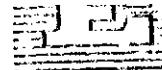


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RELATIONSHIPS BETWEEN ECONOMIC DEVELOPMENT,  
INDUSTRIALIZATION AND THE GROWTH OF URBAN  
POPULATION IN BRAZIL

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## I. HISTORICAL OUTLINE

Within the free play of the world economic forces that have shaped the course of the various countries, it has been the lot of Brazil, ever since colonial times, to organize its economy in such a way as to serve foreign interests rather than those of its own population. The tenacious and carefully planned action of those who colonized the country at an early stage, and of foreign investors in more recent times, took full advantage of a complex of natural resources which seemed to have an "oceanic vocation" (to use the phrase felicitously coined by a distinguished geologist), and thereby completely distorted the normal expansion of Brazil's economy.

The fact that at one time three different phases in the evolution of society - slavery, feudalism and capitalism - existed side by side made it still easier for overseas interests to play this "extroversive" role, creating an extensive type of agriculture to produce exportable commodities, instead of intensive subsistence farming; building railways to link the economic centres with the ports of shipment rather than opening up unexplored territory; and, finally, subordinating the whole of Brazil's budgetary policy, in the fields of both taxation and exchange, to the dictates of the great world powers.

Under the influence of this pre-eminently "seaboard" policy, only fortuitous and sporadic moves were made to explore and settle the hinterland. The economic frontier was pushed westward by irregular stages, in the course of the search for land suitable for specific agricultural commodities which at that time could be advantageously exploited, thanks to a temporarily favourable world situation.

The dynamics of this process derived from the interplay of three factors: the prevalence of the latifundium, as an after effect of colonization based on sesmarias; <sup>1/</sup> cultivation of a single crop, the only way of deriving the maximum benefit from the latent possibilities of the land during the phase of rising world prices; and slave labour, which reduced production costs to a minimum. The rapid depletion of the soil

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<sup>1/</sup>Grants of large areas of crown land.

/brought about

brought about by this precarious combination of production factors gave rise to the shifting cultivation which has not been entirely eliminated even in the Brazil of today.

As certain crops expanded and established themselves, a slow change gradually took place in the agrarian economy, and it became possible for capital to be accumulated, the reinvestment of which raised productivity and even provided capital for the creation of industries. In other areas, either complete ruin supervened, as a result of the world crises which affected exportable agricultural commodities, or a period of stagnation set in.

The differential nature of this process was inevitably reflected in the most widely divergent rates of development in the various parts of the country. So much so, that an eminent French thinker ironically remarked that he envied Brazilian historians, since they were in a position to obtain living glimpses of their country's past.

It is therefore readily understandable that the cultivation of agricultural foodstuffs for domestic consumption and of raw materials for home industry was slow to establish itself, since rice, beans, maize and manioc were originally grown in among the coffee, sugar-cane or cotton plantations, and only later gained a footing as essential crops.

Production costs are high and it is impossible to diversify agriculture and increase yields per unit of area, because even today subsistence farming is characterized by an extremely low level of technique.

The transport system, on account of the distortion described and the alarming decline in the profitability of this type of investment, cannot cope with the task of carrying Brazil's agricultural output to the consumer centres, either for want of rolling-stock and road vehicles, or because there is no network of storage facilities to ensure reserves of foodstuffs.

All this militates against a regular supply of foodstuffs at prices which the consumer can pay. Although the deficiencies of agricultural statistics are so serious and insuperable that no quantitative analysis is possible of the extent to which the Brazilian population's calorie requirements are being satisfied, it is undebiable that large sectors are suffering from malnutrition.

To note that the long-term trend is towards improvement is not enough. What must be ascertained is whether the rate of increase is satisfactory, and whether what might be conceived as essential minimum levels of diet have already been attained.

Any policy, whether of an emergency or long-term character, which does not rid Brazil's economy of such bottlenecks as the inadequacy of transport, port and storage facilities, and which makes no attempt to alter the existing antiquated and defective agrarian structure, with all its regrettable implications, will be doomed to failure. While feeling is unanimous on the first point, that is, on the effects of the bottlenecks in question, there is a wide divergence of opinion as to the need for land reform.

A more thorough study of the question is therefore desirable. It is common knowledge that the latifundium is concomitant with agricultural backwardness. Where it prevails - and it should not be forgotten that in Brazil estates of more than 500 hectares account for more than 62 per cent of the total farm area - it is always accompanied by the well-known evils and drawbacks it brings in its train. Among them are the tiny percentage of the total area brought under cultivation; harmful or primitive farm practices, such as burning and soil rotation; lack of mechanization, failure to apply fertilizers and neglect of pest and disease control; feudal relationships such as share-cropping; ludicrous wages; in short, all that the modern economist sums up in the unemotional phrase "a low level of productivity".

This technical backwardness, inseparable accompaniment of the latifundium, must be regarded as the primary reason for Brazil's agricultural crisis - with all its patent or latent, imminent or remote effects -, and is chiefly responsible for the prevalence of poverty among the rural population. As Brazil long produced almost exclusively for the world market, it found itself compelled, in order to withstand competition, to cut down cost prices by reducing the wages of the rural worker, since the existence of the latifundium prevented this end from being achieved by normal means, i.e., an increase in productivity and the introduction of more rational methods of farming. In addition, the vast distance between the producer areas and the consumer centres provides a raison d'etre for a whole series of middlemen, who, in protecting their own interests, still further reduce the farmer's margin of profit.

This steady loss of income weakens the agricultural sector and forces it to contract debts in order to survive. As the farmer usually works a property which is not his own, and therefore has no real security of tenure on the basis of which to obtain the elusive agricultural credit, he finds himself obliged to hand over his crop to the landowner or the unscrupulous middleman at a contemptible price. Similarly, the heir to a small estate often falls into the hands of the professional money lender, to whom he has in the end to surrender the property concerned because he cannot pay off the mortgage.

The natural recourse, which would be to buy machinery or fertilizers and to combat erosion, in order to improve the productivity of the farm and secure a wider margin of profit, is not adopted for the simple reason that no one feels any incentive to invest in somebody else's property, especially in the absence of security of tenure for a term at least long enough to allow the farmer to amortize his investment and reap its benefits. The tendency is to take from the soil what it can give in the shortest time. Herein lies the cause of the shifting cultivation which is laying waste the land.

In those parts of the country suitable for livestock production, the existence of the latifundium led to the extensive type of farming in which the cattle are left to graze on natural pastures without any kind of protection or care; and it is only with exasperating slowness that the practice of rearing and fattening stock by intensive methods is gradually being adopted, and dairy-farming is being undertaken, though not yet on a scale large enough to meet the demand of the consumer centres.

Clearly, this situation derives from or is indismissably linked with the system of land tenure. Unless the deplorable prevalence of the latifundium is brought to an end, it will be long before Brazil ceases to present, in the more backward areas, a spectacle as painful as that of the French peasant, which so greatly moved La Bruyère a hundred years before the French Revolution, and which he describes as follows: "Scattered over the countryside are to be seen certain wild animals, male and female, swarthy, unwholesome-looking and scorched by the sun, inseparable from the soil, which they turn over and scrutinize with indomitable persistence; they have something like an articulate voice, and when they stand up straight they reveal a human countenance. At night they huddle in caves, where they live on black bread, water and roots..."

/Despite the

Despite the severe brake on Brazil's economic development thus applied by its agrarian structure, there is no denying that, especially since 1930, the first steps have been taken towards an inward-looking economy designed to meet the requirements of the population. The vitality of this embryo economy is dependent upon the creation and expansion of a domestic market, which may be said to have been a factor of little importance under the former system.

The significance of the country's economic development as measured by the rise in real per capita income, though notable, must not be over-estimated.

Firstly, this development has been taking place in a rather unco-ordinated and what might almost be termed a disorderly fashion, at the cost of a far-reaching exchange disequilibrium; secondly, when the levels prevailing at the outset are very low, it is always easier to maintain for a time a high rate of expansion; and, thirdly and lastly, no precise information exists as to whether the majority of the population is benefiting by this income increment on any considerable scale, or whether it is redounding more to the advantage of powerful economic groups.

In any event, radical reforms, especially in Brazilian agriculture, are becoming necessary on an increasing scale because of the irresistible tide of new productive forces. One sign of this development is the emergence, in ever-growing numbers, of champions of the aspirations cherished by a people desirous of benefiting from the conquests of science and technique, and by a young nation whose zeal for progress is handicapped by out-of-date patterns of production.

## II. ECONOMIC DEVELOPMENT AND THE CREATION OF THE DOMESTIC MARKET

It is a well-known fact that the historical origin of the basic process underlying the creation of the domestic market, or, in other words, the development of commerce and industry, is to be found in the social division of labour. Owing to this latter's disruptive effect on the bases of the natural economic system, different kinds of transformations of raw materials and different operations within such transformations gradually emerge from the agricultural sector and come to constitute independent branches of industry, which proceed to trade what they produce - at this stage, merchandise - for agricultural commodities. Agriculture itself becomes an industry, that is, it produces processed goods, and specialization takes place in exactly the same way.

As a result of this evolution, radical changes are generated in the demographic and economic dynamics of the country concerned. Its industrial population - which is, by the same token, urban, since the large towns are the natural habitat of industry because in them are concentrated production factors, services and facilities of every kind - tends to grow faster than the agricultural population. The separation of the direct producer from his production media, which is at once a sign and a prerequisite of the transition from a barter economy to capitalism, generates the domestic market. The means of production of which the small-scale producer finds himself deprived become capital in the hands of their new owner, and are used to produce merchandise. When it becomes necessary to replace the production media in question, which in the main, under the former system, were naturally reproduced or home-made, they have now to be bought, which means that a market for such goods is created. Furthermore, the small-scale producer becomes a wage-earning employee of the farmer, the trader or the industrialist, and consequently a purchaser of merchandise - the goods he needs to live on -, thus creating a domestic market for consumer goods.

In other words, the domestic market has its origin in the commercial type of economy, and expands as this latter evolves in the direction of an industrial economy. At any given time its level of development, which is determined by the intensity of the social division of labour, is a measure of the degree to which capitalism itself has developed in the country in question.

To use a phraseology more to the taste of the disciples of Keynes, it might be said that the improvement in productivity brought about by the commercial and, to a still greater extent, by the industrial economy offers the advantage of more efficient utilization of the factors of production and raises the purchasing power of the community. The income increment obtained at the cost of the expansion of production of course coincides with an increase in the supply of and demand for goods and services, and is distributed among all those who take part in the production process. As the entrepreneur gradually intervenes to expand or transform artisan industry, the income distributed among the factors of production grows, and along with it domestic demand for consumer goods such as foodstuffs and textiles, since the income of artisans and wage-earners is rapidly transmuted into consumer expenditure. Thus there comes into being the essential dynamic element in the expansion of a capitalist economy - the domestic market.

/Hence, in

Hence, in the case of Brazil, as in that of any other country, the analysis of the evolutionary process of the domestic market will consist in research, at the macro-economic level, on the extent to which endogenous growth is taking place, and at the sectorial level on the pattern and the direction followed by the development of the various branches of the national economy, both individually and in their inter-relationships.

The period covered by the research will necessarily have to be short - not more than 15 years - for want of regular statistics and reliable census data. The very studies of national income and product which are indispensable for a quantitative assessment of the development of the domestic market are limited to the length of time mentioned.

From a purely qualitative standpoint, research might conceivably go back 30 or 50 years. In that case it would be a task for the historian or the sociologist rather than for the economist, who does not nowadays feel himself in a position to state any conclusions unless he has statistical data at his disposal.

### III. THE DOMESTIC MARKET AND THE URBANIZATION PROCESS

The wide divergencies between the rates of growth of the population in the different federal States of Brazil, which can easily be observed by analysing the general censuses from 1872 onwards, does not derive exclusively from disparities in natural growth, but, above all, from the existence of large-scale internal migration.

Research on the State of origin of the Brazilian population covered in the 1940 and 1950 censuses enabled the intensity of such population shifts to be measured and their direction to be determined (see table 1). It was shown that most of these movements took place from the country to the towns, which latter developed at the expense of the rural areas, so that the domestic market expanded, for the reasons given in section II. In other cases shifts from one rural area to another were registered; these did not signify a mere change of residence, but, in essence, a transfer of rural population from a sphere of subsistence economy to a commercial environment.

If this study is confined to the last interval between censuses (1940-50), it can be seen that, while the rural population increased by only 17.4 per cent, the urban and suburban populations registered the striking increments of 41.5 per cent and 58.3 per cent respectively (see table 2).

Table 1

BRAZIL: INTER-CENSUS MIGRATORY RELATIONSHIP BETWEEN FEDERAL AREAS

Federal area	Brazilians present in the specified area who originate from other areas			Brazilians present in other areas who originate from the specified area			Total balance (+) or (-) 1940-1950
	1940	1950	Diference + or -	1940	1950	Diference + or -	
Paraná	214 256	663 783	449 527	62 658	71 310	8 652	440 875
Distrito Federal	633 686	942 812	309 126	82 386	142 053	59 667	249 459
Goiás	155 480	282 450	126 970	36 014	37 263	1 249	125 721
Rio de Janeiro	202 989	368 747	165 758	432 428	504 130	71 702	94 056
São Paulo	726 492	1 080 428	353 936	231 330	507 248	275 918	78 018
Mato Grosso	70 509	107 668	37 150	16 192	36 333	20 141	17 018
Pernambuco	131 410	210 010	78 600	244 665	311 193	66 528	12 072
Maranhão	131 019	161 969	30 950	81 105	100 189	19 084	11 866
Acre	22 783	29 419	6 636	9 852	13 313	3 461	3 175
Piauí	66 646	86 831	20 185	114 416	144 946	30 530	-10 345
Santa Catarina	107 851	152 926	45 075	61 451	118 748	57 297	-12 222
Pará	76 402	102 563	26 161	41 273	81 549	40 276	-14 115
Rio Grande do Norte	63 512	77 752	14 240	73 521	103 669	30 148	-15 908
Amazonas	52 781	63 806	11 025	24 292	53 434	29 202	-18 177
Sergipe	33 737	36 462	2 727	75 848	107 479	31 631	-28 906
Alagoas	60 147	103 143	42 996	134 920	207 250	72 330	-29 334
Ceará	89 618	109 493	19 875	205 661	268 486	62 825	-42 950
Bahia	105 888	144 055	38 167	339 848	430 217	90 369	-52 202
Rio Grande do Sul	38 358	46 828	8 470	131 132	205 576	74 444	-65 974
Paraíba	104 183	101 365	-2 818	158 755	246 780	88 025	-90 843
Espírito Santo	109 981	93 199	-16 782	59 093	147 854	88 761	-105 543
Minas Gerais	195 792	215 806	20 014	778 605	1 367 239	588 634	-568 620

Source: National Census Service.

Table 2  
 BRAZIL: POPULATION CHANGES FROM 1 JULY 1940 TO 1 JULY 1950,  
 BY ADMINISTRATIVE CATEGORY

(In thousands of inhabitants)

Category	Total		Increase between 1940 and 1950	
	1 July 1940	1 July 1950	Absolute figures	Per- cent- age
Urban population	9 163	12 962	3 799	41.5
Suburban population	3 681	5 827	2 146	58.3
Rural population	28 170	33 187	4 917	17.4
Brazil	41 114	51 976	10 862	26.4

Source: Ernani Thimoteo de Barros, Las migraciones interiores en el  
 Brazil.

The Laboratory of the National Statistical Council recently estimated the number by which births exceeded deaths in the urban, suburban and rural divisions, with the aim of indirectly calculating the positive or negative contribution of migration by subtraction of the balance obtained from the total increase in the population. This research revealed (see table 3) that in rural areas there were many more births than deaths (the difference amounting to 7.6 million), but that this was partly offset by the balance of migration, emigration having exceeded immigration by the high figure of 2.7 million. The urban and suburban categories were enlarged not only by the significant excess of births over deaths (3.1 million), but also by that of immigration over emigration (2.9 million).

Table 3

BRAZIL: DETAILS OF POPULATION CHANGES FROM 1 JULY 1940 TO  
 1 JULY 1950, BY ADMINISTRATIVE CATEGORY

(In thousands of inhabitants)

Category	Difference between births and deaths	Difference between immigrations and emigrations		Increase between 1940 and 1950
		Internal	External	
Urban population	1 939	1 939	40	3 799
Suburban population	1 211	923	12	2 146
Rural population	7 600	2 743	60	4 917
Brazil	10 750	-	112	10 862

Source: Ernani Thimoteo de Barros, Las migraciones interiores en el Brasil.

Again, the 1940 and 1950 censuses showed that 3.4 million Brazilians in the first and 5.2 million in the second case lived in federal States other than those where they were born, these figures corresponding respectively to 8.5 per cent and 10.3 per cent of the total number of births registered in Brazil. Such percentages testify that the rate of migration was not only considerable, and indicative of the great mobility of the Brazilian population, but also increased during the decade in question, undoubtedly as a result of the rapid industrialization of the country and the opening-up of new horizons for the wage-earner, as, for instance, in the north of Paraná and the south of Goiás.

The attitude adopted in Brazil to the exodus from the rural areas is often over-pessimistic, and the fact is overlooked that this great stream of humanity, which has its springs among the poorest of the agricultural population, is moving away from share-cropping in the direction of wage-earning occupations - urban and rural alike - and, instead of producing for its own consumption, will be paying money for the subsistence goods it requires, thus promoting the steady expansion of the domestic market.

The long distances that have to be traversed by migrants; the discomforts of travel; the uncertainty of finding a place to live; and the difficulty of adjustment to a new environment, unfamiliar and sometimes hostile -- all these factors combine to render the formation of the domestic market a painful process, but it is inevitable, and inherent in the dynamics of Brazil's economic development. Justice forbids that it be checked or regarded as prejudicial to Brazil's interests. It is understandable that the owners of large haciendas should complain at the disbanding of so vast an army of under-employed labour, always prepared to work for a tiny wage, and showing little disposition to claim its rights. Nevertheless, this interested protest must not be seconded by those who sincerely wish to see an improvement in agricultural income and rural productivity.

The exodus referred to, besides constituting a means of relieving demographic pressure in areas where the birth-rate is high, makes a decisive contribution to the mechanization of agriculture and to the improvement of farming methods. Only when there is a shortage of manpower, and wages consequently tend to rise, do the owners of large farms attempt to purchase the equipment and fertilizers required in order to increase the yields of their crops.

From the figures given in table 1 appended to this study, the areas where immigration and where emigration predominate can be indentified simultaneously. Paraná, the Federal District, Goiás, Rio de Janeiro and Sao Paulo are the States most favoured by migratory movements, while the largest population losses are registered in Minas Gerais, Bahia and the States in the North-West (especially Paraiba).

The influx of 450 000 Brazilians from other States swelled the population of Paraná, for example, during the decade 1940-1950, while only about 9 000 natives of the State in question emigrated. Over the same period, Goiás registered a population increment of 127 000, and a loss of little more than 1 000. Although the State of Sao Paulo, during the ten years under review, received a contingent of 354 000 immigrants from other federal units, its own inhabitants emigrated in considerable numbers (276 000), the result being a moderate balance of barely 78 000, as against 441 000 in Paraná, 249 000 in the Federal District, 126 000 in Goiás and 94 000 in Rio de Janeiro.

This last State deserves special attention. Although by 1950 it had lost almost 72 000 of the population registered in 1940 through emigration, it held fourth place among the centres of immigration, since it absorbed 166 000 natives of other States. Moreover, zones where emigration and where immigration preponderate can be seen to exist side by side within one and the same federal unit, wherever industrialization is in progress, either in its initial stages, as in the state of Rio, or in intensified form, as in Sao Paulo. Although a considerable amount of the labour released from other States has been absorbed by this process, the capital and technique required for the rehabilitation of the declining rural areas, which would provide increased employment opportunities and new incentives for potential migrants from such areas of origin, have not been forthcoming.

This evidence alone testifies to the interest that would attach to a study of the special local features of Brazil's demographic metabolism. For want of data, however, such an analysis can be carried out only at State level, so that a perfect understanding of the process of formation of Brazil's domestic market cannot be reached by this means. Only in the future will it be possible, through field research, to identify the areas where capitalistic patterns of production are gaining ground and to measure the intensity with which this development is taking place.

#### IV. BRIEF MACRO-ECONOMIC ANALYSIS

The aim of this analysis is to ascertain at the macro-economic level the rate of Brazil's endogenous growth, and at the sectorial level the pattern and direction followed by the expansion of the various branches of the national economy, both individually and in their inter-relationships.

Credit is due to ECLA for having initiated the strictly scientific macro-economic analysis of the development of Brazil.

A number of variables were studied with respect to their relative importance and their evolution in time. These included the indices of real production; the distribution of income between investment and consumption, between imports and domestic production; domestic manufacture of capital goods; and the distribution of production between the internal and external markets, which constituted the ideal quantitative indices whereby to assess the rate of expansion of the Brazilian economy.

They may therefore usefully be analysed one by one, as follows:

Real production. According to estimates prepared by the Fundação Getulio Vargas, the index of real production was doubled between 1939 and 1956. Of course the growth registered was not identical in the various sectors of activity; while an increase of 206 per cent was achieved in the industrial output,<sup>2/</sup> agricultural production recorded only the moderate increment of 51 per cent.

As the population is known to increase at an annual rate of 2.3 per cent, it can easily be seen that the annual rate of expansion of Brazil's real production attains the significant per capita figure of 2.4 per cent. This rate underwent marked fluctuations in the period under consideration, remaining at approximately 0.9 per cent from 1939 to 1945, and rising to 3.0 per cent in subsequent years.

Unfortunately, it will be difficult for a similar rate of growth to be maintained during the next few years, in view of the burden of Brazil's financial commitments and the deterioration, since July 1954, in its terms of trade, which, during the preceding five years, has been extremely favourable as a result of the exceptional coffee situation. The outlook is serious as regards this latter factor's possible negative effect, since in 1939-54 domestic consumption increased more intensively than production.

In 1956, according to the preliminary estimates prepared by the Fundação Getulio Vargas, the real per capita product was the same as in the preceding year. It is true that this was entirely owing to a decrease of 0.5 per cent in agricultural production; industrial production, on the other hand, expanded, in real terms, by 4.7 per cent.

Investment. Real per capita production increased from 1945 onwards to the extent it did only by virtue of the investments placed. Mr. Celso Furtado, the economist at the head of the Joint ECLA/BNDE Working Group, estimates that liquid investment in Brazil (in terms of currency with constant purchasing power) was 4.6 times greater in 1952 than in 1949, but in 1953-54 declined by 20 per cent in relation to 1952 (see table 4).

<sup>2/</sup>It is important to point out that this expansion took place mainly in the production goods sector, which in 1939 accounted for only 20 per cent of manufacturing output, whereas by 1956 its share had reached 33 per cent.

Table 5

BRAZIL: DISTRIBUTION OF INCOME BETWEEN INVESTMENT AND CONSUMPTION

(In thousands of millions of cruzeiros at 1952 prices)

Year	Income	Depre- ciation	Liquid invest- ments	Con- sump- tion	Consumption as a percentage of income
1939	176.2	12.0	10.7	153.5	87.1
1940	179.4	12.2	10.4	156.8	87.4
1941	190.0	12.5	11.6	165.9	87.3
1942	179.5	12.9	6.7	159.9	89.1
1943	182.9	13.1	7.2	162.6	88.9
1944	197.3	13.4	10.8	173.1	87.7
1945	211.1	13.6	6.7	190.8	90.4
1946	236.4	13.8	15.7	206.9	87.5
1947	276.0	14.3	24.8	236.9	85.8
1948	281.2	15.1	20.2	245.9	87.4
1949	294.6	16.3	30.3	248.0	84.2
1950	323.3	17.2	34.5	271.6	84.0
1951	356.2	18.2	41.7	296.3	83.2
1952	377.5	19.3	46.3	311.9	82.6
1953	374.1	20.5	37.2	316.4	84.6
1954	413.2	21.8	37.2	354.2	85.7

Source: BNDE/ECLA Joint Working Group.

Table 6  
 BRAZIL: SHARE OF IMPORTS IN CAPITAL FORMATION  
 (In thousands of millions of cruzeiros at 1952 prices)

Year	Total investment	Imports of capital goods	Domestic production of capital goods	Imports as a percent age of the total
1939	22.7	6.8	15.9	30.0
1940	22.6	5.5	17.1	24.3
1941	24.1	6.3	17.8	26.1
1942	19.6	3.4	16.2	17.3
1943	20.3	4.4	15.9	21.7
1944	24.2	6.2	18.0	25.6
1945	20.3	7.4	12.9	36.5
1946	29.5	12.1	17.4	41.0
1947	39.1	17.9	21.2	45.8
1948	35.3	14.3	21.0	40.5
1949	46.6	13.9	32.7	29.8
1950	51.7	13.0	38.7	25.1
1951	59.9	22.4	37.5	37.4
1952	65.6	20.5	45.1	31.3
1953	57.7	12.0	45.7	20.8
1954	59.0	16.0	43.0	27.1

Source: BNDE/ECLA Joint Working Group.

While expenditure on direct foodstuffs (excluding wheat imports) increased at an annual rate of 3.3 per cent, the amount spent on processed foodstuffs rose by 7.4 per cent yearly. As the latter at present represents over 30 per cent of the former, the disparity in the increments registered bears witness to a qualitative change in the diet of the Brazilian people, such as is to be expected in a country in process of industrialization.

Imports account, on an average, for 9 per cent of the Brazilian population's total supply of foodstuffs. The growth of such imports has been moderate, even since the elimination of quantitative controls. Thus, the increase recorded between 1953 and 1954 did not exceed 4.5 per cent. This rate should be compared with that of 23 per cent registered for the expansion of Brazil's total imports.

The long-term trend towards the replacement of imported foodstuffs by their domestically-produced counterparts is very encouraging. The share of imports in total supplies gradually diminished from 20 per cent in 1925 to 8 or 9 per cent in the post-war period, and it seems likely that this decline will continue during the next few years.

In bringing to a close this cursory interpretation of the Brazilian macro-economy, one is led to the conclusion that Brazil is gradually emerging from the stage of under-development. The rapid rate at which this change has been taking place in some sectors, especially that of industry, entails, as has already been pointed out, the risk that the problem of the land may be somewhat overlooked and it still remains to be solved in its entirety. Upon this problem depends the overcoming of the serious crisis now in sight both in agriculture and in industry.

At no time must it be forgotten that 35 million Brazilians earn their living in rural activities, most of them in wretched conditions as regards diet, clothing and housing, toiling from sunrise to sunset on land which is not their own, with the most rudimentary equipment and without rights or security of any kind.

#### V. THE AGRARIAN STRUCTURE AND POPULATION GROWTH

It is a well-known fact that Brazil possesses vast reserves of natural resources for exploration but lacks capital and skilled manpower to develop them.

Since labour is plentiful in the rural areas, farming techniques are used which employ large numbers of workers but at a low level of productivity. Given the type of agrarian structure prevailing in Brazil, it may not be economically desirable to use even simpler or fairly modern tools and machinery with economize manpower, since they add little to the value of the crops obtainable from the reduced area of cultivation.

In the first place, the minifundia (which are undoubtedly on the increase, according to the results of the 1940 and 1950 censuses) impede the application of improved techniques, which are of doubtful value unless practised on a large scale. In certain cases, even by adopting methods which require greater effort, workers fail to keep themselves employed in their small holdings during the whole year and either spend much of their time in complete idleness or, when conditions are favourable, take jobs in neighbouring towns between the harvests.

In the second place, the owners of latifundia are content with the income from share-cropping or high rents and do not feel the need for increasing the productivity of their land because of the vast numbers of workers available who are prepared to accept any working conditions, however unjust, in order to scrape a bare living.

The main argument of those who are unwilling to understand the need for a redistribution of rural property in Brazil is that unfarmed land is supposed to be available in large amounts. However, this is not the case. Much of the unfarmed land is actually uncultivable, and most of the land which is technically workable lies in remote or inaccessible regions. To farm such land, even when it is expropriated, nearly always requires enormous capital investment because of the speculative prices on the market. Furthermore, it is not easy to attract settlers because of the high cost of transport and installation and because climatic, health and social factors are not always favourable.

It is also said that the harvest yield per unit of area could be substantially increased merely by introducing modern agricultural techniques such as, crop rotation, fertilizers, seed selection and simple methods of controlling livestock diseases and pests. However, here again the difficulty is the traditional and backward mentality peculiar to the latifundium and its notorious opposition to new techniques.

/Also aggravating

Also aggravating the agricultural crisis in Brazil is the rate of population growth of 2.3 per cent per year. As the population rises rapidly, greater investments are required to maintain a given level of per capita production. When it is a question of accelerating the rate of economic development, it is clear that investments must be greater than those dictated merely by population increases.

United Nations experts have calculated that, if the population of an underdeveloped country increases at the rate of 2.5 per cent per year, investments will absorb between 5 and 12.5 per cent of the national income solely in order to maintain a stable volume of equipment per worker. As Brazil's rate of liquid investment (gross investment less depreciation on liquid income) does not at present exceed 9.4 per cent of the national income (it reached its maximum in 1952 with 13.6 per cent), it is easy to see the enormous difficulties which Brazil's high rate of population growth causes for the country's economic development.

Another aspect which should be considered is the burden on the country represented by the large proportion of children in the population, especially in the rural areas, a phenomenon, moreover, typical of the under-developed countries where high birth-rates prevail.

The low level of agricultural income in areas where the latifundium predominates compels agricultural workers to lighten the burden of maintaining the large number of children by sending them out to work at the age of ten or twelve. Average yields per unit of area are thereby further reduced and production costs increased.

This uneconomic use of child labour will persist as long as the structure of the latifundia remains intact, since only in the long run will birth-rates begin to decline and have any appreciable effect on Brazil's demographic structure.

The elimination of the bottlenecks in the national economy, which were mentioned in the previous chapter, are seriously impeded by Brazil's agrarian structure. It is easy to understand why rail transport, the laying of power transmission lines and the building of a network of silos and warehouses depend for their profitability on the density of production of the areas served, which is necessarily low wherever the latifundium predominates.

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In the same way, the problems of agricultural credit, education and hygiene will never be finally solved, or at least will always be seriously impeded, by the system of land tenure obtaining in most parts of Brazil.

To ignore these facts is to condemn Brazil to a rate of development incompatible with the scientific and technical advances which have been so appreciable in those countries which have succeeded, by peaceful or violent means, in carrying out land reform.

#### VI. SOME THEORETICAL CONSIDERATIONS ON BALANCED URBAN AND RURAL DEVELOPMENT AND THE DYNAMICS OF GROWTH OF THE ECONOMICALLY ACTIVE POPULATION

The desire for industrialization in the under-developed countries is largely attributable to the fact that the net per capita product in industry is generally higher than in agriculture. In other words, the higher the active part of the population employed in industry, the higher the national per capita income.

Nevertheless, there are countries which have achieved a high level of agricultural productivity, as compared with industry, by introducing in primary activities electrical and mechanical techniques and production methods which closely resemble those used in the secondary sector.

On the other hand, the mere increase in per capita income through industrialization does not necessarily mean a substantially higher standard of living for large sectors of the population which are still engaged in activities of low productivity.

In any case, the efforts towards industrialization made in the under-developed countries are more than justified, since this is undoubtedly the most efficient means of securing more rapid development. At the same time, it must be pointed out that industrialization alone cannot remove all the obstacles to rapid economic expansion nor ensure complete and absolute economic independence.

The intensification of agriculture and of productivity is both possible and necessary. Even with existing techniques, agricultural output may be considerably increased. It should not be forgotten that the European industrial revolution was preceded and later accompanied by intensive changes in agricultural techniques and that technical progress in agriculture favours the development of other sectors.

It may be useful to recall General Assembly resolution 401 (V) adopted on 20 November 1950 (one of the few, moreover, which was unanimously approved) according to which, in the under-developed countries, and even in countries of high average per capita income, the agrarian structure, and, in particular, systems of land tenure, impede economic development, depress the standards of living of the small farmers, hinder the expansion of food supplies, and result in the stagnation of agriculture, which generally is the principal economic activity of such countries.

In other words, industrial development may be consolidated only to the extent to which agricultural development is pushed forward. Only if these two sectors are harmoniously expanded will the under-developed countries be able to accelerate their rate of economic development, since, being unable to establish industries capable of competing in the international market with the more advanced countries, they will be compelled to seek substantial consumer markets for their manufactured goods among those parts of the population engaged in agricultural activities, which form the majority of the nation.

Another United Nations study on the processes and problems of industrialization in the under-developed countries <sup>3/</sup> also states that the maximum possible rate of industrial development does not merely depend on the availability of production factors but also requires structural alterations in the economy of such countries.

ECLA itself, <sup>4/</sup> which advocates the industrialization of the Latin American countries, has warned that too much must not be expected from new investments in view of the serious obstacle constituted by the land tenure system. The solution to this problem, ECLA feels, must form an integral part of economic development programmes.

On the other hand, the margin of variation in productivity, according to the type of industry involved, is very wide in under-developed countries. The basic industries, such as the iron and steel, electrical, chemical and petroleum industries, etc., as well as certain services - particularly transport - deserve attention not only because of the net product per worker but also because a whole series of consumer goods also depends on them.

<sup>3/</sup> Processes and Problems of Under-developed Countries, United Nations, Department of Economic and Social Affairs, New York, 1955.

<sup>4/</sup> Theoretical and practical problems of economic growth, ECLA, May 1951.

These activities are fundamental in "external economies" which play an important part in increasing productivity.

Generally speaking, industrialization is the key to the economic progress of the under-developed countries, but their rate of development depends, among other factors, on the solution of the problem of the agrarian structure and the careful selection of investments in the secondary sector itself.

The distribution of the economically-active population among the various sectors of the economy is closely related to the economic development of every country and has even been considered as one of the most expressive indices in cost-of-living comparisons. According to Colin Clark, the gradual shift of the active population from agriculture to industry and from industry to services in general is characteristic of any economic progress. Even before Colin Clark, Sir William Petty had already stated, in 1691, that the relatively higher income in the Netherlands, compared with that of other European countries, was connected with the fact that that country employed a larger proportion of manpower in industry and trade. The Australian economist nevertheless is to be congratulated on having conducted a long and painstaking enquiry in many countries and on having found ample backing for his theory. Thus, between 1870 and 1950 the percentage of the population actively engaged in agriculture decreased in the United States from 53 per cent to 14 per cent; in the United Kingdom, from 15 per cent to 5 per cent; in France, from 43 per cent to 36 per cent; in Switzerland (between 1888 and 1950) from 33 per cent to 17 per cent and in Japan from 85 per cent to 51 per cent. Generally speaking, if two countries are considered, the one which proportionately has the greatest amount of its labour force employed in agriculture is the least developed.

This affirmation finds its logical justification in the fact that the transfer of manpower from one sector of low productivity, as for example, the primary sector, to one of greater productivity - industry or a service - contributes to an increase in the national income. Such a situation requires, both for practical purposes and for international comparability a closer examination of the production structure and of all the factors which influence the dynamics of economic development.

If the theory put forward by Colin Clark relating to the parallelism between economic progress and the development of the secondary sector is valid, this sector also experiences contractions in relation to the tertiary sector. The heterogeneous nature of this latter sector does not justify the simplification made by the eminent economist.

Although the law governing the growth of the tertiary sector, as related to economic development, has not been thoroughly studied, it is generally believed that the phenomenon conforms to the following general principles.

In the highly-developed countries, 70 per cent, 80 per cent and even more of the economically active population are concentrated in the primary sector. The secondary sector is practically non-existent (2 to 8 per cent) and services which usually consist of marginal activities, mostly of very low productivity, absorb the rest of the labour force (10-20 per cent). This is the case of Thailand, Pakistan, Philippines, etc.

As the country develops, surplus manpower migrates from the country to the towns and gradually swells the secondary sector, while the tertiary sector undergoes little change. There is a certain numerical balance between the two, but the major part of the active population continues to be engaged in primary activities, Turkey, India and the most backward countries of Central and South America have reached this stage.

As the industrialization process intensifies, the migration of workers from the country to the towns becomes so accelerated that it exceeds employment opportunities in the secondary sector. The tertiary sector then begins to expand again, particularly in those branches designed to provide industry with the services it lacks. As a corollary of growing urbanization, public and personal services also develop considerably. The primary sector still retains more than 50 per cent of the economically active population; the secondary sector comprises about 20 per cent, while the remaining 25 or 30 per cent are concentrated in the tertiary sector. Brazil, Mexico, Spain and other countries are examples of this phase.

From this point onwards, there may be observed in the development process a rapid percentage decline in the primary sectors, accompanied by

a sharp increase in the secondary sector which for the first time is equivalent to, or greater than, the primary sector. The primary sector becomes less important quantitatively but agricultural production is unimpaired because of greater productivity. Sweden, Switzerland, Germany and a few other countries exemplify this type of development.

When this point has been reached, industry and agriculture tend to release manpower in increasingly larger amounts, owing to the spectacular rise in productivity. This surplus manpower either languishes in unemployment or takes refuge in the tertiary sector, which becomes the only one to increase further. Only the United States and, to a certain extent, Canada, have reached this stage of development, although the simultaneous presence of other factors, such as the artificial creation of services for the purpose of evading heavy taxation, particularly income tax, sometimes contributes to the gradual expansion of services.

