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August 1979

Notes and explanation of symbols

The following symbols are used in tables in the *Review*:

Three dots (...) indicate that data are not available or are not separately reported.

A dash (—) indicates that the amount is nil or negligible.

A blank space in a table means that the item in question is not applicable.

A minus sign (—) indicates a deficit or decrease, unless otherwise specified.

A point (.) is used to indicate decimals.

A slash (/) indicates a crop year or fiscal year, e.g., 1970/1971.

Use of a hyphen (-) between years, e.g., 1971-1973, indicates reference to the complete number of calendar years involved, including the beginning and end years.

References to "tons" mean metric tons, and to "dollars", United States dollars, unless otherwise stated.

Unless otherwise stated, references to annual rates of growth or variation signify compound annual rates.

Individual figures and percentages in tables may not necessarily add up to the corresponding totals, because of rounding.

The future of the international railways of South America. A historical approach

*Robert T. Brown**

In the closing decades of the last century and the first decades of the present century railways were regarded as an ideal means of linking the countries of America economically. Clear evidence of this aspiration is provided by the attempts —pursued over many years, but finally frustrated— to build a Pan-American Railway to link North, Central and South America, and the efforts of the Farquhar group to consolidate and link together railways in the southern part of the continent on the basis of control of the Brazil Railway Company.

After noting these pioneering attempts the author analyses the most important international railway section in South America, and the role played by Governments in their construction. The financial procedures used for the construction of the railways varied greatly — at the expense and risk of capitalists from outside the continent, by concession holders from outside the continent who were given incentives by Latin American Governments, by individual Governments themselves, and so on — but in almost all cases substantial public support was given to these enterprises.

Nevertheless, errors in administration, such as poor commercial and operational co-ordination among the countries, and external dependence in respect of the most important decisions, seriously hampered the use of this expensive infrastructure. Some of these problems still persist, and it is urgently necessary to overcome them to ensure that railways can play their proper role in rapidly expanding Latin American trade. This has been the objective of the Latin American Railways Association (ALAF) since its establishment in 1964.

*Director of the CEPAL Transport and Communications Division.

Introduction*

In 1964 I had an opportunity to devote a year to studying transport and its role in the economic integration of South America.¹ This research was carried out taking the continent as a single area in order to identify —through an analysis of the distribution of population and resources, and physical barriers— the needs of transport as a factor in integration. During my work I was struck by the fact that in the Southern Cone there were more than a dozen international rail connexions. Among the routes I only then learned about, I discovered the one which links the port of Antofagasta on the Pacific with Santos on the Atlantic. At that moment I decided to make the journey by train from ocean to ocean as soon as possible. Nine years later, in 1973, the dream materialized when, with colleagues from the CEPAL Transport Division, I accompanied two copper wagons from Antofagasta to São Paulo. The copper was transported without any transshipments, and the wagons were not opened once over the entire journey of 4,216 km.² The stamps affixed by the Chilean customs at the beginning of the journey are at present exhibited in the office of the Central Secretariat of ALAF in Buenos Aires.

In addition to my surprise at learning, in 1964, that there were at least 13 international rail connexions in South America, I was astonished to see how little some of them were used. With annual traffic of only 50,000 or 100,000 tons, an international railway cannot run economically, and its very existence may be difficult to justify. What is the explanation for the failure to make use of this physical infrastructure? If one proceeds from the premise that, at some moment in the past,

*Paper prepared for the Seminar on International Rail Transport held in the Centro de Estudios Superiores de the Spanish National Railway Network (RENFE) in Madrid, Spain, between 4 November and 7 December 1978.

¹See Robert T. Brown, *Transport and the Economic Integration of South America* (Washington, The Brookings Institution, 1966).

²See "Servicios de transporte terrestre internacional en los corredores Lima-Buenos Aires y Lima-São Paulo" (E/CEPAL/1007), pp. 249-289.

someone realized how useful these connexions would be, and was prepared to make the necessary investment for their construction, is the present low rate of use of the international sections due to loss of the visionary thrust of the builders? Or have conditions changed, leaving infrastructure suitable for another age now obsolete?

In 1964 I was unable to pursue by inquiries in the search for an answer to these questions; but now, in preparing this paper, I have had an opportunity to return to them. In this research I examined the efforts, dating back 100 years, to construct international railways in South America, and I attempted to recapture the vision of their promoters and to determine whether as time has passed we have lost something fundamental, which might perhaps guide us in an age when international railways are facing ever-greater challenges. In the first place, I followed up an idea which arose in the last century, that of a Pan-American Railway which would link the United States and South America, and the attempts of the United States promoter Percival Farquhar, at the beginning of the present century, to integrate within a single railway system the networks in southern Brazil and Argentina, Uruguay, Paraguay, Bolivia and Chile. I then examined the initiatives which led to each of the international sections which now exist.

The results of this research, which I shall

endeavour to outline here, were a surprise to me. Briefly, my conclusions are:

a) Although there were persons outside South America who had a broad vision of the role which an extensive network of international railways could play in the region, their activities led only to the construction of international sections which would have been constructed even without their intervention.

b) It was the South American governments which, with a clear perception of the value of economic co-operation among the countries of the region, stimulated and bore the risk of the creation of these international links, although foreign technology and capital—which was mainly European in origin, and which in turn was partly used to purchase equipment and components manufactured in Europe—made their construction possible.

c) Nevertheless, these same governments, after making major sacrifices to create this physical infrastructure, failed to ensure that appropriate measures were taken to guarantee commercial and operational co-ordination which make it possible to obtain the expected benefits. As will be seen below, even the very promoters who perceived the importance of instituting such co-ordination, and who for a time controlled the entire management of various international sections, were unable to achieve this objective fully.

I

The Pan-American Railway

For more than half a century the idea of a Pan-American Railway linking North, Central and South America was of particular attraction within the inter-American system and in professional engineering circles in the three Americas. The intellectual inspiration came from the United States, but the idea met with support throughout the continent.

There is evidence of independent, but almost simultaneous initiatives by three United States diplomats who urged the construction of a railway which, starting in the southern United States, would continue through Central

America and the Pacific countries of South America, terminating in the Southern Cone. Between 1870 and 1873, both Francis Thomas, United States Minister in Peru, and J. T. Root, Minister of Chile, proposed this major enterprise to the State Department. The latter used the following words:

"This railway will open the way to progress for American enterprise trade and manufactures, and in a multitude of ways would be of the greatest financial benefit to the United States, without considering the important and noble objective pursued, namely the

peaceful settlement of the constant civil tumults and disputes which have always existed in the past..."³

However, the best-known of all these initiatives was that of Hinton Rowan Helper, who was United States consul in Buenos Aires between 1862 and 1866. It was he who had the idea of an intercontinental railway when suffering from terrible seasickness in the sailing ship carrying him back to New York at the end of his stay in Argentina. In 1879 Helper popularized the idea in his *Oddments of Andean Diplomacy and Other Oddments*, followed in 1881 by *The Three Americas Railways*, which contains the prize-winning essays and poems from an international contest he sponsored on the subject. In his first work Helper wrote:

"The dwellers in those countries have millions of square miles of fertile lands and precious metals and tropical forests and fruits, and other sources of inexhaustible wealth, the true values of all of which we shall help them to develop, in a cheerful spirit of ready amenability to the great commercial law of demand and supply; and, on the other hand, we shall sell to them at handsomely remunerative profits to ourselves, tens of thousands of carloads of our surplus manufactures and our other merchantable products, which, while fitly affording them all promised gratification, will constantly create within them a craving for still newer and better things, and will thereby, for the first time in their lives, awaken within them the exquisite delights of self-regulated and rightful unrest, activity and achievement."⁴

Helper's ideas fell on fertile ground in the United States, since at that time, when the construction of railways was proceeding at the fastest rate in United States history, the role that railways played in the development of a country was generally recognized. The wish of some circles in the United States to use the construction of a Pan-American Railway to destroy European domination of Latin Ameri-

can markets, which was to a substantial extent due to British control of shipping routes, seems rather unrealistic today if one considers the distances which have to be covered. Nevertheless, bearing in mind the prestige achieved at that time by railways as an instrument of political and economic integration, it is not surprising that the first International Conference of American States, which met in Washington from October 1889 to April 1890, agreed:

"First. That a railroad connecting all or the majority of the nations represented in this Conference will contribute greatly to the development of cordial relations between said nations and to the growth of their material interest.

"Second. That the best way to facilitate its realization is the appointment of an International Commission of Engineers to ascertain the possible routes, to determine their true length, to estimate the cost of each, and to compare their respective advantages...

"Fifth. That the railroad, in so far as the common interest will permit, should connect the principal cities lying in the vicinity of its route.

"Twelfth. That the realization of an undertaking of such magnitude deserves to be encouraged by means of subsidies, land concessions or guarantees of a certain minimum interest."⁵

Reaction to the Conference's proposal was immediate, and the United States Congress voted an appropriation of US\$ 65,000; still more importantly, it authorized the President to include officers from the army and navy in groups to survey the itinerary of the proposed railway. In 1890 the International Commission of Engineers met for the first time, and in the following year three survey teams were dispatched to Central and South America. The results and recommendations of the teams were published in six volumes in 1899.⁶

The route selected by the Commission followed that proposed in the resolution adopted by the first Interantional Conference of American States. Beginning in Ayutla, on

³Translated from Santiago Marín Vicuña, *Sobre Ferrovías Internacionales*, (Santiago, Chile, Cervantes, 1928), p. 6.

⁴Rowan Hinton Helper, *Oddments of Andean Diplomacy and Other Oddmenst*, (St. Louis, W.S. Bryan, 1879), p. 15.

⁵Luis Ernesto Denegri, *El Ferrocarril Pan-Americano* (Lima, Torres Aguirre, 1928), pp. 3-4.

⁶John Anthony Caruso, "The Pan American Railway", *The Hispanic American Historical Review*, (Durham, N.C.), vol. XXXI, N.º 4 (November 1951).

the border between Mexico and Guatemala, the route crossed Central America and continued through Colombia, Ecuador, Peru and Bolivia, terminating in La Quiaca, on the border between Bolivia and Argentina (see map). In general, it made use of the already existing railways, and connected the main centres of population in the Andean region, but the route had the drawback of running parallel to the Pacific Coast, in addition to requiring engineering works in the Andean chain. Concerning this route, Charles M. Pepper, a fervent advocate of the intercontinental railway, wrote in his 1904 report presented to the United States Congress by President Theodore Roosevelt:

"It will arrive in Quito, the start of the road which, in the time of the Incas, linked Quito to Cuzco, the Imperial City, 1,900 miles away. Leaving Quito behind, the traveller will skirt the base of the gigantic Chimborazo, then climb its side to a height of 12,000 feet, as if climbing a mountainous ladder step by step, since these transverse masses known as *nudos* are the characteristic features of the Andes in Ecuador. He will enter Peru by the Sabanilla Pass, crossing and recrossing from the Pacific to the Atlantic slope, between precipices and glaciers at an altitude of 13,000 or 14,000 feet, until he arrives in the mining area of Cerro de Pasco at 14,300 feet, one of the highest human settlements in the world, from whence, alternately rising and descending, he will arrive in Cuzco, the old Inca capital, at an altitude of 11,000 feet, and will continue onwards, by a relatively flat route, to Puno, on Lake Titicaca, at 12,540 feet."⁷

This description was to cause concern to

anyone interested in financing the operations. In the words of the Peruvian engineer Luis Ernesto Denegri, who argued in favour of the original route at the Sixth International Conference of American States, held in Havana in 1928:

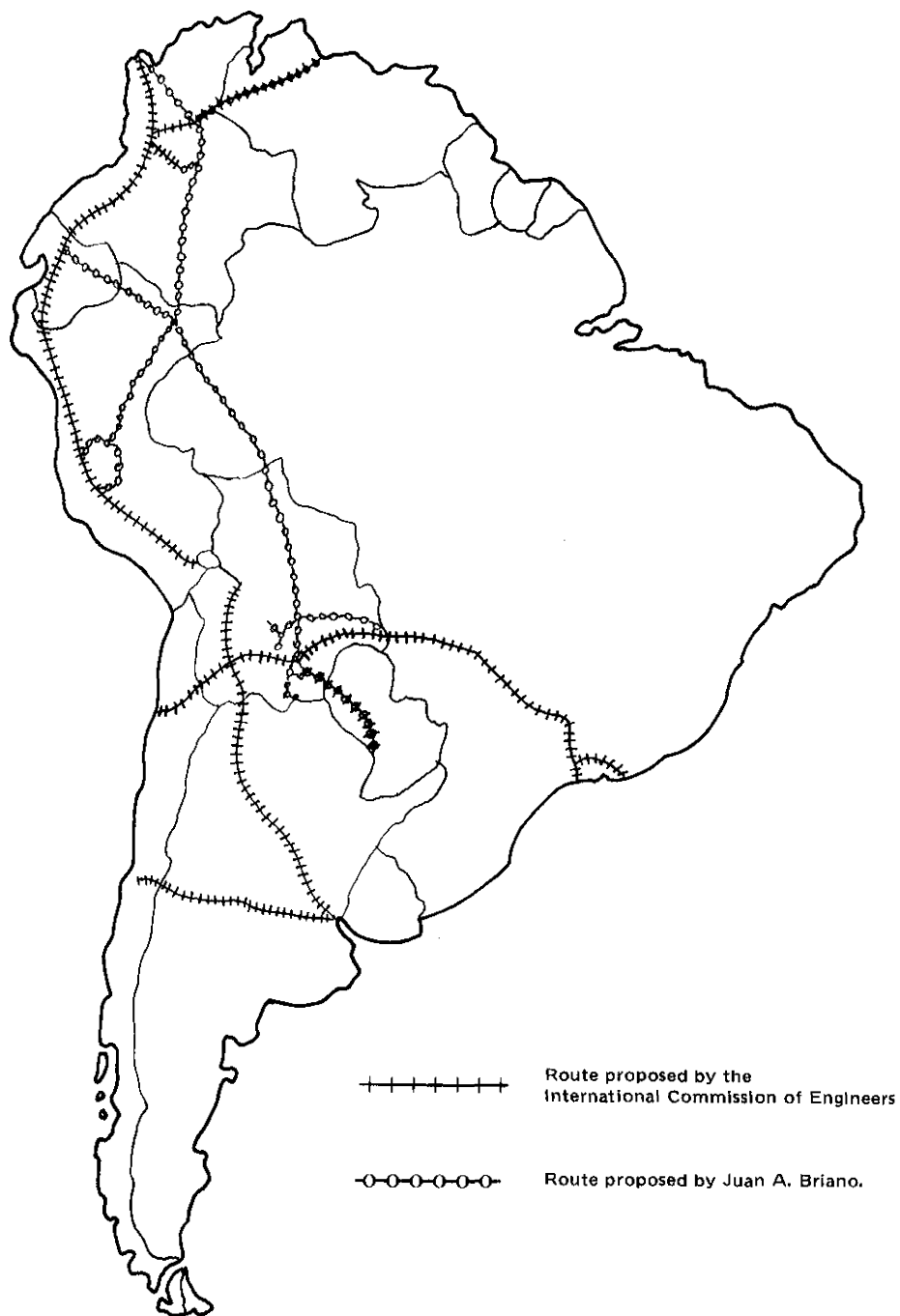
"Reading Mr. Pepper's dantesque description, one would think that the Pan-American Railway had been planned not by men desirous of linking peoples together, but by demons anxious to lead us by railway up hill and down dale, shivering from the proximity of the eternal snows and the lashes of icy winds, and at every instant having the terrifying vision of imminent avalanches and fathomless precipices in which it appears impossible not to fall; anxious, I repeat, to lead us to the highest altitudes on earth, only to hurl us to the abyss, yawning below like some new hell, where we are to atone for a new sin."⁸

The Second International Conference of American States, held in Mexico in 1903, endorsed the resolution adopted by the First Conference, and also set up a Standing Committee. Discussion of the subject continued, both in this Committee and at succeeding inter-American conferences, up to the 1930s. Nevertheless, it became increasingly evident that the railway was never going to be built, despite the efforts of the Argentine engineer Juan A. Briano, from 1919 onwards, to shift the route towards the interior of the continent (see map). The Pan-American Railway remained the dream of a few romantic diplomats and engineers, and 50 years of activity failed to materialize in the form of the construction of a single kilometre.

⁷Translated from Santiago Marín Vicuña, *Política ferroviaria de la América* (Santiago, Chile, Imprenta Universitaria, 1927), p. 32.

⁸Denegri, *op. cit.*, p. 103.

ROUTES PROPOSED FOR THE PAN-AMERICAN RAILWAY



II The Farquhar group

One of the most fascinating episodes in the history of Latin American railways is made up of the efforts of a group of United States and Canadian promoters, led by Percival Farquhar, between 1906 and 1913, to consolidate a railway system in southern Brazil and extend it to Argentina, Uruguay, Paraguay, Bolivia and Chile. Financing was carried out through the London capital market, but the capital itself originated mainly with French and Belgian investors. This episode helps us to gain an idea of the view held by foreigners on the role of railways in the development of South America at the beginning of the present century.

Percival Farquhar arrived in Rio de Janeiro in 1905, after building railways in Cuba and Central America. He was struck by the fact that the railway system in Brazil consisted of unconnected lines to ports, without adequate connexions one to another in a north-south direction. He pointed out that, by consolidating the lines in southern Brazil into a single system, he could apply the model of the Canadian Pacific railway in Canada, which had already been tested with success, since a number of the railway concessions also included huge concessions of land which Farquhar considered suitable for settlement.⁹

In November 1906, Farquhar set up the Brazil Railway Company in Portland, Maine, as a holding company which eventually controlled 38 other companies.¹⁰ One of Farquhar's first acts was to use his new company to purchase the Joaquim Catramby concession in order to build the Madeira-Mamoré railway, an international railway on the border between Brazil and Bolivia which would solve the problem of the rapids which made navigation impossible on the river Mamoré.¹¹

Construction of this railway lasted from

1907 to 1913, and cost US\$ 33 million at that time (equivalent to about US\$ 250 million today), or about US\$ 90,000 per kilometre. The work, in one of the most dangerous Amazonian areas, cost the lives of 3,600 men, and only by annually engaging more than 8,000 workers was it possible to maintain a work force of 2,700.¹² It was this successful and dramatic effort which firmly established Farquhar's reputation in South America.

However, of greater interest to us are his activities in the far south of Brazil. In 1906 Farquhar paid US\$ 1 million for 94% of the shares in the São Paulo-Rio Grande railway, which at that time was still incomplete and would not produce any return for a long time to come. It ran northwards from Ponta Grossa in Paraná to the border of São Paulo State, near Itararé, and southwards to União da Vitória on the river Iguaçu, crossing it by what was at that time the longest bridge in Brazil to reach Porto União, in Santa Catarina State. The railway ended there, but there were concessions to extend the line southwards, across the unpopulated forests of Santa Catarina to the town of Marcelino Ramos on the river Uruguay. Of greatest interest to Farquhar was the land concession held by the railway in Paraná and Santa Catarina, totalling 2.4 million hectares, and he immediately began the extension of railway, reaching Marcelino Ramos in 1910.¹³

In 1907 Farquhar leased from São Paulo State, for 60 years, the Sorocabana railway, more than 1,000 kilometres long, thus obtaining a direct line to São Paulo. In 1908 he gained control of two railways competing with the Sorocabana: 27% of the Companhia Mogiana de Estradas de Ferro e Navegação (1,180 km), and 38% of the Companhia Paulista de Vias Férreas e Fluviais (925 km). In 1910 he added to his Brazil Railway Company the Paraná railway, which ran from Ponta Grossa through

⁹Charles A. Gauld, "The Last Titan: Percival Farquhar, American Entrepreneur in Latin America", *Hispanic American Report* (Stanford University, California), special issue, 1964, pp. 161-167.

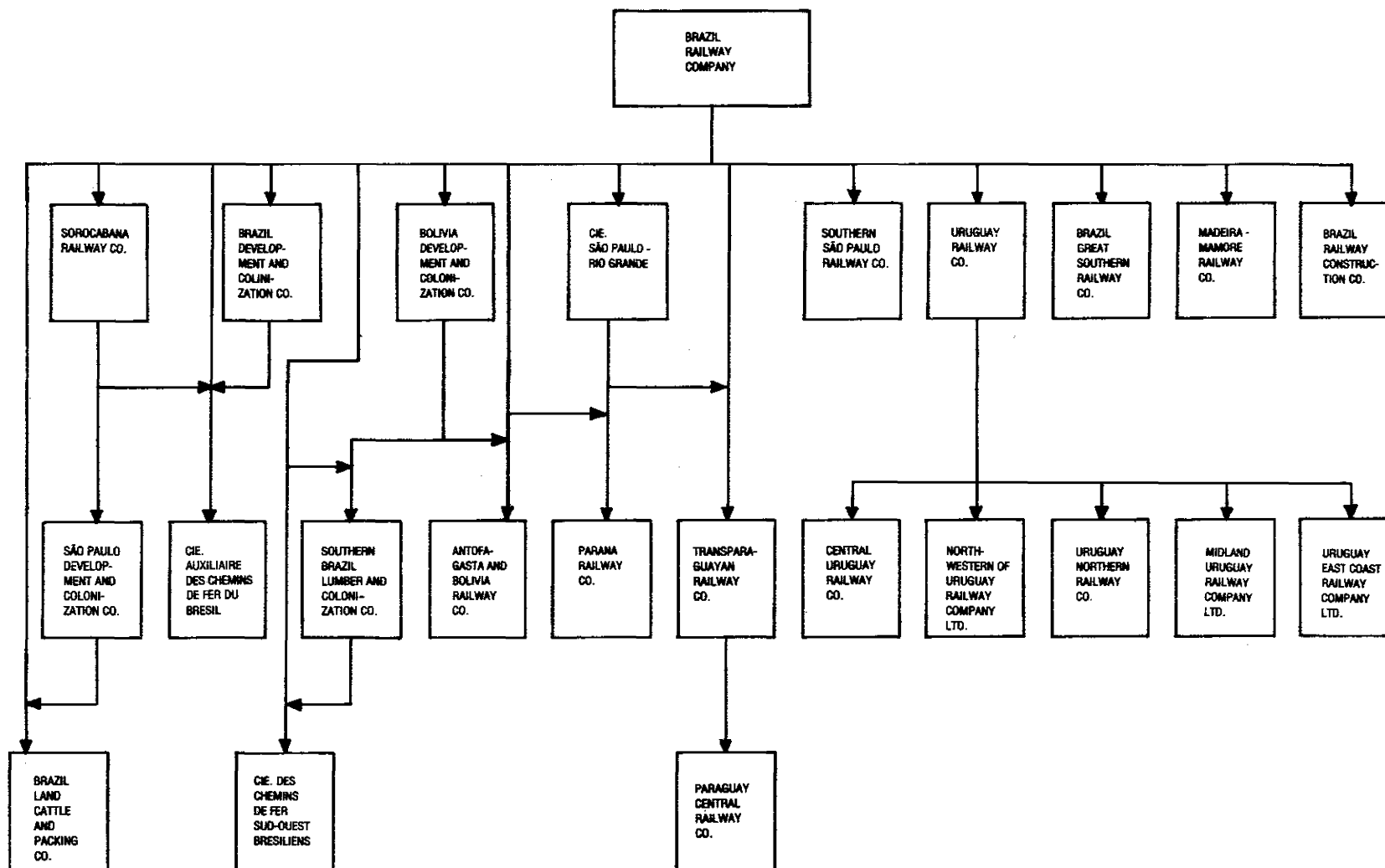
¹⁰*Ibid.*, p. 233.

¹¹*Ibid.*, p. 126.

¹²*Ibid.*, pp. 132 and 145.

¹³*Ibid.*, p. 166.

LINKS BETWEEN THE BRAZIL RAILWAY COMPANY AND COMPANIES IT DIRECTLY OR INDIRECTLY CONTROLLED OR INFLUENCED, IN 1915



Source: Frederick A. Molitor, *Report on the Railway Properties in Southern Brazil leased, owned or controlled by the Brazil Railway Company* (New York, John Ward and Son, 1915).

Curitiba to the port of Paranaguá, the Dona Teresa Cristina railway, the Norte do Paraná Railway and the Sul de São Paulo railway.¹⁴

Also in 1910, Farquhar purchased more than 70% of the shares, and thus gained control, of the 2,100 km system belonging to the Compagnie Auxiliaire des Chemins de Fer du Brésil which served the State of Rio Grande do Sul. This railway connected with the São Paulo-Rio Grande railway at Marcelino Ramos, and had already extended its lines up to Uruguaiana, on the border between Argentina and Brazil. As a result of the construction and consolidation of lines in Brazil, including the new line to the border with Uruguay, a direct service between São Paulo and Montevideo was begun in 1913.¹⁵

His success in Brazil induced Farquhar to look towards the neighbouring countries. In 1912 he set up the Argentina Railway Company, which also had its headquarters in the State of Maine. This new company offered US\$ 70 million to the Government of Argentina for the acquisition of the State railways, but the Government demanded US\$ 100 million, together with an undertaking to standardize the gauge of all the lines. Although Farquhar did not succeed in reaching agreement, the Argentine Government supported his idea of centralizing control of the railways north of Mesopotamia. Farquhar immediately gained control of the Ferrocarril Entre Ríos, the Ferrocarril Noreste de Argentina, and the Ferrocarril Rosario y Puerto Belgrano, which he consolidated with the Ferrocarril Central Córdoba.¹⁶

Despite this success, there were heated protests in Argentina at this interference in the national railways by the United States promoter, and the reaction was not limited to Argentina, but was substantial in Brazil also. This was partly due to Farquhar's acquisition of control of the Ferrocarril Central del Uruguay, which gave him a line between Montevideo and the border towns of Rivera and

Livramento. Meanwhile, in London Farquhar gained control of the Ferrocarril Central de Paraguay, which was still being built between Asunción and Encarnación.¹⁷ In 1912, at the climax of his efforts to consolidate the railways in the Southern Cone, he acquired a large share in the Antofagasta to Bolivia railway through his Bolivia Railway Company. His aim at that moment was to extend a new line across Paraguay in order to build a transcontinental railway. Nevertheless, the following year he sold his shares at a very substantial loss.¹⁸

Farquhar did not restrict himself to buying railway concessions and lines to consolidate an international system: following the successful model used in Canada, he also sought to settle the land along his railways in order to generate demand for freight which would make them pay.

For this reason, he had great interest in the land included in the railway concessions in Brazil, and on the basis of such concessions established colonization companies. These companies developed the areas with greatest economic potential, selling land to colonists from Europe and other parts of Brazil. As a complement to development based on settlement in Brazil and Paraguay, Farquhar saw the potential of livestock raising and the timber industry. In 1910 and 1911, Farquhar opened large sawmills in Brazil to process Paraná pine destined for the markets of São Paulo, Montevideo and Buenos Aires, while in 1912 he constructed the first meat packing plant in Osasco, some 10 km from São Paulo on the Sorocabana railway. In Paraguay, through such companies as the Paraguay Land and Cattle Co., and the Compañía Industrial Paraguaya, Farquhar obtained huge stretches of land, about 5 million hectares, and set up meat packing plants.¹⁹

By the end of 1912, Farquhar controlled an enormous empire of railways, ports and land.²⁰ In Brazil alone he estimated that he

¹⁴*Ibid.*, pp. 172-176.

¹⁵*Ibid.*, p. 178.

¹⁶Simon G. Hanson, "The Farquhar Syndicate in South America", *The Hispanic American Historical Review*, (Durham, N.C.), vol. XVII, N.º 3 (August 1937), p. 321.

¹⁷Gauld, *op. cit.*, pp. 239-241.

¹⁸Hanson, *op. cit.*, p. 323.

¹⁹Gauld, *op. cit.*, pp. 209-221.

²⁰The diagram reproduced below indicates the complex financial structure which still existed in 1915.

had invested about £ 45 million,²¹ which, taking into account inflation between 1912 and 1978, would amount to some US\$ 1,700 million today. Even so, the Brazil Railway Company was seriously underfinanced, because of the losses inevitably incurred by the subsidiary companies in livestock raising, land settlement and timber, which required a long gestation period. Keeping the empire going was possible only through new infusions of capital, but the capital market in Europe on the eve of the first world war was not favourable. Farquhar himself was speculating in shares in the Brazil Railway Company, and at the beginning of

1913 realized that he was personally ruined.²² Furthermore, the Brazil Railway Company, the owner and operator of a rail system covering more than 4,300 km, with an interest in a further 2,400 km, had largely been financed through the sale of bonds instead of shares; in 1914 it could not pay the interest on them, and passed into the hands of a receiver from the State of Maine.²³ Farquhar's empire had collapsed, and with it disappeared too the possibility of realizing the dream of an integrated railway system in the Southern Cone of America.

III Identification of the international railways

It is clear, from this summary of the experience of the promoters of a Pan-American Railway and the effort of Percival Farquhar to consolidate an international railway system, that despite the emphasis of these men on integration, these episodes led only to the construction of connexions which would have been built in any case. Although foreign capital was frequently indispensable, and although the example of railways as driving forces of development in other continents had served as an inspiration, the thrust in favour of the construction of international railways did not come from outside the continent, but from within the South American countries themselves.

Before exploring in greater detail the role of South American governments in the construction of the international railways, it is necessary to identify the sections which can be considered as genuine international railways. Thus, for example, although a railway exists between Valparaíso and Buenos Aires, the sections between Valparaíso and Los Andes, and between Buenos Aires and Mendoza, were built for the purpose of national integration. In the case of the section between Buenos Aires and

Mendoza, one of its objectives was to direct towards the ports of Buenos Aires and the Paraná river the trade which previously used Pacific ports.²⁴ This does not mean that the governments did not have such a vivid awareness of the role of international railways as foreign diplomats, engineers and promoters, but merely that the railway would have been built to Mendoza in any case, even if it had been impossible to extend the line into Chile.

Accordingly, identifying the international railways is not easy, since the criterion used is not whether they are used for international traffic or not, but the reason for which specific sections were constructed. Even in the apparently very clear case of the railway between Tacna, Peru and Arica, Chile, from this point of view it is not an international railway, since both towns belonged to Peru when the railway was completed in 1856, and it was not converted into an international route until 1929, when the border between the two countries was fixed between these two localities.

The table below shows the 13 border connexions which will be examined in this study; it also attempts to identify the sections built largely in order to provide an international

²¹Hanson, *op. cit.*, p. 319.

²²Gauld, *op. cit.*, pp. 247-248.

²³*Ibid.*, pp. 255 and 263.

²⁴Eduardo A. Zalduendo, *Libras y rieles* (Buenos Aires, El Coloquio, 1975), p. 352.

INTERNATIONAL RAIL SECTIONS

Countries	Border connexion	International section	Distance to border (km)	International line	Distance to border (km)
Chile	Ollagüe	Antofagasta	439	Antofagasta	439
Bolivia	Frontera	Uyuni	175	La Paz	734
			614		1 173
Peru	Puno	Juliaca-Guaqui	252 ^a	Matarani-Guaqui	728
Bolivia	Guaqui	Guaqui-La Paz	107	Guaqui-La Paz	107
			359		835
Chile	Caracoles	Los Andes	71	Valparaiso	211 ^b
Argentina	Las Cuevas	Mendoza	185	Buenos Aires	1 239 ^b
			256		1 450
Argentina	Paso de Los Libres	Monte Caseros	98	Buenos Aires	716 ^c
Brazil	Uruguaiana	Cacequí	261	Rio de Janeiro	2 659 ^d
			359		3 375
Brazil	Livramento	Entroncamento	156	Rio de Janeiro	2 559 ^d
Uruguay	Rivera	Tacuarembó	118	Montevideo	555
			274		3 114
Chile	Visviri	Arica	206	Arica	206
Bolivia	Charaña	Viacha	210	La Paz	252
			416		458
Argentina	Posada	Paso de Los Libres	347	Buenos Aires	1 062 ^c
Paraguay	Encarnación	Asunción	376	Asunción	376
			723		1 438
Argentina	La Quiaca	Jujuy	284	Buenos Aires	1 797 ^e
Bolivia	Villazón	Atocha	196	La Paz	848
			480		2 645
Brazil	Jaguarão	Basilio	114	Rio de Janeiro	2 869 ^d
Uruguay	Rio Branco	Treinta y Tres	123	Montevideo	460
			237		3 329
Chile	Socompa	Augusta Victoria	181	Antofagasta	334
Argentina	Socompa	Salta	571	Salta	571
			752		905
Brazil	Corumbá	Campo Grande	514	Santos	1 824
Bolivia	Puerto Suárez	Santa Cruz	651	Santa Cruz	651
			1 165		2 475
Argentina	Pocitos	Embarcación	145	Buenos Aires	1 849
Bolivia	Yacuiba	Santa Cruz	539	Santa Cruz	539
			684		2 388
Uruguay	Salto	Salto	13	Montevideo	594
Argentina	Concordia	Concordia	10 ^f		
Paraguay				Asunción	1 009
			23		1 603

^aIncludes 204 km. of lake crossing between Puno and Guaqui.

^bVia the 1.676 m. gauge San Martin railway between Mendoza and Buenos Aires. By the 1 m. gauge Belgrano railway the distance is 1.636 km.

^cIncludes a 67.8 km. ferry crossing to Zárate. When the bridge for rail traffic is open the distance will be shorter.

^dVia Marcelino Ramos.

^eBy the 1.676 m. line between Tucumán and Buenos Aires. By the 1 m gauge line the distance is 2.119 km.

^fEstimated distance.

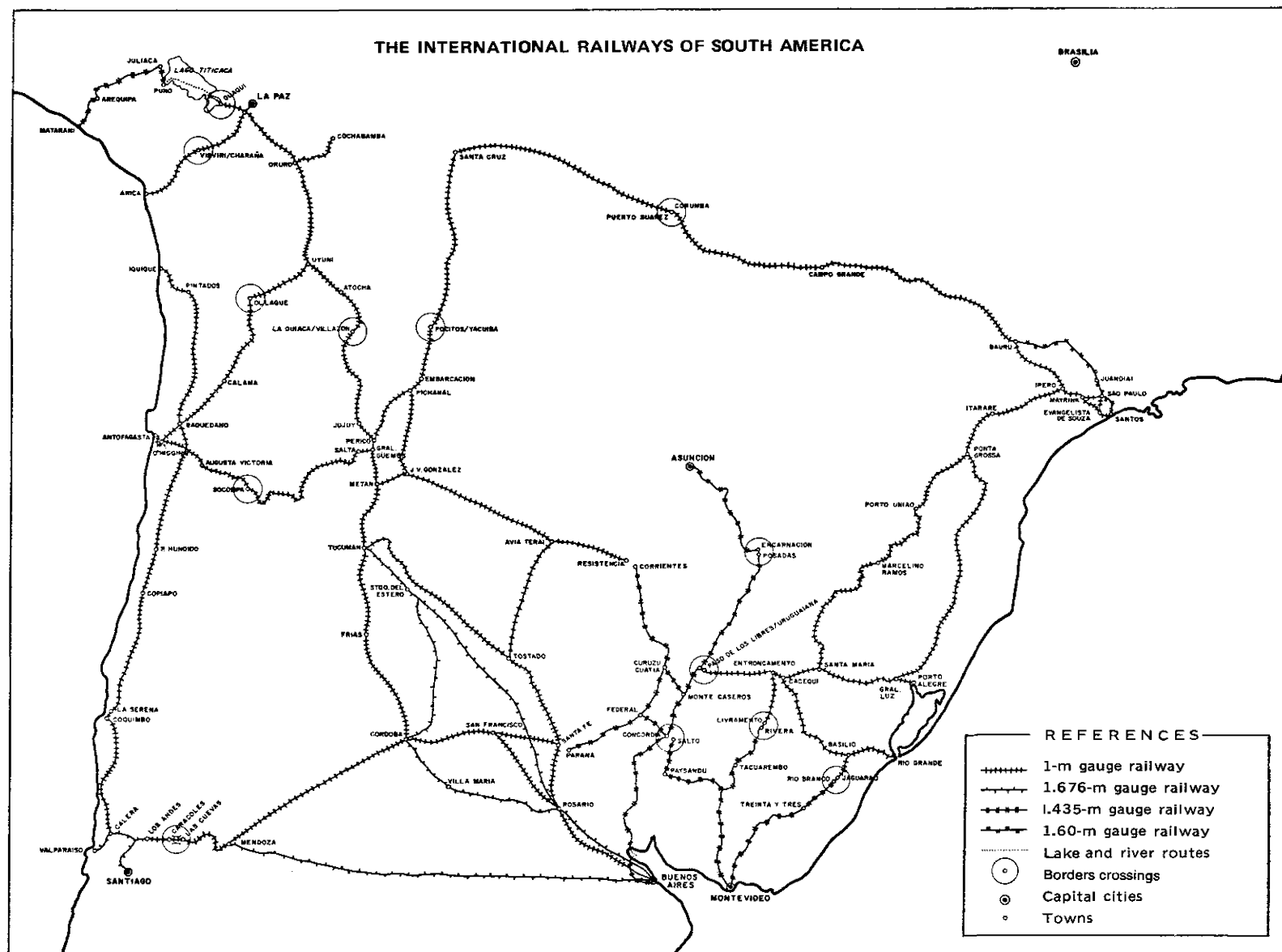
SOUTH AMERICAN RAILWAYS CONTROLLED BY THE FARQUHAR GROUP AROUND 1912



service. As will be seen below, this classification is sometimes arbitrary, and in more than one case it is certainly erroneous. The table also shows the international railway route of which

the section is part. In order to indicate the geographical setting of the various connexions, sections and routes within South America, the table is followed by a map.

BRASLIA



IV

Role of governments in the construction of the international sections

An analysis of the planning and construction of the international sections identified in the text above shows that, with a few exceptions, these sections were the result of the efforts of the governments of South American countries. Until the last decade, which saw the emergence of such initiatives as the creation of LAFTA and the agreements for the construction of the binational dams in the River Plate Basin, it was no exaggeration to say that these sections represented the best example in the continent of economic co-operation among developing countries. Indeed, in some cases where interests from outside the continent played an important role, such as the trans-Andean railway between Los Andes and Mendoza, the result of the intervention of the foreign companies was actually prejudicial to the countries, and it was not possible to secure significant benefits until the governments took over the management of the sections.

The reasons which prompted the governments to undertake these major enterprises in economic co-operation ranged from some self-interested local pressure to obtain railway links of local benefit to the attitude of those who saw international railways as the motive for Latin American integration and development. Among the latter, few could surpass in enthusiasm Guillermo Rawson, the Argentine Minister of the Interior, when he wrote in 1870:

"When we have constructed the scarcely two hundred leagues that separate us from Chile, an immense revolution will have taken place in the commercial routes of the world. Then it will be necessary to widen the streets and highways of Buenos Aires so that there will be room for the masses of human beings, made up of all races and laden with the infinite variety of their wealth, who will comfortably transact their business, leaving behind them among us the trail of gold and of light which the civilization of

this century displays in its most splendid manifestations."²⁵

Nevertheless, the fact that the governments have continued to construct international sections up to the present indicates that the existing connexions are not solely due to temporary enthusiasms of the past.

Since the management, financing and construction of some of the international sections do not differ greatly from those of the national railways, it appears useful to summarize the three principal ways of carrying out these activities in South America since the middle of the past century. The first, and probably the most widespread in the countries of the River Plate Basin, took the form of concessions to private companies accompanied by substantial State incentives and subsidies. Under this formula, a promoter sought a State concession for the construction and operation of a railway line. Sometimes, the line formed part of a State plan for railway construction, while at other times the promoter himself planned it. The typical concession granted an implicit monopoly on transport in the area served by the new line, and involved exemptions from customs duties for materials imported for its construction. It also frequently happened that the government guaranteed interest on the capital invested on the line for a certain number of years, so that if the profits on the line did not reach the rate of return laid down, the government paid the difference. Finally, the concession frequently included the granting of large areas of land adjacent to the line, which the holder of the concession could settle, in order to increase traffic on the new line. Under the first formula, the promoters, bank agents and con-

²⁵Marín Vicuña, *Política ferroviaria de la América*, op. cit., p. 61.

struction contractors had their profits practically guaranteed, and returns on the capital of the investors—generally European—were assured for 20, 40 or more years, under the State guarantee of minimum interest on the capital.

The second manner of approaching the construction of national railways, and one which was applied in particular in the Pacific countries, was direct investment by the State, frequently financed by loans obtained by the governments in Europe. Under this formula, the government undertook the construction of the new line and operated it on its completion, although subsequent problems occasionally made it necessary to sell or lease the line to a private company for operation.

The third formula was less widely used in Latin America, and was applied almost exclusively in the case of what might be called industrial railways serving mineral deposits. In these cases, concessions were granted to private companies for the construction and operation of railways, but without State guarantees relating to capital invested or other important subsidies; the entire risk in construction was borne by the private company, and it would be correct to say that the existence of this type of railway was due to private initiative.

Against this general background on national railways, we will now examine the international sections identified above. Of particular interest in this study is the role of the governments and the financial arrangements and distribution of risk between the governments and the private companies. The basic objective is to determine how far the section in question is the result of economic co-operation among Latin American countries.

*a) International sections constructed by
and at the risk of capitalists
from outside the continent*

None of the 13 international railway sections identified in the previous part could be described as primarily the result of an initiative by capitalists from outside the continent with full acceptance of the risks involved. All the sections owe their existence to subsidies granted by the governments to the holders of concessions or to

direct efforts by Latin American governments and individuals.

The sole case which might be considered an exception was the change of gauge from 0.76 m to 1 m effected by the Compañía Antofagasta-Bolivia on the Antofagasta-Uyuni section between 1926 and 1928, in order to link it with the Bolivian and Chilean systems.^{26, 27}

*(b) International sections constructed by
concession holders from outside the
continent which were given incentives
by Latin American governments*

The international section from Los Andes to Mendoza, which is part of the transcontinental route from Valparaíso to Buenos Aires, is a good example of a section constructed by concession holders who received substantial guarantees from the two countries involved, Chile and Argentina.²⁸ In 1872, the Anglo-Chilean brothers Mateo and Juan Clark secured from the Argentine government a concession for the construction of a railway from Buenos Aires to the Chilean border, with interest guaranteed at 7% for 20 years. Two years later, the Chilean government authorized the construction of the section in Chilean territory, but as a result of certain financial problems the start of work was postponed. In 1882 the Ferrocarril de Buenos Aires al Pacífico was set up in London, acquired the Clark brothers' concession for the section between Buenos Aires and Mendoza, and initiated the construction work; the first locomotive reached Mendoza from Buenos Aires in 1887. In the same year the Compañía del Transandino Argentino began construction from Mendoza to the Chilean border, reaching Las Cuevas in 1903.

²⁶Brian Fawcett, *Railways of the Andes* (London, Allen and Unwin, 1963), p. 119.

²⁷*Los ferrocarriles internacionales de Sudamérica y la integración económica regional* (United Nations publication, Sales N.º S.72.II.G.4), p. 132.

²⁸Zalduendo, *op. cit.*; Fawcett, *op. cit.*; United Nations (CEPAL), *Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*; INTAL/CEPAL, *Servicios de transporte terrestre...*, (E/CEPAL/1007), *op. cit.*; R. Simón, M. Araya and J. S. Contreras, *Informe sobre la situación del Ferrocarril Transandino Chileno* (Santiago, Chile, Imp. Nascimento, 1927).

On the Chilean side, the Clark brothers encountered various financial problems, and the Law of 1874 was replaced in 1887 by a more favourable law, which made it possible for work to begin in 1889. Nevertheless, despite new changes in the concession in 1893 and 1895, a combination of political and financial problems in Chile prevented the line from advancing beyond El Salto del Soldado. Finally, a new law in 1903 granted guaranteed interest of 5% for 20 years on a capital of £ 1,485,000 and, with the reorganization of the company holding the concession, which was converted into the Transandine Construction Company Ltd., the work continued and the link was made with the Argentine section in 1910.

The international section between Monte Caseros, Argentina, and Cacequí, Brazil, is another example of an international railway whose construction was due to subsidies granted to the concession holders by the governments concerned. Monte Caseros was selected as the starting point of the international section to Brazil because the section between Concordia and Monte Caseros had been established in 1875 as an isolated railway designed to avoid the waterfalls which impede navigation on the river Uruguay. The initial concession for the line between Concordia and Monte Caseros was authorized in 1864 in a law passed by the Argentine government, and it was granted in 1869 to an Argentine citizen, who sold it to a company established in London, the *Compañía Ferrocarril del Este*. The concession enjoyed a State guarantee of 7% a year for 40 years.²⁹

The section between Monte Caseros and Paso de Los Libres, where there is a connexion with the Brazilian section between Cacequí and Uruguaiana, is part of the concession granted to Juan Clark by the Argentine Government in 1872 for the construction of an 812-km railway from Monte Caseros to Corrientes and Posadas. The concession included a State guarantee of 6% for 20 years. In order to carry out the undertaking the *Compañía Ferrocarril Noreste Argentino* was set up in London, and in 1890 completed an initial 65-km section. According

to indirect information, the section to Paso de Los Libres was completed between 1890 and 1900, while the extension to Posadas, opposite Encarnación, in Paraguay, was completed between 1900 and 1910.³⁰ Later the *Compañía Ferrocarril del Este* and the *Compañía Ferrocarril Noreste Argentino* were consolidated into a single company, which took the name of the latter.³¹

In Brazil, the section between Uruguaiana and Cacequí is part of the line from Porto Alegre to Uruguaiana, construction of which was decided upon by the Imperial Government of Brazil in 1873.³² The nature of the initial concession is not clear from the materials available in the CEPAL Library, but it is to be supposed that it included a State guarantee of a certain level of interest on the capital invested.

In 1898 the Federal Government of Brazil leased the line between Porto Alegre and Cacequí to Affonso Spée, who in turn transferred the concession to the *Compagnie Auxiliaire des Chemins de Fer du Brésil*, a Belgian company authorized—also in 1898—to operate in Brazil. In 1905 the *Compagnie Auxiliaire* received another concession to complete the construction of the section Cacequí and Uruguaiana,³³ which it did in 1910. In the same year Percival Farquhar purchased 70% of the shares in the *Compagnie Auxiliaire*,³⁴ while in 1912 he acquired control of the *Compañía Ferrocarril Noreste Argentino*.³⁵ Nevertheless, only in the 1940s was the dual-gauge international railway bridge between Uruguaiana and Paso de Los Libres completed.³⁶

A third example of an international section constructed as a result of subsidies paid to the concession holders is the section which links Brazil and Uruguay through Santa Anna do Livramento/Rivera. It is easy to define the

³⁰Zalduendo, *op. cit.*, pp. 335-336 and 577.

³¹Scalabrini Ortiz, *op. cit.*, p. 339.

³²*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 136.

³³Frederick A. Molitor, *Report on the Railway Properties in Southern Brazil Leased, Owned or Controlled by the Brazil Railway Company* (New York, John Ward & Son, 1915), pp. 60-61.

³⁴Gauld, *op. cit.*, p. 178.

³⁵Hanson, *op. cit.*, p. 321.

³⁶*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 137.

²⁹Raúl Scalabrini Ortiz, *Historia de los ferrocarriles argentinos*, 4th ed. (Buenos Aires, Ed. Plus Ultra, 1964), pp. 341-342.

international section on the Brazilian side, since it is a branch which leaves the line between Porto Alegre and Uruguaiana at a point named Entroncamento, near Cacequí. The concession obtained by the Compagnie Auxiliaire in 1905, whose exact terms are not known, provided for the construction of this branch to be completed.³⁷

On the Uruguayan side, in contrast, it is more difficult to define the international section since this forms part of a line which leaves Montevideo and continues directly northwards to Rivera, so that it is impossible to know which section was constructed only to carry national traffic and which was constructed to create a link with the Brazilian railway system. The Ferrocarril Central was organized in Uruguay in 1863, and in 1869 the section between Montevideo and Las Piedras was opened, but in 1876, because of financial difficulties, the Compañía Ferrocarril Central del Uruguay was set up in London to operate the Montevideo-Durazno concession. In 1884, law N.º 1751 on railways routes guaranteed companies holding concessions interest of 7% a year for forty years. Under this law, the Ferrocarril Central extended its line to Río Negro, which it reached in 1886. Later, the line was extended to Rivera, a sector which the Ferrocarril Central was granted a concession to operate in perpetuity.^{38, 39, 40}

Although there is no doubt that the Government of Uruguay provided subsidies for the construction of the international section, identification of the length of the section is arbitrary, since it is not possible to find convincing reasons for deciding on one cut-off point rather than another. For the purpose of this study Tacuarembó, a livestock centre, has been fixed as the end of the Tacuarembó-Entroncamento section.

In 1912 Percival Farquhar acquired control of the Ferrocarril Central de Uruguay and built a

railway bridge between Livramento and Rivera.⁴¹

(c) *International sections constructed directly by governments*

The international section between Augusta Victoria, Chile and Salta, Argentina is perhaps the best example of a case where two Governments decide on the construction of an international railway as a means of economic co-operation, with each country directly financing its share in the total costs. This section was first officially approved in Argentina in 1896, when a commission was appointed to study the route. Originally both Governments had hoped to construct the section by means of concessions, and to that end in 1907 they separately authorized Emilio Carrasco to link Salta and Antofagasta using the Huaytiquina pass. However, Carrasco's efforts were unsuccessful, and his concession on the Argentine side lapsed in 1914.⁴² When his concession in Chile was to be renewed for the third time, a serious conflict rose between the Executive and the Congress of Chile in 1912, when "there suddenly arose great alarm among the livestock fatteners and producer of fodder and meal, who were alarmed and afraid of losing the northern market for their products..."⁴³

Following continued local pressure by the Salta producers and the Antofagasta mineral products consumers, the decision to construct the section was formalized in an agreement signed in 1922 by Ernesto Barros Jarpa, Chilean Minister for Foreign Affairs, and Carlos M. Noel, Argentine plenipotentiary. The agreement provided for the simultaneous construction of the Antofagasta-Salta connexion and another in the south, between Lonquimay, Chile and Zapala, Argentina, thus reducing the opposition of the Chilean producers in the south to the connexion in the north. In the same

³⁷Molitor, *op. cit.*, p. 61.

³⁸Zalduendo, *op. cit.*, p. 415.

³⁹Joseph L. Fitzmaurice and Hardy Osgood, *The Railways of Uruguay* (Washington, U.S. Department of Commerce, [1942]), p. 4.

⁴⁰Uruguay. Administración de Ferrocarriles del Estado y Comisión de Inversiones y Desarrollo Económico, *Diagnóstico del transporte ferroviario* (Montevideo, 1966), p. 23.

⁴¹*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 136.

⁴²*Proyectos multinacionales de infraestructura física. Fórmulas jurídico-administrativas* (Buenos Aires, Instituto para la Integración de América Latina, 1970) pp. 222-223.

⁴³Marín Vicuña, *Política ferroviaria de la América*, *op. cit.*, p. 63.

year a protocol was signed which laid down a policy for the fixing of railway tariffs.⁴⁴

In 1929 a joint Argentine-Chilean commission specified the technical characteristics of the section, but construction was slow. In 1943, under the Fernández-Storni Agreement, the two countries reaffirmed their agreement to speed up the construction work. Finally, government agencies completed the construction using the Socompa pass—some 200 km south of the Huaytiquina pass—and starting on the Chilean side from Augusta Victoria, 152 km from Antofagasta on the line belonging to the Compañía Antofagasta a Bolivia. The line was opened in February 1948.⁴⁵

The second case of an international section constructed by two governments working together is the section between Atocha, Bolivia and Jujuy, Argentina. On the Argentine side, a concession was granted in 1889 to Julio Achával y Cía., for the construction of the section between Jujuy and La Quiaca, but the concession lapsed in 1894.⁴⁶ Information available in CEPAL indicates that the section was constructed by the Argentine State as part of Ferrocarril Central Norte Argentino, but it does not indicate the date of its completion.

On the Bolivian side, construction by the State of the section between Villazón and Tupiza began in 1912 and ended in 1924. Construction of the section between Tupiza and Atocha, also by the State, lasted from 1920 to 1925. Meanwhile, the section between Atocha and Uyuni had already been completed in 1913, by the Ferrocarril Antofagasta a Bolivia.⁴⁷

The category of sections constructed directly by the State also includes the section between Juliaca, Peru and La Paz, although this is a special case. On the Peruvian side, the line from Mollendo to Juliaca, built by the Peruvian Government and completed in 1876,⁴⁸ has not been defined as an international section, since the line continues to Cuzco and would probably have been constructed even if it had not been

possible to use it for international traffic. This line passed in 1890 to the Peruvian Corporation, a company set up in London by the holders of the unpaid bonds of the Peruvian State.⁴⁹

On the Bolivian side, construction of the section from Guaqui to La Paz was begun in 1901, with financing from the Departamento de La Paz. When national finance ran out, the work continued using a loan from the Peruvian Corporation, reaching El Alto in 1903. In 1904 the section was leased to the Peruvian Corporation, which completed construction all the way to La Paz. In 1910, the section was sold to the Peruvian Corporation.⁵⁰

(d) *International sections constructed with financing from another Latin American country*

Of particular interest for the present study from the viewpoint of economic co-operation among developing countries are those international sections which were constructed as a result of a contribution made by one Latin American country to another.⁵¹ The decision of two countries to construct a railway to link them is in itself an example of economic co-operation, but if in addition one of the countries provides financial assistance to the other, this gives it a special character. In 7 of the 13 international sections examined here, one of the countries co-operated in financing construction in the other.

In chronological order, the first case is the international section between Antofagasta, Chile and Uyuni, Bolivia. Construction began in Chile in 1872, when the Compañía de Salitres y Ferrocarril de Antofagasta, a company formed by Chilean shareholders, obtained a concession for the construction of a railway to the interior and for exploitation of the saltpetre deposits. In 1882, when the railway had reached a point 150 km from Antofagasta, the Chilean Government authorized its extension to the Bolivian border,

⁴⁴*Ibid.*, p. 65.

⁴⁵*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 140.

⁴⁶Zalduendo, *op. cit.*, p. 580.

⁴⁷*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, pp. 138-139.

⁴⁸*Ibid.*, p. 132.

⁴⁹C. Reginald Enock, *Peru* (London, T. Fisher Unwin, 1908), pp. 104-105.

⁵⁰*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, pp. 132-133.

⁵¹This does not mean that economic co-operation among developing countries should be identified with concessional assistance; co-operation should essentially be beneficial to both parties.

on condition that it provided a public service. The Bolivian Compañía Huanchaca co-operated with the Compañía de Salitres y Ferrocarril de Antofagasta in financing the extension to the mines in the interior of Bolivia, and in 1888 the Bolivian Government authorized an extension to Uyuni, which was completed in 1889, a year after the formation in London of the Antofagasta (Chile) and Bolivia Railway Co. Ltd. This company bought the Chilean section and the Compañía Huanchaca concession, which included the extension of the line to Oruro with State-guaranteed interest of 6%.⁵²

Since the Antofagasta-Uyuni section was originally a saltpetre railway, and currently carries heavy traffic from the Chuquicamata copper mine in Chile, objections may be made to its inclusion as an international section of the total length of the line between Antofagasta and Ollagüe. Nevertheless, it is felt that the enormous effort required to convert the original gauge of 0.76 m to 1 m between Antofagasta and Uyuni constitutes a justification. This conversion, carried out between 1926 and 1928, in addition to movement of the rails themselves over 614 km, involved the modification of the bogies of 61 locomotives, 103 passenger coaches and 2,140 wagons in the Mejillones workshops, and was carried out without any interruption to traffic, except for six days in July 1928.⁵³

The international railway section between Arica, Chile and Viacha, Bolivia was constructed by Chile in pursuance of the 1904 Treaty of Peace and Friendship between Chile and Bolivia, the pertinent section of which reads: "Art. 3. In order to make closer the political and trade relations of the two Republics, the High Contracting Parties agree to link the Port of Arica with El Alto de La Paz by a railway, which will be constructed by the Government of Chile at its expense, within a period of one year from the ratification of the present Treaty.

"Ownership of the Bolivian section of this

railway will be transferred to Bolivia on the expiration of a period of fifteen years from the day on which it is totally completed.

"To the same end, Chile undertakes to pay the sums which may be incurred by Bolivia for guarantees of up to 5% on the capital invested in the following railways, construction of which may be undertaken within a period of thirty years: Uyuni to Potosí; Oruro to La Paz; Oruro to Santa Cruz, *via* Cochabamba; La Paz to the Beni region; and Potosí to Santa Cruz, *via* Sucre and Lagunillas.

"This undertaking shall not involve for Chile expenditure of more than one hundred thousand pounds sterling a year, nor more than a total of one million seven hundred thousand pounds sterling, established as the maximum which Chile will pay for the construction of the Bolivian section of the railway from Arica to El Alto de La Paz and for the guarantees mentioned above, and it shall expire and be null and void on completion of the period of thirty years indicated above."⁵⁴

Construction was initially entrusted to the Sindicato de Obras Públicas de Chile, a company formed using national capital, for the sum of £ 2,152,000. When this company could not fulfil the contract, the work was entrusted in 1909 to Sir John Jackson (Chile), Limited, of London, represented in Chile by Mateo Clark, for £ 2,750,000 - £ 1,645,000 for the Chilean section and £ 1,105,000 for the Bolivian section. The railway was opened in 1913.⁵⁵

Although the international section of the line between Paso de Los Libres, Argentina and Asunción, Paraguay, has some characteristics of a section constructed by concession holders from outside the continent with financial support from Latin American governments, there is one element which justifies its inclusion in the present category. Paso de Los Libres has been fixed as the end of the section on the Argentine side, on the assumption that the extension between that point and Posadas was made principally with the aim of linking up with the Paraguayan railway. The history of the cons-

⁵²Fawcett, *op. cit.*, pp. 112-113; *Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, pp. 131-132; Humberto Aldazosa Villamil, *Los ferrocarriles de Bolivia* (La Paz, mimeo, 1977), p. 2; Francisco A. Encina and Leopoldo Castedo, *Resumen de la historia de Chile* (Santiago, Chile, Zig-Zag, 1970), pp. 1408-1414.

⁵³Fawcett, *op. cit.*, pp. 118-121.

⁵⁴Alberto Decombe, *Historia del ferrocarril de Arica a La Paz*, (Santiago, Chile, Lib. e Imp. de Artes y Letras, 1913), p. 9.

⁵⁵*Ibid.*, pp. 87 and 112.

truction of the section has already been examined in the course of the description of the section from Monte Caseros, Argentina to Cacequí, Brazil.

On the Paraguayan side, the section between Asunción and Encarnación began as the Ferrocarril del Estado. In 1861 the first section to Trinidad (6.4 km) was opened, and in 1864 the line reached Paraguairí, 72 km from Asunción.⁵⁶

The railway was subsequently sold to Luis Patri, a Paraguayan, who repaired the damage caused by the War of the Triple Alliance, and later sold the railway to the Government in 1886, retaining a contract for the extension of the line to Villarrica. However, construction was held up by the absence of State financing.⁵⁷

In 1889 the Paraguay Central Railway Company Limited was established in London and purchased the existing line, agreeing with the Government to extend the line to Encarnación with a guarantee of 6% interest.⁵⁸ In the same year the first train covered the 150 km between Asunción and Villarrica.⁵⁹ The new company began construction in Encarnación, but in 1891 work stopped again at 250 km because of lack of finance, giving rise to litigation which lasted for 15 years, and ended only in 1907 with the reorganization of the company and a new agreement with the Government which made it possible to restart construction.⁶⁰ Finally, in 1913, when Percival Farquhar controlled the Ferrocarril Central de Paraguay, the line reached Pacú-Cúa, beside Encarnación, where the rolling-stock crosses the river Paraná on a ferry to continue from Posadas to Buenos Aires. Farquhar himself was on the train which inaugurated the direct service.⁶¹

This short outline of the history of the section from Paso de los Libres to Asunción indicates that the section should be classified in the category of railways links constructed by concession holders from outside the continent with support from the State. One might also wonder why the final point of the Paraguayan section is Asunción instead of Villarrica, but there are reasons for this.

Towards the end of the last century, during the litigation between the British Company and the Government of Paraguay, Argentine capitalists (including shareholders in the Ferrocarril Noreste Argentino, which runs to Posadas) acquired shares in the Ferrocarril Central de Paraguay. In 1906 the Argentine shareholders had 85% of the shares, while the bonds remained largely in British, French and North American hands.⁶² Furthermore, the Paraguayan railway was built with a broad gauge of 1.676 m, which would have prevented a connexion to Buenos Aires without transshipments. In 1911-1912 the gauge was changed to 1.435 m, thanks to a contribution from the Government of Argentina of £ 380,000, in exchange for deferred bonds worth £ 220,000.⁶³

The international section between Treinta y Tres, Uruguay and Basilio, Brazil is a particularly clear example of economic co-operation between developing countries. A 1918 agreement between Brazil and Uruguay, modified by another in 1928, established Uruguay's remaining debt to Brazil in respect of the War of the Triple Alliance and laid down that it should be applied to the construction of an international railway section between Treinta y Tres and Basilio. The first point was the northern terminal of a branch of the Ferrocarril Central del Uruguay, and the second a point on the Brazilian line between Cacequí and Río Grande. The construction work, including the Mauá bridge on the river Yaguarón between Río Branco, Uruguay and Jaguarão, Brazil, was completed in 1931.⁶⁴

⁵⁶*Estudio sobre el Ferrocarril Central del Paraguay*, Secretaría Técnica de Planificación del Desarrollo Económico y Social, (Asunción, 1964), (mimeo), p. 1.

⁵⁷Gaylord Warren Harris, "The Paraguay Central Railway, 1856-1889", *Inter-American Economic Affairs* (Washington), Vol. 20, N.º 4, (Spring 1967), pp. 15-17.

⁵⁸*Ibid.*, pp. 20-21.

⁵⁹*Estudio sobre el Ferrocarril Central del Paraguay*, *op. cit.*, p. 2.

⁶⁰*Ibid.*, p. 2; Gaylord Warren Harris, "The Paraguay Central Railway, 1889-1907", *Inter-American Economic Affairs* (Washington), Vol. 21, N.º 1, p. 35.

⁶¹Gauld, *op. cit.*, p. 241; Hanson, *op. cit.*, p. 322.

⁶²Harris, "The Paraguay Central Railway, 1889-1907", *op. cit.*, p. 40.

⁶³*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 135.

⁶⁴*Ibid.*, p. 137.

The Brazilian part of the international section between Campo Grande, Brazil and Santa Cruz, Bolivia was initially conceived as part of the feeder line which would link the State of Matto Grosso with the coast of the country. The 1890 Plan de Viação Férrea e Fluvial (Railway and River Transport Plan) laid down special incentives for the constructions of railways to Corumbá and other distant points in the interior, including a transport monopoly for 60 years, guaranteed interest of 6% for 30 years and land grants 20 km wide along the entire length of the lines.⁶⁵ At all events, when construction from Baurú was finally commenced in 1905, there was probably a clear intention to build a railway link with Bolivia: indeed, the extension from Campo Grande to Corumbá was only justifiable with that in mind. Construction was slow, and only in 1926 was the bridge over the river Paraná completed, while the bridge over the river Paraguay was not finished until 1947.⁶⁶

Construction on the Bolivian side was financed by the Government of Brazil. The 1903 Treaty of Petrópolis obliged Brazil to construct at its own expense the Madeira-Mamoré railway, with a branch to Villa Bella, a Bolivian village on the river Mamoré, and to pay Bolivia an indemnity of £2 million.⁶⁷ By the Flores-Pacheco Protocol of 1925, which apparently was not ratified, Brazil agreed to use this indemnity to construct the section from Santa Cruz to Corumbá, provided that Bolivia did not delay construction of the section between Cochabamba and Santa Cruz.⁶⁸ In April 1928, using a loan of US\$ 6 million from Dillon Read & Co., the Government of Bolivia engaged the firm of Kennedy & Carey, of New York, to reconstruct the section from Cochabamba to Cliza and extend the line to Aiquile, 220 km from Cochabamba towards Santa Cruz.⁶⁹ Under the Decem-

ber 1928 treaty between Bolivia and Brazil, it was agreed that Brazil would not construct the branch to Villa Bella, but would undertake to assist in financing the section from Cochabamba to Santa Cruz.⁷⁰ Nevertheless, construction did not continue beyond Aiquile.

In 1938 the Treaty on Railway Links between the two countries stipulated that Brazil would devote half the indemnity laid down in the Treaty of Petrópolis to the construction of the section between Corumbá and Santa Cruz, and that it would lend Bolivia the difference between that sum and the actual cost of construction, to be repaid by Bolivia over 20 years following the completion of the work. Construction began in Corumbá in 1939, and in 1954 the line reached Santa Cruz,⁷¹ although the bridge over the Río Grande in Bolivia was completed only in 1958. In 1964, under a further protocol, the two countries agreed that Bolivia's debt would be invested, by common agreement, in development projects in eastern Bolivia which could benefit from the presence of the railway.⁷²

The international section from Embarcación, Argentina to Santa Cruz, Bolivia originated in a 1906 agreement between the two countries which provided for an extension of the line of the Ferrocarril Central Norte Argentina to Yacuiba and over a further 100 km in Bolivia towards Santa Cruz, and also provided for a system of guarantees for construction up to Santa Cruz.⁷³ Although the line reached the border, implementation of the agreement within Bolivia was not successful.

The possibility of extending the railway to Santa Cruz arose again in 1922, when another agreement between Bolivia and Argentina was signed in La Paz stipulating that the Argentine Government would construct the line without requiring immediate expenditure by the Bolivian Government. In fact, the agreement granted a generous concession to Argentina for

⁶⁵Zaldueño, *op. cit.*, p. 215.

⁶⁶*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 141.

⁶⁷John Henry Merryman, *The International Agreements of Bolivia as they Relate to Transportation. Prepared in Conjunction with the Bolivia Transport Study* (La Paz, Stanford Research Institute, 1968), p. 14.

⁶⁸Marín Vicuña, *Sobre ferrovías internacionales*, *op. cit.*, pp. 17-18.

⁶⁹"Bolivia —Ministerio de Fomento— Contrato de

construcción", *Boletín de la Sociedad de Ingenieros de Bolivia* (La Paz), Vol. 4, N.º 11 (December 1928), p. 57.

⁷⁰Merryman, *op. cit.*, p. 16.

⁷¹*Ibid.*, p. 16.

⁷²*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 141.

⁷³*Ibid.*, p. 139.

the operation of the railway on its completion, although article 4 stated that:

"The Government of Bolivia may at any time acquire ownership of the line, once it and its branches have been completed, by paying the total value of its cost and interest at 6% a year on the capital invested; however, until such time as this value has been repaid, the Argentine Government will be responsible for the administration and management of the line, on the same terms as those which would apply to a private company, without prejudice to the rights inherent in Bolivian sovereignty."⁷⁴

However, the agreement was not ratified.

Finally, under the Preliminary Railway Convention of 1937, a joint commission was set up to carry out engineering studies on the extension of a line to Santa Cruz and branch to Sucre, while under another convention in 1940, Argentina agreed to advance funds for the section between Yacuiba and Villa Montes. These agreements were consolidated in 1941 in the Treaty on Railway Links, which, in addition to establishing an Argentine-Bolivian Joint Railway Commission, to be responsible for all the railway works, laid down the terms on which Bolivia would repay with petroleum or cash the credits granted by Argentina.⁷⁵

Construction of the line began in 1944, and in 1957 the line reached Santa Cruz, although in

a temporary state in some sections. However, in 1958 a flood destroyed the bridge over the river Parapetí, and it was necessary to change part of the route. In 1966 regular service was initiated between Santa Cruz and Buenos Aires, and in 1967 the line was officially handed over to the Government of Bolivia.⁷⁶ When construction to Santa Cruz was nearly completed, both countries agreed to extend the line to the town of Trinidad in the Amazonian region. At present the railway reaches the river Yapacaní, some 204 km from Santa Cruz.

Construction of the Salto Grande dam on the river Uruguay made possible an international section between Salto, Uruguay and Concordia, Argentina, since this enormous construction, costing some US\$ 1 billion, includes an international road and railway over the dam. The work began in 1974, and the opening of the railway section is planned for 1979; this will make it possible to integrate the Paraguayan railway with that of Uruguay *via* the Argentine line between Posadas and Concordia. Although a substantial part of the cost of the dam is being financed with a loan from the Inter-American Development Bank (IDB) and suppliers' credits, the Argentine Government is financing the local currency costs, which will be repaid by Uruguay in the future in the form of supplies of electricity.⁷⁷

V

Administration of the international sections

As can be seen from the preceding section, it was the South American governments themselves which promoted or constructed the international railway links, bearing the financial risks and, sometimes, financing construction work in other countries. This approach of

economic co-operation reflected a clear idea of the role which could be played by an international railway and the benefits which its construction brought with it. The following table indicates the two principal purposes of the various sections.

⁷⁴Marín Vicuña, *Política ferroviaria de la América*, *op. cit.*, pp. 122-128.

⁷⁵Merryman, *op. cit.*, p. 7.

⁷⁶*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 139; Merryman, *op. cit.*, p. 7; Comisión Mixta Ferroviaria Argentina Boliviana, *Construcción Ferrocarril*

Santa Cruz-Trinidad. Informe de la gestión 1974-1975, p. 43.

⁷⁷Uruguay - Administración de los Ferrocarriles del Estado, "Las interconexiones ferroviarias sobre el Río Uruguay", *Revista ALAF*, Vol. 1, N.º 21 (April-June 1976).

PRINCIPAL PURPOSES OF THE INTERNATIONAL RAILWAY SECTIONS

International section	To provide access to overseas ports	To stimulate regional trade
Antofagasta-Uyuni	X	
Juliaca-La Paz	X	
Los Andes-Mendoza	X	X
Monte Caseros-Cacequí		X
Tacuarembó-Entroncamento		X
Arica-Viacha	X	
Asunción-Paso de los Libres	X	X
Jujuy-Atocha		X
Treinta y Tres-Basilio		X
Augusta Victoria-Salta	X	X
Campo Grande-Santa Cruz	X	X
Embarcación-Santa Cruz	X	X
Salto-Concordia	X	X

Regrettably, after major efforts to provide suitable physical infrastructure to achieve the purposes set out above, two fundamental errors were committed in the administration of the sections, which often made it impossible to obtain the hoped-for benefits. Firstly, each part of the railway was allowed to be administered independently, with little commercial and operational co-ordination; secondly, the directors and principal staff of the private companies holding concessions were allowed to centralize the most important decisions abroad, so that local power to take decisions remained very limited.

Dividing the administration of international sections between two companies has especially serious consequences, since each side of these sections is often, in turn, an unimportant branch within the national railway network, and the border connexion itself is often located in an inhospitable place. Operational and commercial co-ordination, in these circumstances, is difficult, and is generally carried out at a middle or low level in the hierarchy, so that as a result it does not reflect a decision by the senior management of the companies to use the railway as a fundamental tool

for expanding international trade and economic integration

Without wishing to embark on an analysis of the particular cases of each international section, it is worth while giving a few illustrations. The railway between Arica and La Paz was administered as a single company for 15 years by Chile until, under the 1904 Treaty, ownership and administration of the Bolivian sectors was transferred to Bolivia in 1928. Although the purpose of the railway is to give Bolivian imports and exports access to the port of Arica, this fragmentation of the administration led to the creation of two classifications of freight and the separate payment of freight charges in each country.

In the case of the railway between Augusta Victoria and Salta, the Chilean side was administered by the Antofagasta to Bolivia railway between 1948 and 1965. The agreement between the company and the Government of Chile stipulated that FCAB wagons would not enter Argentina, which made it necessary to transship the freight at Socompa on the border. The Additional Protocol on Zonal Trade, signed by Argentina and Chile in 1957, set up a Joint Commission whose functions would include

the fixing of tariffs, "bearing in mind the purposes of developing trade and the mutual supply of goods for which it was constructed", the exchange of rolling-stock and the general co-ordination of both sections; however, this commission never met.⁷⁸

Earlier in this study reference was made to the efforts of Percival Farquhar to consolidate into a single system the railways in southern Brazil, Uruguay, Paraguay, Chile and Argentina. Farquhar grasped very clearly the importance of co-ordinating international railway operations and services and establishing a commercial policy which would encourage traffic. After securing control of the *Compagnie Auxiliaire de Chemins de Fer du Brésil*, which had connexions with Argentina and Uruguay, he cut tariffs by 15% with the aim of stimulating traffic,⁷⁹ probably partly because it was the Buenos Aires and Montevideo markets for timber which would make his large sawmills in southern Brazil profitable. As noted in the previous section, it was Farquhar who in 1912 built the bridge between Livramento, Brazil and Rivera, Uruguay. Nevertheless, when in 1915 Frederick Molitor, adviser to the receiver of the Brazil Railway Company after its bankruptcy, prepared his report on the situation of the railway, he wrote as follows concerning the Livramento-Rivera connexion:

"In consignments destined to Uruguay, the shipper bills to Sant'Anna and is obliged to employ a broker there to attend to the rebilling over the Uruguay railways. Facilities for transfer exist between these two railways of different gauge, but the stations are four and a half miles apart. There is a switching rate between them which amounts to about US\$ 20.00 per car at the present rate of exchange. In consequence of this prohibitive rate, lumber is unloaded on the sidings of the *Auxiliaire* at Sant'Anna and hauled piecemeal to Rivera over a wagon road only three miles long, then reloaded on the Uruguay railway cars – all at half the cost of rail transfer.

"Despite the fact that this connexion with the Uruguay Railway, controlled by the Brazil

Railway Company, has been in existence for a number of years, no effort seems to have been made even to assist through traffic that is seeking to use the lines. Thus, the lack of co-ordination before mentioned extends to interline shipments, and until this is remedied the Brazil Railway Company cannot hope to increase its earnings. Such local business as the Company enjoys is almost forced upon it, and interline business is effectively prevented."⁸⁰

Thus, in this case not even the visionary Farquhar managed to introduce commercial procedures and practices which would revitalize the international railway, even though he controlled the railways on both sides of the border.

It was mentioned above, on the subject of the section between Concordia and Monte Caseros, that the concession granted to an Argentine in 1869 by the Government of that country was immediately sold to the *Compañía Ferrocarril del Este*, a British firm. The sale of the concession provoked objections in Argentina, and in 1871, when the *Ferrocarril del Este* requested approval of its articles of incorporation, the Procurator General prophetically pointed out in his report the drawbacks of administrative centralization outside the country:

"The transfer substantially alters the terms of the concession. The concession was made to a person resident in the Republic and domiciled in Buenos Aires. Today the contractor is a private company formed in London, and it will set up a very expensive board of directors in London, which will prepare the accounts there in pounds and which will even have to pay the British Government tax on income from a line situated in the Argentine Republic. The inevitable result will be questions and arguments similar to those already arising today between the Government and the *Compañía del Central Argentino*. The considerable salaries which the directors award themselves, although in reality they direct nothing, because it is impossible to watch over the administration from 2,000 leagues away; the unlawful tax paid to the British Government and discounts in the

⁷⁸*Proyectos multinacionales de infraestructura física...*, *op. cit.*, pp. 224-225

⁷⁹Hanson, *op. cit.*, p. 317.

⁸⁰Molitor, *op. cit.*, p. 263.

remitting and exchange of money, which absorb a large part of the proceeds and which the Government will have to offset; and also the fact that this situation will place Argentines who wish to buy shares in the Company in an intolerable position.”⁸¹

Nevertheless, the articles were approved.

Perhaps the clearest example of the results of dividing the administration of an international section between two companies, and allowing them to maintain residence abroad, is that of the trans-Andean railway between Los Andes, Chile, and Mendoza, Argentina. The fact that this is a classic case justifies a rather detailed description of how it was operated in the initial period.

Section IV above contained an examination of the financing and construction of the railway, and the reasons which led to the setting up of two companies separately answerable to the Governments of Argentina and Chile. What happened after the opening of the line in 1910 is very well summed up by the Chilean engineer Santiago Marín Vicuña, who wrote in 1927.

“Something anomalous, which should be noted and explained, has occurred in the operation of this line: the expected economic benefits for our country have been relatively small, if they are compared with the monetary sacrifices which the State has been obliged to bear.

“This was due to the undesirable and unacceptable fact that the Chilean and Argentine sections constitute separate companies which—though this may seem paradoxical—had *opposing* interests, since once the administration of the latter section had been entrusted to the railway from Buenos Aires to the Pacific, the financial interests of this company lay in *hampering trans-Andean traffic to Chile*.

“As a result, because of a curious and irritating tariff-fixing system, the products from Mendoza province had to travel 1,043 km to Buenos Aires, instead of coming only 387 km to Valparaíso. And to make this imposition even more flagrant, there were goods with a higher tariff between Los Andes and Mendoza than between

Los Andes and Buenos Aires, so that a partial journey cost more than the whole!”⁸²

Obviously, this had not been the intention of the two Governments when granting the concessions and guaranteeing interest on the capital invested. Accordingly, after the line had been opened, Argentina and Chile appointed a commission which met in 1911 to study a tariff structure which would stimulate international traffic and to arrange a fair distribution of freight between the two Andean railway companies. On the completion of their meetings the delegates proposed the establishment of a Standing International Commission to study and resolve the problems of the trans-Andean railway. The results of the 1911 meetings were summarized in the *Informe sobre la situación del Ferrocarril Transandino Chileno*, ordered by the Chilean Minister of Communications in 1927, in the following words:

“The result of the 1911 conferences may be outlined as follows: The question of splitting the freight between the companies remained pending. The trial tariffs were not put into practice, and the Standing International Commission was never appointed. As a result, each company continued to charge the tariffs which it had already established...”⁸³

The problem of drawing up tariffs which suited both countries remained unsolved for the next six years, until it was agreed to submit the question to the joint arbitration of the Governments of Argentina and Chile, with the appointment of a commission which met in 1917. Nevertheless, the only issue on which a decision was sought was that of the splitting of the freight between Los Andes and Mendoza, and the level of the tariff was not brought up. The arbitration commission drew up a formula based on the work necessary to pull the train, which calculated the compensated distance of ascent in each section and applied the real distance in the case of a descent. As the compensated distance of ascent was calculated at 940 km (185 real km) in the Argentine section and 780 km (71 real km) in the Chilean section, the splitting formula was:

⁸²Marín Vicuña, *Política ferroviaria de la América*, *op. cit.*, p. 50.

⁸³Simón and others, *op. cit.*, p. 31.

⁸¹Scalabrini Ortiz, *op. cit.*, pp. 341-342.

$$\frac{\text{Argentine trans-Andean quota}}{\text{Chilean trans-Andean quota}} = \frac{1120 Q + 940 Q_a + 180 Q_c}{850 Q + 780 Q_c + 70 Q_a}$$

where Q is the total dead weight of the trains which have made the trip during a period of several months, Q_a is the freight tonnage from Mendoza to Los Andes and Q_c the freight tonnage from Los Andes to Mendoza.⁸⁴ The formula was frequently recalculated to take into account variations in the imbalance in traffic in each direction.

By agreement between the two Andean railways and the railway from Buenos Aires to the Pacific (three British companies), combined tariffs were established between Los Andes and Buenos Aires, based on the compensated distances on each section, but the tariff for livestock was not calculated on the same basis. As a result of these agreements, the breakdown of charges for some typical products, expressed in Chilean currency per metric ton in a full wagon, was as follows:

Products	Valparaíso- Los Andes (140 km)	Los Andes- Border (71 km)	Border- Mendoza (185 km)	Total Valparaíso- Mendoza (396 km)	Mendoza- Buenos Aires (1,053 km)
From Chile to Argentina:					
Beans	39.50	33.43	46.85	119.78	87.72
Cement	20.60	25.61	35.89	82.10	131.22
Wine in casks	39.50	40.11	56.22	135.83	105.27
Wine in bottles	51.30	40.11	56.22	147.63	292.90
From Argentina to Chile:					
Wheat	29.70	34.32	48.09	112.11	85.59
Cotton seed	29.70	35.64	49.95	115.29	85.59
Sheep (per head)	2.12	8.50	11.92	22.54	3.34
Cattle (per head)	17.25	37.79	52.96	108.00	14.83

Source: Marin Vicuña, *Política ferroviaria de la América*, op. cit., p. 49.
Simón and others, op. cit., p. 36.

Although the tariffs reflected the agreement on the splitting of freight between the two sides of the trans-Andean railway, anomalies persisted which impeded rational use of the international section. Thus, for example, the rate for cement from Mendoza to Buenos Aires was comparatively high, since it was equivalent to an implicit tariff on Chilean exports of that product to the Buenos Aires market. Furthermore, the trans-Andean rate for live cattle was very high compared with that for the section between Mendoza and Buenos Aires, thus lessening the possibility that livestock would

be exported from Mendoza through the port of Valparaíso. At all events, the basic problem was the freedom of the three British companies to fix charges at rates which maximized their own profits, without taking into account the effect on the development of international trade.

Between 1916 and 1920, the Ferrocarril Transandino Chileno registered operating profits in three years and losses in two, but even the profits fell far short of what was required to cover the interest on the capital, and the Chilean Government guarantee came into force. Moreover, since this guarantee covered a period of only 20 years, it would expire step by step in 1926, 1928 and 1930, and when it expired completely the company would go bankrupt as

⁸⁴Ibid., p. 35.

a result of its inability to pay interest to the holders of the bonds, to whom the railway was mortgaged. In anticipation of this possibility, the company approached the Chilean Government with a view to avoiding such a disastrous eventuality. The Government, too, wished to avoid the bankruptcy of the company, and was also very anxious to change the form in which the two Andean companies were administered, considering that they would work better under unified control.

As a result of these approaches, in which the Argentine section and the Government of Argentina also participated, the Chilean Government proclaimed law N.º 3803 of September 1921, which represents a classic example of the skills of firms from outside the continent in their negotiations with Latin American governments. Instead of allowing the Chilean Guarantee on interest to expire, as was laid down in law N.º 1588 of February 1903, the new law authorized the issue of Chilean State bonds which would be exchanged for the railway bonds, with the annual amount of interest exactly equal to the former guarantee, but including amortization of 1% a year. In turn, the preference shares were converted into ordinary shares, and 70% of them were transferred to the Government of Chile. Furthermore, the company was authorized to issue new bonds for a total amount of £ 500,000, with State-guaranteed interest of 7.5%, which would be invested in electrifying the line, paying off bank debts and improving protective works. Finally, the law laid down a basis for the unified administration of the two Andean sections in the following terms:

"5. The Company undertakes to unify previously, under the corresponding agreement, the administration of its railway with the administration of the Ferrocarril Transandino Argentino in order to provide services jointly as if there was a single company. The lines will be unified in agreement with the President of the Republic, who shall be authorized to concert with the Argentine Government regulations concerning the exchange of traffic and the role the two Governments will have in fixing charges."⁸⁵

The report to the Ministry of Communications to which reference has been made sums up this episode in the following terms:

"... as far as the trans-Andean railway is concerned, the State has done nothing but maintain, with its own budget resources, the life of a company which would have disappeared many years ago if abandoned to itself. This drain on the National Budget has not benefited either trade or production, but merely the holders of the bonds and the financial agents of the Company."⁸⁶

It may be argued that the Chilean Government had paid too high a price in its eagerness to institute a single administration for both sections of the Trans-Andean Railway. However, at least it received in return an opportunity, as owner of 70% of the ordinary shares, to impose its will and ensure that the railway was administered bearing in mind the national interest. Unfortunately, this did not result either.

In January 1922 the Compañía del Ferrocarril Transandino Chileno and the Compañía del Ferrocarril Transandino Argentino concluded an agreement on the unified administration of both companies, which was endorsed by the Chilean Government in February of the same year. Under this agreement a Joint Committee, composed of equal numbers of delegates from the boards of each of the two companies, was set up to appoint the General Manager of the unified lines and carry out all functions related to operations previously held by the two boards. Specifically, the rolling-stock and locomotives of both companies were to be used jointly, and the charges would be fixed by the Joint Committee. In order to put the agreement into effect, the Ferrocarril Transandino Argentino was to regain administration of its own line, which till then had been under the Ferrocarril de Buenos Aires al Pacífico.⁸⁷

Despite the prospects opened up by the agreement, the Joint Committee when set up was made up of two representatives of the Government of Chile, one representative of the Government of Argentina, and three rep-

⁸⁵ Simón and others, *op. cit.*, pp. 46-47.

⁸⁶ *Ibid.*, p. 49.

⁸⁷ *Ibid.*, pp. 51-53.

representatives of the private shareholders of the two companies, so that the Chilean Government, instead of three representatives out of five, as it had on the board of the Transandino Chileno, came to have two representatives out of six on the Joint Committee. In addition, there was a substantial overlap between the private shareholders in the two trans-Andean companies (the chairman of the board of the Transandino Chileno was a member of the board of the Transandino Argentino), so that the representatives of the private shareholders tended to adopt joint positions. Worse still, the Joint Committee set up its headquarters in London, so that the Chilean Government could only be represented through diplomatic agents in London. Finally, almost all the executives appointed by the Joint Committee to administer the railway were British, with no substantial participation either by Chileans or by Argentines. After all the financial sacrifices made by the Government of Chile, matters remained as before. As the report to the Ministry of Communications said:

"In this way the administration of the Transandino Chileno, as exercised through the Joint Committee, preserved in a national railway all the characteristics of a British colonial line."⁸⁸

The establishment of the Joint Committee, with headquarters in London, did not put an end to the expenditure incurred by the two former boards. More curiously still, while the board of the Transandino Chileno and the Joint Committee were based in London, a three-member local board with rather vague functions was established in Chile. As a consequence of this luxuriant proliferation of boards and authorities, the administration costs of the Transandino for Chile reached more than Ch\$ 557,000 in 1927, whereas the administration costs of a whole zone in the Southern network of the Chilean State railways came to only about Ch\$ 77,000 in the same year. It is also worth noting that the Transandino carried some 40,000 tons of freight and 20,000 passengers, while the zone of the Southern Network referred to carried some 500,000 tons of freight and 3 million passengers.⁸⁹

⁸⁸*Ibid.*, p. 60.

⁸⁹*Ibid.*, pp. 60-64.

The verdict of the report to the Ministry of Communications could be no other than the following: "In short, the Transandino Chileno is really a British railway, operated by Britons, directed from Great Britain but paid for with Chilean capital."⁹⁰

Such a situation could not last, and it was obvious that the position of the unified company was totally anomalous. As the report stated several times:

"In fact, both the Transandino Chileno and the Transandino Argentino—standing as they do between the major companies, the Ferrocarriles del Estado de Chile and the Ferrocarril de Buenos Aires al Pacífico—are equivalent to a resistance inserted in a circuit carrying heavy traffic."⁹¹

Sooner or later the Argentine and Chilean sections would be merged with the main railways of which they were actually branches, and this finally was the recommendation made in the report to the Ministry of Communications.⁹²

Nevertheless, it was clear that purchasing the railway would not be easy, especially after having saved the company by means of the 1921 law. The report to the Ministry stated: "If the shares referred to were freely sold on the market, the Government could acquire them in lots on different dates in order not to raise the price.

"However, this is not the case; the minority shares are controlled by a financial group which is ably directed and which has succeeded in obtaining benefits from every negotiation with the Government of Chile. Furthermore, the same group controls a part (we cannot say whether it is the majority) of the shares in the Transandino Argentino. The resistance, accordingly, would be exercised by the two Transandinos and against the two Governments.

"It goes without saying that this resistance would be exercised only to uphold the price of the shares. It is not to be supposed that the financial group in question has the slightest

⁹⁰*Ibid.*, p. 76.

⁹¹*Ibid.*, p. 70.

⁹²*Ibid.*, pp. 69-74.

interest in ensuring the survival of the companies out of a simple spirit of international philanthropy aimed at encouraging trade between Chile and Argentina.”⁹³

In May and December 1932 the Transandino Argentino suspended rail services because of financial losses,⁹⁴ and in 1934 steps were initiated to transfer both trans-Andean companies to the Governments concerned. The negotiations coincided with a break in continuous traffic between 1934 and 1944, after

an avalanche destroyed a substantial part of the track on the Argentine side. In 1935 a protocol between the Governments of Argentina and Chile provided for the establishment of a committee to study the situation, and finally in 1937 the two sections were purchased by the respective Governments.⁹⁵ In 1944, after the line had been reopened to continuous traffic, the railway between Los Andes and Mendoza was in a position to play its proper role for the first time.

VI

Analysis of possibilities of co-ordinating international railway sections

At the beginning of this work, we wondered whether the international sections had ceased to have the justification they had when they were built. If this were the case, then the fact that South America had not obtained the originally hoped for benefits from these sections because it had not ensured proper operational and commercial co-ordination of its railway services would be merely of historical interest. On the other hand, if most of these sections still have a clear role to play today as instruments for integration and development, it is obvious not only that it is vital to correct the mistake of the past, but that it would be irresponsible not to make use of this extensive infrastructure which we have inherited as a result of the sacrifices of our grandfathers. In my view, international railway transport does play precisely this role in South America, and this explains the fundamental meaning of my work.

In recent years CEPAL has carried out various research projects on transport between Lima and Buenos Aires, Lima and São Paulo

and Santiago and Caracas, in co-operation with other regional bodies.⁹⁶ These studies have made it clear that in comparison with shipping, international land transport offers clear advantages to exporters and importers of a wide range of goods. Two factors which have become important only in recent decades underline the role of land transport in the Southern Cone: firstly, the growing trade within Latin America in manufactured products of higher unit value than the commodities which traditionally dominated the area's trade, and secondly, the growing importance of certain poles of development in the interior of the continent, such as Santa Cruz, Salta and Corumbá.

To give a single example of the potential of land transport, table 1 outlines the comparative costs of the transport of copper by sea, by road and by rail between Rancagua and São

⁹³*Ibid.*, p. 72.

⁹⁴*Los ferrocarriles internacionales de Sudamérica...*, *op. cit.*, p. 134.

⁹⁵*Ibid.*, p. 135; *Proyectos multinacionales de infraestructura física...*, *op. cit.*, p. 231.

⁹⁶See “Servicios de transporte terrestre internacional en los corredores Lima-Buenos Aires y Lima-São Paulo” (E/CEPAL/1007) and “Perspectivas del transporte internacional por carretera en la subregión andina” (E/CEPAL/L.154 and Add. 1 and 2).

Paulo. As can be seen, the lowest-cost option is B.4, exclusively using railways from Rancagua to São Paulo *via* Las Cuevas, while the most expensive is the option using road transport for the whole journey. All the multimodal options which used railways cost less than the multimodal option using shipping.⁹⁷

Table 1

SOME ALTERNATIVES FOR TRANSPORTING COPPER FROM RANCAGUA TO SAO PAULO
(Cost breakdown of the MTE and transport times)

ALTERNATIVES	SECTIONS OR OPERATIONS	COST PER SECTION OR OPERATION US\$/TON.	DIRECT COST OF THE MTE US\$/TON.	AVERAGE TRANS-PORT TIME IN DAYS
By sea: A	Rancagua-San Antonio, by rail ¹	5.00		
	Transshipment in San Antonio	750		
	San Antonio-Santos, by sea	53.17		
	Transshipment in Santos	15.50		
	Merchant navy tax (20% of sea freight charge)	10.63		
	Port improvement tax (3% of cif value at US\$ 1,495/ton)	44.86		
	Customs clearance in Santos	4.00		
	Santos-São Paulo (customer's warehouse) by road	9.00	149.66	40
By land: B. 1	Rancagua-Mendoza, by road (including transshipment in Mendoza)	50.00		
	Mendoza-Buenos Aires, by rail ²			
	Transshipment in Buenos Aires	44.00		
	Buenos Aires-Uruguaiana, by rail ³			
	Transshipment in Uruguaiana	2.00		
	Customs clearance in Uruguaiana	2.00		
	Uruguaiana-Barra Funda, by rail ⁴	25.00		
	Transshipment in Barra Funda	2.00		
	Barra Funda-São Paulo (customer's warehouse), by road	5.00	130.00	18
B.2	Rancagua-Osorno, by rail ¹	15.00		
	Transshipment in Osorno	2.00		
	Osorno-Bariloche, by road	25.00		
	Transshipment in Bariloche	2.00		
	Customs formalities in Bariloche	2.00		
	Bariloche-Buenos Aires, by rail ⁵			
	Transshipment in Buenos Aires	52.00		
	Buenos Aires-Uruguaiana, by rail ³			
	Transshipment in Uruguaiana	2.00		
	Customs clearance in Uruguaiana	2.00		
	Uruguaiana-Barra Funda, by rail ⁴	25.00		
	Transshipment in Barra Funda	2.00		
	Barra Funda-São Paulo (customer's warehouse) by road	5.00	134.00	21

⁹⁷Three taxes are included in shipping costs: the 3% tax on freight levied by the Caja de Previsión de la Marina Mercante de Chile, which is included in the shipping tariff in table 1; the additional freight tax for the renewal

of the Brazilian Merchant Fleet, equivalent to 20% of the value of the cargo imported; and the Brazilian port improvement tax, equivalent to 3% of the cif value of the goods.

ALTERNATIVES	SECTIONS OR OPERATIONS	COST PER SECTION OR OPERATION US\$/TON.	DIRECT COST OF THE MTE US\$/TON.	AVERAGE TRANS- PORT TIME IN DAYS
B.3	Rancagua-Socompa, by rail ⁶	40.00		
	Socompa-Santa Fe, by rail ⁷			
	Santa Fe-Paraná, by road (including transshipment)	50.00		
	Paraná-Uruguaiiana, by rail ³			
	Transshipment in Uruguaiiana	2.00		
	Customs clearance in Uruguaiiana	2.00		
	Uruguaiiana-Barra Funda, by rail ⁴	25.00		
	Transshipment in Barra Funda	2.00		
	Barra Funda-São Paulo (customer's warehouse) by road	5.00	126.00	25
B.4	Rancagua-Las Cuevas, by rail ⁸	22.00		
	Las Cuevas-Mendoza, by rail ⁷	12.50		
	Transshipment in Mendoza	2.00		
	Mendoza-Buenos Aires, by rail ²	44.00		
	Transshipment in Buenos Aires			
	Buenos Aires-Uruguaiiana, by rail ³			
	Transshipment in Uruguaiiana	2.00		
	Customs clearance in Uruguaiiana	2.00		
	Uruguaiiana-Barra Funda, by rail ⁴	25.00		
	Transshipment in Barra Funda	2.00		
	Barra Funda-São Paulo (customer's warehouse), by road	5.00	116.50	23
B.5	Rancagua-São Paulo (customer's warehouse), by road	170.00	170.00	12

¹Ferrocarriles del Estado de Chile, 1.676-m gauge.

²Ferrocarril General San Martín, 1.676-m gauge.

³Ferrocarril General Urquiza, 1.435-m gauge.

⁴Redo Ferroviaria Federal S.A. and Ferrovías Paulistas S.A. (both 1.080-m gauge).

⁵Ferrocarril General Rosa, 1.676-m gauge.

⁶Ferrocarriles del Estado de Chile, 1.676-m gauge between Rancagua and Calera and 1.000-m gauge between Calera and Socompa. In Calera the bogies of the wagons are changed.

⁷Ferrocarril General Belgrano, 1.000-m gauge.

⁸Ferrocarriles del Estado de Chile, 1.676-m gauge between Rancagua and Los Andes and 1.000-m gauge between Los Andes and Las Cuevas (inside of end of tunnel). In Los Andes the bogies of the wagons are changed.

These same studies show that the potential of the physical infrastructure, built with enormous efforts which are a tribute to the engineering skills and industriousness of South Americans, will remain unused until men emerge who are prepared, with the same imagination which was manifested during the construction of the routes, to embark on the arduous task of joining forces to eliminate the

administrative barriers to the creation of the institutional infrastructure which is essential if international railway services are to begin to operate as they should. In this way we can prove that the expectations suggested by intuition are correct: small investments—added to large doses of goodwill and solidarity—will suffice to overcome some problems standing in the way of the operation of

such services which have not yet been solved because of insufficient willingness to undertake joint action.

Traditionally, international railway transport has been characterized by the transfer of responsibility at the moment of passing the freight wagon on at the point of connexion between the routes of two separately administered companies. In this way, international rail transport is equivalent to the sum of the national transport services of two or more interconnected companies. This type of service must compete in the international market with such means as road transport, where the truck covers the entire route under the responsibility of a single carrier, as is also the case with sea and air transport.

Some studies of the factors affecting demand for international transport services have demonstrated that this demand is determined by the cost of transport and by the quality of service throughout the journey. The users demand that the transport company should solve all the problems which arise in moving the goods from the point of origin to the point of destination. Door-to-door transport service is much more important to users in international transport than in national transport. Hence the greater importance of co-ordination in order to arrange an international transport service.

In view of the fact that the services required by international traffic on international rail routes will continue to be provided within each country by the same companies which are responsible for national traffic, and that in most cases international traffic is of only marginal importance to them, it is necessary to analyse the requirements for co-ordination between these companies at least at the three following levels:

(a) *Operational co-ordination*, which includes agreements on itineraries, exchange of wagons, transshipment, documentation, and so on, and which might be viewed as a question of facilitation, in other words the elimination of physical or administrative obstacles to the expeditious movements of wagons in international traffic;

(b) *Commercial co-ordination*, which relates essentially to relations with the users, the

aim being to enable a customer to solve all his problems through a single company without having to deal separately with each company involved. This co-ordination should include agreements on the harmonization of freight classifications, the fixing of charges, single payment of charges for the entire journey, sales promotion, complaints services, and so on;

(c) *Co-ordination of programmes and plans* which aim at sharing work on the design and implementation of investment projects required to improve the operation of the international sections.

In 1964, at the initiative of the railway companies of the Southern Cone of South America, whose networks make up an international railway system, the Latin American Railways Association (ALAF) was set up for the purpose of "promoting safe, efficient and economic railway transport; stimulating trade by railway; and ensuring the co-ordination and progress of Latin American railways and railway industries, as a means of achieving social and economic integration for the benefit of the peoples of Latin America".⁹⁸

Until the establishment of ALAF, the railways were immersed in their local problems, and possibilities of co-ordination between them were minimal. From the outset ALAF has attached the greatest importance to promoting international rail transport and, with the aim of institutionalizing its work in this direction, it established the Zonal Groups, first binational in nature, and later multinational, as required. The periodic work of these Zonal Groups is a typical example of co-operation among developing countries, and has offered an opportunity for contacts between railway executives at the highest level, so that they can undertake the task of co-ordinating international rail traffic.

Under the sponsorship and co-ordination of ALAF, there has been a vast increase in the meetings of Zonal Groups to analyse the operational problems of all the international railway connexions in order to improve the transport services offered to users, thus making it possible to tackle in the field a series of measures ranging

⁹⁸Statute of the Latin American Railways Association, art. 2.

from co-ordination of itineraries and work on border interchange stations to the leasing of traction equipment between connected networks in order to facilitate the operation of trains. For some connexions, such as those between Arica and La Paz, and between Los Andes and Mendoza, ALAF has encouraged the railways concerned to co-operate in carrying out comprehensive studies designed to improve the co-ordination of services and the carrying capacity, although the results are still limited.

As a result of the action of these Groups, the traffic agreements between the railways have been improved, and under the direction of ALAF a model agreement has been prepared to guide the modification and adjustment of the standards governing bilateral traffic, with a view to standardization.

An experiment in transcontinental transport carried out in 1974 as part of a joint project by CEPAL and the Instituto para la Integración de América Latina (INTAL), with the co-operation of ALAF and the railway companies of Chile, Argentina, Bolivia and Brazil, demonstrated the technical feasibility of this type of transport between Antofagasta and São Paulo, but there remained a clear need for institutional agreements regulating multinational railway transport. Under the direction and co-ordination of ALAF, and with advisory services from CEPAL and the experience and firm determination of the railway companies of Argentina, Bolivia, Brazil, Chile, Paraguay, Peru and Uruguay, the Agreement on Multinational Freight Transport by Rail, known as the MULTILAF Agreement, was drawn up and is now fully in force, although some temporary restrictions still remain.

As regards concrete progress in international transport since the establishment of ALAF, there has been a very substantial increase in transport on various international rail links, particularly between Bolivia and Brazil and between Argentina and Brazil. It is also possible to note an interesting flow of copper traffic by rail from Chile to Brazil through Argentina, which has demonstrated the technical and economic feasibility of transcontinental rail transport over distances of more than 4,000 km in competition with other forms of land and sea transport.

The active and growing competition provided by road transport for international railways today means that the position of the latter is much more difficult than it was 50 years ago. Nevertheless, the present determination to ensure the essential co-operation and co-ordination among national companies in neighbouring countries opens up better prospects than in the past for more effective exploitation of the inherent advantages of railways in international traffic. If this preparedness and determination had existed at the right time in the past, the economic history of the subregion would have been different, and regional integration would have been a reality at a time when some visionaries looked forward to it as a dream of the future.

The creation of ALAF has led to a profound change in the attitude of the railways to international rail traffic. The repercussions cannot yet be assessed in the absence of a historical perspective, but it is very likely that in coming years the history of international railways in South America will be divided up into two periods: before ALAF and after ALAF.

The basic needs strategy as an option Its possibilities in the Latin American context

Jorge Graciarena*

The basic need strategy has been intensively discussed at international forums in recent years, but there still exists today a certain ignorance regarding its content and the economic and political factors which would favour its establishment and consolidation. Accordingly, the author begins by defining it clearly, for which purpose he contrasts it with other strategies, particularly those aimed at eradicating poverty and other which combine elements of several options in a somewhat eclectic manner.

After this definition, he devotes the body of the article to an analysis of some national and international political requirements of the basic needs strategy. As regards the internal political order, he emphasizes that in order for this strategy to prosper, the political régime must be one which, supported by a participating and organized community that controls the State apparatus, can guide and strengthen the strategy's implementation and at the same time overcome the innumerable obstacles it would face. International relations would require the establishment of a new order, of the type proposed under the system of "collective self-reliance", which sees basic needs as its central objective.

Given these and other political requirements which he also considers, he deems it unlikely that this strategy will be adopted within the short term in Latin America. Taking into account the rapidly changing times and the seeds of change they bring with them, however, he does not consider it as a useless exercise to start defining more precise features of this "concrete utopia", for it should not surprise anyone if, in a few years' time, it were to become the most likely horizon of our peoples.

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1. Two antithetical proposals: poverty versus basic needs

In this rapid examination of some recent proposals concerning poverty and basic needs, attention is focused on a small but significant group of such proposals which are shown under A and B in the footnote.¹ These two proposals have been chosen because they adequately represent the extreme positions of the broad spectrum of proposed hypothetical options and possibilities which dominate the international debate today. It will thus be possible to discern more clearly the differences between them and to clarify some of the reasons which have converted them into a motive for confrontation. The basic aim is to distinguish the true nature of the clearest and most influential proposals concerning poverty and basic needs when compared with one another in a broad frame of reference and as possible options not only in the face of problems of want and mass poverty but also as real options for social development and change.

These proposals are essentially very different in their axiological and ideological assumptions, their basic principles and aims, the time horizon involved, and their social and political coverage. As regards their relationship to the prevailing social order they can be considered as forming a scale ranging from acceptance of the *status quo* (World Bank) to radical rejection

¹The following proposals are considered:

- A. *Poverty*. Account is taken mainly of the World Bank proposals contained in *The Assault on World Poverty*, Baltimore, The Johns Hopkins University Press, 1975, which also includes the speech made by Robert S. McNamara in Nairobi (annex 15, pp. 90 *et seq*); and the *World Development Report*, 1978, Washington, World Bank, 1978, chapter IV, which reproduces the basic position maintained in the aforementioned study.
- B. *Another development and basic needs*. First, reference may be made to the approach to basic needs in the 1975 Dag Hammarskjöld Report entitled *What Now: Another Development (Development Dialogue)*, Uppsala, Sweden, 1975, N.º 1/2, and the group of studies "Towards a theory of rural development" in *Development Dialogue*, Uppsala, Sweden, Dag Hammarskjöld Foundation, 1977: 2. The collective book by Marc Nerfin (comp.), *Hacia otro desarrollo: Enfoques y estrategias*, Siglo XXI, Mexico, 1978, may also be consulted. All these studies are considered as forming a relatively homogeneous group. Also along this line of thought is the study by the Fundación Bariloche, *Catastrophe or New Society? A Latin American World Model*, Ottawa, International Development Research Centre, 1978.

of the major social systems in force and even of industrial civilization itself ("another development").

They can be classified in the same way by the elements they include: while the first proposal is not much more than a limited poverty policy composed of palliatives that would fit in with any political order and style of development, the "other development" proposals aim at the complete reorganization of the internal and international social order, as well as that of the individual and social personality.

The first proposal is intended to provide solutions only to the problem of mass poverty visualized as an anomalous situation which must be "eradicated" from the social body, with secondary concern for population growth and income distribution, whereas the "other development", in contrast, covers a broader spectrum of problems ranging from nutrition and non-renewable natural resources, via population and the ecological balance, to democracy, the international order, social justice and the overcoming of human alienation, all of which are envisaged as an inter-related and mutually dependent complex. The mere possibility of purchasing a "basket" of essential goods is by no means sufficient: what this proposal calls for is to find ways of achieving the full development of the human state.

Consequently, the substantive disparity between these proposals is so considerable that most of the comparisons made are perfectly arbitrary, since they are out of context. To define this significant frame of reference is thus the main purpose of these notes, which merely aim to contribute some elements that will help

to avoid such widespread fallacious interpretations.

Within an immediatist perspective, it may be said that the conventional developmentalism approach to the poverty problem is that it should be eradicated or extirpated without postponing or reducing growth nor substantially altering the structural features of the economy and power or, more generally, the dynamics of the prevailing style of development.² Poverty is thus seen as a self-contained and isolated problem, with no projections over other structural areas or broader social processes. Hence the majority of the proposals in this connexion are assistance-oriented and paternalistic (channelling of resources from above to enable the "poverty line" to be crossed) and normally stand outside general development policies and strategies.

In one way or another it is taken for granted that the benevolent action of the "invisible hand" and of market forces will stimulate the "trickle down", thus mitigating the main wants of the poor until the so-called poverty gaps can be bridged. It is maintained that this is already happening and that the poor and marginal population will eventually be integrated in the dynamics of capitalist development. The considerable growth of the Latin American economy in recent years has caused some to think that a high proportion of the poor are only just under the poverty line and that their relative importance is rapidly diminishing. Hence, it is held, it should be possible to assemble the necessary resources to alleviate their wants without excessive or intolerable sacrifices on the part of the high-income strata and there is nothing, therefore to prevent the eradication of poverty being put forward as a possibility compatible with the continuation of a concentrating development style and a minority consumer society.

The "other development" approach, with the accent on the satisfaction of basic needs, is based on a very different assumption, which

C. In other proposals, attempts have been made to combine the approach based on the poverty situation with the basic needs transformation approach. A significant effort in this respect is represented by the ILO report *Employment, Growth and Basic Needs: A One-World Problem*, Geneva, ILO, 1976, and the *Declaration of Principles and Programme of Action* adopted at the Tripartite World Conference on Employment, Income Distribution and Social Progress and the International Division of Labour, Geneva, June 1976. The World Bank study entitled *Redistribution with Growth*, IBRD, Washington, 1974, is also in keeping with this intermediate line, eclectic in one sense and reformist in another.

²"Style of development" is understood here both as a mode of growth and operation of the internal economy and a form of its insertion in the international setting, and as a structure of power relations. See in this respect, J. Graciarena, "Power and development styles", *CEPAL Review*, N.º 1, first half of 1976.

from the start involves the elimination of poverty through a drastic reorganization of society and of human co-existence. Unlike the poverty approach, which is highly flexible and imitative (qualities which explain much of its credibility and appeal for the technocratic and hegemonic sectors), the explicit goal of the basic needs approach is the achievement of an egalitarian model of society. In some cases this model already has a label: the Fundación Bariloche proposes a participatory and anti-bureaucratic type of socialism. Several "other development" proposals include an elaborate explanation of this utopian model which contains the main characteristics of the "new society" in which, it is claimed, there will be no poor because basic needs will be satisfied with the introduction of the changes proposed as requirements of the new societal model.

As will be appreciated from the foregoing, it is not possible to establish a gradual scale between the poverty and basic needs approaches, because the differences cannot be considered in the aggregate and the initial assumptions and objectives differ radically. In the one case, the eradication of poverty lies at the end of the road, while in the other the satisfaction of basic needs is established from the beginning as the structural principle of a model of society in which the poverty situation of want is, in principle, excluded as a real possibility.

All the proposals considered are based on an implicit or explicit diagnosis containing an evaluation of the present and a hypothesis concerning the scenario which is expected to prevail in the future. As already stated, the poverty approach postulates the continuity of the existing capitalist social order, while the basic needs approach is based on the conviction of its forthcoming irreversible decline and the most radical thinkers do not even consider the possibility of a happy adjustment that could indefinitely prolong its present moribund state. For some there is no place in the long-term future for anything but either authoritarian régimes of a corporative type or for a participatory type of socialism: under no circumstances is there any place for market capitalism. Although not always explicitly, the "other development" studies by the Funda-

ción Bariloche share this position. In the long run, consumer capitalism is seen as inevitably doomed, not only because it is unjust and inhuman, but also because it is predatory and destructive and at the same time incapable of confronting and resolving the challenges of the future. Moreover, it is held largely responsible for the existing threats to the future of mankind. This may be seen in the final balance of the Fundación Bariloche.³

For a proper understanding of these approaches it must be borne in mind that without exception all the so-called "world models" derive from admitted motivations generated by a situation involving a presumed threat, whether related to ecological, natural or demographic causes, the likelihood of a social revolution, or that of the collapse of civilization. This common anticipation of a possible catastrophe would seem to be the greatest constant in the various dissimilar proposals. It appears in McNamara's speech when he launches the World Bank's "assault on world poverty",⁴ in

³"In summary it can be said that economic growth with the preservation of the present income distribution system would, at the very best, delay the goal of a liberated humanity, free from suffering and misery, by at least two generations. It also implies the need to devote between three and five times more material resources to the achievement of the desired objectives, thus multiplying the pressure on the environment, and all this to maintain the careless consumption of privileged minorities... Lastly, the model shows within the obvious limitations of this type of work, that the fate of man does not depend, in the last instance, on insurmountable physical barriers but on *social and political factors that man must modify*. Their solution is not at all easy, because to change the organization and values of society, as history has shown, is much more difficult than overcoming physical limitations. To attempt the task, however, is the *only way open to an improved humanity*..."

"It could be said that this proposal is utopian, and that it would be more realistic to propose solutions that involve less radical modifications to the sociopolitical structure of the world. Those two hold this position should be reminded of the words of John Stuart Mill more than a century ago: *'For a great evil, a small remedy does not produce a small result: it simply does not produce any result at all.'*" Fundación Bariloche, *Catastrophe or New Society?* op. cit., pp. 106-108 (our underlining).

⁴McNamara warns us about the possibility of a social revolution in the following terms: "The real issue is whether indefinite procrastination is *politically prudent*. An *increasingly inequitable situation will pose a growing threat to political stability*"; and "if, in the end, governments fail in that effort (a search for feasible solutions to the massive problem of absolute poverty), then *I fear it will matter a great deal less what their other successes*

the initial approach of the Hammarskjöld Report,⁵ and in the very title of the Fundación Bariloche study.⁶

While the World Bank's proposal considers the poverty situation as the main threat to the *status quo*, the other proposals admit from the start the importance of the problems dealt with at United Nations world meetings on food, population, employment, natural resources and the environment, linking them with the critical debate on the future of the industrial civilization and the forecasts of a possible change in the historical system.

The poverty approach considers the socio-political structure as a constant when historical change has reached unforeseen and unprecedented rates. Thus, the World Bank proposal boils down, in substance, to an increase in the productivity of the rural poor and the urban marginal population in order to improve their incomes. In McNamara's own words: "...the basic problem of poverty and growth in the developing world can be stated very simply. The growth is not equitably reaching the poor. And the poor are not significantly contributing to growth. Development strategies, therefore, need to be reshaped in order to help the poor to become more productive." (From the preface to *The Assault on World Poverty*, p. v.; (our underlining).)

Clearly, therefore, this proposal centres on a specific problem whose solution is of very limited scope: to reduce the structural duality

and social marginality mainly by raising the productivity of the poor in the hope that at the same time this will promote the reduction of demographic growth and indirectly solve the population problem.

This is a typically conservative and technocratic solution because everything depends on acceptance by the government (p. 4) and it is based on historical-structural parameters which do not change but which, on the contrary it is aimed to preserve as an important final objective. Hence the concern about the significance of the threat as a possibility of changes in the power system. Therefore, the basic premise of the poverty approach is the need to ensure the continuity of the social system, and this is represented not only as a feasible possibility but also as a historical necessity for the survival of the present industrial civilization and capitalism. In this case, the social revolution is the much feared threat which a struggle is being waged to avert, while in the "other development" proposal it constitutes the hope that holds out the possibility of a more promising future.

Thus, it is not possible for the basic needs option to offer such specific policy proposals and plans as the poverty approach, since its very origin implies a complete reorganization of society. However much the "other development" proposals may attempt it, they cannot go much farther than the formulation of general policies; hence their main strength lies in their social appeal. Since they have not as yet materialized historically—a very different case from the poverty approach, which already has an established and operative place in the social order—to bring this about it is essential to convince, attract and unite social forces, prepared an ideology and propose a strategy of a very different kind, involving social and political action within the framework of a new national and international social project rather than planning and programming within the *status quo*.

2. The basic needs proposal as a concrete utopia

In short, the basic needs proposal is a task for men of government, politicians and intellectuals and is therefore pre-eminently a "con-

may be". R. S. McNamara, "The Nairobi Speech" and preface, in World Bank, *The Assault on World Poverty*, p. 94 (our underlining).

⁵The Hammarskjöld Report recalls that "the problems brought to the fore, whether related to food, energy, population, the environment, economic and monetary matters or the 'limits of growth', are only the most obvious signs of a 'great disorder under heaven'". It then mentions, as causes of the poverty crisis, alienation, international relations, institutions and "the growing feelings of frustration that are disturbing the industrialized societies"; and adds: "The situation cannot be properly understood, much less transformed, unless it is seen as a whole", p. 5 (our underlining).

⁶The Fundación Bariloche admits the threat as described by the Club of Rome in its study on "the limits to growth", in which it envisages the possible depletion of natural resources and limits to economic growth due to the population explosion. See the Introduction to *Catastrophe or New Society?*, op. cit., pp. 7 and 11 et seq.

crete utopia". It should be remembered that the Hammar skjöld Report, which was specially prepared for the Seventh Special session of the United Nations General Assembly (1975), was directed at the Third World countries which were then promoting the establishment of a new international economic order. It is therefore more like a political manifesto than a partial strategy suitable for planners. The historical feasibility of this proposal will basically depend on the extent to which it fits in with the crisis that is diagnosed and on its appeal for those who hear its call and see that they are in danger. The force it may generate and orient in a direction that is rationally compatible with a solution of the crisis will provide the only legitimate context for evaluating it and subjecting it to criticism.

The "other development" proposals are often dismissed as utopian, in a clearly derogatory sense, because they advocate profound and far-reaching structural and institutional changes, whereas the poverty approach is preferred as being more realistic and in keeping with the facts, since it deals specifically with a supposedly limited and clearly defined problem and is therefore alien to any utopian digression which is felt to be so out of place in pragmatic technocratic circles.

Strictly speaking, utopian aspects are by no means alien to the technocratic approach, although the utopia is not expressly manifest or may be vehemently rejected as alien to the "technical truth" of this approach. It is just as utopian to postulate a future golden age as a mere extrapolation of the present as to postulate a different future as the result of its radical transformation. To wager on the continuity of the existing social order in the medium and long term may be as utopian (in the sense of unrealistic) as to wager on its radical transformation. Both possibilities will always be conjectures, although they will always be possible too. It all depends, then, on the predictive quality of the conjecture, on the way in which it adjusts to existential conditions, vital experiences and personal motivations, and still more on its capacity to induce the proposed changes.

As so aptly recalled by the Fundación

Bariloche (pp. 7 and 108), a proposal of this kind, i.e., a "catastrophist" and change-promoting proposal, is always to some extent in the nature of a self-fulfilling prophecy, that is, a prophecy which induces and creates the conditions for its own fulfilment, when, of course, historical circumstances are favourable. What counts first of all is the initial impulse, an idea which finds social acceptance because it responds to a vital, intense and deep-seated need. This idea could very well be the catalyst of the process. The introduction to the Hammar skjöld Report is entitled "To set in motion the process of change", and it is headed by the following Chinese proverb: "Even the longest journey begins with the first step".

This type of wishful thinking, which tends to be an inwardly cherished myth while on the way to becoming an *idée force*, involves greater intellectual risks for those who advocate it than the tacit defence of the continuity of the *status quo*. In normal times nothing seems firmer or more secure than the latter, but when many things which appeared to be stable and secure vanish into thin air or rapidly collapse and troubled times set in, not a few of the old convictions waver and confidence in the duration of the prevailing order weakens and tends to evaporate. This is the high road to crisis, which operates as a feed-back mechanism creating its own forces of inertia that project it beyond its initial impulse towards a historical horizon which may bring either its partial or complete solution or else chaos and dissociation.

Continuity, change: who can convincingly demonstrate the possibility of either? The intellectual dilemma of choice may be resolved in various ways, either by means of ideological and axiological convictions or through paralysing indecision. If these possibilities are judged as criteria applicable to reality, however, because of their capacity to represent concrete situations and real processes, and historical trends begin to be visualized differently and are seen to change their course, both the old and the new palliatives cease to be operative and the opportunity of change seems to impose itself by its own weight. It might be adduced that continuity and change are com-

patible options. But this would be an ambivalent approach consistent with the poverty proposal but wholly incompatible with the "other development" approach, because the latter claims to be nothing less than the seed of a "new society".

Therefore, nothing could be more arbitrary than to place all these options on the same plane and consider them as relatively interchangeable. The basic needs proposals cannot be judged on what they have not got and cannot have, and still less should they be placed outside the conceptual context from which they originated and to which they refer, i.e., the menacing controversy opened up by the studies of the Club of Rome, the reports of world conferences on nutrition, population, environment and employment, and above all the discussion of the viability of capitalism and its capacity to solve the major present and future problems of mankind.

The poverty approach has very little to do with this plane since it points in a different direction and covers a much shorter distance and problems of considerably less scope. It is not claimed to be anything but a political strategy of palliatives, of an immediatist nature, aimed only at forging ahead and preserving the existing *status quo*.

3. On other eclectic proposals

A great many efforts have been made to bring the poverty and "other development" proposals closer together. These attempts are in two directions, and are frequently combined. The first type of attempt consists of establishing a sometimes indefinite time sequence between the satisfaction of material and non-material needs. The second takes the form of reducing the latter to the large-scale provision of second-class basic social services (health, education, leisure facilities) with no major structural changes (assistance-oriented approach). Both types always involve transfers of resources of different kinds and some degree of income redistribution, but always from the top downwards, without contemplating increased social and political participation as a requirement of

the "basic democratization"⁷ process, which is essential for the "other development".

The outstanding feature of some of these attempts to formulate proposals that will reconcile the approaches to poverty and go beyond their limitations is the effort to adjust to the historical situation and estimate objectively and realistically the feasibility of bringing about such changes —of the most radical nature, extending even to their structural causes— as are considered necessary and possible in order to solve the basic needs problem. Here lies their chief merit. However, it is difficult for them to avoid the essential ambiguity of resolving the structural inequality of the social classes without tackling the question of the dominant forces of society, the support of which is indispensable in order to attain the goal of eradicating poverty in conditions of social peace and within the *status quo*.

In some incrementalist lines of reasoning in relation to possible trade-offs between basic needs and growth of production, it seems to be assumed that basic needs may mean a curb on growth, and this argument occupies an essential place in the poverty approach. Accordingly, it is affirmed that if such were the case it would have to be avoided by choosing the growth rather than the basic needs option. It is a much more complex matter than a zero-sum game in which one person wins and the other loses, however. The reconciliation of the basic needs approach with growth would certainly not be feasible with the present growth model, which in essence excludes other approaches, but only with another development style having an affinity to basic needs, that is, having different objectives not only in the economy (employment, income distribution, organization of production, supply and demand for products) but also in society and politics (a more open, pluralistic, democratic and participatory society).

Accordingly, the assertion that the basic needs approach constitutes a threat to growth *in general* does not make sense, because what

⁷This concept is used in the same sense as that given to it by Karl Mannheim, *Libertad y planificación social*, translation by Rubén Landa, Mexico City, Fondo de Cultura Económica, second edition, 1946.

is really in question is the *prevailing* style of growth and capitalist development. This inevitably would be affected by a broad strategy for the satisfaction of human basic needs. There can be no possible trade-off with it if the aim is to preserve its present character. Any compatibilization of basic needs with growth—which is perfectly possible—calls for a structural change, even if only gradual, in the prevailing style of Latin American peripheral capitalism.⁸

4. Basic needs and Latin American political styles

In the light of the above reflections, the concept of the satisfaction of basic needs is not only considerably more inclusive than the poverty concept, but also requires, in order to put it into practice, more drastic and extensive economic and social changes. In some recent international documents it is affirmed that the basic needs approach not only entails the transfer of resources to the poor, whether at the national or international level, but also calls for the *restructuring of institutions*, including the credit system, trade patterns, market structures, development of technology, and *political power*. It is also argued that *a drastic restructuring of political and economic power is often needed if the fruits of development are to be extended to the vast majority of the population*. What is proposed, therefore, is nothing less than a radical social and political transformation such as would very probably exceed the limits of change desirable or even tolerable to the groups in power in most of the Latin American countries. To many of the élites of these countries all this will sound like an invitation to commit *hara-kiri*.

A “drastic restructuring of political and economic power” and of economic “institutions” (credit, trade, the market, technology) that would benefit the “vast majority of the population” could perhaps come about im-

perceptibly and without opposition over a very long period, but even then only when such changes were at the same time facilitated by trends which might be described as a “favourable historical chance”. In any case, the forces of change could not prevail without some conflicts, and even this would take too long for the expectant sectors to wait.

On the other hand, if an attempt were made to put the “other development” proposals into effect in a drastic manner, that is, rapidly, with determination and in their entirety, it seems certain that they would encounter formidable opposition from the privileged groups currently controlling the principal means and sources of economic, social and political power and benefiting from the prevailing style of development. Accordingly, the basic needs proposal involves the necessity of a veritable revolution and will therefore be rejected by the dominant classes as a threat against the established order.

I think this is the main reason why there has been a cooling-off of interest in the basic needs approach on the part of the governments of most of the Latin American countries. Thus, their increasing awareness of the concrete significance of the basic needs approach as a threat to the continuity of the established hegemonic order is causing them to depart from recent positions which, at least in principle, were closer to the spirit of this approach. I refer in particular to the approval of the appraisals of the International Development Strategy (IDS) undertaken in Latin America (Quito, 1973; Chaguaramas, Trinidad and Tobago, 1975; and Guatemala City, 1977), in which a critical evaluation was made of Latin America's development from the point of view of social benefits for the people, and the governments proposed development measures and strategies designed to correct the acknowledged deviations (concentration of income, unemployment and underemployment, pauperization, consumerism, growth of urban slums, etc.) observed in processes of rapid economic growth without generalized social well-being, i.e., with considerable masses excluded from the benefits of economic modernization, and with widespread situations of poverty. It is also true that very few of the most

⁸On structural maladjustments and the conflictive mode of growth of capitalism, see Raúl Prebisch, “A critique of peripheral capitalism”, *CEPAL Review*, N.º 1, first half of 1976, and “Socio-economic structure and crisis of peripheral capitalism”, *CEPAL Review*, N.º 6, second half of 1978.

important recommendations were implemented and that economic growth in the majority of the Latin American countries maintained without much change its exclusive, inequitable, concentrative and socially distorted characteristics.

For a better understanding of these reflections with respect to the feasibility of the basic needs approach as an alternative proposal it would seem necessary to give a clear idea of Latin America's present political styles. Very briefly, in our opinion, the political régimes currently in force in Latin America⁹ consist of one or a combination of the following:

Traditional autocracies. These régimes, which are generally personalistic, familistic and oligarchical, are usually found in some of the more backward countries especially in Central America and the Caribbean, and are dominated by a caudillo-type leader with the support of the military, national special-interest groups and transnational corporations. Their inevitable doom as a result of the march of history is becoming daily more evident.

Technocratic authoritarian régimes. These can be military governments, or civilian governments supported and controlled by the armed forces. Although allied to minority sectors, they operate in a state of great isolation from civilian society. There is a very considerable reduction in the participating political society, which is the result of the wide use of coercive measures deriving from the political hypertrophy of the State, all of which facilitates the design and implementation by the technocratic sectors of growth strategies which generate strong social opposition because they promote high income concentration in favour of both old and new groups forming part of the dominant coalition, but which are none the less imposed in the name of the most monopolitical of economic ideologies. As these régimes lack a majority popular consensus, they are in a continual state of crisis with respect to their legitimacy, which makes it all the more necessary to impose their rule through the use of repression. In these cases, the economic policies followed have considerably accentuated

the transnationalization of the economy, with systems in which there is heavy opening up to the exterior and insertion into the international market, with transnational corporations linked or associated with national élites in technocratic and modernizing régimes which dismantle and repress trade union and popular movements.

Elitist democracies. Although these régimes may promote populist policies, they are of an elitist type because in them popular participation is subject to relationships of clientism and patronage. The hegemonic system is based on limited alliances and unstable political and social commitments, owing mainly to serious and growing problems in connexion with the integration of new upward moving strata and sectors with increasing social power which oppose the prevailing sometimes benevolent but always authoritarian paternalism. In these régimes, democratization has meant that the distribution of income has mainly benefited the upper middle sectors, and has continued to be highly inequitable with respect to the lower half of the population living in conditions of extreme poverty and want. To sum up, a typical feature in these cases is the maladjustment between the considerable degree and extent of integration of the civilian society and the small capacity of the political society to provide a channel for the participation and aspirations of the organized popular sectors. The popular legitimization of the political régime thus becomes a crucial problem.

The following are the most probable future options of these régimes: an intensified process of democratization, that is, their evolution towards forms of greater political openness and popular participation in more truly democratic régimes within a pluralistic framework, with clearly defined objectives as regards the satisfaction of basic needs; or a regression to technocratic-authoritarian régimes of the type described earlier.

If these Latin American political scenarios are examined it is not difficult to conclude that any grounds for expecting a favourable reception for basic needs policies would at best be weak and contradictory. Inasmuch as the present governments and ruling circles are

⁹Excluding Cuba.

appealed to, their reactions will be —as they are now— acquiescent in form and negative in practice, and if, despite everything, their reactions are favourable, this will be thanks to international pressure and assistance.

5. *The opening up and transnationalization of the Latin American economies*

The new development strategies based on the opening up and internationalization of the domestic market, which began to be intensified as from the mid-1960s, and the prevailing trends of political change which crystallized with the generalized establishment of authoritarian régimes —many of them of a military character— led to a considerable reduction in the participation of the people and the political demobilization of civilian society. It is in the context of these new development styles —of quite a different stamp and orientation from the previous populist political régimes, which tried to harmonize economic growth with some degree of social development— that the basic needs proposals are judged. The new strategies and policies aimed at opening up to the exterior are attempts to create an expansionary dynamic force in economic production, concentrated on the one hand in the external sector (exports and imports, financing, technology, increased participation of transnational corporations), and on the other in the internal diversification of a modern, sophisticated and “miniaturized” market within the reach only of the high-income groups. In short, the prevailing trends in Latin America in the past decade have been socially and politically regressive, if compared with parameters of the satisfaction of basic needs and radical democratization, or with the goals established in the International Development Strategy.

The policies of opening up to the exterior and transnationalization have permitted a rapid growth of production in the modern sector, although with few external economies to step up the growth of the traditional sector which produces for the domestic market and accounts for the major part of employment.

Instead of growth “on two legs”, which would enable the modern and traditional sectors to support and stimulate each other, the

internal structural heterogeneity that already existed has been further accentuated, with a marked impact on the levels of technological development and of productivity and regressive effects on employment, income distribution and the living levels of the masses.

Although it may be argued that these undesirable effects of the prevailing economic growth models have been mainly due to a series of unavoidable interrelated causes and to the incapacity of important social sectors to adapt to the rules of a “free market economy”, the fact remains that the maladjustment between social development and economic growth has been one of the latent objectives (low cost and passiveness of the labour force) of economic and political strategies imposed by force by the State in order to attract foreign capital while simultaneously facilitating access to the world market for labour-intensive low-priced products. With little historical or political imagination, imitations were uncritically being made of models from Hong Kong, Singapore, Taiwan, Malaysia and other capitalist mini-States whose export economies have grown at a dizzy pace under the protection of advantageous geo-political situations which were rarely taken properly into account or were even ignored altogether in appraising the international success of their economies.

There is really nothing casual about this state of affairs. The social sectors which lack organization and power, either because they never possessed them (the poor and marginal groups) or because their strength has been drastically reduced or destroyed by repression (unionized workers), have remained excluded from the technocratic strategies of economies which no longer depend on them in order to expand and benefit the privileged minorities. It is primarily a question of the enjoyment of power and the rationality of objectives, where the circles and groups controlling the State and other important social power mechanisms have every opportunity to impose their will, and do so as long as they can without hesitation. Their social ethics are diametrically opposed to those invoked in favour of a basic needs strategy.

In this political context it would seem ingenuous to try to convince those benefiting

from this policy to do the opposite of what they are planning and doing to satisfy their own interests and maintain a *status quo* which is to their advantage. It is difficult to hide from them the fact that the basic needs approach brings with it an imperative need for social reforms and structural changes that will inevitably undermine their power bases, against which they are trying to defend themselves at both the internal and the international level.

The great expansion of international economic relations favoured this growth model for more than a decade until the external expansionary impetus was considerably reduced by the 1973 oil crisis and the world recession in 1975 and the ensuing years, when the region's growth rate dropped steadily.¹⁰ The protectionist measures adopted by the central countries helped to aggravate the crisis of the externally open model because it depends on a steady expansion of world demand, which did not grow at the expected rate and in some cases tended to remain stationary or even to contract.

Forecasts regarding the possible persistence of the recession in the centres still further accentuate the reigning confusion, which is complicated by the emergence of group expectations and social and political demands calling for a return to the expansion of the domestic market for the masses and therefore contrary to the style involving opening up to the exterior prevailing in the major part of the region.

6. Basic needs and the new international order

The basic needs proposals are not compatible with any new system of international division of labour (the New International Economic Order). One of the great merits of the Hammar-skjöld Report was precisely that it showed that basic needs—in the broad material and non-material sense envisaged there—can *only* be satisfied in the context of a specific new international order that assigns priority to relations among developing countries based on

their own efforts, the full utilization of their human and natural resources, free and advantageous association among them, and respect for their sovereignty and national rights. This complementary proposal called “collective self-reliance” has been developed in many studies, particularly in the Third World Forum and other groups interested in the formulation of alternative styles of development.

In contrast, the new international division of labour which is being forged through the growing transnationalization of economic relations is obviously not a proper basis for a new international economic order intended simultaneously to reduce international inequalities and extreme internal economic and social disparities. The dominant élites of countries not wishing to make concessions to basic needs exert pressure to establish a new international economic order which is not compatible with them, and still less with collective self-reliance. This indeed is what appears to be happening in several large and medium-sized countries of Latin America, whose governments advocate an international economic order favouring their export pretensions without altering the position of internal domination of their ruling circles, nor transforming the social bases of the power bloc. Their rejection of the basic needs approaches is becoming daily more vehement and evident.

For a clearer understanding of some of the preceding assertions, it seems necessary to introduce a more general approach to the basic needs question and its relationship with the New International Economic Order. The present international scenario is criss-crossed by historical currents and forces which are contradictory as regards the types of organization they tend to impose at the world level. First, there is a contradiction between the affirmations of the cultural diversity and historical identity of the national State on the one hand, *vis-à-vis* the emergence of an increasingly interdependent and centripetal international order on the other. This means a progressive reduction of the principle of national sovereignty, curtailing the States' operational autonomy and possibility of freely deciding the management of their economy and their participation in global and regional security stra-

¹⁰Cf. CEPAL, “The Latin American economy in 1978: A preliminary balance”, in *Notas sobre la economía y el desarrollo de América Latina*, Santiago, Chile, Nos. 286/287, January 1979, table 1, p. 2.

tegies. Philippe de Seynes has highlighted this contrast and the "deep-seated tensions between the requirements of nationhood and the compelling vision of 'One World'".¹¹

A second contradiction, which is more or less complementary to the former, is the divergent nature and orientation of the two processes of global interdependence, which in many ways are interlinked. The processes in question are the aforementioned internationalization of States on the one hand, and the transnationalization of the international division of labour on the other. Here there is something more than a mere academic distinction between political and economic relations at the international level. Rather, the affirmation points to the structurally contradictory nature and the manifest and latent antagonisms of two spheres of relationships which although analytically distinguishable are actually closely interrelated.

The national States are the principal actors in the process of internationalization, while transnational corporations play the same role in the process of transnationalization. These corporations dominate and control a major part of the flow of money and international financing, the creation of innovations and the transfer of technology, international transport and communications, and also the cultural industry aimed at the masses which has an influence of fundamental importance, from the formation of consumption habits to that of political ideologies. Through various organs and associations, financial clubs, councils and, above all, the Trilateral Commission, transnational corporations co-ordinate their activities and interests, devise and disseminate a common ideology (monetarist neo-classicism) and endeavour to forge a political will at the world level which often decisively influences the international order of States.

The image of world unity and the type of interdependence established differ in the two processes, although they are by no means dissociated. Central capitalist States and transnational corporations live together in a relative

symbiosis and maintain a peaceful co-existence which, however, is not free from tensions, nor are their actions and objectives completely convergent. In the case of transnational corporations the domination motive appears to be such that their aim is nothing less than to make the internationalization process serve the needs of transnationalization. Some already see the national State as a historically obsolete entity which for that very reason has become an obstacle to the progress of transnationalization.

7. *The "impact" of transnationalization on the internal order*

This whole complex web of international, strategic, political and economic relations is in many ways interlinked with the internal order of the countries of the region. Some Latin American authors talk of peripheral capitalism while others —accentuating the dependency relationship— call this form of insertion into international economy associate capitalism. Notable in both cases is the close relationship established in the various countries between the interests of important sectors of their dominant business and political élites and those of transnational corporations operating in those countries and on the world market.

The constraints deriving from this linking of the interests of the national dominant classes with those of the transnational corporations depend on a number of factors which it would be out of place to analyse here. It should be noted, however, that this linkage has become particularly close in Latin America in the recent phase of growth based on strategies involving opening up to the exterior, that is, in the expansionist dynamics of a modern export sector and in the internationalization of the domestic market, the two areas in which the interests of the most important foreign and national enterprises converge and are associated in joint ventures or other types of conglomerates.

The markedly technocratic systems of domination which have been expanding since the mid-1960s have become increasingly opposed to structural reforms, to social policies which assign priority to employment and income distribution, and to the provision of

¹¹Philippe de Seynes, "The 'futures' debate in the United Nations", *CEPAL Review*, N.º 3, first half of 1977, p. 8.

better and more extensive public services to the poorest marginal strata.

In this new-style elitist technocracy, which is so contrary to the populist and redistributive experiences of the past, the directors and strategists of economic growth ignore the immediate social effects of this type of system, which invariably tends to concentrate income, thereby aggravating the structural problems of poverty and marginality of the masses, while creating islands of prosperity for the ruling sectors. To ensure the functioning and stability of these growth systems based on opening up to transnationalization was not an easy task because they encountered strong social and political opposition which was only overcome through coercion exerted by authoritarian and repressive political régimes.

Accordingly, peripheral transnationalization is a process in which two streams, one internal and the other external, converge in a development style which harmonizes and favours the various interests of the dominant élites, the favoured sectors of the national economy, and international capital, but which at the same time leads to profound social conflicts and structural contradictions.

These systems involving opening up to the exterior were based on economic and social principles which represent a rejection of CEPAL's tradition of structuralist thinking. Although its validity as an interpretation of the real situation in the region has not been discredited —indeed, it seems rather to be confirmed with the passage of time— the dominant classes which promote strategies linked with transnationalization base their action on new economic, neo-classical and monetarist currents of thought which are more in harmony with their authoritarian, technocratic and elitist styles of development. This "new economy" has become something in the nature of an ideology produced by the transnational corporations for export.

8. Reception of the basic needs proposal in the Latin American setting

In those countries whose development styles involve opening up to the exterior the reception of the basic needs proposals has been

frankly negative. This attitude of rejection, however, is due not so much to the fact that the idea has been conceived and promoted in the North—which in a way is true—but to their clear recognition that its implementation would be incompatible and even contradictory with their economic strategies and the continuity of the established political régimes.

Hence the recent tendency to "internationalize poverty" and present the privation and misery of the masses as the moral responsibility of all countries, but particularly the richest. In this respect it is argued that social justice at the internal level depends on whether it exists in the international sphere, i.e., on equity among nations. Until a satisfactory new international economic order involving considerable transfers of resources and economic opportunities (in particular low-cost financing and access to the rich countries' markets) is established, it is claimed, it will be impossible to solve the problems of hunger and poverty in the world. Furthermore, it is considered that because of the very magnitude of the problem a special programme of international aid would be needed to solve it.¹²

This is a deliberate, conscious political position by no means devoid of logic if account is taken of the internal relations of domination prevailing in Latin America, which it will be no easy task to change merely through moral persuasion. As noted earlier, many vested interests and forces of all kinds are concentrated in support of growth strategies which virtually exclude any real internal action aimed at satisfying basic needs, especially if such action requires considerable transfers of resources from the high-income groups, a more equitable transformation of income distribution, and control of the State and the power apparatus by society.

The present effort to promote the satisfac-

¹²This position was upheld at the OAS Assembly held in Washington in June 1978, where some statements by Latin American Ministers of Foreign Affairs clearly coincided in this respect: hunger and poverty, rather than being a national responsibility, constitute a blemish on the world and regional communities, and their eradication is the primary responsibility of those who possess most, i.e., the richer countries.

tion of basic needs, sometimes presented as a requirement for international assistance and the establishment of a new international economic order, is felt in the North to be an imperative need in order to eliminate the dangers of an over-populated world with the majority of its inhabitants living in poverty. The population threat has become an obsession.

The attitude of the countries of the South, in contrast, is one of opposition to the basic needs approach, and this opposition becomes particularly intense when the solution of the basic needs problem entails putting into practice democratic political styles which are now anathema to most countries of the region. These countries are convinced that the basic needs approach is essentially a political proposal which questions the continuity of the *status quo*. Nor are they mistaken, because to convert the basic needs approach into real action that will not only enable the people to emerge from their state of poverty but will help them to attain their fulfilment as human beings requires internal structural reforms and development styles seeking as a priority objective the constant expansion of the basic democratization process.

9. A final outline of the problem

In summarizing the political aspects of the basic needs approach it seems necessary to highlight several points. First, the internal requirements of an integral basic needs strategy include a group of growth policies centred on domestic efforts and the expansion of the domestic market, on the redistribution of income, and on the restructuring of the mode of production (technology and employment) and the pattern of supply of the various products. None of this will constitute real social progress unless it is based on a democratic order and broader political participation by the whole nation.

Secondly, it also seems essential that growth strategies should aim at a process of modernization which would have as central objectives the harmonization and integration of the modern and traditional economic sectors in order to overcome the constraints of structural heterogeneity and productivity disparities, and

which would facilitate the increased absorption of the labour force into productive employment at rising rates of productivity. As long as the dynamics of growth are projected towards the exterior and the benefits of growth are concentrated in little islands of privilege and social minorities, there will be no possibilities whatever for the basic needs approach.

Thirdly, some proposals emphasize the need to focus attention on the rural sector because it is more backward and there are more poor and illiterate persons among its population. It is suggested that this priority, which finds its strongest justification in the countries of Africa and Asia, is less and less realistic for Latin America in view of the region's higher level and rate of urbanization and literacy. Latin American urbanization, however, far from providing a solution to the social problems of the agrarian sectors, merely represents the transfer of most of those problems to the cities, resulting in increasing slum areas and impoverishment for the largely unemployed and underemployed urban masses. Some urbanized countries may be afflicted by worse conditions of poverty than other more rural countries; there is not necessarily a relationship between poverty and rural society, nor between the level of development (as measured by the per capita GNP) and the satisfaction of basic needs.

Fourthly, reference has already been made to the problems arising with respect to basic needs on account of the contradictions between the international political order of States (internationalization) and the international economic order (transnationalization through the transnational corporations). The need for a *specific* international order which will consider basic needs as a central objective is thus clear. If maximum benefits for transnational corporations were one of the essential objectives of the international economic order, however, or if international political relations were such that domination by the great Powers (through military pacts, areas of security and influence, ideological monolithism) constituted the chief *raison d'être* of such relations the basic needs approach would be neither promoted nor facilitated at the international level except, in the best of cases, as a residual

factor. The proposal for a new international order which considers the satisfaction of basic needs as a central objective is that which is known as "collective self-reliance". The reconciliation of basic needs with the present international order, or with that which a good many Latin American countries would actually wish to promote, is perhaps feasible, but would inevitably be difficult so long as it depends on their present ruling circles and unequal styles of development. A historical change towards an open, democratic society and a more equitable international order would have to come first in order to create favourable conditions for the political promotion of the basic needs approach.

Finally, a last word about the internal political viability of a basic needs strategy. For such a strategy to be possible, it would be necessary first to discard the paternalistic systems, i.e., those operating from the top downwards, where everything is decided by the government. In addition, the merely assistance-oriented transfer of resources to the poor and needy would have to be avoided as soon as possible. It should, on the other hand, be an imperative and urgent need to integrate these sectors in economic production, train them to produce more and in a more efficient manner, and educate them with a view to the full development of their personality as a requisite for the achievement of real large-scale participation by the people, which is essential if sustained and irreversible progress is to be made on all fronts: nutrition, employment, income, education, community participation and democratization. Furthermore, for a basic needs strategy to be successful, a broad political coalition controlling the state and government is required in order to orient and strengthen the strategy's implementation and, at the same time, overcome the inevitable and powerful opposition it will have to face before it is consolidated. The most serious problem is that of ensuring the control of the State apparatus by a fully participating and organized part of civil society.

In the dilemma between keeping only two systems of poverty eradication or advancing towards more comprehensive basic needs strategies, what are the possibilities for Latin

America in the light of its particular features as a different region of the Third World, i.e., one with an intermediate level of development, where several large, semi-industrialized countries are heavily dependent on an increasingly absorbing process of transnationalization? What specific differences may emerge from their various political régimes and systems of domination as regards their receptivity to the basic needs proposals? What will be the effects of the international economic trends with respect to a prolongation of the present recession, with its sequel of defensive measures adopted by the North (devaluation of the dollar, protectionism, stagnation of North-South negotiations in the various forums) and the consequent reactions of the Third World? Will this help to consolidate the Third World's unity of action and economic and political interrelationships? And what repercussions may be expected from a further hardening of the relations between the United States and the Soviet Union, with a return to something like the cold war of the 1950s?

If these were the currents converging towards a possible scenario, what framework would be the objective factors tending to facilitate or act as constraints on the action taken fit into and what would be the most feasible basic needs options? What strategies would have the best historical chances of being realized in Latin America? In other words, what are the "limits of the possible" and what are the "possibilities of the desirable"? Under the present changing circumstances, what new correlations of internal social forces will emerge and what are their attitudes to the basic needs approach likely to be? Who will support them, and what chances of success will they have?

Answering these questions is much more a practical problem than an intellectual effort of reflection, although it may be difficult to avoid having to make some forecasts and predictions. It is our impression that Latin America's present options are fairly narrow; but there should be more hope in the near future, when more propitious trends and possibilities for making real and continuing efforts to overcome the most ominous forms of human poverty are likely to emerge.

Therefore, considering that whatever is discussed and prepared now will necessarily take some time to mature and be implemented, we consider that the initiative of attempting to achieve a genuine basic needs strategy is not unrealistic. Although the historical moment has not yet arrived, we are convinced that its

advent is possible. Therefore, it does not seem idle to embark now on something which may quite soon become a real possibility, because its materialization may well depend to a large extent on what is done beforehand in the matter.

The process of modernization in Latin American agriculture

*Gerson Gomes and Antonio Pérez**

Incontestably, the picture presented by Latin American agriculture is an ambivalent one. Although in recent decades it has shown that it is not a traditional backward sector, and has been sufficiently transformed and invigorated to meet effective demand successfully, it has not been able to achieve the levels of output required to help to solve the food, employment, income and other problems which persist both in the countryside and in the cities.

The explanation for this inadequate performance lies not in a shortage of material, technical or human resources, but in the very nature of the general functioning of agriculture, which takes the form of the expansion of the modern subsector and the decline of the traditional subsector. These processes are consistent with the comprehensive transformation of the region's economy in recent years, with its forms of social organization and its international linkages. Nevertheless, the development of these processes will not permit a solution to the problems mentioned above, since they share the tendency of the system as a whole towards concentration and exclusivity.

It is therefore necessary to carry out deliberate action for the proper channelling of resources and the remedying of the worst socio-economic imbalances, in order to ensure that the benefits of technical progress also reach the entire rural population.

*FAO staff members. This article, initially prepared in April 1977, has enjoyed the benefit of valuable comments and suggestions made by colleagues in FAO and CEPAL, and by other Latin American agricultural specialists, especially Danilo Astori and Jaime Crispi—who co-operated in revising the article at the end of 1977—and Jacobo Schatan. The views expressed do not necessarily reflect those of FAO.

Introduction

In the period since the end of the war—a period in which the trends of economic change which had been emerging since the 1930s have taken clearer shape in some of the countries of the region—the problems of Latin American agriculture have been the subject of a variety of attempts at interpretation.

Notwithstanding their obvious conceptual differences, most of these attempts, which were based on neo-classical and structuralist conceptions, asserted that the under-development of agricultural capitalism and, in their more extreme versions, the pre-capitalist nature of the dominant systems of production, played a decisive role in shaping the socio-economic problems of agriculture and the inability of this sector to fulfil the tasks supposedly falling to it in the development process.

The validity of these approaches is manifestly debatable when they are contrasted with present circumstances in agriculture in the region. In recent decades there have been substantial transformations in Latin American agriculture such as, for example, the increasing use of technological inputs and modern equipment, the spread of new, frankly mercantile forms of management, the rise in the number and importance of wage earners among the agricultural work force, the widespread monetization of economic relations, and the expansion and diversification of marketed output. All this indicates the presence of a process of capitalist expansion, albeit of varying intensity, in almost all the countries of the region. Consequently, it is difficult to continue to describe their agriculture as predominantly pre-capitalist or backward, though this does not mean ignoring the persistence of traditional structures and relations of production in certain subsectors, activities or regions.

Nevertheless, the socio-economic problems which have historically dominated the rural scene have persisted or worsened, promoting the studies mentioned above. Underemployment remains very high in the agricultural work force, and even appears to have increased in some countries, despite substantial migration to the urban areas. The dominant

patterns of land and water use continue to be clearly inappropriate, both as regards the efficient use of these factors and the preservation of productive potential. The income level and living conditions of the vast majority of the rural population have remained extremely low as a result of the extreme concentration in appropriation of the income from the sector. The number of people affected by rural poverty —“rediscovered” in the present decade by some thinkers associated with the neo-classical school— would appear to have increased, and now makes up a substantial proportion of the population. The problems of malnutrition have not been solved, despite the sustained growth in agricultural output and the relatively satisfactory nutritional levels achieved by many countries.

Leaving aside the shortcomings linked with the use of aggregate data at the regional and even country level, this group of characteristics would appear to suggest that the interpretations proposed by the thinkers mentioned above—which have largely taken the form of the notions of “lack of flexibility of agricultural supply”, “distortions in the system of economic stimuli”, “inadequate demand in agriculture” and “structural distortions in the agricultural sector”—though possibly useful for the identification of specific problems, are inadequate as an all-embracing explanation of the pattern of growth in agriculture in the region.

This is not to deny the existence of many of the problems referred to by such thinkers. For example, growth in output and domestic consumption of agricultural products has been clearly insufficient, in comparison both with the potential implicit in the available resources and, above all, with the needs of broad groups of the population. However, are these problems really consequences of under-developed capitalism in agriculture or, on the contrary, is it precisely this under-development, with its particular features in the Latin American case, which has contributed to their persistence? Have insufficient output and demand for food, and the social consequences linked to the patterns of use and control of basic resources, actually represented “problems”, “obstacles” or “distortions” within the logic of the specific functioning of agriculture and the economic

system as a whole or—more important still—to what extent are the present economic and socio-political structures compatible with the task of overcoming these problems and shortcomings?

It is clear that these questions are not relevant within the theoretical systems and interpretations mentioned above. Hence, in order to grasp the actual current state of agriculture in the region, it is necessary to overcome the methodological limitations of these systems.¹ This means redirecting the analytical effort in two directions: working out the logic of the overall process which gives consistency and rationality to the various partial phenomena observed, and establishing the fundamental trends which cause these phenomena, in the specific historical circumstances of the countries of Latin America. It is against this background that an attempt has been made, in the reflections which follow, to contribute to the discussion of the problems and characteristics of Latin American agriculture. Three central hypotheses guide this analysis. Firstly, it does not seem, as has repeatedly been asserted, that the apparently contradictory features of this evolution—for example, the penetration of technical progress versus the deterioration in the living conditions of the rural population; the expansion of production while nutritional deficiencies persist; the availability of new productive resources while the employment capacity in agriculture suffers a relative decline; and so on—are a result of the persistence of “traditional” forms of production: on the contrary they seem to be a consequence and manifestation of their transformation. Secondly, this transformation would appear to be occurring in the context of a single specific historical pro-

¹The structuralist formulations have produced a considerable step forward in this field, by rejecting the automatic and universal view of the development process implicit in neo-classical thinking and attempting to incorporate Latin American social reality in their categories of analysis. However, this effort towards analytical integration of the historical dimension has only been partial, and development has continued to be wrongly conceived as an objective in itself, independent of the concrete forms of social organization and the specific interests of social classes.

cess of "modernization" of agriculture. The concept of modernization is used here in the broad sense, and covers the entire range of transformations in socio-economic structures and relationships in agriculture, which tend to enhance the capitalist nature of the agricultural production system.² Accordingly, the characterization of this process is the essence of the analytical effort to identify the factors which determine the evolution of agriculture in the region. Thirdly, agricultural modernization would seem to mean nothing other than bringing the functions of agriculture into line, under new arrangements, with the process of capital accumulation at the national level. The analysis of these functions—linked to the crucial problems of the formation of a labour surplus and the reproduction of the labour force—is of fundamental importance in explaining the nature of the relations between agriculture and the rest of the economic system and understanding the structural adjustments and transformations under way within the agricultural sector itself.

Of the various limitations of the present study, two should be mentioned. The first is related to the absence of explicit description of certain sociopolitical aspects, consideration of which would be essential for better under-

standing of the facts analysed. The level of generalization at which the analysis had to be made partly explains the absence of greater references in this regard; but it is obvious that understanding of the process of modernization presupposes the incorporation and systematizing of the class relationships and alliances which give meaning to the evolution of the historical reality analysed.

The second basic limitation is related to the fact that the diversity of situations in Latin America and the methodological approach used restrict the scope of a "regional" analysis of modernization. In order to outline the fundamental features of the process under way in Latin American agriculture, it has been necessary to identify elements common to the many countries where the expansion of modern agriculture has been intensified only more recently. As a result, the analysis has been carried out at a high level of abstraction, and its results do not reflect the particular characteristics of individual countries. For all these reasons, these notes represent merely an effort towards systematizing some general hypotheses for research on the structural tendencies of agriculture in the region. The main method of gaining further knowledge of the subject continues to be the study of specific countries.

I Persistence of socio-economic problems related to agriculture

As a result of the process of urbanization and industrialization experienced by the region in the post-war period, the role of agriculture in the Latin American economy has declined considerably. This can be clearly seen in the sphere of employment: even though it is still the sector employing the largest proportion of the work force, the relative—and in some cases

absolute—reduction in the agricultural population and employment has meant that since as far back as the 1960s agriculture has occupied a secondary place in absorbing the increase in employment, well behind trade and other non-basic services. The strength of this process can better be gauged from the fact that between 1950 and 1975 the agricultural population dropped in relative terms from 54% to 38% of the total population, while during the same period about 40 million peasants—almost half the total natural increase in the agricultural population—migrated to urban areas. Moreover, although in relative terms they represent a declining proportion of the

²Although there are differences of degree in the various countries, the existence and development of capitalist relationships is not a new phenomenon in Latin American agriculture. The point to be emphasized here is the accentuation, in recent decades, of the trend for such relationships to become dominant in the economic and social dynamics of agriculture as a whole.

urban population, migrants from rural areas have substantially increased, from less than 1 million people per year at the beginning of the 1950s to more than 2 million in recent years. Although the period of major migratory pressure would already appear to have reached its peak, there will be no reversal in this trend until the agricultural population has dropped in absolute terms.

This relative drop in the importance of agriculture within the economy may also be observed in other aspects, such as its contribution to the formation of the gross product—down from 20% to 13%—and total exports, where its share dropped from 62% to 40% during the period referred to above.³

For some thinkers, who seek to explain Latin American realities in the light of the experience of the developed capitalist countries, such processes should constitute a clear indicator of development. If the evolution of Latin American agriculture since the post-war period is examined, however, a notable feature is the persistence of some characteristics, both in the internal dynamics of the sector and its linkages with the economic system as a whole, which are clearly at odds with the most common acceptance of development.

In the first place, trends in agriculture have clearly been in the direction of concentration, and have excluded a substantial part of the rural population from their benefits.

The chronically makeshift living conditions still suffered by the rural masses—who in Latin America fundamentally depend on agriculture—represent the most notable manifestation of this problem. Without entering into details, which are provided by many studies and monographs published in the past few years,⁴ it is worth mentioning that the data relating to agricultural income distribution and population growth suggest that rural poverty increased between 1950 and 1975 despite a substantial average increase in the per capita

sectoral product of about 60% over the same period.

Whatever its historical tendencies might have been, the “rediscovery” of poverty in the present decade—normally the result of not unfounded fears that poverty restricts the effectiveness of population control campaigns and exacerbates social disquiet which threatens the dominant socio-political systems—had the virtue of giving rise to many attempts to quantify the problem. Thus, World Bank estimates for 1969 indicate that, according to Bank criteria, 38% of the rural population in Latin America, or about 45 million people, were living in poverty.⁵

More recent studies by CEPAL, which use more accurate criteria and draw on more specific empirical evidence—even though it is less reliable for rural than for urban areas—reach the considerably more pessimistic conclusion that in 1970, 68 million country dwellers were living in poverty. This was equivalent to 62% of the total rural population, and represented a much larger proportion than the corresponding urban figure of 26%. This is due not to the fact that income distribution is much more concentrated in the countryside than in the towns, but to the fact that the average income of urban dwellers is between three and four times higher than that of country dwellers. Of the nine countries studied in detail, Honduras, Brazil and Peru would seem to be in the most serious situation, with between two thirds and three quarters of the rural population below the poverty line. Colombia and Mexico would appear to be in an intermediate situation, with about half the rural dwellers in such circumstances, while the problem would seem to be less pronounced in Argentina and Uruguay, where the proportion was 20%.⁶

⁵*Rural Development*, Sector Policy Paper (Washington, D.C., World Bank, February 1975). The Bank describes as living in “relative poverty” all persons in receipt of an income less than a third of the national average.

⁶See O. Altimir, *La dimensión de la pobreza en América Latina*, Cuadernos de la CEPAL, N.º 27 (Santiago, Chile, CEPAL, 1978). In this study the poverty line was defined for each country and differentiated as between urban and rural areas on the basis of a detailed quantification of the minimum income required by households to meet minimum needs for food and other

³Estimates by the CEPAL/FAO Joint Agriculture Division, 1977.

⁴See, for example, the CIDA studies on Chile, Ecuador, Mexico, Peru, etc.; the GAFICA study on Central America; the ILO study, *Meeting Basic Needs* (Geneva, 1977); and many national studies.

A fundamental component in the living conditions of the population is the satisfaction of their food needs. The persistence of notable shortcomings in this regard confirms that the predominant style of development in the region tends towards exclusion in this case clearly going beyond the agricultural and rural sphere. Meeting these needs is basically linked with the possibility of directly producing food or purchasing it on the market, and the ability to purchase food is determined by the level and distribution of income in the various sectors of the population.

The measurement of malnutrition still comes up against various conceptual and practical problems, which have often led to controversy. The Fourth World Food Survey carried out by FAO around 1973 records the existence in Latin America of 46 million people—2 million more than in 1970—who are obliged to subsist with insufficient food; this represents about 15% of the total population of the region.⁷ This estimate is an absolute minimum, since it includes only persons whose calorie consumption falls below a "critical limit" which strictly measures the energy requirements for passive human survival, in other words without physical activity of any kind. For Latin America the limit of malnutrition would seem to be about 1,540 calories per person per day. Compare this figure with the 3,350 calories consumed on average by the inhabitants of developed countries, and with the previous estimate of about 2,400 calories a day as the average minimum requirements for maintaining an active life in Latin America.⁸

basic consumption, which in general was estimated to require expenditure approximately similar to that on food. In this way, the absolute poverty line varies according to the country, with an average of US\$ 133 at 1970 prices for rural areas in Latin America. At the aggregate level for Latin America, CEPAL estimates on the magnitude of poverty are still somewhat below those of the ILO study for 1972 referred to above.

⁷Fourth World Food Survey (Rome, FAO, 1977), table II.2.1.

⁸The recent holding of a very comprehensive food survey in Brazil makes it possible to give examples of these differences. Using the first criterion, sufferers from malnutrition totalled 13.5 million in 1972-1974 (13% of the total population). On the other hand, if the limit for an

This has occurred even though the average per capita availability of food is relatively satisfactory in Latin America—2,540 calories a day in 1972-1974—and has tended to increase, though slowly, from 1961-1963 when the figure was 2,400 calories. Nevertheless, it should be noted that this small increase of 6% in 11 years was registered in a period which roughly coincides with the time of greatest growth in production in the region since the post-war period, when average income per capita grew by about 41%. This indicates that the greater availability of food has largely been of benefit to the sectors with medium and high incomes, and not to the groups which suffer most from problems of malnutrition. It also seems to confirm the hypothesis that income distribution has tended to become concentrated, since only in this way could one explain the very low (0.15) income-calorie consumption elasticity implicit in these figures.

The problems mentioned above are not unrelated to the persistence of high levels of underemployment which, expressed in terms of unemployment, affects more than a fifth or even a quarter of the available work force in many countries, even taking into account the seasonal nature of agricultural activities. This labour surplus in agriculture does not seem to have worsened markedly in recent years, largely because it has shifted geographically towards the urban centres and their surrounding areas. As will be seen below, both surpluses play an essential role in the operation of the system of production, both at the general and at the sectoral level.

However, in addition to this unemployment—which is less open and tends rather to appear on a seasonal basis—the work force is subject to working conditions which are difficult to reconcile with improvement of their living conditions and their capacity to increase their quantitative and qualitative contribution

active life is fixed, still conservatively, at 2,250 calories (since according to FAO/WHO 2,390 would be required on average in Brazil), nutritional problems would affect 48% and 33% of the population, respectively, in the urban and rural areas of the south of the country—which enjoys the best conditions—and 75% and 63% respectively in the north-east (*ibid.*, table II.2.3 and appendices C and M).

to the process of production. Apart from the fact that a growing proportion of agricultural work is obtained from the landless labourers or smallholders who have to work as part of the proletariat for part of the year, the relative importance of workers living with their families on the farms where they work has substantially declined. This is linked with the mechanization of many agricultural operations—sowing, control of pests and weeds, and so on—which has reduced needs for permanent staff, and the decline in some pre-capitalist forms of tenure—such as leasing, tenant farming, sharecropping, *huasipungo* and so on—which have been replaced by other forms where seasonal wage-paid work and even itinerant work, with much greater mobility, tend to predominate. Aside from its social and ethical implications, all this implies a notable failure to exploit the potential of the available labour force, and even a tendency towards its destruction.

The often predatory and far from creative nature of the agricultural production system appears equally strongly in relation to natural resources. From the macro-social viewpoint, natural resources have often been used in a highly irrational way—in the past normally attributed to the polarity between large estates and small holdings—involving a mixture of socio-economic, technical and ecological elements.

In many countries there are serious distortions in the use of agricultural land in relation to its potential capacity—for example, fertile valleys and/or plains are underpopulated and underused for livestock raising or extensive crops, while intensive agriculture for domestic consumption predominates on steep, heavily populated terrain—

and nomadic agriculture has expanded. Elsewhere the increase in the area of land devoted to agriculture has been accompanied by the uncontrolled destruction of plant cover. In all these cases of overuse, the result has been increased erosion and deterioration of natural resources, with the consequent adverse impact on the ecology and on the possibility of future use of the natural resources.⁹

The expansion of Latin American agriculture has occurred within the context of technological patterns and trade and financial relations which tend to link it closely to interests outside the region in relations which are acquiring strong traits of dependence. Without denying the importance of technical progress in agriculture, there has been indiscriminate adoption of technological forms from advanced countries with resource endowments very different from that which prevails in Latin America. In addition to heavy use of energy per unit of food energy produced, these forms are based on the concentrated use by a small number of enterprises of the national capacity for investment and importing.

This and other evidence would appear to suggest that the changes in technology and in company organization recorded in recent years have not fundamentally altered the socio-economic conditions which determine the pattern of use of natural and technological resources and the possibilities of making productive use of the labour force. Rather, new elements have been added which tend to aggravate the spoliation and waste of such resources, as well as the contradiction between the existence of much land to which access is available to only a few and the concentration of most peasants on tiny farms covering a small proportion of the available agricultural land.

II

Implausibility of the dominant explanations

The persistence of the problems mentioned has been attributed to various factors. The explanations which predominated until a few years ago, and which are still very widespread, identified as central elements the rigidity in the growth of output and the technological

backwardness of agriculture. In turn this “inflexibility” in domestic supply is said to

⁹See *The State of Food and Agriculture 1977* (Rome, FAO, 1978), chap. 3: “The state of natural resources and the human environment for food and agriculture”.

originate in the absence or shortage of economic stimuli to encourage entrepreneurs to effect the investment required for agricultural modernization.¹⁰ Others hold, in contrast, that the principal cause of this rigidity has been the traditional or pre-capitalist nature of the agricultural structures.¹¹ In both approaches, the shortcomings in the processes of generating and spreading new technical knowledge almost always play an important role. Somewhat more recently it has been suggested that such problems derive rather from the slow expansion in domestic and external demand for agricultural products;¹² growth in the rural component of domestic demand would seem to be limited principally by obstacles hindering the rural masses from gaining access to natural resources and the concentrated income distribution inherent in the above-mentioned structures of ownership and tenure of land.

Available evidence does not confirm the validity of these explanations, at least within the rationale which determines the operation of the economic and social systems of most of the countries of the region. On the contrary, the principal characteristic of the period analysed is not stagnation in agriculture, but the appreciable economic expansion experienced by a part of the sector, although this was accompanied by a worsening of the problems of employment, income distribution and living conditions of a substantial proportion of the rural population.

It does not appear that there have been rigidities inherent in agricultural production which have led to persistent and widespread

imbalances between supply and effective demand for products from the sector. In fact, from a long-term viewpoint, agricultural production as a whole has expanded at a reasonable rate —3.2% a year between 1950 and 1977— and now stands at almost two and a half times the level of 1950. Thus, in most cases it would seem to have kept up with growth in domestic demand effectively generated by the economic system without creating tensions in prices or affecting the balance of external trade in products from the sector, although naturally this does not mean that the real food needs of the lowest-income groups have been met.

Moreover, output has shown marked flexibility for some specific items, generally those linked to certain types of urban domestic demand or destined for export.¹³ In the latter, the temporary vigour of demand has in many cases, and increasingly in recent years, been strengthened by a number of institutional factors, such as credit facilities and tax exemptions, and by the closer link between the international interests associated with external marketing and/or agro-industries and the enterprises in the primary system of production.

Agricultural imports, for their part, have remained within reasonable limits, although it must be recognized that they have increased at relatively high rates in the last five years in some countries. However, aside from the fact that a substantial proportion of such imports are of wheat, meat and dairy products—production of which is subject to various types of restrictions, including ecological ones, in many countries—a substantial part of the increases have originated in climatic problems which affected the harvest in various countries in different years, and in other temporary factors which do not seem to indicate the type of imbalance mentioned above.¹⁴ In this regard, it

¹⁰See, for example, T. Schultz, *La crisis económica de la agricultura* (Madrid, Alianza, 1969) (especially the appendix on "La teoría del crecimiento económico y la rentabilidad de la agricultura en América Latina"); R. H. Brannon, *The Agricultural development of Uruguay* (New York, Praeger, 1967); and G. E. Schuh, *The Agricultural Development of Brazil* (New York, Praeger, 1970).

¹¹CEPAL, *Economic Development, Planning and International Co-operation* (United Nations publication, Sales N.º 61.II.G.6); and CEPAL, *Problemas y perspectivas de la agricultura latinoamericana* (Buenos Aires, Solar/Hachette, 1965).

¹²"Present conditions and future prospects for food and agriculture in Latin America" (FAO document LARC/70/8), and "Situation and perspectives of agriculture in Latin America" (FAO document LARC/72/4).

¹³For example, in the case of the domestic market: wheat, poultry, pigs and vegetables in Mexico; rice, potatoes and cotton in Colombia; and rice, sugar, poultry meat, pigs, and milk in Venezuela. For exports: soya, sugar and cotton in Brazil; cotton and soya beans in Paraguay; fruit, vegetables and livestock in Mexico; sugar, flowers, etc., in Colombia.

¹⁴This argument does not exclude the possibility that, in specific cases, situations different from those mentioned here may have arisen.

is also necessary to mention that some increases in imports do not necessarily indicate rigidities in domestic production, since with the increasing involvement of the region in international markets the rationality of the system may require that productive resources should be channelled towards expanding exports from agriculture or other sectors.

In short, the fact that output has not increased much more than the population does not necessarily imply that agricultural supply is inflexible. In the same way, the fact that part of these increases may basically be attributed to growth in certain items, and that other mass-consumption products have shown less vigour, growing in some cases by less than the population, does not in itself mean that there is a "production problem". In a market economy, insufficiency of output is measured in relation to effective demand; and this, as has been said, appears to have been met in the Latin American case.

Nor does technological stagnation appear to have been a characteristic feature of the period under consideration. Although Latin American agriculture continues to be predominantly backward in this regard, technological change has rapidly expanded in the production area, reflecting its increasing capitalization. Thus, between 1948-1952 and 1976, consumption of inorganic fertilizers rose 19 times, the use of tractors almost 7 times, and the irrigated area doubled,¹⁵ while the working population and the area under crops increased by only 55% and 85% respectively. Concentration is very high, however, since Brazil, Mexico and Argentina account for approximately 70% of these increases,¹⁶ and more importantly, the proportion of farms in these and other countries which have incorporated the new technologies is relatively

small. Both characteristics —acceleration and concentration— represent central aspects of the technological expansion recorded in recent years.

Expansion of the areas farmed continues to be a decisive factor in agricultural output, though its importance is decreasing. In the crop farming subsector the rises in yields would account for only a third of the greater output during the period mentioned, as opposed to the increase in the area harvested, but this proportion would be halved if it were related —as would be more correct for crops— to the total arable land. The situation varies considerably from one country to another. In Brazil, for example, the abundance of land facilitated a growth strategy essentially based on increases in area, which accounts for somewhat more than 80% of the greater output obtained on the land harvested. In the remaining countries of the region the size of the yields is increasing substantially —40% in 1950-1976— and is tending to accelerate over time, also at a notable rate: approximately 50% in 1960-1970 and 70% in 1970-1976.¹⁷

Labour productivity would also appear to have increased at an appreciable rate, as is suggested by the figures for per capita GDP during the period, which seems to have increased at an annual average rate of over 2%.

Finally, in the sphere of land tenure one may also observe dynamic elements which are of importance in a proper assessment of progress in agriculture in the region. Although the structures of land tenure in Latin American agriculture continue to have a substantial "traditional" element, there is evidence that substantial shifts have already occurred, principally taking the form of the development of the subsector containing modern commercial agricultural enterprises. This is not a new fact, particularly in export-related activities, but the considerable expansion of these enterprises in recent decades has acquired a nature of its own, hand in hand with the intensification of agricultural output, the rise in the level of skills within national agriculture and the extension of their activities to the domestic

¹⁵Even since 1961-1965, when the basic levels of comparison were no longer low, the use of fertilizers and tractors has continued to increase at cumulative rates of 12% and 5% a year respectively.

¹⁶However, similar phenomena occur in many other countries. In Colombia, for example, a recent study states that 60% to 70% of the "tractable" area is already effectively mechanized, and that the use of chemical inputs in agriculture increased at an average rate of 9.8% a year between 1960 and 1971. See S. Kalmanovitz, *El desarrollo de la agricultura en Colombia* (Bogotá, La Carreta, 1978).

¹⁷*The State of Food and Agriculture 1977*, pp. 2-28.

market, increasingly unified at the national level.

This is not to deny that, except in the countries which have carried out more consistent agrarian reform policies, the concentration of ownership in agriculture continues to have a strong influence on the socio-economic evolution of the sector. This is particularly true where agriculture is the dominant activity in the economy, and where this dominance is accompanied by notable technological backwardness which makes land the main factor in the technical process of production. Furthermore, almost all the countries are apparently experiencing a decline in the traditional tenure relationships—leasing, share-cropping and so on—which are being replaced by renting and other more strictly capitalist forms.

In short, the emphasis here is on three central aspects related to the problem under discussion: (i) there is no indication that the persistence of traditional features has hindered the technological and productive expansion of the agricultural sector; (ii) the land tenure structure, even in the countries which have adopted no agrarian reform measures, has not remained static, but in general has shown significant changes; and (iii) it is precisely in the countries where these changes were brought about with greatest intensity and outside the context of a reform process that the socio-economic problems referred to in the section above appear to have worsened.

Nor can growth in demand, at least as far as its domestic component is concerned, be regarded as an obstacle to sectoral expansion. Theoretically, domestic demand for agricultural products might have reached rather higher levels and growth rates, since there are obviously unmet needs, as well as revenue which society might have used to meet them, for example by shifting it from luxury consumption. However, this subject cannot be analysed without considering the conditions which determine the performance of this variable in actual Latin American economic circumstances. In fact, the level and composition of demand reflect the patterns of distribution of income inherent in the prevailing systems of production and in the economic

rationale which governs the operation of the economic system as a whole.

At the same time, it should be remembered that the composition of domestic demand for agricultural products, which makes up more than four fifths of total demand, has undergone significant changes in the period under review. The strong expansion in the market section of demand, attributable to the high growth rates in the urban population and the rise in income of the non-agricultural sector, is perhaps the clearest reflection of these changes, and undoubtedly accounts for the greater part of the relative dynamism of agricultural domestic demand as a whole in this period. Although the concentration of urban income distribution tends to mean that the figures for average growth in total demand are of only relative significance, the rise in the ratio of market demand to total demand alone has profound implications for the structure and evolution of the whole agricultural sector.

The situation is different as regards external demand. The lower relative growth in agricultural exports and the continuous decline in Latin America's share in world trade, which has characterized the performance of the agricultural external sector, both in global terms and with regard to specific products of traditional importance within the region's export structure, in fact reflect limitations on the potential market. To judge by available evidence, this is due much more to the protectionist policies adopted by the importing countries, price and market manipulation by transnational corporations and other economic and institutional factors linked to the structure of world trade, than to shortfalls in regional production.¹⁸ With the principal exception of the last four or five years, the real value of regional exports has suffered a sharp, continuous and increasing relative decline, affecting the majority of the main items. This deterioration in the terms of trade is one more of the characteristics of Latin America's linkages

¹⁸Concentration on a very small number of products and markets, which was another of the salient features of the structure of Latin American exports, is equally a reflection of the institutional factors which influence their trade relations with the world economy.

with the central nuclei of the world economy.

In this case it is possible to speak of a real brake imposed by external demand on the expansion of the agricultural economy. Nevertheless, because of its proportionately low share in the total number for agricultural products, the lower relative dynamism of exports is an insufficient explanation in itself for the socio-economic problems which have typified the evolution of regional agriculture.

In short, the specific aspects on which the

theories examined have focused, although they may describe real phenomena or situations, do not permit a proper appraisal of the problems of agricultural development in the region. This suggests that it is necessary to reorient the analytical effort towards identification of the fundamental elements and processes which, behind the outward appearance of the phenomena, determine their nature and their interrelations and thus govern the evolution of agriculture as a whole.¹⁹

III

The overall framework of the process of agricultural modernization

The problems and trends enumerated above are not independent of one another, and accordingly must be explained together. Rather than "distortions" or "obstacles", they represent the concrete expression of the features and forms of the process of transformation of the traditional basis of the system of agricultural production in Latin America.

This process tends to deepen the differentiation of the economic and social structures of agriculture, and to strengthen their integration within the operation and evolution of the economy as a whole. Hence, it is part, and corresponds to a phase, of the general expansion of capitalism in the region. As a result, it can only be understood by reference to the trends in the world capitalist economy and the specific features of Latin American industrialization, on the one hand, and to the influences arising from the characteristics of the agricultural structures as they have been historically shaped, on the other.

It is outside the scope of this study to go deeply into these subjects. However, a list of those aspects and general relations which are essential for an understanding of the nature of agricultural modernization and its driving forces are given below.

A. General trends

The process of modernization of agriculture

can be viewed through a set of phenomena which occur at three interdependent levels.

1. *Relations between the Latin American economies and the world capitalist system*

At this level, the dominant trend has been the internationalization of the economies of the countries of the region, through their growing integration in the world circuit of capital accumulation. This has tended to alter their functions within the international division of labour and to strengthen their dependent character under new arrangements. Although the inclusion of Latin America in this circuit occurred long ago, the changes observed in the structure of central capitalism—tending towards the centralization and unification of the accumulation process at the world level under the auspices of the transnational corporations—have had an effect on the intensity and forms of the process of modernization of agriculture, by various means.

The expansion of international trade, originally connected with the vigour and modernization impulse of agricultural exporting activity, has markedly accelerated in recent decades, together with the increasing

¹⁹For a detailed analysis of the principal schools of thought on agricultural development, see D. Astori, *El proceso de desarrollo agrícola en América Latina. Algunas interpretaciones* (Rome, FAO, 1979).

"management" and control of markets on the basis of the accumulation needs of the central economies. Although for Latin America as a whole this has been accompanied by a relative drop in its share in international trade in agricultural products, various Latin American countries have sharply increased their agricultural exports as a by-product of the "transnationalization" of their external trade.²⁰

Aside from the fact that a substantial part of the traditional export revenues generated by this expansion has been transferred to the central economies by various means, it is clear that the vigour of the external sector has had an influence on the size of the markets for some specific items, though subject to the restrictions arising from "management" of the markets.

Further to the above, the action of the transnational corporations, both directly as producers and, above all, as organizers of production through control of the marketing and/or processing of agricultural products, has profoundly altered the socio-economic conditions of production in huge areas in different

Latin American countries. This influence has of course increased in the case of export products, taking advantage of the lower wages prevailing in the region. However, the same is also occurring in the branches of production oriented towards consumption by the urban middle-income and high-income sectors, where the previous advantages are compounded by the benefits of frequently monopolistic exploitation of the domestic market.²¹

Furthermore, this unification and centralization of the world economy has led to growing concentration of the processes of creation of certain forms of technology—with the consequent tendency towards standardization—and a market acceleration in their transfer and dissemination. The latter has largely been a result of the activities of the transnational corporations, both those operating in the production, marketing and processing of agricultural products and those linked to the production and marketing of capital goods and modern agricultural inputs, whose viable use has been facilitated by the advances of the so-called Green Revolution.²² The availability of

²⁰In some countries with substantial agricultural resources which have adopted policies of opening up to foreign capital, the vigour of the economic model has meant that the external sector has recovered its strategic importance and that rapid growth in agricultural exports has proved necessary. Available evidence indicates, however, that this expansion has been linked with a substantial increase in external debt and remittances abroad.

²¹In addition to consolidating their control over production and/or external marketing of so-called traditional products—principally cotton, sugar, bananas, coffee and tobacco—the transnational corporations, during the period under review, extended and diversified their activities to other branches of agriculture and agro-industry, such as, for example, meat production, preparation, preservation and processing, basically for export, in Brazil and Central America; the production and marketing of fruit and vegetables for export in Mexico and Central America; the production and marketing of poultry and fodder in Colombia, Brazil and México; the production and domestic and external marketing of products destined to feed animals, particularly soya and sorghum, in Brazil, Argentina, Colombia, Guatemala, El Salvador and Peru (up to 1973); the processing and marketing of milk in Mexico, Brazil and Panama, and so on. See N. Bellino, "La penetración en la agricultura latinoamericana por las empresas transnacionales", preliminary draft, unpublished, Rome, 1978. Concerning the general aspects related to the process of expansion of the transnational corporations in the agricul-

tural and agro-industrial sector, see, for example, G. Arroyo, *Agro-industrial Transnational Firms, Agrarian Reform and Rural Development* (Paris, University of Paris, 1978); S. George, *How the Other Half Dies* (Harmondsworth, Middx., Penguin Books); A. Domike and G. Rodríguez, *Agroindustria en México* (Mexico, CIDE, 1976); E. Feder, "La nueva penetración en la agricultura de los países subdesarrollados por los países industriales y sus empresas multinacionales", *El Trimestre Económico*, N.º 169 (January-March 1976); *Marketing and Distribution of Tobacco* (United Nations publication, Sales N.º E.78.II.D.14); F. Moore Lappé and J. Collins, *Food First. Beyond the Myth of Scarcity* (Boston, Houghton Mifflin, 1977); G. Garreau, *L'agrobusiness* (Paris, Calmann-Levy, 1977); R. Quiroz Guardia, *Agricultural Development in Central America: Its Origins and Nature* (University of Wisconsin, Land Tenure Center, 1973); D. Slutsky, "La industria de la carne en Honduras", *Estudios Sociales Centro-Americanos* (January-April 1979).

²²As is pointed out by G. Edward Schuh in his article "The modernization of Brazilian agriculture", the critical difference between varieties is the response to fertilizers, with the improved varieties tending to have a greater and more continuous reaction. Naturally, an important objective of the variety creation programmes that produced the new types of wheat and rice which became famous in the so-called Green Revolution was precisely to develop this response characteristic. He also states that if the new technology (improved variety) did not exist, the introduction of the input (fertilizer) would not be feasible, since its use would not be economic.

these new methods of production, which can easily be assimilated but which are not always appropriate for Latin American circumstances, and the establishment of flexible channels for the transfer and dissemination of technology, are of marked importance in the recent evolution of Latin American agriculture, as will be seen below.

2. Relations between agriculture and the rest of the economy

The central trend in these relations has been the sharp acceleration in the past 25 years of the process of urbanization and industrialization, which expresses in a global form the differentiation between the economic and social structures of society as a whole.

One of the principal consequences of the above is the restructuring of domestic demand for agricultural products, whose monetized component tends to grow rapidly. The most important consequences of this fact have been the expansion of channels of marketing and the intervention of urban traders—both facilitated by the development of the road network—and the generalization of the practice of buying and selling agricultural production on a commercial basis, which opened the way for the transformation of the structure of agricultural production. However, this phenomenon is not the same everywhere, since some of the characteristics of industrialization lead to highly concentrated distribution of the income generated, which in turn encourages higher growth in urban demand for agricultural products destined for consumption by the middle-income and high-income groups.

The development of industrial and commercial activities has also been reflected in a marked shift in the labour force towards the urban areas, a phenomenon which alters one of the fundamental pillars maintaining the existing structure in agriculture, as will be seen below. Both because of its dependence on external capital and technology, and because of the limitations of the composition of demand on which it bases its development, the process of industrialization has required a relative restriction of wage rates. This tendency, which has become accentuated in recent years hand

in hand with the increase in migrations towards the urban and industrial economy, is one of the distinctive features of Latin American industrialization which has a direct influence on the vigour of agriculture.

3. Relations between the various subsectors within agriculture

Here the central phenomenon has been the tendency for the modern subsector to become dominant, as a reflection of the growing differentiation of the system of agricultural production.

This general tendency is linked to a group of changes in the socio-economic relationships of agriculture which are reflected, from the standpoint of circulation, in the growing monetization of the agricultural economy; in the subordination of all production units to the market, directly or indirectly; in the modernization of marketing already referred to; in the tendency towards integration and unification of the national markets for agricultural products; etc.

The changes in the production sphere, which constitute the basis for the trend referred to, take the form of a process which simultaneously develops modern agriculture and breaks up traditional agriculture. The first part of this process is reflected in the formation of a group of strictly capitalist enterprises through which the use of capital goods and technological change spread in agriculture. And in turn, in direct proportion to the above, traditional agriculture declines, both because of the dismemberment or conversion of existing large estates, and because of the disintegration of the "peasant" economy linked to them.

In the case of Latin America this disintegration has not meant the disappearance of the peasant economy; on the contrary, in some countries it has tended to recreate this subsector with new linkages with modern agriculture.²³

²³Concerning the various approaches to and aspects of this process of transformation in agriculture, see, for example, Alain de Janvry, "The political economy of rural development in Latin America: an interpretation", *American Journal of Agricultural Economics* (August 1975);

B. The role of agriculture in capital accumulation

The transition from traditional to modern agriculture does not represent a break in the historical evolution of capitalist relationships in the region. On the contrary, the structural transformations under way in agriculture are a reflection of the alignment of its system of production with the new conditions required for it to fulfil its functions within the process of accumulation. At present there are basically three such functions: (i) to create a labour surplus and free labour for the development of non-agricultural activities, principally in its most "modern" nuclei; (ii) to supply food at low cost for the development of such activities and nuclei; (iii) to supply food and raw materials at low cost to the central economies.

The relative importance of these functions has changed over time. At the beginning, the most important functions were the last and, to a much lesser extent, the first of the aspects referred to. They were put into effect under an organization of production based on the extensive exploitation of land, the concentration of land ownership and the institutional control of labour, the availability of which was essential to ensure that the system of production adopted was viable. These forms of the organization of production find their best-known expressions in the ranch and the *latifundio-minifundio* complex.²⁴ They formed a type of traditional

agriculture, though this is not to deny their clearly mercantile nature, which until recently was compatible with the requirements of the capital accumulation process. In fact, in addition to its micro-economic rationality, the monopolistic appropriation of land played a macro-social function that of generating the reserve of labour necessary for accumulation in agriculture, an activity which at that time was dominant in most of the countries of the region.²⁵ The traditional tenure relationships were, in that context, the necessary complement to the general scheme of accumulation. By tying the reserve of labour to the land, they guaranteed its retention and reproduction at extremely low cost from the point of view of the large traditional enterprise; furthermore, this permitted the appropriation of the surplus generated by the subsistence farms, principally through land rent, but also through extra-economic mechanisms. This system of control and exploitation of the labour force also reconciled the limited productivity inherent in traditional agriculture with the maintenance of relatively low prices in external and domestic markets, without affecting the profits of the agricultural enterprises or the developing marketing and agro-industrial activities. This was achieved by means of a restriction of the remuneration of the labour force, made easier by the concentration of private land ownership.

Despite its low productivity, both with regard to the land and in general to the labour force, this form of organization of agricultural production was sound even in the initial stages of the process of industrialization in the Latin American economies, precisely because of their high potential labour surplus.

The factors which led to the progressive transformation of traditional agriculture are the same as those which lie at the base of the spread of modernization: on the one hand, a change in prevailing conditions in the internal

Alain de Janvry and Carlos Garramón, "The dynamics of rural poverty in Latin America", *Journal of Peasant Studies* (July-September 1977); Francisco Oliveira, "La economía brasileña: Crítica de la razón dualista", *El Trimestre Económico*, N.º 158 (April-June 1973); Fernando Henrique Cardoso, "Las contradicciones del desarrollo asociado", *Desarrollo Económico*, N.º 23 (April-June 1974); David Barkings, "Desarrollo regional y reorganización campesina. La Chontalpa como reflejo del gran problema agrario mexicano", *Comercio Exterior*, vol. 27, N.º 12 (December 1977); Gustavo Esteva, "¿Y si los campesinos existen?", *Comercio Exterior*, vol. 28, N.º 6 (June 1978); C. Santos de Morais, *El modelo hondureño de desarrollo agrario* (Tegucigalpa, Ed. Proccara, 1975); and Kalmanovitz, *op. cit.*

²⁴The availability of labour played a double role within the traditional system of production: it permitted the timely exploitation of the possibilities which arose in the market, and absorbed, at least in part, any reductions in the level of income of the farms associated with fluctuations in demand and in prices.

²⁵It should not be forgotten that the so-called surplus of agricultural labour was generated within and as a part of the process of expansion in mercantile relations in the region, as is witnessed by the fact that, until about the end of the last century, the economies of the countries of the region were generally characterized by a labour shortage.

and external markets, the rise and spread of new technological forms, the expansion of the urban industrial economy, and so on; and on the other, the endogenous transformations which were taking place within agriculture itself, as a result of the progressive opening up of new, lower-productivity areas, the build-up of social tensions in the countryside, the crises in the market, and other factors which encouraged the differentiation and gradual specialization of some subsectors of the traditional system of production. Within the framework of the general tendencies of the economy as a whole, and the related changes in socio-political

structures, traditional extensive agriculture came into conflict with the new requirements of the accumulation process. The specific purpose of the expansion of the modern sector is to fulfil by other means —principally the intensification of production on more suitable land which has been or is being opened up for use—the same functions as those mentioned above.²⁶ Both because of its intrinsic characteristics and because of the inherited socio-economic framework, this expansion tends, as will be seen below, to produce serious imbalances within agriculture and in its relationships with the rest of the economy.

IV

The internal dynamics of the process of agricultural modernization

From the viewpoint of capital accumulation, the fundamental problems to be resolved through the expansion of the modern sector, as regards the functions of agriculture in that process, are basically the following:

(i) How is it possible to reduce the cost of reproduction of the labour force and guarantee the reproduction of the reserve of labour, for the purpose of regulating the level and variations of the wage rate?

(ii) How can the agricultural economic surplus be mobilized in a manner consistent with the needs of the accumulation process?

In the case of the Latin American countries at an advanced stage of agricultural modernization, the replies are to be found in the development of three basic trends linked with the process of expansion of modern agriculture and the decline of traditional agriculture: (i) the concentration of production and capital; (ii) the proletarianization of the peasant; (iii) the re-creation of the subsistence economy.

The principal features of this process are analysed below, on the basis of the relationships between the two types of agriculture.

A. Characteristics of agricultural modernization

Firstly, productive and technological expansion tends to occur on a relatively small number

of farms. In many cases these are old traditional units which are converted or broken up. They are generally of medium or large size and located on the best land, which has been or is being opened up for use. Moreover, these farms are to a large extent direct beneficiaries of public investment in infrastructure, and of economic incentives and official support services, such as credit resources, remunerative prices, relatively well protected markets and technical assistance. In this way the conditions are created for the concentrated introduction of new technologies and the consolidation of the nuclei of agricultural entrepreneurs who are most dynamic and have the political capacity to mobilize the support of the State apparatus.

This is clear from the experience of various countries. In Brazil, for example, only 2.2% of all farms studied possess tractors, whereas in São Paulo —the oldest nucleus of agricultural modernity— this figure rises to almost 14%. The most dynamic agricultural states in the

²⁶The fact that this process of transition has occurred, and the way in which it has occurred, as well as the relationships of domination which it has itself generated, correspond to a specific system of class alliances, without reference to which it is difficult to explain the trend of agricultural development. Other possibilities would have meant profound structural changes in agriculture and in the economy as a whole.

southern region (São Paulo, Paraná and Rio Grande) have one-fifth of the total area farmed but four-fifths of the tractors in the country.²⁷ The use of fertilizers is in practice concentrated on export items, and in 1970, while national average consumption per hectare was only 29 kg, the figure was 73 kg in São Paulo. In addition, aside from the fact that the Government finances up to 80% of investment in specific production lines for export, the southern region in 1970 absorbed 65% of total credit granted.²⁸ All these figures would be still more revealing if information broken down by type of enterprise were available.

Secondly, the economic and physical return in the modern sector is in general markedly higher than that in traditional agriculture.²⁹ As a result, expansion of the former leads to a substantial rise in its share in income and in total production. Concerning this latter aspect, there is evidence that in various countries the rises in output recorded in recent years are fundamentally due to the contribution of this sector. This may be clearly noted, for example, in the case of Mexico, where less than 4% of the total number of enterprises, located largely in the irrigated land in the north and north-west, contributed 80% of the rise in agricultural output in the decade 1950-1960.³⁰ Furthermore, between 1940 and 1970 there was a considerable increase in the differences in level of development between these regions and the more backward agricultural zones of the country.³¹

In Brazil another national and regional analysis, this time giving detailed classification

of the products on the basis of their origin in modern or traditional agriculture, showed that, with the exception of the centre-west region (States of Goiás and Matto Grosso), output from modern agriculture grew at higher rates than traditional agriculture throughout the country.³²

In a study carried out in Colombia relating to the modernization of cultivation of a specific crop of great importance for domestic consumption—rice—the same trends were noted. Following the introduction of new varieties appropriate only for modern irrigated agriculture, this subsector rapidly increased its output, with the result that the share of traditional agriculture—normally located in the uplands—fell from 50% of total output in 1966 to only 10% in 1974.³³

The expansion of modern agriculture does not necessarily lead to the adoption of intensive production practices. This will depend on the entire range of factors available, as is illustrated by a comparison between Mexico and Brazil. In the former, the possibility of making use of the better land through the introduction of irrigation stimulated the development of a modern sector of the intensive type, linked, as is well known, to the Green Revolution. In Brazil, however, the abundance of land and the possibility of opening up new areas with high natural fertility permitted the coexistence of two variants of modernization: the intensive variant in the older areas, such as São Paulo, where the area under agriculture has practically become stable and the coefficient of use of available land is already fairly high, and the extensive variant, normally in new areas with high fertility (basically the centre-west region), which is based on considerable mechanization to replace labour, although labour is often essential in the initial accumu-

²⁷*Censo agropecuario de 1970*. Preliminary synopsis.

²⁸See R. Miller Paiva and others, *Brazil's Agricultural Sector* (São Paulo, 1973).

²⁹This does not mean that expansion of the modern sector always brings with it a rise in physical return compared with the traditional sector. For example, in the case of the adoption of modern and extensive technologies based on motorization, this increase is marginal. Nevertheless, even in this case one may observe the phenomena of concentration of production—through expansion in area—and of income.

³⁰S. Eckstein, *El marco macroeconómico del problema agrícola mexicano* (Washington, CIDA, 1965).

³¹See in this regard *Crecimiento agropecuario comparativo de las entidades federativas del país, 1940-70* (México, Secretaría de Recursos Hidráulicos).

³²The biggest differences were found in São Paulo (5.1% and -0.5% respectively, between 1948-1950 and 1967-1969) and in the eastern region, with 4.2% and 2.1% See G. F. Patrick, "Fontes de crescimento na agricultura brasileira: O sector de culturas" in C. Contador, ed., *Tecnología e desenvolvimento agrícola* (Rio de Janeiro, IPEA/INDES, 1975).

³³See G. M. Scobie and R. Posada, "The impact of technical change in income distribution: the case of rice in Colombia", *American Journal of Agricultural Economics* (February 1978).

lation required to extend the area cultivated (clearing operations, and so on).³⁴

Thirdly, in the domestic market, the rural-urban migrations and concentration of income characteristic of the Latin American economies have produced changes in the structures and growth rates of consumption of agricultural products. The domestic market grows almost exclusively in line with its monetized component, the rapid growth of which has basically been caused by the rise in income and the increase in the non-agricultural population. Moreover, an appreciable proportion of the rise in total agricultural demand has originated in consumption by the sectors with medium and high incomes, as would appear to be indicated by the fact that in various countries per capita *consumption of staple foods* has grown little, and less than *total average food consumption*.³⁵

These facts are of considerable importance, since growth in the monetized component of demand basically encourages modern agriculture, which is best structured to supply it. Demand from rural areas tends to grow very little, while at the same time traditional agriculture must cope with increasing competition from the modern enterprises in supplying such demand.³⁶

Moreover, it should be pointed out that as agricultural migration tends to become relatively less important in the expansion of the non-agricultural population,³⁷ the subsequent development of the "marketed" component of demand comes to depend increasingly on growth in non-agricultural income and its distribution.³⁸ If income

distribution is concentrated, the decline in the income elasticities of demand for food tends to reduce the rate of growth in urban consumption of agricultural products, which is the most dynamic element of total domestic demand, and the two factors—lower population growth and the drop in income elasticity—combine to reduce the growth rate in "marketed" demand.

Fourthly, modernization necessarily fits into a framework of political conditions which tends to guarantee the stability of institutions and eliminate obstacles to the conduct of flexible and smooth commercial operations. The large agricultural entrepreneurs enter into various types of alliance with the financial groups, the institutions which control the storage installations, the agro-industries, the main exporters and the centres which have the modern technologies, whether imported or of national origin. They also require a land market with a minimum of restrictions.

B. Mechanisms of the modernization process

The factors mentioned in the preceding paragraphs help to clarify the mechanisms of the process of expansion of modern agriculture and the simultaneous decline of traditional agriculture.

The faster the growth rate in modern production compared with the rate of growth in demand, the sooner will modern output tend to displace output from traditional agriculture, bearing in mind its greater profitability and financial capacity. This is particularly marked in the areas which have the best links with the major centres of consumption, where the existing infrastructure permits smoother and more rapid penetration of the markets by modern agriculture.

Furthermore, the greater use of capital goods and technological inputs and, frequently, the higher quality of the land it occupies, enables modern agriculture to use much less labour than traditional agriculture to achieve similar levels of output. In given

³⁴In contrast to the traditional extensive model, the modern extensive model is not based on the under-utilization of land. It is extensive because growth occurs as a result of an increase in the land factor rather than in unit yield.

³⁵Although part of this difference in growth may be attributed to changes in the structure of consumption related to the growing share of the urban population in the total.

³⁶The importance of urban domestic demand as a factor in the process of agricultural modernization in Colombia is highlighted by S. Kalmanovitz, (*op. cit.*).

³⁷A situation which worsens when the non-agricultural population exceeds the level of the agricultural population.

³⁸Obviously, this is the more so when the rate of natural growth in the non-agricultural population falls,

as seems to be happening in the countries which urbanized earliest.

market conditions, the replacement of traditional output by modern output leads to a reduction in the level of agricultural employment—which is more intense the greater difference in productivity between the two sectors—and a growing concentration of output and agricultural capital.³⁹

Subject to the structural conditions mentioned above, the two mechanisms act in a convergent manner in the sense that they recreate and expand the reserve of agricultural labour, given the rate of natural growth of the labour force in the sector.

The decline of traditional agriculture in Latin America has occurred through a combination of the following three readjustment options, whose relative importance has varied depending on the country: a rise in migration to the towns; an increase in the number of wage earners and their share in the agricultural working population; and physical expansion of subsistence agriculture, sometimes only in terms of persons and production units but sometimes also of area occupied.⁴⁰ In the first two cases, there would tend to be an expansion in marketed demand, and therefore in the market for the modern sector itself.

Some of the aspects mentioned are clear, for example, in the case of Brazil. According to the most recent agricultural census, between

1960 and 1970 the number of farms less than five hectares in area increased by 76%, while the total number of farms increased by only 48%. Furthermore, the total area of this group expanded by only 55%, with a sharp reduction in the already small average size. Still more significant, however, is the fact that while in 1960 this stratum occupied only 2 of every 10 persons employed in Brazilian agriculture, it absorbed 7 of every 10 new agricultural workers during the subsequent decade, at various levels of occupation. In addition, in the farms of between 100 and 1,000 hectares—where perhaps most of the modern enterprises are to be found—the numbers employed dropped by almost 15%.

If one considers the quality (probably lower) of the land where most of the small farms are situated, and the over-exploitation to which they are subject, it is easy to deduce that the rise in the man/land ratio which may be inferred from the above figures has very serious repercussions on the effective level of employment and income of this group. Together with a substantial proportion of the temporary workers, this group makes up the reserve or surplus of agricultural labour to which reference was made above.

This continuous reproduction of the mass of landless workers and of a subsistence sector with extremely low levels of productivity and income plays a fundamental role in the process of modernization, both in agriculture and generally.

In fact, it is the decline in traditional agriculture which enables the modern subsector to play the roles mentioned above, since: (i) it generates the availability of labour required for the expansion of modern activities, both in agriculture itself and, most importantly, in the urban and industrial areas; and (ii) it keeps the incomes of the labour force in traditional agriculture at relatively low levels, in order to avoid as far as possible any upward pressures on the process of the basic foodstuffs for domestic consumption. Since the two aspects determine the level of salaries in the modern nuclei, both agricultural and non-agricultural, they play a central role in the process of capital accumulation in the economy as a whole.

³⁹This does not exclude the possibility that the creation of job opportunities in modern agriculture may increase, especially if the market grows rapidly and if the lines of production adopted by the modern enterprises, in addition to not competing with those of traditional agriculture, have a coefficient of labour requirement per hectare higher than "traditional" crops.

⁴⁰For example, it has been pointed out that in Central America the expansion of banana production for export introduced wage-paid work as a basic social relationship and brought with it the disappearance of the small agricultural landowners in the area. Expansion of cotton production in Nicaragua, for its part, is held to have displaced the production of basic grains and the traditional tenure relationships, expelling the peasants to new agricultural areas, where subsistence agriculture was re-established. See R. Quiros, *Agricultural Development in Central America: Its Origin and Nature* (University of Wisconsin, Land Tenure Center, 1973). In Mexico, the number of landless wage earners in agriculture rose from almost 1,500,000 in 1950 to more than 2,500,000 in 1970, while the independent producers dropped sharply in number (by 22% between 1960 and 1970). See Luisa Paré, *El proletariado agrícola en México* (Mexico City, Siglo XXI, 1977).

Two other complementary elements may be added to this central aspect of the process of capital accumulation in modern agriculture:

(i) The growing tendency to adopt arrangements for engaging and paying the labour force which practically exclude all the "wasted time" in its use, and which have as their main consequence a continuous rise in the proportion of temporary workers in the total labour force engaged. For the enterprises this represents an effective reduction in their labour costs,⁴¹ and at the same time a transfer to the wage-earners peasant sector of part of the cost of maintaining and reproducing the agricultural labour force, a transfer which is even more intense when real wages are declining;

(ii) The use, based on the control of agricultural property, of the surplus labour for capital formation, principally in the new agricultural areas to which part of the rural population shifts as peasant agriculture breaks down as a result of the consolidation of the modern sectors in the zones already opened up. This formation of capital, which takes the most varied forms (clearing of virgin land, establishment of plantations, planting of crops or pastures, etc.), costs the enterprises practically nothing, since it is based on the granting to the "landless" of farming rights—normally for family subsistence—in return for which they must pursue the activities agreed upon.

It is interesting to note in addition that restraining the remuneration of the agricultural labour force does not change the cost relationships in favour of traditional agriculture or restrict the use of new technology in modern agriculture, as ought apparently to be the case. This is due both to the differences in productivity per person employed in the two sectors and to the subsidizing of the cost of introducing modern technology through subsidies, exemptions, credit facilities and other advantages. This deliberate reduction in the cost of modern technology restricts the ability of

traditional agriculture to compete and limits the possibility of increasing agricultural employment, with the repercussions on income distribution which have already been indicated.

This form of articulation between the two types of agriculture co-exist, in some cases, with some degree of specialization in production, traditional agriculture, and particularly its peasant economy stratum, being oriented towards the less profitable items, generally items of mass consumption and less dynamic demand, the prices of which are controlled for reasons of economic policy. Depending on the relations between prices and production costs, this may contribute to the progressive impoverishment of this sector of producers, who have no alternative production possibilities.

In other cases, the articulation of the peasant economy with modern agriculture also occurs through the commercial and agro-industrial enterprises which develop simultaneously with the expansion of mercantile production in agriculture. The monopsonistic operation of the market by these enterprises is an additional element for the appropriation of the surplus produced by the peasant sector, which usually has to absorb the effects of price variations and the crises of over-production which may be generated.

The various phenomena referred to tend to strengthen the tendency towards concentration inherent in the process of modernization, given the increasing preponderance of capital in the production function of modern agriculture and the rising share of the latter in total agricultural output.⁴²

⁴¹Although in some cases a slight tendency for the nominal wages of this category of worker to rise has been observed, the enterprises benefit from a second source of economy, derived from non-payment of the social security contributions which must normally be paid when permanent workers are engaged.

⁴²See, for example, M. Urrutia, "Income distribution in Colombia", *International Labour Review*, vol. 113, N.º 2 (March-April 1976). Urrutia points out not only that the distribution of income in agriculture would seem to have worsened between the 1930s and the 1960s, but also that, in contrast to what occurred in the remaining sectors, the income of agricultural day-workers and those farming very small plots would appear to have dropped in real terms. In Mexico between 1950 and 1960, there was a substantial decline in the days per year worked by day-workers on average, together with a drop of 6% in the level of the minimum wage in real terms. See J. Martínez Ríos, "Los campesinos mexicanos: perspectivas en el proceso de marginalización", in *El perfil de México en 1980*, (Mexico City, UNAM, Siglo XXI, 1972).

Finally, it should be mentioned that the breaking-up of traditional agriculture is in line with a third objective within the process of modernization, namely, the expansion of the domestic market. The fact that the concentration and polarization⁴³ of income tends to worsen does not restrict the domestic market required for industrial expansion. Given the structure of industrial output, the part of the market whose expansion is of interest is that part directly linked to the "dynamic" sectors, in other words the sectors related to production

for export and for consumption by the groups with medium and high incomes. The growth of modern agriculture directly and indirectly encourages such activities, in addition to making a marginal contribution to the expansion of the market for the "ordinary" sectors of industry (food, clothing, and so on). This is an additional indicator of the compatibility of the changes which are occurring in agriculture with the overall process of modernization of the Latin American economy.

V

Some conclusions

On the basis of the above it is possible to outline some conclusions of interest for the definition of ideas which will be of use in reorientating agricultural development in the region.

Firstly, the absence of natural and human resources or of technical skills on the part of the farmers would not seem to provide an explanation for the difficulties encountered by Latin American agriculture in achieving higher levels of output and, in this way, contributing to solving the food, employment and other problems which persist in both rural and urban areas. With the exception of a few countries, products or circumstances, agricultural output appears to have met the requirements of demand which effectively arose in the market.

The key to understanding of the present dynamics of Latin American agricultural development is to be found in the overall functioning of agriculture, and particularly in its more recent process of transformation, which involves the expansion of modern agriculture and the decline of traditional agriculture, as briefly sketched in the preceding pages.

This process follows a logic which underlies the various phenomena noted and makes

them consistent from the viewpoint of the expansion of the modern sector, both at the level of agriculture and of the economy as a whole. Furthermore, this logic is consistent with the forms of social organization which exist in the region, and with the ways in which the Latin American economies are articulated with the economy of the central countries.

In this regard, the various aspects of Latin American agricultural development are "cogs" in the mechanism of expansion of mercantile production, consistent with the process of capital accumulation.

As is obvious, these considerations mean that efforts designed to correct or improve partial aspects of the Latin American situation which do not go to the root of the system of agricultural production as a whole are of only relative effectiveness.

Secondly, it is difficult to suppose that the future evolution of the present style of agricultural development, particularly in the modern subsector, can spontaneously eliminate its inherent anti-social features. On the contrary, the operation of the model suggests that such problems may worsen in the medium term and last excessively long in the Latin American economic and social sphere. The problem of employment, for example, can not be even partially solved within agriculture. An answer remains to be found to the question of how far and over what period the remaining economic activities, also in a process of

⁴³The term polarization is used to reflect the increasing distance between the top and bottom of the distribution pyramid and the increasing widening of its base, with an extremely low absolute level of income.

modernization, and already with a markedly oversized service sector, will be in a position to absorb the surplus agricultural labour. This will largely depend on trends in population growth; as is well known, a reduction in population growth basically depends on a drop in the birth rate, but here there arises an additional paradox: this rate will not fall decisively until the advantages of development unmistakably reach the marginal groups both in the towns and in the countryside, and this is incompatible with the essence of the style itself.

Thirdly, it is clear that in the long term economic growth necessarily presupposes the transformation of traditional agriculture. As has been mentioned, the decline in the relative importance of agriculture within the economic system and the decline of the peasant economy are manifestations of the same process —the

industrialization of the economy— which brings with it the transformation of the entrepreneurial and technological structures in the countryside. Accordingly, the problem lies not in the entrepreneurial and technological changes necessary in order to overcome agricultural underdevelopment, but in the fact that the process of modernization is predatory and tends towards concentration and exclusivity.

The challenge posed is precisely that of seeking formulas for the transition from traditional agriculture to a new, modern agriculture consistent with better exploitation of the productive potential and the general raising of the welfare of the population. From a development viewpoint, the solution of the present problems presupposes a change in the most important structural parameters on which the process of modernization has been based.

Plans versus planning in Latin American experience

*Carlos A. de Mattos**

The last two decades have seen quite a boom in various activities connected with the subject of national planning in the countries of Latin America: these activities have mainly involved the preparation of various types of plans, the establishment of numerous bodies specializing in this field, and an energetic discussion of the scope, content, procedures, forms, techniques, results and prospects of planning.

In the beginning, planning was linked with very ambitious objectives and viewed as offering quite optimistic prospects, so that it gave rise to very broad expectations which were undoubtedly out of all proportion to what could be expected from the conditions prevailing in each particular country. As time went by, however, the planning machinery did not operate as expected and the results obtained were not in keeping with the targets originally set. This led to a state of generalized frustration and growing scepticism regarding the prospects of planning, which came to the fore in the controversy over the so-called crisis of planning.

Although a great deal has been written and many discussions have been held on this supposed crisis of planning, the topic in no wise appears to have been exhausted: no the contrary, it seems reasonable to assume that the analysis of the causes of the situation in question will permit further progress to be made in the discussion of the scope and prospects which planning can have in our countries. The present study takes the same line and proposes to review the forms which planning has taken in the Latin American experience in the last two decades and to analyse the position of these forms of planning with respect to the specific economic, social and political conditions prevailing here.

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I The origins of planning in Latin America

Although it cannot be ignored that planning activities had already been initiated in some Latin American countries by the middle of the century, and that they had increased in the 1950s, it must be emphasized that it was not until the following decade that these activities gathered real momentum.¹

In fact, generalized official acceptance of planning as an instrument for "accelerating development" appears closely linked with the resolutions adopted at the Punta del Este Conference in 1961. In the course of this Conference—which undoubtedly marks a milestone of singular importance in Latin America's history of planning—the representatives of most of the countries approved a number of recommendations in which, after setting out an ambitious list of objectives whose attainment was deemed necessary in order to combat the ills affecting the region, they advocated the need to "programme" development.² This explicit recognition of the need to "programme" the economic and social process had undoubted significance since it helped to overcome a situation of widespread opposition to planning, an opposition originating in the political connotation which many governments had thus far ascribed to it which was obviously linked with the origins and subsequent development of planning in the socialist countries. It is precisely because of this opposition to all matters connected with planning that the less controversial term "programming" tended to be used at that time,

¹See CEPAL, "Planning in Latin America", *Economic Bulletin for Latin America*, vol. XII, N.º 2, October 1967.

²The first point in the chapter entitled "Basic requirements for economic and social development" of the Charter of Punta del Este establishes: "That comprehensive and well-conceived national programs of economic and social development, aimed at the achievement of self-sustaining growth, be carried out in accordance with democratic principles." *Alliance for Progress. Official Documents Emanating from the Special Meeting of the Inter-American Economic and Social Council at the Ministerial Level*, Pan American Union, Washington, D.C., 1961, p. 12.

although in the last analysis both terms were given an equivalent content.³

The resolutions of the Punta del Este Meeting gave a decisive impulse to planning activities in Latin America and helped define the nature and content of the process. In fact, this Meeting, in specifying the conditions and machinery of the Alliance for Progress, established that a development plan was an ineluctable prerequisite for obtaining the necessary external financing. The need for plans introduced one of the distinctive features of this chapter of the history of planning in our region. In the last analysis, the Charter of Punta del Este and the establishment of the Alliance for Progress meant an undertaking to introduce or strengthen "systems for the preparation, execution, and periodic revision of national programs for economic and social development".⁴ This, in its turn, meant that every country in the region must establish or strengthen the technical teams capable of preparing such "programmes".

In view of the fact that in most cases planning activities were actually initiated for the first time in this period, the preparation of plans appeared as a relatively new task and, therefore, lacking in tradition within the framework of the techno-bureaucratic activities of the Latin America countries.⁵ Accordingly, in order to perform this task it was necessary to organize or reorganize the public sector units that were to carry out these new activities, which involved the need to establish the necessary technical cadres within a relatively short period. Thus, at a time when

the various countries were starting to establish their planning systems, the planner also made his appearance on the scene. This personage's most notable features deserve to be considered at some length, especially because of the influence he is bound to have on the results of the activities he is expected to undertake.

a) *The planner and his ideology*

The first—and surely the most important—to be noted is that the planner of the 1960s was linked with a current of Latin American economic thinking which, on the basis of an interpretation of the historical process of the countries of the region and of a conception of economic development, advocated the need to introduce certain changes in the economic and social structure and maintained that planning was the most suitable means for achieving this.

This thinking, which had its roots and most notable expression in the studies, interpretations and proposals of CEPAL, and particularly in Raúl Prebisch's studies,⁶ was generated and consolidated in the course of the period following the Second World War, and quite soon acquired significant influence in the sphere of the Latin American countries. Thus, on the basis of the original formulations of Prebisch and CEPAL, a body of theory was elaborated on which many Latin American economists and sociologists of the time based their thinking, to which they in their turn contributed and which they helped to develop. Such is the case of Jorge Ahumada, Celso Furtado, Juan Noyola, José Medina Echavarría, Aníbal Pinto, Osvaldo Sunkel and others.⁷

In analysing the main problems affecting

³Thus, for example, one of the first CEPAL documents on the subject was *Introducción a la técnica de la programación*, United Nations, Mexico, 1955. This term is also used in another of the pioneering texts of the time: the class notes of Jorge Ahumada's courses at CEPAL, entitled *Teoría y programación del desarrollo económico*, CEPAL, Santiago, Chile, 1958. The same observations are applicable to the terminology used in the recommendations of the Punta del Este Meeting. It should be noted, however, that this distinction, which here was basically a semantic artifice, bears no relation to the difference established by some authors (Bettelheim, for example) who use the word "planning" to refer exclusively to the experience of the socialist countries, while reserving "programming" for the capitalist countries.

⁴See *Alliance for Progress*, *op. cit.*

⁵See CEPAL, "Planning in Latin America", *op. cit.*

⁶See, in particular, Raúl Prebisch, *The economic development of Latin America and its principal problems* (United Nations publication, Sales N.º 50.II.C.2); 1950; and CEPAL, *Theoretical and practical problems of economic growth* (E/CN.12/221), May 1951.

⁷Among a great deal of other testimony in this respect may be noted: Jorge Ahumada, *En vez de la miseria*, Santiago, Chile, Editorial del Pacífico, 1958; José Medina Echavarría, *Aspectos sociales del desarrollo económico*, Santiago, Chile, Editorial Andrés Bello, 1959; Aníbal Pinto, *Chile, un caso de desarrollo frustrado*, Santiago, Chile, Editorial Universitaria, 1958; Celso Furtado, *Desenvolvimento e subdesenvolvimento*, Rio de Janeiro, Fundo de Cultura, 1961.

the Latin American economies these authors gradually defined an original line of interpretation of development and under-development problems; according to Cardoso, "CEPAL produced ideas which, in their time, contributed to the understanding of some of the crucial problems of capital accumulation in the periphery and some of the obstacles in its way".⁸

Following these ideas, CEPAL then postulated certain lines of action which constituted the bases of a model to guide the countries of the region. The central elements of this model related mainly to the need for industrialization, the modernization of agriculture and the intensification and diversification of foreign trade. To all this should be added the fact that several of the economists who might be regarded as followers of this line of thinking, and subsequently CEPAL itself, went beyond the original proposals and—in the context of the internal logic of this model—advocated the need to introduce structural changes as a prerequisite for overcoming the situation of under-development affecting these countries.

All this gradually built up into a concrete development *ideology*⁹ which was generally known by the terms of "structuralist" and also "developmentalist" thinking,¹⁰ and as such it spread rapidly in Latin America through innumerable books, articles, meetings, seminars, discussions, etc. First CEPAL itself

and subsequently ILPES, through many courses aimed at contributing to the training of Latin American technical cadres in the field of development and planning, helped to spread even more widely this view of the situation in Latin America and of the action to be adopted in the future. Thus an intellectual climate was created to which an important part of the thinking of the time was ascribed.

It is within this context that the need for planning as a means of bringing the proposed development model into practice is postulated. Thus, during this period in the Latin American countries planning emerges and acquires indisputable importance linked with a concrete development proposal. This fact, which has been repeatedly analysed,¹¹ had marked influence on the manner of defining planning and the general orientation of activities then carried out in this field.

The situation prevailing in certain circles linked with intellectual life and political activity in the majority of the countries was highly propitious for the penetration of the developmentalist ideology and its procedures; the economic recession which was having far-reaching political repercussions (account should be taken of the difficult evolution of certain populist models, the situation of internal insurgency found in many countries, the emergence of the first Latin American socialist nation, etc.) offered an extremely fertile field for the advance of this intellectual climate. This should not of course, be exaggerated, since the actual influence of developmentalist

⁸Fernando H. Cardoso, "The originality of a copy: CEPAL and the idea of developments", *CEPAL Review*, N.º 4, second half of 1977, Santiago, Chile, p. 40.

⁹Leaving aside the involved discussion of the actual concept of the ideology, in this article it will be understood to mean viewpoints based on a values system and related to problems arising from the desired objective of social development; viewpoints which determine men's attitudes, or their readiness to follow certain behaviour patterns in specific situations and their actual behaviour in connexion with social issues (see Adam Schaff, *Histoire et vérité*, Paris, Anthropos, 1971).

¹⁰In this respect, F.H. Cardoso writes: "CEPAL's thinking generated ideologies and motivated action, opening out towards political practice" (F. H. Cardoso, *op. cit.*, p. 38). See also Albert O. Hirschman, "Ideologies of economic development in Latin America", in Albert O. Hirschman (ed.), *Latin American issues: Essays and comments*, New York, Twentieth Century Fund, 1961; and Aldo Solari and others, *Teoría, acción social y desarrollo en América Latina*, Mexico City, Siglo XXI Editores, 1976, in particular pages 585 *et seq.*

¹¹In the report of an important Seminar held in 1965 it is affirmed that in the case of Latin America planning had come to be considered as the basic instrument for overcoming the state of under-development, a transition involving the radical transformation of both institutions and the economic structure (ILPES, *Discusiones sobre planificación*, Mexico City, Siglo XXI Editores, 1966, p. 13). Referring to planning activities in Latin America, Germánico Salgado said that ever since its beginnings planning had been associated with an interpretation of under-development (and development) having a decidedly political content. This content justifies the discipline it presupposes. It derives from an analysis of society which postulates a development policy based on structural change, one of whose results is the transfer of economic power to modern entrepreneurial groups and the State (Germánico Salgado, *Los primeros esfuerzos de planificación en América Latina. Notas sobre una experiencia*, mimeographed version, 1968).

thinking only reaches some intellectual circles, as for example certain groups concerned with the social sciences and political activities. At the same time, while this intellectual climate gradually widened, the postulates of CEPAL and developmentalist thinking began to be persistently attacked and combated by both the right and the left.¹²

As these ideas spread and gained popularity they influenced, first, the establishment of planning systems and, secondly, the actual content of plans. Thus, in 1961 the recommendations of the Punta del Este Meeting were adopted under the influence of these ideas and this intellectual climate. As noted earlier, the Charter of Punta del Este advocated the need to introduce structural changes and in some degree legitimized the use of planning as a means of promoting development.

When, in order to comply with these recommendations, the governments had to devote their energies to the task of establishing planning bodies and, therefore, to the recruitment of planners for the technical teams concerned, they had recourse mainly to a supply of technical experts from the sphere of this intellectual climate.

When the specialists thus recruited assumed their functions as planners, they did so accompanied by their whole stock of personal views and convictions which in the last analysis, as noted earlier, presupposed an ideology of social change. Hence it may be affirmed that the planners of the 1960s were not merely planners, but were essentially *development planners*. Planning and development thus became inseparable components of an approach to the design and conduct of economic policy. During this period the figure of the planner, conceived as the agent of social change and so frequently idealized in certain literature of the time, reached its zenith.

It might, however, be asked how and why this type of planner was recruited. In this respect, it may be noted that the task of recruitment was performed without assigning any particular attention—beyond certain fairly broad limits—to analysing what future

planners thought about the orientation which ought to be given to economic policy or the conception they had of planning. In other words, there was no great interest in identifying the degree of adherence of the recruited planning personnel to the ideological basis for the decisions which the agents in power were prepared to adopt. This mode of action was to some extent influenced by a conception which ascribed a relatively neutral character to planning¹³ and which, therefore, took a markedly technocratic view of the role of planners.

In following this procedure it was not taken into account that besides some consensus regarding certain broad aims—generally related to indicators of levels of well-being such as those which were in any case advocated in the Charter of Punta del Este—agreement concerning the orientation of the process was of fundamental importance. For example, this meant evading the fact that although agreement may be achieved among all the agents of a certain process in connexion with general objectives such as the improvement of income distribution, such agreement tends to vanish when the orientation of the specific process that will have to be undertaken in order to attain such objectives is established and, even more so, when the relevant economic policy instruments are defined and their actual cost can be assessed. Unless a common ideological basis exists, profound and, in most cases, insuperable differences of opinion are then seen to arise.¹⁴

Since this was the procedure followed, there were no major obstacles in the way of planners being recruited from the ranks of the developmentalist current of thought, particularly as its postulates generally coincided with those of the Alliance for Progress, and this was also one of the most important purposes for which the plans were to be prepared. It might be asked, therefore, what influence this conception had on the planning activities carried out during this period.

¹³See a discussion on the supposed neutrality of planning in Aldo Solari and others, *op. cit.*, pp. 588 *et seq.*

¹⁴See Edgardo Boeninger, *Procesos sociales, planificación y políticas públicas*, ILPES, Santiago, Chile (mimeographed version), pp. 75 *et seq.*

¹²See F. H. Cardoso, *op. cit.*; and A. Solari and others, *op. cit.*

b) *Planners and the content of plans*

In order to analyse the influence of this conception on planning activities, it would seem useful first to define the role which the ideology of the various agents involved may have in the planning process. For this purpose, the first point to be made is that any decision to plan, originates in a view or image held by a group of agents regarding the future of a specific entity. This image, which is envisaged as the final objective of the process, contrasts with an existing situation which to a greater or lesser extent is considered unsatisfactory. It expresses the intentions and expectations of the agents supporting it in relation to the future of the entity considered and reflects a system of value judgements concerning its structure and operation. That being so, any image-objective is based on the ideology of the agents proposing it and refers, with greater or lesser precision as the case may be, to a specific development style¹⁵ it is wished to adopt. Consequently, the orientation of a planning process—and, in particular, of a plan—emerges from the content of this image.

Once the agents controlling the decision-making process have outlined an image and established their determination to translate it into practice, the initial activities of the planning process will be designed to identifying the system of actions which will make up the strategy to be adopted in order to attain the image. Taking into account the fact that this is a planning problem, in identifying this group of actions it will have to be kept in mind that they should be efficient, coherent, compatible with the situation and consistent with the image. In order to obtain these conditions, some theoretical framework for the structure and operation of the entity to be planned will have to be taken as a basis.

Although, in Latin America's practical

experience of planning, such theoretical bases have generally been confined to elements of economic theory, it would be desirable for them to relate comprehensively and coherently to the operation of society as a whole: in other words, the proposed action should be based on a general theory of society, provided this is available. It is not difficult to see that this restrictive approach to the theoretical framework adopted constituted a major limitation on the proposed strategies while it meant considering only the behaviour of the economic system and, therefore, under-valuing the effects of the proposed actions in social and political terms.¹⁶

The theoretical bases chosen must be compatible with the ideology of the agents upholding the image, while it is assumed that they should be the bases for the decisions that must be adopted by those agents concerning the actions of the process. This is of fundamental importance in order to achieve the necessary compatibility between the proposed action and real action.

This theoretical framework is the fulcrum for all the activities undertaken in order to define planning activities: analysis of the existing situation and establishment of the relevant analytical model, establishment of the normative model based on the image, carrying out of diagnostic studies, and design of the strategy.¹⁷

If consideration is given to the interrelationships existing among these various activities, the fundamental importance of ideology

¹⁶In this respect, the assertion by Octavio Ianni with all its implications seems fairly apt: the two basic components of planning are the *economic structure* and the *political structure*; but planners generally deal only with relations and processes connected with the economic structure. Political relations and processes, however, are always involved as well. Therefore, in the last analysis, planning may be said to be a process which begins and ends in the sphere of power relations and structure. Octavio Ianni, *Estado e Planejamento econômico no Brasil (1930-1970)*, Rio de Janeiro, Editorial Civilização Brasileira, 1971, p. 310.

¹⁷Generally speaking, the terms established by Jorge Ahumada for the various activities involved in the planning process have been maintained in this review. See Jorge Ahumada, "Notas para una teoría general de la planificación", *Cuadernos de la Sociedad Venezolana de Planificación*, Caracas, March 1966, vol. IV, N.ºs. 4-5.

¹⁵Graciarena says, in this respect, that "a style is the specific and dynamic modality adopted by a social system within a particular context and at a particular moment in history", and adds: "...a style is the strategy of a coalition of social forces which impose their objectives and interests until it comes to an end as a result of its implicit contradictions". See Jorge Graciarena, "Power and development styles", *CEPAL Review*, N.º 1, first half of 1976, Santiago, Chile, pp. 186 and 189.

in building up and establishing the planning process may be observed. As in every socio-economic context, different ideologies supported by different groups of agents co-exist, as also do various image-objectives; and this also involves the need to choose between different theoretical frameworks.¹⁸ A clear example of the co-existence of optional ideologies, images and theoretical frameworks is provided by the programmes of action presented by various political forces in the case of societies institutionally organized under forms of representative democracy.

Now, in situations of relative political stability, of the many images co-existing in a national society at any historical point in time only one is really politically viable, namely, that which is supported by the agents controlling the actual decision-making process, or decision-makers.¹⁹

Within the context of the preceding considerations it is interesting to analyse what happened in the Latin American countries when the first plans began to be prepared at the time of the Alliance for Progress, since this period is felt to have had a fundamental effect on the subsequent development of planning in the region. First and foremost, it should be noted that although the need to prepare plans had by then been admitted, this did not mean that the idea underlying the need for planning had been accepted; essentially, it may be said that the real scope of planning was not fully understood.

Furthermore, although there is no doubt that the Latin American governments had formally accepted the content of the Charter of Punta del Este, it is none the less true that in practice they showed no real willingness to implement the recommendations it contained, particularly as some of the measures concerned had a high social cost which, in many cases, directly affected the interest of the govern-

ments' actual bases of political support.²⁰ An analysis of the situation prevailing in the countries of the region shows that, in practice, most of the Latin American governments had a very different conception from planners of what the orientation and content of the economic policy process should be. In the last analysis, the difference was of an ideological nature and was reflected in a different image-objective, even though in many cases this was not clearly stated.

In these circumstances, in which there was certain formal support for the resolutions of the Punta del Este Meeting, but as a rule the agents controlling the decision-making process did not establish precise directives for the design of the normative model which was their goal, planners tackled the preparation of the required plans on the basis of the directives emanating from those resolutions and their own convictions.²¹ Thus, the planner's activities centred on the preparation of plans, a task which he performed in accordance with a certain methodological orthodoxy (which will be analysed later in this article) and tackled on the basis of the ideology to which he subscribed, with the support of the theoretical frameworks which were compatible with that ideology.

On this basis the planner worked out and proposed an image of social change which led to the polarization of his concerns in the area of medium- and long-term action and tended to relegate to second place concern with conjunctural problems and short-term action.²²

Even though the plans prepared in this manner were often formally approved, only in a

²⁰See Aldo Solari and others, *op. cit.*, pp. 593 *et seq.*

²¹In this respect, Cibotti and Bardeci say that the politician for his part, did not explicitly state his objectives for inclusion in the plan, so that in the absence of any clear definitions the planner tended to introduce his own ideas. R. Cibotti and O. J. Bardeci, *Un enfoque crítico de la planificación en América Latina*, ILPES, Santiago, Chile, 1970 (mimeographed version). See also CEPAL, "Planning in Latin America", *op. cit.*, p. 121.

²²Referring to this problem, Cibotti and Bardeci say that the planner generally presented a set of solutions based on a structuralist concept of development which failed to provide an immediate remedy for the symptoms which were a source of concern to the politician. The character which the planner ascribed to the problems went straight to their root and aimed at a change in the

¹⁸Obviously, this means recognizing the importance of the ideological conditioning of social theory and, in particular, economic theory. On this subject, see Ronald L. Meek, *Economics and Ideology and Other Essays*, London, Chapman and Hall, 1967; and an analysis on Latin America's experience in Aldo Solari and others, *op. cit.*

¹⁹See Jorge Graciarena, *op. cit.*

very few cases did they reach the phase of implementation. The basic reason for this may be found in the ideological differences existing between decision-makers and planners. So long as plans were useful documents in support of certain negotiations for obtaining external financial assistance decision-makers had no particular objection to using them or even approving them. When it was a question of starting to implement them, however, for which purpose it was necessary to adopt and implement the economic policy measures proposed in the plan, the differences between the concept of planners and that of decision-makers soon emerged. In line with the differences of opinion which, as has already been mentioned, were in the last analysis of an ideological nature and were therefore reflected in disagreement as regards the development strategy, the decision-makers did not adopt the decisions proposed by planners and, consequently, the stage of implementation started with an indefinite process of postponements and the plan eventually became a dead letter.

In short, when the seductive idea of planning which had always been somewhat abstract and elusive started to assume more concrete proportions in the form of a group of economic policy proposals, the supposed political viability of the plan rapidly diminished.

During this stage, the basic notion that planning is a means of conducting the political process was discarded. Planners tended to ignore the importance of the ideology upheld by the agents controlling the process, and in so doing they converted their activities—as pointed out by Foxley—into a mere theoretical exercise.²³

development pattern. From the politician's point of view, this had the drawback of not offering a quick remedy for critical situations and, moreover, the proposed changes affected the dominant groups' interests, which further aggravated the difficulties faced by the political power. R. Cibotti and O. J. Bardeci, *op. cit.*, p. 6.

²³According to Foxley, this process has been nothing more than a theoretical exercise participated in almost exclusively by planning experts and having as its most important stage the preparation of a document (the plan). Alejandro Foxley, *Estrategia de desarrollo y modelos de planificación*, Mexico City, Fondo de Cultura Económica, 1975, p. 18.

Meanwhile, in most cases the day-to-day economic policy of each country continued without a long-term solution and without being significantly modified by the action of planning teams. This means that, as in the past, such policy continued to be the responsibility of those bodies of the public administration which had traditionally performed this function, i.e., ministries of finance, budget offices, central banks, etc. At the same time, planning departments, which had made their appearance with unusual impetus in the countries' public administrations, did not manage to play the role which in theory had been assigned to them and in many cases merely vegetated in second place.

Apart from these considerations, it should be noted that there have been a few occasions when there was ideological agreement between decision-makers and planners and when the processes concerned show that some of the economic policy measures proposed in the plans began to be adopted. However, because of other factors more closely related with the specific economic, social and political conditions prevailing in the individual countries (although also with the planning procedures and methods adopted, as will be analysed below), the area of political viability of the plans gradually diminished throughout the actual process, and eventually here too the plans were discarded.

To sum up, as a result of the absence or contraction of the political viability of the plans it may be observed that since the beginning of the 1960s many Latin American countries have had plans but have lacked effective planning processes based on such plans.²⁴ This distinction between plans and planning is important in analysing the problem considered here, it being understood that the first term refers to a formal document, while the second relates to a political process of decision-making and

²⁴In this respect, Prebisch, in an early appraisal of planning experience in the Latin American countries, says: "The most significant advance has been achieved mainly in the first phase, that of conception. Much less progress has been made in planning proper, although there are signs that the Governments are beginning to recognize the significance of this fact". Raúl Prebisch, *Towards a Dynamic Development Policy for Latin America*, United Nations publication, Sales N.º 64.II.G.4, New York, p. 58.

practical action. It is precisely this fact —the availability of plans and the absence of planning processes —which is the origin and principal basis of the controversy over the planning crisis. In the light of the foregoing observations it would seem more reasonable to maintain that what was affected by the crisis was not planning as such but a specific way of visualizing planning linked with a certain concept (ideology, image, model, style, theory, strategy) of development which lacked viability in the objective circumstances prevailing at that moment in Latin America's history.

(c) *Planners and planning procedures*

A second point which it is of interest to analyse in connexion with Latin America's planning experience in this period concerns the planning procedures, methods and techniques adopted in carrying out the activities involved. In this respect, it may be affirmed that the teams of planners which carried out these activities in the Latin American countries in the period considered —because of both their professional training and their previous experience— basically subscribed to the concept used in the planning processes that were being carried out at the time in some capitalist countries of Western Europe, such as France, the Netherlands, the Scandinavian countries and others.

The form planning had taken there, once the main problems deriving from the war had been solved, constituted a functional answer to the type of problems arising in those societies, notable for their extraordinarily consolidated and stable institutional situation and relatively high level of development. In the framework defined by the parameters of this situation, planning was a suitable instrument for endeavouring to correct or strengthen certain trends detected in the operation of the system, without the necessity —in most cases— of any drastic structural changes. As such, planning was essentially indicative and in the nature of an instrument of adjustment.²⁵

This form of planning —which in its more

general formal aspects was directly based on the methods and techniques developed by the socialist countries, in particular the USSR— centred on the task of preparing a plan, which was conceived as a global and aggregative document designed to serve as a frame of reference for orienting and controlling the course of the different variables throughout the planning period. This experience gradually established a certain orthodoxy as regards planning procedures, with the plan as the basic element of the process. Thereafter it was difficult to conceive of planning without relating it to this document, which shall henceforth be called the book-plan and which was the initial and central element of the process.

This orthodoxy also extended to planning methods and techniques, which were likewise transferred to the Latin American experience without much previous adaptation. Such is the case, for example, with the method of going through certain stages in the preparation of a plan, with certain types of macroeconomic models directly based on those used by the Tinbergen school and also with input-output techniques, whose use was systematically advocated as an instrument for the sectoral breakdown of a plan, without much importance being given, for example, to its relative uselessness for economic forecasting in those cases where it was planned to introduce significant structural changes.

These procedures, methods and techniques were very well known and widely accepted in Latin America. If the planning texts prepared during this period in the Latin American countries are reviewed it is quite clear that they were based on data deriving from the European experience.²⁶ Similarly, if the literature most widely disseminated among and used by Latin American planners is examined it will be seen that it basically consisted of texts prepared by experts who had supported or co-operated in the planning experience of those European countries.²⁷

²⁶See, for example, CEPAL, *Introducción a la técnica de la programación*, op. cit.; Jorge Ahumada, *Teoría y programación del desarrollo económico*, op. cit.; and Pedro Vuskovic, *Técnicas de planificación*, ILPES, Santiago, Chile, 1965.

²⁷For example, the works of Pierre Massé, Jan Tinber-

²⁵See A. Foxley, op. cit., p. 15.

These being well known and accepted planning procedures, Latin American planners endeavoured to introduce them in the countries of the region.

Therefore, to sum up the aspects analysed thus far, it may be observed that the postulates of social change and adjustment planning procedures assumed concrete form in the planning activities that were carried out in most of the Latin American countries. In the last analysis, this meant placing planning procedures which were employed in the *adjustment processes* at the service of a concept involving planning for the introduction of a *process of change*.

In these circumstances, the book-plan proved too rigid and static an instrument *vis-à-vis* the requirements of a highly unstable and changing situation, as was (and is) that of the Latin American countries. The book-plan presupposes as an implicit hypothesis the medium-term continuity and validity of the goals, the behaviour envisaged for the different variables considered, the strategy, and the proposed economic policy measures. This in its turn means a certain constancy in the entity subject to planning which is difficult to imagine in the case of a developing country.²⁸ The history of that period showed that it was impossible to assume such constancy and, therefore, that most of the plans died as soon as they were born.

Even in those cases where some agreement existed between the planners' image and that of the agents controlling the decision-making process the procedures based on the book-plan concept were not suitable for the conduct of a process so full of contradictions as

those characterizing a peripheral capitalist country.²⁹ The very publication of the complete plan, announcing beforehand the main measures that were to be adopted through the whole planning horizon, helped right from the beginning of the process to create more conflict than would have been generated by each economic policy measure considered individually. Thus finally reducing the area of political viability of each and every one of those measures.³⁰ Those groups which felt that their interests were injured by the proposed changes, knowing the content of the action envisaged, tended to organize themselves in advance to combat the implementation of the plan, and to the extent that such groups were the expression of an actual source of power, their opposition gradually restricted the possibility of the plan's implementation.

In short, from the analysis made thus far it may be concluded that planning activities in their initial stages were marked by the following two aspects which helped to detract from their effectiveness and to a certain extent doomed them to failure from the outset:

(a) In a good many cases the image-objective adopted by planners as a basis for plans was incompatible with the economic, social and political conditions prevailing at that point in history and was not adapted to the practical intentions of the agents controlling the decision-making process; thus, it lacked political viability.

In the last analysis, this means that the necessary conditions did not then exist for carrying out an integrated planning process based on an image with a developmentalist content. However, it does not imply the absence of conditions for planning on the basis of images with a different content: something which, as will be seen, occurred later.

(b) The procedures adopted were based on a concept of adjustment planning which might prove functional under the conditions

gen, H. Chenery, V. Marrama, etc.; a review of the catalogues of the leading Spanish-language publishers specializing in the subject at the time confirms this statement.

²⁸Today it is customary for planners to reject the rigidity of the book-plan. For example, João Paulo Dos Reis Velloso, former Minister of Planning of Brazil, says: "In short, recognizing the unforeseeable nature of the global magnitudes involved in the world recession, we shall consider a type of planning geared to results and the co-ordinated implementation of programmes, using indicators for specific purposes in a continual process of revision" (unofficial translation), *Actualidade do II PND*, IBGE, São Paulo, December 1975.

²⁹Consider, for example, the different procedures used in Peru's experience from 1968 onwards in the conduct of economic policy involving important socio-economic changes.

³⁰See ILPES, *Discusiones sobre planificación*, op. cit., in particular pp. 14 et seq.

prevailing in developed countries but was not suited to the situation and social dynamics of developing countries.

Other factors such as the absence of operational machinery in planning systems, inadequate co-ordination between plans and public sector budgets, lack of projects, non-existence of appropriate statistical information systems and premature institutionalization of planning were other causes indicated as being responsible for the meagre results obtained by Latin American planning during this period.³¹ The foregoing analysis, however, tends to show that these factors have only a marginal effect and that the essential reasons are not these but basically the limitations imposed by

the economic, social and political conditions prevailing in the individual countries.

The comments made thus far are not intended to deny that the process carried out during this period had some undoubtedly positive aspects. This is not the place to review those achievements, with which many studies have already dealt in detail, but it is interesting to note that this process led to a fuller knowledge of the situation in the various countries and laid the bases for the subsequent adaptation of planning activities. It would be difficult to explain the present situation of planning in Latin America without the background of the experience gained in the Alliance for Progress years.

II

New modes of planning in Latin America

The last few years have witnessed important changes in the Latin American countries. Within the context of these changes several countries have defined and adopted new national models or projects as a basis for the action characterizing their respective processes. In general terms, these models constitute specific proposals for the transformation of a situation which the agents controlling the national decision-making process have considered unsatisfactory. The orientation and specific content of these national projects have differed according to the country, as also have their level of explicit detail, degree of internal coherence, political viability, social cost, etc.

In any case, all these projects are conditioned by the ideology of the agents supporting them and fairly explicitly involve a normative model and a strategy for achieving it. They therefore constitute a frame of reference for the definition of economic policy instruments which will shape and characterize the process aimed at the realization of the pre-established image.

Merely as an example of this type of

situation, mention may be made of the experience of Brazil since 1964 and of Peru between 1968 and 1975. Leaving aside the differences existing in the content of the normative models defined in both cases, it may be observed that, although there was no book-plan such as those of the Alliance for Progress period, each process was progressively defined according to the content of the respective models and, generally speaking, the broad lines of economic policy were reasonably coherent.

One conclusion drawn from the analysis of cases such as those mentioned above is that they can be said to represent practical examples of the form which planning may take in a capitalist economy. This statement may appear disputable and even unacceptable if judged in the light of the formal canons of planning theory established by the currents of thought most in vogue in Latin America. It may be more easily accepted, however, if those experiences are observed from a less orthodox position as regards planning concepts, methods and techniques.

(a) *The role of planning in capitalist countries*

In order to discuss the foregoing proposition it will be necessary to consider the concept of

³¹See, in particular, CEPAL, "Planning in Latin America", *op. cit.*, pp. 120 *et seq.*; and ILPES, *Discusiones sobre planificación*, *op. cit.*, pp. 37 *et seq.*

planning in its broadest sense, to identify the elements characterizing a planning process proper and, in particular, to define the role of planning in the setting of the capitalist countries.

In the first place, therefore, it is necessary to determine on the basis of what aspects a specific economic policy process can be considered to be a planned process. Taking into account that the term "planning" tends to be used either in a general and indiscriminate way or in a highly restricted manner, this discussion is important in order to be able to define a frame of reference for analysing the problem concerned.

On the one hand, it may be observed that when the concept of planning based on certain excessively broad definitions has been used, the tendency has been to describe as a planned process any economic policy process where there is a certain degree of State intervention in economic life. This leads to the extreme of stating that from the moment the State starts to intervene in the operation of the economic system it may be called a planning process. This manner of dealing with the problem tends to blur the true content of a planned process and to justify the assertion in the title of the study by Wildavsky: "if planning is everything, maybe it's nothing".³²

On the other hand, an important current of present-day economic thought tends to deny the possibility, or to restrict the scope, of planning in capitalist economies. In essence, it is maintained that planning is only possible in an economy where the means of production are state-owned. This position has usually been upheld by certain theorists of Soviet planning, and also by some Latin American economists who subscribe to that theoretical concept.³³

Between these two opposing concepts it is possible to define a position which, while recognizing that the concept of planning in its

more general terms is the same for capitalist economies as for centrally planned economies, contends that planning has a substantially different theoretical basis and methodology for each of those contexts. According to this approach the possibility of planning in capitalist economies is admitted, but at the same time it is considered that the specific rules of the game in force in these economies determine that the practical scope, modes and possibilities of planning are in this case very different from those which it may assume in a centrally planned economy.³⁴

These considerations are founded on the basic assumption that planning moves within the framework defined by the fundamental parameters of a given system which cannot be changed merely by its own action. In other words, those who think that planning itself makes for a change of system are basing their attitude on a concept of the situation which excludes any analysis of what the specific economic, social and political conditions of each system may determine as being possible. It is only once a change of system has been decided and politically legitimized that planning can be used as an instrument for bringing it into practice through a coherent and rational economic policy with objectives defined by the power structure. This has occurred in all cases of radical political changes

³²Aaron Wildavsky, "If Planning is Everything, Maybe it's Nothing", *Policy Sciences*, Amsterdam, June 1973, vol. 4, N.º 2.

³³See, for example, L. A. Kadishev and G. M. Sorokin, *Leyes económicas y planificación socialista*, Mexico City, Editorial Grijalbo, 1969, especially pages 65 *et seq.*; and Arturo Guillén, *Planificación económica a la mexicana*, Mexico City, Editorial Nuestro Tiempo, 1971.

³⁴In a recent study on the subject, Enrique Sierra defines the role of planning in a capitalist economy in the following terms: "A huge public sector with manifold functions calls for a method which will give its activities some coherence, provided the conflict of social and other interests so permits. This is the most elementary reason for planning in the present industrialized and developing capitalist economies. The immediate role of plans is to guide the socio-political process of economic policy, centring the class and interest struggle in a specific direction and reducing the degree of anarchy of the process. To translate the government's political programme into goals and objectives and provide it with a consistent strategy is the immediate purpose of planning activities during a period of government. To help establish a clear-cut action strategy and a coherent policy of objectives, through the pooling of social forces and the arousing of consciousness with a view to breaking the state of under-development, is the function which, transcending the temporary character of an administration, national planning is expected to perform in the peripheral capitalist countries." Enrique Sierra, *La planificación nacional en el capitalismo* (unpublished study), Caracas, Venezuela, 1977.

in history, where planned economic policy has been a means for bringing about the change.

In the last analysis, planning evolves within the limits imposed by the economic, social and political conditions of each situation, and only within those limits. What is stressed here is that the logic deriving from the rationality of the system, in its specific situation and place in history, must in all cases be considered as the basic framework of the problem. Accordingly, in a capitalist economy the elements defining this type of system constitute essential items of information for planning, and only on that basis can the elements of the process then be defined.

As noted earlier, when planners themselves assume the role of agents of social change but prevailing conditions are not actively favourable to such changes, their efforts become a mere theoretical exercise. In short, the planner is a State employee and this to a certain degree establishes the essential co-ordinates of this work. Historically, this has been so whenever the planner has genuinely performed his function as such, whether in the framework of a socialist or a capitalist economy.

To revert now to an earlier question, what are the characteristics that a policy-making process must have in order for it to be considered as a planned process? In the first place, a planned process is considered to be made up of a group of decisions concerning objectives and means which, with the help of a number of planning instruments and techniques, determine a sequence of coherent measures that are defined and implemented within a certain time horizon in order to achieve some pre-established objectives. Hence, it may be inferred that the essential elements of a planned process are: an image-objective which makes it possible to define a normative model, and an action strategy which is the basis for shaping a coherent economic policy sequence.

In the light of these considerations it may be established that planning relates to a political process aimed at the attainment of pre-established objectives, independently of their specific content. That is to say, the objectives may be associated with the implementation of an economic and social development process, but even though this may be desirable it is not a

necessary condition. In other words, planning thus defined does not necessarily have to be development planning; it could quite well be a type of planning aimed at higher growth objectives without any side preoccupations with respect to the distribution of the fruits of that development process. On this subject, attention is drawn to the words of Jorge Ahumada to the effect that it is possible to plan for justice and injustice, for virtue and for vice.³⁵

An extreme example of this view of planning might be a process conceived in terms of a normative model postulating a return to a system ruled by the principles of economic liberalism, the strategy for which might postulate a group of economic policy measures aimed at restoring to the market its functions of assigning resources.³⁶ In this case, perhaps the consistency and viability of the final objectives may be questioned but not the fact that it is a planned process.

(b) *Planning without plans*

Reverting to the aforementioned experiences of Brazil and Peru—considered here by way of example—it may be observed that both fulfil the above-mentioned requirements: the existence of an image that has served as a basis for the formal establishment of a normative model and for the definition of a strategy and the establishment of a process shaped by a coherent set of economic policy instruments.³⁷ Under the circumstances it should be recognized that these are practical planning experiences, even though the procedure adopted may be different from that established by the orthodox approach prevailing in the 1960s, mainly because in neither of these cases is a book-plan the true guiding thread of the process.³⁸

³⁵Jorge Ahumada, "Notas para una teoría general de la planificación", *op. cit.*

³⁶See Roberto de Oliveira Campos, "A experiência brasileira do planejamento", included in M. H. Simonsen and R. O. Campos, *A nova economia brasileira*, Rio de Janeiro, José Olympo (ed.), 1974. p. 50; and Octavio Ianni, *op. cit.*, pp. 301 *et seq.*

³⁷See Roberto Cavalcanti de Albuquerque, "Planejamento do governo no Brasil", IPEA, *Boletim Econômico*, Brasília, January-April 1975, Nos. 1-2.

³⁸The validity of this statement is unaffected by the simultaneous existence of a book-plan and of the parallel

This system of planning in Latin America has gradually taken shape in practice in tackling specific situations that have so required. In every case it has been the result of the conviction that in order to emerge from a certain undesired situation towards a desired situation (that postulated by the normative model) a broad set of economic policy measures is required, which could hardly have been envisaged from the outset.

In the last analysis, this is a conception of how to conduct the planning process in which the strategy tends to become the key element of the latter, in the form of a general framework that ensures the coherence and continuity of economic policy.³⁹ The procedure of articulating the various decisions of the planning process according to a strategy conceived as a basis and guide for the economic policy adopted during the planning period represents a practical answer to the empirical evidence that the book-plan is inadequate for the economic, social and political conditions characterizing the situation of the peripheral capitalist countries.⁴⁰

A strategy defined as a result of a comprehensive and continuing analysis of the situation leads to the identification and definition of the basic measures which must be introduced during the planning period, considering both their political viability and

their technical feasibility. Essentially, the strategy involves a group of proposals aimed at influencing the system's operation and designed in terms of the normative model and its theoretical bases.

In the specific dynamics of a capitalist economy, the strategy thus conceived constitutes a more flexible framework than a book-plan, since it enables the various short- and medium-term economic policy measures to take shape gradually and give content to the process according to a general sequence which can be constantly revised and adjusted. This being so, to the extent that the various economic policy instruments which are introduced throughout the period serve as feed-back to the process, they also increase or reduce the political viability of future action and, finally, of the planning strategy itself, so that every measure requires an analysis of its specific viability. In this mode of planning, short-term economic policy plays a fundamental role in charting the road towards the image.

The dynamic character of this system also affects all the other elements involved in the practice of planning, such as diagnostic studies, forecasts and consistency analyses. Thus the diagnostic study, which has generally been tackled as a global task prior to the preparation of the plan, tends to be replaced by a continuing diagnosis which accompanies the decision-making process in each of its stages. The same observations are applicable to forecasts and consistency analyses. In view of the dynamic and changing nature of the process, forecasts and consistency analyses made on a global basis for the medium term, as was envisaged in the book-plan system, tend to become an academic exercise, losing much of their significance from the standpoint of action.⁴¹

In this context, the tasks of diagnosis, forecasting and consistency analysis acquire particular importance in the face of each new

work of planning bodies on the preparation of plans. In the case of Peru, for example, it may be noted that although there was no interruption in the operations of the National Planning Institute (INP), which continued to prepare plans, in practice it was the Advisory Committee of the Office of the President of Peru (OCAP) which really prepared many of the first measures involving structural changes. Thus OCAP, particularly during the initial period of the process, actually operated as a parallel planning body and as an interpreter of the guiding principles of the normative model established by the Government of the Armed Forces. A case in point, for example, is the Agrarian Reform Law which was prepared in the utmost secrecy by OCAP, while INP was also engaged in the preparation of draft legislation on the subject, which came to a halt when the OCAP law was suddenly promulgated by President Velasco Alvarado on the occasion of the celebration of the Day of the Indian on 24 June 1969.

³⁹See an analysis of the strategy concept in Carlos Matus Romo, *Estrategia y plan*, Santiago, Chile, Editorial Universitaria, 1972.

⁴⁰The Peruvian process initiated in 1968 is once again a good example of the procedure described here. The "Inca Plan" and the "Ideological bases of the Peruvian

revolution" constituted the real normative bases of the process and were the point of departure for defining the main economic policy measures characterizing that stage. See, in this respect, Ernst J. Kerbush (ed.), *Cambios estructurales en el Perú, 1968-1975*, Lima, Editorial ILDIS, 1976.

⁴¹See João Paulo dos Reis Velloso, "Opção, económica", *O Estado de São Paulo*, 9 November 1976.

decision, for since any important future economic policy measure is bound to have complex and diversified repercussions on the system, its definition calls for very careful analysis through diagnostic studies based on both theoretical and empirical knowledge concerning the structure and operation of the system as a whole, for which purpose it will be necessary to perform forecasting and consistency tests on the basis of the same theoretical and empirical bases.

The repercussions of each policy measure alter the prevailing situation and at the same time contribute new elements which must necessarily be taken into account in terms of diagnoses, forecasts and consistency tests for future action. It may so happen, for example, that some unexpected repercussions of a given measure will reduce the viability of the future action envisaged, leading to a new approach to the situation, and adjustment of the strategy and a reformulation of future action.

The review, appraisal and reformulation activities carried out continuously over the established time horizon are of fundamental importance in this mode of planning, since they give it a more dynamic and flexible character than that of planning via the book-plan. Thus a strategy serving as a real normative guide which ensures that the decision-making process is both consistent and rational makes it possible gradually to chart the actual course to be followed. It may therefore be said that when planning comes up against the formal global plan in this manner it can only be perceived in its entirety *a posteriori*, as an *ex post* result of the summation of the short-, medium- and long-term measures adopted during the period considered.

Finally, this would be a planning process whose development did not require the existence of an explicit plan formally established beforehand. It may thus be observed that, in contrast with the experience of the previous decade which was characterized by the proliferation of plans but the almost complete absence of specific cases of planning, it is now possible to talk about the existence of planning processes, with the absence, however, of book-plans.

In any case, it may be observed that

although the mode of planning without plans may be considered as a new departure in the Latin American countries, it is not so, either in theory or in practice, in other parts of the world.⁴² It has often been stressed that achieving the implementation of a planned process is more important than having a plan, since the latter is not a necessary or sufficient condition for the former. These two methods have already been expressly set against each other in a typology established with the purpose of characterizing the essence of planning.⁴³

The approach to and analysis of this manner of undertaking planning activities does not mean completely denying the validity of the mode of planning based on a book-plan, which may be adequate in the context of certain economic, social and political conditions; rather, the main purpose of this part of the analysis has been to endeavour to show that it is illusory to continue to consider that only those cases adhering to the orthodox procedure of a plan represent planning. It is nevertheless important to note that, because of its capacity to adapt to the complexity of the various stages of the process, this type of decision-making process seems better suited to the actual situation of peripheral capitalist economies of the type predominating in the Latin American countries.

(c) *New modes of planning, planners and planning bodies*

Lastly, some comments may be made as to how this whole process has affected planners; in this respect it can be said that the modes of planning adopted in some Latin American countries in the last few years have reflected the gradual disappearance —especially at the peak levels of responsibility of planning

⁴²See, for example, Albert Waterston (1965), *Planificación del desarrollo. Lecciones de la experiencia*, Mexico City, Fondo de Cultura Económica, 1969, pp. 104 *et seq.* This mode of planning is also clearly set forth in the systematic view of Brazilian planning presented by Jayme Costa Santiago, *Os sistemas de planejamento e a importância dos projetos*, Brasília, Editorial CENDEC, 1976.

⁴³Faludi compares them as two opposite modes of planning: "The Blueprint Planning vs. the Process Mode of Planning". See Andreas Faludi, *Planning Theory*, Exeter, United Kingdom, Pergamon Press, 1973, pp. 131 *et seq.*

teams— of the planner ideologically divorced from the concept prevailing among the agents who in practice control the decision-making process. This fact, which in most cases has meant the political ostracism of the planner seen as an agent of social change, has found expression in the search for and selection of planners in terms of their ideological adherence to the political conduct of the process and of their identification with its essential content. In these cases, therefore, the first characteristic looked for in a planner is related to his political convictions. This is because the content of an actual planning process depends on the objectives and procedures which the agents controlling the decision-making process are prepared to adopt, rather than on the planners' own concepts.

In these circumstances, the much idealized agent of change is gradually giving place to a planner who, as such, has to move in a framework of unequivocal and clearly demarcated rules. This view of the planner is not intended to belittle his technical calibre or his functions but rather to place his role within the framework of the conditions in which the decision-making process is currently developing in a peripheral capitalist country. This is not a novel aspect, since the planner's work has been so characterized in every specific planning experience of both capitalist and socialist countries. France on the one hand and the Soviet Union on the other provide highly illuminating examples in this respect.

It may also be noted that planning functions have once again tended to shift to the specialized institutions of the State bureaucratic apparatus which has traditionally been responsible for the conduct of economic policy. This has occurred because the bodies specially set up to assume responsibility for planning—or more specifically for the preparation of plans— never became fully integrated in the techno-bureaucratic structure of the Latin

American countries. With only a few exceptions these bodies were left —after the initial “impact” on their incorporation in the decision-making process— to perform a subsidiary function and gradually lost all their powers over the actual process of economic policy formulation and decision-making.

So long as plans constituted an actual requirement—inasmuch as their existence was necessary in order to seek external financial aid within the framework of the Alliance for Progress— the need for planning offices was justified and they had a certain operational status, although of course, as already noted, their specific activities did not go much beyond the mere preparation of formal plans.

At the same time, the specific bodies of the State economic area (ministries of finance and/or economic affairs, central bank, budget office) never really lost their actual role in the process, especially with respect to short-term policy. Whatever they may have lost, moreover, was rapidly recovered, thus contributing to the further displacement of those new bodies which were never operationally integrated in the decision-making process.

Bearing in mind that many of the models which the Latin American countries are currently endeavouring to put into practice were so conceived that the course towards the desired situation is basically being shaped in terms of short-term measures, the transfer of the task of designing these measures to the traditional bodies cannot but be regarded as reasonable, provided it is subject to centralized guidance.

In short, the modes of planning analysed above have resulted in a different characterization of the planner and in the transfer of the functions of designing and conducting economic policy to various public administration units, at the expense of the functions which had previously been formally assigned to planning offices.

III

Conclusions and final considerations

The following conclusions may be drawn from the analysis made in the preceding section:

(a) With regard to the period considered, it is possible to talk about a planning crisis, but this must be understood to relate to a specific mode of planning and to a normative model which was associated with that mode during the period, that is, to planning visualized as a process initiated and supported by a book-plan and a model of social change. Since this constituted the generic manner of visualizing planning at that time, when it was found to be inoperative it was assumed that the crisis affected planning proper.

(b) Subsequently, an alternative system gradually developed and was adopted in several countries of the region, whereby a previously fully formalized plan was not a prerequisite for carrying out a planning process. This gave rise to a more pragmatic manner of conducting the economic process on the basis of the guiding principles of a pre-determined normative model. In these cases it seems perfectly possible to talk about the existence of planning; therefore, the term "planning crisis" would not be applicable here.

To sum up, it can truly be said that there has been a planning crisis in Latin America, provided it is added that the crisis affected one mode of planning. That crisis was followed by the emergence of less orthodox but more efficient forms of conducting the economic process under the specific conditions prevailing in the peripheral capitalist countries at that juncture in history.

This in no way means, however, that such planning processes are leading to results which mean the effective solution of the most serious problems affecting these countries. Although

the use of certain growth models tried out in the Latin American countries in recent years has given successful results in connexion with some of their main objectives, it is also true that it has aggravated certain chronic problems in the region. This is so, for example, in the case of problems related to the distribution of the fruits of growth and to general living conditions, which have shown a distinct tendency to worsen in many of the Latin American countries.

In these circumstances, it is not difficult to foresee that the social pressures created by the use of these models will gradually reduce the possibility of continuing to use them indefinitely, and that sooner or later they will have to be changed; the inclusion of broader social objectives in planning processes will then be inevitable.

These and other problems affecting the countries of the region are leading to a new approach to the growth models that have been used in them, and to a deliberate search for new styles of development. Undoubtedly, the need to find solutions to these problems by means of new models will spur on the efforts to ensure maximum efficiency and coherence in economic policy processes, and planning will therefore continue to be an unavoidable requirement of the socio-economic processes of our countries.

All this makes it necessary to continue to explore the role and modes of planning within the framework of the economic policy process of peripheral capitalist countries, and this involves an effort to define the role of planning and planners in relation to the situation in these countries, without sticking too closely to formulas which may not be suited to their economic, social and political conditions.

The Brazilian economy: options for the eighties*

*Pedro Sampaio
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The discussion of the options open to the Brazilian economy for the 1980s will only be useful if it manages to break through the hidebound technocratic conservatism which reduces everything to a question of "competence" in managing short-term economic policy. Today as yesterday, the best remedies for this disease are a historical perspective, a critical evaluation of the changing international situation and, no less important, the deliberate return of economics to its original calling, namely, political economy.

This article adopts the above approach and, is organized as follows: the opening section is an introduction which merely attempts to sketch out the problem of the discontinuity in the performance of the Brazilian economy in 1974. The second section deals, in general terms, with events since 1974, and emphasizes the salient problems of political economy in that period. The third section analyses the more likely options and puts forward some general policies suggestions underlying the argument currently raging on this question in Brazil. Finally, the fourth section presents the main points raised in the article.

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I

From 1974 onwards, the disequilibrium in the current account of the balance of payments and the change in the rates of inflation have stood at the centre of the argument about Brazilian economic policy.¹ It may be worth repeating that these 'problems':

(a) are not new (on the contrary, they constantly recur in the Brazilian experience of growth with diversification of the structure of production);

(b) are not the only ones (in fact, in the economic and social field there are deeper problems than managing the balance of payments and controlling inflation); and

(c) reflect something more important than mere economic policy errors or institutional shortcomings of the decision-making process.

Indeed, it is precisely the additional elements which should be brought to bear in an analysis of the present situation and its prospects. The kind of 'analysis' which reduces everything to a problem of greater or less 'efficiency' in the management of economic policy has practically nothing to say about prospects or options, except that they depend on suitable policies, which, it must be admitted, is begging such questions as: 'suitable for what?' or better, perhaps, 'suitable for whom?' In the absence of an open political process which takes for granted the fact that there are different ways of answering these questions and allows them to be expressed in the search for political compromises, there arises the technocratic illusion of a single 'rational' solution, a 'technique' dissociated from the social fabric which it reflects and on which it acts. Of course, this is not to deny the importance of the management of economic policy, but merely to draw attention to the fact that, besides not being neutral from the standpoint of its distributive effects, it functions within the limits and possibilities offered by more basic determinants which are often hidden in short-term analyses, whose time-horizon is rarely more than the brief and misleading period of

¹This section principally draws on P. Malan and J. A. da Luz, "O desequilíbrio do Balanço de Pagamentos: Retrospecto e Perspectivas", in Dionísio Dias Carneiro (ed.), *Brasil: Dilemas de Política Económica*, Rio de Janeiro, Ed. Campus, 1977.

one year and which generally deal only with traditional indicators of economic activity: growth rates by sectors and of the different components of total demand, rates of inflation and the short-term balance-of-payments situation.

This article adopts a broader perspective on the structure of Brazilian economic growth in the near future, recognizing that it can and should be influenced by an economic policy deliberately tending to change gradually the structure of medium-term *supply*, so that Brazil can tackle what we see as the main challenge of the 1980s: the problem of the distribution of the benefits of technical progress and the burning questions of the satisfaction of the basic needs of that large sector, representing one-third of the Brazilian population, both rural and urban, barely surviving in conditions of the most wretched poverty.

Any discussion of the prospects or options of growth and structural diversification of the Brazilian economy between now and the beginning of the 1980s should try to single out the limitations and possibilities of meaningful economic policy options which not only envisage a longer time span but also do not deal exclusively with the traditional indicators. To this end, it is necessary to undertake a brief interpretation of the process which led to the present situation, emphasizing the following points: (a) some of the cyclical features of recent development; (b) the structure of supply in the Brazilian economy in its present stage of capital formation; and (c) the effects of its links with the world economy over the last decade.

The above analysis has been made in a number of recent documents and publications. For the present, we need only summarize the main points for our discussion, before proceeding to the analysis of the problem of long-term options.

Between 1968 and 1973, Government economic policy was basically aimed at maximizing the growth rate of the product in the short run, with only two restrictions: that the rate of inflation should not rise and that, as a minimum, the balance-of-payments deficit on current account should be covered through a net inflow on the capital account. Expressed

in the language of linear programming, the 'problem' had apparently been solved through the 'proper' management of economic policy, thus ensuring the political legitimacy of the Government and postponing to some future time the awkward questions relating to various repercussions in terms of redistribution and the social cost of the style of development adopted. In fact, it is now becoming increasingly clear that the exceptional results achieved by the Brazilian economy between 1968 and 1973, defined in terms of the traditional indicators: real growth rate of the product of nearly 10%, with no increase in inflation and a balance-of-payments surplus (since the inflow of external resources on the capital account covered the financing requirements for the chronic current account deficit and led to the growth of reserves and foreign indebtedness), were not due solely to a 'rational and pragmatic' economic policy designed to maximize the short-term growth rate by providing incentives for 'materialistic' private investors and urban consumers. Recent studies have shown that just as important as economic policy, or more so, was the *combination* of an upswing in the economic cycle (due to endogenous causes) *plus* an unusually favourable period in the development of the international economy, from the standpoint both of trade in goods and services and of flows of risk and loan capital.²

With regard to the problem of the endogenous cycle, recent studies on the growth of the potential and real product in Brazil (Lemgruber, Bacha, Contador, Bonelli-Malan), although differing in concepts and methods, have shed light on two points worth emphasizing: (a) the growth rate of the potential product in Brazil over the last three decades has reached an average of 7% annually in real terms, an extremely high historical rate from

²For a more extensive treatment of these points and a presentation of the salient data, see, for example, P. Malan and R. Bonelli, "The Brazilian Economy in the Mid-Seventies: Old and New Developments" and E. Bacha, "Issues and Evidence on Recent Brazilian Economic Growth", in *World Development*, Oxford, vol. 5, N.ºs 1/2, 1977, Pergamon Press. See also R. Bonelli and P. Malan, "Os Limites do Possível: Notas sobre Balanço de Pagamentos e Indústria na segunda metade dos anos 70", in *Pesquisa e Planejamento Econômico*, Rio de Janeiro, August 1976.

the standpoint of international patterns that reflects the vigorous process of capital formation in post-war Brazil; (b) at the beginning of the 1960s, the real product had grown close to the potential product—which amounts to a relative maximum use of capacity—and was furthest from it in 1967, the period of greatest relative idleness in the economy (and industry); (c) the “miraculously” high growth rates recorded in the period between 1968 and 1973, in the order of 10% per year, thus partly corresponded to a cyclical upswing in the economy initially based on existing productive capacity; (d) in 1972 and 1973 the real product was once again close to the level of the potential product, and this was partly visible in inflationary pressures and the balance-of-payments disequilibrium resulting from a policy of higher public and private spending on consumption and investment, well above domestic production capacity; (e) since then, the gap has been widening in such a way that the prospects for the near future depend essentially on the hypotheses formulated about how it will develop. Obviously, the existence of idle capacity is not *per se* a reason for believing that a suitable stimulation of total demand will suffice for supply to react. Given an unbalanced and heavily concentrated economic structure like Brazil's, which still depends to a great extent on imports of capital goods and basic inputs, conventional analysis at the aggregate level obscures as much as it reveals.

With respect to the international situation, the above-mentioned studies, *inter alia*, show to what extent the extraordinary performance of the Brazilian economy depended on the unusual growth of the world economy from the late 1960s until 1973. While it is true that between 1967 and 1973 Brazilian exports grew at an annual average rate of over 25%, it is likewise true that during that period *world* exports grew by almost 20% annually and that since the 1920s Brazil had not registered such high and sustained growth in its import capacity (150% between 1967 and 1973). As far as international capital flows are concerned, international reserves, which rose at an annual average rate of 2.7% between 1949 and 1969, increased at the extraordinary high annual

average rate of 24% between 1969 and 1974, which explains the ease with which Brazil was able to apply a particularly vigorous policy of foreign borrowing during this period.³

Thus the considerable rise in oil prices which occurred in 1973 was not the only salient feature of the early 1970s. Other major events were the breakdown of the Bretton Woods arrangements, which govern the capitalist world from 1945 to 1971, and the synchronized boom and recession in the developed economies in 1972-1973 and 1974-1975, respectively. The outlook for the initial of the last quarter of the present century is *not* one of resumed, prolonged and sustained growth as experienced by the major capitalist economies since the late 1940s, particularly those devastated by the war. It is true that the United States is spearheading the expansion, with a real growth rate of about 5% in 1976; however, it should be recalled that since in the two year period 1974-1975 the real product of the United States dropped by about 5%, the growth of 1976 barely brought about a return to 1973 levels. Inflation, previously considered one of the characteristics of exotic and ill-managed Latin American economies, is now approaching double figures and has aroused controversy and unease in the advanced countries, showing that expansionary policies must be applied cautiously and highlighting the importance of “market imperfections” (oligopolistic structures and trade union power) which underlie inflation.

Against this background, it is odd that the reasons to which the worsening situation of the Brazilian economy since 1974 has been attributed have emphasized almost exclusively the oil problem.

True enough, Brazil only produces about 20% of its apparent consumption. It is likewise true that the rise in oil prices considerably aggravated this problem through its effects on the terms of trade and on disposable income. *But what is more important is that the oil crisis*

³See J. Wells, “Eurodolares, Dívida Externa e o Milagre Brasileiro” in *Estudos Cebrap*, São Paulo, N.º 6, October-December 1973, and J. Wells and J. Sampaio, “Endividamento Externo..., uma nota para discussão”, *ibid.*

demonstrated quite clearly the extremely high social costs implicit in a pattern of intensive use of resources not produced on a large scale within the country, thus raising serious long-term problems which go far beyond the issue of the management of the balance of payments. In our opinion, however, it is naive, to say the least, to believe that Brazil could have continued its 'economic miracle' until the 1980s, had it not been for the decision of the oil-exporting countries...

It would be out of place to pursue this question to any greater length. Let it suffice to point out that this kind of 'interpretation'

completely hides the fact that the period stretching from the late 1960s to 1973 was extremely unusual from the standpoint of the international economy⁴ (an aspect which *cannot be overlooked* in the analysis of the 'success' of the greater openness of the Brazilian economy during the period, in terms both of trade and of international capital flows) *and* bearing in mind various cyclical events of an endogenous nature which must be placed in a historical context, particularly when attempting to redefine basic priorities for economic policy. The following section attempts to explain why such a redefinition is necessary.

II

Between 1974 and 1977, the Brazilian economy recorded an accumulated deficit on current account of over 24 billion dollars (about 10 billion in the form of accumulated deficit on the trade balance and between 7 to 8 billion as payment of interest on the foreign debt). These 24 billion dollars had to be financed through the capital account (and the loss of reserves in 1974 and 1975), which raised the external debt from 12.6 billion dollars at 31 December 1973 to roughly 31 billion dollars at the end of 1977, thus posing serious problems for the future which are discussed in the relevant section of this article.

What must be pointed out here is that current account deficits of this magnitude (almost 6% of the gross domestic product, on average) for four years running reflect, simultaneously:

(a) a *level* of public and private expenditure on consumption and investment much above the domestic production capacity (at a given price level); and, what is more important,

(b) a *structure* of expenditure and, consequently, an income distribution which cannot be maintained with the present level of the product.

Conventional theory states that, in principle, the 'problem' indicated in point (a) can and should be solved by controlling the level of total demand through credit and fiscal

policies.⁵ However, total demand is made of a number of components (private consumption, public consumption, private investment, public investment, exports), so that controlling its level cannot be divorced from changes in its structure. Consequently, the fundamental question is that indicated in point (b). This highlights the shortcomings of the traditional mechanisms and the relationship between the apparently technical questions of the management of the balance of payments (and control of inflation) and the basically political questions of the distribution of income.⁶

In order to correct the disequilibrium, the *real* rate of growth of income of one social group must fall in relation to that of others.

⁴See, for example, N. Kaldor "Inflation and Recession in the World Economy", *Economic Journal*, December, 1976; R. Triffin, "International Monetary Collapse and Reconstruction", *Journal of International Economics*, September 1972; R. Mundell, "The new inflation and flexible exchange rates" in M. Monti (ed.), *The new inflation and monetary policy*, London, MacMillan, 1976; and OECD, *Economic Outlook*, Nos. 10-20 (December 1971-December 1976).

⁵See T. Swan, "Longer Run Problems of the Balance of Payments" in R. Caves and H. Johnson (eds.), *AEA Readings in International Economics*, Homewood, Ill., R.D. Irwin, 1968, p. 460.

⁶See R. Cooper "Currency Devaluation in Developing Countries", *Essays in International Finance*, N.º 86, Princeton, 1971, p. 26.

Meanwhile, if those who benefit from the disequilibrium insist on maintaining the same relative rate of growth of real income, if those who do not benefit refuse to accept a drop in relative real income as a mechanism of adjustment, and if all have sufficient influence to express this fact in nominal terms, the natural consequence is inflation, as that eminent professor Octavio Gouveia de Bulhões pointed out almost 30 years ago when he stated that "monetary problems are, *par excellence*, problems of formation and distribution of income".⁷

If this fact, which far oversteps purely economic bounds, is not recognized explicitly, the balance-of-payments disequilibrium and changes in the rate of inflation will continue to be the two most salient 'technical problems' of the Brazilian economy in the late 1970s and early 1980s. Together with the more deep-seated concern for the growth rate of the gross domestic product, these three 'problems' will tend to relegate to a more secondary or long-term sphere other questions which are perhaps more fundamental, such as the structure of urban and rural employment, the reduction of poverty and the problems of redistribution.

There are apparently good reasons for this: given the growth rate and age structure of its population, Brazilian society needs relatively high growth rates to minimize its tensions and latent conflicts, thus maintaining the idea of an expanding, non-zero-sum game in which everyone, *without exception*, must profit through employment, wages, subsidies, credit, profits, quasi-rents and capital gains. It is a recognized fact that much of the political legitimacy of some governments depends basically on the overall performance of the economy. Until recently, the Brazilian governments were quite successful in their attempts to convince *their* pertinent public opinion that the growth in the concentration of income in the 1960s was the natural, but merely temporary, consequence of the operation of market forces during the process of accelerated growth. The slowing of growth at a time when

the government is attempting to provide a limited opportunity for the institutional expression of some conflicts increases the area of uncertainty which cannot fail to have an effect on the analysis of future prospects.

The enormous difficulty which Brazilian society is having in accepting a prolonged slow-down as a means of restoring balance-of-payments equilibrium and reducing inflation shifts the discussion from the problems of controlling the *level* of expenditure (public and private, on consumption and investment), which should remain high, to the problems of changes in its *composition*. This raises the basic problem of the need to define *priorities*, since the period of euphoria has ended in which it was believed that all activities could be financed at once, forgetting that the question is not so much one of the obtention of financial resources but of *real* resources which have to be imported if they are unavailable locally.

The attempt to continue investing in ambitious infrastructure projects (energy, transport and communications), increase social investment (sanitation, education, health) and at the same time 'carry out import substitution in the capital goods and basic inputs sectors' raises serious problems of competition between the public and private sectors for the real and financial resources, problems which lie at the heart of the recent controversy over 'state ownership'. Although the main limitation on growth, now and in the near future, is an external one, there is also an internal limitation connected not only with the *level* of domestic saving but also with the process of tapping it (compulsorily and voluntarily), and of managing and allocating it in accordance with 'non-market' criteria. Due to their size, the large public and private enterprises also need domestic financing to cover their internal costs, which in the last analysis limits financing (and increases its cost) for the less modern sectors of the economy which are less oligopolistic than the modern ones, and more subject to liquidity squeezes. This is not to suggest that total domestic saving is insufficient to finance a specific level of investment. In fact, in our compartmentalized financial system, saving is "more than sufficient" for some ends and "less

⁷A *Margem de um Relatório*, Rio de Janeiro, Edições Financeiras, 1950, p. 34.

than sufficient" for others. It would appear that the solution to this dilemma would involve either increasing the already very large share of the public sector financial institutions in the tapping, management and allocation of financial resources, or else a major institutional change in the private financial system.

Consequently, the options outlined in government plans, declarations of intent and activities still face major problems which must be solved in a process which, in the final analysis, is far more political than technical. Ironical as it may seem, in its attempt to avoid the political responsibility accompanying an explicit definition of priorities, Brazil may perhaps not be advancing along the lines suggested by some, consisting in a revision of the basic lines of the "model" by placing greater emphasis on the domestic market, national entrepreneurs and mass consumption, but instead be progressing further along the two basic lines which have characterized the "model" since the war: higher public investment and increasing manipulation of incentives designed to raise the private profitability of the modern sectors, in which foreign capital occupies a predominant position thanks to its control over the key variable, technology. In the absence of significant political changes, and without any sign of them in the offing, the progressive 'internationalization' of the Brazilian economy with its corresponding forms of consumption and distribution, structure of the product and other less tangible features, is a fact with which an increasingly large number of Brazilians will have to learn to live—at least in the near future.

It should be pointed out that the kind of analysis we advocate *is not* a speculation about the possible magnitudes of the growth rates of the gross domestic product and its components over the next ten years. It is even possible that the Brazilian economy will continue growing at an *annual average* long-term rate close to the (high) historical rate, given the rate of gross capital formation by the government and the

private sector (foreign and national), various growth prospects in the national economy *and* the fact that Brazilian society practically needs an economic policy aimed primarily at growth as a form of political legitimization of a 'national project'. The problem is rather to analyse some of the long-term consequences and social, political and human costs openly or tacitly involved in a specific type of growth, whose content has given rise—rightly—to arguments which apparently will not die down over the next few years. Quite the contrary. In this connexion, it is worth quoting a paragraph from a recent publication dealing with Argentina:

"Furthermore, the use of force instead of compromise to impose policies is almost bound to polarize sectoral clashes and the struggle over income shares into extremist political ideologies. This outcome can only be avoided by broadening effective political and economic participation which, even if carried out by a benign one-party or military dictatorship, requires the strengthening of mediative institutions capable of resolving interest group conflicts. The search for mediative policy alternatives is therefore likely to continue at least on the part of those who do not see any possibility for the immanent appearance of a philosopher king or for the introduction of a social system that completely sublimates human conflict."⁸

Of course, these ideas are not new. They are incorporated in the political practice of the socially and culturally more advanced societies, with which Brazil hopes to catch up in 'economic' terms. The remainder of this article consists of an analysis of this possibility and an outline of an alternative which necessarily touches on question connected with the profile of supply and the selective control of demand, *after* long-term social priorities have been defined from the political standpoint.

⁸R. D. Mallon and J. Sourrouille, *Economic Policy-making in a Conflict Society: The Argentine Case*, Harvard University Press, 1975, p. 163.

III

Our starting point is a simple fact: it is increasingly clear to the more keen-sighted observers that the exaggerated euphoria of the period 1968-1973, partially expressed in the second national development plan, must be abandoned and that the shortage must be clearly recognized of *real* resources with which simultaneously to attain high growth rates of the gross domestic product, stabilize the rate of inflation, achieve surpluses (which are now *necessary*) on the trade balance, reverse the concentration of income and wealth, reduce rural and urban poverty, reduce regional imbalances and mitigate the worsening of living conditions in the major urban centres.

It must be admitted that the conservative viewpoint has always been aware of the so-called "problem of scarcity", and has made skillful political use of this awareness, when expressing it, in the following ways:

(a) by establishing the first three 'objectives' (gross domestic product, inflation and balance of payments) as permanent priorities which must be made compatible from the 'technical' standpoint; and

(b) by viewing the other 'objectives' and 'social' problems which may eventually be solved in the long term through a slow, sure and steady process, for which the population is asked—or forced—to be patient.

Although hitherto apparently successful (in convincing the public at which it is aimed), this distinction is not legitimate, since it does not seem to be easily compatible with relatively open political systems, involves an indefinite time horizon (although suggesting that it will not be very long) and assumes a great capacity for co-opting social groups through the gradual spread of a *specific pattern of consumption*.

As recent studies have shown, this possibility of a gradual spread of 'modern' consumption patterns does in fact exist.⁹ Finally, during

the last decade real disposable income more than doubled, relative prices—and financing—developed in such a way as to favour consumption of so-called modern goods, and, last but not least, the demonstration effect seems to have played an important role in forming the 'tastes and preferences' of the relatively higher-income urban consumers. For optimists, this process could and should continue until there is a genuine mass consumption of durable goods whose paradigm, as is often mentioned, is the affluent society of the United States. It would be out of place to discuss here to what extent such expectations are optimistic and the length of the implicit time horizon and even the feasibility of the process. What must be pointed out is that the spectacular rise in oil prices, far more than creating a problem of balance-of-payments adjustment in the short and medium term, called into question the basis of a 'model' of capital formation largely aimed at reproducing consumption patterns of economies where per capita income is several times higher than in Brazil, which have a different social infrastructure and a different level of State property and—above all—which do not have the enormous social flaws which make pariahs of almost 30 million Brazilians.

At present in Brazil, there is broad and growing recognition of the fact that it has become more difficult to 'sell' politically the conservative model outlined above, without a closed authoritarian political system of indefinite duration. The awareness of the difficulties and historical importance of today's decisions has not yet been expressed in a coherent set of concrete proposals which could constitute a politically viable alternative for what is currently being done (which, it may be said in passing, contains a great deal that we consider correct in terms of the direction, ranking and more exact definition of priorities). This is to some extent comprehensible: as we suggested at the beginning of this article, there are no single technical solutions for such complex problems. Consequently, what follows is merely an attempt to contribute to a broader discussion, by putting forward some suggestions about the *general* policy lines to serve as a

⁹See J. Wells, *Growth and Fluctuations in the Brazilian Manufacturing Sector During the 1960s and Early 1970s*, particularly chapter 3 (doctoral thesis for Cambridge University, United Kingdom, 1977). See also P. Malan and J. Wells "Furtado e a análise do modelo brasileiro" in

basis for the (necessary) effort to change the structure of Brazilian *economic growth* in the medium and long term.

Any analysis of this question must necessarily deal with the following points:

(1) The competition for real and financial resources between the public and private sectors and, particularly, the question of the supply of public goods and services *vis-à-vis* the supply of private goods and services. In our opinion, the Government has placed itself too much on the *defensive* in this respect and has tended rather to allay the fears of the private sector as concerns the alleged nationalization of the economy than to define clearly its own priorities in this field;

(2) The role played by the large public and private enterprises, which in Brazil today is much the same as the discussion of the function of foreign and associated national capital in the Brazilian economy. With respect to the *large enterprises*, the famous trilateral approach of government rhetoric should be evaluated carefully and critically along the lines of an objective sectoral analysis.

When studying the apparently technical measures which must be taken to find a long-term solution to the present disequilibrium, it is of the utmost importance to bear in mind these two key problems. Those measures include: (a) control of the growth rate of total expenditure; (b) the changing of relative prices so as to stimulate substitution not only in consumption but also in production; (c) selective control of demand; and (d) selective control of supply. Each of these is analysed below.

(a) *Control of the growth rate of total spending*

The time is definitely past when it might be expected that the economy would continue growing in line with the growth of its potential product simply by controlling total demand. Given the heterogeneity of the various sub-

markets of goods and labour, this approach tends to create a situation of excess demand (bottlenecks) in a number of sectors and markets and excess supply in other sectors and markets which, in conditions of downward price rigidity, leads to an acceleration of inflation long before full capacity is reached. In these circumstances, the reduction of the growth rate of the level of total spending may further worsen the situation by leading to a disastrous combination of 'stagflation'. In addition, the Government does not effectively control *total* spending but only some of its principal components: public consumption and investment and, more indirectly, private consumption and investment. The decisions concerning the desired growth of each spending component and, above all, the composition of consumption and investment are much more political than technical, but from the technical standpoint they involve much greater selectivity than traditional policies (monetary, credit and fiscal) in controlling the growth rate of total spending. In the eyes of less alert observers, this is precisely what appears to be an undesirable degree of intervention by the public sector in the economy. In our opinion, this intervention is inevitable and should take the forms discussed in the following points.

(b) *Changes in relative prices*

At first sight, it might seem odd to include deliberate changes in relative prices (and thus in relative remuneration) as one of the broad lines of economic policy. In the last analysis, these changes should be determined purely by the 'market', as the economists would say, if there exists great mobility of factors. A general policy suggestion would be to seek ways of increasing that mobility. Meanwhile, it must be recognized that in Brazil the past experience of growth with structural diversification has always gone hand in hand with transfers of real resources based on the inequality of access to scarce resources (particularly credit and foreign exchange) which primarily benefits the public sector *and* the large enterprises (particularly foreign enterprises and national ones

connected with the commercial banks).¹⁰

As a result, in Brazil the modification of relative remuneration takes the form of selectivity in the allocation and in the forms of access to these scarce resources, which is exactly what the National Economic Development Bank, for example, has been doing in trying to stimulate import substitution in the capital goods and basic inputs sector. However, this selectivity could also be applied to the definition of conditions of access to scarce resources in order to provide *disincentives* for certain economic activities both in production and consumption. In fact, what is being discussed today is the need for selective control over demand and supply along the lines suggested below.

(c) *Selective control of demand*

One of the central problems currently facing the Brazilian economy is that of maintaining a relative control, in the short and medium term, over the real level of total spending and at the same time shifting *internal and external* demand towards goods produced in the country. This shift can be carried out, for example, by a *real* devaluation of the exchange rate or import restrictions,¹¹ but in any event it depends on the elasticity of substitution of consumption and on the elasticity of supply of the domestic sectors producing international goods (which are exportable and can compete with imports). At present, and in the immediate

future, this latter category of goods *must* receive priority attention since in the next few years Brazil needs to generate a surplus on its *trade* balance. In other words, the *natural* solution (i.e., from the standpoint of the internal logic of the system) in this situation is gradually to step up the allocation of real resources to the international sector of the economy.

This gives rise to a conflict of tremendous importance in the long term. Almost all the so-called social sectors (education, health, sanitation, housing for low income families, nutrition, etc.) belong to the category of non-international goods and services, whose production and consumption, particularly in the case of public goods, must be stimulated. However, these activities compete for financial and real resources with the international activities. When 'market' considerations alone prevail, the latter enjoy a comparative advantage in this conflict, since technical progress is biased towards them and in addition the central government pays more attention to them. However, a long-term approach would suggest far greater concern for the productivity of non-international activities, including non-exportable food crops, public services and the social infrastructure.¹²

Thus the problem is not purely one of the structure of demand. As is well known, the latter depends on the level of distribution of income and wealth, the structure of relative prices, what have come to be called the 'tastes and preferences' of the 'sovereign' consumer and, last but not least, the availability of goods and services as expressed in a given structure of supply. For those who do not believe that consumers, voting with their money freely determine this structure, this is precisely where the basic problems lie, from the standpoint of a long-term attempt to accelerate the

¹⁰As a perspicacious observer points out "... if you do not have a capital market, a (long-term) loan market, and you want capital formation, you have to have some kind of internal mechanism that assures the large firms growing profits ... The absence of the capital market is a barrier to entry except by foreign firms. The large firms that do exist derive their profits to a large extent from favoured access to the underpriced and scarce resources, and their entrepreneurship is devoted mostly to increasing their share of the scarce resources". E. Despres, "Stabilization and Monetary Policy in Less Developed Countries", in J. Markham and G. Papanek (eds). *Industrial Organization and Economic Development*, Boston, Houghton Mifflin, 1970, p. 408.

¹¹In the first case (devaluation) both external and internal demand are affected; in the second (import restrictions), only the domestic demand for imports is shifted towards goods produced within the country which can compete with imports or towards exclusively domestic goods and services if domestic supply is elastic in the short term and the goods are substitutes (although not perfect).

¹²In what has become a classic article, W. Baumol shows that in a two-sector economy, one of which faces limitations from the standpoint of technical progress, and where both are faced with equally rising costs, the sector where the growth of productivity is limited is doomed to deteriorate —unless the demand for its products is income elastic and/or price inelastic. The alert observer will notice the analogy with what is pointed out above.

process of bringing supply into line with the demand profile which would *result* from a firm commitment to redistribution.

(d) *The selective control of supply*

A recent study on the choice of technology in Brazil,¹³ concludes a major piece of empirical research with the following observation: "...once the composition of output is determined, certain employment [and distribution] patterns are implied. To increase employment [and improve distribution] one must start one step back, in the choice of products. Here large improvements in labour absorption should be achievable by government inducements to produce labour-intensive products, rather than to produce any particular product in a labour-intensive manner... Looking back at Brazil's industrialization drive ... poor employment results during the period probably should not be blamed on the fact that many of the leading firms are foreign, but rather on what those foreign firms were producing".

However, thinking along these lines involves a great deal more than merely stimulating immediately the growth of capacity in the sectors which may become future bottlenecks, by applying a 'demand forecast' policy. The aim now is to change the composition of output in the Brazilian economy. In the agricultural sector, greater attention should be paid to the types of food which are more important for

consumption by low-income families, and in industry, to the obtention of *products* which use labour-intensive technology, and in the tertiary sector, a (non-regressive) supply of basic public services and social infrastructure.

Since these changes in the composition of the product must go much further than what the private sector would 'naturally' carry out in obeying market signals as expressed in changes in relative prices, this suggestion implies continued broad government intervention in the economy, which is at present a source of concern to many people.

Some people believe that the Brazilian public sector simply does not have the co-ordinating capacity to undertake this difficult job, since it is a centralizing agent from the standpoint of the extraction of resources, but decentralizing and contradictory from the standpoint of its fragmentary execution of policies.

There is much truth in this argument, but the possibility of a greater centralization of power as an alternative solution, should not be denied —nor, for that matter, suggested. The broad need for intervention must be recognized, but without ceasing to insist on the need to multiply the controls exercised by civil society —and not merely the business world— over the State apparatus. It is on this that the possibility of having alternative options for the 1980s depends.

IV

This article has attempted to show that, as regards the structure of growth of the Brazilian economy, the options open for the 1980s have a more probable direction, or better, a line of least resistance which is rooted in the characteristics of development over the last two or three decades *and* in the present political process of identifying the most pressing

economic and social problems. In practice, although not in rhetoric, this most probable direction, as identified in the article, tends permanently to postpone for some far-off future a number of basic questions which, in our opinion, represent the great challenge which Brazilian society will have to tackle in the 1980s: the redistribution of wealth and income, the reduction of urban and rural poverty and the satisfaction of the basic needs of that large sector —almost one-third— of the Brazilian population currently surviving with life styles which are not compatible with human dignity.

¹³S. A. Morley and G. W. Smith, "The Choice of Technology: Multinational Firms in Brazil", *Economic Development and Cultural Change*, Vol. 25, N.º 2, January 1977, p. 262.

We emphasize that the possibilities of answering this challenge depend not so much on the creative social imagination of the technobureaucracy (if it has one) as on a more open political process in which it is possible to articulate, mobilize and express conflicting interests, particularly those of the population which is currently excluded. In the absence of such a process, it would be difficult to suppose that supply can be restructured (in the sense described in this article), as would be necessary in order to tackle this challenge properly,

and not postpone it as in the past. It is extremely important to note, however, that the need to think of options like those sketched out here for discussion purposes cannot be justified in purely 'economic' terms. The point in question *is not* the capacity of growth of the gross domestic product of the Brazilian economy, but its *composition* and above all its compatibility with an open political system, something which would appear to be difficult to reconcile with the structure of growth in recent years.

Contemporary protectionism and the exports of developing countries

Gary P. Sampson*

It is an undeniable fact that in recent years protectionism has increased in the developed countries, with all its harmful consequences for international trade and the development of the periphery.

Since this is an established fact, it appears to be worthwhile studying the arguments used by the centres to justify it, and the means by which they put it into practice. In dealing with the first of these points the author concentrates on two "pressures" towards protection: the desire to attain balance-of-payments equilibrium, and arguments that imports from the peripheral countries "disrupt" factor and product markets in the centres; and he demonstrates, with a wealth of illustration, that these arguments are not very convincing.

In this treatment of the second point — the nature of protection — he presents in orderly fashion the various instruments currently used to establish protection. He analyses the quantitative restrictions, such as the so-called voluntary measures, orderly marketing arrangements and organized free trade, as well as the qualitative ones, including price limits and governments subsidies to enterprises hurt by imports.

In the face of this bleak picture, the author suggests a number of measures which would help to redirect this "neomercantilist" tendency in the centres and alleviate its effects on the periphery. He is aware, however, that it is not easy to arrive at solutions since, in the last analysis, everything depends on the prevailing power relations in international trade.

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Contemporary protectionism and exports of developing countries

For some time there has been a growing concern over the return to protectionism. This prompted Johnson to base his 1973 Presidential Address to the British Association for the Advancement of Science on the "New Mercantilism".¹ Last year the General Agreement on Tariffs and Trade (GATT) found it necessary to restate the case for maintaining an open economy in times of recession,² while the McCracken Report,³ after attributing much of the post-war growth in OECD countries to an "open multilateral system for international trade and payments" warns of the "danger that the edifice of free trade, so carefully built, may begin to disintegrate".⁴ For developing countries, the importance of market access for their exports to developed countries has long been recognized, and has recently received new support from several empirical studies.⁵

Nevertheless, it is not difficult to establish that there is a growing incidence of protection in developed market economies. Recent protection is perhaps even more difficult to "measure" than it has been in the past,⁶ but opinions have been formed as to its importance. In forming these opinions the importance of new barriers to imports from developing countries is frequently played down, as it is argued that it principally affects the "star performers" who are doing very well anyway.

¹H. G. Johnson, "Mercantilism: Past, Present and Future", in H. G. Johnson (ed.), *The New Mercantilism*, New York, St. Martins Press, 1973.

²GATT, *Trade Liberalization, Protectionism and Interdependence*, R. Blackhurst, N. Marian and J. Tumlin, Geneva, 1977.

³OECD, *Towards full employment and price stability*, (The McCracken Report), Paris, 1977.

⁴*Ibid.*, p. 11.

⁵For a discussion of the results of these studies, see A. Krueger, "Effects of exports from new industrial countries on U.S. industries", in W. Kasper and T. G. Perry (eds.), *Growth, Trade and Structural Change in an Open Australian Economy*, Centre for Applied Economic Research, University of New South Wales, 1978; and B. Balassa, "Exports Incentives and Export Performance in Developing Countries: A Comparative Analysis", World Bank, *mimeo.*, 1977.

⁶Many of the difficulties relate to the nature of recent protectionist measures imposed. This will be returned to at a later stage in the paper.

Eight developing countries accounted for 78% of the increment in developing country manufactured exports to developed market economies between 1970 and 1976. As far as pressures for increased protection are concerned, a great deal of importance is frequently attached to the low level of economic activity in industrialized countries and the concomitant excess capacity of labour and capital as factors of production.⁷ The implication, whether explicit or implicit, is that higher growth rates would be coupled with both less forceful demands for protection and less willingness on the part of national authorities to succumb to these pressures.

While one should avoid "crying wolf" at any increase in protection, particularly in times of economic slack, it seems there are legitimate grounds for concern on the part of developing countries and sound reasons for considering the above views on recent trade restrictions to be unduly optimistic. Such views frequently ignore the existing state of protection to which the new obstacles to trade should be added, narrowly define protection as restrictions on imports and neglect the problems associated with removing any trade obstacles once they are mounted. Similarly, little attention appears to be paid to the type of protectionist measures being resorted to in recent years.⁸ Tariffs are now unpopular and preference is given to non-tariff barriers which have a long and unsuccessful history in multilateral trade negotiations directed to reducing trade barriers.

As far as the level of economic activity in industrialized countries is concerned, it is also possible to assign to it an important, but not dominant, role in the recent increase in protection. Growing rigidities in factor markets of the OECD countries have been lamented, and there appears to be greater unwillingness on the part of OECD governments to give up some chosen share of the domestic market of an

increasing number of non-strategic industries.⁹ If this is so, a more dramatic (but legitimate) interpretation of what is taking place today would consider recent changes in commercial policy to be the tip of an iceberg. What is at stake is access to the markets of the eighties. The problem is in reality nothing less than deciding who will produce what in the future with all its associated ramifications, and import controls are only one of a multitude of policy tools being drawn on to implement the decisions. Viewed in this context, the fact that only the "star performing" developing countries are affected by recent changes in commercial policy is a measure of the importance of the recent protectionist policies and not the contrary. If just a handful of developing countries can be the source of considerable market disruption, what does the future hold as more developing countries reach some sort of industrial maturity.

If one views recent developments in commercial and other domestic policies against the backdrop of existing protection, its importance lies in its closing off many areas which hitherto received relatively liberal treatment in international trade. This is particularly important for developing countries. Certain areas where they have long held a clear comparative advantage have been tightly controlled, as major importing industrial countries sought time to structurally adjust their threatened sectors.

Agricultural markets in food-importing developed countries have always been closely regulated and there has only been limited market access for developing country products.¹⁰ While only last year tariffs on non-competing tropical products were partially reduced, these concessions are currently withheld by the U.S. until

⁹OECD, *Textile Industry in OECD Countries*, Paris, 1977.

¹⁰For a discussion of trade barriers facing developing country agricultural exports to Sweden, see G. P. Sampson and A. J. Yeats, "Do Import Levies Matter: The Case of Sweden", *Journal of Political Economy*, Chicago, IU., Vol. 84, N.º 4, part 1, 1976, and for imports of food and agricultural products under the Common Agricultural Policy (CAP), see Sampson and Yeats (1977).

See G. P. Sampson and A. J. Yeats, "An Evaluation of the Common Agricultural Policy as a Barrier Facing Agricultural Exports to the European Economic Community", *American Journal of Agricultural Economics*, Menasha, Wisc. Vol. 59, N.º 1, February 1972.

⁷O. Long "The Protectionist Threat to World Trade Relations", *Inter Economics*, November-December 1977, for example, points to the role of the recession in increasing demands for protection and the role of protection in prolonging the recession.

⁸A notable exception is the comprehensive discussion to be found in UNCTAD, *Growing Protectionism and the Standstill on Trade Barriers Against Imports from Developing Countries*, TD/B/C.2/194, Geneva, 1978.

reciprocity is received.¹¹ Such trade barriers have frequently been imposed due to the special structural problems facing the agricultural sector.¹² Similarly, exports of cotton textiles and clothing have been restricted since 1962, because, as with agriculture, developed market economies sought time to structurally adjust these sectors of production.¹³ The voluntary export restraints which emerged in the late fifties and early sixties were institutionalized in the LTA. This "temporary" agreement adopted a broader commodity coverage and tighter controls under the Multifibre Arrangement (MFA) in 1973.¹⁴ Given the importance of exports of agricultural products, textiles and clothing to developing countries, arrangements such as CAP and the LTA have long been a source of grievance.

Always implicit, however, was the belief that developing countries should concentrate their efforts on producing those manufactured goods for export where developed market economies did not face the same structural problems.¹⁵ However, new restraints are now found on many manufactured goods which previously received liberal treatment in international trade. Manufactured goods exported by developing countries and subject to new quantitative restrictions include non-cotton textiles and clothing, footwear, electronics, mechanical and engineering goods. These sectors currently face structural problems in many developed market economies, as do steel products and shipbuilding-areas of some

current importance and considerable future importance for developing countries.

As the continuation of the LTA and other domestic support schemes through the sixties indicates, even in times of economic buoyancy it is difficult to change the structure of production. Labour and capital resist changes that are necessary to ensure that they are efficiently employed in areas of the economy where they are internationally competitive. In periods characterized by anything less than economic buoyancy, it appears that structural change is almost impossible. The important question to address, however, is how much of the recent protection is due to low levels of aggregate demand, and how much is due to growing rigidities and distortions in factor markets and a political desire to maintain internationally uncompetitive industries regardless of economic costs. The paucity of *positive* structural adjustment programmes in many developed countries and the proliferation of domestic support schemes seems to point to a lack of political will to change the structure of production.

Thus, in summary, for structural adjustment to take place it appears necessary to have more than a favourable economic climate. The true motive behind the protection is of crucial importance, for mercantilist protection requested as temporary assistance to adjust structurally has a history of becoming rapidly institutionalized and permanent. Competing with domestic developed country producers and other developed country exporters on anything other than economic grounds holds little promise for developing countries. The problem which emerges for developing countries is how to select those products to develop for export. Uncertainty now surrounds future market access, and uncertainty is perhaps the most effective non-tariff barrier to trade.¹⁶

The purpose of this paper is to investigate

¹¹T. Ibrahim, "Developing Countries and the Tokyo Round", *Journal of World Trade Law*, London, Vol. 12, N.º 1, January-February, 1978.

¹²The European Economic Community (EEC), for example, adopted the Common Agricultural Policy (CAP) in 1962 to gain the time necessary to structurally reorganize the agricultural sector; to raise productivity and increase international competitiveness. Nevertheless, the *ad valorem* incidence of variable levies on grain imports are currently at an all time high.

¹³The U.S., for example, has since 1962 negotiated voluntary export restraints under the Long Term Arrangement Regarding International Trade in Cotton Textiles (LTA) to gain *temporary* relief and to facilitate the shifting of labour and capital to more internationally competitive areas of the economy.

¹⁴The EEC has recently broken with the MFA to unilaterally impose stricter measures, and some countries are now being faced with quota reductions.

¹⁵A clear statement of the mood of the late sixties as to

the advantages of outward-looking export orientated growth strategies for developing countries can be found in D. B. Keesing, "Outward Looking Policies and Economic Development", *Economic Journal*, London, June 1967.

¹⁶The role of uncertainty in distorting trade flows is discussed in GATT, *Trade Liberalization...*, *op. cit.*

some aspects of the new protectionism which may be of interest to developing countries. The paper focusses on the contemporary sources of protectionist pressure and the *nature* of the

protection itself, as such an investigation facilitates the discussion of the principal points raised above. The paper closes with a conclusion and policy recommendations.

I Pressures for protection in developed market economies

In 1970, Baldwin considered fixed exchange rates and structural adjustment problems to be the major sources of protectionist pressures and resistance to trade liberalization: "Greater exchange-rate flexibility and much more effective adjustment assistance are the two most crucial needs if the major trading nations are to achieve a significant increase in the mutual benefits of international trade... Exchange-rate flexibility is needed not only to ease balance-of-payments pressures when balanced cuts in trade barriers are not possible but, even more importantly, to prevent the substitution of trade distorting commercial policies for exchange-rate policy".¹⁷

Today exchange rates fluctuate widely and despite OECD-sponsored declarations to the contrary, member countries still use commercial policy for balance-of-payments purposes. In addition, national legislation in many countries now provides funds for industries suffering from import competition, but industry-specific protection is growing.

1. Balance of payments

The orthodox role of the exchange rate in macro-economic models of internal-external balance is to switch factors of production and expenditure between the traded and non-traded goods sectors of the economy. The switch is brought about by a currency realignment, and the extent of the relative price change in the two sectors is a measure of success of the realignment.¹⁸ When the change

in the exchange rate is coupled with the appropriate absorption-changing policy, internal and external balance can be secured—commercial policy is not needed to ensure external balance.

Recent developments in the literature provide numerous explanations of why fluctuating exchange rates do not live up to their expectations, and nothing more than a cursory discussion is warranted here.

Consider a country which is a price taker on world markets facing a balance-of-trade deficit and internal balance.¹⁹ The appropriate policy then would be to devalue and reduce absorption. However, the devaluation may not lead to the relative price change of tradeable and non-tradeable goods. There may, for example, be real wage resistance to the devaluation-induced price increase and the resulting fall in real wages.²⁰ If the reduced absorption is to be secured by a tax increase on wage earners, for example, attempts to force a return of the direct payment of the post-tax real wage to the original level may negate the absorption reduction policy.

Also, as Corden has pointed out, there may

World Economy, Oxford, Clarendon Press, 1977; and R. Dornbush, "The Theory of Flexible Exchange Rate Regime and Macro-economic Policy", in *Scandinavian Journal of Economics*, Stockholm, Vol. 78, No. 2, 1976.

¹⁹Capital flows are ignored, but the analysis that follows would not be greatly changed with their inclusion (see Corden, *op. cit.*, p. 42). It is also assumed that the partial equilibrium price elasticities for the demand and supply for imports and exports are such that one would expect an improvement in the balance of trade following a devaluation.

²⁰See R. H. Snape, "The Impact of Inflationary Recession in Developed Countries on the Developing World", UNCTAD, mimeo., Geneva, 1978.

¹⁷R. Baldwin, *Non-Tariff Distortions of International Trade*, Washington D.C., The Brookings Institution, 1970, pp. 17 and 18.

¹⁸W.M. Corden, *Inflation, Exchange Rates and the*

even be increased pressures for protection.²¹ If the real wages claimed by wage earners are above the marginal product at full employment, this is inconsistent with internal balance. To meet such real wage claims requires a redistribution of income—a redistribution which can be achieved through quotas or other commercial policy. If the import-competing sector is labour intensive and the export sector capital intensive, protection of imports would achieve a price effect similar to that of a (successful) devaluation, but also a redistribution of incomes from profits to wages. The latter effect would not result from a devaluation.

The foregoing analysis assumes that switching is appropriate as some structural change is necessary. It can be argued that exchange-rate changes may be monetary phenomena that do not indicate real changes in a country's competitive position. A currency realignment will not remove the source of imbalance in the balance of payments if imbalance is due to an excess domestic demand for money over the receipts of foreign money—an excess that can only persist if supported by domestic monetary policy. For these and other reasons, fluctuating exchange rates may not secure external balance and do not remove the need for commercial policy for balance-of-payments purposes.

Thus, twenty-four countries were applying import surcharges and sixteen had import deposit schemes in effect for at least part of the period 1970-1974. All were member countries of GATT operating outside of the appropriate regulation (Article XII) in which any measure other than a quota is outlawed as a control device to regulate balance of payments.²²

Indeed, in view of the above discussion, it is not secret why import deposit schemes, for example, are so attractive. Under such a scheme, an importer is required to lodge a certain percentage of the value of the import in a frozen account at the reserve bank. This

makes importing less attractive (and indeed imports more expensive), and if there is not a complementary increase in the money supply, there is a reduction in absorption following the blocking of funds with the central bank. The joint objectives of lower imports coupled with reduced absorption are thus assured without direct market price changes and direct monetary and fiscal action.

The use of commercial policy for balance-of-payments purposes, however, does not appear to be a source of protection likely to cause particular concern for developing countries. It appears to be restricted to small countries which act unilaterally and in a non-discriminatory fashion by invoking measures which are essentially temporary in nature.²³ What is perhaps useful to speculate on, however, is the possibility that fluctuating rates in fact are the source of some demands for increased protection for non-balance-of-payments reasons.

In discussing an argument which he attributes to Mundell and Laffer, Corden points to the fact that a floating exchange rate may lead to rate fluctuation induced by capital movements. Changing expectations and divergent interest-rate policies cause portfolio preferences of asset holders to switch between important currencies.²⁴

For these and other reasons, small countries see the value of their own currency fluctuating against that of their major trading partners. Thus, governments intervene to bring some sort of stability into their effective exchange rate. Over the period September 1974 to July 1976, the Australian government intervened to maintain a constant effective exchange rate. Over the same period, however, there were large differences in country-specific exchange rates. The U.K. and New Zealand are both important trading partners for Australia, and both these currencies devalued 24

²¹W.M. Corden, *Inflation, Exchange rates...*, *op. cit.*, p. 31.

²²See F.C. Bergsten, "Reforming the GATT: The Use of Trade Measures for Balance of Payments Purposes", *Journal of International Economics*, Vol. 7, No. 1, February, 1977.

²³While developing countries are major offenders in using commercial policy for balance-of-payments purposes, Bergsten, in calling for a major revision of Article XII, has argued convincingly that developing countries do in certain circumstances have the right to use commercial policy for this purpose. See "Reforming the GATT...", *loc. cit.*

²⁴W.M. Corden, *Inflation, Exchange Rates...*, *op. cit.*

per cent against the Australian dollar over the period. To the extent that import agents refrain from taking a windfall gain and do, in fact, pass on the currency change in lower prices, fluctuating exchange rates do provide a source of "industry disruption" protectionist pressure.²⁵ As far as foreign currency revaluations are concerned, however, there is unlikely to be any symmetry in demands for reduced protection, as consumer interests are notoriously diffuse and domestic producers of importables have the option of increasing prices or expanding their domestic market share.

2. Market disruption

Of considerable concern to developing countries, particularly the emerging producers of manufactured goods, is the protection that is granted in response to claims that the imports from these countries are disrupting domestic markets. For exporters there are two important considerations that should be noted. While safeguard action is both necessary and appropriate in many circumstances, there should be some guarantee that this safeguard action is temporary and takes into due consideration the disruption in the exporting market that follows the imposition of the protectionist measure. Secondly, it should be clear that it is in fact the imports from the developing country that are responsible for the market disruption. Before discussing these considerations in some detail, it is necessary to have a clear idea of how markets are disrupted.

Presumably the only market disruption that concerns the authorities in the importing country is that which occurs in the factor markets. Importing cheaper (non-strategic) products may not be a problem in itself, but if it results in unemployed labour and capital

there is cause for concern. Within this context it is important to draw the distinction between over-capacity in capital and redundancies of labour that result from the low level of economic activity, and those that result from structural changes of a more micro nature. In the first case, the role of protection is clear—there is a bolstering of the domestically produced share of importables at the expense of the foreign suppliers. The domestic problems associated with insufficient demand are exported to the foreign supplier. Pressures are then felt on "third markets" as alternative outlets are sought.

The second case is less clear as there are many sources of structural change in both product and factor markets.

(a) Factor market disruption

— Factors may become unemployed if, with an unchanged production function, long-term relative price changes lead to factor substitution. Real wages moving ahead of labour productivity may result in substitution away from marginal workers and an increase in the capital-labour ratio. Labour will remain unemployed until real wage claims and marginal products move closer into line, or new investment results in job openings where real wage claims are warranted.²⁶

— There may be technical change which shifts the production function neutrally and bears equally on all factors needing less inputs for a given output. Factors remain unemployed until the level of output (demand) increases.

— Biased technical change may lead to changing factor proportions (substitution) with a given factor-price ratio. As with the preceding case, an increase in output (demand) is necessary to return to full employment.

b) Product market disruption

— Factor markets may be disrupted due to changes in the product market.

— The pattern of demand may change due to a change in tastes, indirect taxes, etc.

— A product may come on the market

²⁵Within this context it is interesting to note exceptions such as the extent of protection granted to U.S. industries competing with Japanese goods. In April (1978) the President imposed a 21 per cent tariff on imported citizen band radios coming from Japan and negotiations are underway to secure voluntary export restraints from Japanese car exporters. Due to the revaluation of the yen, Toyota increased its prices in April for the third time in six months bringing the total average price increase for its products over this period to 21 per cent. (*Financial Times*, April 18.)

²⁶See R. H. Snape, "The Import of Inflationary Recession...", *op. cit.*

which is more competitive in price. This may be supplied by domestic producers, foreign developed-country exporters or developing-country exporters.

The interesting feature which emerges is that the only role developing countries can play in disrupting domestic markets is indirectly through the product market as one of the suppliers of more competitively priced goods. Even here their role may be secondary, since their comparative advantage may improve due to a relative improvement in their own cost structure, or a worsening in the cost structure in the importing country. What is important is that before protection is implemented, the true source of market disruption should be identified. It has been suggested that imports from developing countries are frequently used as "scapegoats" for internal structural problems.²⁷ Similarly, for a variety of sociological reasons, government officials feel comfortable in protecting domestic labour and capital from "cheap imports from developing countries".²⁸

The extent to which developing countries are a source of market disruption is an empirical question. Krueger has found that import growth has not been a significant factor affecting the growth of output and employment from 1960-1975 in the U.S.²⁹ Cable has arrived at similar conclusions for the U.K.³⁰ He estimated that jobs lost in the U.K. footwear industry during 1970-1975 due to net import penetration amounted to only 0.4 per cent of employment, and in the clothing industry, where the loss of jobs was highest, the loss was 1.7 per cent of total employment. In fact, in no labour-intensive sector, except men's shirts and suits, did output suffer from import growth. A recent study for Germany has revealed that if there were increased penetration by manufactured imports from developing countries, the associated growth in exports to developing countries would mean that there would be no net loss of jobs.³¹

Interesting data on the penetration of the exports of developing countries in developed country markets can be found in the UNCTAD *Handbook of International Trade and Development Statistics* (table 7.1). Developing country imports are expressed as a share of total apparent consumption in major developed country markets and the data are reported for 14 major product groups in the EEC (6), U.K., Japan and the U.S. over the period 1959-1960 to 1975. If agriculture, fuels, mining and clothing are excluded, developing-country imports comprise considerably less than 6.5 per cent of apparent consumption for all product groups, all countries and all years. While there is a tendency for the share of developing-country imports in domestic apparent consumption of the group of countries as a whole to increase over the period (from 3.3 per cent to 6.2 per cent), this increase is largely due to the increase in fuels and other primary products (11.6 per cent to 24 per cent). Where disruption may be expected to follow increased market penetration is in the manufactured goods sector. Here, imports as a share of domestic consumption increased from 1.2 per cent to a meager 2.0 per cent over the fifteen year period.

Within the manufacturing sector of developed countries it appears that one of the areas where disruption has been most severe is the clothing and textiles sector. As exports of clothing and textiles from developing countries have long been controlled under multilateral agreements, and have recently been the object of new and more restrictive measures, a close look at some relevant statistics appears to be warranted.

The total imports of textiles by developed market economies grew from 11 to 19 billion dollars between 1972 and 1976. Imports of clothing grew from 7.5 to 15.5 billion dollars over the same period. In 1976, only 13 per cent of the imports of textiles were supplied by developing countries and 39 per cent of clothing imports. Developing countries did not secure an increased share of the increased value of trade in textiles over this period, and in clothing only raised their share of the increased trade value by 16 per cent. Developed countries were the source of over 75 per

²⁷A. Krueger, "Effects of Exports...", *op. cit.*

²⁸V. Cable, "British Protectionism and LDC Imports" in *Overseas Development Institute Review*, N.º 2, 1977.

²⁹A. Krueger, "Effects of Exports...", *op. cit.*

³⁰V. Cable, "British Protectionism...", *loc. cit.*

³¹UNCTAD, "Growing Protectionism...", *op. cit.*

cent of the increased imports of textiles into developed countries between 1975 and 1976 and 40 per cent of the increase in clothing imports. Developed countries, however, are not subject to controls under the new MFA.

For the U.S. over the period 1972 to 1976, total exports of textiles grew more rapidly than imports of textiles from developing countries, while total clothing exports and clothing imports from developing countries grew at the same rate. Of some additional interest is the fact that developing countries are net importers of the intermediate goods and raw materials for the manufacture of clothing and other textile goods. In 1975, the U.S. had a one-billion-dollar trade surplus with developing countries in textile fibres (SITC 26) plus textile machines (SITC 717).

As far as the domestic market shares are concerned, the UNCTAD *Handbook* reveals that in the United States, for example, imports of textiles from developing countries accounted for less than 2.5 per cent of apparent domestic consumption in 1975 and less than 10 per cent of consumption of clothing in the same year. In the U.K., for example, where import penetration in clothing is the highest (13 per cent in 1975), it is interesting to note that exports were 18.7 per cent of apparent consumption in the same year.

While it is difficult to accept that textiles and clothing imports from developing countries warrant the severe treatment that has recently been imposed under the MFA (1974 and 1976), one cannot deny the often repeated claims that textile and clothing markets in OECD countries are "disrupted". Clearly of importance is the penetration of markets classified at a more disaggregated level. The EEC, for example, has frequently referred to unemployment created by cheap imports of sensitive products from developing countries. Textile and clothing products have been classified accordingly —the sensitive products frequently being labour-intensive clothing.

Within the context of the earlier discussion, however, it is interesting to note if other sources of market disruption are present. While this is a subject for a lengthy and detailed empirical investigation, suffice it to point to the fact that in recent years there has been massive

investment in labour-intensive clothing production in the EEC and OECD countries generally. The result has been enormous increases in labour productivity in clothing manufacture. The figures below for all apparel excluding footwear, are aggregative but illustrative.

CHANGES IN LABOUR PRODUCTIVITY OF CLOTHING MANUFACTURE 1970 TO 1975

(1970 = 100)

Germany	124.7
Belgium	131.6
Netherlands	135.0
United Kingdom	144.4
United States	123.3

Source: Percentages calculated from output and employment data in OECD (1977), *Textile Industry in OECD Countries*, Paris.

In the U.K., for example, a failure to increase output of clothing over the period 1970-1975 would result in unemployment of 40 per cent of the work-force. As outlined above, labour productivity increases may be due to technical change or a substitution away from labour following real wage increases. What is sure is that it is *not* due to imports from developing countries.³²

Re-employment of labour means locating displaced workers in other industries, or expanding the market —more can be exported, domestic consumption can be increased or imports can be reduced. The EEC appears to be favouring the final alternative to the detriment of developing countries. Current negotiations on clothing are outside the MFA and thus the GATT framework, the result being that new restraints on developing-country exports involve a *reduction* in previously established quotas.³³

³²Where the imports of developing countries may play a role is by forcing modernization, etc., of existing equipment through supplying competitive products.

³³Quota reductions for exports from Hong Kong, Taiwan and South Korea to the EEC are reported in the *Financial Times*, 6 January 1978.

Given data such as these, it is reasonable to ascribe an alternative role to the MFA — quite different to the spirit in which it was signed. Instead of looking for a breathing space to phase out internationally uncompetitive products, the MFA may be used to secure time to increase productivity in the domestic industry and achieve international competitiveness. If this is not achieved, the vested interests of the “interest groups” are strengthened and protection is institutionalized.

In this respect the role of the government in recent years has been an interesting one. There is an increasing unwillingness of gov-

ernments to allow the decline of uncompetitive industries. While there is a role for governments in devising *positive* structural adjustment schemes, protection coupled with domestic subsidies is more frequently the rule of the game. Thus in France there has been massive support schemes for the outdated Boussac textile empire through deferred social security payments, subsidized loans, etc. Similarly, the Temporary Employment Subsidy subsidizes salaries for 250,000 workers in the U.K., most of which are located in the clothing, textiles and footwear industries.

II Nature of protection

The characteristic which is common to almost all the recent increases in protection in developed economies is that they have proved virtually impossible to negotiate away within the existing institutional framework established for multilateral trade negotiations (MTNs). Indeed, this may be one of the important explanations of the changing nature of protection, for in an increasingly interdependent world, governments take measures to achieve the autonomy they feel they are losing in areas such as international trade.³⁴

In successive rounds of MTNs conducted under the auspices of GATT, considerable success has been achieved in reducing most favoured nation (MFN) tariff rates. There are at least three reasons why tariffs are good material for multilateral negotiations. Firstly, the data are recorded in national schedules and freely available to all. Secondly, their *ad valorem* incidence is known (or can be calculated) so they can be compared with other country tariffs, fed into tariff cutting formulae, etc. Finally, governments appear willing to reduce tariffs. There are numerous reasons

why this is so. A cynical approach is to suggest that tariffs are blunt instruments, slow to act with an uncertain outcome.³⁵

There are innumerable ways in which trade flows can be distorted.³⁶ It is not the purpose of this section of the paper to discuss trade distortions as such, but rather to attempt to discern if there is a trend in the use of contemporary protectionist devices.³⁷ It would appear that there is. Firstly, there is a “hardening” in commercial policy that comes with a move away from tariffs to direct price and quantity controls. Voluntary export restraints are just country-specific quotas and minimum import prices (with penalty duties) are sliding-scale tariffs. Quotas certainly have a long history, and sliding-scale tariffs date at least from the Corn Laws. Secondly, there would appear to be increasing government involve-

³⁵Ohlin G. (1968), “Trade in a Non-Laissez Faire World”, in P. Samuelson (ed.) *International Economic Relations*, Macmillan, London. H.G. Johnson, “Mercantilism: Past, Present, Future”, *op.cit.*

³⁶For a definition of terms such as trade distortion and non-tariff barrier to trade, see R. Baldwin, *Non-Tariff Distortions of International Trade*, Washington D.C., The Brookings Institution, 1970. For a comprehensive classification of trade distorting devices, see A. J. Yeats, *Trade Barriers facing Developing Countries*, MacMillan. At Press.

³⁷Any detailed discussion of recent changes in commercial policy is extremely tedious. A large proportion of trade restraints are bilaterally negotiated so the list is long.

³⁴R.N. Cooper, *The Economics of Interdependence: Economic Policy in the Atlantic Community*, McGraw-Hill Book Company, 1968. A. Lindbeck (1977), “Economic Dependence and Interdependence in the Industrialized World”, *Seminar Paper N.º 83*, Stockholm, Institute for International Economic Studies, June 1977.

ment which directly affects the working of the market. More responsibility appears to be taken by governments in deciding which industries should flourish or survive and a wide variety of industries now appear to be considered by governments to be in their realm of responsibility.

1. *Quantitative restrictions*

Broadly speaking, recent quantitative restrictions are bilaterally negotiated by GATT member countries without passing through the appropriate GATT channels.³⁸ With some exceptions, quantitative restrictions are outlawed by GATT (Article XI) and country-specific non-MFN treatment runs contrary to the whole GATT philosophy (Article I).

New quantitative restrictions frequently carry the title of "voluntary export restraints", "orderly marketing arrangements" or "organized free trade", but are simply quotas agreed to under the threat of more restrictive action. Normally they are "safeguard action" in the face of the threat of market disruption. GATT is bypassed because the appropriate safeguard article of the Agreement (Article XIX) is considered too restrictive by many member countries, and a softer interpretation of the threat of market disruption is frequently found in national legislations.³⁹ Furthermore, safeguard action within GATT has to be applied uniformly to all member countries, but it appears that country-specific treatment is preferred. Finally, such safeguard action has to be temporary and the duration of the restriction is monitored by GATT.

Quotas have proved extremely difficult to

negotiate away in GATT. Perhaps this is due to the fact that they have, in recent years, been traditionally applied to agricultural products—an area where GATT has achieved few positive results. This may be due to the nature of the restriction itself and the difficulties of trading concessions in negotiations, or perhaps because quotas are frequently imposed as safeguard action. Even more important for future negotiations, however, is the fact that a comprehensive file of recent restrictions does not exist. Many are not recorded by GATT and in some instances not even by national authorities in the importing country.⁴⁰

Also of importance is the fact that many recently negotiated export restraints only involve varying degrees of government involvement. They are briefly discussed below.⁴¹

(a) *Voluntary export restraints*

Voluntary export restraints may be bilaterally negotiated between industries in importing and exporting countries with minimum government support. Implementation is left to the industry in the exporting country. There may also be government-to-government intervention, but again with the implementation left to agreement among the exporters in the exporting country. Then, there are voluntary export restraints negotiated under the umbrella of intergovernmental bilateral or multilateral agreements, and which involve direct action by the government in the exporting country to regulate quantities and/or prices of the exports concerned.⁴²

³⁸There are of course exceptions, and details of recourse to Article XIX, etc., can be found in various issues of *GATT Activities*. It should be added however that movement outside of the GATT Articles is not new and historically, selected products and countries have been excused. There have always been quantitative restrictions on agricultural imports to the EEC. In fact, the formation of the EEC itself was contrary to GATT rules. Similarly, non-MFN quantitative restrictions on textiles and clothing have been imposed by developed countries and formalized with GATT under the LTA.

³⁹J. N. Bhagwati, "Market Disruption, Export Market Disruption, Compensation and GATT Reform", *World Development*, Oxford, Vol. 4, December 1976.

⁴⁰In the U.S., for example, voluntary export restraints are not recorded in the Federal Registry as they are considered a trade restriction imposed by the trading partner. See T. Murray, W. Schmidt and I. Walter (1978), "Alternative Forms of Protection Against Market Disruption", *mimeo*, 1978.

⁴¹For a comprehensive discussion of these protectionist devices, see UNCTAD, "Growing Protectionism...", *op. cit.*

⁴²Export restraint by Japanese motor vehicle exporters to the U.K. is an example of a restraint resulting from inter-company consultations, while Korean footwear exports to the U.S. were restrained as the result of intergovernmental consultations.

(b) Orderly marketing arrangements

As already indicated, the extent of government involvement in "voluntary" export restraints varies. In the case of orderly marketing arrangements, government intervention is explicit and formal, with specific agreements being negotiated between exporting and importing countries. Under such agreements, the exporting country agrees to restrict to specified levels exports which are causing or threatening to cause serious injury to the importing country's industry.⁴³

(c) Organized free trade

The concept of organized free trade is gaining in popularity, but there is no clear

statement of what this seemingly contradictory group of words means. However, some of its main features are already evident. Organized free trade would envisage market-sharing arrangements at the sectoral level under a global umbrella which would limit to specified levels imports of competitive foreign goods. The organized free trade concept implies essentially "orderly marketing arrangements" on a global scale and its adoption would thus amount to an institutionalization of the commercial policy device described and would confer on it the status of an internationally accepted practice.⁴⁴ Bilateral and multilateral agreements regulating trade in textiles provide a clear illustration of orderly marketing arrangements.

III

Implication of new quantitative restrictions

Tariffs are preferable to quotas for a host of well-known reasons.⁴⁵ In view of the recent interest expressed in the growing interdependence of nations and the return to protection to gain greater control over the national economy, one or two specific points are worthy of note. Quantitative restriction of the type described can introduce greater *uncertainty* into world trade than tariffs. Tariff rates are recorded in national schedules, so import prices are known in advance. To the extent that they are applied in a most-favoured-nation fashion, all countries face the same barriers and can assess their competitive position. Similarly, tariff changes are traditionally

negotiated in GATT so changes in competitive positions are common knowledge. To the extent that a country participates in a bilateral quota, price certainty is replaced by quantity certainty. Non-participating countries, however, have neither price nor quantity certainty, and the trading "rights" of competitors for the import market are not always common knowledge. Furthermore, quantitative restrictions in general introduce greater price *instability* into world markets than tariffs.⁴⁶ While much has been written on the equivalence of tariffs and quotas, the definition of equivalence differs between authors. Corden⁴⁷ offers the most rigorous requirements — a single tariff rate which would have the same effect as an import quota on the volume and value of imports, on the domestic and foreign price, and on the volume of domestic output. Under the appropriate assumptions one can show equivalence as defined in this static sense. If, however, the import demand or export supply

⁴³Marketing arrangements, for example, are in force between the U.S. and the Republic of Korea on certain non-rubber footwear; the U.S. and Japan, EEC, Sweden and Canada on stainless and alloy tool steel; the EEC, and Japan and the Republic of Korea on carbon steel; the U.K. and the Benelux countries and Japan on television sets, radios and calculators (see UNCTAD, "Growing Protectionism...", *op. cit.*).

⁴⁴*Ibid.*

⁴⁵The case for tariffs in preference to quotas has recently been very lucidly restated by T. Murray and I. Walter, "Quantitative Restrictions, Developing Countries and GATT", *Journal of World Trade Law*, London, Vol. 11, N.º 5, September-October, 1977.

⁴⁶Developing countries have expressed considerable concern over price uncertainty in international markets as is evidenced by support for the UNCTAD multi-commodity price stabilization schemes.

⁴⁷W. M. Corden, *The Theory of Protection*, Clarendon Press, Oxford, 1971, p. 212.

curve shift, the impact on world price is not the same for the tariff and quota. Regardless of which curve shifts and the direction of the shift, the world price fluctuations are greater with the quota than the tariff. The extent of the difference depends on the elasticities of the curves. As countries move to isolate themselves from world price fluctuations by using quantitative controls, they exacerbate future world price fluctuations—presumably increasing the “case” for protection.⁴⁸

Voluntary export restraints and orderly marketing agreements virtually force firms in the exporting country to form cartels. Once the export market is carved up, the entry of new firms is extremely difficult—this is particularly important for new firms in developing countries. Nor does future market growth offer hopes for new firms as some export growth for the exporting firms is usually a condition of the voluntary export restraint. Price cutting through greater efficiency has nothing to do with market access and even the rent can be divided up in a gentlemanly way between quota holders in the importing country and exporters. Voluntary export restraints are acceptable to established exporters, importers, import competing firms and governments wishing to increase autonomy without being bothered by GATT. It is no secret why their incidence is spreading.⁴⁹

Similarly, voluntary export restraints and orderly marketing arrangements encourage cartelization in the importing country. As the government intervenes to deal with the problems in the industry by negotiating export restraints on behalf of the affected firms, it has expanded its intervention and sometimes even encouraged the formation of cartels. Major European makers of synthetic fibres have re-

cently announced their plans to establish a three-year production cartel. This move was initiated by the EEC Industry Commission.⁵⁰ Similarly, the Swedish government, after negotiating voluntary export restraints for Swedish steel, has now dropped its theoretical opposition to mergers and is offering loans and guarantees to sponsor the merger of three of Sweden's biggest special steel firms.⁵¹

But perhaps most important for developing countries is that it is largely bargaining power which determines whether a claim for voluntary export restraint receives government approval in the importing country. Government support depends on the political clout of industry leaders.⁵² How individual developing countries fare in securing a share of the import market also depends on bargaining power. The lack of success of developing countries in trade negotiations where bargaining power is important (e.g., Kennedy and Dillon Rounds) does not auger well for their obtaining benefits from future trade restrictions of the “voluntary” type.

1. Price restrictions

The setting of minimum import prices has much in common with quantitative restrictions. In fact, given the domestic demand and supply schedules for a product, a fixed import price, set below the domestic market clearing price, establishes the quota. Such minimum import prices have long been applied to many agricultural imports into European countries (for example, all grains imported into the EEC) and more recently, steel products imported into the EEC and U.S.⁵³

How these minimum import prices are administered is of some importance. For grains imported into the EEC, for example, an internal *target price* is set and a minimum import price (threshold price) is determined accord-

⁴⁸Agricultural import quotas made possible by the use of a sliding scale tariff in the EEC are a classic case of a country isolating itself from world price fluctuations, but exacerbating such fluctuations, see G. P. Sampson and R. H. Snape, “Variable Levies, World Prices and their Instability”, *mimeo*, 1978.

⁴⁹It is with considerable foresight that Shibata predicted the future popularity of voluntary export restraints for very similar reasons. See H. Shibata, “A Note on the Equivalence of Tariffs and Quotas”, *American Economic Review*, Vol. 58, March 1968.

⁵⁰Reported in *Financial Times*, 8 February 1978 and *International Herald Tribune*, 3 May 1978.

⁵¹Reported in *Economist*, 11 March 1978.

⁵²J. N. Bhagwati, “Market Disruption, Export Market Disruption...”, *op. cit.*

⁵³The importance of minimum import prices for agricultural products has grown with the expansion of the EEC.

ingly. The minimum import price is maintained by a sliding scale tariff—the EEC isolates itself from world price fluctuations and holds the target price constant. The sliding scale tariff extracts both the rent and the production or export subsidy that could go to the producing country. The rent is frequently substantial as evidenced by the fact that the *ad valorem* equivalent of variable levies on grains imported into the EEC in July of 1977 ranged between 88 and 161 per cent for the major grains. One would expect supplying countries to form cartels (as there are few major suppliers) but they do not. Protection in this case is rationalized on the basis of the desire to maintain, for social reasons, domestic inefficient farming regardless of economic costs. The U.S. minimum import price for steel products, however, is rationalized as protecting efficient domestic producers from dumping. The U.S. publishes its minimum prices (*trigger prices*) and invites foreign suppliers to sell at this price. Sales at less than this price trigger a lengthy and complicated anti-dumping enquiry. To avoid the anti-dumping enquiry, suppliers sell at the minimum price. If the major suppliers are simply more efficient, as they claim (particularly Japan), this mechanism (unlike the sliding-scale tariff) ensures exporters keep the rent.

Minimum import prices for agricultural products serve to reduce exports from developing countries. Domestic production is expanded in the importing country and high internal prices limit domestic consumption; by restricting demand world prices are depressed and, while it may be argued that food-importing developing countries benefit from low world prices, it should be noted that this form of protection destabilizes world commodity markets (e.g., in times of over-supply the EEC target price does not drop accordingly). Commodity price stability appears to be high on the priority list for developing countries.

New restrictions on steel will not affect most developing countries, which are at present high-cost producers. However, imports from the most efficient producers in developing countries, such as Korea, Brazil, India and Mexico, although they are minor suppliers, will probably be curtailed. Similarly, future

access to major markets is likely to become increasingly difficult as minimum import prices are now being coupled with voluntary export restraints. The EEC, for example, has recently negotiated restraints with Japan, Sweden, Czechoslovakia, South Africa, Spain and Australia.

2. Subsidies

The most disturbing general feature about direct government assistance to industry is that it appears to be granted on an *ad hoc* basis with little consideration given to economic efficiency. Governments may simply wish to preserve industries that they judge desirable, regardless of economic costs.⁵⁴ There may be special problems, such as regional unemployment, associated with a scaling down of the industry,⁵⁵ or members of governments may simply be responding to political pressure.⁵⁶

For developing countries, of principal concern is the long-term support given to industries where they have a comparative advantage at present (or will have in the future). In the EEC, for example, there are 9,500 shoe companies in small towns, supporting labour-intensive industries such as tanning. Automatic import licensing was introduced in May 1978 and voluntary export restraints have been negotiated. In addition, direct subsidy payments are now being paid to EEC shoe manufacturers.^{57, 58} Under the temporary Employment Subsidy in the U.K., companies receive £ 20 per week (per worker) subsidy payable for a maximum of twelve months for each job "maintained", and a further £ 10 per week (per worker) for the ensuing six months should the company face further difficulties. To receive the payment it is

⁵⁴H. C. Johnson, "Mercantilism: Past, Present, Future", *op. cit.*

⁵⁵A. Krueger, "Effects of Exports from New Industrial Countries...", *op. cit.*

⁵⁶This would appear to be of special importance in recent years as many governments in OECD countries hold rather tenuous majorities.

⁵⁷Reported in *Economist*, 4 March 1978.

⁵⁸It has been estimated that developing countries currently have an excess capacity of 100 million pairs of shoes per annum, (*Financial Times*, 20 March 1978).

necessary to prove that without a subsidy the worker would be redundant. The scheme currently covers a quarter of a million workers at a cost of a quarter of a billion pounds.⁵⁹ As already mentioned, what is disturbing for the developing countries is the fact that over one half of the workers are located in the clothing, footwear and textile industries. No provision is made in such schemes to move labour and capital to other sectors.⁶⁰ An area of less obvious, but potentially highly important export interest to some developing countries is shipbuilding — a heavily subsidized industry in OECD countries. A recent report indicates that if developing countries are using only half their production capacity in 1981-1982, they will have 30 per cent of the world market (compared with 5-6 per cent today). The report concludes that due to lower production costs, their growth is “unstoppable”.⁶¹

Support for industries needing assistance in the face of import competition is formalized in many national legislatures. There has re-

cently been an enormous increase in requests for trade adjustment assistance in many countries. In the U.S. for example, over the fifteen years from 1962-1975 there were 107 successful (i.e., formally approved) requests for assistance with resulting payments affecting 53,800 workers, and 36 firms. Between April 1975 and May 1977 there were 690 successful petitions affecting 209,100 workers and 78 firms.⁶² While such figures would appear encouraging to exporters, it should be noted that most of the assistance measures serve to introduce greater rigidities by subsidizing the existing factors and discouraging the shift to other sectors. Furthermore, there has been an important change in the legislation. Under the Trade Expansion Act of 1962, it was necessary to prove that increased imports are “the major factor causing or threatening serious injury to the firm or its workers”. Under the Trade Act of 1974 it is sufficient to prove that the “increased imports must be a substantial cause of the injury or the threat of such”.⁶³

IV Policy implications and conclusions

Perhaps it is most useful to discuss the policy implications of the foregoing discussion within the context of the immediate, medium- and long-term future.

In the immediate future, it would appear that there is a proliferation of trade restrictions of the type mentioned above and very little can be done about it apart from drawing the attention of offenders to the consequences of their action.⁶⁴

“Crying wolf” does have a role to play if the wolf is there, but is kept at bay. OECD-

sponsored declarations on “standstills” appear to count for little and any institutional reform seems impossible before the completion of the current round of MTNs. Such institutional reform is necessary since even a “successful” completion of the current round of negotiations (within the existing structure of institutional arrangements) will leave unsolved many of the problems addressed above. It would appear that the most fundamental problem with respect to any “standstill agreement” is that no sanctions can be applied to offending parties, so pledges count for little.

⁵⁹The estimates are reported in OECD, *Economic Surveys: United Kingdom*, Paris, March 1978, p. 53.

⁶⁰Perhaps it should be mentioned that other special employment schemes introduced due to the “severity of the post-1974 recession”, are the Job Release Scheme, Job Creation Programme, Work Experience Programme, Community Industry Scheme, Youth Employment Subsidy and miscellaneous training schemes. These schemes, however, are almost trivial when compared with the Temporary Employment Subsidy (OECD, *ibid.*).

⁶¹H. P. Drewy, *The Emergency of Third World Shipbuilding*, London, Brook Street, 1978.

⁶²See H. R. Williams, “U.S. Measures to Relieve Injury caused by Import Competition: The Eligibility Test”, *Journal of World Trade Law*, Vol. 12, N.º 1, January-February 1978.

⁶³*Ibid.*

⁶⁴See, for example, GATT, *Trade Liberalization...*, *op. cit.*

At the moment, countries are protecting their domestic markets but are not playing according to the rules of the game. It is clear that in the medium-term the rules have to be changed. The articles of GATT were devised as a code of conduct for countries wishing to liberalize trade restrictions and it appears they are poorly suited to countries' desires for increased protection. This is particularly so for safeguard action and the use of commercial policy for balance-of-payments purposes. In the formulation of any new safeguard clause, it is important that the true sources of market disruption should be identified and due consideration be given to disruption in the exporting country. In this area it has been suggested that developing countries be compensated for such disruption.⁶⁵ Such issues should find a place on the agenda of UNCTAD in May 1979, where it would seem reasonable for developing countries to ask for some assurance that uncompetitive industries in developed countries will be phased out, and not supported in what appears often to be a vain effort to regain international competitiveness. It would also seem reasonable that developing countries press for their receipt of the often substantial rent that is involved in current commercial trading transactions. The receipt of such rent could be written into the voluntary export restrictions that developed countries seem to insist on. This is true not only for quantitative restrictions on manufactured goods, but also for sliding-scale tariffs on agricultural products. Developing countries do not receive such rent under the current systems of generalized preferences. It would also seem reasonable and appropriate that UNCTAD draw attention to the "special and differential treatment" promised for developing countries in the Tokyo Round Declarations.

As tariff preferences for developing countries will be further reduced following the current round of MTNs, a case could be made for developing country exemption from global quantitative restrictions. This would seem compatible with the developed country acceptance of preferential treatment agreed to in UNCTAD and restated in the Tokyo Round Declaration.

It is clear that in the longer term there is a need for institutional reform in those international organizations dealing with international trade, finance and money, and perhaps even the need for the creation of a new world trade organization.⁶⁶ At least some sort of code of conduct should be established to facilitate the smooth transition of the structural change that is associated with the changing comparative advantage of different sectors of different countries. Here much of the responsibility rests with national governments to pursue positive structural adjustment policies and refrain from short-sighted "beggar my neighbour" policies.

Finally, the most important conclusions that arises out of the discussion of contemporary protectionist pressure is that the sources are outside the control of developing countries. Balance-of-payments difficulties, structural adjustment problems and mercantilistic desires to maintain certain domestic industries all lead to domestic policies which developing countries cannot directly influence. Furthermore, the nature of much of the contemporary protection is such that strong bargaining is important in gaining market access. With no control over the sources of protectionist pressure, and little influence on their share of predetermined markets, developing countries should be concerned about the state of commercial policy in the world today.

⁶⁵J. N. Bhagwati, "Market Disruption...", *op. cit.*

⁶⁶American Institute of International Law, *Re-making the System of World Trade: A Proposal for Institutional Reform*, West Publishing Company, St. Paul, Mn., 1976.

Economic Policy: Science or Ideology?

Part Two

Carlos Lessa*

The two parts of this article (the first was published in *CEPAL Review*, N.º 7) constitute a systematic attempt to present and analyse critically the major approaches in 'official economics' to the theory of economic policy. Part One was devoted to L. Robbins; this part seeks to outline the foundations of 'welfare economics' and the latest neoclassical positions on the construction of econometric models.

The author argues that the various neo-classical approaches represent attempts to overcome the incompatibility of the two main objectives pursued on the one hand, to construct a universal and a historical scientific theory to justify the *status quo*; and on the other, to understand the real world and its changes in order to provide the dominant interests with the operational means for them to be able to tackle economic policy problems effectively.

'Welfare economics' and the 'black box' of econometric models are two clearly different theoretical and practical alternatives, although divergences exist with them. The author explores the two, and their variants, in detail, and stresses the similarities between them which stem from their common neo-classical origins and are primarily visible in their views on the nature of the State and society, and the roles these should play in economic policy.

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IV Welfare economics or the test of a knowledge/ effort minimax

"Fantasy never leads to madness; what leads to madness is in fact reason. Poets do not go mad, chess players do. Mathematicians go mad, as do bookkeepers; but it is very rare for creative artists to go mad."

(G. K. Chesterton)*

When, at the beginning of this study, we used the simile of a tropical jungle entered by an unwary traveller, we were aware that tropical jungles vary both in types of vegetation and in density. We are now about to enter the thickest part of the jungle, where the vegetation shuts out every last ray of light and the lianas and creepers can entangle and immobilize the traveller. Welfare is a formal jungle; it is hypertrophied empty discourse. One must be a very experienced explorer not to lose heart in this stretch of the forest; while lack of experience may lead to intellectual death. Since I do not believe that I fall into either of these categories, I shall try, with a caution learned from earlier attempts, not to pause too long in this lightless zone. This section should be taken as a warning sign rather than as a map for crossing this part of the jungle.

The planting of this track of forest began with Bentham's utilitarianism, which shows its great age.¹ Robbins gives a very precise description of this initial approach: "A theory of economic policy, in the sense of a body of precepts for action, must take its ultimate criterion from outside economics. This criterion the English Classical Economists found in the principle of utility, the principle that the test of policy is to be its effect on human

*From the Spanish translation by Alfonso Reyes of *Orthodoxy*, chapter II, "The maniac", Madrid, Casa editorial Calleja, 1917, p. 26.

¹Robbins classifies Bentham in the group of "English classical economists". In our opinion, Bentham is rather a precursor of neo-classicism, since he postulated the construction of a science of man based on the calculation of utility. See H. Denis, *Historia del pensamiento económico*, Ed. Ariel, Barcelona, 1970, pp. 184-187.

happiness. All action, all laws and institutions were to be judged by this test. If their consequences were such as promote more happiness (or eliminate more unhappiness) than was conceivable from other actions, laws or institutions, they were good: if not, then they were bad."² In capitalism's heyday of self-infatuation in the first half of the nineteenth century, utilitarianism with its elementary manicheism was used to show that the 'invisible hand', vouchsafed by the gendarme-State, would ensure an optimum for everyone and, by aggregation, for all. Neo-classicism, at peace with itself, unconcerned with aggregate happiness, could develop micro-economic analysis in such a way that each of the consumers, producers and owners of factors could have perfect advice in order to find his particular optimum in a system of perfect competition.

The painful spectacle of industrialization, the social tragedies which provided such powerful inspiration for nineteenth century literature, which underlay the proposals for social assistance policies as well as the utopian formulae of many reformist thinkers based on the assumption that the age-old appeal to the good will of men could no fall on deaf ears, did not lead 'official economics' to abandon its utility hypothesis. However, once the rose-coloured spectacles had been removed, the subsequent advance of capitalism, industrial concentration, heightened nationalism, intervention in the market, increasingly sharp cycles of prosperity and depression, wars, growing social tensions and an increasingly powerful, growing trade union movement, capable of criticism and of linking up with political movements, began to leave their mark on neo-classical thought. These 'adjustments' in the neo-classical corpus can, in my opinion, be classified in two general categories of responses.

The first, 'scientific' *par excellence*, consists in adjusting the positive theoretical corpus and making it more rigorous. When pushed by history, the neo-classical thinker engages in a process of questioning within the confines of his science. This 'self-internalizing'

operations of retreating into his shell, sincerely concerned by the need to eliminate imprecision, in turn leads to new 'states of scientific tranquility'. Then, as history accelerates—social revolutions, greater development of the process of accumulation, complex forms which surpass the limits of market and nation, the omnipresent intervening State, awareness of underdevelopment, decolonization, etc.—it continues to push him, and he becomes even more inward-looking in his questioning of his 'science'.

By rejecting history as a process endowed with its own internal logic, he grasps only the external manifestations of the movement; he takes into account only ideographic history. His investigation reveals a system which is increasingly far from the ideal archetype which he constructed in tranquil times as an apology for the system. This bothers him, naturally enough. In his anxiety he repeatedly questions his 'science'. Since he retains his ideal of a positive science, this questioning, while on the one hand dispelling some naive beliefs, on the other creates fresh ones. As the system strays further and further from the premises of the initial ideal apology, an increasingly complex effort must be made to maintain a minimal relationship between apologetics and actuality, as perceived at the level of (increasingly changed) appearances. The result is a process leading to an ever greater lack of realism. Logical tools become increasingly complex, an attempt is made to find analogous models in the development of other sciences, and more complex mathematical forms are called for. As we shall see, this dialectic brings neo-classical thought to terrifying levels of unrealism.

The second type of response consists in delimiting a 'territory' and determining the 'conditions of use' of positive science; however, aware of the unrealism of the conclusions obtained at this level, the thinker tries to find an 'input' from reality or to provide a scientific 'product' for reality. The 'input' may be a mere collage (interdisciplinary approach) or may be to the effect that 'this is a value-judgement area'; the product is usually of the reformist type; reality must be put right so that it behaves 'scientifically', since we are scientifically sure that reality is wrong. Some thinkers combine

²L. Robbins, *The theory of economic policy*, London, Macmillan, 1953, p. 177.

'input' and 'product' and mix answers of the first type with answers of the second.

Finally, some authors very honestly confess their inability to provide a coherent answer, to 'shed light' on reality with their science, and this can also be found in answers broadly categorizable as 'appealingly modest positivism': economics is still embryonic. ('Washing one's hands' is a healthy formula.) Instead of being alarmed by the short lifespan of his answers, the health-conscious scientist sees in this an indication that he is progressing by successive approximations from error to truth, or more affectedly, attempts to turn 'official economics' into an instrument for 'seeking the truth'.

At the crossroads of this awful dialectical movement lies the thickest part of the tropical jungle, and despite the escalation of unrealism, sterility and frequent moments of delirium and epistemological suffering, we believe that the jungle will continue growing; history does not stop. The first neo-classical reading of classical liberal thought saw in the harmony of personal and collective interest, achieved by a system of perfect competition through the search for maximum individual benefit, the explanation of the identity of wealth and welfare. This conclusion was strengthened by hedonism as a moral system.

However, neo-classical theory, whose ethical basis lay in hedonism, was running into a serious problem. By the end of the nineteenth century, industrialization has already created a powerful trade-union movement which was closely linked with political processes of a more or less radical nature in relation to the social system. Through social legislation, changes in labour law, etc., the labour force was objectively questioning the perfection of an income distribution based on the free play of market forces. Objectively, it was questioning hedonism as a moral philosophy, and neo-classicism had to retreat into its shell in order to dissociate itself from an intransigent defence of income distribution sanctioned solely by the free play of market forces. Inasmuch as hedonism made the perfectibility of the system of free competition and distribution a single thing, neo-classical thinking was unable to reconcile an intransigent defence of free

competition with the admission of some partial redistribution of income. At the theoretical level the two concepts—free competition and personal income distribution—had to be partially dissociated in such a way that the former could be defended while admitting some correction of the latter, without the theory becoming incoherent. This operation was essential to avoid discrediting the entire construction.

Another route led to this same problem. The growth of the State and the more-than-proportional increase in public expenditure—to cover either military spending, are more complex public administration or certain incipient social programmes—was creating a problem of sources of tax revenue. During the nineteenth century the Italian financial school had tried anxiously and assiduously to find a system of taxation which would satisfy the ideal requirements of the neutral tax doctrine. This doctrine represents the tax system most in keeping with the free play of market forces; if we accept the perfectibility of the mechanism, the taxation system designed to finance the modest expenditures authorized for the State by this doctrine should be such that they do not affect the perfect mechanism or infringe the hedonist doctrine. Like Diogenes searching for an honest man, the Italian financial school was seeking a neutral tax without being able to find one; however, they thought that direct taxation was more neutral in relation to market mechanisms than indirect forms of taxation. At the real historical level, States tended to multiply forms of direct taxation and move towards a progressive personal income tax. Together with the growth of social spending, this development may be viewed as fiscal intervention in personal income distribution.

The question outlined here lies at the origin of welfare economics. When defining the objective of economics, drawing on long-standing references, Marshall stressed the "concern to maximize social welfare". This was how Marshall viewed the goal of economics in his classic definition. He was inspired by a great hope: that a science with such an objective might be able to define an ideal economic policy which would be acceptable to all and, in sum, pacifist, since it would bear the stamp of

positive science. The loud denunciation of the new social problems stemming from industrialization and the questioning of the system's foundations could (it was hoped) be "dealt with" by positive science, which should scientifically define and elucidate the maximization of social welfare. (Economics would indicate the ends and means.) Here, then, political economy is being reduced to the theory of economic policy.

It is true that for each person to follow his personal interest, in an economy organized in conditions of perfect competition in each of its markets, leads to the best possible allocation and use of the factors of production. A good overall solution is guaranteed from the standpoint of wealth; but what is the relationship between wealth and welfare? For Marshall, there was an immediate answer to this question: collective welfare is the aggregate result of individual welfare and is obtained through the maximization of national income.³ This in turn depends on the perfect allocation and use of factors, i.e., the maintenance of the conditions of perfect competition in the different markets. This is an odd answer in view of the fact that Marshall was sympathetic to Fabianism.

The ideas on this English movement included a progressive programme of social reform—in a democratic framework—including increasing State intervention aimed at correcting the inequality of personal income distribution. But the inertia of conservative 'scientific' thought was so enormous that Marshall—in flagrant conflict with his Fabian sympathies—repeated the age-old answer of chemically pure liberalism, thus remaining faithful (at the scientific level) to the rose-coloured view of yore, his Fabian learnings notwithstanding.

Marshall's answer, although intended to pacify, created a great confusion. Acceptance of aggregate utility as the category to be maximized allows two different 'rational' ap-

proaches, both illustrated by the typical positions outlined above.

One consequence of the first type of answer: aggregate welfare is the sum of individual welfares. The maximization of the national dividend, Marshall's criterion, does not guarantee the maximization of welfare, since individual incomes are different. If marginal utilities are comparable, the point of maximum welfare must coincide with a specific income distribution: this raises the problem of interpersonal distribution. And this was the question raised by Pigou in 1920 in *The Economics of Welfare*. What is the right distribution? The answer is easy; the more egalitarian the distribution of income, the greater the level of welfare. Following the hypothesis of diminishing marginal utility of money income, aggregate social utility would increase with the transfer of income from the rich to the less-well-off. Pigou's answer settles two problems of neo-classical theory:

(a) it retains the perfectibility of the price mechanism, since markets continue to be in conditions of perfect competition. This mechanism is perfect for resource allocation and use in relation to any given distribution of income among persons;

(b) it incorporates in its discourse the redistributive role of the state, which could base the tax burden on direct progressive taxation and undertake social expenditure in favour of the poorest strata of society.

Hobson points out one consequence of the second, more radical type of answer: there is a concept higher than economic welfare, namely, human welfare. Some forms of consumption are degrading, some kinds of work are spiritually impoverishing and physically humiliating. Ethics is never out of place in economic facts, the facts themselves are at once economic and ethical.⁴ Starting from the neo-classical categories, Hobson romantically stated that the system had to observe a morality of respect for and preservation of the dignity of the human

³Marshall refers to the national dividend. At the economic policy level, he believes that the effect of indirect taxes and of subsidies could increase aggregate utility.

⁴J. Hobson, *Social Problems* quoted by E. James, *Historia del pensamiento económico en el siglo XX*, taken from the Spanish translation by Enrique González Pedrero and Julieta Campos de González Pedrero, Mexico City, Fondo de Cultura Económica, 1957, p. 142.

being. The result was the proposal of more radical social reforms.

Following novel paths two neo-classicists, exploring Marshall's welfare function, become dissatisfied—at the level of their own discourse—with the liberal programme. It may be admitted that neither the egalitarian distribution of income nor the moral preservation of man in consumption and work are goals of the system which inspired neo-classical economics.

The *impasse* created by Marshall's question and the uneasiness stemming from the scientific answers it received took neo-classicism along two different paths, both of which assume that it is impossible to measure utility and that there is no economic meaning whatsoever in interpersonal utility comparisons. The first solution was Robbins' formalized approach, which we have already examined and which reduced economics to the practical level and defined any questioning of ends as having nothing to do with economics. (We have already had occasion to look at some consequences of this position.) The second type of solution lay in a thorough exploration of the arguments of Edgeworth and Pareto concerning the impossibility of interpersonal comparisons of utility, the major proposition of which is the absence of an endogenous criterion whereby it may be affirmed that the utility of the 'nth' unit of income of a rich person is greater or lesser than or the same as the 'nth' unit of income of a poor person. This position, which initially represented a hymn to individual subjectivity, opens the way to the neo-classical festival known as the 'new welfare economics'.

Robbins' solution produces hypertrophied, purely formal positions, and proposes an ethics which is highly attractive to technocrats. However, it had a great defect from the standpoint of positive science: it was based on a formal deductive method. For the positive mind, Pareto's path appeared much more scientific and was therefore followed by modern neo-classical thought, with extremely odd consequences as we shall see below. A serious question remained unsolved: was it scientifically possible to find a process for the maximization of the economic system? The grey-

beards are reluctant to forego their 'spiritual power' and become the handservants of the 'temporal power'.

The starting-point of this interesting discussion lies in Pareto's general equilibrium model presented in his *Manual d'Economie Politique* (1906). Broadly speaking, this is the Walras' model, with the original hypothesis of preferences. Pareto defined an optimum as follows: "A position made up of a set of non-comparable magnitudes may be described as a maximum when none of these magnitudes can be increased without decreasing another".⁵ From the standpoint of the family what was characteristic about Pareto's criterion was that once the maximum economic satisfaction or desirability of a basket of goods had been obtained, the family could not rise to a higher level of supply without another family's economy dropping to a lower level of supply. It may be seen that there is an infinite number of Pareto optima. There is nothing surprising in this, since the Cambridge School questioned the interpersonal comparability of utility.

"As concerns the economic system as a whole, the optimum positions for both production and consumption are those (naturally infinite in number) where there is an optimum distribution among the different subjects of the quantity of goods belonging to efficient positions."⁶ The Pareto optima are the same as the results achieved by the market system in perfect competition: "To know which of the optimum positions is reached by competition depends on one thing: the initial distribution of productive resources and, in the absence of political redistributive activity, the final distribution of rent among all the economic subjects ... the Pareto criterion cannot be used to compare the optima of two different situations".⁷

The determination of optimum economic satisfaction with the necessary condition relating to the allocation of factors for a specific distribution of income, allows an infinite number of optima. Thus this criterion overcomes the thorny problem of income

⁵C. Napoleoni, *Il Pensiero Economico del 1900*, p. 39.

⁶*Ibid.*, p. 40.

⁷*Ibid.*, p. 40.

distribution: any is optimal. The Pareto optimum is certainly optimal as a conservative argument.

Pareto's optimum is as conservative as can be, since it focusses on the impossibility of increasing output of one good through the reallocation of productive factors without decreasing the production of another good. But cannot this criterion be improved on?

Hotelling considers that an economic policy measure increases wealth if it benefits one economic subject without decreasing the wealth of another.⁸

Kaldor answers this question by stating that an economic policy measure (redistributive or otherwise) is fully justifiable when the gains of the group which benefits are greater than the total losses suffered by other groups, so long as the principle of compensation for loss is adopted.⁹ Hicks believes that this criterion is correct, even without taking into account the principle of compensation.¹⁰ Scitovsky criticizes the principle of compensation because it is implicitly but gratuitously based on a value judgement: the idea that the losers are socially more deserving and that the earlier situation was worth maintaining.^{11, 12} Furthermore, Scitovsky shows that the principle of compensation may increase the unfairness of income distribution. If the economic policy measure benefits an upper strata, the latter will be in a position to "bribe" the lower income group. As a measure of the unrealistic atmosphere in which this argument is carried on, Scitovsky accepts a complementary criterion: the prevention of this kind of bribery. This does not prevent Napoleoni from considering that "the importance of the Kaldor-Hicks criterion is clearly enormous, because it

greatly broadens the sphere of economic policy acts which can be judged objectively and without the use of value judgements".¹³ Literally, the Kaldor-Hicks criterion leaves the neo-classical position open to accepting any type of intervention whatsoever on condition that it operates through the perfectly competitive market. However, this will be a 'scientifically' acceptable rape: scientifically speaking, 'l'honneur est sauve'. The acceptance of intervention if carried out through the market supports the idea that indirect economic policy instruments (which work through induction) are 'scientifically' permissible.

An odd equilibrium is reached at this point: following the Marshall-Pigou line one arrives at the unlikely ideal of an egalitarian income distribution; while the Pareto-Kaldor-Hicks line leads to an elegant acceptance of intervention. These are certainly ironic results for a scientific corpus committed to the defence of the *status quo*, which in fact merely defends something which is already historically passé: the 'system of perfect competition'.

Just as the 'ancien régime' of cardinal utility was exploded by neo-classical arguments, the house of cards of the 'new régime' based on ordinal utility (elegantly developed by Hicks' consumer theory) provoked opposition within 'official economics' itself.

As set out by Hicks in *Value and Capital*, the theory of the consumer is static, operates with homogeneous goods and adopts the hypotheses of choice among infinite combinations of goods (omniscience of the consumer), coherence (invariable pursuit of preferred choices), insatiability (permanent desire for those goods), etc. ...¹⁴ Such an unrealistic basis sowed doubt in the neo-classical ranks. Consumers deal with singular goods; many of the goods acquired are fixed (housing, light, transport, etc.); the image of the consumer as a computer instantly switching from one equilibrium point to another is strange, to say the least. What about the force of custom? Is not choice perhaps a problem which depends more on the conditioning

⁸H. Hotelling, "The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates", in *Econometrica*, Vol. 6, July, 1938.

⁹N. Kaldor, "Welfare Propositions of Economics and Interpersonal Comparisons of Utility", in the *Economic Journal*, London, vol. XLIX, September 1939.

¹⁰J. R. Hicks, "The Foundations of Welfare Economics", in the *Economic Journal*, London, Vol. XLIX, December 1939.

¹¹See T. Scitovsky, "The State of Welfare Economics", in the *American Economic Review*, Vol. XLI, June 1951, N.º 3.

¹²E. James, *op. cit.*, p. 563.

¹³C. Napoleoni, *op. cit.*, p. 42.

¹⁴J. R. Hicks, *Value and Capital*, Oxford University Press, second edition, 1946.

rather than the calculations of consumers? Needs are not one-dimensional, they are grouped in combinations of desires for different goods, etc. ... These and many other minor objections did not prevent Professor Hicks from publishing a new text in 1956 which reiterated his 1939 theory with greater formal elegance.¹⁵ And the thrilling debate continued. Consumer theory could be derived from observation, according to some; for others, including Professor Hicks, introspection was necessary: this had to be carried out within the theory itself, which, of course, led to introspection *in vacuo*.

Seligman summarizes this position: according to Hicks, "one had to start with the 'preference hypothesis' in order to separate current price effects from the complex matrix of forces that influenced consumer behaviour. The objective was to note how the consumer reacted when only prices and incomes were taken into account. Nothing else really mattered, nor was it necessary to prove the validity of the 'preference hypothesis', since its usefulness was entirely pragmatic: one was interested solely in the richness of the deductions it yielded. Consequently, demand theory became nothing more than the economic application of the logical theory of ordering".¹⁶

However, the festival of new welfare economics had not exhausted its possibilities: the show goes on. Samuelson comes on stage with this theory of revealed consumer preference, which stresses the epistemological value of observable data. Set theory provides the concept of weak ordering and strong ordering of related points. Assuming that the consumer is 'committed' when he comes to the market, with already defined preferences (strong ordering), all that needs to be known about his behaviour in the market is already available. (A very elegant way of highlighting the level of appearance, so dearly beloved to the positivists.) If the consumer maintains his preference in the market, even when the price of the good rises or initially is above that of other goods, he is said to have a revealed

preference (to use Samuelson's term). As a good and loyal American, Samuelson had to accept this revelation of the sheep-like behaviour of the consumer: previously considered a 'dictator', he has become an 'object' to be manipulated by mass consumption and seductive advertising methods. Thus Samuelson saw in Hicks approach (the consumer arriving indifferent at the market) a weak ordering which he contrasts with his more realistic strong ordering of preferences. (Down with the national sovereignty of the consumer!)

This is only part of Samuelson's logico-mathematical construction in *Foundations*.¹⁷ His main ambition was to combine traditional neo-classical theory with the utmost logical and mathematical precision, though the use of mathematical instruments which would allow the empirical verification of propositions; otherwise, it would be theory for theory's sake, and without functional meaning. The economist's job was to show, in his general theory and its specialized branches (fiscal, foreign trade, etc.), the existence of "formally identical *meaningful* theorems ... each derived by an essentially analogous method".¹⁸ Meaningful theorems are verifiable hypotheses, whether important or trivial.¹⁹ The fundamental hypotheses which form the basis of his theory are the description of a maximum and the determination of stability conditions. Equilibrium implies a maximizing or minimizing problem; thus the theoretical problem consists not only in determining the maximum but also determining the secondary conditions for obtaining the maximum.²⁰

Samuelson's approach to welfare economics is an attempt to attain the greatest possible scientific objectivity, for which purpose, he makes use of a series of methodological refinements in methods of mathematical calculation: linear and non-linear programming, input-output analysis, etc. Recognizing the discrete nature of observable facts, he can use the

¹⁵J. R. Hicks, *A Revision on Demand Theory*, Oxford University Press, 1956.

¹⁶B. Seligman, *op. cit.*, p. 411.

¹⁷*Foundations of Economic Analysis*, Cambridge, Harvard University Press, 1948.

¹⁸*Ibid.*, p. 1.

¹⁹Samuelson adopted the so-called 'operationalist' neo-positivist position. The concept of method should be made explicit in terms of the series of operations involved.

²⁰B. B. Seligman, *op. cit.*, p. 424.

calculus of finite differences, etc. ... Altogether, the greatest possible facelift for the aging neo-classical construction.

Samuelson pragmatically accepts the incorporation of value judgements in welfare economics, adopting Bergson's position:²¹ "In contrast with theories of welfare economics, Bergson explicitly accepted value judgements. These might be determined, he said, by some higher authority. Indifference curves could be worked up to establish a social welfare function by which to judge whatever economic policy was to be proposed".²² Using the Bergsonian function, economic policy objectives could be measured by a social welfare function; this function should reflect individual and collective welfare and also assess the way in which this welfare was distributed within society. With a function of this kind, economics merely produces the theory of economic policy, and confines itself to attempting to estimate, in welfare terms, the probable consequences of government action. This sounds very objective and worthy to Samuelson: a scientific, pragmatic approach. Using one of these functions it is possible to 'simulate' economic policies. For Samuelson "it is a legitimate exercise of economic analysis to examine the consequences of various value judgements, whether or not they are shared by the theorist".²³ In principle, each individual can vote against or in favour of or abstain on how economic policy criteria affect the variables in his welfare function (this is pompously called the ordinal method of highest, lowest and indifferent valence). This Bergson-Samuelson path leads to the famous economic policy 'simulation models', one of the economist's toys in his technocratic dream.

The jungle is virtually impenetrable:²⁴ a

²¹A. Bergson, 'The Social Welfare Function', in *Readings in Economic Analysis*, Cambridge University Press, 1950, reproducing the pioneering article of 1938: "A Reformulation of Certain Aspects of Welfare Economics", originally published in *Quarterly Journal of Economics*, Cambridge, Mass., 1938.

²²B. B. Seligman, *op. cit.*, p. 427.

²³P. A. Samuelson, *op. cit.*, p. 220.

²⁴The interested reader can consult bibliographies which resemble telephone directories or enjoy works such as J. de V. Graaf, *Theoretical Welfare Economics* (1957).

whole lifetime would not suffice to clear it²⁵ Blaug says that "economists abhor a theoretical vacuum as much as nature abhors a physical one, and in economics, as in the other sciences it is true that theories are replaced by better theories, never merely by contradictory facts".²⁶ Paraphrasing freely, we would add that neo-classical economists love a vacuum, because in it they can always find infinite vacuousness.

All this to hide use value, omitting the concept of value which nevertheless continually and stubbornly springs up in neo-classical discourse despite the repeated reformulation hypotheses of the measurability and interpersonal comparability of utility.

How do the neo-classical economists evaluate the results they have achieved in the jungle of the new welfare economics? Do they think they had their moment of glory, when Political Economy was reduced to the Theory of Economic Policy? Can economics, using its own methods, indicate goals which are entirely free of axiological contamination, as well as means to attain them? Has economics borne its brainchild, a general method to elucidate policy, thus bringing it out of a pre-scientific stage? Has the new welfare economics succeeded in constructing economic policy as a science of precepts for the rational direction and development of the economy, as Menger proposed?²⁷

I believe that the neo-classical enthusiasm for welfare economics has passed through a cycle. In its initial phase of prosperity the most ambitious proposals were made and it was believed that that reduction would be feasible; then came a phase of depression, when despite greater formal elegance there was a basic distrust and disenchantment with regard to the relationship between the vast edifice and its basis in reality. This distrust caused some of the more enthusiastic adherents of welfare gymnastics to desert the ranks (Samuelson is currently numbered among the institution-

²⁵With the secondary restrictive condition of adopting, in the biographic model, the sub-hypothesis of remaining clear-headed.

²⁶M. Blaug, *op. cit.*, p. 605.

²⁷C. Menger, *The Method of Economic Science*, Turin, UTET, 1937, p. 31.

alists; Kaldor has renounced the sins of his youth, etc.). None of this prevents the jungle from continuing to grow, while waiting for a new logical and mathematical refinement which will allow it to blossom even more fulsomely and unrealistically.

Here is what Mrs. Hicks has to say: "Thus the discipline of economics can be divided into two distinct processes. In the first place there exists what we may call the positive sector, the business of which is to describe the economic institutions of the society (for example, the organization of industry) and to analyse the causal sequence of the reactions of these institutions to economic and other stimuli. This part of the discipline may be described as the anatomy and physiology of economics. Secondly, and no less important, comes the normative sector, the business of which is not merely to determine the correct criteria for policy, but also, on the basis of those criteria, to provide a method of selecting the best among a number of possible economic ends, or alternatively, the economically best route for attaining a given non-economic end. Continuing our medical metaphor this section may be said to deal with the preventive and therapeutic sides of economics."²⁸

Mrs. Hicks obviously trusted in the results of the 'new welfare economics' since she describes the 'correct criteria': (i) to achieve the production optimum with a given system of products, it should be impossible, by re-allocating factors, to increase the output of one product without decreasing that of another; and (ii) to achieve the utility optimum to choose among the production optima the set-up which maximizes satisfactions. Utility is maximized when it is impossible to increase the satisfaction (improve the position) of one individual without diminishing the satisfaction of another, after full allowance has been made for compensation".²⁹ Mrs. Hicks shows her intellectual independence from her husband, since on the question of compensation she is closer to Kaldor than to Hicks himself, although she leaves no room for doubt that there are eco-

nomists prepared to 'provide preventive or therapeutic treatment', armed with the ideas of the new welfare economics.

During the phase of prosperity of welfare economics, some neo-classical authors with an unquestionable liberal axiology toyed with what I call "well-behaved reformism". Meade argues that for the monetary and prices system to function equitably, a fair distribution of income and property must be achieved; inequality makes the system not only inequitable but also inefficient, so that a pre-condition for desiring to preserve it is to take the radical measures to ensure a tolerably equitable distribution of income and property.³⁰ Meade is thinking not of a socialist system but of an optimized market economy.

However, starting from the neo-classical matrix and in close connexion with the welfare discourse, a "badly-behaved reformism" may also emerge, well represented by Lange, who criticizes capitalism for its limited efficiency and attempts to show, using welfare arguments, that only in socialism will it be possible to reduce political economy to the theory of economic policy.^{31, 32} Lange says that the maximum satisfaction of needs occurs when the marginal utility of income is the same for all individuals, and when the apportionment of the services of labour between the different occupations is such as to make the differences of the value of the marginal product of labour in the various occupations equal to the differences in the marginal disutility involved in their pursuit. An egalitarian distribution of income ensures the maximum wealth in a society, with the disutility of any occupation represented as opportunity cost, and putting leisure, safety and agreeableness of work into the utility scale of the individual.³³

³⁰J.E. Meade, "Planning and the price mechanism", quoted by Joan Robinson in *Economic Philosophy*, Aldine Publishing Co., Chicago, 1962, p. 125.

³¹Lange's line was explored by many authors: Dickinson, Durin, Taylor, etc. Many neo-classicists, in disarray in the crisis of the 1930s, made an economic demonstration of the rational necessity of socialism.

³²Oscar K. Lange and Fred M. Taylor, *On the Economic Theory of Socialism*, The University of Minnesota Press, Minneapolis, second edition, 1948, pp. 101-102.

³³G. Stavehagen, *Geschichte der Wirtschaftstheorie*, taken from the Spanish version, Buenos Aires, El Ateneo, 1959, p. 331.

²⁸Ursula K. Hicks, *Public Finance*, Cambridge University Press, 1947, p. 117.

²⁹*Ibid.*, p. 122.

In addition, since capitalism does not guarantee perfect competition, in Lange's opinion the welfare ideal price equals marginal cost cannot be achieved in capitalism, but only in a planned socialist economy. Lange, using welfare arguments and neo-classical pathos, rationally proves the advantages of socialism — an awkward proof because it is 'scientific' and has a sound neo-classical basis.

These reformist types of academic welfare discourse, although innocuous in relation to history, produce what I would call neo-classical distrust which (as a second consequence of its ideological function) progressively empties the initial conception of welfare. Thus Little arrives at the conclusion that there is no objective welfare criterion.³⁴ All criteria have some axiology or other: why not recognize that any approach, in the name of the welfare ideal, depends on axiological choices? Arrow is a sceptical neo-classicist as regards the use of the proofs of the new welfare economics.³⁵ The individual can define his level but society cannot do so; and a criterion of collective welfare cannot be reached by starting from individuals. A higher authority can establish the criterion, but there is no scientific guarantee that it will be rational; in fact, with a democratic system the choice of a system by the majority does not guarantee rationality, because the minority is unprotected. Following this line, Arrow developed (*a priori*) a position of intransigent defence of individual freedom, following in the long tradition of von Mises, Hayek, etc...

Others, like Watson, recognize and regret the fact that welfare economics has failed in its objective of building up a corpus of knowledge capable of providing the foundations for a set of principles for sectoral and economic policy, and has not solved the problem of conflicts of interest.³⁶ Statements of this kind

(phase of depression) should be set against Hicks warning (phase of prosperity) that "...economic positivism might easily become an excuse for the shirking of life issues, very conducive to the euthanasia of our science".³⁷

The incredibly affected discourse, the jargon of criteria of verification of meaning borrowed from logical positivism, the language of models and their functional relations, the 'welfare frontier' of output as an application of the mathematical theory of conditioned maxima, the use of set theory, differential equations, first partial derivatives, etc., discrete series and equations of finite differences, input-output analysis, the inclusion of expectation and probability in theory, etc., and feverish intellectual (and publishing) activity, all led to the following assessment by the unexceptionable Robertson: "My own feeling is that though a great deal of high-grade intellectual power has been expended in this field in the last fifteen years, nothing really very important has happened".³⁸ Others, reflecting the position of the 'modest operator' agree with Meynaud that "although these welfare theories claim to replace the empirical motivation of the authorities by criteria for action which are scientifically above reproach the only conclusion we can draw from them is that they have failed".³⁹ Finally, others like the magnanimous Smithies, feel that they have managed to (a) replace the discredited hedonism by a new ethical base; (b) establish the progressiveness of personal income tax; (c) establish the concept of real national income as a measure of material well-being; and (d) affirm belief in the efficiency of choice.⁴⁰

"Diagrammatic Exposition of a Theory of Public Expenditure", *ibid.*, Vol. XXXVII, N.º 4, November 1955; and "Aspects of Public Expenditure Theories", *ibid.*, Vol. XL, N.º 4, November 1958) concluded that it was theoretically impossible to find an optimizing fiscal policy.

³⁷J.R. Hicks, "The Foundations of Welfare Economics", in *The Economic Journal*, London, Vol. XLIX, December 1939.

³⁸D.H. Robertson "A Revolutionist's Handbook" in *The Quarterly Journal Economics*, Vol. LXIV, N.º 1, February 1950.

³⁹J. Meynaud, *op. cit.*, pp. 124-125.

⁴⁰A. Smithies, "Economic welfare and policy", in *Economics and Public Policy*, Washington, The Brookings Institution, 1955.

³⁴I.M.D. Little, *A critique of Welfare Economics*, Oxford University Press, 1950.

³⁵K.J. Arrow, *Social Choice and Individual Values*, New York, Wiley, 1952.

³⁶D.S. Watson, *Economic Policy*, taken from the Spanish edition, Madrid, 1965. For example, with regard to fiscal policy Samuelson in three articles ("The Pure Theory of Public Expenditures", in *The Review of Economics and Statistics*, Vol. XXVI, N.º 4, November 1954;

Those suffering from historiophobia cannot see the facts. If proof is desired of the accuracy and significance of this assertion, the welfare jungle provides it in unmistakable form.

The abysses which vacuousness opens up to its adherents are frankly fathomless. Here are some chosen examples: the old welfare economics showed that, with a given distribution of resources and a given state of technology, a welfare optimum would be reached in conditions of perfect competition. The new welfare economics put forward the opposite argument, i.e., to every welfare optimum there is a situation of perfect competition in each and every market. This two-in-one proof of optima and perfect competition is considered by some welfare neo-classicists as a 'scientific' justification of a historical, antimonopolistic position. Others, like Boulding, who stick closer to reality (having read the works of Robinson, Chamberling, Schumpeter, etc.,) accept that imperfect forms, monopolies and oligopolies, do in fact exist and are useful and efficient for the system (economies of scale, risk control, etc.).

However, intoxicated by their welfare arguments, they suggest that public control should be set up over the operation of enterprises in order to ensure that prices are fixed according to marginal cost. Finally, some, like Graaf, distinguish between potential welfare (as established by theory) and feasible welfare (obtained by taking into account the restrictions stemming from the real situation — the second position described above).⁴¹ Graaf, writing in the 1960s, states that the relationship between the welfare frontier (or point of possible utility) and the efficiency line (position of the alternative welfare positions which can be obtained by redistributive action) should be conceived as follows: the welfare frontier shows the best that can be done — given tastes and methods — in an institutional vacuum; the efficiency line indicates the best that can be done taking into account the prevailing institutional framework.⁴² Graaf

argues that the new welfare economics should be concerned with the comparison of sub-optimal positions: Why the interest in comparing sub-optimal positions? Because in the present world it is extremely unlikely that a society should be situated at its welfare frontier. If external effects did not exist, if the output frontier were independent of the distribution of wealth, and if the relative shapes of the transformation and indifferent curves were 'correct' it would be possible to reach full competitive equilibrium.⁴³

Graaf deplores the real world, because it has overstepped the bounds of welfare economics. Thus the new welfare economics pulls back to the frontiers of the sub-optimal where, like topology — the geometry of geometries and latest mathematical fad —, it will no doubt continue exploring the vacuum's infinite possibilities of emptiness in search of the 'second best'.⁴⁴

What, then, remains of the effort made by the theory of economic policy, apart from the ever-present threat that the jungle will grow ever more tangled? Is there a consolation prize? I think there is:

(a) It succeeded in couching neo-classical economics in an abstruse and awe-inspiring presentation. Apeing science, and with the immense backing of logico-mathematical discourse, use value actually acquired in the eyes of the more ingenuous the appearance of a science, with its intimidating pedagogical attributes (lack of clarity, use of symbols, density, etc.); its adherents thus gained not the wisdom but the trappings of scientists. This is important for official economics.

(b) The heuristic value of its theoretical constructs can always be invoked. Blaug consoles himself by saying: "many economic phenomena have not yet lent themselves to systematic theorizing, and yet economists do not wish to remain silent because of some methodological fiat that real science should consist only of verifiable theorems. A "theory" is not to be condemned merely because it is as yet untestable nor even if it is so framed as

⁴¹J. de V. Graaf, *op. cit.*, p. 81.

⁴²*Ibid.*, p. 81.

⁴³*Ibid.*, p. 80.

⁴⁴Frontiers with hypotheses of finite sets of discrete units admit topological treatment (sic).

to preclude testing provided it draws attention to a significant problem and provides a framework for its discussion from which a testable implication may some day emerge. It cannot be denied that many so-called 'theories' in economics have no substantive content and serve merely as filing systems for organizing empirical information. To demand the removal of all heuristic postulates and theorems in the desire to press the principle of verifiability to the limit is to proscribe further research in many branches of economics".⁴⁵

Here we have a true Pangloss-economist: "all is for the best in the best of all possible theories"; Blang also says that "bad theory is still better than no theory at all". Until the testable implications emerge, the Pangloss-economist, with a maximum of logical and mathematical baggage and accepting, like Samuelson in *Foundations*, the target of proving the existence of "meaningful theories", can always discover in the field of welfare economics (understood as the maximization of input-output relationships) what Seligman has pointed out: "Samuelson found that only trivial results were forthcoming. The conclusion that more production of a good was desirable, or that the same output could be obtained with less input... Equality of income distribution, usually put forth as a condition for optimum welfare, also implied that tastes were alike, etc...".⁴⁶

(c) In a permissive age, it is perfectly admissible to take refuge in omniscience. The old neo-classical economists, with the peace of mind provided by Say's law, could work on their microeconomic abstractions assuming "*ceteris paribus*" conditions. The new neo-classicists, driven up to the macroeconomic level and suffering from vertigo, find an escape route in epistemology which Graaf honestly admits to using — 'an explanatory resource which we shall use occasionally (...) consists in assuming the existence of an omniscient person (the observer-economist) who possesses as much information as we may need concerning tastes and methods, the future and

anything else. This procedure, which not even the most recalcitrant subjectivists would apply in a general manner, does have its advantages. It will enable us to be absolutely sure that the information thus obtained is *correct*, a privilege which the members of the community under study will lack'.⁴⁷ (The heuristic value likewise applies to economists.)

We have not managed to make a clearing in the thickest part of the jungle; the technical jargon and idioms exhaust us and we are completely disheartened by this elaboration of heuristic theories of economic policy which expand the principle of heuristic value until it embraces the author himself. We lack the necessary energy to do so; but we must now take stock of the neo-classical position on the theory of economic policy:

(a) The neo-classicists repeated *urbi et orbi* the excellence of the system of perfect competition. They demonstrated this *ad nauseam*. Using a thousand variations, they progressed from thence to reality. Some ignored it and shut themselves up in their scientific shells; these deserve careful malacological study. Others attempted to reform reality and bring it more into line with the ideal; they called this the theory of economic policy. Others admitted that reality could provide a scale of values arbitrarily fixed by the State or the élites or even democratically. For some, this problem gave grounds for fear, because of minorities. Thus, they progressed towards the most elementary ideological level, becoming propagandists and defenders of the principles of free enterprise, respect for tradition and heaven knows what else. Some became neo-classical socialists, like Oskar Lange. And a whole host of them remain in the jungle, trying to clear it according to the fashion of the moment (which for the time being is topology).

In the final analysis, the concept of welfare is so attractive, so unifying, that it can polarize economic policy in its entirety. Using an aggregate welfare function, society can be organized and made to advance. The concept makes it possible to bypass the system of

⁴⁵M. Blaug, *Economic theory in retrospect*, Richard D. Irwin Inc., Homewood, Illinois, 1962, p. 606.

⁴⁶B. Seligman, *op. cit.*, p. 428.

⁴⁷J. de V. Graaf, *op. cit.*, pp. 12-13.

economic value judgements of the individual, of social groups and of society. How can it be possible to renounce the theory of economic policy? It must exist in some way; but let us proceed.

(b) They all reject history, they are all historiophobic. They all agree on this: positivists, neo-positivists, neo-neo-positivists, etc. This option has been closed: they are on the side of science.

(c) With regard to institutions, they have two positions: they ignore them as a category, being contaminated by historicism; but they accept and serve them with their science. Hence the poverty of their view of the State, dealt with as a subject in theory, neglected in most models, viewed as the payee/payer in the special fiscal part of their science; but also a boss they have to serve.

I call writers on economic policy who take refuge in the naive transposition of Robbins' formula 'modest operators', while reserving the label of neo-positivists for the toiling authors of welfare economics. This classification might be questioned on the grounds that the dominant feature of positivism is respect for facts. I would answer this objection by saying that its main features appear to me to be historiophobia and the claim to atemporal, universal knowledge. Using this knowledge their main aspiration is to advise mankind and society. This was the supreme desire of the inquiry into welfare, hence the name. I think that formalism is a corollary of historiophobia; and also that this has never inhibited the positivists.

In the field of economic policy, neo-positivism has adopted an idealistic stance towards hypertrophied economics, which contrast with the pragmatism of the 'modest operator'. Inasmuch as the existence of policy is based on the dissent stemming from social differences and the diversity of the real situations in which the economic policy agents find themselves, the 'modest operator', who recognizes the existence of the conflict, renounces the arbitration of ends and takes refuge in what he considers neutral territory: means. The neo-positivist is more ambitious. Science can and should identify the ends of economic policy, making use of its own specific

processes. The indication of both ends and means should be based on rational scientific knowledge.

What the 'modest operator' leaves to political arbitration —refusing to underpin it with theories— becomes for the neo-positivist a responsibility of his science. Welfare economics, by establishing the primacy of theory over economic policy, admits implicitly (or at least I have never seen it spelled out) that dissent is inherently and logically tantamount to ignorance. Choice based on power is considered a pre-scientific procedure, in which the disagreement which gives rise to the choice —the arbitration of the authorities— stems from the lack or shortcomings of scientific understanding. Welfare economics relegates the political process to a pre-scientific stage. Conflict in the world stems from the dissent which originates in the lack of scientific knowledge; it is not the product of differentiated and differently-placed classes, groups and individuals with opposing interests. Welfare economics thus reclaims the idealistic torch of the science which set out to bring peace to the world by revealing and propagating *urbi et orbi* its universal truths and values as unifying goals. Welfare economics set out to catechize the whole world.

The scanty results achieved by its prodigious labour did not dishearten official economics in its catechistic calling. To use science in order to set up a screen to hide conflict, surpass the political process and pacify the masses continued to be an objective for many scientific minds. Today, in its new guise of planning, 'official economics' reemphasizes its catechistic vocation with renewed faith. The search for a method by which a vastly enlarged State can carry out its many complex economic policy activities as a coherent, compatible and congruent whole covers up previous failures with a new jargon. The planners will firmly plant the banner of welfare —praised be their persistence.

Both the 'modest operator' and the neo-positivist offer their services to the State. The 'modest operator' offers the optimum means for the power system, and the neo-positivist offers his understanding of the optimum ends for society as whole. Once in possession of

this knowledge, the State can embark on the right economic policy either for the power system or for society as a whole. Neither position concerns itself with the social or political viability of its recommendations. The modest operator thinks this is 'none of his business'; and the neo-positivist trusts that

"sooner or later salvation will be sought in knowledge". Since they do not take account of the problem of feasibility, their recommendations are tinged with a naïveté and unrealism which undermine their efforts. However, this is not the place to discuss this question.

V

The 'black box' of lost illusions

"Mr. Ga had been such a diligent, obedient and long-standing patient of Dr. Therapeutics' that now he was reduced to a single foot. One after another his teeth had been extracted and his tonsils, stomach, one kidney, one lung, spleen and colon removed; and now Mr. Ga's valet arrived, sent by Mr. Ga to call doctor Therapeutics to examine his foot. Dr. Therapeutics carefully examined the foot and, "gravely shaking his head", decided: the foot is too big, no wonder he does not feel well; I will draw the cut the surgeon should make."

(Macedonio Fernández)*

The development of neo-classical thought has always been limited by an ambition and a phobia. The ambition was and will continue to be the construction of a general theory, understood as the deduction of universal, verifiable propositions obtained from the statement or revelation of specific explanatory principles. As these explanatory principles are not immediately given, it is the business of science to bring them to light through a painstaking process of reflection. In addition, since economics is an empirical science, the theoretical construct must be tested empirically in the light of apparent reality. Once the theory has been obtained, precepts about the ends and means of individual and collective behaviour, or in other words the theory of economic policy, can be derived from it. The reduction of political economy to the theory of economic

policy has always been the goal of neo-classical thought.

Marchal states this ambition very precisely: "the efforts currently being made foreshadow the day when political economy will once again be what it originally was: an art, yet without ceasing to be a science; but no longer an empirical art, as in mercantilist days, but an art based on scientific principles and viewed as an application of scientific discoveries... at the conclusion of this evolution, economics becomes genuine political economy, well deserving the name that Montchrétien gave it".⁴⁸

We have already met the phobia — recognition of the primacy of history seems to the positivist a negation of the possibility of theory, a veto on science, and a threat to the dignity of the greybeard.

The development of neo-classical discourse is dramatic. It is lacerated by the drama of the incompatibility between its two self-imposed callings as 'official economics': on the one hand, with the dignity of scientific objectivity, to state in scientific language a set of premises defending the *status quo*; and on the other, to understand the real world so as to create the operational capacity within the system to make it efficient, thus responding to the economic policy problems of the dominant

*From "A diminishing patient", in *Papeles de Recienvenido*.

⁴⁸See A. Marchal, *Méthode scientifique et sciences économiques*, taken from the Spanish translation by Constantino Dimitriu, ed. El Ateneo, Buenos Aires, 1957, p. 6. A more radical presentation of this ambition is given in L. Rogin, *The Meaning and Validity of Economic Theory*, New York, 1956, who argues that the objective meaning of a specific economic theory lies in its recommendations applied to the field of practical policy.

interests in the system it serves. The drama arises —through a theoretical ascesis— from the need to transcend history while at the same time necessarily steeping itself in it. Which of the two missions should it fulfil? Answer: both. How can they be reconciled? a difficult problem: many solutions are possible, but none brings peace of mind.

It is not that the “historicists” shake the positivist’s convictions. He looks with contempt upon their criticism, which in his opinion stems from a pre-scientific stage. His restlessness is due to the comments of his peers — each conciliatory solution hit upon by one positivist provokes methodological comments from other positivists; it is in the scientific community and the academic world that consensus cannot be achieved.

What answer, then, can be given to these questions when they are asked by the powerful themselves? What answer could be given to Robert Kennedy when he stated in 1968: “the gross national product does not take into account the health of our young people, the quality of their education or the happiness of their play. It does not include the beauty of our poetry nor the solidity of our marriage institution, nor the intelligence of our public debate, nor the integrity of our government officials. It does not measure our cleverness or our courage, our wisdom or our education, our compassion or our devotion to our country. It measures everything, in fact, except what makes life worth living”. Even if he refuses to answer such suspiciously pharisaical questions, other issues cannot be sidestepped: how to tackle unemployment? Inflation? The drop in the volume of profits? Declining investment opportunities? The changing structure of international trade and the international monetary system, etc.? (These are questions which certainly refer to meaningful problems in the system within concrete temporal and spatial historical parameters.)

How can these questions be answered while maintaining the universal and ahistorical nature of theory, with its scientific objectivity? To adopt operational pragmatism may be dangerously dysfunctional: it makes the theory unable to prove that the system is rational, sound, necessary, eternal. Only by means of

a universal theory can science give a single reply to these two kinds of questions.

Hence the drama. This is where the sages get their beards in a tangle. And who is responsible? Answer: history. Capitalism does not stop, it changes and evolves as it progresses. In developing it questions ‘official economics’ with increasing urgency while at the same time it wears away the bases of neo-classical ideology. In its advanced stage, capitalism increases its operational requirements, and as it develops it grows further and further apart from the ideal archetype constructed by neo-classicism to justify it scientifically. And at the same time the system clamours insistently for a new apologetics. This increasingly dramatic dilemma facing ‘official economics’ has led it along the most extraordinary paths.

We shall attempt to follow some of these routes, although without any claim to covering all the thousand and one variants.

We have already seen one path, namely, the radical apriorism of Robbins. “Economic laws describe inevitable implications. If the data they postulate are given, then the consequences they predict necessarily follow... If, in a given situation, the facts are of a certain order, we are warranted in deducing with complete certainty that other facts which it enables us to describe are also present ... Granted the correspondence of its original assumptions and the facts, its conclusions are inevitable and inescapable.”⁴⁹ Axioms chosen: those of neo-classicism. This route strikes the positive mind as metaphysical; using apriorism and deductivism, Robbins situates economics as a formal, and no longer an empirical, science.

Let us find another way out. The theory of science and the modern tendencies of logical positivism, in its research into language and the scientific process, may perhaps be brought into service. This path looks promising to the neo-classicists. (At any rate they have started along it, although without arriving anywhere.) From theory viewed as a true explanation of

⁴⁹L. Robbins, *An Essay on the Nature and Significance of Economic Science*, London, MacMillan, 2nd. ed., 1935, pp. 121-122.

the facts or a description of reality, one can arrive at theory viewed as a useful and convenient symbolism, thus attributing it a purely operational function. It is possible to remain at the level of the study of the structure of theory. Laws, in the sense of the necessity of a group of facts empirically proved to possess regularity (a proof carried out by induction in order to pass from the phenomenon to the law) may be accepted as an arbitrary (Le Roy) and operational convention (as a rule for the construction of empirical propositions - Machi). From law to hypothesis. The concept of probability contains incredible possibilities; it is possible to pass from causal laws to statistical laws; interest in the logical structure of economics can be taken to an extreme, with a search for analogies with astronomy, physics and biology, or with forms of engineering or —better still— with mathematics. The neo-classical construct is put together over and over again using all these different approaches.⁵⁰

From the methodological standpoint, neo-classicism has over the last few decades adopted a number of different logical and mathematical methods, each of which leads to what has been described as follows by an analyst who is above suspicion: "During the last quarter of a century powerful mathematical techniques, notably set theory, linear algebra, and topology have been employed in economics at an increasing pace ... the advocates and users of mathematical techniques are convinced, in

general, either that these techniques have already led to the solution of key problems in the discipline of economics (say, for instance, allocation of resources in a competitive economy), or that they may be expected soon to contribute significantly to the solution of important problems of economics as a social and policy science".⁵¹ The unrealism of the neo-classical efforts along a particular line always comes up against the criticism of other neo-classicists.

This tendency was noted by Wiener, the mathematician. Very few economists are aware that if mathematical economics wishes to imitate the procedures and not merely the appearance of modern physics, it should begin with a critical review of its quantitative notions and the instruments adopted to grasp and measure them. Wiener argues that technical and social changes (an open-ended historical process) mean that the economic game is one whose rules are subject to major overhauls every ten years, say, and in such circumstances to assign a meaning to the essentially vague quantities in order to give them a precise value is neither useful nor honest, and any attempt to apply a precise formulation to those carelessly defined quantities is a fraud and a waste of time. Wiener finds the spectacle of "official economic science" pathetic, and argues that the success of mathematical physics made the social scientist jealous of its power, but without a clear understanding of the intellectual attitudes which contributed to that power. The use of mathematical formulation has gone hand-in-hand with the development of the natural sciences and has become fashionable in the social sciences. Just as primitive peoples adopted Western fashions of non-national dress and of parliamentarianism, imbued with a vague feeling that these magical rites and vestments might finally bring them up with modern culture and technology, the economists have developed the habit of dressing up their very vague ideas in the language of infinitesimal calculus.⁵²

⁵⁰The interested reader is recommended to peruse the following: T.W. Hutchison, "The Significance and Basic Postulates of Economic Theory" (1938); F. Machlup, "The Problem of Verification in Economics" (1956); M. Friedman, *Essays in Positive Economics*, Chicago, The University of Chicago Press, 1953; T.C. Koopmans, *Three Essays on the State of Economic Science*, New York, McGraw Hill Book Co., 1957; E. Rotwein, "On the Methodology of Positive Economics", in *The Quarterly Journal of Economics*, vol. LXXIII, 1959; D.F. Gordon, "Operational Propositions in Economic Theory" (1955); E. Klappholz and J. Agassi, "Methodological Prescriptions in Economics", in *Economica*, London, XXXIX, New Series, vol. XXVI, N.º 101, February 1959; S. Shoeffler, "The Failures of Economics: A diagnostic Study" (1955); J. Buttrick, "Towards a Theory of Economic Growth: The Neo-classical Contribution", Noselitz *et. al.*, (ed.), in *Theories of Economic Growth*, The Free Press of Glencoe, 1960; A.G. Papandreou, *Economics as a Science*, New York, Lippincott, 1958.

⁵¹A. G. Papandreou, *Economics as a Science*, *op. cit.*, p. V.

⁵²N. Wiener, *God and Golem Inc.*, taken from *Dios y Golem S.A.*, Spanish translation by Javier Alejo, Mexico City, Siglo XXI, ed., 1967, p. 96.

In 1947, in *Foundations*, Samuelson set out to rectify the neo-classical theorems by correcting what he felt to be a basic methodological error on the part of his predecessors: "only the smallest fraction of economic writings, theoretical and applied, has been concerned with the derivation of *operationally meaningful* theorems. In part at least this has been the result of bad methodological preconceptions that economic laws deduced from *a priori* assumptions possessed rigor and validity independently of any empirical human behaviour".⁵³ Samuelson criticized his 'elders' because they worked with axioms, non-testable propositions obtained by intuition and 'proved' by their self-evidence. Samuelson does not believe that the neo-classical axioms can be considered genuine and worthy of scientific acceptance as long as they are not expressed in a meaningful propositional language. The meaning of a proposition amounts to its verification. Thus, propositions about facts are what should be studied. In *Foundations* he attempted to couch neo-classicism in meaningful language which would make possible the application of the verification principle, and in logical positivist terms, apply the verification principle to all neo-classical propositions in order to separate the wheat from the chaff, winnowing out a scientific residue —meaningful propositions— from the non-verifiable propositions, i.e., those which are not operationally meaningful. On these grounds he rejects, for example, the Hicksian indifference curve and accepts the theory of revealed consumer's preference. Hicks does not put forward a meaningful theorem.

Some neo-classicists feel that this is true of most contributions: "The endogenous variables manipulated in neo-classical models were frequently incapable of being observed, even in principle. But this was perfectly defensible in view of the heuristic function of 'as if' theorizing. Unfortunately, most of the theorems which emerged from the analysis likewise failed to be empirically meaningful".⁵⁴

Samuelson's purpose in *Foundations* was that neo-classicism should furnish mathemati-

cal statistics with a content of meaningful propositions which would allow the econometrician to carry out verification tests. We shall see what econometrics has to say at a later stage; for the time being it should be borne in mind that Samuelson, in the name of neo-empiricism was opening neo-classicism's path to the 'black box'.

With the proposed application of the verification principle to economics, the drama referred to above became (excuse the redundancy) "dramatically" evident. Economics possesses facts provided by history; it rejects axioms in order to seek laws based on real interrelationships; neo-classical thought is thus directed towards the singular and the specific. What it gains in operational terms it loses in its apologetic-ideological function. How can this wretched problem of reconciling the two be solved?

One line of approach is what I call the "honest admission of ideology". There is a long tradition of authors who admit the primacy of ideology. In 1934 Cohen stated: "All those who claim to be indifferent to any consideration about what is fair and what is unfair are in fact making a judgement about what is fair and what is unfair, implicitly if not openly; and those judgements are not better merely because they have never been subjected to explicit critical inspection".⁵⁵

In 1933, Myrdal argued, along the same lines that "this implicit belief in the existence of a body of scientific knowledge acquired independently of all valuations is, as I now see it, naive empiricism. Facts do not organize themselves into concepts and theories just by being looked at; indeed, except within the framework of concepts and theories, there are no scientific facts but only chaos. There is an inescapable *a priori* element in all scientific work."⁵⁶ And he continues: "Nearly all the general terms current in political economy, and in the social sciences generally, have two meanings: one in the sphere of 'what is', and

⁵³P. Samuelson, *op. cit.*, p. 3.

⁵⁴M. Blaug, *op. cit.*, p. 610.

⁵⁵H. R. Cohen and E. Nagel, *An Introduction to Logic and Scientific Method*, New York, Harcourt, Brase & Co., 1934.

⁵⁶G. Myrdal, *The Political Element in the Development of Economic Theory*, London, Routledge & Kegan Paul, 1953, p. VII.

another in the sphere of 'what ought to be'. The word 'principle', for instance, means, on the one hand, 'theory', or 'basis of a theory', or 'working hypotheses within a theory'... But the word 'principle' may also mean an 'aim of conscious striving' or 'chief means for attaining a postulated end' or a 'general rule of action'. The dual meaning of our terms is not accidental: it is the expression of the normative-teleological way of thinking, traditional in the social sciences and, indeed, programmatic in the philosophy of natural law on which they were founded".⁵⁷

Our old acquaintance Di Fenizio also has something to say on this subject: "the methodological precept that the scientist should completely eliminate value judgements from his research in the field of political economy turned out to be an unattainably distant ideal which could doubtfully be achieved".⁵⁸

Robinson follows the same line, inspired by Myrdal's *An International Economy*: "In the midst of all the confusion (of economic theory) there is one solid unchanging lump of ideology that we take so much for granted that it is rarely noticed — that is, nationalism".⁵⁹

Finally, to close this selection of quotations of the 'honest admission of ideology', here is the most honest of them all, C. Wright Mills in a posthumous work on political science where, in my opinion, political economy can be substituted for political science in his discourse: I have always tried to be objective, he wrote, but I do not claim to be disinterested. No political philosopher can be disinterested; he can only presume to be, and I have written this book partly as a political philosopher, which only means: like someone searching, along with his reader, for political guidance. Consequently, I shall try to be explicit about my own political and moral judgements...

First and foremost, a political philosophy is in itself a social reality; it is ideology in terms of which certain institutions and practices are justified and others attacked; it provides the language in which demands are couched, criticism made, exhortations stated, proclamations

formulated and in some cases, political lines determined.

Second, it is an ethics, and articulation of ideals, which at various levels of generality and refinement is used in judging men, events and movements, and as targets and guiding criteria for aspirations and policies.

Third, a political philosophy designates agents of action, and of means of reform, revolution or conservation. It contains strategies and programmes which embody those means and ends. In short, it designates the instruments by which the ideals may be achieved or maintained after having being achieved.

Fourth, it contains theories about man, society and history, or at least assumptions about the composition and working of society; about what are considered to be its most important elements and how they are typically related; their main points of conflict and how those conflicts can be resolved. It suggests the methods of study best suited to its theories. From those theories and with those methods, expectations are derived. A political philosophy tells us how to discover where we are and where we may be heading; it gives us some answers to these questions; it prepares us of possible futures. Thus in examining any political philosophy we should examine it as an ideology, as a statement of ideals, as a designation of an agent or agencies, and as a set of social theories.⁶⁰

Needless to say, although in every generation of economists there are some who state their ideological position clearly and honestly, 'official economics' tends to turn a deaf ear to these frank, extemporaneous confessions. The reasons are clear: while on the one hand it allows a libertarian ideological festival to be held in its name, by attaching value to free enterprise, initiative, etc., à la Hayek, it has the disadvantage of opening the door to proposals for radical reforms and transforming the sacred territory of science into a "vulgar political arena" where ideologies confront each other. The effort to avoid this vulgar tumult gives rise to neologisms such as protopostulates, guiding hypotheses, controllable value judgements, or

⁵⁷*Ibid.*, pp. 19-20.

⁵⁸F. Di Fenizio, *op. cit.*

⁵⁹Joan Robinson, *op. cit.*, p. 124.

⁶⁰C. Wright Mills, *The Marxists*, taken from the Spanish translation by José Luis González, Mexico City, ed. Era, 1964, pp. 3 and 4.

the proposal that value judgements should be treated scientifically and objectively using the rules of scientific procedure. This path leads to the ultra-rarefied atmosphere of metaphysics disguised as a general theory of science.

Another rejected route is the relativism of the sociology of knowledge. This position considers every theory as an expression and reflection of conditions and problems existing in its historical time. Its standpoint consists in asking: why were these ideas or theories produced? But this approach is too horrible for the positivist scientist. In the first place, because it is too close to the concrete and the historical; and secondly, because it is excessively indiscreet, because to ask the question "why did this occur?" almost immediately prompts another extremely indiscreet question "for whom was such and such an idea or theory produced?". The answers to these questions may be of the following type: in order to rationalize the interests of classes or social groups, or to provide political arguments for someone. The positivist thinker does not feel at all comfortable with this kind of answer; he feels threatened as a scientist when identified with the ideologist.

Against the penetrating insights of the sociology of knowledge, positivism puts up a desperate and brilliant defence. One broad line of defence consists in considering, with Blaug, that until 1870 economics was in a pre-scientific stage, in which ideology was quite clear; since then, however, scientific methods have begun to prevail, aimed towards approaching scientific objectivity throughout the following century. Thus, still according to Blaug, economics tends towards scientific status.⁶¹

This is a very seductive way out, since it views the logico-mathematical juggling act not as a sterile theatrical 'strutting and fretting', but rather as a process of successive approxima-

tions by trial and error to its magnificent status as a science. We should not be surprised, therefore, that most of the adherents of 'official economics' adopt this position: progress towards science (which always raises their spirit for fresh juggling prestidigitation).

A parallel route lies in applying, like Samuelson, the primacy of the principle of verification to those neo-classical arguments which allow the formulation of meaningful theorems. For a generalization to be called scientific, it must be verifiable, i.e., it must be subject to an objective interpersonal control. This position borrows from the theory of science all the semantic baggage of criteria of choice, direct and indirect proof, criteria for the control of results, criteria for the elimination of errors of observation, etc. Broadly speaking, using logico-mathematical formalizations, with an eye on subsequent assistance from mathematical statistics, this position attempts to inaugurate the reign of the principle of verification. Econometrics is brought back into the limelight, but it does not appear to be in good health even when vouched for by one of its most illustrious adherents. "We must face the fact that models using elaborate theoretical and statistical tools and concepts have not done decisively better, in the majority of the available tests, than the most simple-minded and mechanical extrapolation formulae." "We do not know which basic assumptions about the behaviour of the strategic decision-making units are empirically relevant. Until we do, model-building will be a branch of mathematics and logic rather than a powerful tool for an empirical science."⁶²

This creates a restrictive situation. Economics asks mathematics and logic for the road to the truth; but the latter state that without economic theory they cannot reach it. Nevertheless, this restriction may be and is mitigated by the always encouraging prospect of 'progressing towards science'. However trivial the results obtained ("people prefer more or less"), however impotent the reign of the verification

⁶¹M. Blaug, Introduction: "Has economic theory progressed?", and chapter 16, "A Methodological Postscript", in *op. cit.* See also T. W. Hutchison, *A Review of Economic Doctrines, 1870-1929*, Oxford University Press, 1953; and J. A. Schumpeter, *History of Economic Analysis*, New York, 1954, in which economic thought is viewed from the standpoint of this idea of 'progress towards science'. For an intelligent refutation, see R. L. Meek, *Economics and Ideology and Other Essays - Studies in the Development of Economic Thought*, London, Chapman & Hall, 1967.

⁶²T. C. Koopmans, *Three Essays on the State of Economic Science*, New York, McGraw Hill, 1957. The first quotation comes from page 212; the second, from page 209, is a quotation from another famous econometrician, Tobin, who adopts the same position.

principle in economics, this approach resembles a calming ritual. (We are verifying, we are following these procedures, we are scientists; and it is scientific to say that someone prefers something more or less.)

These paths all have two shortcomings: they do not fulfil either of the objectives set for 'official economics'. The first two assert the primacy of ideology; the second two provide very slim operational pickings. As capitalism develops, it becomes more impatient: what answer has my long-winded employee (official positive economics) to my questions? I need operationalism and efficiency within the system and a science which proves quite objectively that I am eternal.

Answers such as "I am ideology" or "I am testing and I shall become a positive science" are not sufficient. Impatient capitalism seems to be demanding more and more insistently that its handmaiden, 'official economics', be objective.

Pushed and pulled, 'official economics' took a great step which I consider fundamental for an understanding of its present state in relation to the theory of economic policy. Let us see what that step was.

In 1938, in *The Significance and Basic Postulates of Economic Theory*, Hutchison introduced the verification principle into 'official economics'. He argued that in the empirical sciences, it was necessary to single out the relevant propositions. Any scientific approach by an empirical science is basically characterized by its attempt to answer a specific 'why' with specific tests. The evidence for and against any particular proposition establishes the status and rank of its admissibility in the field of science.⁶³ We have already seen that Samuelson tried to separate the wheat from the chaff in *Foundations* (1947), by delimiting the field: the statement of a problem is not scientific if it cannot be refuted by the facts. However, 'official economics' found difficulties in testing its propositions. Blaug says that "unfortunately, most of the theorems produced

failed to be empirically meaningful".⁶⁴ It is very difficult to verify the descriptive validity of the assumptions of the 'official economics'. How can this problem be solved?

In 1953, Friedman suggested a brilliant answer: "Viewed as a body of substantive hypotheses, theory is to be judged by its predictive power for the class of phenomena which it is intended to 'explain'"⁶⁵ (*Fiat lux*). Blaug emphasizes that: "Economic theory, since the days of Adam Smith, has stood for a mating of *a priori* assumptions and empirical generalizations in the production of 'theories' or hypotheses that yield predictions about events in the real world. However much the assumptions have involved non-observable variables the deductions have been ultimately related to observable variables because economists have always wanted to 'explain', in the sense of predict, economic phenomena as they actually occur. In other words, economists always regarded the core of their subject as a 'science', in the modern sense of the word."⁶⁶

The meaning of 'prediction' calls for clarification. "The structure of scientific prediction is that of a conditional statement, so that if certain facts occur it is predicted that others will occur. ... Prediction should be distinguished from description and prophecy."⁶⁷ There remains an ambiguity, which Friedman himself recognized in his methodological essay: the assertion that it does not matter how much the premises may be divorced from reality. Seligman summarizes the problem: "The validity of an hypothesis, Friedman contended, had to be judged solely by its predictive powers. Conversely, if a prediction were not contradicted by subsequent events, the initial hypothesis was fully acceptable. That is, direct verification was not essential. Thus, any consideration of the 'realism' of one's assumptions in economic theory became irrelevant. The argument was indeed ingenious; there is no need to examine one's assumptions because in any theory which abstracts from a complex reality they will be so

⁶⁴Quoted *supra*.

⁶⁵M. Friedman, *Essays in positive economics*, op. cit., p. 8.

⁶⁶M. Blaug, op. cit., p. 604.

⁶⁷Enrique Fuentes Quintana, op. cit., p. XI.

⁶³Enrique Fuentes Quintana, "Una introducción", in T. W. Hutchison, *Historia del pensamiento económico, 1870-1929*, op. cit., pp. X-XI.

far removed from real conditions that little information about them will be forthcoming.”⁶⁸

The position outlined above receives powerful methodological support from the neo-positivist doctrine of verification proposed by Professor Popper in *The Logic of Scientific Discovery*. In order to distinguish scientific propositions from non-scientific ones, Popper proposes the test of the possibility of proving their falseness. He assumes the existence of an asymmetry stemming from the logical form of universal statements which, as they are not derived from singular statements, may nevertheless be contradicted by singular statements; Popper asserts that a scientific proposition is refutable (its falseness may be proved), or to be more precise, that the possibility of its being refuted (or its falseness proved) is conceivable. Non-scientific propositions, since they explain nothing, are very probable. Consequently, science does not consist in a collection of observations from which laws and hypotheses can be inferred, but rather in the accumulation of tests for judging whether hypotheses are refutable. A scientific system must be capable of being refuted by experience.

The extent to which Popper's proposal became widespread may be seen by looking through economic analysis textbooks. For example, G. Akley, author of a well-known textbook, says the following: “the economic theorist must first decide (on other grounds) what he considers to be a plausible model ... if the model is capable of statistical testing (and not all models are), the statistician can tell him if it needs to be rejected. However, he can never ‘prove’ it to be ‘the’ correct theory. ... The ‘other grounds’ which determine the plausibility (of a model) to a theorist are presumably its consistency with *a priori* postulates. In the last analysis, these postulates are either (1) the distillation of other empirical tests or observations, often casual rather than systematic; or (2) derived from the assumption of ‘rational behaviour’ and thus tacitly reflecting an empirical observation (more casual than scientific) that men behave ‘rationally’, at least in certain spheres.”⁶⁹

⁶⁸G. Akley, *op. cit.*, p. 336.

⁶⁹G. Akley, *op. cit.*, p. 336.

In a later work, Friedman discusses the double meaning of theory, shedding light on the ambiguity referred to above: “Economic theory, like all theory, may be thought of in two ways. It may be thought of as a language or filing system, or it may be thought of as a series of substantive empirical propositions. With respect to theory in the first meaning, the relevant question to be asked is usefulness, and not rightness or wrongness (...) Economic theory as a set of substantive propositions contains propositions which are, in principle, capable of being tested because they attempt to be predictive. The definition of a demand curve is theory as language. However, the statement that the demand curve slopes downward to the right is theory as a substantive empirical proposition. It has empirically observable consequences, whereas the definition of a demand curve does not.”⁷⁰

Premises which are non-verifiable and divorced from reality, theory as a language or filing system, all this ambiguity is rather discouraging for theory in its role of apologist. Of course there is a clear compensation: it is all very useful operationally or, at least, should be. One step is needed to remove the ambiguity.

For this, let us hear what Papandreou has to say: “By now no one can doubt the outcome of this debate. The ‘realism of assumptions’ point of view has given way to the ‘predictive power’ criterion. Meaningful theory according to this criterion, is theory capable of being refuted by reference to empirical data. More nearly correctly, hypotheses which occur in the theory as theorems must be capable (in principle) of being refuted by reference to empirical evidence. If the predictions incorporated in the hypotheses are not falsified by the empirical evidence, they may be adopted by the theorist—but in a tentative manner—for they are always capable of being refuted by new empirical evidence. It has become customary to call such theorems or hypotheses *operationally meaningful*.”⁷¹

And now we have reached the last step.

⁷⁰M. Friedman, *Price Theory*, Chicago, Aldine Publishing Co., Revised ed., 1962, p. 8.

⁷¹See A. G. Papandreou, *Economics as a Science*, New York, J. B. Lippincott Co., 1958, pp. 6-7.

Papandreou teaches us that economic theorists are primarily concerned with building models, not theories. And models differ from theories in one important respect: in models, the class of phenomena which we are trying to explain—the relevant social space—is not adequately characterized; in a theory, it is. An interesting consequence of this is that the hypotheses which occur in models can only be confirmed by reference to empirical evidence; they can never be refuted by it.⁷²

Let us pause here and examine what we have just heard: the scientific criterion is predictive power. We must compare the model's conclusions, and not its hypotheses, with reality: "A theory cannot be tested by comparing its 'assumptions' directly with 'reality'."⁷³ The corollary of this position is that in a model, the class of phenomena to be explained is not adequately characterized. Thus, the hypotheses in models can be confirmed by empirical verification, although empirical evidence will not serve to refute them. To summarize: any model of any kind will serve or can serve from the moment that the empirical evidence—whatever it may be—confirms it.

All that we have heard leads to a first interpretation. The traditional apriorism of neo-classical apologetics has been rejected and 'official economics' plans to carry out major surgery, opting for operationality with verifiable models, according to the principle of conditional prediction (reality is what is immediately verifiable).

A major step has been taken towards the 'black box' of theoretical instruments or models. Models can be likened to a carpenter's tools. The carpenter (economist) has planes, saws, spikes, hammers, chisels, etc., (models). The carpenter (economist) will do the job he is asked to do—make a chair, table or counter in white pine or jacaranda wood, plain or carved, in the client's office or in his home. The tools (models) he uses will be suited to the job in hand: for sawing, he will use a saw; for drilling, an auger; for hammering, a hammer; for hard wood, a fine saw; for soft wood, a coarse-

toothed saw; for scrolls, a special gouge; and so forth. If the tool (model) is not suited to the job or the wood (specific economic policy need) the carpenter will use a different tool (another model). Using one or more tools (models) he will do the job (economic policy). There are no bad tools; each job calls for a particular tool. However, no carpenter gets rid of the tools he tried to use but which did not serve for a specific job, since he has the forethought to realize that the tool will certainly serve for another job. So the carpenter (economist) carefully packs them away in his tool box (of theoretical instruments). The economist, like the carpenter, with his box of models, tests them against the empirical evidence and uses them when the test proves positive; otherwise he puts them back again in the 'black box', because he may perhaps be able to use them on another occasion (for different empirical tasks). This, then, is science. Braithwaite states that a scientific theory is a deductive system in which certain observable consequences follow from the conjunction of observed facts with the series of basic hypotheses of the system.⁷⁴ This is true in the case of the natural sciences; for the social sciences, read models and, instead of the general theoretical system, a 'black box' of models.

The grand illusion has been shattered. The economist of the 'official economics' is a carpenter. He is not without words of consolation, however. Millikan, at the end of a series of lectures in which he stated the limitations of welfare economics, affirmed his neo-classicism and recognized the need for and limitations of general and partial models, declared: "But I would favour the construction of a great number of simplified models of economic development alternatives, with a view to illustrating the social consequences of different value systems in relation to intermediate goods, output and economic organization. The purpose of such models would not be primarily to guide government policy but rather to stimulate the greatest possible number of individuals to reconsider their targets, values and objectives in the light of a more realistic

⁷²*Ibid.*, pp. 8-9.

⁷³M. Friedman, *Essays in positive economics*, op. cit., p. 41.

⁷⁴R. B. Braithwaite, *Scientific Explanation*, 1953, p. 22.

assessment of all their consequences."⁷⁵ This fine, modest prayer reminds those who are reluctant to become carpenters that their role in the world lies in the 'black box'. Perhaps Millikan remembered that the father of the Saviour of mankind was a carpenter, and that carpentry can be a great calling.

This is so because in our present interpretation 'theorizing' became extremely difficult. Commenting on the Keynesian consumption function, Ackley pinpointed the difficulty: "Given either an empirical or theoretical basis for asserting something about our marginal propensity, we have a useful hypothesis, which, is shown by repeated experience to be valid, might reach the dignity of being called a theory, or even a 'law'. But to be useful (that is, something other than a tautology), a hypothesis, theory, or law must be capable of being proved wrong. One that must always be true, by definition, is worse than useless — worse because it may delude us into thinking we know something when in fact we do not".⁷⁶

Or else (and this is a second interpretation of these methodological efforts) the Friedman-Papandreou discourse makes theorizing something very easy to do, thanks to Papandreou's semantic distinction between theory and model. The model can be refuted — indeed, it must be refutable to avoid being tautologous; and it can be constructed from different theoretical premises, whatever they may be. What is being tested, and must prove its conditional predictive power, is the model and not the theory. In addition, the model need not be thrown out: it may be useful on some other occasion.

This step provides a vast degree of liberty for theory. Its scientific fate no longer depends on tests aimed at verifying premises; that is the model's problem. The model protects the theory. Papandreou's distinction does not diminish theory, but on the contrary adds to its status, potentially and indirectly. The model is only a tool; its purpose is operational. And

theory? Answer: its role lies in apologetics. Theory has been preserved because now it stands aloof from the awkward level of appearance.

Ackley's reading suggests the impossibility of theory. The Chicago school (Knight, Viner, Stigler, Simon, Friedman, etc., the American leaders of neo-traditionalism) has a completely different reading. Here is Seligman talking about Knight: "There has always been a peculiar bifurcation in his writing; on the one hand, economic theory was a pure discipline concerned with drawing inferences from a certain set of *a priori* statements and therefore devoid of history or normative implications, while on the other, economic behaviour was conditioned by custom, institutions and the legal framework. Somehow, the two positions were never reconciled, and, in fact, it was the former that has dominated Knight's whole system of thought."⁷⁷ (Theory: *a priori*; behaviour: what is verified — this is a great formula.) With the split between theory and model, Friedman-Papandreou can in fact propose any *a priori* premise (non-verifiable theoretical level) and operate with any model subject to conditional predictive power (verifiable operational level). Theory as non-verifiable apology (eternal); operation involving models (lower level constructions, which are replaceable and adjustable).

The 'black box' of the economist-carpenter also has room for non-verifiable apologetic premises; and the Chicago school crammed it. "The less economic theory has to do with the real world (with its customs, institutions and legal framework) the better" says Chamberlain: into the 'black box'.⁷⁸ Every family has a reserve of capital (including their working capacity), following Friedman's hypothesis of permanent income: into the 'black box': Savage and Friedman, using the Morgenstern/Neumann game theory, starting from the problem of choice and utility/risk, arrives at the conclusion that marginal utility declines with the class of income, although it increases when

⁷⁵M. Millikan, "A teoria econômica do bem-estar e o desenvolvimento econômico" in *Revista Brasileira de Economia*, Rio de Janeiro, year XII, N.º 4, December 1958, p. 75.

⁷⁶G. Ackley, *op. cit.*, p. 312.

⁷⁷B. Seligman, *op. cit.*, p. 647.

⁷⁸E. H. Chamberlain, *Towards a more general theory of value*, New York, 1957, p. 298.

the family unit rises in the social pyramid: into the 'black box'; and so forth.

The inventiveness of the apologetic theorist no longer has its hands tied by the level of appearance. Theory is apologetics; apologetics is theory. The status of theory can now be reserved for the hypothesis of perfect competition in all markets. Everything that neo-classicism first presented as a proposition concerning human nature is now a theoretical component of a system of ideas of filing. Stigler states that '*homo economicus*' is at the same epistemological level as electrons in modern nuclear physics.⁷⁹ Theory and ideology presented as non-verifiable premises with a subliminal message are not important. (Although if repeated *ad nauseam* they become important.) Lowe concludes maliciously that "... one cannot help sympathizing with Professor Von Mises' conclusion that the science of the market must be treated as a product of pure reason, since its 'theorems are not open to verification or falsification on the ground of experience'".⁸⁰

And what does the boss have to say about the 'black box'? I suspect that he is not satisfied. In the first place, because economics has 'got out of line' by refusing to fill its dual function (apologetic and operational) with the trappings of scientific objectivity stemming from a proven general theory; and secondly, because the 'black box' economist's main tool, econometrics, which is dispensed from verifying the apology, has not made the system work efficiently. Here is Lowe disagreeing with Wiener: "Contrary to much facile criticism, the weak spot of Econometrics is not the statistical technique by which it is best known. What proves the source of embarrassment is the underlying theory, formalized in the so-called structural equations and, above all, in the behaviour equations of the models. As a rule these equations formalize the same rigid patterns of behaviour and oversimplified motivational hypotheses which characterize traditional theorizing generally, and in the nature of the case it cannot be different. How else than by postulating certain universal action directives

and expectations can definite macro-states be inferred from micro-premises? Moreover, the computational work imposes severe limitations on the mathematical form of the critical propositions, and it should not surprise us that the basic hypotheses, which determine among other things the crucial "signs" of the strategic equations, differ little from the conventional wisdom embodied in the classical Law of Supply and Demand.

Thus the boss may be discovering that the 'black box' has stripped one saint without dressing up another. In order to divorce apologetics from operationality within the system, 'official economics' is in fact selling old wine in new bottles in passing off the old neo-classical axioms in its econometric behavioural equations. And by divorcing theory from models, it is ceasing to fulfill its ideological function as an apology for the *status quo*, thus leaving the dominant ideology too much in the open. This hypothesis (that the boss is not satisfied) is based on the revival of welfare economics: and what is the neo-new welfare economics? The 'black box' position with regard to its value is categorical: "Welfare (i.e., non-positive) economics is completely excluded from the discussion", according to Papan-dreou,⁸² who also says that "the discussion is limited to scientific constructions involving *systems* of propositions or statement".⁸³

The 'black box' economists, satisfied with their 'box of tricks', appear to have forgotten Millikan's caution (which was so useful to him in his career) since economic analysis is, in a broad sense, social welfare analysis directly or indirectly aimed at shedding light on economic policy questions. Graaf, speaking in the name of the new-new welfare economics (with its suboptimal frontiers), raises the flag and tries to 'go over the top' by showing the difficulty of the new-new welfare economics: In fact, while in positive economics the normal means of verifying its theory consists in verifying its conclusions, the way in which welfare postulates are normally verified consists in verifying its assumptions. The full scope of this difference should be understood. In positive econom-

⁷⁹G. J. Stigler, *The Theory of Price*, Macmillan & Co., New York, 1946.

⁸⁰See A. Lowe, *op. cit.*, p. 44.

⁸²A. Papan-dreou, *op. cit.*, p. vii.

⁸³*Ibid.*, p. vi.

ics, it is often possible to simplify assumptions as bizarrely as one wishes, trusting that their soundness will be proved when the time comes to apply the implicit conclusions to the observation of the surrounding world. This trust is not justified in welfare economics, whose assumptions must be examined most carefully. Each one has to stand up by itself. We cannot allow ourselves to simplify too much, or hope that two wrong assumptions will neutralize one another, if we wish to reach an acceptable conclusion, and yet these procedures are both common and essential in positive economics; hence the proof of the pudding is in the eating, but to judge the welfare pudding requires so fine a palate that we must test each ingredient before cooking it!⁸⁴

To continue this image from cookery —the boss seems to have tried 'black box' pudding and not found it to his liking, and the new-new welfare economics is asking for time to test the ingredients. And the story goes on; the boss will not die of hunger.

We have reviewed briefly three positions with regard to the theory of economic policy. In what we call the naive Robbinsian transposition, theory centres on the articulation of ends and means. The neo-positivist position, making a massive scholastic effort, attempted to formulate both ends and means within the limits of economics itself. The scanty results and the pressure of reality has led to the third position, the 'black box', where a distinction is drawn between theory and model. Standing aloof from these three positions, and from the active and sometimes bitter controversy among peers, let us try to isolate the elements of their common denominator.

In our opinion, from the standpoint of economic policy the most important element consists in a unilateral view of the State as a subject in economic policy. They all see relation between the State and society as a one-way street, with the State as subject and society as object. The prevailing idea is that of science providing a service to the State: supporting means (Robbinsians), scientifically pronouncing on ends and means (welfare theories), and

supplying tested models ('black box'). With these scientific services at its disposal, the State can directly generate, or enable society to generate, whatever form of results of economic behaviour the State considers desirable. None of these positions views the State as being within society, as both subject and object within the economic policy process. Naturally in the innumerable pages written on the subject there are some references to the contrary. Some authors call attention to customs, interest and institutions; others explicitly speak of pressure groups, extra-economic power relations, etc. But these references —which many authors do not even make— are always tangential to the theory of economic policy, since their conception of the latter does not include restrictions on State actions stemming from its presence within the social fabric. The corollary of this position is an Olympian disregard for the problem of the social and political viability of their economic policy recommendations.

The second common element is the neo-classical outlook underpinning the articulation of these three positions. Robbin's position is the traditional neo-classical one; the great names in welfare economics are all neo-classicists; the members of the Chicago school, responsible for the 'black box', are neo-classicists. The theory of economic policy which emerges from their efforts is, in the last analysis and leaving aside the frills, that of the theoretical and practical perfectibility of an economy organized under the assumptions of perfect competition in all markets, where the micro-economic agents are guided by the 'extremum principle', to use Lowe's expression. The form in which the neo-classical view was transposed to the theory of economic policy varies, as we have seen, according to the position adopted. For Robbins, it lies in the common sense on which his radical apriorism is based; for the welfare theorists, in the behavioural premises about agents taken into account in the construction of their system of equations, and in their criteria for identifying optima; and for the 'black box' theorists, in the ingenious premises of their models and the dignity of theory *qua* theory.

Finally, it is worth pointing out that the arguments of the three positions possess in-

⁸⁴J. de V. Graaf, *op. cit.*, p. 3.

ternal 'fractures'. Robbins did not think of the transpositions which would change his theory into the praxiology of the 'modest operator' in any system; the welfare neo-classicists are irritated by the marginalist socialism and the radical reformism which can be derived discursively from their theories; the 'black box' economists are as frightened as the different kinds of post-keynesians at building models for a vastly enlarged State. What is oddest about

the neo-classical effort to build a theory of economic policy is this boomerang effect of its constructions. Someone always turns the chosen formula on its head in order to place it at the service of economic policy views which run counter to the liberal view. And what is most ironical is that "someone" is very often an academic turncoat who was brought up in the typical neo-classical tradition.

Some CEPAL Publications

The economic and social development and external economic relations of Latin America, E/CEPAL/1061, mimeographed version in two volumes, Santiago, Chile, 1979, 381 pages.

The representative of the Latin American governments meet every two years to evaluate the progress made by their countries in terms of the objective established in the International Development Strategy. In accordance with United Nations General Assembly resolutions and in order to facilitate the governments' task, the CEPAL secretariat prepares reports on the economic and social situation in the region; this is the main such report—the fourth of this type prepared in the decade—and it bears the same title as that issued in 1977 (E/CEPAL/1024).

At this time, as the end of the present decade approaches and the United Nations activities on the technical and political levels aimed at defining the guidelines for the establishment of a new International Development Strategy for the next decade are stepped up, it is even more timely and interesting to examine and appraise the nature and scope of the process of economic and social development taking place in the region, especially as regards the various aspects and problems of Latin America's external economic relations. This is particularly important because CEPAL must contribute, through its ideas and proposals, to the debate which has already begun in order that the new Strategy may represent an effective programme of international action to promote the development of the peripheral countries, incorporating issues and objectives which may be of special interest for Latin America.

It therefore seems desirable to place this appraisal within the context of a long-term analysis in order to make it possible to illustrate and understand more precisely the profound changes recorded in the Latin American economy and society and in the place of the region in the international economy.

The first volume examines economic development from both a global and a sectoral point of view, social development, and income distribution; while the second deals with some key issues in international economic relations such as protectionism in the developed countries, the integrated programme for commodities, external financing and monetary problems, and regional co-operation.

Contabilidad nacional a precios constantes en América Latina, by Alberto Fracchia. Cuadernos de la CEPAL series, N.º 24, Santiago, Chile, 1978, 59 pages.

National accounts statistics are facing a growing demand for more detailed, reliable and up-to-date estimates of the

increase in volume and price of the various production flows and aggregates and in their use; at the same time they are confronting complex problems in continuing to adapt the basic information, particularly the traditional indexes, to their calculation requirements. Chapter I of this study presents an up-dated description of the availability of national accounts estimates in real terms in the countries of the region, and of related price indexes, and examines their coverage and the criteria and indicators employed. The basic information used, particularly that concerning indexes traditionally prepared for analytical purposes and for the examination of specific aspects of economic trends, is evaluated from that point of view.

Chapter II provides data for the debate on the advantages and characteristics of a co-ordination model. The Statistical Office of the United Nations has prepared a preliminary version of the document *A System of Quantity and Prices Statistics* (ST/ESA/STAT.73), which contains proposals concerning the basic features of a system of price and quantity indexes to complement the System of National Accounts (SNA) and may serve as a model for co-ordinating the traditional and national accounts indexes. Since this is the most comprehensive attempt yet undertaken, it has been considered desirable to include in the first section of chapter II a summary of the general principles and characteristics of the system and of the suggested indexes, as a basis for the discussions. An appendix includes a detailed description of the flows covered by the system. In the second section of chapter II special classifications and sectors are suggested, together with concepts additional to those contained in the project of the Statistical Office. Since these are consistent with particular features of the economies of the region, they could be taken into account in analysing the system's adaptation to these countries.

The third part of the report presents five tables which describe the main traditional indexes of prices and quantities existing in the region: retail prices, wholesale prices, industrial production volume, construction statistic and retail sales.

Ecuador: Desafíos y logros de la política económica en la fase de expansión petrolera. Cuadernos de la CEPAL series, N.º 25, Santiago, Chile, 1979, 153 pages.

The production of petroleum which began on a large scale in 1972 was of vital importance for the development of the Ecuadorian economy since, coupled with the rise in the prices of this fuel at the end of the following year, it brought about an exceptionally large inflow of foreign exchange, compared with the meagre external resources traditionally obtained by this country. Consequently, Ecuador presents the opposite situation to that of the majority of the developing countries, whose insufficient capacity to import is one of the factors most seriously limiting capital formation and economic growth.

The repercussions of these developments on the Ecuadorian economy constitute the central theme of this study, which is divided into four chapters.

Chapter I begins with a picture of the broad features and problems of the Ecuadorian economy before the development of petroleum. This is followed by an analysis

of the main characteristics of the petroleum industry, its contribution to the country in terms of foreign exchange and a larger State income, its distribution and utilization, government policies and possible problems in its future development, to conclude with a brief reference to the main changes observed in Ecuador after the discovery of petroleum.

Chapter II deals with the main benefits which the oil resources have brought in terms of the country's economic and social development. Thus, its external sector has expanded considerably, not only because of petroleum exports but also because of other exportable items and the inflow of capital. The additional State resources have permitted substantial public investment and a considerable expansion of the services provided by government bodies. A large proportion of the income from petroleum has reached the hands of the private sector in the form of subsidies for certain consumption items, lower taxes and credits from government institutions.

As a result of the development of petroleum the rate of economic growth accelerated and the gross domestic product recorded unprecedented rates of expansion. The increase in the manufacturing and construction sectors was particularly marked; agriculture, which had long remained in a backward state, improved its performance between 1973 and 1976, stimulated by fiscal, credit and price incentives, although it declined again in 1977.

Chapter III refers to the pressures and maladjustments caused by the oil boom and other factors, which led to an intensification of the inflationary process to a point previously unknown in Ecuador. The magnitude of the process, the effects of imported inflation and the pressures exerted by costs are then analysed; the changes in global demand and monetary aggregates are examined here, and inflation is considered as a reflection of the disparities in the sectoral growth of the economy.

The policies implemented by the authorities to contain and reduce inflation are dealt with in detail; the main distortions caused by the inflationary process, particularly in interest and exchange rates and certain key prices, are also described.

Chapter IV contains a global appraisal of policies and future prospects. First, the results achieved in the period 1973-1977 are compared with the goals of the Economic Change and Development Plan adopted at the end of 1972. Secondly, optional policies are analysed *vis-à-vis* the main problems faced by the Ecuadorian economy, with special reference to the type of economic development observed and the role played in it by the public sector; the need to strengthen the external sector; industrial and agricultural development prospects; and the distribution of income. Finally, a brief account is given of the main investment projects proposed by the Government for the next few years.

Políticas de promoción de exportaciones, E/CEPAL/1046, Santiago, Chile 1978, vols. III, IV, V and VI, with 110, 201, 151 and 105 pages, respectively.

Publication of the volumes for the meeting on export promotion policy organized by CEPAL, UNDP and the World Bank in Santiago, Chile, at the end of 1976 continued throughout 1978. The purpose of all the studies included in these volumes was to answer from the standpoint of different theoretical perspectives and national situations some key questions deriving from the experience gained in this field, both inside and outside the region.

Should import substitution and exports of manufactures be considered as mutually excluding alternatives or as complementary elements of a development policy for the Latin American countries in the next few quinquennia? Is specialization compatible with the achievement of a diversified structure of exports? What criteria should be used to select the goods on which the export efforts of the Latin American countries will be centred? (A more detailed analysis of the general objective of the studies may be found in *CEPAL Review* N.º 5, first half of 1978, pages 231-232.)

The following studies have been published to date:

- Vol. I Summaries and comments on all the documents.
- Vol. II 1) Latin American exports of manufactures: experiences and problems, by Angel Monti.
2) Exports in the new international scenario: the case of Latin America, by Barend A. de Vries.
- Vol. III 1) Export incentives and trends in developing countries: comparative analysis, by Bela Balassa.
2) Export promotion policy in developing countries, by Ricardo Ffrench-Davis and José Piñera.
- Vol. IV Argentina's exports of manufactures, by Angel Monti.
- Vol. V Policy governing the development of exports of manufactures in Brazil, by Héctor A. García.
- Vol. VI Colombia's export promotion policy, by Ricardo Ffrench-Davis and José Piñera.

Energy in Latin America: The historical record and World oil prices: Prospects and implications for energy policy-makers in Latin America's oil-deficit countries, by Joseph Mullen. Cuadernos de la CEPAL series, Santiago, Chile, 1978, 66 and 79 pages, respectively.

Towards the end of 1978, Joseph Mullen, of the CEPAL Natural Resources and Environment Division, published two studies on economic problems in the field of energy.

The first study—*Energy in Latin America*—describes the pattern of growth and change in Latin America's energy industries over the past quarter of a century. The study opens with a discussion of the region's energy situation, and goes on to analyse its potential in this field and the growth and change in the major energy industries: oil and natural gas, coal, and electric power.

The second study provides a forecast of the evolution of international oil prices over the rest of the century, and on this basis examines the policy options open to Latin

America's oil-deficit countries. A summarized version of this study has already appeared under the title "A forecast of world oil prices" in *CEPAL Review* N.º 6, second half of 1978.

Bibliografía analítica sobre documentos menos diseminados producidos por agencias de integración de América Latina y el Caribe, 1970-1978, CEPAL/CLADES, Santiago, Chile, 1978, 410 pages.

This bibliography, which is the first result of the data base on integration established in CLADES, was conceived as a working instrument for persons and institutions whose activities are connected with the integration process. The purpose of this bibliography is to facilitate a knowledge and control of the integration issues dealt with by regional agencies in their documentation. It comprises about 700 documents, most of which are less disseminated documents. It contains material from eight specialized regional agencies and institutions, including CEPAL, produced between about 1970 and the present time, for whose processing use was made of the ISIS (Integrated Set of Information Systems) System, which was brought into effect by CLADES in 1976. It consists of two parts: the first presents a bibliographic description of each document and a brief summary of its content, followed by a sequence of terms which express, *inter alia*, the most important concepts, ideas and data of the summary. The second part consists of various indexes whose structure and presentation are intended to facilitate access to the many different aspects of the documentation, from both the physical point of view and that of its content.

Manual for the Use of CLADES Bibliographic Worksheet, CEPAL/CLADES, mimeographed version, Santiago, Chile, 1979, 107 pages.

This *Manual* is intended to standardize the bibliographic description of the various documents entering the CLADES data base and to achieve greater co-operation with institutions of the region wishing to use this system of analysis, by simplifying input operations.

The *Manual* was prepared on the basis of the rules of UNSIST, those of the Canadian International Development Research Centre (IDRC), and the Anglo-American Cataloguing Rules, with a number of essential changes in order to adapt them to CLADES' needs.

The *Manual* comprises five parts. Part One groups all the operations connected with the identification of the entry of the documents to be analysed. These operations precede the bibliographic description of the documents and provide the basis for the decisions which must be taken in this process; Part Two contains a description of the different fields assigned for the recording of the documents to be analysed, with instructions on how to record the entry; Part Three deals with the analysis of the contents of the document; Part Four refers to the fields which make it possible physically to locate the document, the further data needed to acquire it and the name of the data base in which the analysed document will be incorporated; and, finally, Part Five includes the data for internal control by the analysing institution.

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