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SUMMARY

OF THE PRELIMINARY STUDY OF THE TECHNIQUE OF PROGRAMMING ECONOMIC DEVELOPMENT

WORKING DOCUMENT REFERRING
TO POINT FIVE OF THE
PROVISIONAL AGENDA

SUMMARY OF THE PRELIMINARY STUDY OF THE TECHNIQUE OF PROGRAMMING ECONOMIC DEVELOPMENT

This Study is a logical continuation of the analysis of economic development in Latin America carried out in earlier studies of the economic problems of Latin America,[1] and in the Economic Survey of Latin America 1951-1952 (document E/CN.12/291), which is also being submitted to the Fifth Session of the Commission. In this Study, a new programming methodology is presented, based on the analysis of the problem of economic development. The positive and negative factors influencing such development in Latin America were analysed in these documents and the need to accelerate growth was emphasized. A further step in this direction is taken in the present text. For the first time, an attempt is made to show how that development can be accelerated by programmes which are applicable to prevailing economic and social conditions in the region. With this objective in view, the methodological principles which could be used to formulate such programmes are outlined, and their application to concrete cases, selected solely as examples, is considered.

The Study consists of two parts, the first of which describes the general methodology, and the second illustrates its application in the case of Chilean economy. This summary refers only to the first part, and, for the sake of clarity, it is divided into sections corresponding to the chapters of the work itself.

1. Principal Problems of the Preliminary Technique of Programming

It is pointed out that the formulation of programmes of development does not necessarily imply a greater degree of

1/ See Economic Development of Latin America and Its Principal Problems (document E/CN.12/89), Economic Survey of Latin America 1949 (document E/CN.12/164/Rev.I) and Theoretical and Practical Problems of Economic Development (document E/CN.12/221).

/State intervention

is quite appreciable and the population cannot be easily persuaded to change its consumption and savings habits unless there is a substantial modification in the quantity or distribution of the gross product. However, its present pattern of distribution in Latin America would enable a much higher saving coefficient than that currently prevailing in the high-income groups.

It was therefore considered necessary to obtain a supplement of foreign capital for a transition period in order to accelerate development. The aim is to expand the gross product more rapidly by means of foreign capital, so that it can reach a level of output beyond which domestic saving would be sufficient to meet the necessary investment to maintain growth at this higher rate. The period required to attain the coefficient of necessary saving by the new rate of growth is known as the "period of transition" in the programme.

In a programme financed partly by foreign capital it is essential to restrict the expansion of consumption commensurately with the increase of the gross product, designating a higher proportion than previously for saving. Otherwise the inflow of foreign capital would have to be maintained indefinitely, and this would be impracticable, owing to the rising burden of the commensurate remittances of profits and interest abroad.

In view of the persistence of the paterns of consumption and saving, it can hardly be expected that the saving coefficient would rise spontaneously. It has been suggested that inflation, by redistributing the gross product in favour of social groups with a higher capacity to save, would be a means of increasing the coefficient. However, -- to judge by recent experience in Mexico for instance 1/ -- it would seem, that the social cost of this method of increasing saving is excessive in relation to the minimized improvement in the welfare for the mass of the population.

1/ Economic Survey of Latin America 1952 (E.CN.12/291) Chapter II

/The methods

calculate the probable increase in the growth of demand for the goods imported at present and the probable expansion of the capacity to import. The difference between both estimates is equivalent to the volume of imports which must be substituted.

The selection of the types of imports which must be substituted is closely related with an even greater problem, namely, an estimate of the expansion of demand for goods and services by sectors so as to calculate the amount of investment required in each sector. Probable future demand in each sector cannot be projected before the rate of overall growth desired is determined. It is necessary to go from the general to the specific in order to return later to the general projections and make the necessary adjustments.

This presupposes the calculation of coefficients of input requirements of capital, labour, energy, raw materials etc., per unit of output in each activity. However, this estimate cannot be made separately from the analysis of labour force availability and its productivity carried out in an earlier study made by the Commission. 1/ It was indicated in this study that there are two stages in economic development and the assimilation of technique. In the first stage, there is an excess of labour in primary activities. As the population is displaced from these to other activities where productivity is higher, average productivity rises in the economy as a whole. In the second stage, having exhausted the labour surplus there are no major displacements nor increases of productivity arising from the mere transfer of labour.

Latin America as a whole is still in the first stage and consequently the limiting factor in economic development is the availability of capital and not of labour. This is one of the basic reasons for the formulation of aggregate programmes and not partial programmes. It would not be

1/ Economic Survey of Latin America (document E/CN.12/164/Rev.1)

/possible to

Three Schematic Types of Possible Development of Productivity

	Per capita Stock of capital	Output Per capita	Output-capital ratio
	1,000		
	2,000		
	First type		
Increment	1,000		
	1,000	500	0.50
	2,000	1,500	0.75
Increment	1,000	1,000	1.00
	Second type		
	1,000	500	0.50
	2,000	1,000	0.50
Increment	1,000	500	0.50
	Third type		
	1,000	500	0.50
	2,000	800	0.40
Increment	1,000	300	0.30

Technical progress historically enabled entrepreneurs to reduce their costs by raising capital density even though the output-capital ratio were diminished. The resulting increase of labour productivity contributed to raising the general wage level over the long period and accelerating the increase of capital density in all branches of the economy.

The shortage of capital in underdeveloped countries calls for higher output-capital ratio investments in each production sector than are found in corresponding activities in other countries, even when the output per capita is not so high, since the maximum gross product per worker can only be obtained by maximizing capital productivity for the economy as a whole.

/It is

this case Chile -- to apply the methods outlined above. It was not the purpose of the Commission to formulate a programme of development for this country, but only to outline a series of projections with a view to illustrating the fundamental problems which could be dealt with in programming technique, since Chile is an interesting example as a country whose growth could be accelerated if the limiting factors were effectively handled. The case of Brazil is also studied in broad lines and will be considered in detail later. With this purpose in mind, the Secretariat of the Commission has already made arrangements with the new Economic Development Bank in that country.

Before analysing the case of Chile and Brazil, it is necessary to consider certain aspects of economic development in Latin America as a whole, and to determine past and potential rates of growth in comparison with more highly developed areas. It is also necessary to ascertain present and potential investment efforts, and what level foreign capital investment would have to attain during the initial transition period. Other problems which must be reviewed, are the present and potential effects of the limiting factor of foreign trade and the probable trends of structural changes in the economy which will have to be made in order to attain a higher rate of growth. Similarly, it is necessary to study what increments in labour productivity would be required by this rate of development, with a given rate of growth of the labour force, and which would be the displacement from agriculture to other activities. Lastly, it is necessary to consider what new complications the instability of Latin-American countries adds to the task of programming.

In the first place, it is necessary to ascertain whether the rate of growth in Latin America has been satisfactory and to determine the criterion on which the decision depends.

Between 1925 and 1951 the gross geographic product of Latin America rose 4.7 per cent annually, which corresponds to a per capita rate of 2.5 per cent (see Plate 1), and is equivalent to the rate of growth of the United States during the period

/1869-1883.

Projections of the Gross Product and Per Capita Consumption and the Coefficient of Private Saving

Years	Gross product	Consumption 1st case	Consumption 2nd case	Coefficient of private saving 1st case	Coefficient of private saving 2nd case
1953	255	213	213	16.5	16.5
1960	337	270	276	20,0	18,0
1967	445	356	356	20.0	20,0

Average Annual Rate of Growth of the Gross Product and of Per Capita Consumption

Periods	Gross product	Consumption 1st case	Consumption 2nd case
1953-1960	4.1	3,4	3,8
1960-1967	4.1	4,1	3,7
After 1967	4,1	4,1	4,1

In the first case, as may be seen from the table, the growth of consumption was slower until 1960, but more rapid during the seven following years, indicating the advantages of greater initial domestic saving. This is all the more important taking into account that a greater inflow of capital represents a heavier burden of remittances of profits and interest. Indeed, assuming that the rate of yield of foreign capital was 7.5 per cent (experienced in 1946-52), remittances of profits and interest by 1960 would absorb 27.6 per cent of the capacity for external payments in Latin America, in the first case, and 50 per cent thereof in the second case. Even assuming that the rate of yield were 5.5 per cent, (if the new foreign capital comprised public international debt issues) these remittances would reduce the capacity for external payments by 20 per cent in the first case, and 31 per cent in the second case.

The difference in the rate of growth between the capacity to import and the gross product, as in the case indicated,

/makes it

output-capital ratio adversely. It might be contended that this coefficient of imports is similar to that of the United States during the twenties, but it is not only necessary to bear in mind the favourable conditions for development encountered there at that time, and also an institutional factor of greater importance. The United States was able to reduce the relative importance of its international trade to such an extent due to free utilization of its vast resources over an extensive territory, associated with intensive integration. On the other hand, Latin America's economic development is being effected within water-tight compartments, and it is possible that some countries are reaching a stage in which the limitation of their markets places a serious obstacle on the acceleration of growth. Another of the more serious obstacles to Latin America's future development is the relatively slow rate of expansion of agricultural production. Even though the income-elasticity for foodstuffs is low (more or less 0.6 for Latin America as a whole), an annual increment in the per capita product of 4.1 per cent during the next twenty-five years would require the trebling of the present level of agricultural production.

The question of increasing agricultural output to the extent indicated does not involve a problem of labour force. On the contrary, as capital density rises and the difference in output per worker in agriculture, as compared with other activities, decreases, the proportion of persons gainfully employed in agriculture will tend to decline. Assuming that productivity per worker increases at an annual average rate of 4.3 per cent for the next twenty-five years, this proportion might decrease from 58 to 41 per cent. Hence, the labour force in agriculture would also rise from 33.1 millions in 1952, to 40 millions in 1977, whereas in other activities it would increase from 24.9 millions to 57.5 millions.

Aggregate projections and those of the individual sectors are interdependent, and in order to obtain a certain degree of

/accuracy, year

foreign instability. The general aim of a programme should not only be concerned with obtaining as high a rate of development as is practicable, but should ensure that the rate is uniform and orderly, marked by a minimum of fluctuation. A compensatory policy of public investment would be of appreciable value in this connexion. Similarly, international action may contribute efficiently to this purpose by giving a compensatory role to international capital movements which thus far have tended to accentuate the phases of prosperity and depression.

3. The Application of General Projections

General projections for Latin America are designed solely with a view to presenting the problems encountered in programming development in each of the countries of this region. An analysis of the specific cases should now be considered.

a) Brazil. In the first place, it is essential to determine the probable rate of growth for the period 1950-1962. This should take into account past tendencies. As was pointed out in the Economic Survey 1951-52, Brazil, during the past five years, has tended to attain a very high rate of per capita growth of the gross product, namely, 5.7 per cent annually. This rate is the result of extraordinary conditions which are outlined in that document. It would therefore be wise to use a lower rate to calculate the projections of growth.

For the calculation of the rate of growth it was first necessary to estimate the capital required to attain it. Brazil, during the past two years, had a coefficient of investment of a about 20 per cent, with the assistance of foreign loans. This coefficient might be maintained, enabling the country to grow at an annual average rate of 6.2 per cent, by means of foreign capital supplements amounting to 500 million dollars between 1953 and 1957. At the close of that year, the period of tr transition would have been completed during which Brazil would have had to make an effort to raise its coefficient of private saving to 20 per cent.

The improvement in the output-capital ratio -- which is at present 0.40 -- would

/present 0.40

On the basis of the projected growth of the gross product, the demand for goods, which are imported at present was calculated and compared with the projection of the capacity to import, in order to determine the degree of substitution required if the two projections are to be compatible with one another. The result of these calculations is summarized in the following table:

Table 2: Hypothesis of the Capacity to Import and of the Growth of Demand for Goods which are Imported at Present

	1950	1962	Percentage increment Annual	Percentage increment Aggregate
	(thousands of millions of cruzeiros at 1950 prices)			
Exports	35.9	46.9	2.3	30.7
Capacity to import	32.2	42.1	2.3	30.7
Requirements of goods imported at present	30.5	60.3	7.1	97.7
Substitutions required	-	18.2	-	-
Coefficient of imports percentage in relation to gross product	11.5	7.5	- 2.5	- 3.5

It is evident that the need for substitution is substantial. Of the 29.8 thousand million cruzeiros of demand for goods imported at present only one third could continue to be imported and the remainder would have to be supplied by domestic output.

It now remains to consider the general trend of those substitutions. Past experience will be relied upon, and certain more or less familiar possibilities concerning the future. In short, the conclusions are as follows: a) imports of agricultural products will have to continue to increase; b) the substitution of industrial goods now imported will have to be effected very intensively (manufactured, semi-manufactured

/and raw

A preliminary survey must then be made of the possibilities of substitution by sectors. In the case of agricultural products products, two basic assumptions were adopted:

a) that the income-elasticity of demand was 0.7 for non-manufactured foodstuffs and 1.2 for manufactured foodstuffs (the former would have declined to 0.5 by 1962), and

b) national domestic wheat production would rise from 600,000 tons in 1952 to 1 million in 1962. The following table was drawn up on the basis of these data.

Table 4: Projection of Output and Foreign Trade in Agricultural Products, on the Hypothesis of Moderate Development

	1950 (millions of cruzeiros at 1950 prices)	1962	Annual percentual rate of increase
Output for domestic consumption:			
Foodstuffs of vegetable origin	30,337	50,807	4.3
Raw materials of vegetable origin	4,404	9,181	6.3
Foodstuffs and raw materials of animal origin	9,991	16,953	4.5
Output for exports (at producer prices)	16,881	21,607	2.3
Total output	61,613	98,548	4.0
Output for domestic consumption	44,732	76,941	4.6
Imports	3,142	4,457	3.0
Domestic supply	47,874	81,398	4.5

Source: United Nations Economic Commission for Latin America

In order to obtain a rate growth of 4.5 per cent in the domestic supply of agricultural products which would be required, by the growth of demand for foodstuffs and raw materials on the assumption of moderate development, it would be necessary to increase imports of these goods at a rate of 3 per cent, providing domestic production of wheat does not exceed one million tons.

/In the case

Table 5: Increment of the Groups of Activities Indicated in the Hypothesis of Moderate Development

		Percentage increase in 1953-62
Crop and livestock activities		50
Consumer manufactures	126	
Capital manufactures	160	
Total manufacturing activities		134
Transport		85
Electric power		140
Residential building		50

Source: United Nations Economic Commission for Latin America

Capital requirements by sectors for this hypothesis would be as follows:

/Table 6

designed to increase efficiency in the use of equipment.

b) Chile. In the case of Chile, growth has been slower. In the Economic Survey of 1949, reference was made to the remarkable effects of the world depression and the nitrate crisis which had occurred previously. Chilean economy has not entirely recovered from these catastrophies. The capacity for external payments, which represented 55 per cent of the gross product in 1925-29, declined to 25 per cent thereof in 1952, when the terms of trade were 39 per cent lower than in the pre-crisis period. The coefficient of investment has not regained its former level. The average proportion of investment in relation to the gross product was 13.3 per cent in 1952, as compared with 17.8 per cent in 1925-29.

This explains the dilatoriness of the recent rate of growth of the gross product, which was 2.5 per cent annually between 1940 and 1952. There are two main obstacles to its acceleration, namely, the need for a foreign capital supplement, and the difficulties of import substitution.

It is assumed that in 1953 a programme is introduced with a view to obtaining an annual rate of growth of 4.5 per cent (equivalent to 3.8 per cent for the period 1950-62), the difference deriving from a projected faster rate of depreciation. If the gross product begins to rise at this rate and consumption follows the moderate rate indicated below, beginning in 1953, a foreign capital inflow of approximately 173 million dollars (at 1950 prices) would be required to maintain it during the seven-year period of transition (ending in 1957).

As was pointed out above, the amount of foreign capital invesment would depend not only on the period of transition, but

/also on

As in the case of Brazil, demand for goods which are at present imported and the capacity to import were both projected with a view to determining the degree of substitution. Three hypotheses of growth of the capacity to import were analysed, together with two for the growth of imports, that is, moderate and maximum growth of the gross product. In the hypothesis of maximum growth of the capacity to import, the latter would rise by 3.1 per cent annually, whereas, with moderate development it would be 2.1 per cent annually, and the minimum 1.2 per cent annually. The hypothesis of moderate growth of the gross product would increase demand for goods which are at present imported by 3.8 per cent annually, whereas in the hypothesis of maximum growth it would be 6.2 per cent annually. Substitution requirements obtained from the combinations of the different hypotheses are shown in the following table.

Table 7: Effort of Substitution Required in Different Hypotheses of Growth in the Gross Product and the Capacity to Import

(as percentages of total demand for goods which are at present imported in the event of there being no further substitution until 1962)

Growth of the capacity to import	Growth of the gross product	
	Moderate	Maximum
Maximum	24	56
Moderate	34	62
Minimum	42	67
Nil	51	72

Source: United Nations Economic Commission for Latin America.

It is evident that the changes in the structure of output (and of consumption to a great extent) which are required to substitute 24 per cent of imports, are far less than would be

/required for

a) the probable demand pattern of consumers in the case of consumer goods and services, and b) certain inter-relations of intermediate economic activities in the case of goods and services required in the production process (raw materials, energy, capital goods etc.).

Consumer demand may be projected on the basis of a calculation of the income-elasticity of demand for finished goods. These coefficients could then be adjusted by relative price movements and the distribution of income.

The inter-relations of the different branches of output which could be used in projecting demand for intermediate goods could be reduced to input-output coefficients, given certain assumptions concerning present technology and its probable trends. The projection of demand for capital goods is a question apart, which must be considered separately below. For the time being, however, it may be said that the projection is based on an estimate of equipment needs for replacement and on coefficients of output to capacity, by activity.

In order to identify the sectors where production would have to increase in response to the increment of demand, it is essential to break down the price of each finished consumer product into its component parts. This would enable the projection of the growth of each of these parts.

The same methods would be followed to project demand for agricultural products, manufactured consumer goods, and goods absorbed in the productive process, as well as services.

The low income-elasticity of demand for foodstuffs accounts largely for most of the difficulties encountered in development programmes for the agricultural sector which do not take into account the general rate of growth of the economy. Moreover,

/foodstuff requirements

changes effected on an income of 200 dollars by a 50 per cent increase in the per capita product, would differ greatly from those which would occur in the case of an income of 300 dollars.

A third point should be mentioned concerning the irregular behaviour of demand in certain countries (such as Argentina). In order to pass from the projection of total demand for foodstuffs to that for each type of foodstuffs, it is necessary to bear in mind certain individual coefficients and the process of substitution of lower quality or priced foodstuffs by those of a higher price or a higher quality. These latter generally have a far higher income-elasticity of demand than unity, whereas the former are lower than unity and tend to become nil or even negative in the course of development.

The substitution of low-grade foodstuffs, however, can be entirely subverted by changes in relative prices or in the distribution of income. Consequently the income-elasticity coefficients of demand are of limited use in the case of foodstuffs which are easily substituted and when the real conditions of supply are unknown. However, they are of undoubted importance when it is remembered that to study supply it is essential to begin with a notion of the total expenditure of the population in a given sector and to obtain a first approximation of the consumer trends in distribution of that expenditure.

In contrast with expenditure on foodstuffs, that on manufactured products grows more than proportionately in relation to the real product. This high income-elasticity of demand for manufactures is due to industry's dynamic role in in economic development. The demand for manufactures, contrary to what has occurred in the case of foodstuffs, cannot be

/considered as

product where the articles are used for multiple purposes, that is to say, where they are used in the production of consumer goods or where they are intermediary goods. In the first instance, of which woodpulp for paper is a typical example, the estimate was made in terms of the growth of demand for the finished product, adjusted by technological changes which could be foreseen and which would alter the volume of raw material per unit of finished product.

In the case of intermediary goods used for several purposes, demand is influenced not only by the growth of manufacturing output, but also by changes in the structure of that output. Perhaps the most complex case is that of metallurgical products where the projection would have to be based on a study of demand for: a) finished goods, in which metals are the main raw material; b) building materials, and c) equipment. The first group can be easily projected according to what has been explained above. In the second group, it would be necessary to project demand for residential building and building in other sectors separately, including government building, which would depend on the respective level of investment foreseen. The third group, that is, demand for equipment, requires an analysis of the expansion projects for all the productive sectors.

The share of services in the gross product tends to increase with urbanization and the increase in the real per capita product. However, it is not easy to measure the volume of services rationally, and consequently the analysis must normally be based on total expenditure on services by the population which, from the dynamic standpoint, is not the same thing. In order to compare the changes in expenditure on services with that for other purposes, it would be necessary to take into account: a) the possible alterations of relative

/prices, and

Demand for professional services and particularly for entertainment has a very high income-elasticity. An approximate estimate of the coefficient of demand for entertainment in Brazil shows 4.5.

The amount of domestic services depends fundamentally on supply conditions. The rising prices of these services, associated with development, takes place through a progressive substitution of services rendered individually, to others rendered collectively, such as is the case of restaurants, laundries etc.

Among the intermediary services, the most important are transport and energy. The greater difficulty arising in the projection of demand for transport lies in the fact that it requires a regional analysis of development. The projection of demand for energy also calls for a regional analysis which is all the more important since the location of the source of energy is of decisive importance for remaining productive activities. Demand forecasts for energy by industry, transport and agriculture can be obtained from the corresponding projections for these sectors. However, it is essential to take into account the probable changes in the structure of output in order to determine the composition of such demand. Generally speaking, industrial demand for energy tends to rise more intensely than manufacturing output, but this rate depends on the type of industries which are developing most rapidly.

The problem of determining the optimum volume of governmental services is very complex and its solution does not lie only in economic criteria. In a development programme, different hypotheses can be formulated concerning the probable absorption of resources by different State activities, according

/to the

The short-term estimate of these advantages would be inadequate, given the greater probability of idle factors in the export sector.

It is likely that the advantages acquired in the initial period would be completely lost in the following stages, owing to a contraction of demand. Under the circumstances, any comparison of relative advantages would be hazardous. The general criterion could also be applied to the alternative possibilities of substitution. The solution lies in a comparison of the social marginal productivity of the different alternatives providing the relative prices of imports do not change in the future. However, it is quite likely that a substitution effected at the present time in accordance with the best economic criterion could be regarded as anti-economic in the near future. This is an inevitable problem, since the structure of costs may develop in different ways in the different countries .

In practice, the criterion of marginal social productivity encounters a series of difficulties. The empyrical criterion of analysing one product for another closely resembles the more general theory, since substitution is effected in the lines of least resistance, that is to say, where there are greater possibilities of development (relativee advantage of wage levels, accessibility and abundance of raw materials, high output-capital ratio etc.).

Brief reference will be made to the empyrical criterion. Having adopted a hypothesis of growth of the gross product and another for the capacity to import, probable unsubstitutable imports are estimated together with other unchanging items of the balance of payments, with a view to ascertaining the capacity to import potentially substitutable products. The

/probable volume

Chile: Growth of Imports in the Hypotheses of Substitution and Non-Substitution of Consumer Goods

	1950	1962		Increase or decrease	
		Substitution	No substitution	Substitution	No substitution
		(in millions of US$ at 1950 prices)		(as a percentage)	
Consumer goods:	138.1	151.6	269.2	25	96
Foodstuffs	16.8a/	19.2	22.1	14	32
Raw materials	42.8	63.5	88.9	48	108
Fuels	20.6	33.6	49.6	63	141
Manufactures	57.9	30.1	108.6	-48	89
Unspecified	15.1b/	5.2	10.7	-66	-29
Capacity to import	247.3	307.0	307.0	24	24
Remainder to import capital goods	94.1	155.4	27.1	655	-71
Demand for capital goods (indices)	100.0	227.0	227.0c/	127	127

Source: United Nations Economic Commission for Latin America.

a/ Does not include extraordinary wheat imports.

b/ Includes extraordinary wheat imports.

c/ It was assumed that demand for capital goods would be identical in both cases, since the rate of growth is the same.

Having determined the volume of requirements, the proportion to be covered by domestic production and the probable development of output for exports, the basic elements are available for the projection of the different items of the gross national product. Any alteration in these basic elements would naturally involve changes in the projections.

On the basis of the hypothesis concerning the elements mentioned, as described in Part II of the Study, projections were made by sectors for Chilean economy. The rates of annual

/growth corresponding

developing economies, positions of over-capacity alternate with deficits therein.

Capital industries play as important a role in a development programme as do transport and energy. With a given capacity to import capital goods, the possibility of meeting requirements for these goods depends on the capacity of domestic manufacturing activity to produce them. The acceleration of the rate of output of consumer goods depends therefore on the increase foreseen in the capacity of capital industries. This emphasizes the need to begin by expanding the basis of the economy without attempting to accelerate the rate of growth. This same problem, expressed in a different way, occurs as a consequence of beginning a programme by accelerating the rate of consumption, analysed above. In the hypothesis of moderate development in Chile, considered in detail in Part II of the Study, it will be seen that there are two distinct phases in the projections, namely, 1953-56 and 1957-62. During the earlier phase, when development is being accelerated, consumption grows less rapidly than investment, indicating that the basis of the economy is being expanded. During that stage, fundamental deficiencies must be eliminated and capital industries strengthened, in order to enable the rate of expansion of consumer industries to be sharply accelerated in the second stage. In the first phase, the growth of capital industries would be 3.2 times higher than consumer industries, whilst in the second, both groups would show the same rate of development. The duration of the first phase is not arbitrary; it is influenced by the degree of acceleration of the growth of the economy in the subsequent phase, and also by the rate of growth of the capacity to import capital goods.

/The second

Having determined the volume of investments required by sector, a comparison was made with the data obtained by the aggregate projection and the availability of the assumptions proven.

In the following table, for illustrative purposes, the data for net investments in the different sectors of Chilean economy, studied in Part II, have been presented together.

Chile: Integration of Net Estimated Investments for the Different Sectors in the Hypothesis of Moderate Development

	In millions of pesos at 1950 prices	Percentage
Manufacturing activities	52,075	33.1
Crop and livestock production	20,882	13.3
Transport	22,100	14.0
Energy	18,200	11.6
Residential building	15,950	10.1
Commerce and financial services	8,700	5.5
Total	137,907	88.0
Investments foreseen in the hypothesis of moderate development a/	157,200	100.0
Difference	19,293	12.4

Source: United Nations Economic Commission for Latin America.

a/ Total of new net investments in the hypothesis of moderate development of Chilean economy. See Table 1, Chapter I, Part II.

The 12 per cent difference between investments by sectors and aggregate investments, is due to the fact that residual activities, equivalent to 10 per cent of the gross national product, were not included. If it is estimated that these sectors require investments proportionally with their importance in relation to the economy as a whole, the difference will be less than 2 per cent.