R^{(2)}$ correspond to all positive deviations for (3.2.a) and (3.2.b), and define a situation of economic efficiency and social welfare.

(b) Subspace E_3 with deviations of different signs —negative for (3.2.a) and positive for (3.2.b)— defines a given situation of economic inefficiency and social welfare.

(c) Subspaces E_4 and E_5 of the sample space $R^{(2)}$, both of which present negative deviations, encompass a situation of economic inefficiency with social injustice.

(d) Subspace E_6, with deviations of different signs —positive for (3.2.a) and negative for (3.2.b)— defines a situation of economic efficiency with social injustice.
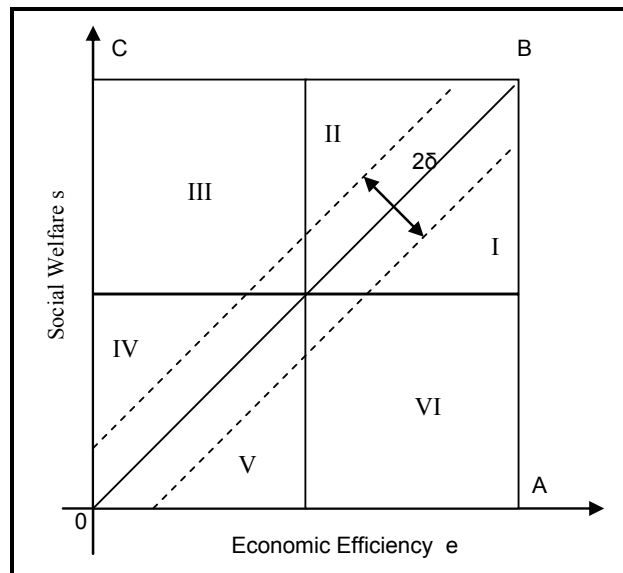
FIGURE 3.1

Figure 3.1 reproduces the concepts.exp1ained in Tab1e 3.1. Within the interior of each of the six subspaces there will be many different possible combinations for the two parameters. The greater the disparity between them, the greater the political and social tensions, as can be deduced from Table 3.1. They in fact act as struc-

tural causes that could generate inflation. Thus, for example, the points of the co-ordinates

$$(3.3.a) \qquad P_1 \ (0.51; \ 0.99) \in E_2$$
$$(3.3.b) \qquad P_2 \ (0.99; \ 0.51) \in E_1$$

though they correspond to situations of economic efficiency and social welfare, constitute vulnerable situations from the economic, social and political points of view. Such situations can hardly be maintained for the long or even medium run. The only dynamic alternative to stability is the formulation of a program which would facilitate a sustained advance of economic efficiency in (3.3.a) and of social welfare in (3.3.b) with the aim of correcting the relative disparities between the two parameters. Much more explosive and vulnerable are the situations of countries to be found in subspaces E_3 and E_4 (see Figure 3.1).

It is a necessary condition for the existence of a dynamic economic and social equilibrium that the countries tend to locate on the line of the equation $s = e$. To this condition must be joined the formulation of a development program which will make possible the advance to point B of Figure 3.1.

Summarizing, an adequate base for an acceptably stable economic development implies that the level of economic efficiency reached be compatible with the existing state of social welfare. Mathematically, this means that the event $(e,s) \in R^{(2)}$, in a particular case, there corresponds a point on the sample space located in the neighbourhood of each point on the straight line $s = e$; $0 < e < 1$. Then:

$$b = e + 5$$

or

$$b - e = \delta$$

where δ assumes values in the neighbourhood of zero.

3.5. An Illustrative Example: Argentina

The use of Table 3.1 and Figure 3.1 allows a clear interpretation of the economic, political and social process in Argentina during the first two thirds of the 20th Century. Argentina began the 20th Century with a steady advance toward economic efficiency. National education (drastic reduction of illiteracy was begun during Sarmiento's presidency in the period 1868-74), the construction of a railroad system which permitted intercommunication in a great part of the territory, the conquest and colonization of the wilderness, immigration, the telegraphic system, etc., all constituted real expressions of a decisive national program of modernization. This led the country toward an economic efficiency compatible with the technology of that time. At the end of the 19th Century, social legislation was initiated. Argentina moved dynamically into the realm of social welfare. However, this program was less strictly implemented than that of economic efficiency. Therefore, it would be correct to situate Argentina in a dynamic movement, from E_5 to the upper left hand part of E_6; i.e., below the straight line $s = e$, or $s < e$ (Figure 3.1). In other words,

during the 19th Century, Argentina's situation would correspond to a point on the subspace E_5 of the sample space $R^{(2)}$. But at the beginning of the 20th Century, when the Centenary of the War of Emancipation was celebrated (the May Revolution, 1810), the corresponding point would be on the subspace E_6. This can be located in the upper left angle of E_6 in Figure 3.l.

The situation analyzed endured, though with decreasing force, until approximately 1945. That year a strong social movement began but it was not accompanied by a program of equal strength in respect to economic efficiency, in spite of the favourable economic circumstances of Argentina. In that the holding of gold and foreign currencies was exceptionally high and, if appropriately employed, could have sustained an intense process of development. As a result of this social policy, which was compatible with the ideas of the time but unsupported by a corresponding advance in economic efficiency, Argentina moved to a position on a point of the sample space such that $s > e$. Thus, the inequality of the first decades of the 20th Century was reversed toward the middle of the century. In a few years, this inequality rapidly drained the reserves of the Central Bank as well as those of the Social Security institutions created to serve the social welfare program. Actually, from 1945 on, old age pensions and other retirement programs were extended to include almost the total working population. Workers in the industrial and commercial sectors, which grew to represent more than 50 percent of the labor force, were massively incorporated into the social security system. This social legislation, so delayed in Argentina, produced an exceptional accumulation of cash during the first years, because not all of a worker's benefits were paid out, as a general rule, until after he had made payments for three years. The money thus collected was in part employed to finance housing while another part was systematically used to finance the increasing fiscal deficit. This deficit, to a great extent, originated in the ever growing administrative and labor bureaucracy and in a notable falling off in economic efficiency, of which the most spectacular manifestation was the management of the nationalized railway system. Private enterprises did not exhibit sufficient dynamism and shared responsibility for falling economic efficiency. The proportion of private modern businessmen (Shumpeter's entrepreneurs) diminished. Conjunctural or political entrepreneurs took advantage of the malfunctioning economic system to maximize benefits obtainable, and these they expanded through the use of personal influence.

As the resources mentioned above were exhausted and as the new bureaucracy established itself in a stable form, while intensifying its inefficient methods in economic activities, there was born a deficit of the *structural type* which was financed in large part by making use of two resources:

i)   Currency issues.

ii) Loans from the banking sector using the singular procedure of raising the minimum legal bank reserve for demand and time deposits to more than 30 percent and then authorizing the national government to borrow a part of this.

Thus, a new economic structure was consolidated, which was inefficient and which was a source of not occasional but permanent deficits. Occasional deficits generate not structural but conjunctural inflation which can be attacked with monetary policies, while permanent large fiscal deficits are a cause of structural inflation. The elimination of the generating causes of a structural inflation can only be achieved through economic efficiency and this, only through structural change. The attempt to eliminate the causes of a structural inflation exclusively with monetary policies has as its most probable result, economic depression with inflation. This, which was pointed out in section 2, has been the basis for Argentine anti-inflationary policy since 1956. Since there was no advance in economic efficiency, the economy fell back upon social we1fare more than the politicians expected, while the inflation continued at a sustained rate. In consequence, labor-share in the national income, which until 1945 had been approximately 40 percent, and for the period 1945-50 more than 50 percent, fell to approximately 45 percent during 1955-66.

At the end of 1966 and the beginning of 1967, a monetary anti-inflationary policy was again put into execution with renewed vigour. This time the measures were more systematic and the decision more determined. The consequences are at present painfu1 for the labor sector (employees and workers) and for the middle class upon which falls the larger part of the costs of stabilization. But an advance toward economic efficiency has also been planned. If this succeeds it is to be hoped that the stabilization policy will succeed too, although at the cost of a noticeable impairment of social welfare.

Given that the new administrative structure in the public sector has been consolidated during a period of more than 15 years, and is, itself, a generating cause of continuous deficits, it may not seriously be supposed that monetary restrictions will grant a stable price structure. Credit restrictions applied by monetarists resulted in lowering demand, production and employment. One of its normal consequences was lower fiscal tax returns which augmented inflationary pressures.

The Argentine case presents striking characteristics which differ from those causing inf1ation in other Latin American countries. Some statistics and coefficients, relating to the period since 1960, will reaffirm the above observations and provide a better understanding of the structural roots of its inflation.

Table 3.2 gives the tax receipts, expenditures and deficits of the national government (excluding the provinces and municipalities) for the period 1960-65 inclusive. In the last co1umn are calculated the percentages of the deficits for the period 1960-65 inclusive. In the last column are calculated the percentages of the deficits for each year with respect to total tax receipts. The minimum was 33.3 percent in 1961 and the maximum was 158.4 percent for 1964. That is, the deficit foy the year 1964 was much higher than total taxes. The average deficit for the period under consideration was 55.1 percent.

TABLE 3.2
Tax receipts, expenditures and deficits of the federal budget
(In millions of Argentine Pesos).

Year	Tax Receipts	Expenditures	Deficits	
			Amount	Percent Tax Receipts
1960	77,612	111,615	34,003	43.8
1961	98,915	131,800	32,885	33.3
1962	92,207	150,632	58,425	63.4
1963	100,412	189,880	89,468	89.1
1964	117,769	304,258	186,489	158.4
1965	215,022	386,141	171,119	79.6
Average for Period				55.1

The deficit of the railroad companies was between 20 percent and 50 percent of the total deficit in the federal budget for the period 1962 to 1965. The figures are indicated in Table 3.3 below.

TABLE 3.3
Deficits of the railroad system
(In millions of Argentine Pesos).

Year	Deficits		Total	
	Current Expenditures	Investments	Amount	Percent Total Federal Deficit
1962	22,406	5,860	28,266	48.4
1963	21,462	10,106	31,568	35.3
1964	24,691	12,736	37,427	20.1
1965	32,541	15,313	47,854	28.0

Since 1946, the institutions of the National Social Security System have provided the principal financing of the federal budget deficits. When their surplus was exhausted by a demand for benefit payments that exceeded their financial capacity, the Central Bank and the Argentine Banking System (official and private banks) took over their role in financing deficits. Currency issues and direct loans to the national government again constituted the principal financing methods. Direct loans were for the most part made by the procedure already explained above. Distribution of the National Public Debt by credit institutions for the period 1961-65 is detailed in Table 3.4.

TAB1E 3.4
Consolidated public debts
(In millions of Argentine Pesos).

End of Year	Federal Soc. Sec. System	Public Enterprises	Central Bank	Other Federally Owned Banks	Private Banks	Insurance Companies	Other	Total
1961	80,242.4	7,996.3	21,920.5	13,000.7	3,891.0	1,090.6	1,743.7	129,885.2
1962	86,683.5	9,405.7	34,908.7	11,482.8	4,120.7	1,557.1	14,039.0	162,197.5
1963	94,234.8	6,690.0	41,617.6	19,122.0	9,259.9	1,941.5	12,035.3	184,901.1
1964	99,298.6	7,734.1	119,208.9	28,673.9	24,843.8	2,240.0	9,644.2	291,643.5
1965	100,757.8	7,858.0	140,501.1	27,871.7	26,273.4	2,583.9	8,008.4	313,854.3

TABLE 3.5
Puelic expenditure and gross domestic product
(In millions of Argentine Pesos).

Year	Public Expenditure				Grass Damestic Product	Public Expenditure/ Gross Domestic product (in percentage terms)			
	Federal	Provincial	Municipal	Total		Federal	Provinces	Municipal	Total
1960	111,615	38,764	8,770	159,149	961,203	11.6	4.0	0.9	16.5
1961	131,800	45,780	10,357	187,937	1,148,094	11.5	4.0	0.9	16.4
1962	150,632	52,327	11,838	214,797	1,411,638	10.7	3.7	0.8	15.2
1963	189,880	65,984	14, 928	270,792	1,734,115	10.9	3.8	0.9	15.6
1964	304,258	105,706	23,915	433,879	2,363,336	12.9	4.5	1.0	18.4
1965	386,141	134,141	30,348	550,630	3,256,817	11.9	4.1	0.9	16.9
Averages for period						11.7	4.1	0.9	16.7

The importance of pub1ic spending in Argentine economic activity can be appreciated in Tab1e 3.5. In that tab1e is indicated the amount of public expenditures —national, provincial and municipal— for the period 1960-65 and the part they represent in the Gross Domestic Product. For the period under consideration the public expenditures with respect to the Gross.

Domestic Product represents on average: for the nation 11.7 percent; for the provinces 4.1 percent and for municipal expenditures 0.9 percent. So that public expenditures represent a total of 16.7 percent of the Gross Domestic Product.

Employment in the government sector (national government administration and decentralized institutions) was estimated at 780.000 persons for the year 1965 or approximately 10 percent of the total Argentine labor force. The relation of public (national, provincial and municipal) to total employment can be considered approximately equal to the corresponding relation of public expense to the Gross Domestic Product. The lack of adequate statistics does not allow a more detailed analysis of this matter.

The role played by the social security system in consolidating an inflationary structure in Argentina has already been mentioned. It should be added that the very structure of the social security system in Argentina, particularly in regard to retirement and pensions, is chaotic and full of imperfections. The current social security tax for aged and pension plans is 25 percent of salaries (in the industrial and commercial sector it stands at 26 percent) which results in a definite confiscation of salary. Nevertheless, in spite of the high rate of taxation, the social insurance system does not meet its obligations and harbours irregularities and privileges of all sorts. The technical cause of the system's malfunctioning is the lack of balance between estimated revenues and payments, taking account of the growth of the population and of the economy.

The right to retirement after twenty to twenty-five years of service, regardless of age, given to public servants by the first act of social legislation in the beginning of the century, is still maintained. At that time life expectancy at birth was only forty to forty-five years. Meanwhile, life expectancy has risen to more than sixty-five years and the act has been extended to almost all workers.

Table 3.6 offers a critical aspect of the actual structure of the Argentine social security system. It shows the distributions of retired people (invalids and the aged) by age groups according to the national census. It would have been more illustrative to have made the distribution of retired people according to *the age at which they retired*. An unusual situation may be seen in that three quarters (75.5 percent) of the retired are under sixty years of age.

TABLE 3.6
Number of disabled and retired people in the federal social security system in 1966
(By age groups).

Age Groups	Total	Percentage	
		For each age group	Cumulative
From 20 to 24 years	357	0.05	0.05
From 25.to 29 years	1,348	0.17	0.22
From 30 to 34 years	3,104	0.40	0.62
From 35 to 39 years	12,754	1.63	2.25
From 40 to 44 years	35,202	4.49	6.14
From 45 te 49 years	75,495	9.64	16.38
Frem 50 to 54 years	193,263	24.67	4l.05
From 55 te 59 years	238,159	30.48	75.53
From 60 to 64 years	125,876	16.07	87.60
From 65 to 69 years	58,331	7.45	95. 05
From 10 te 74 years	24,325	3.11	98.16
Frem 75 te 79 years	11,555	1.41	99.63
Frem 80 te 84 years	2,444	0.31	99.94
Frem 85 to 89 years	357	0.05	99.99
From 90 to w years	51	0.01	100.00
TOTAL	**783,221**	**100.00**	

Actuarial studies made by the author in 1958 for the Social Security Institute at Cordoba (Argentina) demonstrate that the minimum contribution needed to finance the retirement and pension plan, as set forth under the present law, was higher than 40 percent of salaries. The assumptions of the analysis were based on the explicit wording of the law then in effect.

These few observations will suffice to give some idea of the cost and social benefits and of the urgent need for a profound and drastic structural change.