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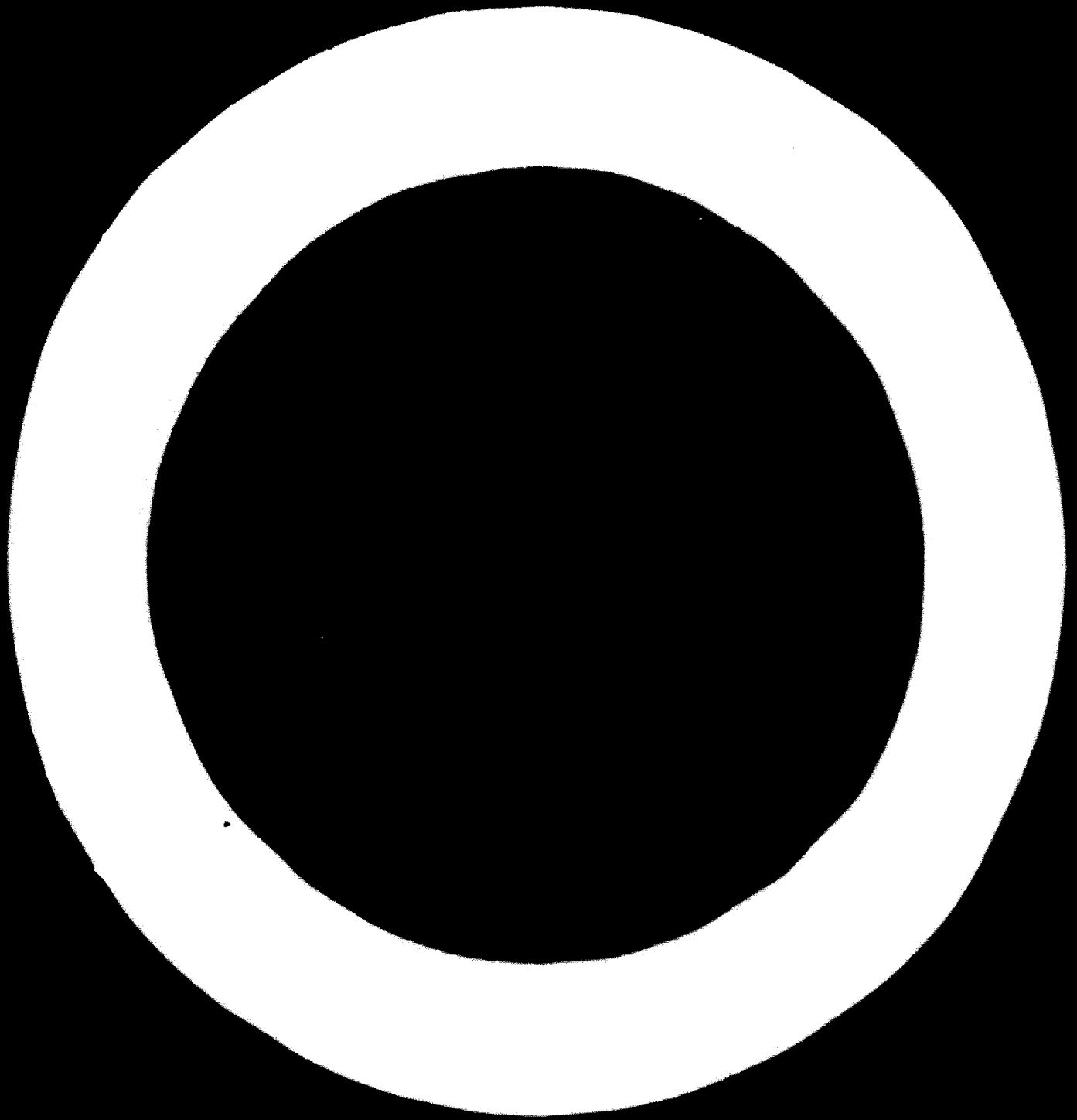
REGIONAL DISPARITIES AND THE ALLOCATION OF
INVESTMENTS IN BRAZIL ✓

by

Agnar Rodrigues Faria

✓ The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO.

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SUMMARY

1. The allocation of investments in Brazil until 1959 was oriented exclusively by the market; as a result the development pattern was one of marked concentration in the central-southern region. Because this region was already operating with important location economies it could profit directly from all general incentives for industrialization. However, this situation brought about even greater regional disparity between this region and the northeast.
2. Once again the phenomenon was concentrated in the central-southern region. It was the state of São Paulo which was able to absorb the general measures of direct and indirect incentives for industrialization, profiting from its important location advantages. The perception of this economic development concentration brought about the formation of regional development organizations which aimed to supply "problem regions" not only with an economic infrastructure and incentives for development, but also with elaborate sectorial plans for development.
3. Of these organizations the first created was SUDENE - Superintendency for the Development of the Northeast. The incentives and industrialization introduced by SUDENE constitute the only vigorous regional policy for allocating investments in Brazil. This mechanism is based on the Tributary Credit System which permits an income tax deduction of as much as 50 per cent if this amount is invested in a project approved by SUDENE for the region. Deductions must be deposited in Brazil's Northeast Bank thus creating substantial resources which may be used to finance projects for as much as 75 per cent of the total capital necessary. This system separates investors from tax payers. The contributor invests only in preferential shares with no right to vote; the group that invests its own resources assumes total control of the enterprise.
4. This fiscal credit mechanism introduced in order to promote the industrialization of northeast Brazil has led to very favourable results, and will help to bring about a diminishing of disparity between this region and the central-southern region. The table below indicates this fact by showing the rate of growth of the industrial product of the northeast region.

Table

Rate of growth of the industrial product
(Northeast region compared with total Brazil)

<u>Period</u>	<u>Brazil</u>	<u>Northeast</u>
1949-1954	9.6	5.3
1954-1959	12.2	2.2
1959-1964	7.4	7.4

Source: "The northeast's festival" Costa, R.V.
in Conjunction and Development, XII
No.1, 1 Feb. 1968.

Although this system is being employed to promote industrialisation in other regions of Brazil, its validity in the northeast region is not indefinite. It should be gradually extinguished starting with quantitative targets imposed by SUDENE, the regional planning organisation.

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Introduction

1. There is often great disparity of economic development among regions of many countries throughout the world. The verification of this fact in almost all countries has made planners and policy makers set as one of their main objectives of economic policy the elimination of such disparity. This lack of balance between regions is found in both centralized economies as well as in compound systems based on the market; it is found in countries with extensive territories as well as in those with small areas. However, it seems that such discrepancies are greater in large countries than in those where the market has a marked influence on the geographic distribution of investments.
2. Examples of such discrepancies may be found in Italy where there is a vast difference between the north and the south; in Greece where the Athenian region has a per capita income two and one half times greater than that of other provinces; and in Poland where Byalystock is found to be the poorest province in the country. Even more noticeable differences are found in Spain and Yugoslavia where the relation of income between the rich regions and the poor ones is four to one.^{1/} In Brazil the ratio between per capita income of provinces reaches seven to one. It should be evident from these examples that the problem of regional balance is not restricted to any one economic system in particular or to any specific size of country.
3. This paper presents a brief diagnosis of the disparities observed in Brazil. An analysis of the existing differences between the richest and poorest regions, respectively the southern and northeastern parts of the country, as well as an account of the historical and economic evolution will be given in order to isolate the main determining factors of the phenomenon. Finally, a comparison will be made of the two types of regional development policies to be found in Brazil. They are: the development policy based on the market mechanism in which the Government participation is at a minimum; and the policy in which the Government performs the main role either by channeling resources or by orienting investments.

^{1/} Silva Leme, R.A., Basis for a Regional Development Policy, mimeographed, University of São Paulo, 1966.

I. THE BRAZILIAN PROBLEM

4. As mentioned above, the regional discrepancies in Brasil are of such an extent that the per capita income of the State of São Paulo, the most developed region in the southern part of the country, is seven times greater than that of the State of Piauí, the poorest state in northeastern Brasil (see Figure 1). To blame climatic conditions for the great variance in the distribution of income in the country is not justifiable. The uneven distribution of natural resources and the prevailing climatic conditions only emphasize the difficulties which agriculture has had to face in the northeastern region of Brasil. The existing problems were overcome after a generation had used the development process. The region now has agricultural participation on the product market and this sector operates in spite of unfavourable climatic conditions .

5. In the case of Brasil, a careful historic analysis is needed in order to detect the important aspects of regional discrepancies. A statistical comparison alone is not sufficient because the favourable position of the southern region at present, especially the state of São Paulo, can only be understood when considered in the context of the whole development process of the Brazilian economy.

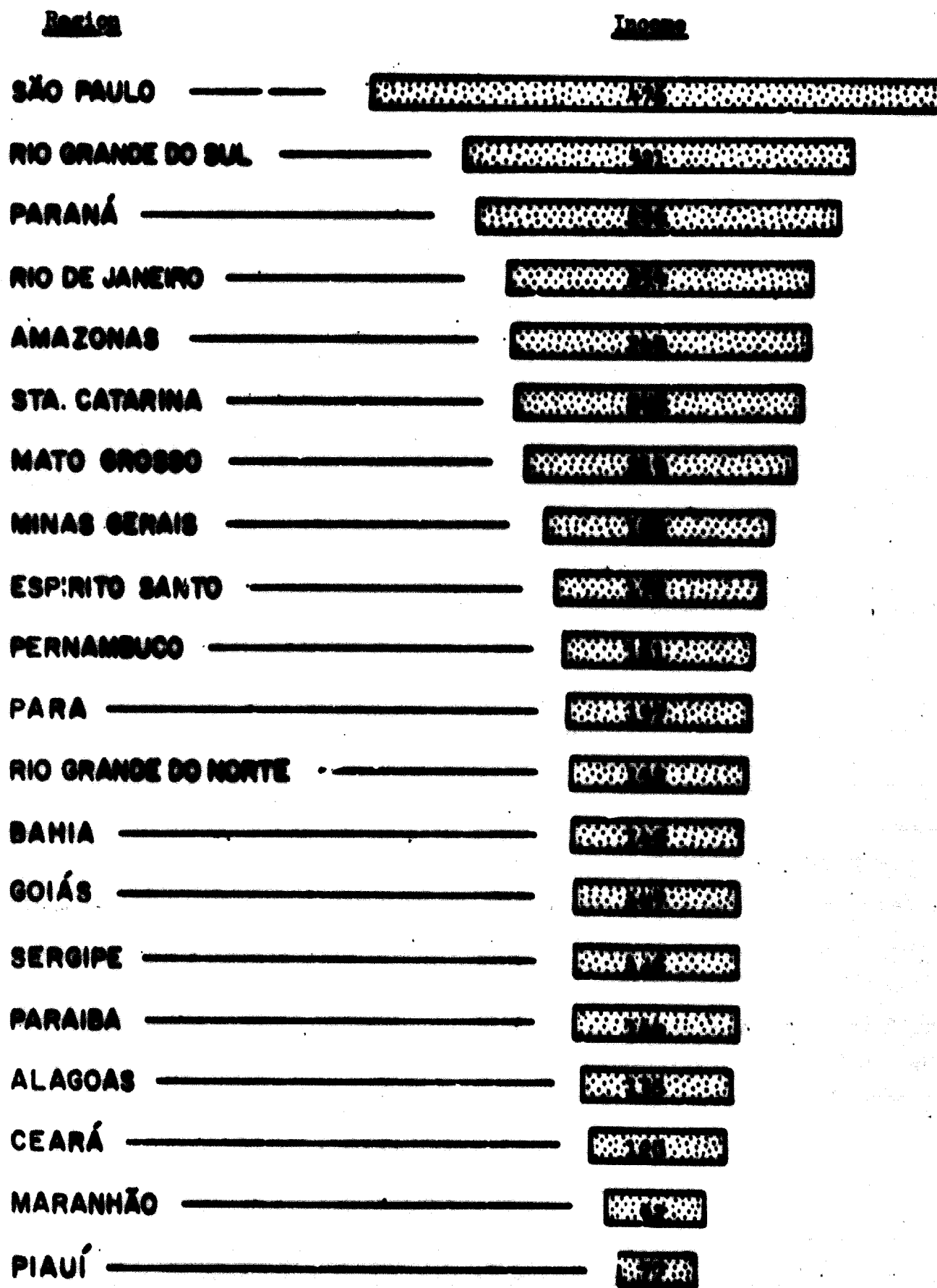
II. THE EVOLUTION OF BRAZIL

6. At the beginning of the period of colonisation the territory of Brasil represented a heavy burden to the Portuguese. Soon the discoverers found that the implantation of an intense colonisation and exploration policy would be justifiable in order to eliminate the pressure exerted by other nations who wanted to conquer the recently discovered region. The execution of such a programme meant turning away from resources of more productive projects in the Orient and turning to an enterprise with little economic promise. The great distance from Europe and the insecurity of transportation made any economic activity non-competitive. The high cost of transportation and the inexistence of an internal market at that time would not permit Brasil, especially the southern region, to become an economic prolongation of Europe.

7. Some factors, nevertheless, made possible the beginning of agricultural and industrial activities in northeastern Brasil. A factor of great importance was the inability of the Venetians to absorb all of the sugar produced at that time.

FIGURA 1

Per capita income in Brazil in 1958 (R\$)



The loss of the monopoly by Venice came about with the entrance of the Netherlands in the distribution of the product, which was not produced solely in the Orient. The large-scale production adopted by the Portuguese, the suitability of Brazil's northeastern soil, the use of up-to-date techniques and the adequate financing by the Netherlands, made possible the rapid expansion of sugar plantations in Brazil. The central and southern regions of the country contributed only slightly to this activity. Their only link with the dynamic economic centre was by supplying part of the Indian labour force.

8. Due to the existence of slave labour, with its remuneration dissociated from the market, the growth of income in the northeast provided no stimulus for diversification of internal demand and consequently no diversification of the entire industrial apparatus. In this system, profits were either reinvested in the activity which generated them or they were invested abroad. This type of economy soon reached its maximum and made it impossible for all other regions in the country to develop in connexion with sugar production.

9. At the start of the "gold cycle" in the national economy, the economic centre moved to the central region of Minas Gerais. Even though the economy offered no conditions for the establishment of autonomous economic growth, it brought about the formation of small settlements in the neighbouring regions engaged in supplying mules and food. São Paulo became the path for oncoming herds from the far south destined for Minas Gerais. Thus, São Paulo at the close of the eighteenth century had secondary participation in the national economy.

10. Only after the second half of the nineteenth century was it able to engage in its first "take off" in the development process due to the increased international demand for coffee. São Paulo answered to the stimulus derived from the coffee demand throughout the world with massive investments in the field. Investments in the infrastructure of the economy, mainly in the railroad sector, were made in order to guarantee rapid transportation of coffee from the plantations.

11. This flow of capital to the infrastructure generated great flows of income in the national economy and due to its multiplying effect, created conditions for autonomous development. As a result of this, there was an increase in the real income available for use by the great masses of labourers employed in rural activities, and an increase in income for a small portion of labourers working in the existing urban centres. The enlargement of the internal market of Brazil was

due to immigration from Europe and the abolition of slavery. The constant increases in exchange rates acted as a protective tariff and helped to create conditions for the beginning of the industrialisation process.

12. The concentration of a consumer's market in the southern region, specifically São Paulo, began with the installation of a few electric generating units in the region. The relatively long railroad system placed São Paulo in a favourable position to attract the incipient industrialization process. Quantification of these facts can be seen by examining the industrial census; in 1907 only 16 per cent of industrial production was in São Paulo, while in 1938 this participation was over 40 per cent.

13. With the beginning of the First World War the first phase of acceleration of the industrial development of Brazil began. The process was consolidated with the advent of the Second World War when, at that time, a migratory flux from the fields to the cities took place.

14. In general, the industrial process in Brazil has been brought about indirectly by the attempts to overcome the difficulties encountered by the national economy, from the beginning of the century, to fulfil various product needs of the population. A concentration of effort has been made to produce the needed goods internally. Vouchsafes have been made for the entrance of foreign capital in order to increase the resources for investment in the secondary sectors of the economy. At the same time a series of investments to build up the infrastructure has brought about the introduction of external economies which help the private sector of the economy.

Table 1
Distribution of internal income in Brazil
according to regions (1950-1959)

Region	1950		1959	
	Value (R\$ 1,000)	%	Value (R\$ 1,000)	%
Northeast	24,794.6	11.3	203,755.0	10.6
South	106,064.2	48.0	971,072.7	50.7
Others	89,417.7	40.7	741,665.0	38.7
Total	220,276.5	100.0	1,916,492.7	100.0

15. Due to these processes of development, income has not been distributed uniformly throughout the nation. The differences shown in 1950 still persist, in spite of reasonable growth. Even more accentuated than the differences in the distribution of the product are the discrepancies shown in terms of industrial location (see table 1). In 1950 industry in the southern region was responsible for a little more than 56 per cent of the value added by the industrial production, while in 1960 this participation grew to more than 60 per cent and to 65 per cent in 1964.
16. In the southern region the phenomenon is highly concentrated. The participation of the state of São Paulo in the value added by the industries in the regions went from 77 per cent in 1950 to 84 per cent in 1964 (see figure 2).
17. Analysing the aspects of industrial concentration in Brazil from the angle of employment distribution, the diagnosis still confirms that there is a strong concentration of employment in the southern region, especially in São Paulo. Table 2 shows the distribution of industrial employment from 1950 to 1965.
18. The importance of the southern region as a development centre and the centre of the industrialisation process of Brazil is evident from an analysis of the variations that took place in the employment levels of all regions of Brazil. The variations in absolute terms of labour occupied in industry show that only in the southern region changes took place between 1950 and 1964. These facts corroborate the information concerning the migratory flux from the northern part to the southern part of the country. When a very large contingent of the labour force from northern regions sought employment in the southern states, a need arose for enormous investments in order to open up new frontiers of employment.
19. The economic development process of Brazil has encountered the problems of industrial concentration and maintenance of regional disparity common to many other countries. São Paulo has been the largest participant in the process by absorbing most of the labour employed in industry in the region.

Figure 2

Value added by industries in the regions of Brazil (1950-1964)

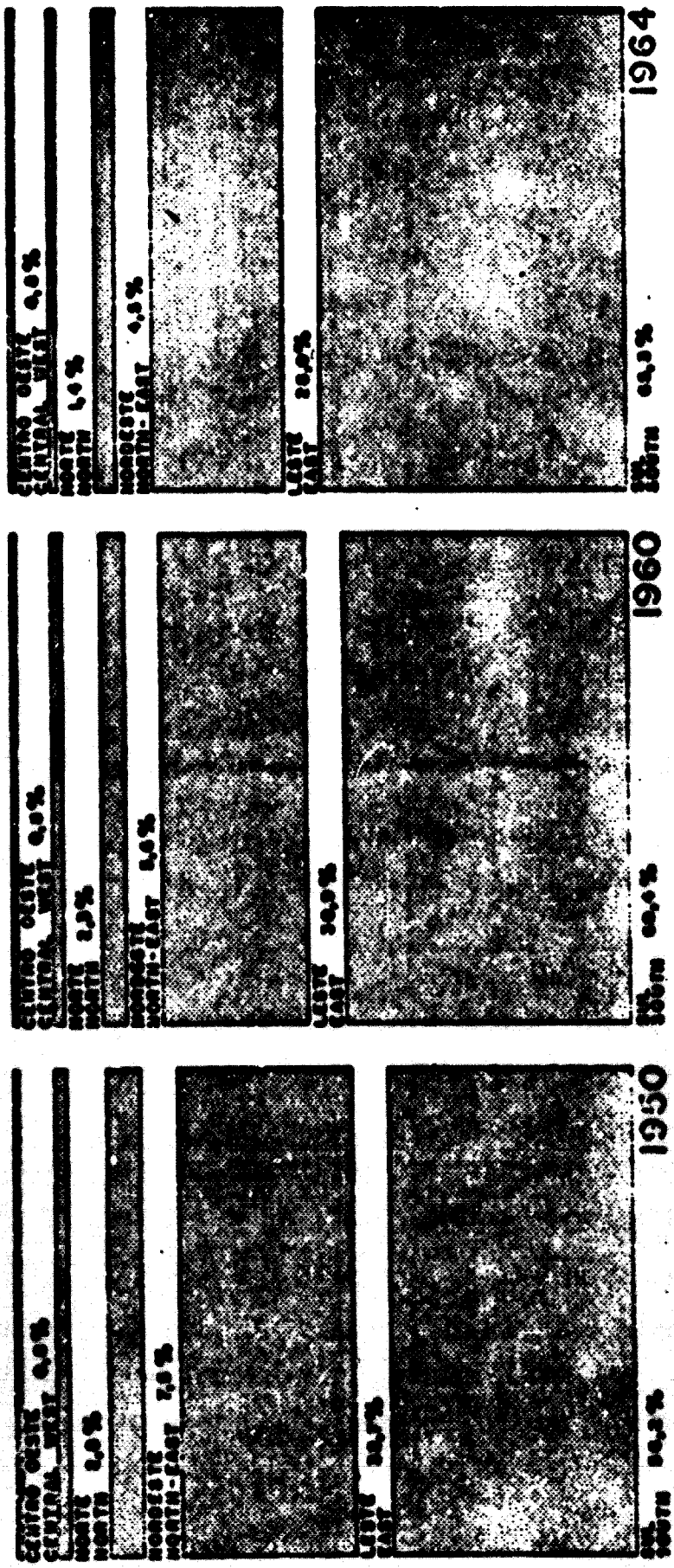


Table 2
Industrial employment in Brazil

	1950		1954		1960		1965	
	Employed	%	Employed	%	Employed	%	Employed	%
Maranhão	8,450	3.9	9,226	4.6	13,902	6.2	5,284	2.9
Piauí	1,941	0.9	2,136	1.1	4,347	1.9		0.2
Ceará	18,708	8.7	18,295	9.1	20,194	9.0		1.1
R.O. de Norte	7,684	3.6	12,000	6.0	11,968	5.4		0.7
Paraíba	23,443	10.9	15,171	7.5	17,215	7.7	144,160	80.3
Pernambuco	82,271	38.4	76,649	38.0	72,058	32.2		4.0
Alagoas	22,883	10.7	19,154	9.5	19,759	8.8		1.1
Sergipe	15,301	7.2	13,971	6.9	14,286	6.4		0.8
Bahia	33,232	15.5	35,060	17.4	50,023	22.4	30,190	16.8
Sub-total	214,113	100.0	201,662	100.0	233,752	100.0	179,634	100.0
Minas Gerais	107,223	13.2	118,454	11.7	140,268	11.1	139,916	9.7
São Paulo	526,086	64.9	655,823	64.7	831,339	66.0	1,005,327	69.8
Paraná	32,869	4.0	51,494	5.1	68,455	5.4	132,165	9.2
St. Catarina	35,081	4.3	54,084	5.3	69,682	5.5	152,135	10.6
R.O. do Sul	103,748	12.8	125,362	12.4	134,630	10.7		7.7
M. Grosso	3,229	0.4	5,063	0.5	7,804	0.6		0.4
Coísta	3,135	0.4	3,234	0.3	7,137	0.6	10,792	0.8
Sub-total	811,371	100.0	1,013,516	100.0	1,259,315	100.0	1,440,335	100.0
TOTAL BRASIL:	1,282,572	100.0	1,523,016	100.0	1,799,376	100.0	1,967,574	100.0

Table 3

Changes in size of industrial labour force (1950-1964)

<u>Regions</u>	<u>1950-1960</u>	<u>1960-1964</u>	<u>1950-1964</u>
North	2,475	-4,464	-1,989
Northeast	-33,825	-19,526	-53,351
East	2,209	-5,655	-3,446
South	299,820	142,225	442,045
Central West	5,853	-5,503	-650
Brasil	276,532	107,275	383,807

Source: Brazilian Institute of Geography and Economics (IBGE)

Table 4

Changes in size of industrial labour force - southern region (1950-1964)

<u>States</u>	<u>1950-1960</u>	<u>1960-1964</u>	<u>1950-1964</u>
São Paulo	254,574	139,089	393,663
Paraná and St. Catarina	36,480	-3,593	32,887
Rio Gr. do Sul	8,787	6,729	15,516
<u>Total</u>	<u>299,841</u>	<u>142,225</u>	<u>442,066</u>

Source: IBGE

20. In the state of São Paulo the greatest part of the resources and efforts was generated in the fight for the national economic development. Among the local advantages presented by this state are:

- (a) The growth of an internal market due to the high wages paid by the coffee plantations and an increasing population concentration;
- (b) The development of a considerable market of factors especially labour opportunities derived from the development of the coffee economy;
- (c) External economies brought about by the transportation network as well as the development of other sectors of the infrastructure.

III. THE MECHANICS OF THE INDUSTRIAL DEVELOPMENT OF BRAZIL

21. The economic development of Brazil until the first half of the nineteenth century was a process that was dependent upon international market fluctuations for its products. Being so, all internal economic expansion was conditioned by favourable circumstances and influences from the rest of the world. This situation lasted until the beginning of the Second World War when the lack of industrialised products for direct consumption forced the national industry to produce goods which had always been imported. However, with the use of equipment and machinery which could not be given proper maintenance due to war difficulties, the depreciation rate of this investment was relatively high.

22. By the end of the Second World War the country was in an economic situation which could be characterised as "exchange euphoria". The accumulation of currency on the one side from the large exportations of raw material to the belligerent countries, was counterbalanced by the impossibility to obtain manufactured goods on the international market. This situation brought about the liberalisation of importations in the post-war years, which occasioned the rapid exhaustion of the exchange currency reserves.

23. The constant concern of the national authorities to exert control over the demand for exchange currency, but the realisation of the urgency for tariff protection in order to give incentive to industrialisation made it necessary for the Superintendency of Currency and Credit^{2/} to undertake some measures. Among them was Instruction Number 70 (1953) which introduced fundamental changes in the national exchange system. The fact that multiple categories were established for exporting and importing, with different exchange rates based on the essentiality of a product, introduced heavy protection on the industries of direct consumer goods, judged as non-essential, and thus opened facilities for investments. This incipient stimulus to the process of substituting importations became the greatest stimulating force of investment in the industrial sector.

24. The Instruction Number 70 from SUNOC, which implicated a restriction over importation of superfluous goods for all national territory, was directly beneficial to national industry, but the new allocation of resources favoured exactly the state which already showed a high degree of industrialisation:
São Paulo.

^{2/} SUNOC - an old organisation that controlled the currency and credit in Brazil, today part of the Central Bank.

25. The main objective of the national economic policy was industrialisation. For this reason, all profit from foreign commerce or agriculture was channeled into the form of savings which would guarantee investments in the industrial sector. However, a national industry cannot count solely on internal savings. In 1955 SUMOC through its Instruction Number 113, designed to attract foreign capital, permitted international investors to introduce equipment without exchange coverage, and thus participate in this manner directly in projects being introduced.

26. The process of substituting importations and the consolidation of protection of national industry reached its plenitude with the new tariff law introduced in 1957. In accordance with this law goods were assigned to special categories which made it possible for their tariffs to be two or three times those of the international market. At the same time it discouraged importation of goods which could be produced in the country. It favoured the entry of equipment and raw material through cost exchange at strongly subsidized rates.

27. All of these regulations were part of a series of measures designed to encourage national industrialisation. At the same time the idea of development was furthered by a programme of sectorial aims (Program of Targets) instituted during the administration of Juscelino Kubitschek de Oliveira, 1956 to 1961.

28. Because all of these measures were general in character, they brought only greater benefits to those regions which could already guarantee sufficient return on capital investment. The general development policy adopted during the 1950's did nothing more than strengthen São Paulo's position and guaranteed it an ever-growing participation in the added value of the national economy.

The economy of São Paulo

29. It is evident that all phenomena which characterise the important structural changes in the economy of Brazil tend to present themselves in a more marked form in São Paulo's economy. In general, São Paulo has been able to increase its per capita income greatly. It has diversified its productive compound and has assembled a complex structure similar even to the greatest industrialised countries of the world.

30. Such alterations can be synthetized through a quick analysis of the changes that took place in the composition of São Paulo's internal income in the last few years. In 1950 the primary sector was responsible for about 30 per cent of

the total generated income; this rating fell to about 19 per cent in 1964. This relative loss of position was compensated for by a growing participation of the industrial sector which rose from 28 per cent in 1950, and generated 36 per cent of the internal income of the state by 1964. This fact is due to the different rates of development of the product in each sector, verified during these years and shown in figure 3 and figure 4.

31. The behaviour pattern shown by the indexes of total production of São Paulo's economy beginning in 1955, indicate that its rate of development went through rational adjustments. This fact is due solely to the industrial sector behaviour, which became more elastic and could answer to the stimulus coming from changes in the internal demand.

32. Table 5 shows the effects of this industrial localisation process determined by the market. São Paulo, due to the advantages of location, was able to constitute itself in the centre of attention of all industrialisation measures presented in Brazil. Table 5 below shows the industrial participation of São Paulo in terms of employment and added value above the national average.

Table 5

Industrial participation of São Paulo above the national average

<u>Year</u>	<u>Added value</u>	<u>Employed labour</u>
1939	39%	34%
1949	43%	34%
1959	55%	46%
1964	61%	51%

Source: IBGE

33. The fact that São Paulo became the centre of accomplishment of all important projects in Brazil brought about problems of employment policies. Table 5 indicates that São Paulo grew much faster in relation to added value than to percentage of employment. ✓

✓ The relation - $\log P_{it} = 4.1014 + 2.24 \log N_{it}; (r^2.934)$
(.000002)

Where P_{it} is the index of the real product in the industry of São Paulo in period t , N_{it} the index of employment in São Paulo's industrial sector in period t , shows that an increase of 1% in the industrial employment represents an increase of 2.24% in the industrial product.

Figure 3

Development of sectors in São Paulo (1947 to 1965)

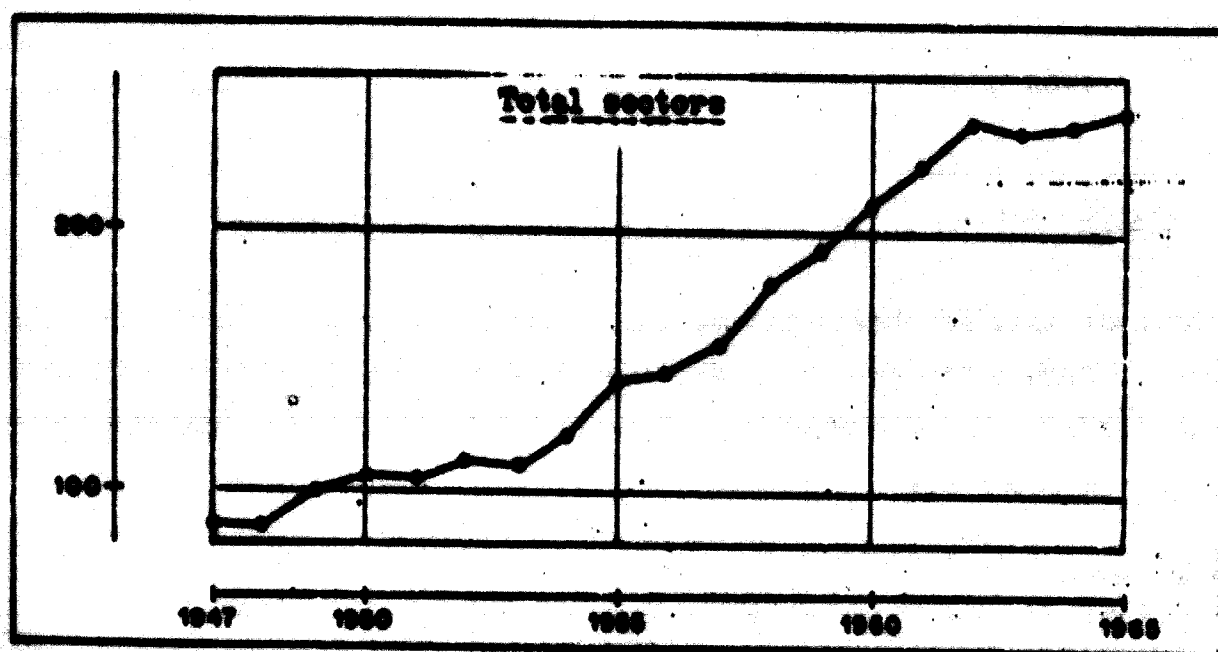
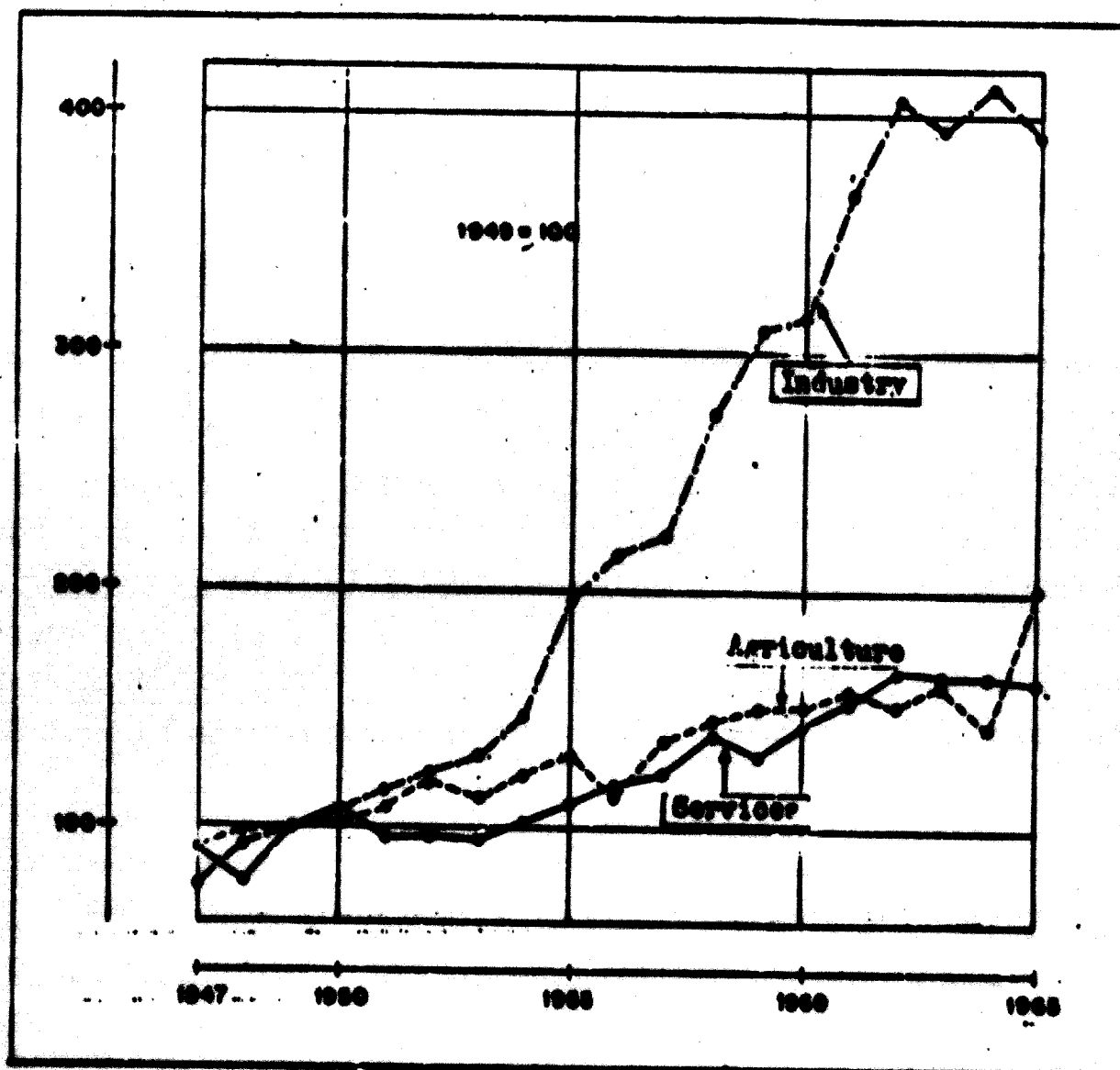
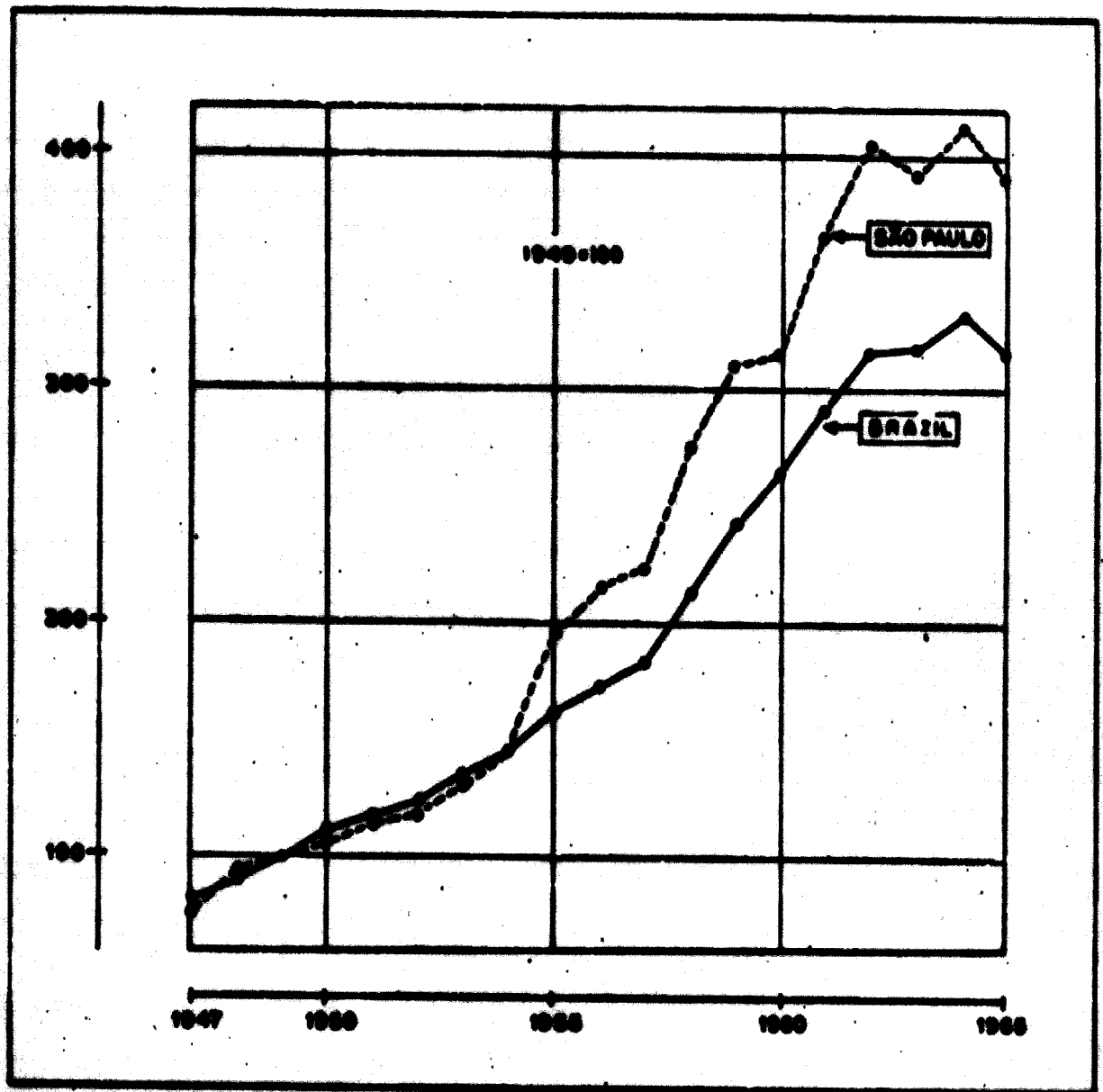


Figure 4

Comparison of industrial product of São Paulo
with total Brazil (1947 to 1965)



34. The impressive development of the industrial production of São Paulo was due to the use of modern production technology and labour-saving devices. However, the use of such technology has resulted in an ever-growing contingent of unemployed persons in the large urban areas, especially São Paulo and Rio de Janeiro.

35. Another marked characteristic of the industrial development process that took place in São Paulo, with its rate of product growth of over 11 per cent per year, was the considerable change that took place in the industrial compound. The loss in position of immediate consumers goods, exactly those which present low elasticity of income of consumption, was accompanied by large development of industries which produce capital goods, intermediary goods and durable goods. These are the sectors in which large-scale economy and transportation are of great importance.

36. The process of industrial concentration which produces goods of high income elasticity in the State of São Paulo⁴ has also had the effect that in a market economy private investments in the industrial sector converge to those points in the national territory which permit the benefit of an agglomerating economy. This can represent important reductions in cost for an individual project, reinforced by the fact that nearness to large markets, from the angle of the number of people potentially served and high income level of the population, result in a considerable reduction in the costs of distribution.

37. Furthermore, analysis of the spatial distribution of manufacturing activity in São Paulo's territory shows that the largest part of the manufacturing is found at the crossing of the main axes of São Paulo's transportation system. The axes are formed by the Central Brazil Railroad, which connects the capital of the state to Rio de Janeiro, and by the Santos e Jundiaí Railroad, which connects the capital to the port of Santos on one side and with the interior of the state and the central regions of Brazil on the other. It is at this intersection that Greater São Paulo is located. It is the largest metropolitan area in the country with more than 6.5 million inhabitants, one of Latin America's largest industrial compounds where approximately 700,000 workers are employed.

⁴ The participation of São Paulo over the added value in the electrical equipment industry, transportation material and mechanical industry varied between 30% and 92% in 1964.

38. The constant growth of Greater São Paulo's employment statistics compared with the national totals, once more emphasizes the fact of the polarized characteristic of the national economic development. This fact is indicated in table 6 which follows.

Table 6

Employment of Greater São Paulo compared with national total

<u>Year</u>	<u>Brazil</u>	<u>Greater São Paulo</u>
1939	100.0%	20.8%
1949	100.0%	23.8%
1959	100.0%	32.2%
1965	100.0%	35.0%

Source: IBGE

39. There is every indication that without the intervention of an organisation for the orientation of spatial location, the process of industrialization in Brazil would tend to maintain its characteristics of geographic concentration and the existing regional disparities in the country would become even greater.

40. The realization of this situation in Brazil has recently brought about an organisation for regional development. The aims of this organisation are to furnish "problem regions" not only with an economic infrastructure that can act as an incentive for development, but also with sectorial plans for development.

IV. A POLICY FOR REGIONAL ORIENTATION OF INVESTMENTS ^{5/}

41. The awareness of Brazilian authorities of the problem created by the geographic concentration of investments in the southern region of the country and the consequent aggravation of regional disparities, led to the creation in 1959 of the Superintendency for the Development of the Northeast (SUDENE). Its responsibilities were to co-ordinate the activities of all government organisations

^{5/} This section is based on an article by A.D. Hirschman, "Industrial Development in Northeastern Brazil and the Mechanism of Fiscal Credit from Article 34/18"; Brazilian Economic Magazine, Dec. 1967.

active in the "problem region" and organize a regional development programme which could foster high rates of increase in the regional product.

42. The main tasks to be undertaken by the organisation in regional economy were:

- (a) Reformation of the archaic agricultural structure;
- (b) Orientation of public investments in priority areas in the infrastructure sectors;
- (c) Promotion of industrialization.

43. One of the most interesting aspects in the analysis of the industrial development of northeastern Brazil is that of the political instruments available in promoting these objectives. Although on the international level a policy of customs protection is the strongest instrument in stimulating industrialization, to abide by the rules set by a market economy at the regional level is impracticable because of the political implications that can result. In the majority of cases the preferred instrument has been fiscal exemptions.

44. Brazil is not exempt from the common faults of such policy such as the increase of lucrative businesses or ineffectiveness in diminishing losses in businesses which have low rentability over their investment.

45. Starting from a certain risk level the mechanism of fiscal exemption is not efficient in stimulating investments. This fact led to the adoption by Brazilian authorities of a Tributary Credit System to promote industrial development in the northeastern region.

V. THE TRIBUTARY CREDIT SYSTEM

46. Under this system it is possible for tax payers to deduct as much as 30 per cent from a taxable income as long as this amount is invested in projects approved by SUDENE for the northeast. These deductions must be deposited in the Brazilian Northeast Bank and revert to the nation's treasury in case they are not invested within three years in one of the projects in the SUDENE area.

47. The projects which are to be financed by the funds have to be approved by SUDENE as being of interest to the development of the region. However, the

6/ Hirschman cites as an example Puerto Rico: "The fiscal exemptions increase the lucrativeness of a new industry which is lucrative in itself, but contributes nothing to reduce losses in an enterprise, if this new enterprise does not reveal itself lucrative."

financing is not done totally with capital of the Brazilian Northeast Bank because the enterprise must furnish funds of its own. However, the bank may supply as much as 75 per cent of the capital required by the project if the project is given high priority by SUDENE.

48. An interesting aspect of the system is that the sum of the investor's own funds is determined from the standpoint of the project, not from the standpoint of the tax payer's contribution. Thus he need not invest his own money to finance the project. The contributor invests in preferential shares with no right to vote, while the group that enters with its own funds assumes total control of the enterprise.

Functioning of the system

49. SUDENE is responsible for the project selection, control and execution; the liberation of funds deposited in the Brazilian Northeast Bank in accordance with the progress of the project; and the investment of the enterpriser's own funds. The careful selection of projects by SUDENE eliminates those with exaggerated expenses or those that could lead the Northeast Bank to participate with more funds than are allowed by law.

50. The system brought about the appearance of a captive capital market, because in the centres that furnish capital (Rio de Janeiro and São Paulo) middle-men who specialize soliciting funds through captation appeared. In some cases the contributors made the social capital an integral part of the project. But for the majority of the time this did not happen because the contributors preferred to participate as shareholders in the investment.

Structure of the industrial compounds

51. Although every new enterprise cannot be attributed to the system, it is undeniable that the great majority of plans originated from it. It can be said that the system has doubled the amount of the disposition of capital which existed prior to its existence. ✓

52. In reference to the industrial product of the northeast and the composition of new investments, the majority are destined for the capital goods and

✓ According to Dirckman the disposure of capital in the region prior to the implantation of the system was about NCr \$1,800 million while the investments represented by the approved projects were NCr \$1,610 million.

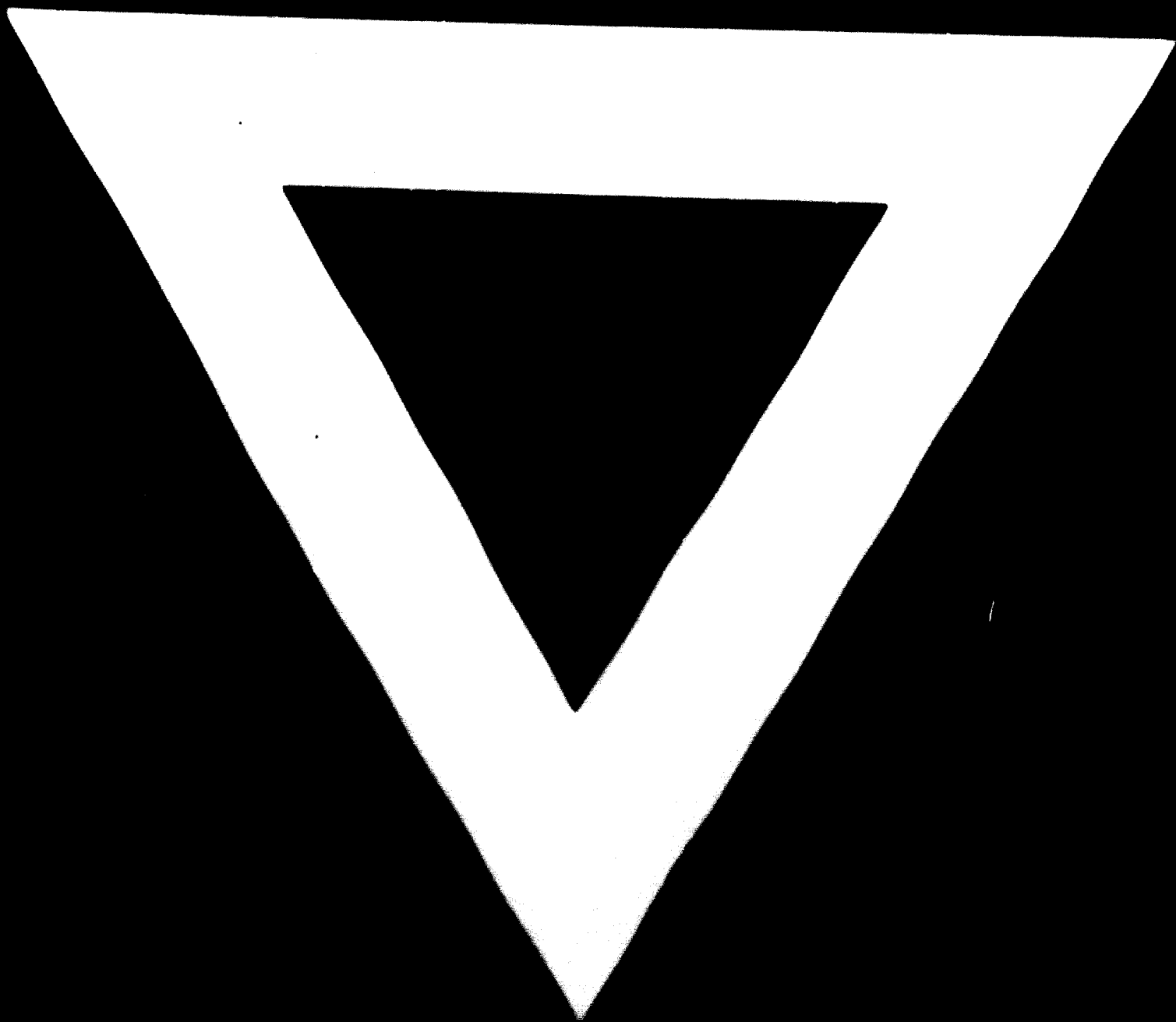
intermediary sectors (67.4 per cent), in contrast to the industrial structure that existed in the region (1962) in which the majority was derived from the consumer goods sector (70.8).

53. Until mid-1957 the approved projects created jobs for about 68,000 people which represents 38 per cent of the total employment existing before the implantation of the system. This represents an increased capital/labour relationship which is derived from the composition of new investments. These figures, however, represent an underestimate of the total new employment because their multiplying effect will bring about important reflexes in the other sectors of the economy and open up new employment frontiers. The industrialization of the new region will stimulate changes in the agricultural sector and bring about the abandonment of the monoculture of sugar.

54. The high relationship of capital/labour of the new projects is not entirely desirable in an underdeveloped region with a large excess of available labour. In the case being analysed this fact is due to the relatively low price of capital in relation to labour. According to Hirschman this is a consequence of the system itself, "When a method is sought to activate the investment decisions it is simply advantageous to subsidize the capital and not the labour, because the expenditures with the capital precede those of labour". A possible solution to the problem would be the utilization of second-hand machinery in the new industries which would require a relatively outdated technology and a smaller capital/labour relationship.

55. One of the greatest advantages offered by the system is its efficiency in the allocation of resources, mainly when confronted with the customs tariff system. When developing countries use protectionist principles to stimulate industrial activity, new industries begin to work under exceptional market conditions to obtain high profit margins. Without a stimulus to increase productivity, eventually the new industries become a problem for the national economy. An enterprise that installs itself in a region and utilizes the benefits of tributary credit must aim for distribution efficiency of its productive resources or it will not stand up against the competition of goods produced in the developed regions.

56. The credit mechanism employed to promote the industrialization of north-eastern Brazil has accomplished favourable results, and will help to diminish the disparities between this region and the central and southern regions of the country.



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