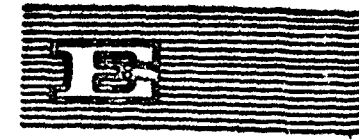


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SOME REGIONAL DEVELOPMENT PROBLEMS IN LATIN AMERICA
LINKED TO METROPOLITANIZATION

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1. Purposes

Metropolitanization is one of the most important regional development problems affecting Latin America. Various historical, economic and social factors have led to the increasing concentration of the population and of economic activities in specific urban areas. This involves two types of interrelated problems: first, the intrinsic significance of the process and, secondly, its implications for other regions in view of its interdependent character.

This study presents some background data and raises certain questions concerning the problem. For this purpose, use is made of material that was prepared by ECLA for a more extensive study on the subject, and advantage is taken of other studies which, though on different subjects, contain information related to regional development (such as income distribution).

First and foremost, an attempt is made to identify the problem, and a brief description follows of two different typical situations, according to whether there are one or several large urban agglomerations in a given country. Lastly, some questions are raised in connexion with external economies, the use of urban land, and interregional and urban-rural relations.

2. General characteristics

(a) The regional problem and metropolitanization

Two movements converged in the concern felt for regional development problems, one from the national and the other from the local standpoint. The national outlook suggested the need to consider the geographical distribution of the population and resources in national development strategies and plans in the light of three basic considerations: first, the fact that there are densely populated areas in the various countries whose per capita incomes and living levels are far below those found in the more developed parts of those countries; secondly, the increasingly acute problems deriving from population growth in the large cities; and, lastly, the benefits which could be obtained from exploiting potentially rich but sparsely populated /regions, or

regions, or through making better use of the resources found in backward areas. Besides these considerations, whose relative importance varies from country to country, there is often concern for consolidating the national frontiers and improving administrative efficiency by decentralizing the decision-making process. From a local standpoint, it was noted that in attempts to plan or define strategies at this level, both in physical planning and in the organization of society or the efforts to add to the value of economic resources, many of the problems encountered had to be considered within a broader regional context or at a national level.

Thus the convergence of these two movements led to the definition of this new area of activity in development programming: at a national level, with considerations of an interregional nature and those connected with the geographical location of investment in addition to over-all and inter-sectoral considerations; and at a local level, with the progressive establishment of new regional planning techniques. In this new area of work, however, social and political considerations have contributed most to the formulation and implementation of policies. There is a general lack of empirical studies and much still remains to be done before regional development options can be based on strictly economic criteria. In this respect, it would be interesting to determine - even if only from an analytical standpoint - what would be the most suitable geographical distribution to correct the existing defects and establish healthier development patterns. In other words, the point is to determine the best location for the population and capital in a particular country, given the existing natural resources and other economic and social factors.

Among the regional planning problems - at the national or regional level - for which this deficiency is most noticeable is metropolitanization.

This metropolis may be described as an exceptionally large city, either because of the concentration of hundred and thousands of inhabitants, because of its continuing urbanization measured in hundred of square kilometres or because of the importance of the regions and cities under its economic jurisdiction. A metropolis is normally a city-region which, starting from a main nucleus and with the help of the industrial community's resources,

/sparks off

sparks off the rapid urbanization of neighbouring areas, incorporating old population centres is a new socio-economic set-up and by-passing their politico-administrative units.^{1/}

The metropolitanization process is very visible in Latin America, either with the predominance of a single national centre or with the existence of several regional centres. Although in some countries there is a fairly well co-ordinated system of cities, on the whole the rate of expansion of the major national centres - and certain regional centres - results in their reaching a size which is several times greater than the largest secondary centres, thus leading to a state of metropolitanization. Table 1 shows the absolute and relative importance of the five largest cities of each country in 1940, 1950, 1960 and 1970. It may be noted that - with some exceptions which include São Paulo - the order of importance of the cities has been maintained over the years. As regards the relative importance of the principal urban centre, it will be seen that in eight countries it harbours over 20 per cent of the total population, in four the proportion ranges from 15 to 20 per cent and in eight it is less than 15 per cent. However, despite the importance which the problem of metropolitanization has thus acquired in Latin America, the existing studies on the subject focus essentially on its social advantages or disadvantages and the nature of its political functions.

The purpose of this study is merely to raise some questions of an economic nature, but certain data on economic and social issues such as income distribution are also included, and an attempt is made to define some economic options involved in investment decisions in metropolises.

First, a description is given of the essential characteristics of the economy's operation in the spatial context, then some data is furnished on the situation prevailing in two types of countries, according to whether or not they have a dominant urban centre, i.e., Chile and Colombia. This is followed by data that have been gathered on certain economic conditions of the metropolitanization process, considering the metropolis itself and its relations with other parts of the country.

^{1/} Luis Carlos Costa, "Metropole e planejamento", Revista de Administração Municipal, Rio de Janeiro, Brazil, March-April 1970.

Table 1
LATIN AMERICA: URBANIZATION ACCORDING TO THE FIVE MAJOR MOST DENSELY POPULATED CITIES
(Absolute figures (in thousands) and percentages)

Country	Major city	1970			1960			1950		
		Population of the country	Population of the principal city	Percent	Population of the country	Population of the principal city	Percent	Population of the country	Population of the principal city	Percent
Argentina	Buenos Aires*	24 352	8 400	34.5	20 850	6 700	32.1	17 085	4 500	26.3
	Rosario*		803	3.3		672	3.2		570	3.3
	Córdoba*		791	3.2		589	2.8		426	2.5
	Mendoza*		573	2.3		427	2.0		256	1.5
Bolivia	La Plata*		556	2.2		414	2.0		325	1.9
	La Paz*	4 658	564	12.1	3 696	427	11.6	3 013	821	10.7
	Cochabamba		123	2.6		96	2.6		81	2.7
	Oruro		112	2.4		87	2.4		63	2.1
	Santa Cruz		97	2.0		69	1.9		43	1.4
	Potosí		82	1.8		57	1.5		46	1.5
Brazil	Sao Paulo*	93 244	7 849	8.4	70 327	4 383	6.2	52 326	2 450	4.7
	Río de Janeiro*		6 821	7.3		4 392	6.2		2 890	5.5
	Recife*		1 626	1.4		1 027	1.5		650	1.2
	Belo Horizonte*		1 436	1.5		730	1.0		370	0.7
	Porto Alegre*		1 410	1.5		780	1.1		430	0.8
Colombia	Bogotá	22 160	2 551	11.5	15 877	1 662	10.5	11 629	655	5.6
	Medellín		1 012	4.6		718	4.5		328	2.8
	Cali		872	3.9		618	3.9		241	2.1
	Barranquilla		695	3.1		493	3.1		276	2.4
	Cartagena		307	1.4		218	1.4		111	1.0
Chile	Santiago*	9 780	2 781	28.4	7 683	2 072	27.0	6 058	1 413	23.3
	Valparaíso		314	3.2		253	3.3		219	3.6
	Concepción		183	1.9		147	1.9		120	2.0
	Vina del mar		169	1.7		115	1.5		85	1.4
	Antofagasta		128	1.3		87	1.1		62	1.0
	Cuquayul		766	12.7		511	11.8		259	8.1
Ecuador	Quito	6 028	532	8.8	4 323	354	8.2	3 207	210	6.5
	Cuenca		80	1.3		60	1.4		40	1.2
	Ambato		71	1.8		53	1.2		31	1.0
	Monte		60	1.0		34	0.8		19	0.6
Paraguay	Asunción	2 419	464	19.2	1 740	310	17.8	1 337	207	15.5
	Encarnación		22	0.9		19	1.0		13	0.9
	Concepción		21	0.9		18	1.0		15	1.1
Peru	Lima-Callao*	13 586	2 815	20.7	10 024	1 784	17.8	7 969	614	7.7
	Arequipa		172	1.3		135	1.3		77	1.0
	Trujillo		141	1.0		100	1.0		37	0.5
	Chiclayo		135	1.0		96	1.0		32	0.4
	Cuzco		113	0.8		80	0.8		41	0.5
	Montevideo*	2 889	1 415	49.0	2 542	1 159	45.6	2 198	800	36.4
Uruguay	Salto		72	2.5		58	0.0		77	0.0
	Paysandú		64	2.2		42	0.0		41	0.0
	Rivera		49	1.7		41	0.0		41	0.0
	Las Piedras		48	1.7		41	0.0		41	0.0
	Caracas*	10 755	2 277	21.2	7 740	1 336	17.3	5 330	694	13.0
Venezuela	Maracaibo		695	6.5		422	5.5		236	4.4
	Barquisimeto		328	3.0		199	2.6		105	2.0
	Valencia		280	2.6		164	2.1		89	1.7
	Maracay		245	2.3		135	1.7		65	1.2
	San José*	1 798	440	24.5	1 233	320	26.0	849	180	21.2
Costa Rica	Alajuela		24	1.3		20	1.6		14	1.6
	Punta Arenas		24	1.3		20	1.6		13	1.5
	Limón		24	1.3		19	1.5		11	1.3
	Heredia		24	1.3		19	1.5		12	1.4
	Havana*	8 341	1 963	23.5	6 819	1 607	23.6	5 520	1 211	21.9
Cuba	Santiago de Cuba		276	3.3		223	3.3		169	3.0
	Camagüey		185	2.2		150	2.2		110	2.0
	Guantánamo		149	1.8		118	1.7		65	1.2
	Santa Clara		144	1.7		114	1.7		77	1.4
	San Salvador	3 441	370	10.8	2 512	256	10.1	1 922	162	8.4
El Salvador	Santa Ana		97	2.8		73	2.9		52	2.7
	San Miguel		55	1.6		40	1.6		27	1.4
	Nueva San Salvador		38	1.1		27	1.1		18	0.9
	Villa Dolgada		34	1.0		24	1.0		13	0.7
	Guatemala*	5 179	772	14.9	3 868	573	14.8	2 907	284	9.8
Guatemala	Quetzaltenango		59	1.1		45	1.2		28	1.0
	Escuintla		23	0.6		25	0.6		10	0.3
	Puerto Barrios		29	0.6		22	0.6		15	0.5
	Mazatenango		24	0.5		20	0.5		11	0.4
	Port-au-Prince	5 229	283	5.4	4 138	195	4.7	3 380	134	4.0
Haiti	Cap. Haitien		50	1.0		35	0.8		24	0.7
	Gonaïves		29	0.6		20	0.5		14	0.4
	Tegucigalpa	2 583	223	8.6	1 849	134	7.2	1 389	72	5.2
	San Pedro Sula		117	4.5		59	3.2		21	1.5
	La Ceiba		35	1.4		25	1.4		17	1.2
Honduras	Puerto Cortez		23	0.9		17	0.9		12	0.9
	Mexico City*	50 718	8 360	16.5	36 046	4 900	13.6	26 640	2 880	10.8
	Cuadalejara*		1 135	2.2		737	2.0		378	1.4
	Monterrey*		920	1.8		597	1.7		333	1.3
	Puebla de Zaragoza*		450	0.9		289	0.8		211	0.8
Mexico	Ciudad Juárez*		403	0.8		262	0.7		123	0.5
	Managua	2 021	353	17.5	1 501	235	15.7	1 133	109	9.6
	León		53	2.6		44	2.9		31	2.7
	Granada		34	1.7		29	1.9		21	1.9
	Masaya		30	1.5		23	1.5		17	1.5
Nicaragua	Chinandega		29	1.4		22	1.5		13	1.1
	Panama City	1 406	412	29.3	1 021	273	26.7	765	128	16.7
	Colón		68	4.8		60	5.9		52	6.8
	David		35	2.5		23	2.3		15	2.0
	La Chorrera		26	1.8		14	1.4		9	1.2
Dominican Republic	Santo Domingo	4 348	671	15.4	3 129	370	11.8	2 303	182	7.9
	Santiago de los Caballeros		155	3.6		86	2.7		57	2.5
	San Francisco de Macoris		44	1.0		27	0.9		16	0.7
	San Pedro de Macoris		42	1.0		22	0.7		20	0.9
	Barahona		38	0.9		20	0.6		15	0.6

ECLA, Statistical Bulletin for Latin America, vol. VI, No 1, 1969.
ECLA, on the basis of national censuses.

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024																																																																																																																										
Population	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000																
GDP	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000																
Unemployment	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0	40.5	41.0	41.5	42.0	42.5	43.0	43.5	44.0	44.5	45.0	45.5	46.0	46.5	47.0	47.5	48.0	48.5	49.0	49.5	50.0	50.5	51.0	51.5	52.0	52.5	53.0	53.5	54.0	54.5	55.0	55.5	56.0	56.5	57.0	57.5	58.0	58.5	59.0	59.5	60.0	60.5	61.0	61.5	62.0	62.5	63.0	63.5	64.0	64.5	65.0	65.5	66.0	66.5	67.0	67.5	68.0	68.5	69.0	69.5	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.5	74.0	74.5	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0	79.5	80.0	80.5	81.0	81.5	82.0	82.5	83.0	83.5	84.0	84.5	85.0	85.5	86.0	86.5	87.0	87.5	88.0	88.5	89.0	89.5	90.0	90.5	91.0	91.5	92.0	92.5	93.0	93.5	94.0	94.5	95.0	95.5	96.0	96.5	97.0	97.5	98.0	98.5	99.0	99.5	100.0						
Inflation	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0	40.5	41.0	41.5	42.0	42.5	43.0	43.5	44.0	44.5	45.0	45.5	46.0	46.5	47.0	47.5	48.0	48.5	49.0	49.5	50.0	50.5	51.0	51.5	52.0	52.5	53.0	53.5	54.0	54.5	55.0	55.5	56.0	56.5	57.0	57.5	58.0	58.5	59.0	59.5	60.0	60.5	61.0	61.5	62.0	62.5	63.0	63.5	64.0	64.5	65.0	65.5	66.0	66.5	67.0	67.5	68.0	68.5	69.0	69.5	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.5	74.0	74.5	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0	79.5	80.0	80.5	81.0	81.5	82.0	82.5	83.0	83.5	84.0	84.5	85.0	85.5	86.0	86.5	87.0	87.5	88.0	88.5	89.0	89.5	90.0	90.5	91.0	91.5	92.0	92.5	93.0	93.5	94.0	94.5	95.0	95.5	96.0	96.5	97.0	97.5	98.0	98.5	99.0	99.5	100.0

(b) Operation of the economy in the spatial context

In market economies of the type found in most of the Latin American countries, the economy's operation in the spatial context presents some typical features:

(i) There has been a clear trend towards the spatial concentration of economic activities in one or a few points, around which large urban agglomerations have formed. In the early stages of primary-export economies the binding factor was the export sector and certain politico-administrative activities. Later, the economic activities which gave most impetus to these agglomerations were associated with manufacturing and services. This trend is observable even in cases where policies designed to reduce this concentration have been applied.

(ii) The external economies deriving from these agglomerations provided comparative advantages for the concentration of industry, particularly a higher level of capital productivity. Consequently, a significant proportion of the income obtained in peripheral regions finds its way to the centres.

(iii) The concentration in these centres of industrial activities - and above all of accompanying services - pushes up employment, which leads to an increase in the migratory movements from peripheral regions to the centre, consisting mainly of the most highly skilled manpower available in the periphery of each country. Consequently, the centres in each individual country gain in demographic importance, in both quantitative and qualitative terms.

(iv) As a result of this concentration of population and economic activities, which generally goes hand in hand with the centralization of administrative activities, these centres acquire more political influence and greater bargaining power in the decision-making process than the various parts of the periphery. Thus, the centre obtains a larger share of the investment resources allocated by the public sector (mainly to social and basic infrastructure projects).

(v) Increased employment in the centres is reflected in a rise in disposable personal income, which is a spur to the diversification and expansion of activities in the tertiary sector. The development of

/tertiary activities,

tertiary activities, in turn, helps to generate more employment and, therefore, to increase disposable income. This whole cycle results in the continuing expansion of the centre's internal market, which favours larger scales of production, higher capital productivity and, therefore, higher rates of return for the private entrepreneur. This is an incentive to transfer financial resources from the periphery to the centre for purposes of capital formation, which takes concrete shape in the establishment of new activities in the centre; these new activities help to give more impetus to the process described above, which thus operates in the form of a cycle.

(vi) The fact that the economy revolves around the activities located in the centres sets the pattern for the basic infrastructure at the national level, which is conceived in terms of the centre's requirements and thus generally favours concentration.

The way in which this process is taking place in two Latin American countries - Chile and Colombia - is described in the light of these general trends.

(c) The case of a country with a dominant national urban centre

In order to illustrate the basic characteristics and certain important features of the regional operation of a Latin American country with a large dominant urban centre, this section will consider in broad outline the case of Chile. When looking at the process of metropolitanization, what is most important is the degree of concentration of the population and economic activity in the large urban centre. The following paragraphs will discuss what has happened in this respect in Santiago and in the other regions of Chile.

(i) General features. Table 2 shows the differences between the various regions as regards level of habitability, population density and road density. There are major disparities in land settlement and the country is virtually divided into "consolidated" areas (those containing areas in which more than 50 per cent is habitable and population density is above the national average) and "settlement" areas ^{2/} (areas in which less than 50 per cent is habitable and population density is below the national average).

^{2/} For a definition of "consolidated" and "settlement" areas see National Planning Office (ODEFLAN), El desarrollo económico y social de Chile en la década 1970-1980, tomo II, vol. I, pp. 25-26.

Table 2
CHILE: LEVEL OF HABITABILITY, POPULATION DENSITY AND ROAD DENSITY

Region	Level of habitability ^{a/} (percentage)	Population density inhab./km ² 1970	Road density km of road/total area 1967
I. Tarapacá	29.0	2.6	5.2
II. Antofagasta	7.1	2.2	3.6
III. Atacama-Coquimbo	35.7	4.8	7.1
IV. Valparaíso-Aconcagua	79.6	65.5	16.3
L.M. Metropolitan area	70.0	191.3	19.1
V. O'Higgins-Colchagua	59.6	33.9	22.4
VI. Maule (Curicó, Talca, Linares and Maule)	75.5	23.9	24.4
VII. Bío-Bío (Nuble, Concepción, Arauco, Bío-Bío and Malleco)	84.5	33.3	26.1
VIII. Cautín	80.0	25.7	37.3
IX. The Lake district (Valdivia, Osorno)	79.5	19.0	17.2
X. The Fjord district (Llanquihue, Chiloé, Aysén)	43.3	2.6	3.3
XI. Magallanes	42.5	0.7	2.4
Average	43.5	12.2	8.6

Source: ODEPLAN.

^{a/} Habitable area as a percentage of total area.

/In the

In the "settlement" areas in the far north and south of the country, productive activity is normally dominated by the exploitation of one or two basic resources. The production areas are in the interior (copper in the north, petroleum and livestock in the south) and on the coast there are slightly industrialized service cities from where trade is organized and links are established with the rest of the country and to a large extent with foreign countries. Although population density in these areas is very low, the urbanization rate is the highest in the country (close to 90 per cent), and this, coupled with the high level of productivity in mining, petroleum and other activities, makes for levels of living that are very much above the national average.

In the "consolidated" area, on the other hand, resources are more diversified, the physical environment is less hostile and the climate is more favourable; these factors, together with the past history of land settlement, have made for high rate of land occupation. This area, as well as having high population and road densities, also forms a unified land system because of the close relating between cities and the efficient and varied means of transport that connect them.

In this area, the cities are spread out alternately on the coast (Valparaíso, Concepción, Valdivia) and in the central valley (Santiago, Rancagua, Talca, Chillán, Temuco, Osorno). The cities in the interior grew up basically because of farming which has traditionally been the most stable activity. In the consolidated area, the network of transport, communications, electric power stations and water works is fairly dense and corresponds virtually exactly to the area of the power grid running from La Serena to Castro.

(ii) Population. As regards the distribution of the population by region, the most recent censuses (see table 3) show that, apart from Santiago, only the Tarapacá region increased its share in the total and that the Fiord district and Magallanes maintained their share between 1960 and 1970. These regions, however, account for no more than 8 per cent of the total population. In other words, regional disparities measured in terms of population have increased in recent years, mainly owing to the extraordinary growth of Santiago.

/Table 3

Table 3
CHILE: DISTRIBUTION OF THE TOTAL POPULATION BY REGION

Region	1952	Per-centage	1960	Per-centage	1970	Per-centage	Average annual rate of growth 1960-70
I. Tarapacá	108 751	1.7	129 716	1.7	187 600	2.0	3.76
II. Antofagasta	195 544	3.1	226 841	2.9	268 032	2.8	1.68
III. Atacama - Coquimbo	362 135	5.8	448 189	5.8	533 942	5.5	1.55
IV. Valparaíso - Aconcagua	662 977	10.6	798 988	10.3	949 378	10.0	1.74
Zona Metropolitan area	1 856 741	29.6	2 569 046	33.0	3 450 005	36.5	2.99
V. O'Higgins - Colchagua	385 243	6.2	440 549	5.6	507 265	5.4	1.42
VI. Maule (Curicó, Talca, Linares and Maule)	509 193	8.9	593 446	7.6	660 091	7.0	1.07
VII. Bío-Bío (Malleco, Concepción, Arauco, Bío-Bío and Malleco)	1 092 817	17.3	1 325 551	17.1	1 518 668	16.1	1.37
VIII. Cautín	386 246	6.2	435 965	5.4	449 090	4.7	0.77
IX. The Lake district (Valdivia, Osorno)	376 337	6.0	425 604	5.5	463 401	4.9	0.85
X. The Fjord district (Llanquihue, Chiloé Aysén)	272 417	4.5	321 103	4.1	384 046	4.1	1.83
XI. Magallanes	58 408	0.9	77 319	1.0	94 418	1.0	2.02
Total	6 277 109	100.0	7 772 317	100.0	9 455 676	100.0	1.97

Source: ODEPLAN, Regional Planning Department on the basis of census data.

a/ With census omissions rectified and brought forward to 30 June each year.

/The more

The more industrialized regions - after Santiago - such as Valparaíso-Aconcagua and Bío-Bío, and the mining regions such as Antofagasta and O'Higgins had population increase rates higher than those of the basically rural areas but still not high enough to match the national average; consequently their share of the total also declined.

During the period 1960-1970, Santiago absorbed 91.5 per cent of in-migrants (324,545), Tarapacá absorbed 8.4 per cent (29,700) and Magallanes only 0.1 per cent (353). Hence Santiago is the major area receiving migrants from the rest of the country.

As a result of population increase and migratory movements, Chile has experienced a rapid process of urbanization, with the proportion of the population living in urban areas rising from 52.5 per cent in 1940 to 74.3 per cent in 1970. The population of the principal urban areas amounted to 62.8 per cent of the total urban population in 1970, with Santiago accounting for 43.4 per cent.

The urbanization process has to some extent been encouraged by the facilities offered by the major cities for more modern forms of life, for example, the supply of telephones, the number and variety of newspapers and magazines, the number of cinemas and radio stations, etc. Table 4 lists these indicators and shows that they are highly concentrated in Santiago, particularly telephones and the Press. With the other two indicators - cinema and radio - the quality and variety of programmes are the important factors, and these are better in Santiago.

(iii) Product and income. The growth of the gross domestic product continues to show marked regional disparities, with a trend towards concentration in the metropolitan area of Santiago. Between 1960 and 1967 the total gross domestic product grew at a cumulative annual rate of 4.9 per cent, while that of Santiago grew at a rate of 6.7 per cent. Santiago's share in the total rose from 40 per cent in 1960 to 45 per cent in 1967 (see table 5). Over the same period only three regions achieved growth rates above the national average (Tarapacá, Antofagasta and Magallanes).

/Table 4

Table 4
CHILE: URBAN SERVICES

Region	Inhabitants per telephone 1965	Copies of newspapers and magazines sold 1967 (thousands)	Per-centage	Cinemas 1967	Per-centage	Radio Stations 1967	Per-centage
I. Tarapacá	21.8	3 488.6	1.5	9	2.3	6	4.9
II. Antofagasta	41.2	11 294.4	4.4	18	4.6	8	6.6
III. Atacama-Coquimbo	86.0	4 972.3	1.9	31	8.0	8	6.6
IV. Valparaíso-Aconcagua	26.2	28 538.4	11.2	53	13.7	19	15.6
Z.M. Metropolitan area	19.2	162 899.1	63.7	130	33.5	29	23.8
V. O'Higgins-Colechagua	89.4	3 418.9	1.3	38	9.8	5	4.1
VI. Maule (Curicó, Talca, Linares and Maule)	86.3	6 046.9	2.4	16	4.1	9	7.4
VII. Bío-Bío (Ñuble, Concepción, Arauco, Bío-Bío and Malleco)	72.6	20 373.9	8.0	51	13.2	16	13.1
VIII. Cautín	85.2	4 948.4	1.9	12	3.1	5	4.1
IX. The Lake district (Valdivia, Osorno)	100.9	4 858.3	1.9	12	3.1	7	5.7
X. The Fjord district (Llanquihue, Chilo, Aysén)	160.5	2 604.7	1.1	9	2.3	6	4.9
XI. Magallanes	26.5	1 675.7	0.7	9	2.3	4	3.2
Total	34.2	255 526.6	100.0	388	100.0	122	100.0

Source: ODEPLAN.

/Table 5

Table 5
CHILE: GROSS DOMESTIC PRODUCT, BY REGION

Region	Total 1967 (thousands of P ^o est 1965 prices)	Percent- age of total	Per capita product 1967	Per capita productivity P ^o 1965-1967	Growth rates 1960-1967		
					Gross domestic product		
					Total	Per capita (Annual average)	Per worker
I. Tarapacá	489 472	2.5	3 500	10 500	8.88	7.96	7.82
II. Antofagasta	1 297 251	6.6	4 980	15 200	5.55	3.18	3.56
III. Atacama-Coquimbo	998 879	5.1	1 890	6 500	4.45	2.41	2.96
IV. Valparaíso-Aconcagua	1 996 545	10.1	2 180	6 900	2.51	0.20	0.64
IV. Metropolitan area	8 878 928	44.9	2 770	8 200	6.71	3.35	3.61
V. O'Higgins-Colchagua	1 049 694	5.3	2 190	7 300	4.04	2.93	3.34
VI. Maule (Curicó, Talca, Linares and Maipo)	861 168	4.4	1 180	4 200	2.74	0.94	1.44
VII. Bío-Bío (Ñuble, Concepción, Araucó, Bío-Bío and Malleco)	2 207 147	11.1	1 430	4 800	3.09	0.82	1.25
VIII. Cautín	405 847	2.0	940	3 200	0.98	0.61	0.93
IX. The Lake district (Valdivia, Osorno)	673 266	3.4	1 410	4 500	2.72	1.07	1.34
X. The Fjord district (Llanquihue, Chiloé, Aysén)	496 886	2.5	1 390	4 500	3.89	2.37	2.45
XI. Magallanes	410 368	2.1	4 330	10 600	5.55	2.76	3.20
Total	19 765 451	100.0	2 170	6 800	4.94	2.63	3.09

Sources: ODEPLAN, Regional Planning Department.

/The regions

The regions of Valparaíso-Aconcagua and Bio-Bio which, under national development policy, are supposed to counterbalance the growth of Santiago together account for 25 per cent of the gross domestic product, but the growth rate is below the national average.

Per capita incomes, measured as average monthly family wages of the head of household, differ appreciably between rural and urban areas and greater Santiago. With the national average income being E⁸ 845.5, the figure for urban areas is E¹ 1,037.5, for rural areas E² 536 and for greater Santiago E¹ 1,215.6. There are thus strong pressures on people to move to the urban centres, particularly Santiago. Taking the country as a whole, 30 per cent of income recipients earn less than the minimum basic wage (sueldo vital), but this figure rises to 46.6 per cent in rural areas and falls to 15.5 per cent in greater Santiago. At the other end of the scale, 2 per cent of income recipients earn more than ten times the basic minimum wage, but the figure is 0.3 per cent in rural areas and 5 per cent in greater Santiago.

The above figures show not only that there are disparities between rural and urban areas, but also that internally income is less equitably distributed in rural areas than in urban areas.

Industry is more highly concentrated than the rest of the economy. In 1967, Santiago accounted for 57.8 of the industrial product but for only 45 per cent of the gross domestic product. The figures are even further apart with respect to employment: 55.6 per cent for industrial employment and 38.5 per cent for total employment.

(iv) Public investment and bank loans. There is less regional inequality in the over-all distribution of public investment than in the distribution of the product and the population (see table 6). In the period 1965-1968 only 34 per cent of public investment was allocated to Santiago, while this region accounted for 46 per cent of the gross domestic product and harboured 36.5 per cent of the population. In the Valparaíso-Aconcagua and Bio-Bio regions the proportion of public investment was almost exactly the same as that of the population and the product. Tarapacá was the only region in which the proportion of public investment (6.2 per cent) was higher than its share of the gross domestic product (2.7 per cent) and the population (2 per cent).

/Table 6

Table 6

CHILE: AVERAGE ANNUAL PUBLIC INVESTMENT BY REGION, 1965-1968
(Millions of escudos at 1965 prices)

Region	Production sectors ^{a/}		Infrastructure and other projects ^{b/}		Total	Percent- age of total
	Absolute figures	Percent- ages	Absolute figures	Percent- ages		
I. Tarapacá	30.8	6.17	81.7	6.16	112.5	6.2
II. Antofagasta	7.9	1.58	34.2	2.58	42.1	2.3
III. Atacama - Coquimbo	30.9	6.19	50.8	3.83	21.7	4.5
IV. Valparaíso - Aconcagua	53.6	10.74	133.2	10.04	126.0	10.2
Z.M. Metropolitan Area	63.3	12.68	555.3	41.85	618.6	33.9
V. O'Higgins - Colchagua	33.7	6.75	44.6	3.36	78.3	4.3
VI. Maule (Curicó, Talca, Linares and Maule)	44.0	8.81	45.6	3.44	89.6	4.9
VII. Bío-Bío (Malleco, Concepción, Arauco, Bío-Bío and Malleco)	109.7	21.98	213.5	16.09	323.2	17.7
VIII. Cautín	12.7	2.54	32.7	2.46	45.4	2.5
IX. The Lake district (Valdivia, Osorno)	14.5	2.90	57.5	4.33	72.0	3.9
X. The Fjord district (Llanquihue, Chiloé, Aysén)	20.9	4.19	61.5	4.63	82.4	4.5
IX. Magallanes	77.2	15.47	16.3	1.23	93.5	5.1
Total	499.2	100.00	1 326.9	100.00	1 826.1	100.0

Source: Planning Office (ODEPLAN).

a/ Agriculture, mining and manufacturing.

b/ Transport, housing, electricity, gas and water, education, health and internal government, etc.

/Investment in

Investment in infrastructure rose substantially in Santiago, representing 42 per cent of the total. Santiago's share increased at the expense not of the Valparaíso-Aconcagua region but mainly of the rural areas. Its large share may be ascribed mostly to investment in housing, which accounted for 53.6 per cent of the national total, and in urban services such as electricity, gas and water, which comprised 46 per cent of the total.

The behaviour of financial mechanisms, particularly bank loans, has a strong influence on the process of concentration and, therefore, on regional disequilibria; 65.5 per cent of all loans are granted in Santiago, and the proportion has increased sharply in recent years. It should be noted that in order to assess this figure more accurately, consideration should be given to the place where these resources are ultimately used, since it may so happen that credit extended in Santiago is intended for the provinces. At the same time, in other regions the rate of growth of bank credit declined or was lower than the national average, except in the extreme north (Tarapacá and Antofagasta). Deposits followed the opposite trend; although Santiago accounts for a high percentage, the growth rate was far below the average for the country in the period 1960-1968, while the rate for other regions rose more rapidly.

(v) Social issues. In addition to the analysis of economic variables, it is useful to note the trends of the social variables connected with the population's welfare, such as housing, health and education.

The main effort in the construction of dwellings has been concentrated in Santiago, which accounts for about 53 per cent of the total built area (see table 7). Thus, the housing deficit in Santiago and the Valparaíso-Aconcagua region declined from 36.3 to 31.5 per cent and from 10.4 to 6.7 per cent, respectively, between 1961 and 1969. In contrast, it increased sharply in the north, and on a lesser scale in the south.

Table 7

CHILE: CONSTRUCTION OF HOUSING UNITS INITIATED BY THE PUBLIC SECTOR
AND PLANNED BY THE PRIVATE SECTOR, BY REGION, 1960-1969

(Percentages)

Region	Population 1970	Units built	Number of square metres built
I. Tarapacá	2.0	1.9	1.8
II. Antofagasta	2.8	2.6	2.8
III. Atacama - Coquimbo	5.5	3.5	3.1
IV. Valparaíso - Aconcagua	10.0	13.4	14.2
Z.M. Metropolitan Area	36.5	51.2	53.5
V. O'Higgins - Colchagua	5.4	3.3	3.3
VI. Maule (Curicó, Talca, Linares and Maule)	7.0	3.2	2.8
VII. Bío-Bío (Ñuble, Concepción, Arauco, Bío-Bío and Malleco)	16.1	10.7	9.9
VIII. Cautín	4.7	3.0	2.5
IX. The Lake district (Valdivia, Osorno)	4.9	3.7	3.0
X. The Fjord district (Llanquihue, Chiloé, Aysén)	4.1	2.2	1.8
XI. Magallanes	1.0	1.3	1.3
Total	100.0	100.0	100.0

Source: Statistical Centre, Ministry of Housing and Urbanization.

/As regards

As regards health, if the indicators of hospital beds and doctors per 1,000 inhabitants are analysed it may be observed that the physical installations such as hospitals mainly favour the Santiago and Valparaíso regions, the Tarapacá and Antofagasta regions in the north, and Magallanes in the extreme south. The disparities are seen to be greater where the number of doctors is calculated per inhabitant, since there is an excessive concentration in Santiago, at the expense not only of the peripheral regions but also of other great urban areas such as Valparaíso, Concepción and highly urbanized regions like Tarapacá and Antofagasta.

Education is the sector in which the least disparity exists between regions. The quantitative indicators available place the population of Santiago below the national average as regards both primary and university education (see table 8). However, a more careful evaluation should take into account the quality and range of the education provided, which favour Santiago and Valparaíso.

(vi) General classification. An economic classification has also been made, according to the indicators shown in table 9. This table reveals the extent of the existing regional disparities, since the regions with the two major urban centres, which might have equalized Santiago's position because of the diversified structure of their economy and their large share of the total population and gross domestic product, register low rates of economic growth that have shown no real signs of recovery during the period under review. In any case, it should be remembered that whole regions are being compared, and not urban areas, where the situation could improve since regions IV and VII comprise important agricultural and rural sectors which bring down the growth indexes for the whole region.

Moreover, the settlement regions - Tarapacá, Antofagasta and Magallanes - have fairly high indexes, in terms of both per capita product and economic growth. Each region owes its high rate of growth to a particular sector or to one or two products: Tarapacá to industry, Antofagasta to copper and Magallanes to petroleum and livestock.

Table 8
CHILE: ENROLLMENTS IN PRIMARY AND UNIVERSITY EDUCATION, 1969

Region	Number of enrolments as a percentage of the population aged 6 to 14 years	Number of university enrolments as a percentage of the population aged 19 to 23 years in the main city of the region
I. Tarapacá	97.4	29
II. Antofagasta	86.0	29
III. Atacama - Coquimbo	84.2	59
IV. Valparaíso - Aconcagua	87.7	34
Z.M. Metropolitan Area	79.3	16
V. O'Higgins - Colchagua	78.4	0
VI. Maule (Curicó, Talca, Linares and Maule)	76.8	23
VII. Bío-Bío (Ñuble, Concepción, Arauco, Bío-Bío and Malleco)	83.0	45
VIII. Cautín	92.3	37
IX. The Lake district (Valdivia, Osorno)	89.5	33
X. The Fjord district (Llanquihue, Chiloé, Aysén)	81.8	1
XI. Magallanes	93.5	8
<u>Total</u>	<u>82.6</u>	-

Source: Planning Office (ODEPLAN).

Table 9
CHILE: ECONOMIC CLASSIFICATION OF REGIONS

Per capita gross domestic product	Rate of growth	Diversified structure of production	Predominantly industrial production structure	Predominantly mining production structure	Predominantly agricultural production structure
High	Rapid	Santiago Metropolitan Area	I. Tarapacá	II. Antofagasta	
	Average				XI. Magallanes
	Slow				
Medium	Rapid				
	Average			III. Atacama- Coquimbo g/ V. O'Higgins- Colchagua g/	
	Slow	IV. Valparaíso- Aconcagua			
Low	Rapid				
	Average				X. The Fjord district
	Slow	VII. Bío-Bío			VI. Maule VIII. Oaútn IX. The Lake district

Source: Planning Office (ODEPLAN).

g/ These are both mining and agricultural regions, either on account of the product employment.

/Two regions

Two regions (III and V) are in a transitional stage. They are both situated at an intermediate level, as regards both their domestic product and growth rate. In region III, mining accounts for most of the product, but agriculture plays an important part in employment; in region V agriculture predominates, but El Teniente mine is found there and contributes a major part of the product.

Lastly, the predominantly agricultural regions, with low indexes for the per capita product or the growth rate, are VI, VIII, IX and X.

The regions with a high per capita product are those which have registered the highest growth rates in the last few years (see table 10). They are the Santiago metropolitan area and the extreme north and south of Chile. However, Santiago accounts for 36 per cent of the total population and 46 per cent of the total gross domestic product, while Tarapacá, Antofagasta and Magallanes account for only 5 per cent of the population and 12 per cent of the gross domestic product. Moreover, there is an appreciable transfer of income abroad and to the rest of the country from the last two regions.

The regions with low average indexes have grown slowly, partly because of the particular conditions prevailing there and partly because of the transfer of income to the centre of Chile.

In conclusion, Santiago ranks first in importance among the urban centres, and is unquestionably the centre of the country's development. Next come Valparaíso-Viña del Mar and Concepción-Talcahuano, the only two sizable urban areas apart from Santiago. These are followed by Antofagasta in the north, Talca in the central agricultural region, La Serena-Coquimbo in the north central area (Norte Chico) and Punta Arenas in the extreme south. Arica is not high in the scale because the population figures are for 1960; since then the city has registered the most accelerated population growth in the country (7 per cent annually) and the structure of its economy has changed radically, which would place it ahead of Iquique and close to La Serena or Talca (see table 11).

Table 10
CHILE: GROWTH OF PER CAPITA AND TOTAL GROSS DOMESTIC PRODUCT, 1960-1967
(Percentages)

			Annual per capita growth rate	Annual growth rate
Regions with rapid growth rates	Region I	Tarapacá	7.36	8.9
	Metropolitan area	Metropolitan area	3.35	6.7
	Region II	Antofagasta	3.18	5.6
Regions with average growth rates	Region V	O'Higgins-Colchagua	2.93	4.0
	Region XI	Magallanes	2.76	5.6
	<u>Average for the country</u>		<u>2.63</u>	<u>4.9</u>
	Region III	Atacama-Coquimbo	2.41	4.5
	Region X	Llanquihue to Aysén	2.37	3.9
Regions with slow growth rates	Region IX	Valdivia-Osorno	1.07	2.7
	Region VI	Curicó to Linares	0.96	2.7
	Region VII	Ñuble to Malleco	0.82	3.1
	Region VIII	Cautín	0.61	1.0
	Region IV	Valparaíso-Aconcagua	0.20	2.5

Source: Regional Planning Department, Planning Office (ODEPLAN).

/Table 11

Table 11
CHILE: INDEX OF IMPORTANCE OF URBAN CENTRES*

Urban centre	Total population 1960	Population (25 per cent)	Pol- itico-admin- istrative impor- tance (15 per cent)	Insti- tution- al impor- tance (20 per cent)	Exports of services (20 per cent)	Exports of goods (20 per cent)	Index of impor- tance	Order of impor- tance
Arica	43 944	1.86	1.54	1.96	0.90	1.63	1.58	12
Iquique	50 655	2.06	2.31	1.54	1.41	1.14	1.69	10
Antofagasta	87 860	2.68	2.31	2.83	1.73	1.76	2.26	4
Copiapó	30 123	1.46	2.31	1.38	-	-	1.09	18
Serena-Cochimbo	79 603	2.50	2.31	2.83	1.11	1.78	2.11	6
San Felipe-Los Andes	43 496	1.76	2.31	1.21	1.57	0.58	1.49	14
Quillota-La Calera	47 581	1.98	1.54	0.88	-	0.58	1.00	20
Valparaíso-Viña del Mar	422 251	4.46	2.31	2.54	3.73	3.55	3.32	2
Santiago	2 032 188	6.25	3.75	5.00	5.00	5.00	5.00	1
San Antonio	41 474	1.84	1.54	0.46	-	0.17	0.80	26
Rancagua	53 318	2.11	2.31	2.04	-	1.48	1.59	11
San Fernando	21 774	1.09	2.31	0.92	-	-	0.86	22
Curicó	32 562	1.55	2.31	0.92	-	0.76	1.11	17
Talca	68 148	2.38	2.31	2.92	1.65	1.65	2.18	5
Cauquenes	17 836	0.85	2.31	0.88	-	-	0.81	25
Linares	27 568	1.36	2.31	1.13	-	-	0.96	21
Chillán	65 112	2.34	2.31	2.38	1.35	1.57	1.99	8
Concepción-Talcahuano	269 169	3.95	2.31	3.33	2.97	2.15	2.94	3
Lota-Coronel	82 563	2.61	1.54	-	-	-	0.83	24
Los Angeles	35 511	1.64	2.31	1.17	-	-	1.02	19
Lebu	6 248	-	2.31	0.58	-	-	0.58	29
Angol	10 657	0.90	2.31	1.04	-	-	0.85	23
Temuco	72 132	2.45	2.31	2.71	0.87	1.19	1.91	9
Valdivia	61 334	2.26	2.31	2.29	1.03	-	1.58	12
Osorno	55 091	2.15	2.31	1.67	-	-	1.23	16
Puerto Montt	41 681	1.84	2.31	2.21	-	-	1.27	15
Ancud	7 390	-	2.31	1.00	-	-	0.66	27
Castro	7 001	-	1.54	0.63	-	-	0.43	31
Puerto Aysén	5 488	-	2.31	0.88	-	-	0.64	28
Oyhaique	8 782	-	1.54	1.21	-	-	0.55	30
Punta Arenas	5 488	2.03	2.31	2.75	2.46	0.83	2.08	7

Source: Planning Office (ODEPLAN).

* A combination of the population, politico-administrative importance, institutional importance, exports of services and exports of goods. For a more detailed analysis, see ODEPLAN, *Planteamientos para una política de desarrollo urbano nacional, informe preliminar*, September 1970.

/Interesting variations

Interesting variations are observable over the period 1960-1968: Santiago gained more ground over Valparaíso and Concepción, in spite of the growth of these two cities and the decentralization policies adopted. Concepción still occupies third place and comes closer to Valparaíso, thus constituting a development centre of national importance in the south of Chile. The northern centres (Antofagasta, Arica, La Serena-Coquimbo and Iquique) have gained in importance. There is a large gap between Santiago and the other two major urban centres, and between these and the remaining cities, especially in the south.

The interrelationships between the urban centres makes for the predominance of some centres over others and the establishment of systems and subsystems (see table 12). If these interrelationships are measured by conventional indicators, such as movements of cargo and passengers, telephone calls, correspondence, etc., Chile would have a single national system with Santiago as the dominating centre.

Table 12

ORDER OF IMPORTANCE OF DEVELOPMENT CENTRES

Degree of importance	Index	Centres
Centre of national importance	5	Santiago
Regional centre of national importance	2.94 - 4.99	Valparaíso, Concepción
Regional centre of multiregional importance	2.26 - 2.93	Antofagasta
Centre of regional importance ^{a/}	1.23 - 2.25	Arica, Iquique, La Serena Coquimbo, San Felipe, Los Andes, Rancagua, Talca, Chillán, Temuco, Valdivia, Osorno, Puerto Montt, Punta Arenas

Source: Planning Office (ODEPLAN).

a/ Arica and Punta Arenas may be considered as border development centres.

/(d) The

(d) The example of a country with more than one important urban centre

(i) Population. In Colombia, the population and production are spread fairly evenly over four major regions. The centres of these regions are Bogotá, Medellín, Cali and Barranquilla, none of which are more than 300 kilometres by road from the most distant municipalities and villages, although the transport difficulties are well known. The capital city - Bogotá - is in the middle of the country and the urban system comprises about one hundred population centres with over 1,000 inhabitants, and 300 with over 30,000. In 1967, 22 per cent of the total population and 58 per cent of the urban population were concentrated in the four major urban centres.

Colombia has 2,900 kilometres of coast on the Atlantic and the Pacific Oceans; there are extensive lowlands, savannas and llanos in the central, northern and eastern areas; and a large part of its territory lies in the Amazon area. Virtually all the population lives in the mountainous central west and south-west areas and, to a lesser extent, on the Atlantic coast in the north and in other regions in that vicinity. Thus, 97.8 per cent of Colombia's population lives in 45 per cent of its territory. Table 13 shows that the Andean departments have a high population density: over 93 inhabitants per square kilometre in Cundinamarca, Quindío, Risaralda, Caldas and Valle, followed by Antioquia, Tolima, Santander and North Santander. In contrast, the departments of Bolívar, Córdoba, Chocó, Guajira and Magdalena on the coast, and Meta in the llanos, are sparsely populated, with 3 to 20 inhabitants per square kilometre. If consideration is given to the urban-rural ratio, it will be noted that the proportion of population living in urban areas rose from 39.6 to 48 per cent between 1938 and 1964. There has also been a noticeable trend towards concentration in the big cities. Thus, in 1938, 22.6 per cent of the population lived in towns with over 100,000 inhabitants and 39.4 per cent in population centres with fewer than 5,000 inhabitants; in 1962, the proportions had altered to 51.2 per cent and 12.3 per cent, respectively.

/Table 13

Table 13
COLOMBIA: POPULATION DENSITY, BY POLITICO-ADMINISTRATIVE DIVISIONS

	Number of inhabitants per square kilometre ^{a/}		
	1961	1964	1968
Departments			
Antioquia	37	39	45
Atlántico	117	219	256
Bolívar	23	26	30
Boyacá	14	16	17
Caldas	105	95	107
Cauca	17	20	22
Cesar	-	11	13
Córdoba	16	23	28
Cundinamarca	90	118	139
Chocó	3	4	4
Hulla	17	21	23
La Guajira	6	7	8
Magdalena	11	24	28
Meta	1	2	3
Merido	19	23	24
Norte de Santander	21	26	28
Quindío	-	167	182
Santander	29	32	35
Bisaralda	-	115	121
Tolima	39	36	38
Valle del Cauca	85	82	93
Intendencias			
<u>Average for departments</u>	<u>24.5</u>	<u>28.2</u>	<u>31.9</u>
Arauca	1	1.0	1.2
Caquetá	1	1.2	1.5
San Andrés y Providencia	91	380.3	526
Comisarías			
Anoronas	1	0.1	0.1
Putumayo	2	2.2	2.7
Vaupés	1	0.1	0.2
Vichada	1	0.1	0.1
Guainía	-	0.5	0.6
<u>Average for national territories</u>	<u>1.4</u>	<u>0.5</u>	<u>0.5</u>
<u>Average for the whole country</u>	<u>13</u>	<u>15.4</u>	<u>17.4</u>

Source: National Administrative Department of Statistics (DANE).

^{a/} Adjusted figures.

/Intensive migration

Intensive migration has taken place in Colombia in the last few decades; according to the 1964 census, one-third of the inhabitants were residing in a different administrative region from that in which they had been born, and one-third of this number had migrated from one rural area to another. So intensive was this process that half of the inhabitants of Bogotá and two-fifths of the inhabitants of other urban areas were migrants at that time. Moreover, it has taken place very rapidly, since about 40 per cent of the 6.5 million migrants had moved during the five years prior to the census. In 1964, the migratory movements were almost entirely absorbed by four regions: Bogotá (36 per cent), Valle (26.7 per cent) Antioquia (17.5 per cent) and Atlántico (17.4 per cent).

(ii) Product, income and social services. Colombia's Administrative Planning Office estimates that three departments - Antioquia, Bogotá and Valle - with 33.8 per cent of the total population, contributed 42.5 per cent to the gross domestic product. A second group of eight departments - Atlántico, Bolívar, Boyacá, Caldas, Cundinamarca, Magdalena, Santander and Tolima - accounted for 45.7 per cent of the population and 43 per cent of the product. The remaining eight departments, with 19.1 per cent of the population, contributed 13.5 per cent to the total product. Lastly, the share of the so-called "national territories" was 1.4 per cent of the population and 1 per cent of the product (see table 14). By way of comparison, the three most important departments - Antioquia, Valle and Bogotá - were responsible for 60 per cent of the manufacturing product, while Antioquia, Valle and Caldas accounted for 31.1 per cent of the product generated by the primary sector. Bogotá accumulated 24.3 per cent of the tertiary activities, followed by Antioquia (13.8 per cent) and Valle (12.3 per cent).

Table 14
 COLOMBIA: SPATIAL DISTRIBUTION OF THE GROSS DOMESTIC PRODUCT AT FACTOR COST AND
 OF THE POPULATION AND STRUCTURE OF THE SECTIONS: 1964
 (Percentages)

Sections	Gross domestic product at factor cost (Contribution of departments)				Population 15/7/64	Gross domestic product at factor cost (Share of departments in gross domestic product)			
	Primary a/	Secondary b/	Other activities	Total		Primary a/	Secondary b/	Other activities	Total
Antioquia	10.9	21.0	13.8	14.3	14.2	26	31	43	100
Atlántico	0.7	6.7	5.6	4.1	4.1	6	34	60	100
Bolívar	6.2	4.6	4.3	5.1	5.8	13	19	38	100
Bogotá	6.9	3.3	2.8	4.3	6.1	55	16	29	100
Caldas	10.2	3.9	7.3	7.6	8.3	46	11	43	100
Cauca	3.8	0.8	1.4	2.1	3.5	62	8	30	100
Córdoba	5.8	0.4	1.6	2.8	3.4	72	3	25	100
Cundinamarca o/ Distrito Especial	8.5	3.8	6.1	6.4	6.4	46	13	41	100
Chocó	0.7	21.0	24.3	15.5	9.7	1	29	70	100
Huila	0.4	0.2	0.4	0.3	1.0	10	14	46	100
La Guajira	3.1	0.5	1.6	1.9	2.4	57	6	37	100
Magdalena	0.7	0.1	0.3	0.4	0.8	60	7	33	100
Nariño	8.2	0.3	3.4	4.5	4.5	63	3	31	100
Norte de Santander	2.0	0.3	0.8	1.1	0.9	63	6	31	100
Santander Sur	3.4	0.9	1.8	2.1	4.0	54	9	36	100
Tolima	2.5	3.2	2.7	2.8	3.1	32	25	43	100
Valle	5.0	9.1	5.2	6.0	5.7	29	32	39	100
Subtotal	9.3	1.3	3.5	5.0	4.8	64	5	31	100
National Territories	10.0	18.0	12.3	12.7	9.9	27	30	43	100
Total	28.2	22.8	22.2	22.0	28.6	24	22	44	100
	1.7	0.2	0.8	1.0	1.4	60	4	36	100
	100.0	100.0	100.0	100.0	100.0	21	21	44	100

As regards
 Source: United Nations, Technical Assistance Programme, "Estrategia de distribución del producto bruto interno de Colombia por secciones administrativas del país (1964)". Report presented by Dr. Francisco Ibarra, Bogotá, December 1966.
 a/ Agriculture, hunting, fishing and forestry.
 b/ Mining and manufacturing.
 c/ Excluding Bogotá.

As regards the regional distribution of income, it is tentatively estimated that about 60 per cent of the population have incomes that are fairly close to the national average, 20 per cent earn more and another 20 per cent earn less.^{3/} In particular, the per capita product in Bogotá and the department of Valle, with 20 per cent of the total population, was 44 per cent higher than the national average in 1964; in six departments - Boyacá, Cauca, Chocó, Huila, Goajira and Nariño - and the "national territories", the per capita product was much lower than the national average (about one-half in Goajira and Nariño, and one-third in Chocó) (see table 15).

The position with respect to social services was somewhat similar. In 1964, 79 per cent of the enrolments in higher education and 72 per cent of the doctors in towns of over 30,000 inhabitants were concentrated in the three major regional centres: Bogotá, Medellín and Cali. In the three departments corresponding to these centres, 20 per cent of the population was illiterate, compared with 50 per cent in others such as Córdoba, Chocó and Goajira.

^{3/} See United Nations, Technical Assistance Programme, "Tentativa de distribución del producto bruto interno de Colombia por secciones administrativas del país (1964)". Report presented by Mr. Francesco Marabelli (Bogotá, December 1966).

Table 15

COLOMBIA: EVALUATION OF PER CAPITA INCOME LEVELS BY ADMINISTRATIVE SECTIONS, 1964

Section	Gross domestic product at factor cost (millions of pesos)	Population (thousands of inhabitants)	Per capita gross domestic product at factor cost (pesos)	Average national per capita index = 100
Antioquia	6 904.1	2 477.3	2 786	101
Atlántico	1 999.3	717.4	2 787	101
Bolívar	2 432.8	1 006.3	2 418	88
Boyacá	2 073.8	1 058.2	1 960	71
Caldas	3 653.6	1 455.9	2 510	91
Cauca	1 015.4	607.2	1 672	61
Córdoba	1 346.6	585.7	2 299	83
Cundinamarca a/	3 114.5	1 120.1	2 780	101
Distrito especial	7 460.1	1 697.3	4 395	159
Chocó	161.2	181.9	886	32
Huila	907.5	416.3	2 180	79
Guajira	209.1	147.1	1 421	52
Magdalena	2 144.9	789.4	2 717	99
Nariño	541.4	165.5	3 271	119
Nariño	1 026.0	705.6	1 454	53
Norte de Santander	1 332.6	534.5	2 493	90
Santander	2 874.0	1 001.2	2 871	104
Tolima	2 430.9	841.4	2 889	105
Valle	6 123.9	1 733.1	3 533	128
Subtotal	47 751.7	17 241.4	2 770	100
National territories	461.6	241.6	1 914	69
Total	48 213.3	17 482.4	2 758	100

Source: United Nations, Technical Assistance Programme, *Tentativa de distribución del producto bruto interno de Colombia por secciones administrativas del país (1964)*. Report presented by Mr. Francisco Marabelli, Bogotá, December 1966.

a/ Excluding Bogotá.

/(iii) Manufacturing

(iii) Manufacturing and energy. In 1967, 65.4 per cent of the gross value added in manufacturing was concentrated in Bogotá and the departments of Antioquia and Valle, the proportions being 21.4, 23.7 and 20.3 per cent, respectively. A second group of five departments (Atlántico, Cundinamarca, Santander, Bolívar and Boyacá) accounted for 24.6 per cent. On the whole, manufacturing activities are located mainly in the cities of Bogotá, Medellín, Cali and Barranquilla, which altogether absorbed 80 per cent of the total employment in industry in 1965. In this respect, it is interesting to note that the most dynamic centre of manufacturing activities has shifted over the years. Up to 1930 there was no predominating centre, but by 1930 and 1940 Barranquilla was leading the industrial development process owing to its function as an export and import shipping port. During the 1940s, Medellín assumed first place on the basis of the capital formation that was made possible by the coffee boom, and the import substitution policy resulting from the Second World War. Throughout the 1950s, Cali was the new manufacturing centre, stimulated by the inflow of foreign capital; the main activities established there were pharmaceutical and chemical laboratories and related and supplementary industries (chemicals, containers, glassware, etc.) and other important industries such as foodstuffs and paper and paperboard. During the next decade, for various reasons which included political centralization - the most dynamic city was Bogotá. It is pointed out that this shifting of the major industrial centre did not weaken the previous centres in absolute terms; they merely developed more slowly. Thus, in 1965, while Bogotá accounted for 28.4 per cent of the value added in manufacturing, Medellín still retained 24.4 per cent, Cali 16.3 per cent and Barranquilla 8.8 per cent (see table 16).

There is also a high degree of concentration with respect to electric energy. In 1967, 82 per cent of the public installed capacity was distributed among five departments, i.e., Cundinamarca and Bogotá (29 per cent), Antioquia (27.6 per cent), Valle (13.8 per cent), Atlántico (6.3 per cent) and Caldas (5.3 per cent). There was much the same concentration in the production of energy for the public service, the total output of 83.1 per cent generated by these five departments being distributed as follows: Antioquia (28.8 per cent), Cundinamarca-Bogotá (23 per cent), Valle (16 per cent), Atlántico (8.1 per cent) and Caldas (7.2 per cent).

Table 16
COLOMBIA: INDUSTRIAL STRUCTURE OF CITIES, 1965

City	Urban population	Total industrial value added (thousands of pesos at 1965 prices)	Percentage industrial value added	Per capita industrial value added (pesos)	Importance of industrial employment in relation to the population	
					Urban	Active urban
1 Bogotá DE and Soacha	1 789 607	3 096 776	28.4	1 697	4.60	13.31
2 Medellín and suburban area	972 628	2 617 394	24.4	2 686	7.00	22.44
3 Cali and Yumbo	678 752	1 733 486	16.3	2 554	5.60	16.98
4 Barranquilla and Soledad	514 255	946 045	8.8	1 840	4.40	16.63
5 Bucaramanga and suburban area	228 899	305 165	2.9	1 333	3.10	9.95
6 Cartagena	228 823	302 080	2.8	1 320	2.10	7.07
7 Manizales and Villa María	200 831	163 223	1.5	813	2.50	7.80
8 Pereira and Santa Rosa	189 448	191 099	1.8	1 014	3.40	8.05
9 Armenia and Calarcá	164 385	60 131	0.6	366	1.00	3.93
10 Cúcuta	155 288	77 186	0.7	497	1.30	3.89
11 Ibagué	133 071	67 549	0.6	508	1.30	3.38
12 Palmira	111 850	190 461	1.8	1 728	4.00	9.65
13 Santa Marta	95 099	42 309	0.4	445	1.30	3.85
14 Pasto	85 756	41 775	0.4	487	1.30	3.19
15 Neiva	80 623	31 457	0.3	390	0.80	2.40
16 Montería	76 380	11 894	0.11	156	0.50	0.92
17 Buenaventura	73 695	16 106	0.16	219	1.20	2.88
18 Girardot	69 677	79 468	0.8	1 142	1.70	4.90
19 Buga	69 030	156 530	1.5	2 268	2.20	6.21
20 Barrancabermeja	63 807	238 527	2.2	3 787	2.70	8.46
21 Popayán	61 142	42 221	0.4	691	1.00	2.31
22 Tulúa	59 395	31 520	0.3	531	1.30	3.33
23 Cartago	58 098	18 268	0.2	314	1.40	4.05
24 Ciénaga
25 Villavieja	48 886	18 971	0.2	388	1.10	2.49
26 Sincelajo	46 394	2 405	0.02	52	0.40	1.19
27 Valledupar	48 840	31 197	0.31	639	0.70	1.94
28 Tunja	42 145	38 598	0.4	915	2.00	4.24
29 Sogamoso and Nobsa	37 387	130 676	1.2	3 495	6.90	12.54
30 Duitama	35 325	53 227	0.5	1 506	1.70	3.17
Total		10 670 744	100.0 %			

Source: National Planning Office, Regional and Urban Development Unit.

/Moreover, in

Moreover, in 1969, Bogotá absorbed 44.7 per cent of total foreign investment, while Medellín and Cali together received 21.3 per cent and other cities only 24 per cent.^{4/} In 1969 and 1970, 49 per cent of the import licences for machinery were allocated to Bogotá. The capital city's growing predominance is also observable in small and medium-scale industry; for example, 34 per cent of the credit granted to those sectors in 1969 went to Cundinamarca, including Bogotá.^{5/}

(iv) Order of importance of Colombian cities. According to the order of importance established by the National Planning Office, Bogotá is the leading city in Colombia and the only metropolis exercising a nation-wide influence. Next come the three "stabilizing metropolises", Medellín, Cali and Barranquilla; and lastly the regional and local centres. This classification was based on demographic, economic and social indicators, which include such considerations as urban population, value added in manufacturing, the value of cheques cashed directly and cleared, number of hospital beds, enrolment in higher education and enrolment in vocational training centres. Table 17 shows the results of this study for the thirty largest cities.

^{4/} See Administrative Planning Department, document VEIA-028-IP, October 1970.

^{5/} See Administrative Planning Department, document VEIA-029-DI.

Table 17
COLOMBIA: ORDER OF IMPORTANCE OF CITIES, 1965-1966

City	Level			Over-all classification adopted
	Demographic	Social	Economic	
1. Bogotá DE + Soacha	VI	VI	VI	VI
2. Medellín + Mpies. Valle de Aburrá	V	V	VI	V
3. Cali + Yumbo	V	V	V	V
4. Barranquilla + Soledad	V	IV-V	V	V
5. Bucaramanga + Girón, Florida Blanca	IV	IV-V	IV	IV
6. Cartagena	IV	IV-V	IV	IV
7. Manizales + Villa María	IV	IV-V	IV	IV
8. Pereira + Santa Rosa	IV	IV	IV	IV
9. Armenia + Calarcá	IV	IV	III	IV
10. Cúcuta	IV	III-IV	III	IV
11. Ibagué	IV	III-IV	III	IV
12. Palmira	III	IV	IV	IV
13. Santa Marta	III	III-IV	III	IV
14. Pasto	III	III-IV	III	III
15. Neiva	III	III	III	III
16. Montería	III	III	III	III
17. Buenaventura	III	III	III	III
18. Girardot	III	III	III	III
19. Buga	III	III	IV	III
20. Barrancabermeja	III	III	IV	III
21. Popayán	III	III	III	III
22. Tulda	III	III	III	III
23. Cartago	III	III	III	III
24. Ciénaga	III	II-III	II-III	II-III
25. Villavicencio	III	III	III	III
26. Sincelejo	III	II-III	II-III	II-III
27. Valledupar	III	II-III	III	III
28. Tunja	III	II	III	III
29. Sogamoso + Nobsa	III	III	IV	III
30. Duitama	III	II-III	III	III

Source: National Planning Office, Regional and Urban Development Unit.

Codes: VI: National metropolis.
V: Stabilizing metropolis.
III and IV: Regional centres.
I and II: Local centres.

3. Some problems and questions

It may be concluded from the two cases examined in the previous section and from the data given in table 1 that the process of urban concentration is extremely vigorous, even in countries such as Chile that have implemented decentralization policies. Furthermore, it would appear that even in countries that formerly possessed some degree of regional balance, such as Colombia, there is a trend towards concentration in single metropolitan area.

The social consequences of this process, especially as regards living conditions in the great metropolises, are well known; although the same is not true of all the economic issues involved. From the economic standpoint - if it is at all possible to look at economic issues in isolation - there are reasonable grounds for doubt regarding the advantages and disadvantages of the formation and growth of the major Latin American national metropolises, particularly when they are above a certain size.

Sufficient data are not available to be able to provide a categorical answer to this point, since the necessary empirical studies and detailed breakdowns of data are lacking. Nevertheless, the present study has brought together a certain amount of information covering the maintenance of external economies, the control of urban land use, the economic and social relations between urban and rural areas and, lastly, the distribution of income within certain major cities. And it is thought that a critical appraisal of these issues, which are of course only part of the story, may be useful - and may even be a determining factor - in an over-all approach to this subject.

(a) External economies

Issues relating to external economies are known to have a great deal of weight in economic analysis connected with the location of activities and also play a decisive role in decisions regarding the regional distribution of investment. In examining their significance vis-à-vis the metropolitanization of the Latin American economies, a distinction must be drawn among all the various factors responsible for external economies between the factors linked most directly to specific productive units - supply of inputs, access to financial markets and subcontracting, proximity

/to decision-making

to decision-making centres and technical research and manpower training services etc. - and the factors associated with the general infrastructure, which is generally the responsibility of the state, and is necessary for the functioning of productive activity, such as roads and railways and means of communication, and also with the urban infrastructure and its ancillary services (housing, water supply, medical services, schools, etc.).

This distinction is important both in terms of the effective duration of the external economies concerned, and in terms of the role played by both types of factor in private and public decisions on the location of investment.

It may generally be assumed that the factors that are directly related to productive units constantly increase their associated external economies, without any limitation as to time. The more a given urban area grows and concentrates activities - although not necessarily within the same surface area - the greater and more varied will be the advantages that it can offer to new activities in terms of external economies. The same is not necessarily true, however, with the second type of factor, particularly those having to do with the urban infrastructure.

Ideally speaking, once a given urban centre has been consolidated, and has a reasonable supply of the appropriate public services, it should be in a position to increase its population, because new enterprises will be set up. Thus more intensive use will be made of the general installations already in existence and the cost per person added to the population will fall.

This relationship cannot be linear, however, since there will necessarily be a series of critical points when the utilization density of certain services becomes saturated and relatively expensive investment is needed to expand them; this in turn will offer new possibilities for external economies until eventually the next critical point is reached. Take, for example, a city where the drinking-water or electricity services can supply a population of 100,000; once this point has been passed, it then becomes necessary to invest in water-supply facilities or to install new power stations which can supply, say, 300,000 inhabitants; and then once that point is reached, the process starts all over again.

/The above

The above demonstrates that the external economies associated with a new population settlement in a given region vary depending on each individual situation and on each point in time. Over the longer term it is important to know whether the cost of the urban infrastructure tends to rise or fall in relation to the size of the urban population. Little empirical research has been done into this, and the results of what has been done do not always agree, even for the same country. For example, a study undertaken in Italy by SVIMEZ in 1956 estimated the cost per inhabitant of fixed social investment in urban centres at 123,000 liras in cities with 30,000 inhabitants, 194,000 liras in cities with between 30,000 and 200,000 inhabitants, and 357,000 liras in cities with over 200,000 inhabitants.^{6/} Another study, on the other hand, also carried out in Italy, indicates that the cost of constructing, supplying and maintaining cities is at its highest at a level of around 100,000 inhabitants, and is less in cities below that level and also above it.^{7/}

In Latin America, a study has attempted to measure the cost of urbanization on the basis of data from the city of Caracas.^{8/} Four basic components were taken into account: land, household services, housing and communal services.

The main factors that push the value of urban land upward are zoning - i.e., the allocation of land for urban uses - and changes in zoning, the installation of services, the construction of major means of access or other works, and demand. The combined effect of these variables gives the cost of the settlement, and the CENDES study mentioned above compared this cost with population density. Estimates by public

^{6/} See SVIMEZ, "La localizzazione industriale ed i costi sociali dell' insediamento di nuova unità lavorative", in Informazioni SVIMEZ, Rome, May 1957. Quoted by Alessandro Busca and Salvatore Cafiero in "Coste social del asentamiento", Cuadernos de la Sociedad Venezolana de Planificación, August 1966, p. 40.

^{7/} See Tekno, Ricerca sui costi di insediamento urbani ed industriali in varie città d'Italia, Milan 1963. Quoted in Busca and Cafiero, op.cit., p. 41.

^{8/} See Central University of Venezuela, Centre for Development Studies (CENDES), Desarrollo Urbano y Desarrollo Nacional, Caracas, March 1971, pp. 217-248.

agencies of the value of zoned land in Caracas were compared with population density. The results indicated that the per capita cost, at a density of 100 inhabitants per hectare, is 17,000 bolívares; as density increases, the per capita cost falls to a minimum of 8,000 bolívares, at a density of 400 inhabitants per hectare and then stabilizes, irrespective of how much density increases. This yields landowners high profits in the most highly populated areas.

The CENDES study considered data on the cost of services in certain urbanization projects in Caracas developed by the Banco Obrero and private enterprise. The cost of water supply, sewerage, electricity and service roads to the settlements were considered separately and were compared with population density. It was found, first of all, that costs fell as density increased until they reached a point at which they stabilized: around 1,000 inhabitants per hectare; above this level, costs began to rise. The study observes that these are only preliminary figures and should be taken simply as indicative of a trend.

A comparison of the relative cost of land, construction and services showed - at the lowest cost density for services, which is 1,000 inhabitants per hectare - that the per capita cost of services is about 100 bolívares, while that of construction ranges between 5,000 and 7,000 bolívares and that of land is 7,500 bolívares.

It must be borne in mind, however, that there are other factors present in many Latin American countries that may hamper or frustrate the possibility of taking advantage of the major external economies of metropolitan areas. Suffice it to recall the extremely high levels of urban concentration achieved already - high in comparison with other more developed countries and high in relation to the nature of the urban economy concerned - the rapidity of internal migration, and the marked shortfalls in social services in such areas.

The rapidity of urbanization has in many cases outstripped capacity to satisfy demand for public services, something which is easy to understand if it is remembered that the urban population of Latin America expanded

by 71 per cent in the 1950s ^{2/} (for Europe this figure is only 18 per cent). It is common in cities that have grown rapidly for there to be a decline in the ability to provide public services efficiently, giving rise to serious problems, especially as regards transport and communications within the city itself. In some metropolitan areas, tens of thousands of people have to travel distances of 30 to 60 kilometres to their place of work; the cost of such commuting has not been measured but it probably leads to longer working hours, a reduction in wages, and a loss in individual productivity as a result of tiredness, in addition to the direct cost of the transport.

Furthermore, the shortfalls in social services are huge. It has been estimated that Latin America's urban housing deficit in 1961 was 14 million units and rising. Around 30 per cent of the urban population does not have running water. As regards education, in 1960 there were 40 million illiterate adults in the region as a whole, and the adult population had spent an average of 2.2 years at school.

In the particular case of Venezuela, taking the data from the CENDES study, in cities with more than 20,000 inhabitants the basic public services deficits are 37.8 per cent in housing, 38.9 per cent in running water, 60.9 per cent in sewerage, 16.3 per cent in electricity, 25 per cent in primary education, 51 per cent in secondary education and 25.1 per cent in medical care (general hospitals).

In the circumstances, it is doubtful whether there are opportunities to take advantage of external economies in expanding many Latin American metropolitan areas; rather the reverse, it is likely that in some cases the per capita cost of the urban infrastructure for new cities is less than the corresponding cost of expanding the infrastructure in the existing major urban centres.

All this shows how the importance of external economies and hence of criteria for the allocation of resources among regions varies, depending on whether the standpoint is that of a particular project or enterprise

^{2/} About one-third of this increase - proportionally less in the larger countries - is attributable to the fact that more cities have more than 20,000 inhabitants; the remainder comes from population increase in existing cities.

/or that

or that of the national economy as a whole. In the former case, providing the anticipated operating results are compared with directly productive investment, the advantages lie on the side of unlimited expansion, and this in the final analysis is one of the main criteria on which private investment decisions are based. But calculations of productivity or economic return take on account of the sometimes substantial need for additional public investment (national or municipal) which is tantamount to an indirect subsidy to enterprises. In other words, the costs of urbanization are charged to the state while economies of scale benefit enterprises and families; and when diseconomies arise as a result of the scale of the agglomeration, these too are charged to the public sector. To put it another way, it may be asked whether it would not be more beneficial for the national economy to locate new enterprises in development centres of a smaller scale, where they would help in the process of modernization, rather than to locate them in major conglomerations where the cost of expanding the infrastructure and providing additional public services is greater. Unfortunately, no data are available to show how accurate this statement is, not even for a few metropolitan areas in Latin America. Moreover, a look at past history indicates that initially the urban centres served as a support for regional development and even national development. It appears, however, that once a certain point has been passed, particularly owing to the unchecked expansion of such centres, their operation requires public expenditure and a transfer of income from the rest of the country, which is clearly an external diseconomy. A more detailed historical analysis might well link up this process with the phenomenon of the concentration of the economy and income that appears to be a feature of the recent development of the Latin American countries with diversified and complex industries.

(b) Controlling the use of urban land

In addition to the advantages and problems that the process of urban concentration can bring with it as regards external economies, it has often been found that the growth of metropolises, because it is rapid and virtually always uncontrolled, has adverse social consequences. These include congested urban traffic, atmospheric pollution, insalubrious

/housing, and

housing, and eventually have the effect of lowering the level of wellbeing of the population; this in turn makes it necessary to invest in new roads, green areas and even in urban renewal. But the cost of such investment in the urban space of the metropolis is very high and rising, particularly because of the large increase in the value of urban land brought about by the urbanization process itself.

One interesting point, which in isolation might not be significant but which may indicate a general trend, emerges from a comparison of the movement of land costs in central and peripheral cities. The case of Venezuela - still on the basis of the CENDES study mentioned earlier - shows that in the cities of the metropolitan centre (Caracas, Valencia, Maracay, Maiquetía, La Guayra, Puerto Cabello and Los Teques) the cost of land has risen considerably; the rise in Caracas is well above that in the other cities, but even there the annual rate of increase has been 10 per cent. In the other cities of Venezuela the rate of increase has been much less, and in some cases there has been no movement at all.

The uncontrolled expansion of urban areas brings with it new problems as regards means of transport and basic urban services, and also as regards sewerage and drinking-water systems, health services and education. Given the limited scope of the legal instruments available in Latin America to enforce stricter social control of land use, the surface area occupied by cities tends to expand ad infinitum and this in turn lowers population density. This means that all the advantages of urban concentration in terms of reducing the per capita costs of means of transport and urban services and facilities are lost, and that it is virtually impossible for municipalities, even with assistance from the central authorities, to cover the investment required to maintain even a minimum degree of balance in urban living conditions. Moreover, the distances that commuters have to travel cause wear and tear that affects a significant proportion of the urban population. Governments have thus found themselves forced to solve the problem of commuter transport by installing systems that are generally costly in terms of investment, for example underground railways. In São Paulo and Rio de Janeiro the cost per kilometre of line has been estimated at 10 million dollars.

/In order

In order to be acceptable, the further expansion of metropolitan areas must be controlled so that optimum per capita costs can be achieved for the different types of urban service; urban planning techniques may perhaps be able to neutralize some of the disadvantages of the large agglomerations and take advantage of their benefits, but there are well-known limitations in Latin America as regards urban planning controls and in achieving urban growth in line with planned patterns. Only a very few major cities have been able to subject their growth completely to controls. The uncontrolled and haphazard growth that ensues virtually always leads to a worsening of urban living conditions, and investment becomes necessary precisely because control has been lacking. The same problems are found in the major cities of the developed countries, sometimes even more acutely. In this connexion, it is significant that the developed countries are showing a growing interest in the problems of the environment, mainly as regards preserving the ecological balance and controlling the pollution caused by industrial wastes. It may be said here that Latin America has barely had time to experience the disadvantages of industrialization, and the main factors affecting the environment in the region are the result of underdevelopment (over-use of natural resources, marginality, shortfall in basic services, the consequences of enclave economies, etc.).

(c) Relations between the metropolitan area and other regions

A basic issue within the problem of metropolitanization concerns relations between the urban area and other regions, especially rural regions. The point is not to look at each region in isolation but to try and see whether the process is interdependent and whether the corollary of the expansion of the metropolitan area, for example, is a transfer of income from - and consequently the impoverishment of - another region. While no research has been done to prove this argument, the following sections will consider two studies on related matters undertaken by the Federal Investment Council of Argentina and by ECLA.

(i) Trade in goods and services. One of the few studies that have tried to measure interregional relationships is on Argentina,^{10/} and shows

^{10/} See Federal Investment Council, Bases para el desarrollo regional argentino, (Buenos Aires, 1963).

how a major economic centre - the metropolitan area - absorbs resources generated in the provinces. The transfer of income, however, is not homogeneous, nor is it of the same type in all cases: it involves a transfer of income from the richer agricultural areas to the metropolitan area, and a form of subsidy by the metropolitan area to the poorer provinces. Two areas are thus benefited - the metropolitan area and the poorer provinces - and one area provides the income - the highly productive agricultural provinces, and two provinces producing wool and petroleum (see table 18). In the first case the metropolitan area, made up of the federal capital and greater Buenos Aires, "exports" manufactures and "imports" agricultural products, and hence the terms of this trade have an influence on the transfer of income. For example, the terms of trade improved by 21.7 per cent between 1956 and 1959 for the metropolitan area. The price index of its "imports" rose by 263.6 per cent and that of its "exports" by 342.5 per cent. Furthermore, the metropolitan area contains the services - particularly those concerned with financing, insurance and export - that are used by the other provinces.

The poorer provinces are subsidized on a scale that is small in absolute terms but significant if compared with their gross domestic product. The subsidies consist chiefly in the allocation of resources by the national government for public works or the current costs of education and health services.

The provinces from which these resources come are those which engage in modern-type agriculture on a large scale and generate around three-quarters of national crop and livestock production (the remainder of the province of Buenos Aires, Córdoba, Santa Fe, Mendoza and La Pampa), together with the two provinces producing wool and petroleum (Santa Cruz and Neuquén). In all cases these are thriving provinces with high per capita incomes that - with the exception of Neuquén - are above the national average and very close to that of the metropolitan area. There is thus a situation in which a major industrial area - the metropolitan area - absorbs economic resources from the modern agricultural areas through the payment of services and the terms of trade, and absorbs labour, mainly from the poor provinces which it is subsidizing, although to a much lesser extent.

Table 18
ARGENTINA: PER CAPITA GROSS DOMESTIC PRODUCT, AND BALANCE ON
INTERPROVINCIAL TRADE, 1959

	Per capita gross domestic product (thousands of pesos at 1959 prices)	Balance on interprovincial trade (thousands of pesos at 1959 prices)	
		Total a/	Internal b/
Metropolitan area	7.6	-27 175	-34 477
Remainder of the province of Buenos Aires	8.1	12 750	12 322
Catamarca	2.8	-663	-633
Chaco	4.1	777	168
Chubut	9.3	-210	1 284
Córdoba	5.3	9 566	11 970
Corrientes	3.1	293	610
Entre Ríos	4.2	-492	-425
Formosa	2.9	117	-52
Jujuy	5.2	645	1 137
La Pampa	8.2	1 818	1 855
La Rioja	2.9	-238	-217
Mendoza	6.5	2 654	3 479
Misiones	2.1	-1 016	-720
Neuquén	3.8	414	551
Río Negro	6.2	727	860
Salta	4.0	-1 266	56
San Juan	5.0	679	906
San Luis	3.8	-449	-225
Santa Cruz	14.8	1 832	1 790
Santa Fe	6.4	4 095	-296
Santiago del Estero	2.3	-739	-313
Tierra del Fuego	20.5	81	126
Tucumán	4.2	-645	40
Balance		3 555	0

Source: Federal Investment Council, *Bases para el desarrollo regional argentino*, op. cit., pages 56 and 98.

a/ Including international trade.

b/ Excluding international trade.

/In their

In their turn the five rich agricultural provinces and the two wool and oil provinces heavily subsidize the metropolitan area; they generate 72 per cent of national crop output and 75 per cent of livestock output at a relatively high level of productivity. But they depend on the metropolitan area for financing, domestic marketing, exports and most of the manufactures that they need. The poorer provinces provide labour - mostly unskilled - and recover through budgetary subsidies from the national government what they lose through the payment of services and possibly through the terms of trade.

It is difficult to estimate to what extent this phenomenon occurs in other Latin American countries, especially if it is remembered that Argentina is not a particularly typical case since regional differences are less pronounced than in most of the other countries of the region, as are the pressures of population increase in the more backward regions. What is clear, however, is that, even if the Argentine experience could be extended to other countries, this would not mean that regional disparities in income and living conditions would tend to disappear of their own accord. More is required than a transfer of real income in the form of social services for the backward areas to be able to achieve more dynamic economic growth.

(ii) One aspect of the urban-rural issue projected over the long term using an over-all model. ECLA recently developed a numerical experimentation model for studying over-all medium- and long-term strategies;^{11/} the model considers the following factors: demography and education, social stratification, consumption, production and investment, external trade, ownership of capital, technology, nationalization, income distribution and fiscal policy. Since the population is broken down into rural, low-income urban and high-income urban groups, the results obtained can help to identify certain characteristics of urban-rural relations. The figures used in the model, converted to a situation similar to that

^{11/} See ECLA, Un modelo para comparar estilos de desarrollo o políticas económicas optativas (document E/CN.12/907). The equations of the model are described on pp. 43-54 of the document.

of several Latin American countries and the structures, forms and features of the current growth process were projected into the future. As current trends were projected over time, it was assumed that all parameters would behave as in the past. A specific evaluation was made of factors relating to population, employment, expenditure, income and deficit (see table 19).

On the basis of the assumptions adopted, and with an annual rate of population increase falling from 2.9 per cent in 1968 to 2.7 per cent in 1975 and normal migratory movements, the model indicates that the rural population should decline substantially, with a marked increase in the low-income urban population.

With respect to unemployment, three different situations were found. At the beginning of the period unemployment ranges from 6.9 per cent in the low-income urban group to 8.2 per cent in the rural group, while it is minimal in the high-income urban group. By 1975, rural unemployment is expected to have increased dramatically (to an estimated 17 per cent), while unemployment in the low-income group is expected to rise but more slowly and the high-income urban group should have a labour shortage. By the end of the 1970s, rural unemployment is expected to decline significantly (to 4.3 per cent) mainly owing to migration to the cities, but this will make the situation unbearable in the low-income urban group (unemployment of 17.4 per cent), while the labour shortage in the high-income urban group will remain roughly the same.

The share of the rural population in expenditure is expected to decline markedly, while that of the urban population - both low-income and high-income - should continue to grow in line with past trends. Consumption by other groups is also expected to follow past trends, with the disparities existing at the beginning of the period remaining unchanged.

The income of the rural group is expected to decline in relative terms by half during the period, while that of the low-income urban group should also decline, although less rapidly; the income of the high-income group, on the other hand, is expected to rise. There should be a moderate deficit in the rural sector which should reach its peak in 1975 and then decline; the deficit of the low-income urban group is expected to increase rapidly and to reach intolerable levels by 1980, while the high-income group should produce large and growing surpluses.

/Table 19.

Table 19
INDICATORS OF POPULATION, EMPLOYMENT, EXPENDITURE, CONSUMPTION, INCOME AND DEFICIT, 1968-1980
(Projected on the basis of existing structure and past trends)

	1968	1975	1980
Structure of population (by group)			
Rural	50.1	41.8	31.6
Low-income urban	38.6	46.2	54.8
High-income urban	10.2	12.0	13.6
Unemployment (percentage of active population)			
Rural	8.2	17.0	4.3
Low-income urban	6.9	9.6	17.4
High-income urban	0.5	-1.8	-1.9
Total expenditure (in millions of monetary units)	55 046.6	95 104.0	147 135.4
Structure of expenditure by group (percentages)			
Rural	18.2	13.1	9.1
Low-income urban	37.6	39.3	42.9
High-income urban	44.3	47.6	49.0
Per capita consumption as a proportion of rural consumption			
Low-income urban (rural = 1)	2.6	2.8	2.8
High-income urban (rural = 1)	11.9	13.5	13.7
Total income (in millions of monetary units)	56 026.0	100 445.3	150 867.1
Structure of income by group (percentages)			
Rural	13.3	8.6	6.9
Low-income urban	32.4	28.6	27.6
High-income urban	54.4	62.8	65.6
Per capita income (in monetary units)			
Rural	197.7	238.1	330.6
Low-income urban	594.5	699.6	763.2
High-income urban	3 333.3	4 885.4	5 821.9
Total subsidy (millions of monetary units)	1 432.2	2 974.6	5 174.6
Deficit (millions of monetary units)			
Rural	1 585.3	2 192.4	1 050.6
Low-income urban	641.8	4 186.5	12 349.9
High-income urban	-4 638.7	-14 694.7	-21 716.7

/In the

In the final analysis, the basic fact that emerges from applying this over-all model - which was developed to follow the trends of the economy as a whole - is the intolerable situation of the low-income urban group by the end of the 1970s, owing both to rapidly rising unemployment and to the income deficit which is growing at a cumulative annual rate of 28 per cent and cannot be covered. It is perhaps unnecessary to add that this analysis is simply an illustration, in somewhat hypothetical terms, of how serious matters will become if nothing is done to modify existing structural trends.

(d) Some characteristics of the distribution of household income in selected metropolitan areas ^{12/}

The previous paragraph dealt with the problem connected with the low-income urban population. There now follows a more detailed analysis of income distribution in metropolitan areas where, in general, although there are marked disparities, a higher absolute level is observable - even in the lowest strata - than in other regions. This is one of the basic elements of attraction of the great cities for the rural population and the smaller urban centres. Migration to the big cities reflects the expectation of concrete possibilities of better living conditions.

The general characteristics of household income distribution in some metropolitan areas (Rio de Janeiro, São Paulo, Santiago (Chile), San José (Costa Rica), the Federal District of Mexico and Caracas) are compared with those of national distribution patterns. The recipient categories are divided into five groups by increasing size of income: the poorest 20 per cent, the next 60 per cent split into two halves on either side of the median, the 15 per cent below the highest income group, and the top 5 per cent (see tables 20, 21 and 22).

^{12/} This section contains data and conclusions taken from an unpublished ECLA study comparing the distribution of income in some major Latin American cities.

Table 20
LATIN AMERICA: PERSONAL INCOME DISTRIBUTION IN SELECTED METROPOLITAN AREAS
(Percentages)

Income groups	Brazil (1961-1962) a/		Chile (1964) Greater Santiago	Costa Rica (1961) San José	Mexico (1957) Federal District	Venezuela (1962) Caracas	Over-all average
	Rio de Janeiro	Sao Paulo					
10	2.0	2.3	1.5	2.0	2.2	2.2	
10	3.0	3.5	2.8	3.0	3.1	3.5	
20		5.0	5.8	4.3	5.0	5.3	5.0
10	4.0	4.2	4.1	4.0	3.9	4.6	
10	5.0	5.1	4.2	5.0	4.8	5.8	
10	6.1	5.9	6.0	5.5	5.5	6.9	
30		15.1	15.2	14.3	14.5	14.2	14.8
10	7.6	7.0	7.6	6.8	6.3	7.8	
10	9.3	8.3	9.5	8.7	8.7	9.5	
10	12.3	10.9	12.1	10.0	11.7	12.0	
30		29.2	26.2	29.2	25.5	26.7	28.4
10	15.7	14.3	17.3	17.0	16.3	16.5	
10	35.0	38.5	34.3	30.0	37.5	31.2	27.5
Total	5	24.1	28.0	23.0	26.0	26.0	24.3
100	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Brazil: Getulio Vargas Foundation, Brazilian Institute of Economics, Pesquisa sobre orçamentos familiares, 1961-1962;
Chile: Universidad de Chile, Instituto de Economía, 1964, Demanda de bienes durables, Gran Santiago, June 1964, (Santiago, Chile, 1965);
Costa Rica: Carlos Quintana Ruiz, Análisis del ingreso familiar en el área metropolitana de San José (Universidad de Costa Rica, 1962);
Mexico, 1957: Statistical Office, Ingresos y egresos de la población de México mes de octubre de 1956 (México, 1950);
Venezuela: Statistical and Census Office, Primer encuesta nacional sobre ingresos y egresos familiares, documento 5, Caracas 1964.

Table 21
LATIN AMERICA: ESTIMATED INCOME DISTRIBUTION IN SELECTED COUNTRIES
(Percentages of total income)

Income Group	Brazil (1960) Earning population	Households ^{a/}				Average
		Chile (1965)	Costa Rica (1961)	Honduras (1965)	Venezuela (1962)	
10	1.5	1.2	2.6	1.5	1.4	
10	2.0	2.3	3.4	2.1	1.6	
20	3.0	3.5	3.8	3.1	3.0	3.1
10	3.5	4.1	4.0	3.8	3.7	
10	5.0	5.4	4.4	4.9	4.6	
30	11.5	12.5	12.2	11.8	11.3	10.3
10	6.5	6.5	5.4	6.0	6.0	
10	7.3	8.5	7.1	8.1	8.3	
10	9.7	10.7	9.3	12.0	13.4	
30	23.5	25.7	21.8	26.1	27.7	24.1
10	12.0	15.3	14.0	17.0	17.3	
10	49.5	43.0	46.0	41.5	40.7	
15	22.0	27.8	25.0	29.5	31.5	29.2
5	39.5	30.5	35.0	29.0	26.5	33.4

Sources: Brazil, Costa Rica, Honduras and Venezuela: ECLA, Economic Survey of Latin America, 1968.
Chile: Production Development Corporation (CORFO), Geografía Económica de Chile (first appendix), Santiago, Chile, 1966.

^{a/} Families equivalent to heads of households in housing censuses.

Table 22
LATIN AMERICA: ESTIMATED DISTRIBUTION OF AVERAGE PER CAPITA PERSONAL INCOME, BY INCOME GROUPS, 1965
(Dollars at 1962 prices)

Country and region	Personal income average per capita	Percent 20 per cent	Average income by groups					Top 5 per cent
			Lower 30 per cent	Upper 30 per cent	15 per cent below the top 5 per cent	Top 5 per cent		
Brazil	260	45	100	200	388	2 055	3 880	
Rio de Janeiro	805	200	405	780	1 425	3 880		
São Paulo	775	225	390	675	1 283	4 340		
Chile	480	65	200	410	890	2 930	3 035	
Greater Santiago	660	140	315	640	1 285	2 695	2 600	
Costa Rica	385	115	155	280	640	2 755	5 460	
San José	500	125	240	425	965	2 600		
Mexico	475	85	185	415	935	2 755	5 460	
Federal District	1 050	280	495	935	1 940	2 810	3 480	
Venezuela	530	80	200	490	1 115	2 810	3 480	
Caracas metropolitan area	870	250	500	870	1 617	2 870		
Norway ^{a/}	930	210	643	1 070	1 560	2 870		
United Kingdom ^{a/}	1 400	360	825	1 510	2 335	5 375		

^{a/} Tentative estimates based on incomplete data.

^{b/} The income levels for the European countries are for 1960. ECUA.

/The poorest

The poorest 20 per cent of the population receives an average of 5 per cent of total income in metropolitan areas, compared with 3.1 per cent in the whole country. Translated into absolute levels of average personal income, these percentages indicate a per capita income of 130 to 300 dollars, against national averages of 50 to 110 dollars. From an overall national standpoint, in spite of the wide range of situations, 90 per cent of this segment consists of workers engaged in primitive agricultural activities, and the remainder of unskilled or illiterate workers employed in personal services and construction in rural or minor urban localities. In metropolitan areas, on the other hand, this segment is much smaller and its influence does not seem to go beyond the first decile. At the same time, the share of agriculture is not only below 4 per cent of total employment in the cities considered (except San José), but it demonstrates greater efficiency than at the national level, in view of the high value of the land and the higher standard of education of urban population groups engaged in this activity.

In addition, the information for those cities would seem to indicate that, with the exception of some households which receive pensions and of workers in personal services, a considerable proportion of this category is made up of households headed by women. Moreover, there is a significant difference between the whole group of countries and the metropolitan areas as regards the functional structure of this group. At the national level, about 80 per cent of it is composed of workers engaged primarily in agriculture and services; in contrast, the employment of this group of persons in metropolitan areas is more varied. In Caracas, for example, the workers represent 60 per cent of this first 20 per cent, the remainder consisting, in almost equal proportions, of independent workers and modest workers in personal services;^{13/} in other cities - São Paulo or Greater

^{13/} Universidad Central de Venezuela, "Estratificación social y familia", Estudio de Caracas, vol. IV.

Santiago - the employees represent an even smaller proportion, since there are more retired persons with old age and other pensions.

In the next 30 per cent, the structure is seen to be appreciably different. In countries like Brazil, Costa Rica and Mexico, the agricultural population, although on a lesser scale than in the composition of the first 20 per cent, continues to exercise a virtually determining influence. A little over half of its members come from agriculture, and the rest are engaged in construction, the traditional industries - especially textiles - and services. In contrast, in the other countries considered the proportions are reversed in favour of the last mentioned sectors. The share of this 30 per cent ranges from 11 to 12.5 per cent of total income and, in terms of average absolute income, from 100 dollars (Brazil) to 200 dollars (Chile and Venezuela). In the metropolitan areas, on the other hand, this group receives a larger share of income, owing to the fact that the primitive sector has almost no influence, and that its operational structure is more diversified. Therefore, its share in metropolitan income is higher and shows greater disparities between the different cities; it ranges from 14.2 to 17.3 per cent, which means an average personal income which fluctuates around the average total for the region, i.e., between 240 and 500 dollars.

In the upper half of income distribution, at the national level, the influence of rural areas is substantially smaller, owing to the predominantly urban nature of the population. Thus, from the functional standpoint and considering the national total - with the proportions varying according to the country - this segment includes medium-scale entrepreneurs in farming and certain unspecified services; skilled workers in traditional industries and on large farms; and a high proportion of office workers and independent workers, mainly salesmen and persons engaged in similar activities. The structure is quite different in the large cities, where the basic nucleus of this category consists of medium-level public and private employees, and also skilled and organized workers in enterprises of a certain size, some medium-scale farmers (residing in the city) and a small fraction of professionals, technicians

/and similar

and similar types of workers in the top third of the scale. This group's share of income varies little between the different cities concerned, fluctuating in relative terms between 25.5 and 29.3 per cent of total income, which, expressed in absolute terms, means from 400 to 900 dollars per head.

An analysis at the national level of the structure of the next 15 per cent below the top stratum shows that not more than 6 per cent of them are workers. They are skilled urban groups engaged in large-scale enterprises, particularly those controlled by the Government or foreign capital (mining, electric power, transport and communications). Most of this category (with some variations in Brazil and Costa Rica) comprises executive employees and professional staff, and some medium-scale owner-entrepreneurs in industry and services. As will be noted, this 15 per cent of the population is composed mainly of skilled groups, generally engaged in efficient activities associated or integrated with the modern sector. Therefore, their share of income depends on the scale of employment in this sector and on the degree to which it affects the remuneration of the groups near the peak of the income distribution scale.

This category's position in the income scale in the major cities is similar to that observable at the country level. The data on Caracas, for example, indicate that the workers' representation is practically nil in this group, which consists almost exclusively of medium-scale owners and managers of agricultural, industrial and tertiary activities, senior employees in important enterprises and a certain category of professionals. These are groups which possess capital and skill, both relatively scarce resources in developing regions for which compensation is generally in accordance with international standards. Their share in income in the countries reviewed ranges from 25 to 29 per cent of the total.

This pattern of the employment structure in the economic and social categories reaches its peak in the top 5 per cent of income distribution. In the countries considered, the members of this top category are essentially senior professionals, the high echelons in the

/public and

public and private sector, managers and administrators of large-scale enterprises, and a small proportion of retired persons with old age and other pensions and private incomes. In addition, and by way of exception, there is an insignificant fraction (0.1 to 0.6 per cent) of highly skilled urban élite of workers engaged in important public or foreign enterprises, whose remuneration is determined essentially by institutional factors. The functional structure of this group does not vary as a whole from country to country or between one city and another, although it does vary as regards the proportion of its members. The data for the years 1964-1965 show that in Mexico this group comprised 25.4 per cent of the owners and managers, 31 per cent of the professionals and technical experts, either salaried or independent, and 1 per cent of the persons living on pensions.

As can be noted, access to this category is not exclusive. It includes high-level wage or salary earning groups or independents (senior professionals and executive employees) on the one hand, and important owner-entrepreneurs who tend to be concentrated in its highest strata.

Notwithstanding the variations in the proportion of each group in the top 5 per cent, all the members of this category belong to the modern sector of the economy in the countries and cities concerned, and their share depends on the size of this sector, so that the smaller it is the more income is concentrated in it.

In conclusion, income distribution in the major cities is generally less unequal than in the whole country. This is due, above all, to the smaller size of the primitive sector, which accounts for the lower strata's larger share of income, and to the "administrative" character of the big cities, since the concentration of employees, professionals and technicians helps to swell the middle-income strata.

4. Some conclusions

(a) The first - and perhaps the most important - point that should be clarified concerns the significance and, to some extent, the social cost/benefit ratio of urbanization. In this connexion, it could be hazarded, as a preliminary guess, that the concentration of resources in a metropolitan area would be both a pre-condition for the expansion and diversification of the structure of the economy, and an "optimum" allocation from the point of view of the over-all growth rate, as it would provide a means of deriving maximum benefit from external economies. Secondly, it could equally well be assumed that the growth and consolidation of the central development nucleus would transform it into a dynamic element promoting the development of the rest of the economy. In that event, there would not properly speaking be a regional development problem requiring the adoption of specific policies designed to overcome it, but merely a lack of synchronization between the time needed to build up the metropolitan area and the time required for it to make its influence felt in the rest of the system, in a process that in time would lead spontaneously to the integration and greater unification of the national economy.

Several features of the Latin American experience appear to suggest that the first aspect is bound up with specific stages of growth, while there are serious doubts as to the validity of the second aspect.

It is true that, throughout a specific stage, a form of polarized development represents an economically justified allocation of resources and is an important step forward from the point of view of the prospects for improving the levels of living of the population, but it is no less true that these advantages will only persist given two conditions: (i) that the productive worth of the resources invested in the most advanced poles should be greater than the productivity that would accrue in new or backward areas, and (ii) that there should be a clear capacity to energize the rest of the system and to absorb a growing proportion of the population at sufficiently high income and productivity levels. Hence, the content of a regional policy cannot be defined without regard to the practical stage of development through which the region is passing, which means, in other words, that the variety of national situations that characterize the Latin American situation may call into doubt the validity of any generalization at the Latin American level.

/(b) In

(b) In actual fact, the urbanization process is being carried out notwithstanding measures to promote decentralization. Moreover, in countries where there is a more or less balanced set of urban centres, there is a tendency for the process to be concentrated in a large urban area of national significance. This fact appears to have been determined at the demographic level by the better living conditions offered in the metropolitan area compared with conditions prevailing in the poor rural areas (in particular, higher income levels and access to urban facilities); and at the economic level, mainly by the favourable results of profitability studies for the establishment of enterprises in those areas, owing to the possibility of utilizing external economies and other indirect subsidies received from the State.

(c) The lack of checks on the growth of metropolitan areas has caused a decline in urban living conditions and has made huge investments necessary to permit the smooth running of activities in those areas and to remedy deficiencies provoked by the same lack of checks. At the same time, excessively high and uncontrolled land values in the metropolitan area have caused the cost of urbanization to soar to unprecedented levels.

(d) It would appear that the large urban centres absorb resources from the periphery, and this process appears to be dictated, among other things, by the effects of the terms of trade and the provision of a variety of services. In the case on which data are available, it is shown that the metropolitan area absorbs resources generated in the rich agricultural areas and, to a much smaller extent, subsidies to the poorer areas.

(e) The analysis of income distribution in certain large towns as compared with whole countries in Latin America shows that, for the same deciles, income levels are higher in the large towns than in the rest of the country. This is due mainly to the non-existence of a primitive rural sector. If account is also taken of the possibility of utilizing a large number of urban facilities, it can be seen that migration to large towns is not dictated by haphazard personal motives but is based on access to better living conditions (always compared with the underprivileged rural

/population strata).

population strata). However, in a projection of trends until the end of the decade, it will be seen that, given the persistence of current trends - and, particularly, the high rate of migration from the countryside to the towns together with the low capacity of towns to absorb labour at acceptable productivity levels - the situation of the low-income urban population would become intolerable, owing to the excessive growth of unemployment and the enormous income deficit.

