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## I. INTRODUCTION

1. The present report reviews the activities of the Latin American Planning Seminar, held at the headquarters of the Economic Commission for Latin America (ECLA), Santiago, Chile, from 19 to 24 February 1962, under the auspices of the Organization of American States (OAS), ECLA itself and the Inter-American Development Bank (IDB).
2. The purpose of the meeting was to study and discuss the experience acquired by the Latin American countries in the field of economic and social development planning, with a view to the promotion and intensification of the activities which the Governments have pledged themselves to undertake by virtue of the Charter of Punta del Este. In consideration of the need to put the commitments and objectives of the Charter into practice without delay, the Seminar devoted special attention to the analysis of the most urgent tasks involved in the formulation, preparation and implementation of short-term plans, as well as to some of their most important technical aspects.
3. The proceedings of the Seminar, which was not officially inaugurated, opened on Monday, 19 February 1962, with a statement by Mr. Raúl Prebisch, Under-Secretary of the United Nations in charge of the Economic Commission for Latin America, who expounded in broad outline the problems to be considered and referred to the potential importance of the discussions for the development of Latin America within the framework of the new policy of international co-operation.
4. The Seminar was attended by thirty-seven experts, eight of whom were members of the panel recently appointed by the Inter-American Economic and Social Council (IA-ECOSOC) to evaluate development plans,<sup>1/</sup> twelve were technical experts with wide experience in the work of economic and social planning, fourteen were experts from OAS, ECLA and IDB, and three were specialists from other agencies. The complete list of participants is given in Annex I to the present report.

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<sup>1/</sup> The ninth expert, Mr. Gonzalo Robles, was prevented by illness from attending the Seminar.

5. Observers were sent to the Seminar by the Pan American Sanitary Bureau, the Agency for International Development (AID) of the Government of the United States of America, and the United States Economic Mission in Chile (see Annex I).

6. It should be placed on record that the experts took part in the discussions in a purely personal capacity, and that the views they expressed were based on their own private convictions and opinions and did not necessarily reflect those of the Governments of their countries, or of the institutions they serve.

7. The Seminar elected as Chairman Mr. Raúl Sáez and as Rapporteur Mr. Manuel Noriega Morales. Mr. Benjamín Hopenhayn acted as Secretary to the meeting.

8. The discussions were based on the following agenda, presented here in abridged form.<sup>2/</sup>

I. Basic approach to short-term action

1. What should be the nature of short-term action
2. Requirements implicit in short-term action
3. External requirements
4. Economic and social projects in a short-term plan

II. Content and methodology of short-term plans

1. General frame of reference as a guide to planning
2. The investment programme
3. The economic policy programme

III. Preparation and execution of plans: problems, organization and administrative machinery

1. Administrative organization for the formulation, execution and supervision of plans
2. Role of public investment machinery
3. Problems relating to the preparation of specific investment projects

IV. International technical and financial assistance in the formulation of programmes and projects

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<sup>2/</sup> The full text is given in Annex II.

/9. Although



9. Although the items on the agenda were discussed at the plenary meetings of the Seminar, various working groups had to be appointed to formulate conclusions in connection with specific topics. The findings of these groups are incorporated in summarized form in the substantive part of the present report.
10. In the following pages (drafted by the Rapporteur of the Seminar with the help of the technical personnel of the secretariat), the main ideas expressed at the meeting are reproduced, together with the conclusions reached in the course of the discussions. Apart from the annexes already mentioned (I, containing the list of participants, and II, giving the complete agenda adopted for the discussions at the meeting), annex III comprises the paper entitled Methodological Principles in Short-term Programming, prepared jointly by the OAS and ECLA secretariats for the consultations on economic and social development planning held by the first of the two organizations at Santiago. Lastly, annexes IV to XIII contain the principal documents considered at the Seminar.

## II. MAIN FINDINGS OF THE SEMINAR

11. The present review of the most important findings of the Seminar contains the ideas and opinions expressed in the course of the discussions on the various technical problems implicit in the practical application of the principles underlying the Alliance for Progress, especially in relation to short-term action.
12. The main focus of the Seminar was on an examination of the problem of short-term action, not only because of the urgency of the situation, but also because short-term action may help to launch a long-term planning effort. Moreover, it was in short-term planning that the absence or insufficiency of proper orientation or of practical guidelines was felt the most. It should be made quite clear, however, that in the unanimous opinion of the participants the problems of planning over the short term cannot be approached without reference to the more general and basic problems of long-range planning. In fact, it was suggested that, properly speaking, programmes should not be referred to  
/as short-term

as short-term programmes, but rather as transitional or temporary programmes, since they were, in fact, short-term aspects of long-range programmes or short-term measures to be taken within the framework of long-range programmes.

13. Since the topics discussed were those for which there is insufficient practical experience so far, and no conventional methodological formulae exist, the aim pursued on this occasion was to assemble criteria and guidelines which would contribute to the gradual definition of the most appropriate forms of action and the fundamental ideas on which they might be based. The findings of the Seminar indicate that a high degree of unanimity existed among the participants on most of the topics dealt with.

#### 1. Scope of short-term action

14. It was agreed unanimously that there was a pressing need for energetic promotion of the various measures required to accelerate the development process of the Latin American economies and channel it toward the fulfilment of the economic and social objectives of the Alliance for Progress. This conclusion reflected deep concern on several counts.

15. Eighteen months have gone by since the Act of Bogota was signed (September 1960). Meanwhile, allocations of substantial additional resources to increase international financial co-operation in the solution of the most urgent social and economic problems have been approved or pledged, new agencies have begun their activities, and the work of adapting the pattern of such co-operation to the nature of the problems to be tackled has been started. This has encouraged the Latin American Governments to embark upon or expedite the formulation of economic and social development plans, the preparation and presentation of investment projects, the adoption of practical measures of economic policy and the preparation or introduction of the basic reforms essential for the attainment of the social targets that the countries themselves set at the economic conference at Punta del Este.

/16. Nevertheless,

16. Nevertheless, the participants manifested their concern over the fact that practical action, in general and in each particular case, had not attained a tempo consistent with the pressing demands of the situation prevailing in Latin America. In this connexion, mention was made of the reluctance observable at times on the part of the authorities to make a precise definition of the aims pursued by a development policy and to express them in terms of clear guidelines for the use of economic policy mechanisms, or of measures, in conformity with the particular situation of each country to institute the structural reforms that were needed if the countries were to emerge from situations that were an anachronism, hampering development and preventing income from being more equitably distributed. Special mention was also made of the lack of adequate efforts to mobilize internal resources. On the other hand, attention was drawn to cases in which available resources had not been used because applications, drawn up in the proper manner, had not been submitted to the external financing institutions.

17. The shortage of specific investment projects worked out in detail partly accounted for the fact that the principles of the Alliance for Progress had not yet been applied as generally, or as intensively, as might have been wished. As a result, special attention was devoted to that topic in the course of the discussions, and a number of suggestions were put forward, to which reference will be made in due course.<sup>3/</sup>

18. The system itself of basing action solely on the consideration of individual projects was studied at length.<sup>4/</sup> It was asserted that the maintenance of that procedure exclusively might militate against the effectiveness of immediate action, and that it ought rather to be combined, wherever possible, with the method of aggregate financing on the basis of concrete sectoral, regional, or national plans, since it was difficult under the former system to establish suitable criteria for determining an order of priorities in relation to various undertakings, and to ensure a reasonable degree of compatibility between the action embarked upon and its implications in terms, for example, of fiscal policy, foreign trade and balance of payments. Moreover,

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<sup>3/</sup> See section 8 below.

<sup>4/</sup> For a more detailed discussion of this point, see section 7.

the mode of action prevented accurate evaluation of the total internal effort on which development policy was fundamentally based, and the intensity of which, according to the principles of the Alliance for Progress, largely determined the scale of external aid. It was likewise felt that immediate efforts should be directed toward the more efficient utilization not only of additional external resources, but also of total gross investment, including internal resources. In this connexion, it was pointed out that just as important as the utilization of additional resources - or even more so - were the aggregate investments normally made in the countries and there was a feeling that their effectiveness could be substantially increased in the majority of cases.

19. In short, it was considered essential to make as great an effort as possible to expedite action, a prerequisite for such action being a firm attitude on the part of the Governments, at the highest policy level, to give the efforts maximum backing. It would thereafter be possible to enlist the support and active assistance of the public administration - which in the last analysis was responsible for setting programmes in motion - and of the general public, without whose wholehearted backing of the objectives contemplated the efforts made might be rendered ineffective.

20. Similarly, it was agreed that the immediate action envisaged should take the form of short-term plans that would endeavour to reconcile the need for urgency with considerations of effectiveness, and in which the objectives and basic principles of economic and social policy would be laid down in conjunction with the investment programme and measures to prepare or initiate the reforms required under the Charter of Punta del Este, while at the same time the preparatory work would be undertaken on long-term planning.

## 2. Nature of short-term plans

21. It was remarked at the Seminar that the planning and programming of economic and social development had by no means reached a uniform stage of development in all the Latin American countries. One group of  
/countries had

countries had advanced in the preparation of long or medium-term plans, while others had made little or no progress in that respect. In regard to the former, it was recognized that the task of defining their immediate action was much simpler, since in most cases it consisted of crystallizing contemplated activities in the form of specific projects and in taking economic policy measures within an already established general framework. In other words, the short-term plan would be the medium for putting into practice what were, in effect, the first steps in the execution of longer-term plans.

22. The problem was much more difficult in the case of countries that had not gone ahead sufficiently in that field. It was stressed, however, that even in those cases it was both possible and necessary to prepare short-term plans. That task was regarded as the first move toward the establishment and progressive improvement of a permanent planning process. Reference was made to the problems inherent in that approach because, among other reasons, no sufficient fund of experience had been acquired.

23. At the same time it was asserted that the countries and international bodies engaged in the study of Latin America's problems undoubtedly had a mass of studies and general background information as well as of practical knowledge at their disposal, which could be rapidly systematized so as to furnish a general frame of reference that would be partly qualitative and partly quantitative. On that basis, the salient economic and social problems of each country could be pinpointed and their scope and urgency determined. A frame of reference of that kind would make it possible to define the long-term objectives and development policies that were indispensable as a guide to short-term action.

24. To many of the participants, the distinction between long and short-term plans seemed to be purely formal, the latter being simply the activities that could be undertaken immediately within a long-term development policy. Others, however, pointed out that while they recognized the value of stating the problem in those terms, the conclusion reached would have to be reconciled in each particular instance with the need to take urgent and manifestly justifiable measures without delay.

/25. At

25. At all events, it was deemed essential for short-term plans to be based on an analysis of a country's economic and social situation and of its prospects, although the broad coverage and depth that such a diagnosis ought to have would depend on the background data available. It was pointed out that in some countries little quantitative information was obtainable and that few people were experienced in data processing and analysis, whereas it was often possible to find officials, experts and other personnel who were sufficiently well acquainted with the country, its problems and the relevant aspects of such problems to be able to make a reasonably accurate contribution to an analysis of the situation. Moreover, it was stated that diagnosis - implicit or explicit - was essential to a definition of development policy and should be as extensive as possible, and that efforts should be made to include an analysis - however tentative - of the structural changes that might be necessary.

26. In practice, a number of factors could be found to assist in pinpointing the areas or fields in which short-term action should preferably be concentrated, within the basic approach of a long-term policy. Such factors included investment and measures making for better utilization of resources lying idle or existing production capacity not used to the full, for overcoming production deficits in key sectors of the economy, reducing or eliminating unemployment, easing acute social tensions and lessening external, fiscal and regional disequilibria.

27. In connexion with those factors, it was stressed that short-term plans should not merely comprise those investments and economic policy measures that would give immediate tangible results but should attach equal importance to measures that would take longer to bear fruit but would open up new prospects of future economic expansion and social improvement. It was also stated that one of the most important aspects of short-term plans was that they enabled the groundwork to be laid and the machinery established for long-term planning.

3. Need for national participation in the attainment of  
development targets

28. Some participants were convinced that effective action for economic and social improvement of a sustained and lasting nature consisted essentially in rooting out negative attitudes, restoring efficiency to institutions which had lost it, and replacing or getting rid of outmoded structures. Any action of that kind is liable to come into conflict with vested interests and institutional and other rigidities. Hence its success is conditional from the outset upon securing the solid backing of public opinion.

29. This backing in its turn involves certain claims. To begin with, the aims pursued should be an authentic expression of the hopes and aspirations of the great majority of the population, who should be made to feel from the outset that they are taking part in the process of advancement toward those objectives.

30. As a key factor in the mobilization of public opinion, it was stressed that the private sector should be offered specific incentives to contribute actively toward the achievement of development policy aims. In that respect, mention was made of some of the concrete means that might be utilized, such as facilitating the preparation of projects by means of suitable procedures that, inter alia, would reduce the cost of the requisite studies and research; simplifying administrative formalities so that the incentives in the economic policy programme could be used to advantage; and facilitating research on technological questions, natural resources, organization and other matters that might be of interest to private enterprise, in the field of manufacturing as well as in agriculture and other activities.

4. Economic and social policy and short-term plans

31. It was generally agreed that the fundamental aims of economic and social policy had to be defined for short-term plans as for any other plans.

/32. Apart

32. Apart from the economic and social policy measures associated with the achievement of long-term objectives and necessary structural reforms, immediate investment programmes require the concurrent adoption of certain decisions indispensable for their execution. Such decisions are of course connected with the need for greater mobilization and better channelling of internal resources which often involve changes in taxation and financial policy. In that respect, reference was made to measures tending to restrict non-essential types of consumption - and even investment - and to others designed to encourage the use of internal resources for more important economic and social ends. It was also remarked that the specific projects making up the investment programmes frequently entailed the adoption of practical measures to ensure their feasibility, and that the projects selected should be in keeping with the tenor of economic policy.

33. It was pointed out that the solution of the various problems typical of the present economic situation depended not only on an increase in investment, but also, and in some cases primarily, on changes in existing investment and in the prevailing economic policy. Those problems included external imbalances, insufficient output in particular sectors, unemployment, etc.

34. Special attention was devoted to the fact that the increased volume and new methods of international financial assistance might require changes in the handling of certain instruments of economic policy.<sup>5/</sup> That was because obtaining increased external funds to finance investments whose execution involved expenditure mainly in national currency might lead to the improper or unsatisfactory use of the resources in foreign currency, unless at the same time a sound import policy was pursued or other appropriate precautions were taken. Such would be the case, for example, if external funds were obtained to finance a housing programme and the additional foreign exchange was used wholly or partially to finance the

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<sup>5/</sup> See sections 7 and 8 below.

/importation of



importation of luxury goods. Similarly, the use of external funds to extend the provision of certain public services might call for a tax revenue policy that would ensure the availability of current resources to provide subsequently for the functioning of such services on a permanent basis.

35. As the foregoing observations imply, there must be a unity of purpose in the use of the various instruments of economic policy, which must be in line not only with the general objectives but also with selective measures with respect to particular economic areas, regions, or sectors and with the need to deal constantly with the ad hoc problems that concern national authorities. This requirement tends to prevent contradictions and inconsistencies, and a lack of or inadequate co-ordination in the use of the instruments of economic policy.

36. The views expressed indicated that in any country that intended to prepare a short-term programme, it was vital to formulate an economic and social policy with specific objectives and goals, if that had not already been done, so that measures reflecting that policy could be included in the investment programme, in line with the objectives and goals indicated, which in some cases might be broad in scope. In countries where such a policy had already been defined, but where there were no specific development plans, the policy would have to be re-examined when the first plan was worked out in order to ensure proper consistency between goals, resources and means of action.

##### 5. The balance between social and economic investment

37. One of the most controversial topics discussed during the Seminar was the relative importance to be attributed, in short-term action, to social as against economic investment.

38. Some participants expressed concern lest, as a result both of the influence of the ideas on which international aid programmes were based and of the greater ease of drawing up social projects, short-term action might over-emphasize such projects at the expense of investment that

/were essential

were essential to the elimination of bottlenecks in the development process and the attainment of a satisfactory and sustained rate of economic growth.

39. However, it was pointed out that the new policy was aimed at redressing the imbalance that was in fact developing in Latin America, since sufficient funds were not forthcoming or were not mobilized for social investment to serve the needs of large sections of the population, and the virtue of the Alliance for Progress was precisely that it aimed at restoring the balance between the two and helping to meet hitherto unsatisfied needs.

40. A number of participants expressed the problem in different terms, pointing out that the two fields were closely related. While it was always possible to define social and economic objectives clearly, it was not so easy with respect to social and economic investment. Nevertheless, the Seminar recognized the need for pragmatic definitions of the social investment listed in the Act of Bogotá that guided the activities of the Social Progress Trust Fund administered under agreement by the Inter-American Development Bank. No substantial expansion in the provision of social services could be envisaged in the absence of an increase in the productive capacity of the industries that would have to provide the current and capital inputs that some of those services would require, and of measures to ensure continuous provision of the funds required to operate and maintain the services in the future.

41. Thus there was general agreement on the need to attain a proper balance between the two aims; at the same time it was pointed out that no strictly technical standards were available for establishing an exact order of priority. Nevertheless, the requirements of practical action meant that rule-of-thumb methods would have to be used to estimate the total volume of funds needed, and the way they should be allocated, in the light of the goals that each country desired to attain in the field of economic and social development.

/42. Various

42. Various methods were suggested to meet that need. One consisted in estimating the volume of investment needed both to deal with emergency situations and to ensure a given rate of growth of the national income; if that amount were set against the funds normally available, the difference would give an approximate idea of the funds available for social investment. A comparison of that sum with the objectives established in the social field would make it possible in turn to estimate the need for the mobilization of the additional funds, domestic or foreign, needed to ensure a desirable balance between the two types of investment.

43. When it was suggested that such a method might imply that a lower priority was being accorded to social investment, the answer given was that the distinction was made for purely methodological purposes, since the essential aim was to decide what were the objectives to be attained. It was also stated that, viewed in that light, the method had the additional effect of drawing attention to the extent to which aims of social improvement were dependent for their attainment on a substantial increase in domestic effort in conjunction with increased external aid. It was added that the domestic effort must involve the provision both of funds (through an increase in the rate of national savings and above all of tax revenue), and of other kinds of resources. In the second case care must be taken to ensure that the capital goods available for investment were not diverted into investments that might amount to forms of luxury consumption. Some participants went on to suggest that a high progressive tax on luxury building might provide both a means of freeing real resources that could be used for low-cost housing and a source of additional tax revenue.

44. Apart from the general problem of the balanced allocation of resources, there was general agreement that experience in Latin America indicated that very ineffective use was being made both of the existing capacity of the present social services in the fields of education, public health, housing, etc., and of the funds normally devoted to those purposes. Better designed services, more rational organizational patterns, greater administrative /flexibility and

flexibility and more efficient organizational methods would all do much, without any great additional expenditure, to enable many more people to benefit from those services, and short-term plans should therefore include such improvements as fundamental features.

45. With respect to the additional resources to be devoted to the provision of social services, it was regarded as essential, in addition to taking account of the aspects already referred to, to introduce economic rationality. Many participants suggested that in the field of social investment there should be special emphasis on those investments that, apart from contributing to social improvement objectives; had a greater economic significance than others that would entail, in many cases, considerable attention not only to criteria for allocating resources by broad categories of social services, such as education, health, etc., but also to the type of projects that should have priority within each of these categories. It was also commented, however, that although that idea should constitute an important principle in formulating a programme of social investment, it ought to be remembered that it was not always easy or possible to concentrate action in narrow sections of the vast social complex, since the result might be dislocations in the various factors that affected the solution as a whole.

46. Consequently it was concluded that a certain balance must be maintained within the field of social investment itself, while underlining the fundamental principle that the improvement of living conditions was often directly related to investment traditionally regarded as strictly economic. That applied particularly to investment contributing to a better and more balanced diet for the population, an advance without which there would be no real hope of attaining a substantial improvement in health patterns.

47. While the Seminar was anxious to introduce criteria which would ensure a balance over the long term between social and economic investment, and also within each of those types of investment, the contrasting view was stated that in some specific cases the question /should perhaps

should perhaps not receive undue attention within the framework of a short-term plan. In some Latin American countries that lagged far behind in the work of preparing economic investment projects and, at the same time, had idle funds, social investment financed with external assistance might be an important factor in reviving economic activity.

48. In order to take account of all the factors that should guide action in the social field, it was argued, that a modicum of instruction in planning techniques and basic economic concepts should be made available to experts entrusted with the formulation of social action programmes and that planners should receive adequate training in the aspects and technical requirements of those programmes. It was stated that international technical assistance would find a broad field of action there, and the hope was expressed that the Latin American Institute for Economic and Social Planning, in considering its future programme of work, would give particular attention to those problems, thus complementing the training programmes of other international institutions.

#### 6. Means of evaluating total investment requirements

49. While recognizing the methodological difficulties involved, the Seminar stressed that short-term plans should include an evaluation of total investment requirements.

50. That requirement was justified by several factors. To begin with, it was a basic tenet of the Alliance for Progress that the size of external aid depended largely upon the extent of the action taken by Governments to achieve full mobilization of their internal resources. Hence, in evaluating short-term plans which countries wished to submit to international financial agencies for consideration, one of the basic criteria should be a comparison of the external funds requested with the internal resources that could be mobilized. Such an assessment could only be made if the plans included an approximate evaluation of the total investment to be made.

/51. It

51. It was recognized that there were practical difficulties involved in determining the total amount of investment that should be included in a plan, since the problem was no longer simply one of mobilizing the same total amount of resources that had been mobilized in the past. The objectives of the Alliance for Progress required a greater domestic saving effort; depending on the magnitude of that domestic effort, greater foreign resources would be forthcoming also. Both from the point of view of each country and of the international financial co-operation agencies, there was need for at least an approximate calculation of the total resources with which those basic objectives could be brought closer to achievement.

52. The point was made that there, as in other aspects, the element of urgency should be reconciled with the time required for a relatively accurate operation of that kind. Nevertheless, the formulation of a very general diagnosis would be of assistance in evaluating the investment requirements which would serve to overcome the major obstacles of the moment and to ease the most pressing social tensions. For its part, definition of the long-term objectives of social betterment, combined with a rough assessment of a sustained rate of expansion of production capacity, would make it possible to evaluate the investment made to achieve those objectives.

53. It was suggested that a realistic evaluation of a programme should consider the status of the concrete investment projects in preparation and of the plans to be formulated, as well as give an estimate of the investment proposals that were not yet ready.

#### 7. International financial assistance procedures

54. The Seminar stated that, in the spirit of the Alliance for Progress, an attempt was being made to define a new method of action in Latin America imposing new obligations both on countries and on international agencies that provided financial assistance.

55. Reference was made to the fact that external financing institutions generally concentrated on individual projects not immediately related to total investment requirements, with the disadvantages referred to in  
/relation to

relation to several topics dealt with by the Seminar. However, two matters were noted in that connexion: (a) some of the institutions had long stressed the necessity of formulating and executing individual projects within the framework of sector programmes and of more general investment programmes, and had provided technical and financial aid for that purpose; (b) the earmarking of external financing for specific projects, which was likely to continue, was not a matter for concern, but was rather a question of accounting, so long as they were parts of more general programmes for which global commitments of long-term support could be made. The absence of programmes capable of eliciting such support has largely been responsible for the seeming rigidity of the policies of external financing institutions; plans and programmes which follow the guidelines of the Charter of Punta del Este are a prerequisite to obtaining the continuity and flexibility of global financing necessary to carry out a programme.

56. It was stated that the financing of projects within the framework of a programme for which a commitment of global financing had been made would lead to a better distribution of funds, since each individual project would no longer be assessed solely on its own merits but as part of a group of co-ordinated or interdependent projects. It was also pointed out that in that way the preparation of projects in specific areas and sectors would be stimulated, since the existence of over-all resources committed in principle to the financing of programmes would give a strong impetus to private enterprise or to the different agencies in national administrations. It was further noted that it could also lead to continuity and speed in the execution of the initiatives being carried out, as funds could be transferred from one project to another in each programme, always of course within the same over-all volume of resources.

57. By way of illustrating the flexibility that was possible to achieve in operations of that kind, a few specific precedents of aggregate financing of national or regional plans or groups of projects within a  
/specific sector

specific sector were mentioned. Reference was made in particular to the consortium formed to contribute to the financing of India's five-year development plan, to the flexibility in project and programme financing made possible by the Social Progress Trust Fund, and to the system of aggregate loans to development agencies being applied by the Inter-American Development Bank and the International Bank for Reconstruction and Development.

58. It was recognized that one of the chief difficulties in Latin America in the near future would be the fact that adjustment to the procedure mentioned would require a broad measure of consistency and cohesion in the investment programmes and in the availability of domestic resources and a proper ratio between those and external resources. For that reason - and also because only a few countries had made adequate progress in the formulation of plans - it was felt that the change in financing procedures should be gradual and might require a transitional period consistent with the progress achieved in planning and administrative organization as well as with the improvement of the national and international financing agencies.

59. Without prejudice to the continued allocation of resources to individual projects, it was hoped that aggregate and flexible financing operations could be applied to: (i) national short-term and long-term plans, which complied with the principles of the Punta del Este Charter and the essential technical requirements; (ii) regional plans envisaging action in different sectors, all of them aimed at overcoming the pressing problems of particularly backward areas; (iii) consistent sectoral plans or integrated groups of related projects.

60. It was pointed out that the application of global flexible financing to the three types of plans mentioned above would necessarily remain subject to a detailed study of the total amount of financial resources required for their execution, to the proportion of internal and external resources, and to the adequate preparation of the projects included in those plans.

61. In



61. In addition to those basic requirements, the following technical requirements for the application of aggregate and flexible financing were specified: (a) plans and programmes should consist of completed projects or of draft projects sufficiently advanced for a clear definition of their characteristics, their direct and indirect effects and their approximate cost; (b) projects and draft projects included in a given programme should be consistent and correlated; (c) the administrative agency entrusted with the final preparation of the project and the agency responsible for its execution should be indicated; (d) the programme should include a schedule covering the stages of preparation and execution of specific projects; and (e) the method of establishing an auditing service to control the use of the funds should be described.

62. Reference was also made to the importance, as an essential complement to the new procedures involved in external assistance, of the maximum degree of co-ordination among the different international financial assistance agencies in Latin America. For their part, Governments should make a greater effort to ensure better co-ordination in the formulation and execution of plans, programmes and projects.

8. The problems involved in the preparation and evaluation  
of specific projects

63. It was agreed that the lack of specific public and private investment projects was one of the greatest obstacles to immediate action being taken on the required scale and as promptly as necessary. In that connexion, it was pointed out that in formulating plans it was essential to have draft projects, in the sense of studies prepared with a sufficient technical background to enable decisions of an economic nature to be taken. On the other hand, in order to carry out the work as well as to cope at subsequent stages with problems of control and efficiency, the final project would have to be prepared in much greater detail, for which the assistance of expert consultants was often required.

64. Account was also taken of the desirability of interpreting a project in a much broader sense than usual, adopting rather the notion of action units covering all essential elements of a project. Thus  
/activities such

activities such as the following would be considered as projects: supervised credit, animal and vegetable sanitation programmes, seed multiplication, etc. In such cases, the proportion of rotating capital was generally much larger than that of fixed capital. Operational as well as organizational and administrative problems were also very important.

65. With respect to the scarcity of projects, a number of factors responsible for the situation were enumerated, such as the difficulty of mobilizing human resources for the specific elaboration of the projects themselves, the shortage of national consultants and technicians in very specific problems, the lack of funds for preparing the relevant studies, the lack or poor quality of basic data, the inadequate knowledge of natural resources, and the problems and cost involved in the use of foreign consultants. Uncertainty over the amount of domestic or external funds available for the execution stage was often another discouraging factor.

66. Many of the participants felt that those problems could not be solved unless the State launched an active promotion campaign directed at both the public and private sectors. In that connexion the idea was discussed of creating national or regional agencies whose chief functions would be to give methodological guidance, establish standards,<sup>6/</sup> render advisory assistance of a technical and economic character, and encourage the various specialized bodies whose regular work in the various ministries or other autonomous institutions fell within the province concerned. In the actual preparation of projects the responsibility of those agencies would be confined to those fields of action in which the specialized institutions were particularly weak or non-existent. However, in view of the complexity of the many types of projects, the diversity of techniques, the variations in respect to scale of production or economic importance, the degree of accuracy or processing required, the differing structure or composition of capital, etc., a very high degree of centralization did not appear desirable.

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<sup>6/</sup> Other specific ideas expressed related to the use and distribution of forms and outlines containing schematic models of project presentation in order to facilitate and reduce the cost of project elaboration.

67. In a plan of this nature it is essential to ensure the mobility of the country's technical resources in accordance with the requirements of each study, in order to build up the various task forces which would deal with specific projects. In practice, serious obstacles would be encountered in this aspect of the work, since it is a matter of shifting and regrouping technical personnel belonging to various government services, which might mean that changes must be introduced in the administrative norms in force. Stress was laid on the importance of close liaison between an organization for the promotion and co-ordination of projects such as that suggested and the administrative machinery of planning at the different levels at which it was introduced.

68. In order to strengthen such efforts, the need to maintain and increase international co-operation was reaffirmed, particular importance being attached to programmes for the training of personnel. Technical and financial advisory assistance to the promotion agencies and co-ordination of projects was another highly important channel along which the international co-operation under discussion might be directed. In the same connexion another matter of interest mentioned was the possibility of access to the valuable experience that had gradually been accumulated by the international financing institutions.

69. With reference to the high cost of preparing preliminary projects, emphasis was laid on the need for international institutions to make an adequate contribution to such expenditure. The hope was expressed that agencies which had made a start on the financing of that type of study would simplify their formalities and procedures so that the assistance granted could be made available more quickly.

70. In that field the Latin American Institute for Economic and Social Planning could make a valuable contribution which might take various forms, such as the inclusion in the Advisory Groups of specialists in the preparation of projects; the expansion of training programmes and seminars; the answering of specific inquiries, etc. In general terms, the new institution might act as one of the centres for the compilation  
/and diffusion

and diffusion of Latin American experience in the preparation and formulation of projects. Furthermore, the OAS/ECLA/IDB Committee on Co-operation might also help in that respect through the joint missions and other activities of those bodies.<sup>7/</sup>

71. Besides the problems directly connected with the preparation of projects, the Seminar also considered those relating to criteria for project evaluation. It was noted that a distinction should be drawn between the various levels at which economic evaluation arose, since it might relate, for example, to the problem of priority in respect to the purpose for which the resources were earmarked, or again to the question of priorities between technical alternatives serving the same end.

72. During the discussion of evaluation criteria, it was pointed out that many types of projects obviously had a high priority. Examples included investment contributing to the full utilization of existing capacity, with the resultant definitive short-term increase in income; projects eliminating serious bottlenecks, especially in the energy and transport sectors; or projects which would provide employment on a large scale. To that same category should be assigned, with reference to the short term, other projects ready to be put into execution which implied an expansion of exports or a saving in imports and, above all, those whose technologically optimum dimensions would be warranted by the existence of a common market.

73. The evaluation methods to which the Seminar devoted particular attention included - apart from the well-known profit-cost estimates - the shadow prices method, and an ad hoc working group was asked to study the practical possibilities of its application.<sup>8/</sup>

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<sup>7/</sup> International co-operation might likewise be extremely useful in the domain of studies on industrial profiles, as well as in the preparation of directories of international consultants, in which due importance would be given to those of Latin America itself.

<sup>8/</sup> See document The Use of Shadow Prices in Programme Evaluation, by S. Chakravarty.

74. The general view was that, particularly in the case of investment with a high capital intensity, that method of evaluation constituted a valuable instrument, provided it was handled with due caution, even though in some instances its application might not be feasible in the early stages of planning. Whenever it was used, it would be advisable to work with a range of probable values and check the results obtained by comparison with assessments made independently by other methods. In any event, shadow prices would need to be estimated at the highest level of the planning office with the co-operation of technical experts, and the values chosen would have to be applied equally to the various projects under consideration, with due regard to their whereabouts and to other special factors which might prove relevant.

9. Administrative organization for the formulation, execution and supervision of development plans

75. In connexion with the agenda items relating to administrative organization for the formulation, execution and supervision of development plans, it was unanimously agreed that the greatest importance should be attached to establishing or strengthening administrative planning machinery in each individual country. The initial nucleus should be able to count on full top-level political backing, and should gradually become a permanent national planning system incorporated in and linked with the country's public administration services as a whole.

76. There was a consensus of opinion to the effect that as part of that planning machinery a central office should be set up to co-ordinate all action and give shape to development plans. It should be staffed by technical experts and briefed on questions of development policy by a planning council, with a limited number of members, which should enjoy the benefit, as far as possible, of the participation or the influence of the President of the Republic himself, or of the prime minister.

77. With the experience of the various Latin American countries in view, it was suggested that the place of the central planning agency should be at the highest level, preferably under the Office of the President, that  
/it should

it should maintain appropriate links with Parliament or with Congress, and that it should include representatives of the private sector. Needless to say, all such requisites would have to be duly adapted to local conditions and to the patterns of the particular country's institutional organizations.

78. It was generally agreed that the planning agencies should enjoy great political and administrative independence, so that their studies and programmes - in conformity with the basic principles of the development policy approved by the Government - might be prepared on sound technical lines. It was considered that administrative independence should be understood to include the availability of resources and facilities for the recruitment of personnel, the determination of staff salaries and promotions, and other similar matters.

79. The participants agreed that every possible effort should be made not to over-burden the planning agencies with purely administrative or incidental tasks, so that the technical staff might concentrate on the requisite studies and research. It was also felt that everything possible should be done to ensure proper co-ordination of the activities of government statistical offices, under the general guidance of the planning agencies.

80. The importance of assigning an active share in the planning process to the various ministries and to their executive departments was emphasized. In that connexion, the progressive establishment of planning offices in the ministries and decentralized public bodies, as well as of project offices in the executing agencies, was advocated. All such offices should be co-ordinated and closely linked to the central agency.

81. The participants pointed out the desirability of establishing, whenever appropriate, according to the characteristics of the countries, planning agencies for the various geographical areas or administrative divisions, also incorporated in the over-all planning institution, which would ordinarily be more concerned with long-term planning.

/82. The

82. The participants agreed that the adoption of planning systems would imply radical changes in the structure and operational methods of public administration, and that to meet those needs, adequate and timely administrative reforms should be introduced together with new modes of operation in the legislative organs so as not to weaken the plans. The existing ministerial machinery was not usually endowed with the instruments required to make planning effective at all the levels at which it was needed.

83. On a broader plane, the participants expressed concern at the lack of co-ordination in economic policy and the makeshift fashion in which it was changed, often in response to purely adventitious problems. Emphasis was laid on the need for the planning system to be organized in such a way as to give cohesion to the decisions adopted by the authorities in the various fields of economic and social policy. To that end, it was essential not only that long-term objectives should have been defined with precision, but also that the planning system should include a unit responsible for analyzing the current situation and future prospects of the economy. The planning effort and its results should be constantly reviewed.

#### 10. The role of public investment budgets

84. Public investment programmes in short-term plans were essential instruments for the removal of the obstacles hindering adjustment of the composition and structure of public investment to the requirements of economic development. They should also embody the whole group of targets to be attained by the public sector under the over-all short-term economic and social development plan, and the priorities to be assigned to the respective investment items.

85. The public investment budget crystallizing the investment programme ought to contain not only the projects to be financed with the additional external resources, but also all the projects in course of execution by the public sector. The latter should include those activities which, although they could not be classified strictly as capital formation,

/were related

were related to others that exerted great influence on the development of sectors of production and on the provision of social services.

86. It was thought desirable that the budget should be consolidated, i.e., it should cover not only central government agencies but decentralized public institutions and local or provincial authorities. It was noted, however, that the latter should be incorporated gradually, since there were legal limitations and in many cases the lack of planning experience at those administrative levels might undermine the very idea of the necessity of planning because of the mistakes perpetrated.

87. Special attention was devoted to the current financing system of public institutions, which were often characterized by the proliferation of funds earmarked for specific purposes. That was a serious obstacle to the short-term adjustment of the structure of public investment to the requirements of development. Over-decentralized and completely unco-ordinated administrative organization was likewise singled out as another handicap, especially when there were great differences in the operational capacity of the individual executing bodies, or when the plans carried out were dependent on annual allocations that were too small to meet the needs deriving from the progress of the projects, or, lastly, when relatively substantial funds were already earmarked for projects under way.

88. Furthermore, attention was called to the desirability of formulating minimum investment programmes, for each institution, based on funds that could be absolutely counted upon, as well as alternative programmes which called for more substantial resources and which might therefore be undertaken if there were unforeseen increases in internal or external income.

89. Lastly, it was agreed that short-term public investment programmes should be integrated with the regular national budgets. Stress was laid on the importance of close co-ordination between the budget offices and the central planning offices. Over the short term in particular, it was considered absolutely essential to make maximum use of the experience of the budget offices in the field of economic and administrative co-ordination.

/The view



The view was expressed, however, that the central planning agency, because of the way it had to combine and integrate the financial with the physical and human resources involved in the plan, was, in the last analysis, best fitted to adopt decisions in that field.

#### 11. International technical assistance requirements

90. Short-term action and the introduction or strengthening of national planning machinery would give rise to increased needs in the way of international technical assistance. In addition to the initial work of organizing the planning machinery and preparing over-all plans, there would also be the task of undertaking sectoral programmes, investment projects, administrative reforms, surveys of natural resources, changes in fiscal policy, and other activities.

91. The Seminar recognized that the needs of the Governments in that field would probably be far in excess of what international bodies could provide, in view, inter alia, of the great shortage of competent and experienced staff in the planning field and the terms that would have to be offered to such staff because of the responsibility attaching to the type of advice they would be asked to give.

92. The shortage of technical staff in relation to the work to be done called for greater efficiency and better co-ordination on the part of the international organizations in the task of increasing the rate at which staff were trained. It was agreed that the Latin American Institute for Economic and Social Planning would have an important part to play in that connexion, but that as the task involved was so vast, the co-operation of other bodies would certainly be needed in order to avoid duplication of effort.

93. It was pointed out that the co-operation of effort in the field of technical assistance should be at the country level, as well as at the level of the international organizations. The Seminar noted certain recent instances in which the co-ordination of all the technical assistance received by a country had been entrusted to the planning agency itself. Such co-ordination, in addition to making possible more effective use of international technical assistance, should be directed toward the

/important aim

important aim of endeavouring, whatever the effort involved, to make the maximum use of the trained staff who were often to be found in the country itself but were not always given the right opportunities.

94. With respect to the work methods of international experts and advisory missions, it was pointed out that such work could be more effective if the central aim was regarded as being the training of local staff. In that way the activities of the missions and experts would become part of the process of technical training which, developing from that starting point, could provide the country with a permanent technical team.

95. Lastly, the representatives of various international and governmental organizations reported on the increased technical and financial resources they were placing at the disposal of the Latin American countries, both through the United Nations and other international and regional organizations and through the Governments of the United States and certain European countries. It was pointed out that the increased availability of fellowships, travel grants and other facilities provided by those organizations were furnishing new training opportunities for Latin American professional and technical workers.

## 12. Concluding observations

96. The foregoing summary of the main points discussed at the Seminar shows, on the one hand, the complex nature of the subject of planning, both long-term and short-term, and on the other hand, the need to improve machinery and methods so that the countries of Latin America, which since the Economic Conference of Punta del Este have been committed both morally and materially to unite their efforts to increase the pace of their economic and social development, can proceed immediately to apply the measures there agreed on. These must include providing the initial impulse for the mobilization of the domestic and foreign resources required to attain the objectives envisaged.

97. As the foregoing sections of the present report show, the experts who took part in the Seminar furnished a valuable body of consistent ideas, concepts, methods and procedures appropriate to the urgent need for initial or short-term plans to be worked out within the framework of an economic and social policy with far-reaching objectives.

98. Although

98. Although there are or may be difficulties in all countries in proceeding with planning and the activities ancillary to it, the guidance provided by the Seminar may help, in particular, the officials and departments responsible for carrying out these activities to overcome the difficulties and to undertake the practical measures that are needed immediately.

99. The Seminar made it clear that in view of the political and social problems and tensions confronting Latin America, as a result of the low level of economic development attained in the region and the inequity of the distribution process, it is the duty of the technical experts to provide national authorities and political leaders with the means and techniques for economic and social development programming within the framework of the democratic institutions of the Latin American countries. It is, of course, essential that in addition to the use of the proper techniques and methods, countries formulate, or if necessary review, their policies of economic development and social progress to bring them into line with the objectives unanimously adopted at Punta del Este, at the same time making use of the new concepts and formulae of international co-operation.



Annex I

LIST OF PARTICIPANTS

1. Panel of Experts appointed by IA-ECOSOC under the terms  
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Annex II

AGENDA

I. Basic approach to short-term action

1. What should be the nature of short-term action
  - (a) The present approach; possible risks
  - (b) Necessity for basing short-term action on:
    - (i) An investment programme covering all internal and external resources; and
    - (ii) Basic definitions of economic policy and structural reforms
2. Requirements implicit in short-term action
  - (a) Identification of the main problems impeding development or aggravating social tensions
  - (b) Distribution of resources in the light of long-term objectives  
Problem: how to combine rapid action with the need to establish definitions
  - (c) Creation or bringing to completion of the institutional organization for the formulation and execution of plans
3. External requirements
  - (a) Methods of financing
  - (b) International technical assistance
4. Economic and social projects in a short-term plan

II. Content and methodology of short-term plans

1. General frame of reference as a guide to planning
  - (a) Identification of the principal economic problems (bottlenecks, idle capacity, unemployment, poor use of natural resources, external or fiscal disequilibria, wastage of resources, etc.)
  - (b) Description of the living conditions of the population (food, housing and related services, health, education, etc.)
  - (c) Identification of the main causes of social ills (general and specific causes)

/(d) Definition

- (d) Definition of long-term for improving living conditions and their economic implications
- (e) Evaluation of total short-term investment requirements
- 2. The investment programme
  - (a) Inventory of public investment projects under way and projects or draft projects under study or in preparation
  - (b) Private investment projects under way that are of significance for development purposes, and projects or draft projects under study
  - (c) Series of projects to be included in a short-term plan and their justification
  - (d) Evaluation of the feasibility of the projects selected
  - (e) Identification of activities in which the shortage of specific projects is particularly serious
- 3. The economic policy programme
  - (a) Determination of the basic outlook and primary objectives of short-term economic policy
    - (i) Identification of the main spheres of action for short-term economic policy (unemployment, stagnation, inflation, external, fiscal and regional disequilibria, etc.)
    - (ii) Evaluation of the most appropriate short-term instruments of economic policy for use in any given case (fiscal, monetary, exchange, wage policy, etc.)
    - (iii) Compatibility of short-term measures with the fundamental aims of economic and social development (e.g. stabilization, public works, exchange policy, etc.)
  - (b) Immediate measures in the different fields of economic policy
    - (i) General measures relating to the vital short-term objectives
    - (ii) Specific measures required to insure the implementation and subsequent functioning of the investment projects included in the investment programme

/((iii) Examination



- (iii) Examination of the policy of the principal executive and regulatory agencies of the state with respect to the present outlook and the modifications that are both necessary and feasible
- (iv) Planning or implementation - as appropriate - of structural reforms: agrarian, tax, educational, social security
- (c) Problems presented by the new types of external assistance
  - (i) Implications of blanket external financing of short-term projects and plans
  - (ii) Implications of external financing of social projects (in which the import element is relatively small)
  - (iii) Additional external financing in relation to the volume and structure of the external debt

### III. Preparation and execution of plans: problems, organization and administrative machinery

- 1. Administrative organization for the formulation, execution and supervision of plans
  - (a) The need for an institutional planning system
    - (i) Need for the planning to be a permanent process
    - (ii) Information and study machinery
    - (iii) Participation of the administration as a whole in the planning process
    - (iv) Training of technical staff
  - (b) How the planning system can be introduced gradually
    - (i) High-level organ for the formulation of development policy
    - (ii) Technical organ for central planning
    - (iii) Departmental offices for sectoral programming
    - (iv) Regional planning bodies
  - (c) How the instruments and organization for the execution of plans can be improved
    - (i) Improving the budgetary, tax and banking machinery
    - (ii) Machinery for executive coordination

/ (iii) Improving

- (iii) Improving public administration organization and procedures
  - (iv) Establishing systems for verifying the results of plans
2. Role of public investment machinery
- (a) Analysis of the public sector
    - (i) Evaluation of the composition of public investment
    - (ii) Difficulties in the way of increasing or changing the composition of public investment (commitments for the completion of projects, piecemeal plans, institutional organization and financing systems, operational capacity, etc.)
    - (iii) Policy, objectives, plans and projects of the executing agencies
  - (b) Criteria governing the allocation of resources
    - (i) Criteria deriving from the general development programme
    - (ii) Criteria deriving from the special analysis of the public investment system (maintenance, completion of works in progress, inclusion of new projects, supplementary projects, capacity to execute projects, etc.). Investment required to increase the efficiency of the investment system
  - (c) Machinery for formulation of the programme
    - (i) Financial programme (allocation of resources by units, directives to be complied with)
    - (ii) Programme of action and projects
3. Problems relating to the preparation of specific investment projects
- (a) Function of the projects in development programming
  - (b) Some aspects relating to the study of the projects
    - (i) Social and economic projects
    - (ii) The concept of preparation, presentation and evaluation
    - (iii) Problems of evaluation
    - (iv) Qualitative and quantitative differences in the study and execution of projects. Effects on financial and staff requirements and on the programme as a whole
- /(v) Identification

- (v) Identification of possible new projects
- (vi) Public and private projects
- (c) Organization for the study of projects
  - (i) Promotion needs; identification of the causes of existing shortcomings
  - (ii) Constituents of and design for an effective structure for the promotion and execution of projects
- (d) International co-operation

IV. International technical and financial assistance in the formulation of programme and projects



Annex III  
METHODOLOGICAL PRINCIPLES FOR SHORT-TERM PROGRAMMING

Foreword

1. To assist the Latin American officials in charge of planning in carrying out their immediate tasks of formulating and executing economic and social development plans, the secretariats of OAS and ECLA present a succinct and practical outline of suggested guidelines for the preparation of short-term development programmes. The following notes are mainly based on the working papers and discussions of the Latin American Seminar on Planning; however, they also include some points that were not fully discussed at the Seminar but that both secretariats consider to be of practical importance for the more efficient performance of planning activities. Although some of these ideas originated in the Seminar discussions, it should be pointed out that they do not always reflect a consensus of opinion on part of the participants.

1. The aim of short-term programming

2. Short-term programming may be regarded as a part of long-term planning. It may also be looked upon as a programme for immediate action in specific high-priority fields, which should be formulated and put into effect while integrated long-term plans for economic and social development are being prepared.

3. The choice of one or other of these criteria will depend primarily on whether the country concerned has already drawn up its long-term development plan and has an administration that is capable of carrying it out. In any case, the aim of short-term programming is to translate the targets into action and to carry planning activities into the field of practical achievements. Where there is no long-term plan, short-term programming provides the necessary discipline to prevent projects from being conceived as isolated units but - and this is of great importance - as part of an interrelated group, due regard being also paid to order of priority and allotment of resources. Moreover, it entails the incorporation of the economic policy measures that are necessary for its implementation.

/4. Thus,

4. Thus, a short-term programme should be an essential factor in the preparation of an integrated long-term plan, where such a plan does not already exist.

## 2. Content and method of formulation

### (a) Analysis and determination of economic and social objectives

5. Although the short-term programme can and should be embarked upon before a detailed long-term plan is prepared, it must obviously be related to a general framework of broad economic and social objectives of a less urgent nature. Hence, if short-term programming is to have real value, some indications should be provided of the direction in which the economy should move. For this purpose, a preliminary analysis of the recent economy's trends and prospects is required. This analysis should draw on the information and studies available, and should not be so ambitious in scope as unnecessarily to delay the formulation of the short-term programme.

6. Whereas the scope of the analysis will vary from one country to another, the main structural and institutional obstacles to economic growth should be identified in all cases and an examination made of such problems as production bottlenecks, idle capacity, poor use of existing resources, fiscal and balance-of-payments disequilibria, depletion and deterioration of natural resources and the more obvious deficiencies in housing, public health, education and other areas of social tension.

7. What is essential is to make a reasonable analysis without waiting for new intensive or extensive investigations, and to use the preliminary diagnosis (i) to determine the general lines of planning efforts, over the short and long term, including such factors as targets for the increase and improved distribution of income, improvement of productive efficiency and new types of industry to be established, the fiscal, land and labour reforms planned, manpower training targets, the social improvements contemplated, etc.; and (ii) to identify the gaps in information and basic knowledge that should be filled during the execution of the short-term programme. In fact, it would be desirable for the programme to include projects for the improvement of statistical data, research on natural

/resources, cartography,

resources, cartography, etc. without which effective long-term planning would be difficult if not impossible.

(b) Means of action in the public sector

8. The short-term action of the public sector has three main facets. The first relates to the basic approach and over-all objectives in respect of the economy as a whole, which must be indicated by the short-term development plan. The second is connected with the exact definition of the role and responsibility specifically incumbent upon the public sector; in practical terms this can be expressed in the form of a short-term public investment plan. The third is that of the translation of this responsibility into decisions as to what will be done during the next fiscal period. This last implies the need to adjust the mechanics of formulating and presenting the national budget, either by the introduction of a special capital budget or by the gradual incorporation of programme budgeting techniques.

9. To the first of these aspects reference has been made in earlier paragraphs. As regards the public investment plan, consideration should be given to the inclusion not only of investment projects proper, but also of those activities which are closely linked to the development of the sectors of production; cases in point would be such programmes as those concerning animal health, seed multiplication, environmental sanitation, research on natural resources, etc. The plan should give precise indications of sources of financing, distinguishing between the internal and the external resources to be mobilized.

10. The national budget must constitute a basic instrument for short-term action, but its immediate use for such purposes is restricted by the purely administrative accounting methods generally adopted in drawing it up. The first step towards ensuring a more rapid response to requirements in connexion with immediate action might be a more accurate breakdown of capital expenditure items, the aggregation of which would form a special capital budget. Basically, this would be nothing but a functional classification of investment expenditure on the part of the central Government and of the autonomous and semi-autonomous bodies.

/11. Short-term

11. Short-term plan, public investment plan and capital budget - or programme budget - do not necessarily constitute successive stages, and there is no reason why they should hold up the public sector's decisions with respect to immediate action. They will have to be undertaken simultaneously, even if only on the basis of highly simplified initial outlines which will be improved upon in later phases.
12. The functional classification referred to should be supplemented by an indication of the agency which will be responsible for the execution of the project. Furthermore, each investment proposal must comprise - apart from the justification of the project - an estimate of capital outlay, as well as of overheads and operational expenditure, and a description of the economic or social benefits which will derive from the project.
13. It is important for the investment budget to be presented together with the budget of operational expenditure, in order to ensure an adequate allocation of public funds to each and thus guarantee the satisfactory development of the projects as time goes on. For example, budgetary provision will have to be made for sufficient funds to pay teachers' salaries in consonance with the number of new school premises built. The best procedure would be to extend the functional classification recommended for the capital budget to operational expenditure.
14. The investment plan and the capital budget are essentially instruments of analysis and planning, and must not be interpreted as substitutes for the administrative budget, which must be drawn up in conformity with the legal provisions in force, until official approval has been given to programme budgeting techniques.
15. In practice, conceptual problems will undoubtedly arise in connexion with the classification of expenditure, in approaching which simplified criteria should be applied, so that, even if some shortcomings remain, the preparation of the programme will not be retarded.
16. There is good reason to think that many countries are already in a position to draw up capital budgets and investment plans which, although as yet somewhat rough and ready, may allow a fairly rapid start to be made on short-term planning.

/(c) Criteria



(c) Criteria for the evaluation and selection of projects

17. The analysis and objectives of economic and social improvement on which the short-term plan is based will serve as a guide in allocating investment resources among the different economic and social activities (transport, industry, education, public health, etc.).

18. The selection of specific projects within each of these branches of activity should be effected on the basis of objective evaluation criteria in order to establish an order of priority among them. These criteria are based on the profit ratio not only in terms of the economic yield of the private enterprise, but also in terms of their impact on the economy as a whole, measured by the direct and indirect effect of the project on the gross product.

19. In applying these criteria, the use of accounting prices is advisable wherever possible. Even if temporary values are assigned, the effect of distortions in the prices of factors of production (salaries, interest on capital, foreign exchange) can be substantially reduced in this way.

20. With respect to investment projects for the provision of social services, the application of these criteria presents a difficult and in some ways an insuperable problem. The establishment of an order of priority among such projects is difficult because they do not lend themselves to comparison and it is not easy to quantify the benefits to be derived from them. It would nevertheless be useful to group them functionally so as to identify - e.g. in sectors such as education and public health - those projects where the unit cost is relatively low.

(d) Economic policy in short-term planning

21. A point which should be stressed is that the investment budget is only one instrument used in short-term planning. Proper execution of the programme depends not only on a clear definition of objectives and a sound investment programme but also on a wide range of economic and financial measures as well as others aimed at acquainting the public at large with the purposes and content of the programme.

22. For example, monetary and fiscal measures or reforms might be so designed as to make for better utilization of idle industrial capacity and of arable land. Tax policy might be made use of to mobilize domestic

/resources and

resources and check inflationary pressures. Price increases resulting from dislocations between the additional demand generated by investment expenditure and the availability of consumer goods might cause an upward trend in prices, and there must be a readiness to apply monetary or fiscal measures at the first sign of a cumulative movement in price levels. Measures to stimulate private initiative so as to supplement activity in the public sector are likewise desirable.

23. In this connexion, the planning agency would do well to consult trade union, industrial and other groups on their role in planning, so as to give the public a sense of full participation in the programming process and a clear understanding of what it is all about.

24. Moreover, import policy should be adjusted in order to prevent the additional foreign exchange funds from being squandered on imports of luxury items.

### 3. Planning organization

25. Although the planning organization should be designed in accordance with the administrative characteristics of the individual country, there are certain minimum operational requirements which impose a general pattern on the organization.

26. The planning machinery must cover all levels and areas of the public administration. In structure this machinery consists essentially of a central nucleus at the highest level of the Executive, and other units in the ministries and the main decentralized bodies of the public sector. In addition, if the circumstances call for it, units would be set up with responsibility for regional planning.

27. At the initial stage the minimum organization would consist only of the central nucleus, having close ties with the main ministries and decentralized bodies. These ties could take various forms: interdepartmental committees, representation of the ministries and public bodies on the planning agency, and vice versa.

28. Links must also be established with the Legislature and with public and private bodies such as the universities, trade unions, etc.

29. The planning agency would be responsible for preparing short-term and long-term plans, and advising on the formulation of economic policy, supervising its execution, and working out periodic revisions. In addition, one of its main tasks would be to promote the preparation of new projects in both the public and private sectors.

30. The preparation of the capital budget and the public investment plan, which constitute the first step towards the effective application of the plan, should also be the responsibility of the central planning body. The government bodies responsible for fiscal and financial matters would naturally contribute their advice, since the administration of funds and the calculations of costs falls within their jurisdiction.

31. In both the preparation of plans and their execution and supervision, a regular flow of information would be required; in fact it is true to say that in the absence of such a flow there can be no real planning process. In Latin America there are great gaps, breaks in continuity and time-lags in data, and consequently one of the first tasks of the central planning body must be to remedy this situation.

32. In the immediate future the staff of the planning agency must be recruited mainly from the officials and professional workers - above all economists, statisticians and engineers - already working in government departments. This first group can be reinforced through international technical assistance, especially at the stage when the planning machinery is being put into operation, when this type of assistance would appear to be essential.



Annex IV

EVALUATION OF A SHORT-TERM DEVELOPMENT PLAN

by Paul Rosenstein-Rodan

Introduction

An optimal short-term plan can logically be determined only within the framework of a long-term plan. When a long-term plan has not been completed, practical sets of rules can be devised for a short-run plan (of, say, two years); they provide a guide toward a best possible (second-best but not tenth-best) solution. In a short-run plan many bottlenecks must be accepted as unavoidable. In a more flexible long-term plan they can be changed. If the economic (rate of growth) and social (equality of opportunity) objectives are given and the situation at the starting point is known, short-term aspects of a long-run plan can be worked out. Standards for presentation of such programmes are indicated below.

I. Diagnosis

1. National income, gross and net investment, average and marginal saving rates, foreign capital inflow, balance of payments.
2. Inventory of existing public investment and the absorptive capacity of the public sector.
3. Rough estimate of existing excess capacity.
4. Occupational structure. Open and disguised, long- and short-term unemployment; its sectoral and regional distribution.
5. Over-all judgment on bottlenecks to growth:
  - (a) short-term bottlenecks (e.g., social overhead capital, shortage of skilled workers, balance of payments, regional problems, social unrest);
  - (b) longer term bottlenecks.

/II. Categories

## II. Categories of Priorities

1. Investment for a fuller utilization of existing capacity (including projects in advanced process of construction). Such projects have obvious high priority. They provide a "once and for all" increase in income - essential in a short-term - but are not sufficient to generate sustained growth.
2. Projects of "obvious" high priority (which would have a high priority in any long-term plan).
3. Projects ready for execution which are well prepared and meet strict criteria (including shadow pricing, see III.1): (a) removing existing bottlenecks, (b) short gestation period, (c) export gaining or import saving, (d) near an optimum technological dimension which would stand up in a common market.
4. Labour-intensive projects designed for a rapid increase in employment (rural public works). See III.1.c and III.3.
5. Social development projects:
  - (a) Criteria: The relative importance of economic (rate of growth) and social objectives have to be evaluated. If too high a proportion of total investment were channelled into "social" sectors the rate of growth would be low. Social investments must be viewed, therefore, within the framework of total investment of which they should not form so high a proportion as to reduce the rate of growth below an agreed minimum.
  - (b) Distinction between projects with short (vocational training, selective education projects) and long (abolition of illiteracy) gestation periods. The productive efforts of a project determined by discounting the flow of future benefits to present value, taking account of the gestation period. The social objective of equality of opportunity may justify a somewhat higher priority. On the whole, however, the amount allocated for social investment should be determined residually.

/III. Methods

### III. Methods of Evaluation

Besides familiar cost-benefit calculations, three special problems deserve consideration:

1. Shadow-pricing (of general importance for project evaluation)
2. Adequacy of national effort (how to increase savings)
3. Employment (how to reduce unemployment without undue sacrifice of income).

#### 1. Shadow-pricing

Market prices under perfect competition are a signalling device steering economic resources into their optimum allocation. Prices of production factors then reflect their opportunity costs and should be equal to their marginal value productivity. Competition, however, and the investment market are imperfect in reality. Shadow prices of three production factors instead of market prices must be used in the evaluation of an investment programme. This is not the place to expound the full theory of the subject; an excellent and succinct presentation is available.<sup>1/</sup> Three operational points only may be mentioned: (i) shadow prices are equal to the opportunity costs. If there were only two goods in existence, the cost of one good is equal to that of the second good foregone; (ii) if there are more than two goods it is not so simple to identify the opportunity costs. The shadow prices enable us in this case to measure them. In the terminology of programming they are the Lagrange multipliers of a constrained optimization problem; (iii) to solve a constrained optimization problem for many sectors is a very complex task. A good approximation can be obtained, however, by calculating the shadow prices of factors of production for a simple two-sector model and then applying them to each of the many sectors. Shadow prices can be used, therefore, as a computational shorthand method for each project without having to solve each time the optimization problem for the investment programme as a whole, of which the project is a part.

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<sup>1/</sup> S. Chakravarty, The Use of Shadow Prices in Programme Evaluation (CENIS, M.I.T., Cambridge, 1961, India Project C/61-28).

While an exact determination of the shadow prices is not always possible, operationally useful approximations (within a lower and an upper limit) can be calculated. They are indispensable for the elaboration of an investment programme in underdeveloped countries.

Since conditions change in the course of development a time path of shadow prices has to be assumed for a long-run plan. This does not apply in the case of a short-term (two-year) plan.

(a) The shadow rate of interest

Capital should not be invested in a project if the opportunity of investing in another more profitable project is lost thereby. Since capital markets are notoriously imperfect the market rate of interest does not reflect those more profitable investment opportunities missed. An approximate shadow rate of interest should therefore be used as a computational shorthand in order to rank projects. The lower limit of shadow rates of interest in Latin America is around 8-12 per cent say, 10 per cent.<sup>2/</sup> No project should be included in the investment programme which would not cover interest costs of, say, 10 per cent.

2/ Using R.M. Solow's formula (as an approximation) the shadow rate of interest  $\rho$  is:

$$\rho = \frac{g}{R + \frac{1-D}{D} \sigma_W}$$

Where  $\rho$  is the rate of interest,  $g$  is the rate of growth,  $R$  is the savings rate of the profit receivers,  $\sigma_W$  is the savings rate of the wage earners, and  $D$  is the share of profit income in total income. We guess that in a "typical" Latin American country  $\rho$  varies between 55-75 per cent,  $R$  between 15-30 per cent,  $W$  between 3-6 per cent. Assuming a rate of growth ( $g$ ) of 4.5 per cent,  $\rho = 65$  per cent,  $R = 20$  per cent,  $\sigma_W = 6$  per cent the rate of interest

$$\rho = \frac{4.5}{0.20 + \frac{1-0.65}{0.65}} = \frac{4.5}{0.523} = 8.6\% \text{ (rounded)}$$

If the rate of growth were 5 per cent, the rate of interest under these conditions would be 9.6 per cent.

/Private investors



Private investors follow this rule in practice. No investment project is undertaken if it does not promise a return of 15 - 20 per cent. Public investment projects, however, in general neglect shadow-pricing - with grave consequences of capital waste. Faulty allocation leads to the selection of wrong projects, wrong technologies, wrong location, wrong pricing of the product - and to insufficient savings of public enterprises, which should contribute to national capital formation.

Electric power may be used instead of numerous other examples. A shadow rate of interest of 10 per cent will in many cases lead to the substitution of thermal for hydroelectric projects, to the location of thermal projects nearer to the market than the often distant hydroelectric projects, and to higher tariffs for electric power. Where specific subsidies are justified, they should be granted from the general budget. It is wasteful and too costly to give them indiscriminately to those who need it and to those who do not need it through lower prices of electric power. Prices which do not reflect costs cause a direct waste of resources (via lost profits) and an indirect increased and continued waste by inducing the location of power-intensive industries in high-cost areas.

In general, shadow rates of interest will give a lower ranking to capital-intensive and long-gestation period projects.

(b) The shadow rate of exchange

Foreign exchange must be considered as a specific factor of production in under-developed countries. Low price elasticities of exports and imports are the cause of a foreign exchange market which either works imperfectly or works at an excessive expense of income growth. The scarcity of foreign exchange should be reflected in a shadow rate of exchange which is higher than the market rate of exchange.<sup>3/</sup> In various Latin American countries shadow prices of exchange can be estimated at 10 - 50 per cent above the market rate. They give a measuring rod for the need of import-savings and export gaining. While it is still uneconomical to produce bananas

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<sup>3/</sup> The use of an accounting price of foreign exchange is not necessarily a substitute for devaluation; it does not imply that devaluation is necessary.

at the North Pole, shadow rates of exchange indicate to what extent projects, which produce goods at costs higher than prices of equivalent imported goods should be included in the national investment programme.

(c) The shadow rate of wages

Where there is open and disguised unemployment, shadow rates of wages are markedly lower than the market rates.<sup>4/</sup> Theoretically the shadow rate of wages (Lagrange multiplier) is zero in such cases. Operationally, however, an "incentive shadow rate of wages" is necessary in order to induce the unemployed to work and to take account of the fact that the families of the unemployed will not save all they are given as support, once those out of work find employment, but will increase their consumption. Many projects which would not meet the criteria of priority if market rates of wages are assumed, should nevertheless be included in the development programme on the basis of shadow rates of wages which are 20 - 50 per cent lower than the market rates. These should be primarily labour-intensive projects which use little or no capital. An important example is given by Rural Public Works (II.4) (fencing, embanking, terracing, digging for minor irrigation) which use little capital and increase the productivity of the land, although at first they do not produce an increase in agricultural goods. If the workers live in villages and work nearby, a wage rate lower than the market rate may induce them to work. If they work away from their homes a market rate of wages might be paid and subsidies would be justified (for other examples and a fuller discussion, see III.3).

The timing of such projects and a good diagnosis of the unemployment situation is important here. Disguised unemployment is not ample in most South American countries and is mostly concentrated in a few areas. It may not be very important in five years' time - but it is a vital problem for any short-term programme at present.

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<sup>4/</sup> P.N. Rosenstein-Rodan, Disguised Unemployment and Under-Employment in Agriculture(CENIS, M.I.T., Cambridge, 1956, Italy Project C/56-25).

## 2. Adequacy of national effort

(a) Foreign aid should only add a proportion to the national capital formation. If the national effort is inadequate only a small amount or no aid should be forthcoming. The better the national effort and the nation's absorptive capacity the higher will be the amount of foreign aid. An important task of the Development Plan is, therefore, to evaluate the national effort and to propose measures apt to increase it.

The best symptom and measure of national effort is the average and marginal rate of savings - and notably the deviation between the two rates. An underdeveloped country with a low per capita income may not be able to save a high proportion of income; the average rate of savings may vary from 5 - 8 per cent. It can save, however, a very much higher proportion out of increase in income; the marginal rate of savings can be twice or more than twice as high (15 - 20 per cent) as the average rate of savings.

The mobilization of national effort must therefore be directed to raise savings. Three sources of savings had best be considered:

- (i) Private savings. They can be increased by prospects of currency stability, by housing co-operatives, savings associations, and in the long run by fiscal reforms exempting savings from taxation (expenditure tax). While the average rate of savings in this sector is 4 - 7 per cent, the marginal rate can be 8 - 12 per cent.
- (ii) Corporate savings of the business sector are usually high already since the ploughing back of undistributed profits reinvests 20 - 35 per cent of profits. As development proceeds the proportion in the gross national product of income originating in this sector will rise, leading to an increase in the national savings rate.
- (iii) Savings in the public sector can be vastly increased even in the short run by making profits in public enterprises (see III.1.a on shadow-pricing in the public sector) and by budget surpluses.

/This is

This is an essential part of raising the national effort; its adequacy or inadequacy in the short run will have to be assessed largely on realizations in this sector.

- (b) While foreign aid can only form a part of national investment, a higher proportion may be justified in the initial period if proper measures are taken to achieve high marginal rates of savings.

### 3. Employment and unemployment

Full employment is undoubtedly the first step for providing a minimum of equality of opportunity and for realizing the objectives of the Alliance for Progress. Full employment in an underdeveloped country is a structural problem quite different from that in developed countries. The conflict between productive efficiency and greater equality in income distribution makes it impossible to realize all social objectives overnight. Fortunately most South American (unlike Central American) countries are not densely populated. To reach full employment need not take as long a time as it must take, for instance, in south-eastern Asia. In the shorter interval, however, social growing pains are unavoidable for an underdeveloped economy. What matters most is not to lose sight of the final goal and to see to it that vested interests and inertia neither delay nor prevent its achievement. Some alleviating measures can make the path less painful even though they may well prolong it. Economic development planning can both accelerate growth, i.e., shorten the interval before a satisfactory standard of living for all is reached, and indicate the selection of some welfare measures which do not widen the interval excessively. The economic development operation is unavoidably painful, but progress in economic knowledge in the twentieth century can make it shorter and can provide anesthetics which did not exist in the nineteenth century.

A higher rate of growth will in the long run lead to more employment. In the short run, however, there is a conflict between "maximum output" and "maximum employment". More labour-intensive but less efficient methods of production can increase employment today at the expense of producing a

/lower-value

lower-value output, and notably less surplus which provides investible funds for more output and employment tomorrow. A choice has to be made: more employment in the 1960's may mean less employment than would otherwise have been possible in the 1970's.

A well-thought-out development programme can nevertheless substantially reduce the area of conflict between "maximum output" and "maximum employment" through a series of measures:

(a) A high shadow rate of interest will encourage more labour-intensive methods of production. With the exception of construction and road building, however, the effective variability of coefficients of production in modern industry is not great, although it is not negligible in those parts of industrial activities which deal with "handling and bringing" of raw materials and products. The practical effects are, however, small in the short run.

(b) Construction and road building offer a considerable range of choice between labour and capital-intensive methods of production. Secondary roads can be built with a minimum of fixed capital (bulldozers, earth-moving equipment, etc.) and with plentiful labour. They may not cost appreciably less per km since the savings on fixed capital are eaten up by very much higher maintenance costs - such roads may have to be repaired every year - but they provide plentiful employment. The same may apply to the construction of hydroelectric installations. It is important to overcome two obstacles to the realization of such a programme which can have a considerable impact on employment in the short run:

- (i) Secondary labour-intensive roads take a very much longer time for their construction. A long-run road-building plan must exist if hand-to-mouth decisions on roads to be quickly built are to be eliminated.
- (ii) Contractors prefer capital-intensive methods of production since they reduce problems of labour-handling and labour supervision. If they are offered "cost plus profit" contracts, they will choose labour-extensive methods of production. Contracts for secondary road building must therefore specify a labour-intensive method of production.

/(c) While

(c) While 90 per cent or more of total investment will be channelled into efficient agricultural and industrial sectors - the foundation for a high rate of growth - they may be insufficient in the short run to establish full employment. A special effort will have to be made to stimulate and organize as well as to divert a small part of investible funds (5-10 per cent) into Rural Public Works (see II.4 and III.1.c) which contribute to agricultural capital formation without at first producing more agricultural products. Such activities absorb very little capital goods or foreign exchange but they can usefully employ many of the disguised unemployed in rural areas. Out of the wages paid to the additionally employed in Rural Public Works, up to one-half will be spent on food (which can be obtained if needed by P.L. 480 surplus products) and another 25-30 per cent on home-produced wage goods (textiles and household goods). There is no doubt that resources for these forms of useful employment-creating activities can be found. The real problem here is organization rather than capital. To create it is an urgent task of the short-run plan.

(d) Timing of modernization projects is, finally, a part of the short-run plan. If unemployment exists in an area, then employment-reducing and efficiency-increasing projects may have to be postponed unless additional employment-creating projects are sufficient to absorb more than the numbers of displaced workers. Thus super-markets may have to be delayed even though they may reduce the cost of living and thereby stimulate in the longer run an expansion in other industries. The same may apply to modern factories displacing handicrafts.

#### IV. Economic policy as an instrument of short-term growth

Any purposeful development programme consists of two main parts:

- A. "What is to be done?" (often outlined sketchily in a "Framework for Development")
- B. "How is it to be done?"

Objectives, priority criteria and evaluation methods for project selection and programme composition do not suffice for a successful implementation of the Plan (Part B). A coherent well co-ordinated economic

/policy must

policy must be used throughout as a purposeful instrument of growth. A functional economic policy for growth is only another word for development programming. It will have to determine what part of investment is to be undertaken in the public sector, but an even more important part of it should consist in a system of incentives and disincentives apt to encourage or discourage private investment in certain sectors, regions or technologists - as well as providing effective stimuli for over-all savings and investment. Three main instruments may be considered:

1. Monetary policy

- (a) Is a selective credit policy possible in certain countries? Can it secure, for instance, a sufficient supply of credit for a fuller utilization of existing capacity (see II.1) or discriminate successfully between credit for productive investment and for consumption? Can it provide good agricultural credit supply as well as credit for small enterprises and handicrafts?
- (b) Methods of avoiding either inflationary or deflationary pressure;
- (c) Methods to reduce an undue balance of payments deficit, etc.

2. Fiscal policy

- (a) Tax measures to stimulate savings (see III.2) including a budget surplus;
- (b) Tax measures as incentives and disincentives for investment in different sectors (for instance, a "discriminatory" high tax on luxury buildings, and a low tax on cheap buildings);
- (c) Over-all fiscal policy to achieve stability, etc.

3. Wage policy

Monetary and fiscal policy alone may not suffice to achieve growth and stability. A social consensus must be built upon principles of a wage policy. This is, however, only possible in the long run.

4. Commercial policy

The degree of a selective infant-industry protection must be determined, taking the shadow rate of exchange into account (see III.1.b).

/5. Incentives

5. Incentives for small enterprise

Construction of industrial estates or zones, besides credit and fiscal incentives. Industrial extension service.

6. Form of desirable co-operation with private foreign investment

V. Organization and planning

1. Short-term

2. Long-term

The institutional organization of planning may have to be different in various countries. Experience from inside and outside Latin America should be examined.

VI. Form and amount of technical assistance

What measures can be taken to improve and accelerate the preparation of projects.

VII. Short-term action for the preparation of a long-run development programme



## Annex V

## THE GOVERNMENT INVESTMENT BUDGET IN SHORT-RANGE PLANNING

by H. Agudelo Villa, M. Noriega Morales, F. Pazos and H. Perloff

1. The use of the investment budget

The capital budget (also called the investment budget) can be a powerful tool in short-range planning. It can help in making better decisions about individual government capital projects (such as roads, land reclamation projects, dams, school buildings, hospitals and the like) and about individual government expenditure and revenue items, by focusing attention on the inter-relationships among the projects and on the question of priorities.

The investment budget functions most effectively if it is used in conjunction with an over-all development plan. However, it can contribute significantly to the making of rational decisions on economic development even when no such plan exists. This is particularly important for countries which do not yet have a planning organization, but do have a budgeting mechanism. Normally it takes several years to set up a planning agency, to staff it adequately, and to prepare sound long-range and short-range plans. However, where a budgeting agency already exists, it can work out arrangements for the establishments of an investment budget much more quickly.

The investment budget plan should be worked out co-operatively by the budget agency and the planning agency even during the period before the planning unit has worked out its development plans in any detail. There are two reasons for this. First, this lays the pattern of co-operation for the time when firm plans are available and when the investment budget will be largely a by-product of the developmental planning. Secondly, people with a planning background and outlook are needed in preparing an investment budget even if they do not have specific development plans to refer to.

/The projects

The projects of autonomous agencies, as well as those of the central Government, should be included in the investment budget (but the former would be subject only to the type of budgetary review provided in the law).

## 2. The Alliance for Progress Programme

In terms of the short-range phase of the Alliance for Progress programme, when countries do not currently have a well-established planning agency and short-range plans as a framework for individual projects, they can use the investment budget mechanism to great advantage. Countries that already have planning agencies and development plans would also gain a great deal by establishing an investment budget mechanism to sharpen up priority decisions and to improve financial planning.

This paper draws on the experience of countries in various parts of the world that have used investment budgets, to suggest some general principles about this mechanism.

## 3. Categories of budgeting information

The following types of information are called for in one form or another:

1. Each proposed capital expenditure by a ministry or department has to be supported, for budget review, by:
  - (a) a statement of need for the project;
  - (b) a statement on how long it will take to build the project and how long it is expected to last;
  - (c) a statement of total estimated cost - including the initial capital cost, the yearly costs of maintenance and operation, and the net indirect costs (such as the product of farmers that will be lost because of flooding, in the case of a new dam);
  - (d) a statement of anticipated performance - i.e., intended accomplishment, with benefits indicated in financial terms where feasible;

- (e) a statement of the specific means of financing to be employed, both internal (whether it is to be financed from the general funds, from trust funds, by borrowing, or from earnings from the project) and external. Where borrowing is involved, there is also a statement on the means of repayment of the loan and of the interest costs.
2. Each project or other capital expenditure is shown in the budget under:
- (a) Function. This calls for a broad functional classification of expenditures and the allocation of costs to a specific function, such as transportation, preventive health, vocational education, and the like. Where a functional classification of this type does not already exist, quite rough estimates of the expenditures which fall into major categories of purposes or functions is better than continuing to use an "object" classification by itself (that is, a classification on the basis of the wage payments to employees, supplies bought, etc., without regard for the purpose to which such items are applied).
  - (b) Sponsorship. The governmental unit which is sponsoring the project, or the units involved where the project is to be carried out jointly by several ministries or public enterprises.
  - (c) Location. The region or regions in which the projects will be located. When it can be done, it is extremely useful to have a statement on how the specific proposed capital expenditure is related to other projects proposed for the given region.
3. A specific priority order has to be attached to each proposed capital expenditure.

#### 4. Scope

The investment budget should be presented within the context of a total budget showing all government outlays and revenues. Thus, on the expenditure side, in addition to the capital expenditures, there should

/be shown

be shown all the current expenditures, fixed charges, debt redemption, and the like covering the expenditures of all governmental units, whether regular departments or ministries, public enterprises, trust fund units, or any other type.

## 5. Definitions

A number of important definitions have to be worked out in advance so that all the governmental agencies follow the same definitions and procedures. The first item is the definition of what is and is not included in the investment budget. For a country first undertaking an investment budget, it would in all likelihood be well to include only capital construction items and to leave out all purchases of equipment. However, it is possible to set down definitions which make it possible to distinguish between large, long-lasting equipment (which is included) and small, short-lived equipment (which is not included in the investment budget). Also, definitions have to be set down to guide the ministries in budgeting individual capital items among the various functions. The breakdown of functions is not only valuable in permitting decision-makers to know how much is being spent on, say, industrial development as compared to agricultural development, education and health, but also to distinguish between such items as preventive health outlays and expenditures on curative health.

## 6. Relation to development planning

Ideally, the capital budget items should be backed by a capital improvement (or development) plan. Over time, the capital budget should be the product of a five-year or ten-year development plan and of a five-year financial plan which would outline the financial part of the development plan. The acceptance of the investment budget idea should in no way be thought of as a substitute for long-range and short-range planning, but rather as a complement to and possible starting-point for them.

## /7. Relation

## 7. Relation to individual project planning

A capital or investment budget can only be as good as the calibre of the individual projects that go into it. The investment budget should be used as a technique for seeing not only that the totals make sense and that the priorities make sense, but also that the specific projects proposed are well thought out, are well designed and are urgently needed. Therefore, just about the first step in investment budgeting is to set up specific criteria to guide the various ministries and public enterprises in preparing and presenting capital projects. It should be clear to everyone concerned that only those projects which meet such criteria would be included in the investment budget and, if external financing is called for, would be included among the submitted projects. The keynote for investment budgeting should be sound projects within a sound development framework.



## Annex VI

### PREPARATION OF SHORT-TERM DEVELOPMENT PLANS

By H. Agudelo Villa, M. Noriega Morales, F. Pazos and H. Perloff

#### I. Different country situations

There are four possible types of situations with regard to the preparation of short-term (two-year) development plans:

1. Countries that have already prepared medium or long-term plans (4 years or longer), or will soon complete such plans, and
  - (a) the plan is complete enough to qualify for full-plan financial support. In this case, no short-term plan is necessary;
  - (b) the longer-term plan is not complete enough for general plan support. In such a case, the first two years of the longer-range plan should be filled in and made more specific.
2. Countries without longer-range plans, but
  - (a) organized to undertake the preparation of a short-term plan. In such cases, a short-term plan should be prepared, together with a short-term investment budget, as a first step in the preparation of a longer-range plan;
  - (b) not organized at present to undertake the preparation of a short-term plan. Here the emphasis will have to be on the organization of a technical mission to help in the establishment of a planning agency, the preparation of a two-year investment budget and the selection of individual projects that can be justified under any circumstances.

Discussion of short-term planning will have to be geared to the special circumstances of these various types of situations.

Each country should be asked, at the very beginning, what its own situation is with regard to plans and planning organizations and to specify the type of outside assistance needed.

/II. Contents

## II. Contents of two-year plans

1. Statement of major objectives and over-all policy strategy, with regard to:

- criteria employed in the choice of types of projects;
- criteria employed in establishing priorities;
- methods to be employed in increasing the national effort, particularly in mobilizing its own resources for development, including tax reform;
- incentives to encourage private enterprise and co-operatives;
- incentives to encourage savings and productive investment;
- reforms to be undertaken to broaden the base of economic and social participation and gain, and
- criteria employed in balancing economic and social projects.

2. Diagnosis of the national economy: present and anticipated situation, including macro-economic and other data to provide information on key items such as national income, export-import expectations and balance of payments, and evaluation of bottlenecks to growth. [See Evaluation of a Short-Term Development Plan ]

3. Steps or procedures which have already been taken, or are about to be taken with regard to essential machinery of government planning and administration, including

- planning organization;
- information machinery (adequate statistics);
- budget machinery;
- strengthening other administrative machinery and processes, including personnel arrangements, planning and budgeting by ministries, and so on.

4. Two-year consolidated public sector plan and budget

Summary tables presenting the key elements of the plan and its financing, followed by these items:

- detailed description of each project, in priority order of financing;

/- exact stage



- exact stage of plan and execution (e.g., whether needed land has been purchased, needed laws passed, if engineering specifications are available, if pilot stage has been executed, if needed personnel has been estimated, etc.);
- relation of each project to the total programme for the whole ministry or function (i.e., for all education or all transport or all agriculture);
- estimated construction costs, year by year until completed;
- estimated total costs of maintenance and replacement year by year over at least five years;
- anticipated effects of projects, negative as well as positive (e.g., flooding of farm land in case of a dam);
- detailed estimate of personnel needed in each major plan category, and the number of such personnel required for all the projects within the two-year plan;
- detailed estimate of natural resources needed, if any (e.g., fuel, water, land) and their availability;
- description of complementary projects wherever involved, e.g., water and sewerage connexions in housing projects or schools and houses needed in connexion with an industrial project;
- which unit of government is in charge of project preparation and execution in each case.

5. Individual private and co-operative (non-public) projects

Same information as above, wherever applicable. In case of joint financing, estimate of public versus private share.

6. Over-all financial plan

How internal financing is to be achieved; total external financing, and breakdown by types needed (long-term loans, short-term loans, grants, Bogota funds, surplus food, etc.); anticipated impact of inflation and balance of payments.

7. Comparison of anticipated plan results with criteria established under Charter of Punta del Este

- impact on economic integration;
- relation to commodity arrangements.



Annex VII

THE USE OF SHADOW PRICES IN PROGRAMME EVALUATION

by S. Chakravarty \*

1. Introduction

Some recent works on problems of economic development have emphasized one important proposition, i.e., that in underdeveloped countries one should use "shadow prices" of productive factors rather than their observed market prices in determining the priorities in an investment programme.<sup>1/</sup> By an investment programme we mean a design for determining an optimal product mix as well as an optimal technology for the productive sectors.

It is the purpose of this paper to discuss critically a range of issues connected with the use of shadow prices in programme evaluation. The issues are the following:

- (a) What exactly do we mean by shadow prices?
- (b) The problem of estimating shadow prices of the relevant productive factors;
- (c) If there exist ways of determining them approximately even though an exact solution may be out of reach;
- (d) What the conditions are under which shadow prices would enable an optimal assignment of priorities;
- (e) And, finally, to see if there are situations where, although shadow prices do not lead in general to a proper assignment of priorities, yet within the context of an over-all optimal programme determined directly, they may still be used to choose between relevant alternatives within somewhat narrower

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\* Acknowledgements:

I am greatly indebted to Professor P.N. Rosenstein-Rodan for the suggestion of the problem and his stimulating comments. I am also very grateful to Professors R. M. Solow, R. S. Eckaus, I.M.D. Little and Mr. Anisur Rahman for several penetrating discussions. None of them, however should be held responsible for any of the views expressed here.

<sup>1/</sup> J. Tinbergen, The Design of Development (Baltimore, Johns Hopkins Press, 1958); H. B. Chenery and P. G. Clark, Inter-Industry Economics (New York, John Wiley, 1959); H. B. Chenery, "Development Policies and Programmes", Economic Bulletin for Latin America, Vol. III, No. 1, March 1958.

specifications. To mention a conclusion reached much later in discussion, it may be noticed that in the more realistic situation with which we are likely to be faced, it is only an affirmative answer to question (e) which assigns a proper measure of importance to shadow prices in programme evaluation.

So far as the estimation problems are concerned, we shall illustrate our argument with reference to the shadow prices of capital and foreign exchange, which figure in common discussion as two of the most important productive factors in the context of planning in underdeveloped areas. It may be thought a little surprising to use capital and foreign exchange as two separate factors. Because our usual definition of a factor of production runs in terms of a group of productive agents which have a very high elasticity of substitution among themselves, but between which and other productive agents the elasticity of substitution is zero or nearly zero. On this basis, it may be questioned if capital and foreign exchange are such imperfect substitutes for each other as to be described as separate factors. It must be conceded that there is nothing a priori about this division. It is based on the assumption -- a very realistic one for many underdeveloped countries -- that possibilities of exporting and importing commodities at roughly unchanged prices are extremely low or roughly non-existent. This means that substitution possibilities are so severely limited as to make it a convenient simplification to use them as separate factors.

## 2. The concept and rationale of shadow prices

In the language of programming, shadow prices are nothing but the Lagrange multipliers of a constrained optimization problem. An equivalent way of describing them is in terms of the optimal solution of the so-called symmetric "dual" problem. Their plain economic meaning is none other than that of marginal value productivity of the productive factors in an optimal situation when all alternative uses have been taken into account. The reason why shadow prices are considered to be important for an economist is that the neo-classical theory of resource allocation tells us that the value of the national product at given prices of final commodities is maximized if productive factors are employed so as to equate their value productivities with their rentals.

/It so

It so happens that the rules of the game associated with perfect competition also lead to an identical result, e.g., equivalence of marginal productivities with rentals. But the connexion with institutional aspects of perfect competition in this context is incidental. What is, however, important is the use of prices as parameters in deciding how much to produce. Now, there are a variety of reasons why observed prices in an underdeveloped economy deviate from prices as calculated from the optimizing solution of a programming problem: (a) the institutional context of perfect competition is almost entirely absent; (b) there are structural shortages which do not respond to price changes. In some cases this is not an unmixd evil from the wider sociological point of view, for example, where marginal productivity of labour is zero, and the corresponding shadow price of labour should also be zero, but the market has to assign a non-zero wage level to labour just to keep them alive; (c) connected with (b) there is the problem that prices do not reflect and hence do not transmit all the direct and indirect influences on the cost as well as on the demand side which, under smoother conditions, they would.

Now, it should be obvious that if our objective is to maximize the value of national income, then prices which should be regarded as pointers in planning investment are not the market prices but what are called shadow prices.

There are, however, several questions which may be raised at this stage:

- (a) How do we know these shadow prices?
- (b) Even if we know them from an optimal program in the sense discussed above, they may not be the appropriate ones, because the interest of the planner may not lie in maximizing current national income, but in some other objective or a combination of objectives.

Question (b) is, in a sense, not an important one, because the logic of using shadow prices is quite independent of the nature of the specific preference function that has been set up. Shadow prices in the programming /interpretation are

interpretation are perfectly neutral with respect to the type of maximization that is employed; although their interpretation as prices which would be realized under perfect competition is not. But there is a somewhat related question, though a different one which is not purely semantic. This is concerned with the empirical proposition that planners suggest, and given the power, carry out certain types of investment which yield results over finite though long periods of time. In certain extreme cases these projects do not yield results at all for some time to come. In evaluating such projects, it is not appropriate to take into account only the impact on current national income. But if future experiences are to count, shadow prices calculated as of contemporary scarcities would not be proper. In planning for economic development, the endowments of the relevant primary factors are continually changing and their scarcity aspects are therefore shifting. Hence, what we need for such purposes is not merely the shadow price relating to one point of time, but the development of shadow prices over a period of time, i.e. the time path of shadow prices. Without such an estimate of the time path, a systematic bias may arise against the use of long-run projects, if the "shadow prices" implied in maximizing current production were the only ones to be used.

Once, however, the values and time paths of these prices have been ascertained, there is no doubt that they would greatly simplify the lack of assigning detailed priorities. Construction of adequate "benefit-cost" ratios for the investment projects is possible on the basis of these estimates only. They could then be employed to discriminate between projects, in view of all the interdependences existing at a point of time as well as over a period of time.

Granted what has been said above, we have to turn to question (a) which, in a sense, is the crucial one: how do we know these proper shadow prices? If they are known, then, the optimal pattern of capital accumulation is already known and vice versa. Thus, we are not offering the planners anything immediately practical when we advise them to solve  
/a problem

a problem in dynamic programming, however simplified its structure may be.<sup>2/</sup>

At this stage, the argument for shadow prices rests on our ability to devise certain approximations, which do not require the solution of a full-scale dynamic programming problem. Thus we may first solve a programming model at a relatively very high degree of aggregation and determine the time path of prices of important groups of productive factors such as labour, capital and foreign exchange. Having attained these broad estimates, we may be justified in using them for purposes of assigning detailed priorities to the investment projects in various sectors.

Thus, the derivation of shadow prices on a more aggregative and hence approximative basis together with the decision to maximize net incomes or net discounted value of earnings at these prices would already go a long way to devising more efficient methods of programme evaluation.

An even more approximate procedure would be to use some general qualitative features of capital accumulation in an economy whose structural characteristics are well-known to make certain approximate estimates of ranges within which shadow prices of important productive factors might be expected to lie. This is attempted in our discussion of the shadow rate of interest on the basis of the qualitative characteristics of a multi-sector growth process. Discussion on this point is meant only to suggest certain limits without aiming at quantitative exactitude.

Since the present practice in development programming is based almost exclusively on the current market prices of primary factors which are heavily out of line with their "intrinsic" values, even the use of such approximate shadow prices would lead to a more efficient resource allocation, provided the estimates are correct in a qualitative sense.

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<sup>2/</sup> S. Chakravarty, An Outline of a Method of Programme Evaluation, Center for International Studies, M.I.T., C/61-27. R. Dorfman, P. A. Samuelson and R. Solow, Linear Programming and Economic Analysis, McGraw-Hill, 1958.

### 3. The problem of estimation

#### (a) The shadow price of foreign exchange

It is a well-known observation that the shadow price of foreign exchange in many underdeveloped countries suffering from chronic balance-of-payments difficulties is substantially higher than the official rate of exchange. The reason for maintaining such prices for foreign currency is that as price elasticity of exports and imports is quite low, the mechanism of letting a price find its own level by equating the total demand for foreign currency with the total supply of foreign currency either does not work or works at the expense of income growth. Further, there is a widespread opinion that the balance-of-payments difficulties of newly-developing countries are transitional in character, so that once certain structural changes are well under way, excessive demand for imports or diversion of exports to home uses may cease, thus making it possible to approximate closely the equilibrium rate of exchange.<sup>3/</sup>

Thus while it is necessary to maintain a different official rate of exchange from the shadow rate, the shadow rate will still be the appropriate one to use in order to discriminate between alternative programmes or, in marginal cases, between alternative projects. Since sectors as well as the processes within any single sector differ remarkably with respect to foreign exchange requirements, direct and cumulative, such discrimination is essential in order to satisfy the constraint relating to balance-of-payments equilibrium. If these constraints refer to different points of time, a time path of the shadow rate of exchange will be involved rather than a single rate of exchange to be applied indefinitely. The standard procedure to determine the "shadow rate of exchange" at a point of time is to solve a programming problem of the following type:

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<sup>3/</sup> One may, however, argue for a devaluation of the home currency instead of letting the exchange rate seek its own level. This, however, runs into problems that are not entirely economic in character. Further, too frequent devaluations, depending on the variations in the import composition of the successive plans, will introduce nearly the same type of destabilizing influence as the method of floating exchange rates.



Maximize a certain preference function, e.g. value of national income, subject to a specification of technology and a prescribed level of primary factors, including foreign exchange availability.<sup>4/</sup> Such models have been extensively studied by Chenery, who normally expresses the preference function in terms of minimizing capital needed subject to final demand restrictions, technology and foreign exchange earnings. Chenery also includes import substitution as a built-in choice problem, even when alternative techniques are ruled out. When exports are not infinitely elastic, we have a problem in non-linear programming which has also been considered by him.<sup>5/</sup> In keeping with what has been said in I, if the type of problem considered by Chenery in its static aspects is extended to take into account interdependences in time, in the form of usual recursion relationships that characterize a dynamic model, then the corresponding preference function can be expressed in a number of ways. Some details along these lines have been investigated in a somewhat different context.<sup>6/</sup> But the upshot of the whole matter is to pose a problem having significant dimensions, although part of the dimensional difficulties may be reduced by taking advantage of block-triangularity, characterizing dynamic Leontief-type models. The way out of these difficulties from the computatorial point of view is the following:

Develop a programming model, linear or non-linear, which heavily emphasizes the sectors which engage in international trade either through earning foreign exchange or through consuming foreign exchange on a significant scale. Aggregate the remaining sectors considerably. Solve

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<sup>4/</sup> The more general approach including balance-of-payments deficit (or surplus), as well as the rate of growth of income in the social welfare function cannot be implemented unless we have some method of numerically estimating the relative rates of substitution between the different policy objectives. No very convenient method exists in this connexion, notwithstanding the contribution of Frisch. R. Frisch, The Numerical Determination of the Coefficients of a Preference Function, Oslo, (mimeographed).

<sup>5/</sup> Chenery, H. B. and Uzawa, H., "Non-Linear Programming in Economic Development", Studies in Linear and Non-Linear Programming, edited by Arrow Hurwicz, 1958.

<sup>6/</sup> Dorfman, Samuelson, and Solow, op.cit., chapter 12.

/the resulting

the resulting maximization problem, and then compute the shadow rate of exchange from this approximate analysis. This preserves a certain notion of optimization, which we associate with shadow prices of primary factors.

The alternative to this procedure is to compute the demand for and supply of foreign exchange and then to determine the rate which equilibrates the two. It should be clearly understood that since equilibrium is attainable at many different levels of income, there is no guarantee that this equilibrium rate of exchange is the same as the shadow rate of exchange defined in the preceding paragraphs. However, such an estimate may be useful to know as it summarizes all the relevant information involved in a development plan bearing on the foreign exchange situation. This computation may be done on a very aggregative level, as well as on relatively disaggregated levels. Naturally, the accuracy of the estimates will improve as the data become more detailed.

What we elaborate in this paragraph is how all the components of demand and supply for foreign exchange may be connected. The following notations are employed in the formula for determining the shadow rate of exchange:

- $\{e\}$  - Column vector of exports
- $\{e\}$  - The corresponding row vector
- $\{\underline{w}\}$  - Column vector of investment delivered by the sectors
- $\{w\}$  - Column vector of investment received by the sectors
- $\{\underline{c}\}$  - Column vector of final consumption
- $p$  - Price level of goods produced at home
- $p$  - Vector of domestic prices
- $p_m$  - Price of imports, here assumed to be homogeneous for simplicity
- $k$  - The shadow rate of exchange
- $m_1$  - The quantity of raw materials imported
- $m_2$  - The quantity of investment goods imported
- $m_3$  - Imports of consumer goods

Coefficients:

- $\{a\}$  - Leontief's matrix of flow coefficients
- $\{v_1\}$  - Row vector of imports per unit of gross output. These may also be called non-competitive import requirements per unit of output.

$/\{v_2\}$  - Row

- $\{v_2\}$  - Row vector of imports per unit of investment received. This gives the import composition of the investment programme
- $v_3$  - The functional dependence of imports of consumer goods on home consumption and the relative prices at home and abroad
- M - Total value of imports (measured in domestic prices)
- E - Total value of exports (measured in domestic prices)
- D - Permissible balance-of-payments deficit. This need not be a single number, but may only indicate a range within which the deficits should lie

The problem then consists in determining the value of values of 'k' so that the balance-of-payments deficits are confined to a certain pre-assigned range determined by possibilities regarding foreign aid. Since the estimates are seldom precise, it is useful to work out alternative values of 'k' corresponding to a whole range of possibilities relating to 'D'. In principle, we can solve the various numerical situations to get a step-function relating the shadow rate of exchange to the parameter 'D' assumed variable over a certain range. Assuming, however, that the plan specifies a set of values of  $e$ ,  $w$ , and  $c$ , and the coefficients are inflexible, then 'k' is the only variable to adapt itself to such predetermined magnitudes. It will, however, be desirable to determine the sensitivity of 'k' to adjustment in some of the physical magnitudes which are subject to some degree of control, e.g.  $w$  which gives the import composition of investment or  $c$ , the imports of consumer goods. We have the following final equation for this purpose:

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$$D = M - E$$

$$= k p_m n - e^i p$$

$$= k p_m (m_1 + m_2 + m_3) - e^i p$$

-

$$D = k p_m \left\{ \{v_1\} (I - a)^{-1} (e + w + c) + v_2 \{\bar{w}\} + v_3 (c, \bar{p} - p_m) \right\}$$

$$= \{p_1 e_1 + p_2 e_2 + \dots + p_n e_n\}$$

/We give

We give 'n' export quantities for generality, but some of these will be identically equal to zero, since we have sectors which do not export anything, like services for example. The dimensionalities in matrix multiplication are also properly observed in as much as

$v_1$  is  $(1 \times n)$ ,  $(I - a)^{-1}$  is  $(n \times n)$ ,  $(e + w + c)$  is  $(n \times 1)$ . Thus the whole expression is  $(1 \times 1)$  and may be multiplied by 'p<sub>m</sub>' to get the value in foreign currency of the required amount of imports of raw materials.

$\{\bar{w}\}$  and  $\{w\}$  are connected by the following matrix equation:

$$\{w\} = [w] \{\bar{w}\} \quad \text{where } [w] \text{ is the matrix of investment coefficients.}^{7/}$$

Each 'p<sub>n</sub>' may be written in the following way: (2)  $p_i = A_{oi} k p_m - = 1 \dots n +$  other terms, indicating the influence of whatever other primary factors are assumed to be important. Thus we have  $(n + 1)$  equations to determine the  $(n + 1)$  unknowns, the shadow rate of exchange, 'k' and 'n' domestic prices. This circularity arises because the production of domestic goods needs imports, and as such prices of domestic goods are dependent on prices of imports as expressed in domestic currency.

The above analysis may be easily extended to take into account the heterogeneity of imports, and thus we need not assume only one composite type of imports which is capable of being used for various functional purposes. The extension is of merely algebraic nature and is thus relegated to an appendix.

It should be apparent from the above discussion that exports for this purpose have been assumed to be exogenously prescribed. This is a simplification, although of a nature that is not difficult to justify, especially when price elasticity of exports is very low or low in relation to the other factors involved. These other factors involve the level of world demand as determined by rising world incomes, as well as the domestic expansion of demand for export commodities. If the price elasticities are assumed

<sup>7/</sup> For a discussion of this matrix, see S. Chakravarty, The Logic of Investment Planning, chapter V. North Holland Publishing Company.

to be significant, then this may also be taken account of by a further complication in analysis. But, then, to retain manageability we should have to restrict the number of sectors very considerably.

(b) The shadow rate of interest

The shadow rate of interest is commonly regarded as a concept more difficult than the shadow rate of foreign exchange. One reason for this is that in the case of foreign exchange we are concerned exclusively with flow magnitudes; so many imports representing a flow demand for foreign currency and so many exports representing a flow supply of foreign currency. The shadow rate of exchange equilibrates the demand and supply of foreign currency. With the shadow rate of interest, however, we are concerned with relations between stock and flow, and a very large variety of stocks at that. Further, these stocks have different degrees of durability. All these become extremely complicated if we want to get one single measure of these stocks, as we normally do in talking about "the amount of capital" and "the rate of interest".

The presence of double index number ambiguity, one due to cross-sectional aspects and the other due to longitudinal or intertemporal aspects of capital, makes the interpretation of this single measure somewhat dubious. Nevertheless, it has heuristic significance, as more rigorous models involving multiple capital goods seem to indicate.<sup>8/</sup> The logically rigorous way of deriving these interest rates, one for each stock, which under certain circumstances equal each other, is to specify the decision problem as one in dynamic programming, with appropriate initial and boundary conditions. Choice of natural boundary conditions is not an easy question. For absence of "compactness" in the policy space, infinity does not serve as a proper boundary condition in most economic problems extending over time.<sup>9/</sup>

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<sup>8/</sup> Samuelson, P.A. and Solow, R. M., "A Complete Capital Model Involving Heterogeneous Capital Goods", Quarterly Journal of Economics, November 1956.

<sup>9/</sup> For a discussion of this point see: S. Chakravarty, On the Existence of an Optimum Savings Programme, CENIS, C/60-11.

/All these

All these theoretical considerations are, however, poor consolation for the planner, if the policy-maker is concerned with rationing out scarce capital amongst a number of competing projects. It is true enough that if we know the solution to a full-fledged dynamic programming problem, we know at the same time the shadow rates of interest, because the optimum programme of capital accumulation determines the shadow rates of interest. In that context, they may be used to decentralize decision-making by permitting simple decision rules to be specified. But when that is not feasible, we still need a kind of computational shorthand in order to rank projects. Whatever approximations we may devise for computing the shadow rate of interest, even though they are correct in only a qualitative sense, will be more useful than relying on the observed market rate of interest in economies characterized by market imperfections, etc.

In the subsequent paragraphs, certain considerations relating to the shadow rate of interest are discussed under the following sets of assumptions.

- (a) Where capital stocks are growing at the same proportionate rate and the production functions are linear and homogeneous;
- (b) Where the relative rates of growth of the capital stocks are different, but we still maintain the linear homogeneity assumption;
- (c) Where the production functions are no longer assumed to satisfy the linear homogeneity conditions, and the equiproportionate rate of growth of all the sector does not hold.

We shall discuss these various cases in the order presented above.

(a) The situation (a) may be further subdivided into the following two cases: (i) where there is no final demand; and (ii) where the system admits of final demand, i.e. not all the net product is reinvested. An illustration of case (i) is the closed dynamic model enunciated by Von Neumann in the early thirties. The specific set-up of the Von Neumann model is well known and does not require any repetition. Von Neumann stated as the main conclusion of his investigation the now famous

/equality between

equality between the rate of interest and the maximum rate of balanced growth that the system can achieve. The maximum rate of balanced growth is known to satisfy the criterion of intertemporal efficiency. But, as such, it is one among an infinite number of efficient paths. But what Solow and Samuelson have shown is that for situations referring to sufficiently distant points of time, and preference functions involving terminal stocks of different commodities, the maximal rate of steady growth is the best way in which the system may be allowed to grow, expecting for a finite number of time periods. The length of the period for which the system is allowed to deviate from the Von Neumann model of growth is independent of the time horizon. Admittedly, this is true for "closed systems", e.g., systems admitting no autonomous consumption. But as a first approximation for economies on a very low level of real income, a closed model, particularly one such as Von Neumann's which allows for different patterns of consumption in the same way that it includes different techniques for producing a particular commodity, may not be entirely dismissed out of hand. Hence, the above consideration is not entirely irrelevant from the empirical viewpoint, although from the purely logical point of view, its special nature should be clearly understood.

The Von Neumann model of a closed expanding economy has been generalized by Solow and Malinvaud, who relax the assumption that all the net product is reinvested. In other words, they assume the savings coefficient to be less than unity. Despite differences in presentation, the relationship between the rate of interest and the rate of growth given by the above authors is the same.

The following expression of the relationship is due to Solow<sup>10/</sup> who considers both the capitalists and the wage earners to be saving constant proportions of their incomes:

$$p = \frac{g}{\sigma_R + \frac{1-D}{D} \sigma_W}$$

where  $p$  is the rate of interest  
 $g$  is the rate of growth  
 $\sigma_R$  is the savings coefficient for profit receivers  
 $\sigma_W$  is the savings coefficient for wage earners  
 $D$  is the share of profit income in total income

It is evident that the  $p \geq g$  according as the denominator is  $\leq 1$ . Now the denominator may be written as follows:

$$\frac{D \sigma_R + (1-D) \sigma_W}{D}$$

<sup>10/</sup> R. M. Solow, Notes Towards a Wickesellian Theory of Distributive Share (mimeographed).

/The expression

The expression  $D\sigma_R + (1 - D)\sigma_W$  is nothing other than the weighted average of the two savings coefficients or the savings coefficient for the economy as a whole. Thus we may write  $\rho = \frac{g}{s/D}$  where 's' is the global savings ratio. That this relationship is merely a generalization of the Von Neumann result may be seen easily. On the specific Von Neumann assumption that  $\sigma_R = 1$  and  $\sigma_W = 0$ , the above formula indicates  $\rho = g$ . When  $\sigma_W$  is allowed to assume positive values, there are other constellations of the coefficients for which equality holds. Although the formula indicates the theoretical possibility that the rate of interest may be lower than the rate of growth, whatever empirical evidence we have rules this out as a realistic case. Thus we may be justified in considering the equality as the limiting case.

From the data given by S.J. Patel, (Indian Economic Review, February 1956) it appears that 's/D' in India may lie somewhere between .5 and .3 depending on how one classifies income in the household sectors. Thus, if we assume a maximal rate of steady growth of income at 4 per cent, the rate of interest lies between 8 per cent and 12 per cent. It is obvious that, with a larger rate of growth, the equilibrium value of the rate of interest goes up, or with a higher rate of savings, it falls.

The use of the above formula may enable us to calculate limits for the shadow rate of interest if our a priori knowledge strongly indicates that the "real scarcity" of capital is greater than would be indicated by the currently ruling rate of interest. In that case, the limits are given by the current rate, on the one hand, and by the formula connecting the rate of interest with the maximal rate of steady growth, on the other. The maximal rate of steady growth may be calculated on a first approximation from the set of data usually given in the two Leontief matrices. With the Leontief assumptions the maximal rate of steady growth is determined by the Frobenius root of the matrix  $B(I - A)^{-1}$ , which is naturally nonnegative. For more general situations, the computational difficulties would be much greater.<sup>11/</sup>

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<sup>11/</sup> In using the formula for the generalized Von Neumann situation, we should consider whether the decision on the savings rate is an optimal one or not. If no optimality considerations may be adduced for the savings coefficient, the rate of interest calculated from the Solow expression would not measure the intrinsic scarcity of capital.



There are two points that one should remember in this context:

(a) The rate of interest as calculated on the above approach is not "the rate of interest" as usually understood in connexion with the capital or money market. This should be obvious, because the model does not introduce uncertainty and corresponding distinctions between various types of assets.

(b) The rate of interest as deduced from the Solow formula is different from the pure rate of time discount. It takes into account both productivity and thrift. The influence of productivity is taken into account in the numerator, while the savings coefficient subsumes the influence of thrift. Behind thrift lies the factor of time preference. The rate of pure time discount that is involved may be estimated if we assume that the observed savings rate is the result of an operational decision to maximize the sum of discounted values of consumption over a period of time. This is similar to the famous Ramsey model of optimal savings. The difference consists in introducing a nonzero rate of time discount which Ramsey would have found ethically inappropriate, and in the further restriction that is involved in reducing the 'path maximum' problem to a 'point maximum' problem. By a 'point maximum' problem we mean the problem of maximizing an integral of discounted utilities, by a once-for-all choice of savings rate. The period of time may be finite or infinite, depending on the planner's point of view. In the finite case, there should be a provision for terminal equipment. Then, for every savings rate, we can find the underlying rate of time preference.

This problem has been investigated by Tinbergen.<sup>12/</sup> He gives a number of equilibrium relations involving the rate of time discount, the savings rate, and the capital coefficient, each based on a specific hypothesis relating to the utility function. The utility function underlying the simplest problem is in his case a logarithmic one. It should, however, be noted that our problem here is the logical inverse to Tinbergen's problem. He is interested in finding out the optimum rate of savings corresponding to any given values of the capital coefficient, and time preference. In our case, we want to know the underlying time preference, assuming that the savings rate is already an optimal one, other parameters remaining the same.

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<sup>12/</sup> J. Tinbergen, "The Optimum Rate of Savings", Economic Journal, 1956

The Tinbergen result can be generalized by introducing more general types of production functions and utility functions other than the logarithmic or hyperbolic ones considered by him. There is scope for much further investigation along these lines.

(c) We now consider the situation when all the sectors are not assumed to grow at the same proportionate rate, but all the relevant production functions have the needed convexity properties.

In this case, the relative prices and the interest rate are no longer constant. Further, since the rate of growth is not a single figure characterizing the entire process, we have to deal with the constantly changing moving equilibria, as it were, and the relation in which the growth rate stands to the rate of interest would therefore be continually shifting. Further, 'the growth rate' in this case is itself a somewhat ambiguous concept. Also, the various own rates of interest no longer equal the own rate of interest for the numeraire commodity. It is therefore patent that we can say very little on the question without going the whole hog of solving a problem in dynamic programming. In principle, an optimal solution is always possible in case (b). But to achieve that we have to specify first the appropriate terminal conditions, the initial stocks and the time profile of consumption over the entire period. Having done that, we have to apply the usual techniques of maximization over time. Such problems have been considered in the earlier paper entitled "A Complete Model of Programme Evaluation". For a general reference, see Dorfman, Samuelson, and Solow, Linear Programming and Economic Analysis, chapter 12.

#### 4. The calculation of priorities

In this section we consider the method of calculating priorities in an investment programme by using shadow prices. We must bear in mind that while we calculate the benefit-cost ratios for a single project, we do it as of a given programme, and not for the project in isolation. This follows from the fact that the projects are necessarily interlinked, and imply certain assumptions about the rest of the economy. Thus one project may be chosen from a set of competing projects, if the rest of the programmes may be assumed to be relatively unaffected by this choice.

/We may

We may also consider a more generalized situation where there is a technically nonseparable collection of projects which can be singled out for piecemeal decision-making. Now in this case this whole collection has to be treated as one unit and the benefit-cost calculations have to be calculated for this one unit as a whole. The word 'technical nonseparability' is important in this connexion. The assumption of linear homogeneity is crucial to the applicability of the shadow price argument, as usually understood. This is because the logic of applying shadow prices is, in essence, an argument for piecemeal decision-making. Piecemeal decision-making in situations characterized by increasing returns or significant external economies either leads to insufficient output or to no production at all. This causes difficulties with respect to the remainder of the programme where the outputs of the above sectors serve as technologically necessary ingredients. Thus, it appears that in these situations the better procedure is to solve the entire problem simultaneously as an example of co-ordinated decision-making.<sup>13/</sup>

The advantage of the shadow price technique becomes considerably greater if the complex of planning problems may be assumed to be decomposable into the following stages:

- (a) How much to invest in all over a number of years;
- (b) How to distribute the total investment resources among different sectors of the economy;
- (c) How to choose the best method of utilizing the resources allocated to a sector.

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<sup>13/</sup> Possibilities of decentralized decision-making in situations characterized by the absence of the classical homogeneity or independence assumption have been investigated in the important paper by Arrow, K.J. and Hurwicz, Lionel, in Essays in Honour of Harold Hotelling, edited by R.W. Pfouts, Chapel Hill, North Carolina.

/If the

If the stages are strictly consecutive, we may think that the decision on level (b) is reached on the basis of maximizing income over a period of time subject to all the interdependencies in production, investment and consumption. This would roughly indicate how much to invest in each sector. If there are sectors like social overhead capital where investment is made on grounds independent of any maximization process, then we should consider the remaining sub-set of sectors for our decision purposes.

The decision on stage (c) can be reached on the basis of utilizing a shadow rate of interest and for a given time profile of production, on the requirement that the costs are minimized.

In theory as well as practice, the stages may not be that distinct, in which case decisions on (b) and (c) may have to be reached simultaneously. The shadow rate technique should then be replaced by the general methods of dynamic programming.

Now let us consider the problem quantitatively. We use the following notations:

$W_i(t)$  - The investment in the project per unit time  
 $F_i(t)$  - The foreign component of investment per unit time

$$F_i = aW_i \text{ where } 0 \leq a \leq 1$$

$g$  - The length of the gestation period

$n$  - The length of the operating period

$r$  - The shadow rate of interest

$k$  - The shadow rate of exchange

$D(t)$  - The current operating expenses of a project

Then the cost of a project may be calculated as follows:

We have  $F_i = aW_i$

Therefore  $H_i = (1-a)W_i$  where  $H_i$  is the domestic component of investment.

Since we value the foreign investment component at the shadow exchange rate, we have:

$$\begin{aligned} kaW_i + (1 - a)W_i &= W_i(ka + 1 - a) \\ &= W_i(1 - a(1 - k)) \end{aligned}$$

/Let us

Let us assume that we know the timeshape on construction effort:  $W(t)$ . Then the cost of investment in the project may be calculated as:

$$C = \sum_{t=g}^0 W(t) \{1 - a(1-k)\} (1+r)^{-t} + \sum_{t=0}^n D(t) (1+r)^{-t}$$

The first term on the left-hand side indicates the investment that is made during the gestation period of the project and the second part indicates the cost that is incurred during the exploitation period. Now the decision rule consists in minimizing "C" for a given time profile of 'output'. To put it differently the projects to be compared are those which give the same time profile of output, given by the over-all planning problem. Out of these projects, the one will be chosen which minimizes total cost over the combined gestation and exploitation period of the project.

## 5. Conclusions

In this section we may briefly review the conclusions reached in the earlier sections and indicate the relevance of the shadow price concept with respect to a few practical problems encountered in Indian planning.

Briefly stated, our discussion has clearly indicated that the technique of using shadow prices serves as a useful computational shorthand in devising a relatively "efficient" system of programme evaluation. The qualification on "efficiency" arises because in the presence of non-convexities in the production processes of certain sectors, the shadow price device does not enable one to reach the "efficient" constellation of the system. The advantage from using shadow prices holds good even though the shadow prices we use are not exact, but merely approximations, although it is important that they should be in the right direction. Given the data, the calculation of the shadow rate of exchange does not raise great difficulties. The simplified procedure indicated in this paper, or the more elaborate linear programming method discussed by Chenery may be usefully employed. With respect to the shadow rate of interest, the conceptual difficulties are greater. But if we use the approximation procedure outlined earlier in this

/paper, we

paper, we get a range of 8 to 12 per cent for the shadow rate of interest under Indian conditions. The exact shadow rate of interest may be higher than this, but it is unlikely that it will be lower than the range given. This already gives us a basis for how to judge projects which are economic only if the rate of interest is 4 per cent or  $4\frac{1}{2}$  per cent.

The relevance of the shadow prices to practical problems may be understood if we take into account the problem of choosing between importing fertilizer, or setting up a fertilizer plant, or machinery for manufacturing fertilizer producing equipment. In the simple Austrian models, where choice is confined to a pair of alternatives, the cost of one is the opportunity foregone with the other projects. This is difficult to apply if a variety of possibilities exists for each unit of investment. Under such conditions, the opportunity cost of a unit of investment is measured by its shadow rate of interest. Similarly, the cost of a unit of import should be valued at the shadow rate of exchange, rather than at the official rate. Now, if we take, for example, a shadow rate of exchange of Rs. 6 to a dollar and a rate of interest lying between 8 and 12 per cent, we may calculate the cost of each type of project, over the gestation period, given the time shape of the construction effort. Further, with a given time profile of 'output', in this case agricultural production, we can calculate the total costs for each project, e.g., investment costs and operating costs. Naturally, with other things remaining the same, the project with the lowest cost should be chosen.

The same line of reasoning may be applied to other problems such as the choice between various types of power stations. An interesting contribution in this regard is the paper by Professor P.N. Rosenstein-Rodan on the contribution of atomic energy to India's development programme.<sup>14/</sup>

All this indicates the fruitfulness of the shadow price method in practical policy-making, if the appropriate reservations are borne in mind.

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<sup>14/</sup> P.N. Rosenstein-Rodan, Contribution of Atomic Energy to a Power Programme, C/59-15.

# Appendix

## The Shadow Rate of Exchange: The General Case

This appendix deals with the case of how to determine the shadow rate of exchange where imports consist of different types of goods.

The price of each domestic commodity in domestic currency is given by the following equation:

$$P_i = k' (A_{n+1,i} P_{n+1} + A_{n+2,i} P_{m_{n+2}} + \dots + A_{n+j,i} P_{m_{n+j}}) (i=1, 2, \dots, n) \\ + \text{contribution of other primary factors.}$$

Here  $A_{n+1,i}$  is the cumulative coefficient of the first import commodity in the production of  $i^{\text{th}}$  domestic commodity. We have 'n' such equations for 'n' domestic commodities.

In addition we have the equation relating to the permissible balance-of-payments deficit:

$$C = k \left[ \left\{ (p_{n+j})' \begin{bmatrix} v_1 \end{bmatrix} \begin{bmatrix} I-a \end{bmatrix}^{-1} \right\} (e + w + c) + (p_{n+j})' \begin{bmatrix} v_2 \end{bmatrix} \begin{bmatrix} w \end{bmatrix} \right. \\ \left. + (p_{n+j})' \left\{ v_3 \left( c, \begin{bmatrix} p_{n+j} \end{bmatrix}', \begin{bmatrix} p_i \end{bmatrix}' \right) \right\} \right] - (p)' (e)$$

Thus we have  $(n+1)$  equations to determine  $(n+1)$  prices, 'n' domestic prices and one shadow rate of exchange.

The dimensionalities of above matrices and column vectors are as follows:

- i)  $(p_{n+j})'$  is a row vector of the dimension  $(1 \times j)$ .
- ii)  $\begin{bmatrix} v_i \end{bmatrix}$  is a matrix of dimensions  $(j \times n)$ .
- iii)  $\begin{bmatrix} I-a \end{bmatrix}^{-1}$  is a matrix of dimension of  $(n \times n)$ . Thus the product has dimension  $(1 \times n)$ , hence a row vector.
- iv)  $(e + w + c)$  is a column vector of dimensions  $(n \times 1)$ . Thus the first term in brackets is a scalar, indicating the total amount spent on imports of raw materials.

$$/v) \begin{bmatrix} v_2 \end{bmatrix}$$

- v)  $\begin{bmatrix} v_2 \end{bmatrix}$  is a matrix of dimensions  $(j \times n)$ .
- vi)  $\begin{bmatrix} w \end{bmatrix}$  is a column vector of dimensions  $(n \times 1)$ .
- vii) The second term in brackets is  $(1 \times 1)$ , also a scalar, indicating the amount spent on imports of investment goods.
- viii)  $v_3 (c, p_{n+j})', (p_i)'$  is a column vector of dimensions  $(j \times 1)$ . The third term is also a scalar, indicating the amount spent on imports of consumer goods.
- ix)  $(p)'(e)$  is also a scalar since  $(p')$  is  $(1 \times n)$  and  $(e)$  is  $(n \times 1)$ . In this case, exports have been exogenously determined. We may also consider the more general case, where exports are determined from within the above set of calculations. This, however, requires a more complicated approach.



## Annex VIII

### ECONOMIC AND SOCIAL PROJECTS IN A SHORT-TERM PROGRAMME

by Louis Delwart

#### 1. Commitments under the Charter of Punta del Este

Upon signing the Charter of Punta del Este, each country made specific commitments to prepare both social and economic projects. The objectives of the Charter are not limited to a 2.5 per cent minimum rate of per capita growth. They also include specific goals in the fields of education, public health, potable water, and others.

#### 2. Competition for scarce resources

Economic and social projects compete for scarce resources; however, their effects on the economy are somewhat distinct. Economic projects have generally higher benefit/cost ratios, partly because of generally shorter gestation periods. They also have a generally greater indirect impact on output through greater backward and forward linkages; in addition they usually make a greater contribution to the supply of entrepreneurship, of industrial skills, etc. On the other hand, social projects often have a greater employment multiplier effect, as their low foreign-currency content reduces import leakages. They have the disadvantage, however, of creating structures which may require excessively large maintenance and operating expenditures for the future.

#### 3. A definition of economic and social investment

Most definitions of economic investment revolve around the concept of a direct contribution to productivity, as opposed to a social investment whose effects on productivity are generally felt in the long run. Finer distinctions can undoubtedly be made.

It might be desirable to adopt an operational definition such as used by the institutions likely to provide the foreign financing; one might consider the definition of the Inter-American Development Bank for example,

/which considers

which considers eligible for social development loans in its Social Progress Trust Fund projects in the fields of land use, community water supply and sanitation facilities, housing for low-income groups, and supplementary financing of facilities for advanced education and training.

4. Historical ratios of social and total investment

Historical ratios of social and total investment in Latin American countries have been 15-25 per cent, the highest ratios being found generally in the more developed countries.

There has been a recent tendency for larger increases in foreign-financed social investments. These may be a temporary phenomenon, traceable to the long enduring scarcity of foreign financing for these projects.

5. A first attempt at choice between social and economic investments in the short run

First priority: Mandatory investments, or "crisis" investments. These investments (economic or social), are necessary to avoid a breakdown in the economic and/or the political structure of the country, (e.g. to avoid a violent social eruption in a given area; to avoid the immediate breakdown of the transportation system). This category of "mandatory" investments should be understood very narrowly.

Second priority: All the economic investments necessary to bring the country to its pre-chosen (say 5 per cent) yearly rate of growth.

Third priority: Non-mandatory social investments, which will then become a residual.

This suggested classification is meant only as a first approximation; it will be revised in the light of political and other considerations; it may also have to be revised somewhat to allow for the inter-industry impact of each category of investment.

/6. Dual

6. Dual nature of economic and social investment

Virtually all economic investments have a (small or large) social impact; the reverse holds true for social investments.

There are, however, types of economic investment with a high social impact. This applies, for example, to all investment which tends to reduce the cost of basic necessities, such as processed foods, clothing, furniture; it applies also to all investment which is highly labour-intensive. Inversely, on-the-job accelerated training is a social investment with high economic impact; the same can be said for most aspects of preventive medicine.

Social investment need not be very expensive to produce noticeable results (country schools with just a thatch roof, four poles, and no walls; water supply to poor urban areas by means of a single copper tube).

7. Constraints placed on the choice between social and economic investment in the two-year programme

Physical restraints: All work in progress must have priority, whether it be of an economic or of a social nature.

Institutional constraints:

- such as imposed by budgets already voted, even for the following year;
- legislation providing for the earmarking of funds (gasoline tax receipts must be spent on highways);
- inhibiting local legislation;
- absence of the necessary executive or administrative mechanisms to carry out certain types of otherwise desirable economic or social projects within the two-year period;
- constraints placed by the fields of operation of the various financial agencies; each agency prefers to finance certain types of operation; the foreign financial component of a country's programme will have to adjust to the composite preferences of the financial agencies.

/8. Non-investment

8. Non-investment effects of a social policy

The "qualified residual" method of arriving at social investment may have a relatively small ratio of social investment in a given country. However, a strong social policy can be followed without vast expenditures on social projects, provided however, that vigorous policy measures are taken in the fields of wages, tariffs, taxes, credit and land reform.

Annex IX

THE PLAN OF ACTION OF SAO PAULO

A statement on the technique adopted for preparation  
of the Plan

by the Planning Group

Introduction

The purpose of this statement is to provide the Working Group that is preparing the documents to be presented by the delegation of Brazil at the forthcoming meeting at Montevideo with succinct information on the methodology followed in the preparation of the Plan of Action of the present Government of the State of São Paulo, and to give an idea of the structure and functioning of the financial system and systems of control used to check on the implementation of the plan. Because so little time was available, it was decided to include in this statement only those aspects not dealt with explicitly in documents already issued on the Plan or in the annual messages of Governor Carvalho Pinto to the State Legislative Assembly.

1. Preparation of the plan

1. The first step in the preparation of the Plan of Action and the introduction of a system of budgets by programmes for the State of São Paulo took the form of consultations with the entire State Administration on the needs to be met and the programmes to be carried out. Thus, Decree No. 34 656 of 12 February 1959, which created a Planning Group, at the same time provided that all state agencies, including autonomous and joint official and private institutions, should submit statements on the fundamental problems involved in the execution of the works and services which they were expected to accomplish. The same decree required that these statements be accompanied by suggestions that might help to solve budget estimate problems and the corresponding programme of activities for a period of four years, an approximate indication of the volume of financial resources needed to carry out the works and services, and a brief statement in support of the programmes.

/2. As

2. As it received these various programmes, the Planning Group attempted to analyse them from two standpoints:

- (a) The needs of the various divisions of the State Administration (education, health, etc.) and the economic and social development of the State; and
- (b) The consistency of each programme with the programmes of other State agencies.

In this way an attempt was made not only to incorporate into the objectives of the Plan those projects that had already been analysed, but also to see that those objectives were mutually compatible and not contradictory, and to create conditions that would favour the continuance of the process of the State's economic growth.

3. Later the results of that analysis were discussed with the agencies concerned, a procedure that in many cases led to the reshaping of certain projects or the improvement of others. In this manner it was possible for the State Administration to participate amply in the formulation of the Plan and at the same time to assume joint responsibility for the implementation of the programmes presented.

4. During the entire period of preparation of the sectoral programmes, the Planning Group made an analysis of the evolution of the São Paulo economy over the last twelve years, and attempted to determine the changes that have occurred in the structure of the State's real product. The development of the State's agriculture and industry in the period 1947-58 was also analysed, with special attention paid to tendencies toward change in the production structure of those two sectors. This latter analysis revealed certain areas in which the State Government could take action under its constitutional authority, and thus help to guarantee continued economic development at a rate similar to that noted in the recent past.

5. With respect to the financing of the programmes, the basic policy adopted was to prepare and carry out a plan that would fit into the State Government's present normal sources of revenue; that is, without increasing taxes or creating new sources of funds by levying new taxes, and not containing specific provisions on the execution of the programmes.

/The intention

The intention of that type of planning was to achieve a better utilization of the resources of the State Government's financing agencies (Banco del Estado de São Paulo, Caixa Econômica Estadual, and Instituto de Previdência do Estado de São Paulo).

6. Pursuant to that policy, in order to estimate the funds available for execution of the Plan, the Planning Group, working together with the Treasury Department, undertook an analysis and projection of State revenues and expenditures for a period of four years, noting particularly, in the case of expenditures, the proportion allocated to pay administrative costs in connexion with investments.

7. On the basis of the expenditures contemplated for 1959, current expenditures were projected, distinguishing for this purpose between those for payrolls, those for the purchase of materials, and those for services and other charges.

8. With reference to personnel, two kinds of increases were considered: one deriving from salary increases, which is a general administrative measure and which can therefore be programmed; and the other deriving from increases in staff, made necessary by execution of the investment plan itself, a factor that always entails increased services. Two types of increase were also projected for expenditures for materials and services, one resulting from the rise in the price level, which was handled by adopting a rate of inflation over the prices that prevailed at the beginning of 1959, and the other deriving from the above-mentioned expansion of services, which led to the allocation of a specific amount of funds to meet this type of increase.

9. After adding those items for administrative costs and other legal charges, and checking them against the estimate of expenditures, a balance of approximately 100 billion cruzeiros was obtained, which represented the estimated available funds that could be allocated to investment during the remaining four years of the present administration.

10. With respect to the programmes submitted by the various State agencies and the volume of new resources necessary for their execution, or in other words, deducting from the necessary total the expenditures for which funds were in some way assured (specific earmarking through previous legislation, financing already provided for, etc.), it was possible to distribute those 100 billion cruzeiros among the various sectors of activity for each fiscal year.

## 2. Approval of the plan

11. Under the present structure of the distribution of powers, the competence of the Legislature to approve governmental plans derives from the authorization of the Executive Branch to adopt the measures necessary to implement the Plan, especially the highly necessary financial measures. This authorization is an indispensable condition to making the expenditures, and it is normally granted once each year through the vote on and approval of the budget.

12. This situation was duly considered, and once the objectives to be attained in the principal divisions of the State Government during the Administration's term of office had been established and the distribution of resources determined, a bill was prepared containing the necessary financial provisions to put the Plan of Action into effect. This bill became Law Nº 5 444 of 17 November 1959.

## 3. Objectives of the plan <sup>1/</sup>

13. The general purpose of the Plan of Action is to improve and bring up to date the activities of the State in order to place them on a level appropriate to the progress of São Paulo. The Plan is oriented toward two broad groups of investments:

- (a) Investments designed to improve the condition of the people; that is, investments to raise the level of the welfare and productivity of the population; and
- (b) Investments to promote development; that is, large investments in the infrastructure of the economy and in programmes to develop and give incentives to agricultural and industrial expansion.

14. A total of 30.7 per cent of available financial resources or 30.725 billion cruzeiros, was allocated to the improvement of the condition of the people, distributed as follows:

- (a) For Education, Culture, and Research, the considerable sum of 14.682 billion cruzeiros was allocated, the following outstanding objectives, among others, having been programmed: construction

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<sup>1/</sup> A complete detailed list of the objectives of the Plan of Action is given in the publication entitled Gobierno Carvalho Pinto, Plan de Acción 1959-1963, São Paulo, 1959, pp. 45-50.



and installation of 7,000 primary school classrooms with capacity for 110,000 pupils; construction and equipment of 30 industrial education units; definitive installation of the Armando de Salles Oliveira University; and construction of a foundation to handle problems of technical and scientific research.

(b) For Justice and Public Security, to which 5,325 billion cruzeiros are to be allocated, various projects and the purchase of equipment were programmed with a view to solving problems relating to needy children, jails, new equipment for police services, and effective and more rapid court services.

(c) Public Health and Social Welfare will absorb 9,518 billion cruzeiros destined not only to provide 100 medical and health stations, 75 child care stations, 93 pre-natal services, and a number of welfare centres, hospitals, and dispensaries in both the capital and the rest of the State, but also to finance an extensive campaign for the eradication of malaria covering a population of 2.7 million inhabitants, and to provide 18 million days of bed care in order to expand free hospital assistance.

(d) The investment of 1.2 billion cruzeiros was also programmed to expand water supplies and sewers in the capital and to finance the installation or expansion of these services in a large number of cities in the rest of the State.

15. To improve the infrastructure approximately 42 billion cruzeiros were allocated for investment in electric power, railways, highways, municipal bridges, airports, ports and navigation.

16. An outstanding undertaking of vital importance to the continuance of the process of development is the programme for construction of electric power plants, which by 1963 should increase the potential of the State by more than 900,000 kilowatts. This programme also includes initiation of construction work on the Jupiá plant and the Urubupungá system, which upon completion will have an installed capacity of close to 3 million kilowatts.

/17. In

17. In the effort to improve the infrastructure of the State's economy, it was also planned to modernize and provide new equipment for the State railways, and to construct 1,600 kilometres of new highways and to pave 3,000 kilometres. The sum of 19.8 billion and 7.9 billion cruzeiros were allocated to highways and railways, respectively.

18. The sector of agricultural and industrial development and expansion encompasses programmes in the fields of research, rural extension, supplies, expansion of the network of storage plants and silos, and the institution of a system of medium - and long-term credits, in order to encourage private investment in agriculture and industry. Funds amounting to 27.2 million cruzeiros were allocated to these items.

19. These funds are intended for the installation and proper equipping of agricultural development facilities of the State, such as the construction and equipment of 308 agricultural centres, 24 mechanization stations, 15 seed stations, 3 training and research centres, 4 intermediate fishery stations, 27 conservation units, 18 zootechnical stations, 8 experiment farms, 12 demonstration areas, etc. Moreover, the funds will make it possible to expand the existing network of storage plants and silos through the construction of units offering an additional capacity of 80,000 tons of storage space and 150,000 tons of silo space; the construction and equipment of a supply centre; the establishment of three medium- and long-term financing funds, and the participation of the State as a minority shareholder in projects for the installation of large-size basic industries.

20. The aforesaid financing funds, which will be administered by separate boards comprised of representatives of the State and of the private sector of the economy, will be made available to agriculture and industry by the Banco do Estado de São Paulo, S.A., through the recently created Economic Expansion Division. The Agricultural and Livestock Expansion Fund, which has resources amounting to 7.250 billion cruzeiros, is intended chiefly to accelerate the process of providing capital for and modernizing primary economic activities through the financing of investments in agriculture or in industries directly related thereto.

The Basic Industry Expansion Fund is intended to finance, on a medium- and /long-term basis,

long-term basis, the installation and expansion of small and medium-size industries engaged in activities that are considered basic. The Fund for the Financing of Production Industries is designed to provide the São Paulo capital-goods industry with medium-term financing for its sales throughout the national territory. As is apparent, these Funds represent a contribution by the State to the maintenance of São Paulo's rate of economic development, and it will be noted that under the Plan of Action resources amounting to 10,250 billion cruzeiros, distributed in equal parts among the Funds, were allocated to these purposes.

#### 4. Administrative organization for planning

21. The same decree which set up rules for the co-ordination and planning of the State's services and works and which led to the establishment of a planning system in São Paulo, also created under the Office of the Governor a Planning Group to act as a direct advisory body for the Chief Executive of the State.<sup>2/</sup>

In addition to its regular members - almost all of whom are technicians from other agencies of the State Government and who continue to serve in their regular posts - the Planning Group consists of a single technical team charged with carrying out all of the tasks and duties entrusted to the body. This team is directed, on the technical side, by an executive secretary, and the task of co-ordinating the work of the Group with the higher authorities of the various State departments and of making the preliminary analysis of the political aspects of the programmes is assigned to a co-ordinator.

22. The first important task that the Planning Group had to carry out was, obviously enough, to study the Plan of Action. However, since planning is a permanent process that is being progressively established in the State Administration, the activities of the Group did not cease with the preparation of the plan and the appropriate bill. There was merely a change in its fundamental activity.

23. After the Plan of Action was approved, the Planning Group's principal job was to see that the Plan was implemented. It acts as a centre, toward which all information on the execution of the Plan is channelled, to be

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<sup>2/</sup> Decree Nº 34,656, 12 February 1959, Article 2.

analysed and summarized, in order to serve as a basis for the Governor's decisions.<sup>3/</sup> Its work also includes keeping up to date on the economic, financial, and social development of the State and the country, especially with respect to the economic and financial policy followed by the Federal Government and the effects of that policy on the State's economy.

24. Those two types of control provide the Planning Group with the basic elements needed for revision of the Plan with respect to its objectives, the methods followed, time limits, or the time to put the programmes into practice.

25. Another task incumbent upon the Planning Group is to analyse the proposed works and services required to achieve the objectives pursued, in order to assist the Governor in making his decisions. These projects are submitted by the Administration and they specify the general programmes envisaged in the Plan of Action. The analysis is ordinarily made in connexion with the procedure of making the necessary funds available, with due account being given to co-ordination between the plans and the means for financing them.

26. The Planning Group also has the duty of undertaking substantive studies of existing problems connected with the governmental activities of the State, with a view to laying the groundwork for long-term planning. Pursuant to this responsibility, and at the express behest of the Governor of the State, the Planning Group is currently studying a Second Plan of Action which the present Governor will present to his successor, together with a subsidy to continue the administrative work.

27. In brief, the Planning Group operates as an advisory agency to serve the Governor of the State in co-ordinating governmental economic and financial activity. It also acts as a technical assistance agency for the various departments of the State Government in programming their activities.

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<sup>3/</sup> See chapter VII, where the control functions are dealt with in greater detail.

28. The principle underlying the planning system adopted by the Government of the State of São Paulo recognizes the fact that the Administration should share in the responsibility of the planning. Thus, the agencies that are to execute the plans will also have responsibility for planning their activities in accordance with the Governor's directives and can use all the fund of knowledge accumulated over a period of years, thanks to the permanent contact maintained with the problems that must be solved by the Administration. In this respect, the work of the Planning Group in the early state consists of helping the various agencies, through its technicians, in the preparation of their programmes, keeping those directives in mind and, at the next state, in co-ordinating the various programmes submitted. In some cases this assistance may even take the form of participation by the technicians of the Planning Group in the preparation of the plans, in co-operation, of course, with the technical experts of the agencies that will implement the plans.

29. Because responsibility for preparation of the plans was assigned to the agencies that will eventually implement them, these agencies found themselves obliged to set up their own planning services or to improve those that already existed. Thus, planning offices were created in the various State departments, whose function is to perform the same duties for the secretaries of those departments as the Planning Group performs for the Governor. In almost all the State departments control services were also set up which will co-ordinate with the central control exercised by the Planning Group.

30. Since the planning system adopted in São Paulo is based on co-ordination between planning and the budget, a sound system of budget offices distributed throughout the State Administration is of very great importance, and so is also the relationship between such offices and the Planning Group. The existence of such a system and its effective liaison with the Group explain in large part the rapidity with which the process of planning the budget by programmes was adopted.

/31. Preparation

31. Preparation of the budget in São Paulo is the responsibility of the Budget Division, under the Office of the Comptroller General of the State, and the Budget Committees. During the preparation stage, the former makes an analysis to see whether the budget classification of the proposals submitted is correct, and it prepares the budget document and its annexes; after the budget goes into force, the principal responsibility of the said office is to handle the accounts. In each State department there is a Permanent Budget Committee, which must direct and supervise the preparation of the individual budget proposals of the various administrative units of the department concerned, adhering to the budget policy and rules, current legislation, and the limits set on expenditures. The Committee also examines the individual budget proposals and co-ordinates them in the particular department's total budget. In the Treasury Department there is a Central Budget Committee, of which the chairman is the Secretary of the Treasury himself, and which, together with the Planning Group, studies and suggests the lines along which the budget policy to be followed for the fiscal year should be defined, and prepares instructions for the preparation and application of the budget. This Central Committee also controls the implementation of the budget through making available the funds earmarked for the various services.

32. To summarize, the administrative organization for the planning of the economic and financial activities of the State of São Paulo consists of the Planning Group, the Central Budget Committee, and the Budget Division, the last two being under the Department of the Treasury, and the planning, budget, and control units of the other State departments and autonomous administrative agencies. In view of the structure of the financial system as it has been approved, the execution of the Plan of Action requires the co-ordinated work of all these bodies, as will be seen further in this report.

5. Structure of the approved financial system

33. Law Nº 5,444 authorized the Executive Branch to spend during the period 1959-62 up to 100 billion cruzeiros, within the limits of the distribution by sectors and fiscal years as set forth in the table annexed to the said law,

34. To meet the expenditures resulting from that law, the Legislative Branch was further authorized to allocate supplementary credits, which will be expended in various years (up to 31 January 1963), to a limit of 100 billion cruzeiros, and to enter into credit operations up to the same limit in order to finance the authorized credits.

35. By reason of these authorizations - which represent approval of an investment budget for a number of years - the Executive Branch was potentially and legally authorized to carry out the Plan of Action on the margin of the ordinary budget and to finance the costs with funds additional to those obtained from tax collections and other ordinary revenues. However, this was not the primary interest of the State Government. The purpose of that broader authorization was to guarantee conditions in advance for the full execution of the plan, the law having provided for a system of co-ordination between the costs of the Plan of Action and the ordinary budget, as will be seen below.

36. The financial machinery approved by means of an over-all authorization covering a number of years - after the budget allocations had been specified simply by sector and by year - also determined the conditions for implementation of the Plan of Action with the necessary continuity; funds were provided at the very beginning for all the projects, including those that normally extend beyond one fiscal year. Furthermore, this mechanism guarantees the execution of works in shorter periods of time and at lower costs, since it eliminates or reduces the bureaucratic delays resulting from the interruptions inherent in transfers from one fiscal year to another, such as occur when legislative authorizations are strictly annual and must be renewed each year through the budget. Since there is now no danger of interruption in the payments, the additional charges that lenders or suppliers customarily include in the price of works or supplies of materials to protect themselves against possible delays have been reduced or eliminated. Another factor that helps to reduce costs is the programming and execution of the great volume of works provided for in the Plan of Action. This leads lenders to make readjustments

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and they prefer to increase their earnings by undertaking a greater number of projects, despite a reduced profit per unit.

37. By limiting the allocation of funds to sectors only, the necessary flexibility in programme execution was insured, for this makes it possible to revise programmes when the circumstances confronting the State Government at any given time so require. This mechanism also makes possible a better distribution of funds among the various programmes, and concentration, when necessary, on certain priority projects. Thus the undesirable practice of thinly spreading out investment funds to undertake a series of works, a common occurrence in public budgets in which the items are discussed and approved, and each one specifically determined, was eliminated. This system of breaking up the funds which, as has been demonstrated, leads to losses, and the unwise use of budget funds earmarked for investment was discarded, thanks to the financial mechanism of the Plan of Action.

38. The reconciliation between continuing planning on a four-year basis and the ordinary budget, subject to the constitutional requirements in regard to yearly, unified, and over-all budgets, was dealt with by providing for the inclusion in the budgets for the fiscal years 1960, 1961, and 1962, of the funds for the investments that would be made in accordance with the work plan prepared for each of those years.<sup>4/</sup> However, when recourse to supplementary credits was authorized, the Executive Branch was empowered to use alternatively, in relation to each investment, either the corresponding budgetary funds or allocations of additional credits. This involves no risk of duplication because, by virtue of the approved mechanism, all expenditures actually made to the account of budgetary funds will be deducted from the total authorization of the 100 billion cruzeiros.<sup>5/</sup> Provision was further made for the transfer to the following fiscal year of each year's unexpended balances - considered in relation to the annual limits fixed in the table specifying the distribution of investment by sectors and with due regard for allocation to the same sector.<sup>6/</sup>

39. These provisions authorize the opening of additional credit in one year, to be charged against the following year, when actual expenditures reach the limits fixed by the law. This system was adopted because in the public financial mechanism there is a lag between the time when the expenditure is obligated (or promised) and the time when it is actually made. The lag is still

<sup>4/</sup> Article 5 of the law cited.

<sup>5/</sup> Article 5, single paragraph, of the law cited.

<sup>6/</sup> Article 1 (2) of the law cited.



greater with respect to investment and, above all works projects, because the obligation is contracted when the bids on the projects are opened, and the final payment does not take place until eighteen months later.

40. To complete the co-ordination of the Plan of Action with the normal budget, provision was made, aside from the alternative of credit operation, to cover the additional credits by using surplus revenues, that is, surpluses of budgetary fiscal revenues (from taxes, state properties, etc.) actually received over and above those envisaged in the budget.<sup>7/</sup> This measure provides that when additional credits are use, they may be covered by tax revenues.

41. The limit of 100 billion cruzeiros for the opening of additional credits authorized by Law Nº 5,444 does not represent the total financing of the whole physical programme contemplated in the objectives of the various sections of the Plan of Action, either because they were not included in that authorization or because legislative authorization is not required for expenditures that will be made by using the following:

- (a) Funds already insured by constitutional provisions or normal legislation and obtained from either State or Federal budgets (transfers from the National to the State Government). This is the case with expenditures charged against the State Electrification Plan, which is financed by funds obtained from a surtax on state taxes (Law Nº 3,329); the highway programme, which is partly financed by funds allocated from the National Highway Fund and the National Paving Fund; etc; and
- (b) Financing made available by credit institutions for specific programmes. This includes the following: water supply and sewer programmes in the interior of the State financed by loans from the Caja Económica Estadual [State Economic Fund]; certain public building programmes financed by the São Paulo Insurance Institute; and electric power, railway, and other projects financed by the National Economic Development Bank and foreign credit institutions.

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<sup>7/</sup> Article 6 (3) of the law cited.

6. Operation of the financial system

A. General principles

42. In the execution of the Plan of Action, the principle adopted in reference to its financial aspect has been to cover its costs with the State's ordinary revenues, that is, funds obtained from tax collections and other ordinary income, although, as noted above, credit operations have been authorized. As early as 1959, before Law No. 5 444 was approved, a first portion of the Plan was included in the readjustment of budget items, covered formally by credit operations and by surplus funds accruing from tax collections. In subsequent years the rule has been to include a part of the contemplated expenditures in the annual budgets.

43. As pointed out, planning cannot be dissociated from the budget, for planning constitutes the method of selecting the means and determining how to implement them; it is, therefore, the instrument that furnishes the Government with the elements it needs to set up and carry out a programme of work, and the budget in turn is the instrument that determines how that programme of work is to be financed. The inseparability of these two techniques having been acknowledged, the process called budgeting by programme was adopted, which results in a budget whose items represent, not more authorizations for the payment of salaries, services, or the purchase of materials, but an allocation of funds for the execution of work programmes as distinct and well-defined units.

44. With the adoption of the budget by programmes, the Planning Group began to participate in the entire budget process, from the formulation of the pertinent policy and the preparation of the budget proposal and plans of work, to supervision and control of the implementation of the budget. The Group also undertook the additional task of introducing the above-mentioned technical improvements in the process of budgeting by programmes, aside from the economic and financial studies it made to assist in determining the State's budget policy, and the other activities mentioned in the various sections of this report.

45. In order to co-ordinate the inclusion in the budget of the items for the Plan of Action, which involve investments over a number of years, with the allocation of funds for payment of current charges and services, the budget accounts were divided into three large groups:

/(a) Existing

(a) Existing services, that is, the items necessary for the maintaining and functioning of services and charges existing at the time the budget estimate is prepared;

(b) Expansion of public services, which includes all allocations necessary to cover the cost of the expansion of existing services and the initiation and operation of new services during the budget year. Programmes of expenditures covered by items included under the heading of "Expansion of Public Services" in one year are incorporated in the budget of the following year under the heading of "Existing Services", following the normal classification of the expenditures concerned; and

(c) Investments in public services, that is, the allocations of funds covering costs of investment and the financing connected with implementation of the Plan of Action.

46. This distinction between current accounts and capital accounts, recommended by modern budget practices, was found to be necessary, not only to ensure the funds for investment through fiscal savings, but also to guarantee the execution of long-range programmes, the structure of these latter accounts clearly being different from the structure of current expenditure accounts. It was also found to be necessary in order to achieve a better programming and control of expenditures such as those pertaining to the maintenance of the administrative machinery. When budget expenditures are broken down into a multitude of accounts, the control and use of funds by programmes becomes more difficult. Under the system adopted, funds for the expansion of services are approved in the budget in one over-all item, estimated in accordance with the plans of work, and then these funds are used only after the specific plans for their use have been approved by the Governor of the State, following the same system that applies to the execution of the sectoral programmes contained in the Plan of Action. Actually, the programmes for the expansion of services are nothing more than supplements to the Plan of Action, since they develop as a consequence of the Plan's implementation and are accepted only under that condition. Thus, the State Government is able to exercise better control over the increase in its expenditures for bringing up to date and expanding its activities, while at the same time it is progressively and definitively incorporating the techniques of budgeting by programmes into its budget system.

/47. The

47. The State's budget system is still subject to the federal rules contained in Decree-Law No. 2,416 of 17 July 1940. In view not only of the compulsory nature of those rules - admittedly obsolete and inefficient for the dynamic requirements of the government administration - but also the principle that was incorporated into the budget process many years ago to the effect that the budget could not be modified radically and abruptly, the introduction of these advanced budget practices is being carried on gradually, in accordance with the provisions of the above-mentioned Decree-Law.

48. Preparation of the proposed budget is preceded by economic and financial studies worked out by the Planning Group and the Department of the Treasury (Office of the Comptroller General of the State), and on the basis of those studies the budget policy to be followed for the next fiscal year is formed. This initial study is directed chiefly toward the potential amount of revenues to be expected and the distribution of expenditures between current expenses and investments.

B. Preparation of the budget proposal

49. The preparation of the budget proposal begins with the issuance by the Governor of the State of instructions on the procedure to be followed, including general concepts, structure, and time limits for the various stages of preparation.<sup>8/</sup>

50. The first step in preparing the budget proposal is to make an estimate of the funds needed to pay for existing services. Under the item of personnel, which largely calls for fixed expenditures that vary only by reason of general increases in salaries, the amount spent during the current year is carried over into the estimate; under the item for materials and services, a rate of increase is taken into consideration. In view of the fact that limits for existing services - limits which are established for each State department in a formal communication addressed by the Governor to the respective Secretaries - an over-all limit for

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<sup>8/</sup> By way of example, see Resolution No. 1,263 of 13 April 1961, annexed hereto.

"Expansion of Public Services" is studied and then the total of these two categories of expenses is considered in the light of expected revenues. The balance shown is reserved to cover the costs of the Plan of Action.

51. The individual proposals covering existing services, as prepared by the various State departments, are further adjusted to traditional practices and are analysed and combined in the Government's general budget proposal by the Budget Committees and the Office of the State Comptroller General (Budget Division, Budget Preparation Section), in harmony with the rules fixed in the aforementioned order of the Governor.

52. Special rules are followed in the preparation of the programmes for the expansion of public services and for investments (Plan of Action). Adhering to the technique of budgeting by programmes, an attempt is made to relate the budget requests by items (personnel, materials, services) to the programmes of work as these have been defined. The estimates and Plans of Work prepared by the various departments are studied by the Planning Group and after being approved, pursuant to direct instructions of the Governor, they are incorporated into the State's entire budget proposal, as total amounts according to the separate departments. The approved plans of work are brought together in an Annual Government Plan of Work, which is submitted with the message which the Governor sends to the Legislative Assembly along with the proposed budget.

C. Implementation of the budget

53. After the budget is approved, an executive decree<sup>9/</sup> is issued, setting forth the rules to be followed in its execution. These rules define the budget funds that may be used without restrictions, and those that are partially or totally frozen and the mechanism for releasing the frozen allocations. The freezing is provided for according to the nature of the expenditure, using the classification of the expenditure as the point of reference. Thus, it is not a restriction applying to specific items but rather to types of expenditures.

54. The funds for the expansion of public services and investments in those services, including the budgets for the autonomous administrative agencies, are completely frozen, and their use depends upon the Governor's

approval of the plan for application of the various allocations.<sup>10/</sup> This procedure does not reflect any intention merely to economize; it is a way of supervising the use of the funds more closely and of advancing more broadly with the technique of budget planning. The process of freezing and releasing requires two administrative agencies, assisted by the Planning Group, and there must be concrete and adequate programming of all activities, in order to obtain the funds needed to carry out the programme.

55. The application plans are prepared by the administrative agencies in the form of work programmes with respect to the funds for the expansion of public services, and in the form of plans for works projects or installation and equipment in the case of funds for investment in public services. These plans are submitted later to the Planning Group, which analyses them and proposes them to the Governor for his approval and the consequent release of funds in the case of those included in the budget, or the allocation of special credits in the other cases.

56. Once the application plan has been approved, the expenditure process passes through the usual three stages: the obligation of funds, an estimated amount, or a reserve, within the funds released to cover the obligations contracted, including the costs as contemplated; the requisition for payment, which is made after the acts for which the State will have to pay have been carried out; and finally, the payment, which is the actual disbursement of funds.

## 7. System of control of the plan of action

### A. Needs and purposes

57. Control is exercised by constant and systematic comparison between the levels of accomplishment and the previously prepared calculations with respect to the execution of the programmes contained in the Plan. The necessity of having a system of control ties in with the arrangements themselves for execution of the Plan. Obviously it would be impossible to carry out the plan without any checking of its levels of implementation, a systematic analysis of the results, identification of any inadequacies

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<sup>10/</sup> Decree cited above, Article 3, single paragraph.

and the causes thereof, and proposals for and application of the appropriate corrective measures; all of these make for an expeditious and efficient method of supervision that differs from a mere audit of books.

58. Control of the Plan is exercised in two stages, aimed at attending to two different types of problems. On the one hand it is necessary to supervise the execution of the programmes to see that at the end of the prescribed time limits the objectives as programmed have been fully achieved. This control comprises the physical as well as the financial aspect. The objectives must be attained physically within the fixed term and with the funds budgeted. On the other hand, it is necessary to check the results of the implementation of the programmes. The Plan was prepared to meet certain definite needs and to remedy deficiencies in the economic and social structure of the State of São Paulo, by means of carrying out certain programmes and concrete measures. Therefore, as the Plan is executed, an instrument for the supervision of the results must be created that will make it possible to check whether the plans were programmed correctly and adequately, in such manner as to make possible the permanent adaptation of programmes to genuine requirements and hence, to justify the planning process itself.

B. Control of the physical execution

59. The system that makes it possible to supervise the physical execution of the Plan of Action of the Government of São Paulo was established progressively, keeping in mind the needs for information as they occurred and, therefore, keeping track of the various stages of development of the Plan.

60. This system may be analysed by separate parts:

(a) Control of increases in the works provided for in the Plan of action

- (i) Analytical control (individual records): each project is checked individually, its execution being compared with a time chart covering the development of all its phases, from the preliminary and administrative measures to the actual physical execution,

/(ii) Synthetic

- (ii) Synthetic control (rate of execution of the programmes):  
at this level the supervision is exercised globally, over all the works of the sectoral programmes, beginning with the minimum time necessary for full accomplishment of the objectives of the various sectors; and in view of the above mentioned process of preparation, the objectives will have been set with due regard to the executive capacity of the agencies of execution.

(b) Control of the geographic distribution of investment

In a suitable file the projects are grouped according to the municipality or region where they are located, instead of according to the programme by sectors. The analysis of these data, duly tabulated, makes it possible to maintain a check as to whether the investments made in the various regions are consistent with the respective processes of regional development, and to correct any chance miscalculations that may have occurred in the preparation of the sectoral programmes.

61. The control system is established in two stages. First, the information that it is desired to obtain is decided upon, and then an efficient system for its collection and recording is devised.

62. The selection of this information became possible once the routine processing of the necessary steps for execution of the sectoral programmes had been determined. On the basis of that information, it was possible to prepare diagrams of movements, in which the more important phases of preparation were identified - phases, that is, that should be watched with great care - and thus the type of information needed was selected.

63. A study of the average time spent on the various phases as shown in the diagrams led to the preparation of the time charts on the execution of the sectoral programmes. These time charts serve as a guide for the determination of tasks and time limits for the agencies charged with execution. The selected information and the current status of the sectoral programmes are made known through a monthly report submitted by the executive agencies to the Planning Group. Direct sources of information (inspection, access to the records of the various agencies, etc.) complete the supply of information required to operate the established system of control.



C. Control of financial execution

64. Financial control is exercised at the various stages of approval of the plan of application, that is when funds are made available, when expenditures are obligated, and when payment is actually made. In the course of this financial control an attempt is made, on the one hand, to analyse the real cost of the programmes as compared to the estimated cost, and to make revisions when there is an appreciable divergence between these two figures. On the other hand, an effort is being made as the years go by to achieve such a good distribution of resources that, simultaneously with the physical execution, all necessary administrative steps will be taken to supply the necessary funds at the proper time for execution of the programmes. In this way it will be possible to prevent the type of delays or stoppages of works and services that originate because of the lack of proper allocations or funds, and also to prevent administrative units from keeping idle funds on hand.

65. The first stage in the financial control procedure is carried out in connexion with the analysis of the plans of application, using the records of the funds released. Periodically (at least once a month) a summary of these data is made in order to give the Governor of the State a general and departmental picture of expenditures already authorized and the balances available for use within the fiscal year. This control procedure is co-ordinated with a close check on income, in order to reconcile the rate at which funds are released for use with the actual collection of revenues, and thus to keep the budget in balance.

66. Supervision of the carrying out of activities and of payments is based on the data contained in the reports of the administrative agencies involved and the report of the State Comptroller General, which contains data already entered in the books.

In sectors or departments that include many small projects of varying kinds (Public Health, for instance, which has child welfare centres, dispensaries, hospitals, etc.), the over-all expenditures of the sector or subsector are analysed. For large hydroelectric projects, warehouses and silos, supply centres, etc., which are generally handled by joint

/State-private

State-private institutions, control is exercised in so far as possible project by project, on the basis of financial forecasts prepared in connexion with the time charts of the physical execution of the said projects. Then actual costs and actual utilization of funds are compared with what has actually been done. Such data show whether the funds provided for a fiscal year will be sufficient for the normal progress of the programmes, whether deficits will occur, or whether execution of the programme can be accelerated or advanced in certain sectors or subsectors. In the last two instances, an analysis is made to determine the precise measures that can be adopted to correct possible deficits or obtain the faster results indicated.

D. Control of results

67. Control of results presupposes a study of the increment of benefits derived from execution of the Plan of Action. Such supervision is possible only from the moment at which the Plan's projects enter into their operational stage. This type of control makes it possible to determine whether the execution of the plan is yielding the results which it was hoped to obtain, and, furthermore, to check whether the solutions adopted and the programmes prepared were the most suitable to meet the needs that had been identified in the various areas at the time the Plan was prepared. It represents a most valuable instrument for checking on and improving the technique of planning itself. At the present time the Planning Group is working on the installation of a system of supervision of results, which is expected also to provide the bases for new programmes and the second plan.

E. Analysis of results and steps taken

68. The reports of the executive agencies and the records of the Planning Group are reviewed periodically (once a month).

69. On the basis of the monthly analysis, which consists in a comparison of the results obtained with the planned activity, a report is prepared for the Governor of the State. This report notes the status of the activities programmed by departments or sectors, any deficiencies encountered, and the

/causes thereof.

causes thereof. It also contains the conclusions derived from the analysis of the records of the financial status of the Plan, and the situation and outlook with respect to the revenues of the State Treasury. Finally, the report sets forth in detail any measures needed to correct deficiencies as diagnosed, and any other defects shown by the analysis made by the Planning Group.

70. Thus, the control mechanism of the Plan of Action extends from the assembling of information and the analysis thereof down to the details of the executive measures to be adopted on the basis of the analysis of the tabulated data.



## Annex X

### NOTE BY THE ECLA SECRETARIAT ON THE LATIN AMERICAN PLANNING SEMINAR

#### I. Aims and attendance

1. A Latin American meeting on economic planning will be held from 19 to 24 February 1962 under the auspices of the OAS/ECLA/IDB Committee at the headquarters of the Economic Commission for Latin America at Santiago, Chile. The purpose of the meeting is to exchange and discuss experiences in the relevant field in the Latin American countries in order to promote and intensify the work of planning to which the Governments pledged themselves in the Charter of Punta del Este.

In view of the need to fulfil the commitments and aims of the Charter as speedily as possible, the meeting will place particular emphasis on the discussion of the most urgent tasks involved in the preparation, formulation and execution of short-term plans and some of the salient technical aspects.

The organizers propose to invite to the Seminar the nine experts recently appointed by the IA-ECOSOC to evaluate development plans, together with a group of high-ranking technical experts with wide experience of the work of economic and social development planning in Latin America.

#### II. Background information

2. The slow rate at which Latin America has been developing and the mounting number of problems that will have to be tackled in the immediate future have reinforced the idea that an intense national effort must be made with vigorous international collaboration to adopt a body of economic policy measures and launch extensive practical undertakings as soon as possible in order to give decisive impetus to the economic and social development process.

The Act of Bogota first and later the declaration of Punta del Este have been translating the pattern of external co-operation into practical terms, in the spirit of the Alliance for Progress. They have incorporated the agreement taken by the countries to channel both their own resources and the funds arising from external collaboration in accordance with well-thought-out plans comprising the basic economic policy measures indispensable for their execution .

3. As the outcome of these decisions, there has been an intensification of efforts to make a systematic compilation of investment projects, to carry out studies with a view to devising better evaluation criteria and - in a few countries - to prepare long-term plans.

Some countries have had the advantage of international technical assistance in this work, and have thus been able to carry out certain experiments which may provide sounder guidelines for future action.

4. The different aspects of the work of planning will now receive further stimulus with the recent establishment of the Committee of Experts in Washington. This Committee will examine the plans submitted to it by individual countries and, by virtue of its rulings will enable international resources to be mobilized through more comprehensive financial programmes that depart from the traditional practice of single-project evaluation, and at the same time include more general objectives of social welfare.

5. It is natural that current arrangements for the provision of external financial aid, and those to be made in the near future should be governed by considerations of urgency, since the problems besetting the countries are clamouring for a solution. The international financing agencies are also acting with the utmost dispatch in granting new funds, largely because of their own conviction that far-reaching measures should be undertaken without delay.

But a situation of this kind, however understandable and justifiable, does of course involve a certain amount of risk, since it is apt to lead to the postponement of essential but longer-term considerations. The only way to avert this danger is to embark as soon as possible upon a systematic classification of the criteria for determining priorities, and a selection of projects that lend themselves to integration in a co-ordinated short-term plan, with due regard to the fact that the plan should in its turn, be consistent with the basic requirements of economic and social development over a longer space of time.

Where no plan of action exists, it is probable that just because of the vital need for action, the first choice will be made from among projects that are already in being, those that are easy to draw up and those whose importance is commonly taken for granted. This has been

... /the general

the general trend of developments in the last few months. But some of the dangers envisaged are already beginning to make their appearance, partly as a result of the following factors:

(a) An imbalance between "social investment" and "economic investment". Projects with a social content are usually easier to prepare, have more "publicity value" and, by nature, are seldom judged by rigorous evaluation criteria. For these reasons, and also because of substantial deficits that have accumulated in a number of cases over many years of insufficient investment, it is understandable that they should be given preference at the present time and that the bulk of the resources available should tend to go in that direction. If this tendency persists, however, it is liable to lead to serious disequilibria between social and economic investment and create a permanent need for social services that is out of proportion to the degree of economic development achieved. This would hamper the eventual replacement of external assistance, which is necessarily an interim measure, by domestic resources. Moreover, much of the social unrest is the outcome not simply of inadequate public services, but - and this is more often than not the main reason - of the slowness with which employment opportunities are growing and the related need for more productive capacity.

(b) Effects on fiscal financing. In many cases, the initial investment, which may include external contributions, helps to provide the basic installations requiring further complementary investment and permanent current expenditure for continued operation. Hospital and school construction are cases in point. When particular stress is laid on the development of this kind of project, future fiscal revenue is necessarily committed. Experience has shown that efforts of this kind may be partly nullified unless the initial investment is properly linked up with measures to expand or redirect public expenditure and income.

(c) Effects on the balance of payments. In the case of numerous projects to which external funds have been or are expected to be contributed, most of the investment is made in local currency (e.g. main transport routes, housing and other social services), the equivalent amount in foreign currency thus being left free for use in paying other imports. Consequently,

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unless financial projects for immediate implementation are not associated with a reasonable import policy and other types of investment projects, the temporary strengthening of the capacity to import is likely to be dissipated in, for instance, imports of luxury goods.

(d) Projects and economic policy. Whenever short-term efforts are expressed in terms of isolated projects without any grasp of the whole body and purpose of the work, it will be difficult to reconcile the objectives of each project with the actual handling of the different economic policy instruments. The inconsistency, or at least divergency, between the trend of investment and economic policy goals may thus be yet another factor that would detract from the permanent effectiveness of the measures to be taken in the near future.

6. The foregoing suggests that a reasonable compromise must be struck between the need to act as swiftly as possible and the importance of directing such action from a more comprehensive and long-term standpoint so as to achieve the maximum efficacy.

### III. Main topics discussed at the seminar

7. A Seminar of this kind will undoubtedly provide an opportunity for delving more deeply into various essential aspects. Four subjects that deserve particular consideration in the debates are the urgent need to formulate short-term plans; the need for such plans to conform to the requirements and objectives of medium and long-term development; the fundamental elements needed in a short-term plan, including as well as the investment programme the economic policy programme and a definition of the measures calculated to help to foster the process of medium and long-term planning; and, lastly, international technical assistance requirements for short-term planning.

8. With respect to the first topic, an account might be given of practical experience in short-term planning in the different countries. On that basis, the most effective way to use internal and external resources through the formulation of systematic and co-ordinated short-term plans could be determined, together with the possible risks incurred if action during the next few years were to take the form of individual investment projects only.

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9. The purpose of the second topic would be to examine the extent to which short-term plans, to be truly effective, require a general frame of reference to shed light on the problems and aims of medium and long-term development.

The Latin American countries which, by virtue of accomplishing these tasks systematically are in a position to submit over-all medium or long-term development plans are still very few in number. In the others, the preparation of the plans may take some time and it would not be wise to wait until they were ready before earmarking funds for important single projects. Nor, on the other hand, would it be prudent to proceed with the approval of isolated projects, since the ensuing results might be unfavourable. To avert any such consequences, the new projects should be given specific economic and social development goals. Before these goals can be determined the obstacles to economic development and the social tensions that are disrupting it will have to be examined.

This task does not admit of delay forthwith. The fact that an investment project is intrinsically sound does not mean that it should necessarily be given a high order of priority. And its order of priority cannot be established until the above-mentioned objectives have first been determined. There are a vast number of social requirements to be met in the Latin American countries, and one of the merits of the Act of Bogota and the Charter of Punta del Este is precisely that they recognize these claims. But there is also an urgent need for economic investment which cannot be left unsatisfied without seriously slowing down the future growth of production of goods and services. It is therefore essential to strike a reasonable balance between both types of investment and to fix a satisfactory order of priority for each one. This is one of the principal justifications for a short-term plan.

The formulation of a short-term plan for one or two years will to a certain extent, involve some of the salient factors in a medium-term plan. Actually, a short-term plan is the seed from which the medium-term plan will emerge. This, in its turn, will have to adopt a broader outlook if it is to operate satisfactorily, e. g. making use of projections covering, for instance, a ten-year period and indicating roughly the cardinal points

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of a long-term plan. This makes for continuity throughout the different phases of the work, which are distinguished from one another not only by the nature of the problems to be dealt with but by the urgency with which a solution is needed and the analytical and operational tools required.

Urgency is the keynote of the short-term plan. To enable a medium-term plan to begin effective operations in two years time, an immediate attack must be made upon the barriers that are preventing full utilization of the factors of production or provoking tensions that could be eased in a relatively short time. This calls for a preliminary diagnosis of the economic situation, which, as experience has shown, can be made in a few weeks. In making the diagnosis, special attention should be paid to all the internal or external factors that either prevent existing productive capacity from being used to the full or hamper its expansion. This calls for a revision of immediate economic policy, in this case too as a preliminary to the process of basic revision required by the medium-term plan.

In view of circumstances such as those mentioned, the discussions at the Seminar could go far towards helping to define the scope and content of the diagnosis, as regards the review of the existing situation and the minimum amount of analysis and long-term projections needed to estimate the scale of the more remote objectives and ensure their compatibility.

10. The third topic is the substance of short-term plans. From the outset, an aspect which should obviously take pride of place is the formulation of an investment programme. The programme should be based on the general indications provided by the diagnosis, in relation to the removal of the main obstacles to development, the lessening of the more acute social tensions and the channelling of the economy towards the accomplishment of the more far-reaching aims.

This would entail an examination of the techniques that countries should be recommended to use in allocating resources under a short-term plan to ensure compatibility with medium and long-term objectives, and more especially with the criteria that govern priorities for the selection of investment projects.

It will also be necessary to explore ways and means of undertaking an inventory of public investment projects already under way and of projects  
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or draft projects under study or in preparation, together with private investment projects of vital importance for the development. In addition, the key sectors that suffer from a shortage of projects should be identified. An essential complement to the investment programme is an analysis of the technical and operational capacity of the project-making agencies, in conjunction with an examination of the operational capacity of the agencies responsible for implementing the projects selected.

11. The second aspect forming part of the same subject raises implications of great practical importance on which the Seminar might throw more light. Generally speaking, a short-term plan is incorporated into a specific investment programme without explicit reference to the way in which the different economic policy instruments would have to be directed to ensure the best possible utilization of the supplementary resources and those assigned in the normal course of events.

Moreover, in the Charter of Punta del Este the Latin American Governments have recognized the need to reshape economic policy by increasing the rate of growth of their economies to the maximum, and have explicitly pledged themselves to undertake reforms that will lead to a more economic and just distribution of wealth and income. A short-term plan should include some practical measures of that kind to initiate or stimulate reform of the land tenure system, the tax mechanism, the educational system, etc.

Although these are fields in which improvisation can have unfortunate consequences and there will be enough time in the next two years to make a thorough review of the conditions peculiar to them in each country, in certain cases some concrete action can and should be taken immediately.

To put it more generally, it is obviously necessary for rapid action to be taken to bring economic policy more completely into line with the objectives to be attained by immediate investment and to increase the co-ordination of the different areas of economic policy among themselves. A short-term plan should therefore comprise a body of specific measures on exchange, monetary, fiscal and wage policy, and so on.

12. The third aspect of the subject is more precisely the co-ordination of short-term plans with efforts to set in motion and even begin to improve

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the process of medium and long-term planning. In actual fact it consists of several specific points.

First of all, there is the problem of the administrative organization of planning, which cannot be solved simply by superimposing a planning agency on the existing administrative structure. It is essential for this structure to be overhauled too so that it can satisfy planning requirements or, in a higher context, the requirements of economic development policy. It is not merely a question of the budget for the public sector - which is an essential part of the plan - but of the rational and systematic use of all the instruments at the disposal of the State for shaping deliberately the forces of the economy.

A short-term plan will naturally have to be carried out within the present administrative framework. But one of the aims pursued by the plan must be a searching analysis of the changes that should be made in this framework. This is yet another aspect that should be raised in the technical discussions. The short-term plan is not simply a means of anticipating longer-term plans. Its function is also to carry out a certain amount of the preliminary work for them. This would include the provision of the background statistics required for the technique of analysis and projections, the transformation of the administrative structure and, above all, the budget mechanism, and, lastly, the creation of the technical cadres needed for an undertaking of such scope. All these factors should be considered as part of the short-term plan so that the planning process can be pursued in an increasingly propitious environment.

Similarly, it would be advisable to consider some problems of cardinal importance, which, although well known in their more general aspects, have never been thoroughly studied with an eye to practical and feasible solutions. They include transport difficulties, the inefficient and costly systems of distributing goods to consumers, the problems of technical manpower training, and so on.

Lastly, in this same context, mention should be made of technological research and an inventory and evaluation of natural resources. A systematic survey of these resources should be undertaken immediately with the aid of well-tried methods. It is a gigantic task, and however, it cannot be dealt

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with a genuine sense of economic reality unless it is linked up to the objectives of a development plan and fitted into the wider perspective of long-term projections.

13. Discussion by the participants at the Seminar of the last topic mentioned will undoubtedly produce some useful suggestions on the best ways of channelling technical assistance to enable it to make a positive contribution to the task of preparing short-term plans and improving the planning process in the different countries.

Up to now, the Latin American countries have been able to draw upon various types of technical assistance, both international and bilateral. With respect to the former, some interesting experience has been acquired through the work of the ECLA/BTAO Advisory Groups, especially in the field of planning. These Groups have helped several Latin American Governments to formulate economic development plans, at the same time determining the administrative and institutional problems that impair the efficacy of the planning process, particularly as regards the use of the budget mechanism and the formulation of consistent public investment programmes. This kind of international technical assistance is considered to be especially worth developing and this assumption has led to the change in the nature of the Advisory Groups, which are being placed under the joint responsibility of the OAS/ECLA/IDB Tripartite Committee.

In collaboration with BTAO, ECLA has also accomplished a great deal in training technical personnel in these fields through the Economic Development Training Programme. The two activities will be widened in scope once the Latin American Planning Institute enters into operation in the course of the year, thanks to the additional resources contributed by the United Nations Special Fund and the Inter-American Development Bank.

As regards the formulation of programmes and investment projects, important work has also been done by the Inter-American Development Bank and the International Bank for Reconstruction and Development, and special mention should be made of the training activities undertaken by the latter through the Development Institute.

As part of the extensive technical assistance programme administered by OAS in Latin America, special reference should be made, because of their

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particular importance, to the studies aimed at solving some of the more serious institutional and structural problems of the Latin American economy. Two examples are the study of the structure and operation of the Latin American tax systems and the study on land reform. Both were carried out under the auspices of the OAS/ECLA/IDB Tripartite Committee, with the collaboration of the Harvard University Tax Program in the first instance and of FAO in the second.

For its part, the United Nations Special Fund has made it possible for studies on the vital question of transport to be undertaken in various Latin American countries, as well as others relating to a question of great importance for the future - the inventory and evaluation of natural resources.

Lastly, an endeavour is being made to deal with problems connected with the technical training of manpower and the more general theme of the relationship between education and economic development. In this respect, mention should be made of the Conference on education and economic and social development, which will take place at Santiago in March 1962, and the meeting of the Working Group on skilled manpower in Latin America to be held under the auspices of ECLA, OAS, the ILO, FAO, UNESCO and ICEM.

In relation to this and other forms of technical assistance, it would be desirable for the Seminar to indicate possible ways of enhancing their efficacy, more particularly in the field of planning. One method might be for the countries concerned to prepare over-all programmes of technical assistance in which they would set out their more urgent requirements in relation to the requisites and objectives of each country's economic and social development.