A.I.D. DISCUSSION PAPER NO. 13

TOWARD A MORE EFFECTIVE ALLIANCE FOR PROGRESS

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DEPARTMENT OF STATE

AGENCY FOR INTERNATIONAL DEVELOPMENT

Office of Program Coordination

A.I.D. Discussion Paper No. 13

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Acknowledgements

The present analysis is based on a series of studies undertaken during the summer of 1966 in A.I.D., and at the Center for International Affairs, Harvard University. I am particularly indebted to Donald Palmer, Samuel Eaton, Ernest Chase, Bruno Luzzatto, Frank Masson, Donald McClelland, Robert Muscat and John Holsen of A.I.D., and Peter Eckstein and Belle Cole of Harvard University for their collaboration and helpful comments on earlier drafts. I take sole responsibility for the analysis and conclusions.

March, 1967

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TOWARD A MORE EFFECTIVE ALLIANCE FOR PROGRESS

INTRODUCTION

The Alliance for Progress symbolized a substantial reorientation of United States policy toward Latin America. Unfortunately, it started at a time of increasing economic difficulties and declining growth rates in most Latin American countries. Since 1962 U.S. assistance under the Alliance has prevented a fall in the inflow of capital, but economic progress has fallen short of the aspirations created. Furthermore, since much of the attention of Latin American governments and the United States has had to be focussed on short term problems, steps taken to remedy the underlying deficiencies in the economic and social structure have not yet reached fruition.

In comparison to other areas of major U.S. interest, Latin America suffers from the late start of economic assistance on a significant scale and from the exceptionally large amount of external debt that was accumulated prior to 1960. Contrary to the popular impression in the United States, there has not been any increase in the net flow of resources to Latin America in the past five years. Increased lending by international agencies and the United States under the Alliance has just offset repayments of prior debt and a falling off in other sources of finance.

More rapid and effective development in Latin America is of great importance to the United States. A continuation of present rates of economic growth combined with a rapidly expanding population will result in rising underemployment and political instability. This phenomenon is particularly dangerous because it tends to be concentrated increasingly in the larger cities.

This paper will examine the means of achieving a more effective development process in Latin America, using as a basis for comparison U.S. experience with major development efforts in other parts of the world. My principal conclusion is that a concentrated effort to accelerate economic growth is very desirable not only for its social and political effects in Latin America but also because it is likely to be less expensive for the United States in the long run.

I. CURRENT TRENDS IN LATIN AMERICA

To make United States participation in the Alliance for Progress more effective, it is necessary to identify the weaknesses in recent Latin American economic performance and the extent to which they can be overcome through U.S. policies. The following survey focusses on features which bear particularly on aid and trade policies.

A. The Capacity to Develop. Although Latin America has a much higher level of income than other underdeveloped regions, it has shown only average ability to raise its per capita income

in the past fifteen years. Some basic indicators of development are given in Table 1. For the region as a whole, there has been a fairly steady downward trend in the growth of per capita income, from a rate of 2.3% in 1950-55 to 2.0% in 1955-60, and 1.5% in 1961-65.[1/] The recovery to more than 2.5% in 1964 and 1965 reflects mainly the resumption of growth in Argentina and Brazil after the slump of the previous two years and cannot be taken as convincing evidence of a reversal of the long-term downward trend.

Part of this reduction in per capita income growth is due to the acceleration in population growth, which is now 2.9% for the region and may go even higher. Only the more advanced societies of Argentina, Chile and Uruguay have substantially lower rates; almost all of the other countries approximate population growth rates of 3% or more.

In contrast to most Asian countries, Latin America is relatively well endowed with natural resources in relation to its population. Most Latin American countries are also better equipped with skilled manpower and other human resources, and their rates of capital formation are at least as high as those of Asia and Africa. In short, the supply of resources can be regarded as favorable to development. In Latin

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[1/] The most recent comprehensive analysis of current development performance is given in the O.A.S. Secretariat paper "The Future of Latin America's Development and the Alliance for Progress," (CIES/847, Feb. 1966). The statistics cited here are from AID (PC/SRD). The comparable rates from the O.A.S. paper are 2.4%, 1.8%, and 1.5% respectively.

American countries the main obstacles to more rapid development can be found in the structure of their economies and the ineffectiveness of their development policies.

The dominant factor affecting Latin American development over the past twenty or thirty years has been the failure to adjust exports and imports to the needs of an expanding economy. Since few countries have succeeded in diversifying their exports, their supplies of foreign exchange depend heavily on the variation in world markets for a few primary products -- notably coffee, petroleum, copper, and wheat. Most countries have maintained overvalued exchange rates, largely because the demand for their major primary exports is inelastic. They have thus failed to provide market incentives for the development of new exports of agricultural and manufactured commodities. The combination of slow growth in world demand for their major exports and their own inefficient balance of payments policies has resulted in overall growth of Latin American exports of only 3.8% per year since 1950. Since the net capital inflow has also been stagnant, the supply of imports into Latin America in 1965 is scarcely above the per capita level reached in 1950, while in most other regions of the world imports on a per capita basis have increased substantially.

The shortage of imported capital goods and raw materials has seriously hampered growth in most of the more industrialized countries -- notably Argentina, Brazil, Chile, Colombia, and Uruguay -- which account for about three-fifths of the

population of Latin America. In the smaller and less industrialized countries, such as in Central America, where the overall growth of exports has been more satisfactory, cyclical changes in export earnings have caused serious fluctuations in the growth of national income. In fact, only Mexico and Peru have managed to avoid having their development dominated by either import bottlenecks or large fluctuations in exchange earnings.

A second, and closely related, factor hampering Latin American development has been the inability of five of the seven advanced countries to control inflation. As shown in Table 1 these are the same countries that have been unable to make successful adjustments in their economic structures to meet their balance of payments difficulties. The interrelations between the two sets of problems are very complex. Inadequate tax and credit policies and inability to control government expenditure are the major proximate causes of inflation. More basic are socio-political pressures, which have their origins in the economic conflicts among social classes, the urgent need for public services stemming from the rapid growth of cities, and growing unemployment. These factors have prevented even well-motivated governments, such as Chile and Brazil, from achieving fiscal responsibility once an inflationary process has taken hold.

Continuing inflation makes balance of payments policy much more difficult, since it requires periodic devaluations. Conversely, the shortage of imports hampers efforts to control the inflation and break the vicious circle. Growth proceeds

TABLE 1

Development Trends in Latin America, 1950-1965.

	Country	Population (1965) (millions)	Population Growth (Current)	GNP Per Capita (1965, in 1962 $)	Per Capita Growth in GNP (1950-55)	(1955-60)	(1960-65)	Per Capita Growth in Exports (1950-66)	Total U.S.Aid Per Capita (1953-66)	Avg. Annual Rate of Inflation (1960-65)
	Relatively Advanced Countries									
1	Argentina	21.7	1.7%	$541	1.4%	0.9%	1.3%	-0.2%	$ 29	23%
2	Uruguay	2.7	1.3	503	na	-1.4	-0.9	-3.3	31	28
3	Chile	8.5	2.3	474	0.7	1.9	1.6	3.7	139	27
4	Venezuela	8.8	3.4	797	5.1	3.2	1.6	1.9	38	-
5	Mexico	40.9	3.2	427	3.1	3.2	2.8	1.9	25	2
6	Brazil	82.2	3.1	175a/	2.6	2.7	0.2	-2.0	38	63
7	Colombia	18.0	3.0	286	2.6	1.1	1.5	-0.8	64	12
	Less Developed Countries									
8	Peru	11.7	3.0	267	3.7	2.0	3.7	6.2	50	9
9	Dom.Republic	3.6	3.5	224b/	na	na	na	-1.1	101	3
10	Central America									
a	Panama	1.2	3.0	488	na	na	5.1	5.4	154	1
b	Costa Rica	1.5	3.8	360	3.5	1.1	0.2	0.9	107	3
c	Nicaragua	1.7	3.0	332	5.5	-0.8	5.2	8.6	77	2
d	El Salvador	2.9	3.2	280	1.8	1.2	4.2	3.9	41	0
e	Guatemala	4.4	3.1	310	-.9	2.2	3.1	2.7	62	0
f	Honduras	2.3	3.1	215	1.0	1.3	1.7	2.7	43	3
11	Ecuador	5.0	3.0	202	2.3	1.4	1.3	2.4	48	4
12	Paraguay	1.9	2.2	200	0.7	0.2	1.6	1.5	52	5
13	Bolivia	4.3	2.3	162	-1.5	-2.4	2.0	0.1	159	5
14	Haiti	4.6	2.1	73b/	na	na	na	-2.7	30	3
	LATIN AMERICA	226.8	2.9	323c/	2.3	2.0	1.5	0.9	46	

Sources: Population, GNP, and U.S. Aid from AID (PC/SRD) publications; exports from IMF, (IFS, Trade pages); inflation from ECLA (on basis of IMF data).

Notes: a/ Generally considered too low; estimates range to $300.
b/ Rough estimates for 1964. c/ Haiti and the Dominican Republic excluded.

in spurts, which are interrupted by the periodic need to reduce inflationary pressures. This "stop-go" sequence causes permanent losses in total income and employment.

These conditions of continuing inflation and periodic shortages of foreign exchange account for the distortions in the economic structures of many Latin American countries.[1/] Most of these countries have tried to offset the slow growth of exports by concentrating on the production of manufactured goods to substitute for imports. In the long run, this policy has resulted in inefficient industrial producers sheltered from foreign competition by very high tariffs or prohibitive restrictions on imports. Once such protected industries have exploited the opportunities of the domestic market, they have been unable to take the next step into export markets because of their high costs and the protective policies of their neighbors.

For Latin America as a whole, this policy of forced industrialization through import substitution has been self-defeating in the long-run. Although protective policies provided an initial incentive to industrial development, failure to modify them as industries have developed has resulted in a rate of growth of industry that is not very rapid in comparison to other developing countries. These policies have also led to distortions in prices and a neglect of agriculture, which now constitute serious obstacles to future development.

[1/] The extreme cases are Argentina and Uruguay, formerly the most advanced countries of the continent, in which there has been almost no growth in per capita income in the past decade. Chile, Brazil and Colombia have been affected to a lesser extent.

Mexico and Peru provide the main exceptions to the preceding generalizations, with Venezuela a special case because of its large oil revenues. Mexico and Peru have maintained a fairly steady growth of GNP at about 6%. Agriculture, mining and manufacturing have been developed in balance with domestic and foreign demand and without reliance on excessive protection. Although both countries suffer from regional and other inequalities of income, they show substantial benefits from maintaining realistic exchange rates, expanding exports and introducing only moderate levels of protection. At the opposite extreme are Argentina, Uruguay and Chile, which achieved a high level of per capita income before the war, but have tended to stagnate since then.

In summary, Latin America has not yet demonstrated the ability to develop in a sustained fashion. The principal weakness has been an inability to achieve an adequate growth of exports and a flexible economic structure which can adjust to changes in foreign and domestic demand. Mexico is the only Latin American country which has clearly met these conditions and where steady non-inflationary growth is the normal expectation. Most of the other countries can achieve high growth rates for a few years when export conditions are favorable, but growth is not sustained because of the vulnerability of their principal exports to fluctuations in world demand.

B. External Capital. Latin America has historically had a large inflow of both public and private capital. It has contributed substantially to development, but it has also produced levels of public and private indebtedness that are much higher than those of most underdeveloped areas. Amortization of public and private debt now requires about $1.5 billion annually and payments of interest and profits are over a billion dollars (see Table 2 and Annex A).[1/]

The central feature of the Alliance for Progress is its intention to accelerate development through increasing the rates of both domestic savings and investment and the net inflow of foreign capital. So far neither of these requirements has been achieved. Although there has been some qualitative improvement in the external financing available to Latin America in the first five years of the Alliance, Table 2 shows that the net inflow of long-term capital has remained fairly constant. The net resource transfer has actually declined since 1961 as interest and profit payments have increased. While the aid recipients describe the situation as a failure on the part of the donors, the latter point to the Latin American failure to control inflation, to improve the conditions for private foreign investment, and to institute effective long-term planning. There is some justice on both sides.

[1/] A comprehensive historical and statistical account is given in U.N. External Financing in Latin America, 1965. The financing of capital inflows for 1961-1965 is discussed in Annex A.

The main sources and amounts of official capital inflows since 1961 are given in Table 2. The table shows the changes in the sources of long-term financing over the past five years and the decline in net compensatory financing. The largest shift has been the decline in net lending by the Eximbank. The Inter-American Development Bank and the World Bank have replaced the Export-Import Bank as main sources of project lending to Latin America. AID program loans have reduced the need for compensatory financing of short-term balance of payments deficits by the U.S. Treasury, the IMF, and the Export-Import Bank. These program loans represent a qualitative improvement since their objectives and conditions are intended to cure the underlying problems as well as to provide for stabilization.

In attempting to carry out its reponsibilities under the Alliance for Progress, the United States has been confronted with the dilemma of trying to provide long-term developmental assistance to countries in which the immediate problems of inflation and fiscal reform must be solved in order to make any development effort effective. The many attempts to stabilize the inflationary economies in recent years have often failed to produce either price stability or satisfactory growth rates. Economists now generally agree that stabilization cannot be achieved in Latin America without accompanying growth. Stabilization alone will not lead to development, and excessive emphasis on price stability may actually hamper growth. Nevertheless stabilization criteria predominate in the negotiations of program loans for development as well as in compensatory loans of various sorts. I do not argue that

TABLE 2

GROSS AND NET CAPITAL FLOWS TO LATIN AMERICA, (1955-1965)* (millions of dollars)

	Average 1955-60	1961	1962	1963	1964	1965
I. Sources						
A. Normal Long-Term Capital						
1. U.S. Government (Gross)		836	676	704	716	785
a. Grants		150	174	234	222	301
b. AID loans		108	187	214	233	280
c. PL 480, Titles I & IV		140	79	85	145	38
d. Eximbank		437	217	123	60	99
e. Social Progress Trust Fund		1	19	48	56	67
2. IBRD (Gross)		101	153	251	219	157
3. IDB (Gross)		5	37	71	122	108
4. Direct Investment (Net)		390	441	332	399	-
5. Other (Including Supplier credits)		920	968	684	964	-
6. Total Long-Term		2,252	2,275	2,042	2,420	
7. Amortization of Long-Term Loans		-810	-922	-855	-1,004	
8. Net Long-Term Capital (6-7)	963	1,442	1,353	1,187	1,416	
B. Net Compensatory Loans	202	271	251	176	-309	
C. Net Short-Term Loans	128	202	151	98	278	
D. Net Financing (A+B+C)	1,293	1,914	1,754	1,461	1,384	
II. Uses						
E. Net Resource Transfer to L.A.	403	858	767	0	-89	
F. Outflow of Profits and Interest	552	832	835	821	1,007	
G. Current Account Deficit (E+F)	955	1,690	1,602	821	918	569
H. Changes in Reserves	+17	-74	-456	+308	+52	+488
I. Errors & Omissions and Capital Outflow	321	298	608	332	414	

* SOURCE: Annex A. Figures include all 19 Alliance countries except Venezuela, which has had an outflow of capital during this period. Some 1965 figures cannot be calculated until certain component balance-of-payments data are published by the IMF.

stabilization is not important to development, but I would stress that it should be part of a longer term set of policies. If U.S. assistance is to play its intended developmental role under the Alliance for Progress, a substantial increase is needed in the net resource transfer to Latin America, accompanied by an improvement in the techniques by which aid is administered.

The net effect of the first five years of the Alliance is to leave external assistance to Latin America at relatively low levels. Before 1960, the net flow of official funds to Latin America was less than half the per capita level for other regions.[1/] It has now almost reached the average ($4.00 per capita), but this is a much smaller proportion of development expenditures than in other areas. The net inflow of long-term foreign capital finances only slightly over 10% of total investment compared to the 20% to 30% which is common in Asia and Africa among countries that are following reasonably effective development policies.[2/] Since more than half of foreign long-term lending is offset by amortization of past loans, the net resource contribution of foreign capital to Latin American development has been relatively small.

[1/] O.E.C.D., The Flow of Financial Resources to Less Developed Countries, 1956-1963, and Development Assistance Efforts and Policies, 1965.

[2/] As shown in H. Chenery and A. Strout, "Foreign Assistance and Economic Development", American Economic Review, September, 1966.

C. Population Growth, Urbanization and Employment

Latin America has the most rapidly expanding population of any part of the world. Not only is its population growing at nearly 3% per year, but two-thirds of this increase is taking place in cities. Many of the most difficult problems that beset Latin American development -- growing unemployment shortage of housing and urban facilities, and inability to control inflation -- are related to the fact that the growth of urban population is outstripping both the economic and political capabilities of the Latin American governments. These factors are of central importance in reassessing the goals of the Alliance for Progress and the possibilities for more effective development.

The decline in population growth which has accompanied rising standards of living in the more developed countries -- and which is usually identified with urbanization and greater education -- has in Latin America taken place only in Argentina, Uruguay, and Chile. Two-thirds of the population of these three countries now live in cities and towns, and the rate of urban growth has slackened off considerably. The other more industrialized countries -- Venezuela, Mexico, Colombia, and Brazil -- are still in the phase of rapid migration to the cities, where population is growing at 5-6% per year. For Latin America as a whole, the urban population as a proportion of the total is expected to increase from 40% in 1950 to 49% in 1965 and 52% in 1975. This represents an enormous change in both the economic and social structure in a short period of time.

The growth of the labor force in the cities has far exceeded the demand for labor in manufacturing activities. This has resulted in an excessive shift of employment to the more accessible urban service sectors of the economy and a decline

in output per worker. In contrast, the growth of output in agriculture, industry and public utilities has come in fairly equal parts from increased employment and increased productivity. Table 3 shows annual productivity increases of 1.8% in agriculture and 2.5% in industry, mining and utilities between 1950 and 1965. In a fully employed economy comparable rises would also take place in the service sectors. Instead, since 1950 there has been a fall in the average productivity in the service sectors, which have had to absorb an excessive share of the surplus labor supply. Since there are almost no reliable unemployment estimates in Latin America, this decline in productivity provides an indicator of rising under-employment. In services alone, falling productivity suggests a level of under-employment equivalent to 10% of the labor force. In effect, the combination of accelerated population growth, higher wages in many types of urban employment, and the attractions of city life has resulted in transferring the problem of underemployment from the countryside to the cities to a large extent.

To reverse this trend of increasing under-employment and under-utilization of human resources will require growth rates in GNP of 5.5% to 8% in individual countries. For the region as a whole, a growth of GNP of over 6% per year will be needed to prevent a further increase in under-employment. Even with this substantial acceleration in overall growth, the increase in productivity shown for the service sectors between 1950-1975 would be only 1% per year. This low figure indicates that there would still be considerable slack in the economy of Latin America.

TABLE 3

Growth in Active Population, Employment and Productivity, 1950-1975.[1]

SECTOR	Active Population 1950 (millions)	Growth 1925-50	Increase in Employment 1950-1960	%	1960-1965	%	1965-1975	%	Productivity Growth[2] 1950-1960	1960-1965	1965 - 1975 (A)	(B)
A. Agriculture (Share)	28.2 (53%)	1.4%	4.0 (27%)	1.3%	2.4 (25%)	1.5%	8.0 (31%)	1.7%	2.1	1.0	2.4	2.2
B. Industry, Mining, Utilities (Share)	12.5 (23%)	2.7	4.9 (32%)	3.4	2.3 (29%)	2.6	8.8 (35%)	3.9	2.6	2.5	3.0	2.5
C. Services (Share)	12.4 (23%)	2.8	6.2 (41%)	4.1	4.9 (51%)	5.0	8.6 (34%)	3.7	0.1	-1.0	2.0	0.3
TOTAL	53.1	2.0	15.1	2.5	9.5	2.7	25.4	2.9	2.1	1.4	3.0	2.1

1/ Source: United Nations, "Structural Changes in Employment Within the Context of Latin America's Economic Development", Economic Bulletin for Latin America, October 1965.

2/ The "A" projections to 1975 assume 6% growth in GNP and are based on the E.C.L.A. analysis. The "B" projections assume 5% growth in GNP and continued absorption of surplus labor in services. Total productivity increases are greater than the weighted average of the sectoral increases because workers are assumed to be shifting from low-productivity sectors into industry.

Several alternative assumptions and policies have been considered to test these conclusions. In the long run, policies of population control are obviously desirable, but they can have no impact on the labor force in 1975. Policies of promoting more labor-intensive techniques in manufacturing may be desirable, but their possible effect is also limited. The only major alternative to faster economic growth is to slow down the movement from countryside to city, but this policy would just divide the under-employment more evenly and its political feasibility is doubtful.

D. Conclusions. Present trends in Latin American development have been shown to be unsatisfactory from both an economic and a social point of view. The annual growth in GNP of about 4.7% which has been achieved over the past fifteen years is not high enough to provide productive employment for the rapidly growing labor force. The Alliance for Progress has served to prevent a further fall in this growth rate, but the 5.5% growth rate achieved for the past two years represents primarily a recovery from previous declines in Argentina and Brazil. It is not at all clear that a trend toward more satisfactory growth rates has been established. Unemployment and under-employment are rising in most countries and are growing most rapidly in the larger cities where the political results are likely to become increasingly serious. These trends give great urgency to the acceleration of development in Latin America and better distribution of its benefits.

Foreign assistance has made only a modest contribution to Latin American development in the first five years of the Alliance, although some of the institutional changes that aid has helped to initiate should soon start to pay off. Of course, if foreign assistance had not been provided on the gross scale shown in Table 2, the debt burden which existed at the beginning of the Alliance period in most Latin American countries would have led to national bankruptcies accompanied by severe reductions in production and amortization. The primary cause of the limited contribution of external assistance to date has been the complex problem Governments in Latin America have faced in coping simultaneously with structural balance of payments difficulties, chronic inflationary tendencies, growing debt service, and long-term development requirements.

Given the political significance to the United States of economic and political development in Latin America, it is important for us to make a new attack on this problem and to acquire a better understanding of the long-term development possibilities of Latin America. We can then use our resources and influence more effectively to achieve them. These possibilities are discussed in the next section.

II. POSSIBILITIES FOR MORE EFFECTIVE DEVELOPMENT

In the past five years U.S. aid to Latin America has tried to overcome the immediate obstacles to development and to secure economic stabilization in the major countries.

The weakness of development plans in Latin America has prevented us from making a broader assessment of development priorities and from focussing our efforts and those of the recipient countries on achieving them. If the preceding assessment of recent trends is largely correct, we should seriously consider the possible gains from a more comprehensive and longer-term approach.

The present study will explore this possibility. I start from the assumption that more effective development of Latin America over the next decade is both feasible and vitally important to U.S. interests. I shall then examine the internal policies required for achieving this end and the ways in which the offer of external resources can induce or lend support to these efforts. Finally, the potential benefits will be weighed against the political difficulties and economic costs of a more ambitious program.

Because of the rapid growth of population, more effective development requires fuller use of human resources and better distribution of the benefits of growth as well as a rise in total income. Most Latin American countries are lacking in appropriate statistics for the measurement of unemployment, income distribution and elements other than the rise in total income. Therefore the best available indicator of the effectiveness of development is probably the increase in labor productivity in each major sector, a measure which reflects the degree of under-employment, and the change in income distribution as well as the rise in output. The available studies of output and employment suggest that a minimum of 2%

growth in labor productivity in each major sector is normally required to secure relatively full employment of human resources. The overall per capita growth rate corresponding to this objective will vary from country to country. In Latin America, it ranges typically from 3% to 5% because of the unequal growth of productivity in each sector and the initial amount of under-employment.

A. Programs for Selected Countries.

Four case studies were designed to test the approach outlined above in several important and representative countries. These include Chile, Brazil, Colombia and Central America. In each case, an experienced AID economist was asked to develop a set of goals for the next decade that seemed most appropriate for his country and to make ten-year projections to show the benefits and costs of more ambitious and effective development policies.

The goals selected for the next decade have three general characteristics which are given different weight in each country:

(1) maximizing income and human welfare within the period, primarily through more rapid growth, fuller employment of labor and better income distribution;

(2) making the economic system more viable through changes in the structure of production, its orientation toward external trade, etc.;

(3) limiting the need for external financing in accordance with principles of self-help.

Within limits, these are competing goals and there are possible tradeoffs among them. Maximizing income and welfare in 1975 conflicts to some extent with the requirements of a viable economy thereafter; both are dependent on the amount of external financing assumed to be available and on the terms of such assistance.

Each country study strikes a somewhat different balance among these objectives. The projections for Brazil and Colombia showed that growth rates of less than 6% in national product would probably lead to rising unemployment. The higher growth rates of 7-8% needed to achieve fuller employment and minimum increases in labor productivity in all sectors were considered to be attainable by 1970 with reasonable levels of self-help and external assistance. Consequently, fuller employment and better income distribution became the dominant goals for these countries.

For Chile and Central America the analysts give greater weight to the achievement of a viable economic structure in the coming decade than to maximizing the level of income and employment. In Chile a long period of slow growth accompanied by higher rates of inflation has produced a set of attitudes among businessmen and other groups which makes the achievement of rapid growth very difficult. Now that export prospects are more favorable in Chile, increased aid to support more rapid growth is only considered desirable to the extent that these attitudes can be changed and increased private savings and investment can be generated.

In Central America maintenance of the recent growth rates of slightly over 6% is considered a realistic objective and institutional changes are given first priority. The most urgent need is to complete the economic integration of the five countries in order to develop a more diversified, efficient and flexible economic structure.

In arriving at these conclusions each country study considered the effects of alternative objectives and policies and the corresponding rates of growth required in different sectors of the economy. The principal alternatives considered are shown in Table 4 by the target growth rates of total and per capita national product for 1970-1975. The analyses of Brazil and Colombia make a strong case for the internal and external efforts needed to achieve the higher alternatives giving a growth of per capita income on the order of 4 to 5%. In the studies of Chile and Central America, the priority given to structural and institutional change led to the acceptance of the lower targets with per capita growth of 2.5 - 3.0%. In these latter cases it was not possible to make analyses of the probable effects of higher growth rates on employment and income distribution; the conclusions were based mainly on the low probability that higher growth rates could be achieved.

Although the obstacles to more rapid and effective development vary from country to country, several are common to a number of Latin American countries and are emphasized

TABLE 4

COUNTRY GROWTH TARGETS FOR 1970-1975[a]

Country	Population Growth [b]	Lower Alternative Total GNP	Lower Alternative Per Capita GNP	Higher Alternative Total GNP	Higher Alternative Per Capita GNP
Brazil	3.1%	6.0%	2.8%	8.0%	4.8%
Colombia	3.0	5.6	2.5	7.1	4.0
Chile [c]	2.5	5.3	2.7	6.3	3.7
Central America [d]	3.1	6.0	2.8	7.0	3.8

[a] Source: AID analyses. Separate projections of the growth by sector, the main components of GNP, the balance of payments, and the labor force were made in choosing these alternatives.

[b] Population and growth rates assumed by country analysts.

[c] A higher growth rate for Chile of 7.3% was rejected as unlikely. 6.3% is considered possible after 1970, although the principal projection is based on 5.3%. A "lowest" alternative of 3.8% GNP growth, based on historical trends is rejected as unacceptable.

[d] A range of 6-7% is given for Central America although only a single projection is made in any detail.

in the country studies. For the region as a whole, the need to develop outward-looking economies, which are characterized by realistic exchange rates, freer trade and more diversified exports, is the most important single requirement. Fulfillment of these conditions would constitute an important step toward economic integration in Latin America. Brazil and Colombia need to diversify exports to reduce their dependence on the world coffee market. Chile will face a similar problem by 1970, when copper expansion will no longer supply the bulk of its needs for increased imports. In Central America, economic integration is already starting to achieve these results.

The development of the agricultural sector appears as a major obstacle to more rapid growth in Chile, Colombia and Brazil. For many countries achieving a more dynamic agriculture will require a reversal of past policies which have favored industry at the expense of agriculture. In the analysis of alternatives for these countries it is shown that agricultural growth of 5 to 5.5% will be necessary to supply the agricultural commodities and to provide the income for the rural sector that is consistent with the projected expansion of industry and trade and more integrated national markets. Agriculture is also relied on to contribute to more diversified exports, particularly in the longer-term context of Latin American integration.

Although a substantial increase in both public and private saving will be required to finance the investment needed for

more rapid growth, this obstacle may turn out to be less formidable than the first two once a more effective growth process is established. The experience of other developing countries suggests that the required national savings rates of 25-30% of the increase in national income can be achieved through feasible increases in tax revenues and from the normal responses of businessmen to higher profits and expanding markets. Few Latin American countries have achieved these savings rates in the past, however, and they should be a focus for the strategy of external assistance that is suggested in the next section. Even with marginal savings rates of 30%, the projected growth of consumption would be much more rapid for these three major countries than it has been in the past.

Perhaps the most unpredictable element in a strategy for more rapid development is the response of the private sector to increased national income and larger markets. This is regarded as the major uncertainty in the projections for Chile and Central America.

The foreign capital inflow required to support these development targets will depend largely on each country's success in carrying out its development policies. The inflow of foreign resources contributes to both the financing of investment and the supply of imports. Aid requirements therefore depend on self-help measures in the fields of balance of payments policy, investment and taxation. In the next section the foreign capital requirements implied by the country projections will be discussed along with those for the rest of Latin America.

B. Alternative Projections for Latin America.

To extend these results to all of Latin America, we have made a set of alternative projections for sixteen of the members of the Alliance. These are discussed in Annex B. While these analyses are less detailed, they are adequate to indicate the possible benefits and costs of more rapid growth.

Although a wide range of possible growth rates has been explored, principal interest centers on the difference between a continuation of present trends and an acceleration of growth to meet the minimum productivity goals outlined above. For this purpose, a higher target growth rate for 1970-76 has been assumed for each country, taking into account its past performance as well as the upper limit of 7-8% which is probably technically feasible in almost every country. The targets selected range from about 5.5% in Argentina and Paraguay to 7% or more in Venezuela, Mexico, Brazil, and Colombia, giving a regional average by 1976 of about 6.5% (or about 3.5% per capita). Allowing for the fact that not every country can be expected to achieve these targets, a realistic target would be about 6% growth in total GNP for the region. So far as can be ascertained from the available data on population and employment, this is about the minimum required to provide productive employment for a substantial part of the increased labor force over the period.

Although we have made annual projections for 16 of the 19 Alliance countries through 1976,[1/] the most important

[1/] All except Uruguay, the Dominican Republic, and Haiti.

features of the results can be shown by comparing several alternative growth patterns for the whole region in 1972. Key elements of this comparison are given in Table 5 and Figures 1 and 2. The "historical" growth rates represent a continuation of the country trends of the past fifteen years and average slightly over 5% for the region. Projections labelled "past development performance" are calculated on the basis of the investment productivity, savings rates, export growth and import requirements experienced in each country in recent years. The net capital inflow required in 1972 on these assumptions for the 16 countries is about $825 million (Projection I-A), representing an increase over 1966 of nearly two-thirds. This is somewhat more than the average net inflow for development in 1961-64 of $400 million. This requirement for 1972 might be reduced to about $600 million through better performance, as shown by projection I-B.

In order to compare these projections to the crude estimates given in the Charter of Punta del Este in 1961, it is necessary to add back payments of interest and profits deducted in arriving at net capital inflow. For the decade 1962-1971, the projections adjusted in this way would show cumulative gross investment of $145 billion and net capital inflow of about $15 billion in comparison to the original estimate of $100 billion in total investment of which $20 billion was to be financed by foreign capital inflow. The projected growth for the decade after these adjustments is about 5% or 2.1% per capita in comparison to the anticipated 2.5% per capita.

Table 5 also gives estimates of the capital inflow needed to achieve the accelerated target growth rates from 1970 onward under four sets of assumptions pertaining to the countries' development performance. Projection II-A shows that if there were no change from past performance with respect to savings rates, capital coefficients, export growth or import requirements, more than three-fifths of the increase in investment needed to support the higher growth of income would have to be financed from foreign capital, which would rise to $5.6 billion by 1972.

The other three projections show the effects of improved development policies on the level of income achieved and the amount of investment and external capital required. Increased savings rates, greater exports, import substitution, and more efficient use of capital all contribute to a lower requirement of capital inflow. The combination of all these improvements (II-D), labelled "maximum performance", incorporates the optimistic performance projections for Brazil, Chile, and Colombia and makes equally ambitious assumptions for the rest of Latin America.

Under the assumptions of maximum performance in each country, curve II-D in Figure 1 shows that the net capital inflow required would rise to a peak of about $1.1 billion in 1970 and then decline to less than $640 million by 1976. Up until 1972, the attainment of accelerated growth rates with maximum development performance will require more external capital than would be required to maintain historical growth

TABLE 5

ALTERNATIVE PROJECTIONS OF GROWTH AND CAPITAL INFLOW, 1972[1/]

(millions of 1962 dollars)

	Gross National Product (1)	Total Investment (2)	Net Foreign Capital Inflow (3)	Exports (4)	Imports (5)	Share of Foreign Capital in total investment 1972 (6)	1967-72 (7)	1967-76 (8)
1966 Estimates	78,268	14,294	498	11,513	10,781	-	--	-
I. Historical Growth Rates (1972)								
A. Past Development Performance	105,417 (5.1%)	20,209	825	14,355 (3.7%)	14,721	.041	.041	.043
B. Increased Exports & Import Substitution	105,417 (5.1%)	20,235	608	15,280 (4.8%)	15,256	.030	.035	.032
II. Accelerated Growth Rates (1972)[2/]								
A. Past Development Performance	109,788 (5.8%)	27,660	5,568	14,355 (3.7%)	20,297	.201	.147	.178
B. Increased Savings, Exports & Import Substitution	109,788 (5.8%)	27,704	3,477	15,248 (4.8%)	19,100	.126	.094	.105
C. Lower Capital Requirements	112,884 (6.3%)	25,194	2,773	14,355 (3.7%)	17,215	.110	.097	.106
D. Maximum Performance [3/]	112,884 (6.3%)	25,329	975	15,360 (4.9%)	16,133	.039	.045	.035

1/ Regional totals are based on individual projections for 16 countries (excluding Uruguay, Haiti and Dominican Republic.) Foreign capital inflow figure is the sum of inflows to deficit countries and does not include possible repayment of prior debts by surplus countries. The net inflow is the difference between imports and exports of goods and services, where services do not include profits or interest payments on capital investment or debt, these payments being treated as capital flows. It corresponds to line E in Table 2.

2/ Growth rates shown are the average for the period 1966-1972. The target rates are somewhat higher.

3/ Maximum performance includes the improvements in savings rates, exports and import substitution, and more efficient use of capital of both assumptions B and C.

rates with present development performance (I-A). After 1962, less foreign capital would be needed to sustain the higher growth rate of 6.5% than the historical rate of 5%. The increased flow of external capital between now and 1972 would enable a number of countries to achieve an economic structure in which continued growth would be the normal expectation. The remaining needs for external capital would be supplied on non-concessional terms as in Mexico and Venezuela today. The "aid component" of the capital inflow would probably be substantially smaller with more rapid growth than it is today.

The composite projections of more rapid growth in each oountry of Latin America are designed to show the maximum increase in external capital that would be needed if a policy of accelerating Latin American development were adopted. Results for each major country under Assumption II-D are given in Figure 2. Under the assistance policies proposed in section III, however, only countries which met certain stringent standards of performance would be offered increased assistance. Since there might be some countries that would not qualify for additional aid under these conditions, the actual rise in capital inflows probably would be less than the projected amount.

To arrive at the required gross U.S. public capital inflow to Latin America, it is necessary to include the net effect of private capital inflows and outflows, to subtract the net contribution of international lending agencies, and to add amortization and interest payments on public debt. As shown in Table 6, the net effect of private capital, i.e., inflow of

TABLE 6

U.S. OFFICIAL LENDING TO LATIN AMERICA IMPLIED BY ACCELERATED GROWTH, MAXIMUM PERFORMANCE (II-D) PROJECTION

	1966	1967	1968	1969	1970	1971	1972
Net Resource Gap, Deficit Countries	498	755	875	886	1,064	1,058	975
IBRD	-100	-103	-113	-127	-164	-189	-216
Gross Disbursements 1/	-230	-265	-300	-345	-400	-460	-530
Repayments-Existing 2/	64	71	80	89	86	85	89
Repayments-New 3/	-	-	-	-	-	12	25
Interest-Existing 2/	59	69	70	71	70	68	65
Interest-New 3/	7	22	37	58	80	106	135
Net Private	175	170	170	180	180	185	190
Net Direct Investment 4/	-450	-500	-550	-600	-660	-725	-800
Investment Income Outflow 5/	625	670	720	780	840	910	990
Other Private (supplier credits, etc.) 6/	0	0	0	0	0	0	0
IDB Ordinary Capital 7/	-53	-48	-43	-21	-11	-10	-4
Gross Disbursements	-90	-100	-110	-100	-105	-115	-120
Repayments	20	32	42	51	62	70	78
Interest	17	20	25	28	32	35	38
U.S. Official-Net	520	774	889	918	1,069	1,044	945
Debt Service to U.S.Gov't 8/	300	300	300	300	300	300	300
U.S. Gross	820	1,074	1,189	1,218	1,369	1,344	1,245

FOOTNOTES

1/ Disbursements estimated to rise about 15% per year in line with IBRD projection for worldwide disbursements through FY 1971.

2/ IBRD statistics Division

3/ Assumes 5 years grace, 20 years repayments, 6%.

4/ Assumes doubling from 1962-1964 average as result of investment guaranty program and investment incentives arising from greater integration.

5/ Projected from 1965 actual of $600 million on assumption of 10% return on new investment.

6/ Assumes no net contribution, on assumption that suppliers' credits will increase net about 5% per year from present level of about $2.5 billion and interest will roughly offset this increase.

7/ Based on IDB projections of repayments on existing debt and LA/DP projections of new commitments. Assumes 4 years grace, 12 years repayment, 6%.

8/ Continuation present level, under assumption Eximbank will maintain existing level of portfolio and AID provide the major part of new capital flow on present terms.

direct investment, outflow of profits on old investment, and the extension and servicing of suppliers' credit, is expected to rise from an outflow of $175 million in 1966 to an outflow of $190 million in 1972. The net inflow of capital from the World Bank and the Inter-American Development Bank is expected to rise from about $150 million in 1966 to about $220 million in 1972. Amortization and interest payments on debt to the U.S. are expected to remain constant at $300 million, although later figures are subject to variation with the terms of new lending. Thus gross U.S. aid would be required to increase from approximately $800 million in 1966 to approximately $1,200 million in 1972. While the annual appropriation for the AID component is determined by the gross rather than the net flow, the resource cost to the U.S. and other donors is measured by the net capital transferred. It is this latter concept which should be the basis for major policy decisions.

C. Internal Development Policies.

Since it is not feasible to discuss all the policy implications of these projections, I shall focus on the role of external aid in carrying out a successful development strategy. It will be much easier to achieve the structural changes needed in Latin America with a rapidly expanding national income, increasing government revenue, and steadily rising employment than with slowly growing economies where the redirection of resources would be much more difficult. The principal lesson to be learned from the success of aid programs in other parts of the world is that accelerated growth makes possible a restructuring of the economy and a rapid

approach to viability. When this has been achieved, the initial investment of substantial amounts of external capital has turned out to be very productive.

In Latin America, the structural change most urgently needed is to move toward more outward looking and increasingly integrated economies. There is substantial agreement among economic observers from Latin America and elsewhere that competitive economies with freer international trade would provide the most favorable basis for continued growth without excessive reliance on external capital. The central problem is how to move in this direction from the present set of inefficient, protected economic units. The typical reaction in such countries to any kind of economic difficulty is to reduce imports and to increase protection and thereby make the long-term problem worse.

An increased flow of external resources can make two major contributions to the success of the domestic policies that are required. First, it can support liberalization of imports of raw materials and capital goods together with realistic exchange rates for a period long enough to raise output and also to provide an incentive for increased production of new agricultural and manufactured exports. This strategy has been one of the key features of the remarkable success of U.S. aid policy in Taiwan, Pakistan and Korea in recent years. These were countries that suffered even more acutely than Latin America from an initial imbalance in their economic structures. Policies of this sort have been conceived in Colombia and Chile, but they have not yet been carried through.

The second major contribution of external assistance would be to support more rapid growth for a period long enough to increase substantially the domestic resources available for development purposes, both for physical investment and for the improvement of human resources. Here the keys to success are (i) the country's ability to increase the rate of investment and production once the balance of payments limitation is eased; and (ii) the country's ability to siphon off a substantial share of the increase in GNP for developmental purposes through private savings and taxation. The most notable examples of countries which have been successful in this regard are Israel, Greece and Taiwan, all of whom have depended initially on external aid for at least 75% of their total investment. They achieved viability within a decade through a strategy of rapid growth which was dependent on capturing 25% of the increment in GNP for further development.

The effects of these differences on development possibilities have been brought out in Table 5. The projections of "maximum performance" assume higher tax and savings rates and a redirection of resources to increase exports and reduce import requirements. This improved performance is much more likely to be attainable with increased growth rates and a temporary increase in external assistance than with a continuation of past growth rates of 2% per capita or less.

Although the increase in total GNP of $7 billion in 1972 resulting from the enforcement of faster rather than slow growth

rates does not appear dramatic, it is a margin that will widen continually thereafter while AID requirements continue to decline. What is being proposed, therefore, is a major effort to solve the structural problems of those Latin American countries that are willing to join seriously in this attempt. Even by 1972, the effects on unemployment and the strength of progressive governments should be very substantial.

III. ASSISTANCE POLICIES FOR ACCELERATED DEVELOPMENT

To translate the preceding analysis into specific policies for U.S. assistance, several questions must be answered concerning:

(i) what kinds of development programs to support?

(ii) what share of increased development expenditure should be financed from abroad?

(iii) what kinds of controls are needed to secure satisfactory performance?

In earlier cases of substantial support in Asia and Europe, accelerated development was accepted as a political necessity and these questions were only asked after the process was under way. It should now be possible to design the aid relationship in Latin America more systematically, but neither analogy to other countries nor quantitative economic analysis can give very precise answers. A development strategy must be worked out for each country individually. It will ultimately be necessary to decide the extent to which the prospective rewards in each case are worth accepting a certain amount of risk.

Perhaps the element of risk which we are willing to accept should not be as great as it was in Greece and Taiwan, but it should be more than we have been willing to accept so far in Latin America.

A. How Much Development?

I have argued above that there is a critical difference in both economic and social terms between slack economies with rising under-employment in Latin America and countries which are achieving relatively full employment with rising productivity. This difference is important to the United States because of its potential political consequences. While no uniform relationship has been established between economic and political development, a strong case can be made that democratic political development is much less likely to succeed without both rising income and a better distribution of its benefits among different groups in the population. If we take the more restricted objective of political stability rather than political and social development, there may be some counter-arguments against too rapid economic growth in primitive societies, but these hardly apply to the more sophisticated countries that comprise the bulk of Latin America.

Beyond the minimum growth needed to secure some measure of social stability, the question of how much development in the next decade should depend on the possibilities for achieving changes leading to self-sustained growth, and on the cost of securing them to the U.S. and other aid donors. Development assistance should be systematically related to the effectiveness

of local efforts. It would, therefore, be very desirable to focus the Alliance for Progress on the guarantee of support for more effective development policies and programs.

B. Sharing the Cost of Development.

The principle of matching local expenditure is used by both the Federal Government and private foundations to maximize the element of self-help and to adjust the amount of assistance to the rate of execution of programs. The matching approach has the additional advantage that the proportions of external to local effort can be adjusted to the individual situation in each country and can be applied with considerable effectiveness to secure increases in expenditure.

The matching principle has applications in aid administration in both project assistance and program assistance. In the former, it is of less value because it simply requires a reallocation of existing government expenditures to supply the local share of a project's cost. While this indicates government support for that particular project, it is entirely compatible with inadequate total development efforts and falling rates of savings, as has been the case in several Latin American countries. When applied to a total program of assistance, however, matching can be made much more effective. Program assistance can be related to an overall development program and made contingent on execution of policies designed to raise investment and to channel it into priority areas.

The projections summarized in Table 5 suggest the order of magnitude of the share of increased investment that might have to be financed from abroad in the next five years. For example, to increase the growth rate over the next six years from 5.1% to 5.8% for the region as a whole without an improvement in self-help, would appear to require an increase in the 1972 net capital inflow from $825 million (I-A) to $5.6 billion (II-A). This would imply that 20% of the total investment and over 60% of the increase in investment from now until 1972 would be financed from external capital. For most countries, this would suggest to the U.S. too little self-help to be worth supporting. Under optimistic assumptions (B and D) as to country performance, a growth rate of 5.8% or more could be achieved with no more than 33% of the increase financed from abroad. Projection II-B would only raise the average share of external capital to a peak of 13% of total investment in 1972, but it would decline thereafter. Less demanding standards than our "maximum performance" might therefore be appropriate, within the original 20:80 formula of the Charter of Punta del Este. An offer to support development programs that would result in external financing of 20% to 30% of the increase in investment according to country circumstances would be consistent both with the importance of the problem and with U.S. experience elsewhere.

C. Implementation.

It will require broadened use of the system by which U.S. and international aid are administered to achieve the

incentive effects which are at the heart of the present proposal for making the Alliance more effective. Three aspects of an effective system of aid administration should be focused on:

(i) Relating the amount of total assistance to the size and effectiveness of the country's development program in such a way as to induce maximum local efforts.

(ii) Supplying resources in the form best designed to support development priorities.

(iii) Using controls designed to enforce development priorities and efficient execution rather than to secure secondary benefits to the donor.

Although attempts have been made in negotiating aid for Chile, Brazil and Colombia to relate the amount of U.S. assistance to the country's performance, the principal criteria used have been measures of the country's success in overcoming short-run impediments to development, stabilization and reform. In order to achieve growth as well as stabilization, it is desirable to establish criteria for aid that are more specifically related to long-run development and which provide incentives to better economic performance.

The Matching Principle. The principle of sharing the cost of accelerated development which has been outlined above provides a basis for development assistance in all countries where a serious development effort is undertaken. Since the

appropriate development strategy and need for external support vary from country to country, the matching principle can only be applied effectively in the context of a country's development program. To translate the principle into a specific set of self-help measures, the development program should be made the focus of aid negotiations, as it has been in countries such as India, Pakistan, Korea, Turkey and Nigeria.

While the provision of aid based on the review of country programs was stressed in the Charter of Punta del Este, this procedure has never been attempted very seriously in Latin America because neither the recipient countries nor the U.S. and other donor agencies have had much confidence in the existing development plans. However, development planning has been improving and has now reached a stage in the principal countries where it could be relied on to a much greater extent as a basis for development policies. The use of development programs as a basis for external assistance would greatly improve the seriousness and effectiveness of the plans themselves. This has been the experience in almost every country where this linkage has been established.

The matching principle can take a number of different forms in the context of an agreed development program. The aid negotiations will focus on whatever aspects of development policy are considered most important, such as economic integration, more realistic exchange rates, taxation or reallocation of investment funds. These negotiations will culminate in agreement

on a development program whose requirement for external capital will represent the share of increased expenditures to be financed from abroad. This is a rough outline of the type of negotiation carried on by the World Bank on behalf of the aid donors for India and Pakistan and which could well be adapted to Latin American conditions.[1/]

The form of an offer to supply increased assistance should be designed to provide a maximum incentive to better performance and should also provide an adequate guarantee that the funds will be properly used. A procedure which would maximize the incentive effect would be to offer to finance an agreed share of the increase in investment (or development expenditure) that is represented by the development program. A shortfall in investment would then lead to a subsequent reduction in assistance, and conversely more rapid increases in saving and investment would call for a subsequent increase in assistance. However, this straight-forward application of the principle implies a degree of competence in execution of other aspects of development policy and of confidence by the donors which probably does not exist at present in any Latin American country. Nevertheless, it may suggest a goal for future assistance policy which could have a dramatic political as well as economic impact on the more progressive Latin American countries.

[1/] While these seem to be the most promising models, I would not exaggerate their past effectiveness. Aid has been both more ample and more effective in Pakistan.

A number of more modest variants of the matching principle can be devised which embody more of the conventional controls on aid expenditures but still provide incentives to greater and more effective development efforts. The United States and other donors could offer to supply certain categories of imports to support the fuller use of existing capacity (as in Pakistan and India) or to finance specified proportions of an increase in investment in certain sectors of the economy. In the case of Latin America, such loans could be tied to increased public investment and a variety of policy and organizational targets. The latter include price, credit and import policies and reform programs designed to overcome shortcomings in a particular sector, such as in agriculture or education. In these more partial approaches, care must be taken to avoid a reduction in development expenditures in other priority sectors.

Whatever methods of incentive programming may be adopted, the most effective way to implement them is through a periodic review of each country's development program and current performance. A review by an international body whose opinion is respected by the donors would be greatly preferable to the separate reviews by each agency which is the current practice in Latin America.

So far, only the World Bank has enjoyed the necessary confidence of both donors and recipients to perform this function, but there would be many advantages to building up C.I.A.P. or the I.D.B. for this purpose.

The Form of Aid. The forms of aid should be designed both to supply the priority needs for imports and to enable influence to be exerted on resource allocation and development policies when necessary. These requirements suggest that a mixture of project and program assistance will be desirable in most countries, with a larger non-project component in countries having more effective development programs.

Many of the high priority sectors in Latin America -- education, agriculture, small industry -- require local resources more than imported goods. Sector programs, which involve program lending combined with effective control of the local currency counterpart, are a more effective way of shifting resources to such priority sectors than is project lending. The commodities imported to support these sector programs can be chosen to fit the overall balance of payments needs of the country and the possibilities for supplying investment goods from within

Latin America. The control of resource allocation would be effected primarily through advance budgeting of local currency.

Controls. The present system of U.S. aid administration is intended to make individual activities with which aid is associated more efficient and to obtain various secondary benefits for the U.S., mainly, procurement from U.S. sources. While it is politically unrealistic to suggest major changes in many of the existing controls, even where they are demonstrably counter-productive, it should be possible to redesign the control system so that its main objective is the development of the recipient country rather than securing secondary benefits to the U.S.

The essence of any control system is a measurement of performance against agreed objectives and criteria for the activity. Under the broader approach suggested here, the effectiveness of aid should be measured by the results of the sectoral programs and the overall development policies which aid is designed to influence. In Latin America, as elsewhere, an appropriate control system would probably involve bilateral sanctions to achieve internationally agreed objectives. Under such a system, sanctions and incentives can be applied in the programming of new funds as well as through the release of funds already allocated.

IV. CONCLUSIONS.

The basic approach adopted in this paper has been to examine the prospects for Latin American development under alternative assumptions and to calculate the probable cost to the United States in foreign aid of a more satisfactory form of development. My principal conclusion is that a continuation of current policies and performance by the Latin American countries is likely to produce results that are increasingly unsatisfactory in social and political terms. Without an improvement in development policies, however, the cost to the United States of trying to finance accelerated growth through increased assistance would be very high.

A consideration of feasible improvements in policies concerning taxation, balance of payments, investment and other aspects of development shows that a substantial acceleration in growth could be brought about with a moderate increase in assistance. The maximum required from the U.S. and other sources would be substantial but well within the share of investment that was originally expected to be financed from abroad under the Charter of Punta del Este.

An AID strategy is advocated which would only make available increased assistance to countries which substantially improve their development performance. The greater the success of this approach, the greater the aid that might be required in the next few years. However, it would be very much more effective in securing a rapid approach to adequate levels of income and employment and an economic structure to sustain them in the future. In the long run, this result can be obtained

at less cost to the United States by encouraging accelerated development than by continuing the present more restricted policies.

In order to secure greater incentive effects from the aid provided, it may be necessary to accept greater risks of poor performance. The risks of a well-designed program appear to be quite modest in comparison to the importance to the United States of more satisfactory economic and political development in Latin America.

ANNEX A: Latin American External Financial Requirements and Availabilities, 1961-1965.

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ANNEX A

LATIN AMERICAN EXTERNAL FINANCIAL REQUIREMENTS AND AVAILABILITIES, 1961 - 1965

I. The Latin American Balance of Payments

The main elements in the balance of payments of the 18 Latin American Republics (excluding Venezuela) for the five years 1961-1965[1/] were as follows:

1) A current account deficit declining from roughly $1.7 billion to about $600 million;

2) A gross inflow of external resources (autonomous, compensatory, and net short-term) of about $3 billion a year;

3) A net inflow of external resources declining from $1.9 billion to $1.4 billion as the balance of payments improved and Latin America paid off prior compensatory credits;

4) A relatively steady net inflow of autonomous long-term external resources at a level of $1.2 to 1.4 billion, of which $900 to 1,000 million represented long-term loans and grants and the rest direct investment;

5) An outflow of earnings of foreign capital, both public and private, increasing from roughly $800 million to $1,100 million.

The net effect was a decline in gross international reserves of about $500 million in the period 1961-1962 and an increase of about $800 million from 1963 through 1965. Latin America's

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1/ Or 1964, when 1965 data not available.

TABLE 1

FINANCING OF LATIN AMERICA'S CURRENT ACCOUNTS DEFICIT, 1961-1965

(18 Republics, excluding Venezuela)

	Average 1956-60	1961	1962	1963	1964	1965
Current Account Deficit	-955	-1,690	-1,602	-821	-918	-569
A. Net External Non-Compensatory Funds						
Direct Investment	543	390	441	332	399	
Long-term Loans to Private Sector	182	367	280	- 7	142	
Long-term Loans to Public Sector	139	554	497	726	745	
Official Donations	99	129	134	136	129	
Short-term Capital	128	202	151	98	278	
Total	1,091	1,643	1,503	1,285	1,693	
Excluding Short-term	(963)	(1,441)	(1,352)	(1,187)	(1,415)	
B. Net External Compensatory Funds	202	271	251	176	-309	
C. Total External Funds	1,293	1,914	1,754	1,461	1,384	
D. Errors and Omissions and Domestic Capital	-321	-298	-608	-332	-414	
E. Total Availabilities	972	1,616	1,146	1,129	970	1,057
F. Gross Foreign Exchange Reserves (+ = increase)	-17	74	456	-308	-52	-488
Memorandum Item:						
Investment Income Outflow	573	832	835	821	1,007	1,102

SOURCE: Data from ECLA, Economic Survey of Latin America, 1965; in turn, based on IMF Balance of Payments Yearbook.

reserves dropped from $2.3 billion at the beginning of 1961 to $1.7 billion at the end of 1962 and then improved to $2.6 billion at the end of 1965.[1/] At this level, they represent the equivalent of slightly over 3 months' imports.

If the net movement in external compensatory funds is added to changes in gross reserves, the movement in Latin America's net international reserve position may be estimated as follows:

	1961	1962	1963	1964
(- = decline)	-345	-707	+132	+361

Thus the net reserve position deteriorated by over $1 billion in 1961 and 1962 and improved by about $500 million in 1963 and 1964. Net reserve figures are not available for 1965, but the improvement should have been larger than the $500 million increase in gross reserves in view of substantial liquidation of short-term monetary liabilities during 1965.

It can be seen from Table 1 that inflows of foreign funds have consistently exceeded the amount needed to finance the balance on current account and external debt amortization and did so by large amounts in 1963 and 1964. Net inflows exceeded net financing requirements by an average of $552 million in 1963 and 1964 and probably by an even larger amount in 1965. The excess inflows in 1963-1965 have in part gone to rebuild gross reserves by about $800 million and in part to finance the outward movement of domestic capital.

1/ Slight discrepancy reflects different source.

TABLE 2

EXTERNAL CAPITAL AVAILABILITIES - LATIN AMERICA REPUBLICS - 1961-1964

(Excluding Venezuela)

		1961	1962	1963	1964
1.	Long-term Autonomous Loans & Grants-Gross	1,862	1,834	1,710	2,021
2.	Net Short-term Autonomous Loans	202	151	98	278
3.	Net Direct Investment	390	441	332	399
4.	Compensatory Funds - Gross 1/	468	577	718	81
5.	Total	2,922	3,003	2,858	2,779
6.	Total Autonomous (1+2+3)	2,454	2,426	2,140	2,698
7.	Total Autonomous Long-term (1+3)	2,252	2,275	2,042	2,420
8.	Amortization of Long-term Autonomous Loans	810	922	855	1,004
9.	Amortization of Compensatory Loans	197	326	542	390
10.	Total Amortization of Loans	907	1,248	1,397	1,394
	Net (5-8-9)	1,915	1,755	1,461	1,385
	Net Autonomous (6-8)	1,644	1,504	1,285	1,694
	Net Autonomous Long-term (7-8)	1,442	1,353	1,187	1,416
	Net Autonomous Long-term Loans and Grants (1-8)	1,052	912	855	1,017
	Net Compensatory (4-9)	271	251	176	-309

1/ Short-term liabilities of monetary authorities included on net basis.

SOURCE: Data from ECLA, Economic Survey of Latin America, 1965; in turn, based on IMF Balance of Payments Yearbook.

If the situation is examined in terms of resource transfers, and total debt service (interest and amortization) is taken into account, Latin America annually received net autonomous long-term external resources of roughly a half billion dollars. It is clear that Latin America is a region that requires very large amounts of gross capital inflow to accomplish a resource transfer of any magnitude. At the end of 1965 close to one-third of the $38 billion aggregate public indebtedness of developing countries was owed by Latin America, and a considerable portion of foreign direct private investment in developing areas was located in Latin America. Thus, the level of Latin America's international indebtedness is now so large that total annual debt service, including private capital earnings and amortization of compensatory debt, is of the order of magnitude of $2.5 billion.

II. External Capital Flows and Repayments

After declining in 1962 and again in 1963, in 1964 net autonomous capital exceeded the 1961 peak of $1,643 by $50 million. Available data indicate a total in 1965 for the U.S. and international agencies similar to that of 1964(although the U.S. share increased), but data for European and private loans and credits are not available.

More interesting is the evolution in the components of the net autonomous capital flow. The most striking change was in long-term loans to the private sector, mainly supplier credits. This declined net from an average of $325 million 1961-1962 to an average of only $70 million in 1963-1964, or by about $250 million. It is of interest that Eximbank net project lending for the same years, mostly to the private sector, dropped even more, from an average of over $200 million in 1961-1962 to a net return flow averaging $70 million in 1963-1964, or by almost $300 million (Table 3).

TABLE 3

AUTONOMOUS LONG-TERM FINANCIAL FLOWS TO LATIN AMERICA (excl. Venezuela)
1961-1965

	GROSS					AMORTIZATIONS				
	1961	1962	1963	1964	1965	1961	1962	1963	1964	1965
GROSS										
U.S. Grants	150	174	234	222	301	-	-	-	-	-
AID Loans	108	187	214	233	280	1	1	5	9	8
PL 480, Title I & IV	140	79	85	145	38	3	3	5	5	5
Eximbank 2/	437	217	123	60	99	118	119	136	189	136
Social Progress Trust Fund	1	19	48	56	67	1	-	1	3	4
Total U.S. Government	836	676	704	716	785	123	123	147	206	153
IBRD Group	101	153	251	219	157	34	40	49	50	66
IDB										
Ordinary Capital	2	28	56	101	79	-	-	1	4	3
Fund for Special Operations	3	9	15	21	29	-	-	-	-	3
Total International	106	190	322	341	265	34	40	50	54	72
Guaranteed Supplier Credits (Net)	316	172	164	1/						
U.S.	-	(18)	(26)							
Other	(316)	(154)	(138)							
Direct Investment, Net	390	441	332	399						
Other	604	796	520	964		653	759	658	744	
Total	2,252	2,275	2,042	2,420		810	922	855	1,004	

1/ Included in "other".
2/ Reschedulings excluded.

SOURCES: Department of Commerce balance of payments worksheet for U.S. data other than PL 480 for which shipment data provided by PC/SRD have been used.
CIES/847, February 1966 for other offical flows;
OECD, Geographic Distribution of Financial Flows to LDC's 1960-1963 for supplier credits;
ECLA, Economic Survey of Latin America, for direct investment and other.

It would appear, then, that European supplier credits continued to expand throughout the period, while the Eximbank greatly reduced its financing of U.S. exports to Latin America.

Public sector loans, on the other hand, increased by an average of roughly $200 million, thus almost offsetting the decline in loans to the private sector.

Direct investment remained fairly steady at slightly under $400 million a year. This represented a decline of about $150 million from the average for the previous five years, when direct investment was the main source of autonomous capital. Direct investment from the U.S. (as recorded in the U.S. balance of payments) represented about half of the total, but a large part of the rest represented the reinvested earnings of U.S. subsidiaries.

The gross total autonomous capital inflow increased by about $250 million between 1961 and 1964, of which $200 million financed increased amortization of such loans and $50 million represented a net increase.

Net short-term foreign capital inflows were between $100-200 million annually, except in 1964, when they reached $278 million. This reflected an exceptional inflow of short-term bank loans from the U.S., totalling over $400 million net.

Compensatory capital inflows on a net basis were of declining importance and in fact were negative by $309 million in 1964. This change reflected liquidation of part of the high level of

such obligations incurred in the late 50's and early 60's in the face of balance of payments pressures. Such funds represented a net inflow of over $1 billion in the five years 1956-1960 and of $700 million in the period 1961-1963. Amortization of compensatory loans amounted to about $550 million in 1963 and $400 million in 1964.

The main sources of financing for long-term autonomous loans and grants are the U.S. official agencies and U.S. funds made available through the IDB Social Progress Trust Fund, the international lending institutions, and supplier credits (Table 3). Total funds provided by the U.S. Government in 1965 were close to the 1961 peak of over $800 million. Funds provided by the international agencies roughly tripled between 1961 and 1964-1965, to about $300 million, but the 1965 total is under 1963 and 1964 totals. Together these two sources provided roughly one-half the gross inflow of autonomous loans and grants.

The gross inflow of other long-term autonomous credits totalled $700 to 1,000 million a year. A major part of these funds were supplier credits; other sources include European Government loans, U.S. and European bank loans, and portfolio investment. It can be seen from Table 3, however, that on a net basis these sources came close to cancelling out, except for net supplier credits. Net European supplier credits amounted to $316 million in 1961, $154 million in 1962, and $138 million in 1963. U.S. supplier credits are also important, but in the early 60's most of them were not guaranteed, and thus are not shown in Table 3.

ANNEX B: Alternative Projections of Development and Capital Inflow to Latin America --- (1966-1976)

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Of the net inflow of long-term autonomous loans and grants 1961 through 1964, $3.8 billion, the U.S. Government and international agencies provided $3.1 billion or over 80 per cent of the total. Net supplier credits roughly account for the remainder.

I. THE APPROACH TO AID REQUIREMENTS

Our projections of capital inflows are based on the view that there are two major obstacles to increases in the rate of economic growth in Latin America. Several recent studies of individual countries in the region* have shown that it will require a substantial change in their patterns of output to enable them to accelerate growth without increasing the gap between imports and exports. At the same time, other countries may be held back because they are unable to save enough to meet the high investment requirements of faster growth.

The theoretical basis for this "two gap" approach to the determination of aid requirements has been set out by Chenery and Strout.** The basic method is to define prospective "savings gaps" and "trade gaps" associated with the projected growth and performance of each country in each year covered. The prospective savings gap is the difference between the gross investment required to attain the specified growth target and the gross savings which the domestic economy is capable of generating. The prospective trade gap is the difference between the imports which are required to sustain the specified growth and the imports which the economy is expected to produce and sell. Since both gaps must be filled if growth is to be realized, the larger of the two determines the amount of external capital required.

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* See, for example, 1, 5, 8, 9, 11.

** The recent article putting forth the model(3) is a revision of an A.I.D. discussion paper (4).

When a given amount of foreign capital is actually provided, it performs two indivisible functions corresponding to the two gaps. It permits investment to be greater than actual domestic savings and permits actual imports to be greater than exports -- and both by an equal amount. In retrospect, then, after such capital has been supplied, the economy must have adjusted so as to make the two gaps equal. If the trade gap had been the larger of the two prospective gaps, i.e., if external capital had been more than was needed to fill the prospective savings gap, then the model ordinarily assumes that actual savings fall short of potential savings. For example, taxes may be at lower levels than the economy could sustain because large inflows of capital filling a trade gap make higher levels unnecessary. If, on the other hand, the prospective savings gap had been the larger, actual imports will be larger than those required for growth. For example, these imports may include not only the raw materials and capital equipment required to sustain growth, but also dispensable or postponable luxury goods. These may be substituted for domestic consumption goods if this is the only form in which consumers are able to spend the foreign exchange which was provided to bolster inadequate saving levels. Unless the two prospective gaps are fortuitously equal, then, provision of the external capital required by the larger necessarily permits less-than-full-potential effort with regard to the smaller. *

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* The method followed begins by specifying targets for growth which, together with the level of domestic performance hypothesized, determine external capital requirements. This is a matter of computational convenience, however. When several possible growth targets are compared, as in Section III of this annex, the results may also be seen as indicating the amount of growth which could be obtained from a specified amount of ext

The model employed for the projections is an extension of that developed by Chenery and Strout. As in the original model, gross investment requirements for a particular year are determined by a target rate of growth ($\bar{r}$) and an incremental capital-output ratio (k). Possible limits on a country's capacity to absorb additional capital are recognized by a constraint on how fast gross investment is permitted to grow from year to year ($\bar{i}$). Potential savings are determined by the previous year's potential and propensity to save from additional income (α'). The prospective savings gap is the difference between required investment and potential savings, thus defined.

Exports are, as a first approximation, assumed to grow exogeneously by a given percentage (ϵ) each year. Required imports are given by the previous year's requirements and the propensity to import from additional income (μ'). The prospective trade gap is the difference between exports and potential imports, thus defined. The requirement for foreign capital is the larger of these two gaps.

The two gaps and one constraint define the three phases through which a country may pass. 1) Even the relatively liberal constraint of 15 per cent on the growth of investment assumed for most of the countries in the projections implies that all of them must move gradually from present growth rates to higher target growth rates. 2) Most, when they begin growing at the target rate, experience a savings gap which is greater than the prospective trade gap and are thus said to be in a phase of "savings-constrained" growth. 3) Countries typically have marginal savings rates which are sufficiently higher than initial average rates that the growth of national income can steadily raise the average. Such countries eventually shift either to

a phase of "trade-constrained" growth, when the trade gap is the principal determinant of foreign capital requirements, or directly to economic self-sufficiency.

II. THE PROJECTIONS

A number of variants of the two-gap approach can be developed to correspond to different assumptions about the effectiveness of government policy. We have made six such projections in order to indicate the full range of possibilities from pessimistic to highly optimistic:

(I) Historical Growth

- (A) Historical Performance
- (B) Lower Imports, Higher Exports

(II) Accelerated Growth

- (A) Historical Performance
- (B) Higher Savings, Lower Imports, Higher Exports
- (C) Lower Capital Requirements
- (D) Maximum Performance -- a combination of the improvements of B) and C) as a basis for estimating the minimum capital flow required by a country having good development planning and policies.

The basic elements of the projections were "historical" GNP growth rates (r) and performance parameters (α', k, μ', ϵ) mainly derived from econometric analyses of the statistical record of the period 1950-1965. Current values for GNP, investment and trade were not based on the inadequate estimates for 1966 now available but rather on the averages for the years

1963-65 extrapolated to 1966 with the use of the historical growth and performance parameters. They should thus be seen as "trend values" for the year rather than actual estimates.

In several cases considerable judgment had to be exercised in selecting among conflicting estimates or in rejecting unsustainable short-term trends as a basis for extrapolation. This judgment tended toward the optimistic, since the parameters were intended to represent the proven capability of the economy rather than simply its average performance, and since the two-gap theory suggests that raw historical estimates may have a pessimistic bias.*

The historically-derived estimates of growth rates were used in the projections labelled I-A and I-B in the Chenery paper; the historically-derived performance parameters were used in the projections labelled I-A and II-A. Higher growth and performance estimates were made in a variety of ways, all of them based on the historical record.

a) Accelerated Growth (Projections II, A to D)

In attempting to describe comparable increases above historical growth rates (Projections I, A and B), we assumed that a country like Argentina, with a low historical rate, might experience less difficulty in increasing its rate by a given absolute amount, or by a given proportion, than a country like Mexico, whose growth rate was already very high.

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* That is, when the prospective gaps are not equal, and foreign capital fills the larger, it is the less-than-full-potential performance with regard to the smaller prospective gap which will be observed. Extrapolations of such performance might lead to an overestimation of aid requirements if the previously smaller gap should become dominant.

Comparable increases in growth rates were seen in relation to an 8 per cent rate, which appeared from the historical record to represent an approximate physical limit for Latin America.* Specifically, "accelerated growth" was defined as an increase to a rate one-half of the way between the historical and 8 per cent. Thus, for Argentina it meant moving from an historical 2.75 per cent to a target of 5.37 per cent, while for Mexico, with more of its developmental potential already exploited, it meant moving from 6 per cent to a target of 7 per cent.

b) High Exports and Import Substitution

(Projections I-B, II-B, II-D)

The primary justification of long-term developmental assistance is the fact that poor countries are typically unable to save the full amounts required to meet the investment costs of rapid development. While any country, rich or poor, is capable of running a chronic balance of payments deficit, there are few, if any, underdeveloped countries so poorly endowed that they are not able to reallocate investment toward exports and import substitutes if a dominant trade gap persists. Eventually they should be able to produce enough in these lines to eliminate the excess of the trade gap over the savings gap. To approximate this phenomenon, the model specifies (under high trade performance assumptions) that in any given year a country faced with an excess trade gap will direct a part of current investment so as to reduce the trade gap in the next year by one half of the current excess.

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* This assumption is relaxed, and higher growth rates are considered, in section III of this annex.

The assumption, then, is that investors or planners -- presumably under the influence of devaluation or government investment incentives -- will make some response to such gaps, but one which is based on actual experience rather than perfect foresight and which is partial rather than complete. We assume, as a first approximation, that this "exchange-saving investment" is equally divided between exports and import substitutes. We also assume that such investment entails a capital-output ratio which is 20 per cent higher than that applied to ordinary investment. This reflects the probability that the domestic currency had been overvalued, from the perspective of which export proceeds are smaller and imports more competitive with domestic substitutes than under an equilibrium exchange rate. Meeting the additional investment requirements then requires domestic saving closer to full potential levels.

The diversion of investment to exchange-saving lines was not considered to be highly dependent upon higher growth but rather to be primarily a function of the wisdom and efficiency of trade and allocation policies. This improved trade performance is the basis of the more optimistic capital inflow projection at historical growth rates, as well as part of the better performance projected at accelerated growth rates.*

---

* Since optimistic export projections for Brazil, Chile and Colombia were provided in the country studies by A.I.D. economists, these, rather than estimates of exchange-saving investment, were the basis of our assumptions as to better trade performance for those three countries.

c) High Savings (Projections II-B, II-D)

Based on reasoning parallel to that used for growth rates, increases in marginal savings rates were judged comparable in relation to the highest observed performance in other developing countries. "High savings" for each country was defined as movement to a rate halfway between historical rates and this presumed limit of 35 per cent. Thus, Chile, with an historical rate of 13 per cent, was assumed to be able to increase to 24 per cent, while Mexico, with an historical rate of 21 per cent, was assumed to be capable of a smaller absolute increase, to 28 per cent.

The ability to divert a substantially larger share of increased income to savings was considered possible only if annual increases in income were larger. Hence "high savings" performance is associated in the projections only with accelerated growth rates.

d) Lower Capital Requirements (Projections II-C, II-D)

The definitions of better trade and savings performance given above represent efforts to estimate potential improvements. By contrast, the lower capital requirements specified for two of the "accelerated-growth" projections represent an alternative way of interpreting the historical record itself for purposes of extrapolation.*

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* This is not to imply that a capital-output ratio is beyond governmental influence. The allocation of investment to labor-intensive projects and planning to avoid bottlenecks and underutilization of capacity can both reduce the ratio. A more complete theoretical discussion of the variable ratio is included in [2].

The "historical" capital-output ratios utilized are averages of the experience of each country over the past 12-14 years. As such, they should be a valid first approximation of the investment requirements for additional growth at the same rates as were experienced during that period. Several recent discussions of the capital-output ratio, however, have concluded that the ratio should be expected to be -- and almost always is -- lower at higher rates of growth [6, 7, 10]. For example, higher growth rates usually entail better utilization of capacity, and at such rates a smaller share of gross investment is likely to be allocated to the replacement of old equipment (which makes growth possible but contributes little to it) and to the building up of social overhead facilities with heavy capital requirements.

When the historical experience of the Latin American countries was analyzed, almost all were found to experience lower ratios during periods of higher growth. Causation probably runs both ways, however. For the projections using "lower capital requirements," we have therefore taken only one half of the reduction actually observed for each country to represent the effect of the composition of investment on the capital-output ratio. The formula used to define those lower requirements assumed that the historical ratio would apply to the basic investment required to attain the historical growth rates, but that a lower ratio would apply to the additional investment required to achieve higher levels of growth. In no case was that lower ratio permitted to fall below two, keeping it close to the lowest historical ratio for all investment observed among the 16 countries (2.47 for El Salvador).

Because this interpretation of capital requirements may prove controversial, projections have been provided based on both the rigid ratios (II-A, II-B) and the flexible ratios (II-C, II-D).*

Separate projections were made for 16 Latin American countries (19 O.A.S. members, less Uruguay, Haiti and the Dominican Republic).** For each country a required capital inflow/outflow or resource transfer was calculated for each year, 1967-76. The inflow was defined as the deficit on current account (i.e., imports less exports of goods and services) less the net outflow of "investment income" (interest and profit on existing capital). This departs from conventional practice in which outflows of investment income are considered as payments for imports of the services of capital. However, the repatriation of such payments is discretionary, and it is based on a previous, not a current, transfer of resources. It seemed more appropriate to consider it as part of the capital flow, since it requires an equal inflow of direct investment or some other form of capital to prevent a current outflow of resources.

In calculating the capital requirements of Latin America as a whole, only the inflows required by deficit countries were added. This was because we assumed that the

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* Readers who accept the view that lower ratios are a natural concomitant of higher growth rates may wish to disregard projections II-A and II-B. Projection II-C should then be viewed as an extrapolation of historical experience to a period of higher growth rate, and II-D as based on the assumption of increased developmental effort only with regard to savings and trade.

** Projections for Brazil, Chile and Colombia were based on the special studies of those countries by A.I.D. economists, as described in Section VII.

considerable surpluses projected for several countries, notably Venezuela (see Figure II of Chenery paper), would not make any contribution to meeting the capital needs of deficit countries. This assumption seems valid under existing institutional arrangements. There may be room, however, in a fully multilateral Alliance for investment guarantees or other devices which could channel more Latin American capital from surplus to deficit countries.

III. ALTERNATIVE PROJECTIONS

The projections in the Chenery paper compare only two growth rates and four performance levels. In this section we explore further the prospects for Latin American development and its costs in external capital by considering a wider range of growth rates and by analyzing the effects of variations in individual performance parameters.

a) Growth Rates

Any target growth rate selected for the future of the Alliance for Progress must meet the tests of progressiveness, feasibility and reasonableness. It must be progressive as measured against the aspirations for higher standards of living throughout Latin America; feasible, as measured against the capacities of the Latin American economies for structural change; and reasonable, as measured against the ability of the United States economy and willingness of its people to transfer additional resources for the long-run prosperity of Latin America. Because of the importance of the rate selected, whether formally or informally, as a basis for the United States aid program, several methods of arriving at overall and per

capita growth rates are analyzed here. Feasibility is checked by the assumption that no country, whatever its target rate of growth, increases its gross investment by more than 15 per cent per year.* The analysis itself is designed to describe the trade-off between realized growth and external capital costs.

Figure B-I compares levels of 1976 GNP for the 16 Latin American countries with the total capital inflow required to attain those levels under each of the four performance assumptions, A, B, C and D. Target growth rates for each country are varied along each of the curves from historical rates to 8 per cent. For example, the middle range of the D curve describes growth halfway to 8 per cent for each country at maximum performance and corresponds roughly to the II-D projections in the Chenery paper.** It indicates that realization of a GNP growth rate of 6.5 per cent (3.5 per cent per capita), would require an average annual capital inflow of $850 million. The highest growth rate given under high performance assumptions, 7.25 per cent for GNP (4.25 per cent per capita), would entail average annual capital inflows of $1.77 billion.

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* This does not insure feasibility, however, both because the 15 per cent constraint may be too high for some countries and because rapid overall growth entails even faster growth of some sectors, which may not be equal to the task.

** The correspondence is only rough since all the calculations for this graph used the same formula for target growth rates for each of the 16 countries, rather than the particular targets used in the three country studies.

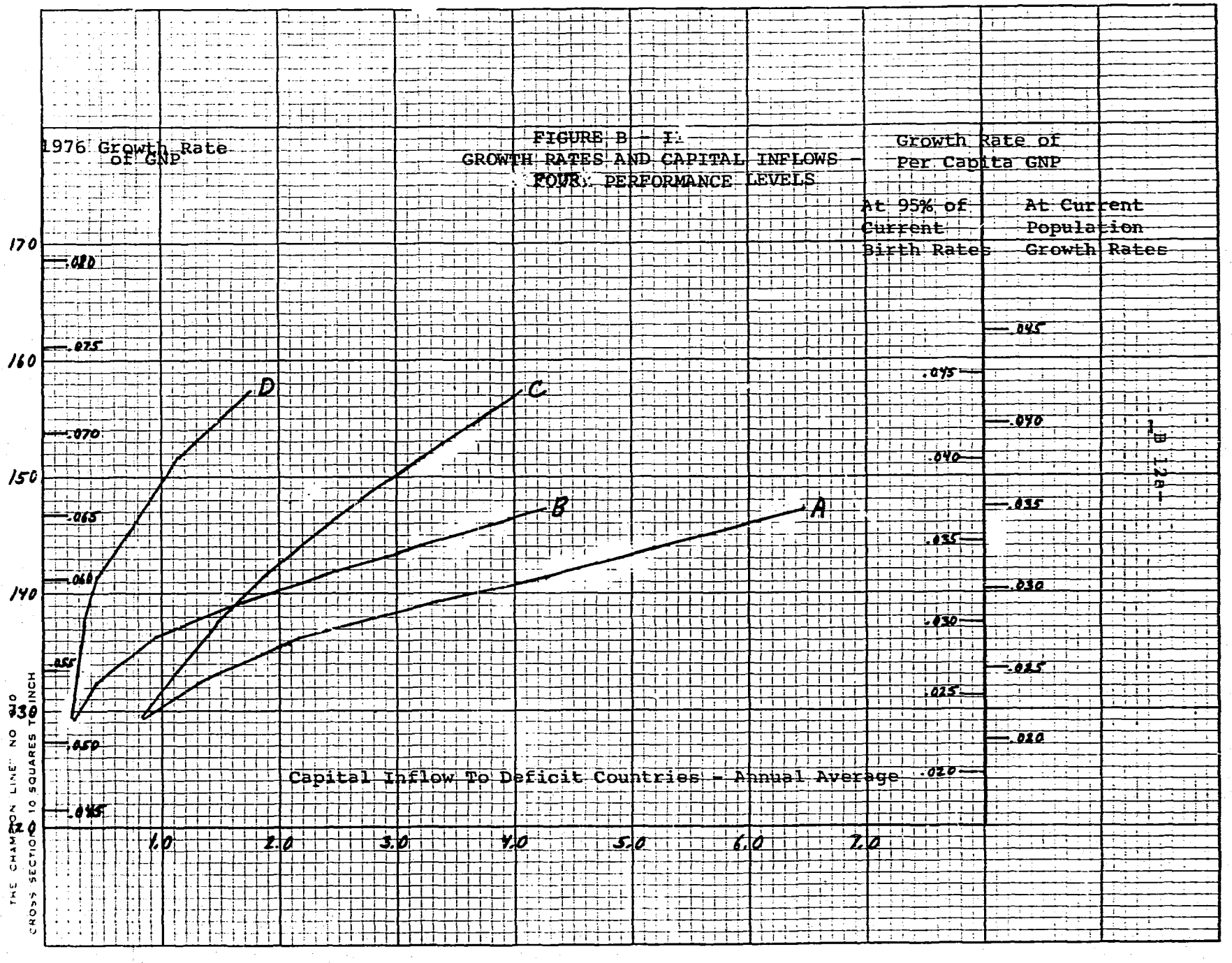

FIGURE B - I:
GROWTH RATES AND CAPITAL INFLOWS - FOUR PERFORMANCE LEVELS

THE CHAMPION LINE NO 210
CROSS SECTION 10 SQUARES TO INCH

As the slopes of the curves indicate, under high performance assumptions additional growth in the neighborhood of 7 per cent (4 per cent per capita) can be bought at the rate of about 10 dollars of annual GNP for an annual average of one dollar of capital inflow.

For all other performance levels capital inflow requirements rise much more rapidly. From overall growth rates as low as 6 per cent an additional 10 dollars of GNP will increase annual external capital requirements between 1.3 dollars (C performance) and 3 dollars (A and B).

Somewhat higher growth rates are described in Figure B-II, which compares 1976 GNP and ten-year capital inflow totals under high-performance assumptions. For this analysis country growth targets for each country were varied between 2 per cent and 7 per cent per capita. The constraint on investment growth, however, prevented realized growth from going beyond 4.8 per cent per capita over the period as a whole. As the slope of the curve indicates, additional growth in the area of 4.5 per cent per capita is projected to cost about 1.4 dollars in average annual external capital for every 10 dollars of annual GNP. It would cost $1.1 billion per year over ten years to increase per capita growth by one half of one per cent, from 4.25 to 4.75 per cent. */

If the United States chooses to state its goals or measure its success in promoting development within the Alliance in terms of per capita growth of GNP, Figures B-I and B-II may also provide one measure of the cost of the high birth rates in most Latin American countries. On the right-hand vertical axis

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*/ See B 13-a.

*/ Each of the curves in Figures B-I and B-II indicates that equal absolute increases in GNP require progressively larger increases in external capital.

There are three reasons: (1) The savings constraint is operative longer at higher growth rates, implying a less efficient conversion of external capital to GNP; (2) At higher target growth rates the constraint on investment growth is more likely to restrict countries with high "historical" growth rates, giving less efficient users of external capital a larger share in total GNP growth; (3) The measure of total capital inflow is not affected by changes in outflows. At low growth rates, when countries are more often experiencing outflows in some years, increases in GNP will have less impact on the total inflow.

of both figures the GNP projections are converted to per capita rates under two assumptions -- that current population growth rates will continue and that the average birth rate can be cut by 5 per cent.* The external capital cost of attaining a given per capita GNP growth rate may be found by running a horizontal line from the corresponding point on both sides of the vertical axis, as is done in Figure B-II, representing high performance assumptions. The figure indicates that it would cost $550 million more per year to achieve a GNP growth rate of 4.75 per capita at historical birth rates than at birth rates only 5 per cent lower. The same method, if applied to Figure B-I, would indicate, for example, that for a per capita growth rate of 4 per cent the difference in annual external capital costs would be $470 million at the C level of developmental performance and $330 million at the D level. For a growth rate of 3.5 per cent the difference in annual costs would be $410 million at the C level and $180 million at the D level. If the latter figure may be taken as a lower limit, it implies that each birth in the relevant range raises the external capital requirements over ten years by a total of $287. This represents the cost to a donor country committed to underwriting a growth rate of 3.5 per cent per capita.

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* When current population growth rates are projected to 1976 they indicate a compound growth rate for the region of 2.94 per cent. For a typical country such a rate would represent the difference between a crude birth rate of approximately 4.36 per cent. A 5 per cent reduction in such a birth rate would mean a population growth rate of 2.72 per cent, which is the basis of the alternative projection.

If, as the data for Mexico suggest, the average Latin American woman will eventually have 4 children, then a 5 per cent reduction in the birth rate could be effected by persuading one woman in five to have one less child over her child-bearing years.

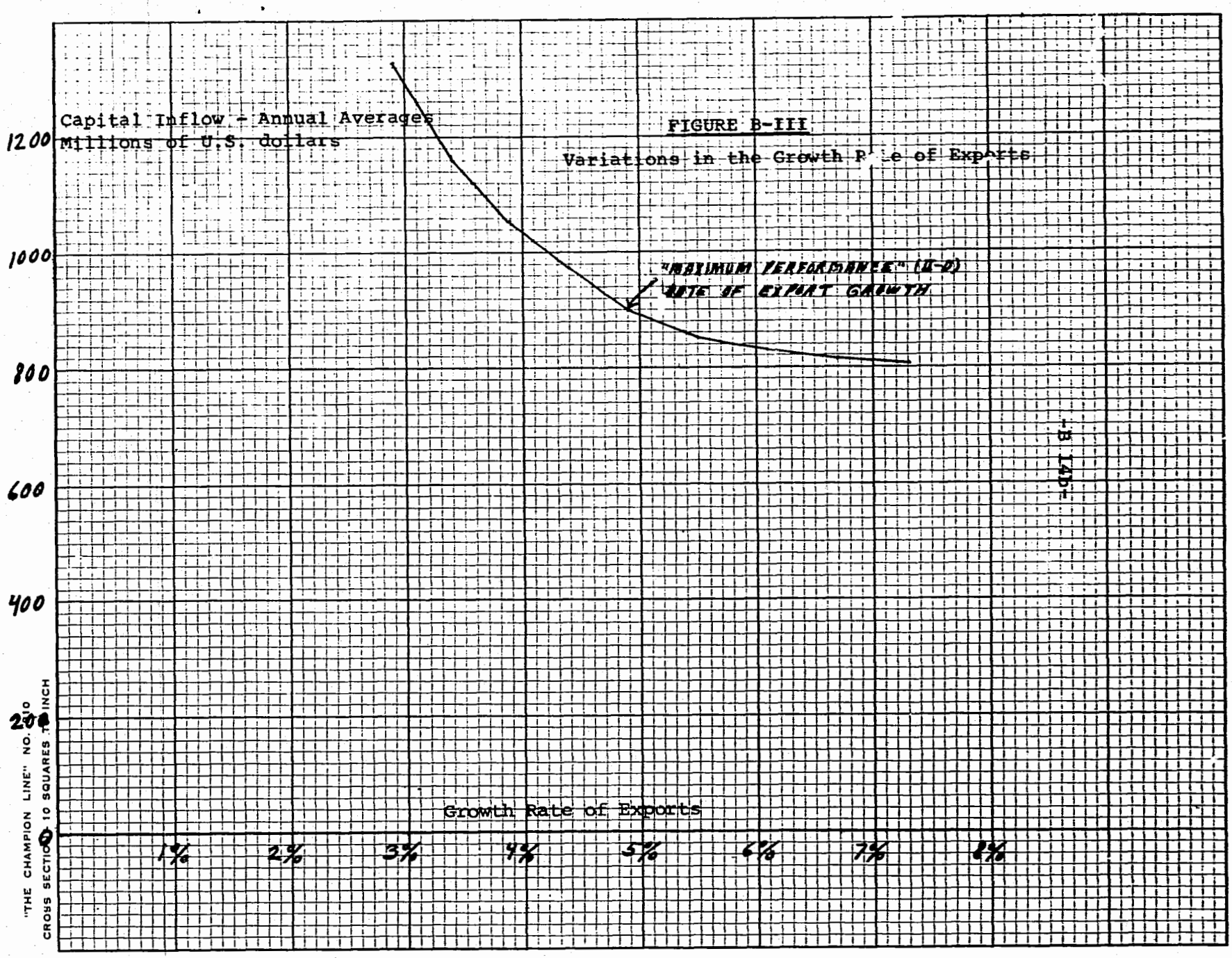

FIGURE B-III

Variations in the Growth Rate of Exports

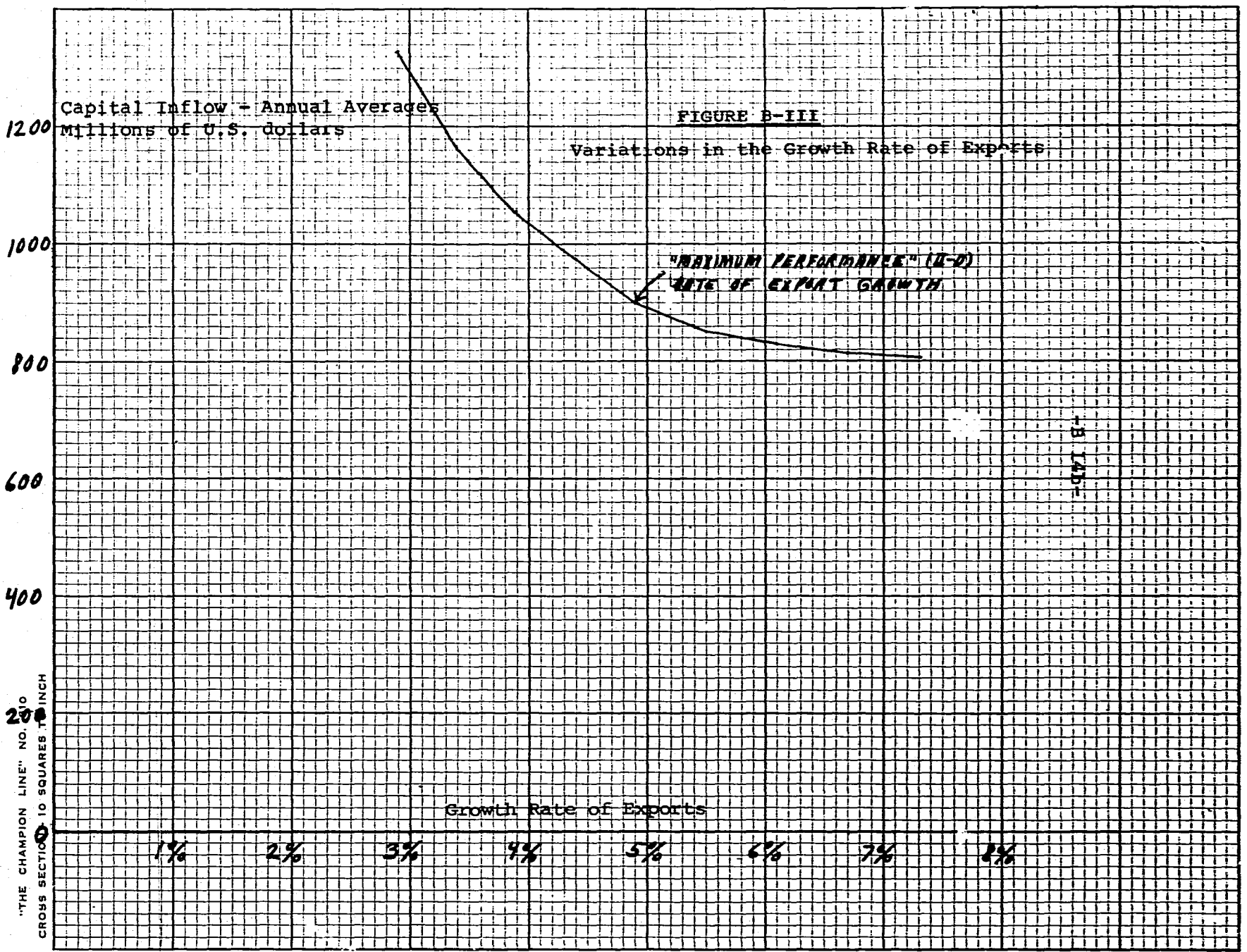

FIGURE B-III

Variations in the Growth Rate of Exports

b) Trade and Savings Behavior

The effect of variations in trade or savings performance has been analyzed using as a basis the "accelerated growth" and "maximum performance" (II-D) projections. Holding the other performance parameters constant at those levels, individual parameters -- the rate of export growth, the responsiveness of exchange saving investment, and the marginal savings rate -- were each let to vary in turn over a wide range of possible values. The results are presented in Figures B-III, B-IV and B-V. Figure B-III describes the effect on external capital requirements as export growth rates vary between one-half and one-and-a-half of historical rates for each country.* (The growth is assumed to occur autonomously or in anticipation of -- rather than in response to -- excess trade gaps.) The figure indicates that such improvements in trade performance can be a potent way of reducing the capital inflow requirements in the historical range of export performance, at which many countries will be experiencing trade-constrained development. As trade performance improves, however, diminishing returns rapidly set in. Extrapolation of the curve to the right suggests that even with extraordinary improvements in trade performance there is little prospect of reducing the annual external capital requirement much below an average of $800 million per year over the period.

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* The latter export growth rate, 7.3 per cent for the 16 countries as a whole, is close to the upper limit (8.2 per cent) of the wide range of export projections for 1964-70 prepared by Benjamin Cohen [4a]. Increases in exports are identical in their effects on external capital requirements to decreases in the marginal propensity to import.

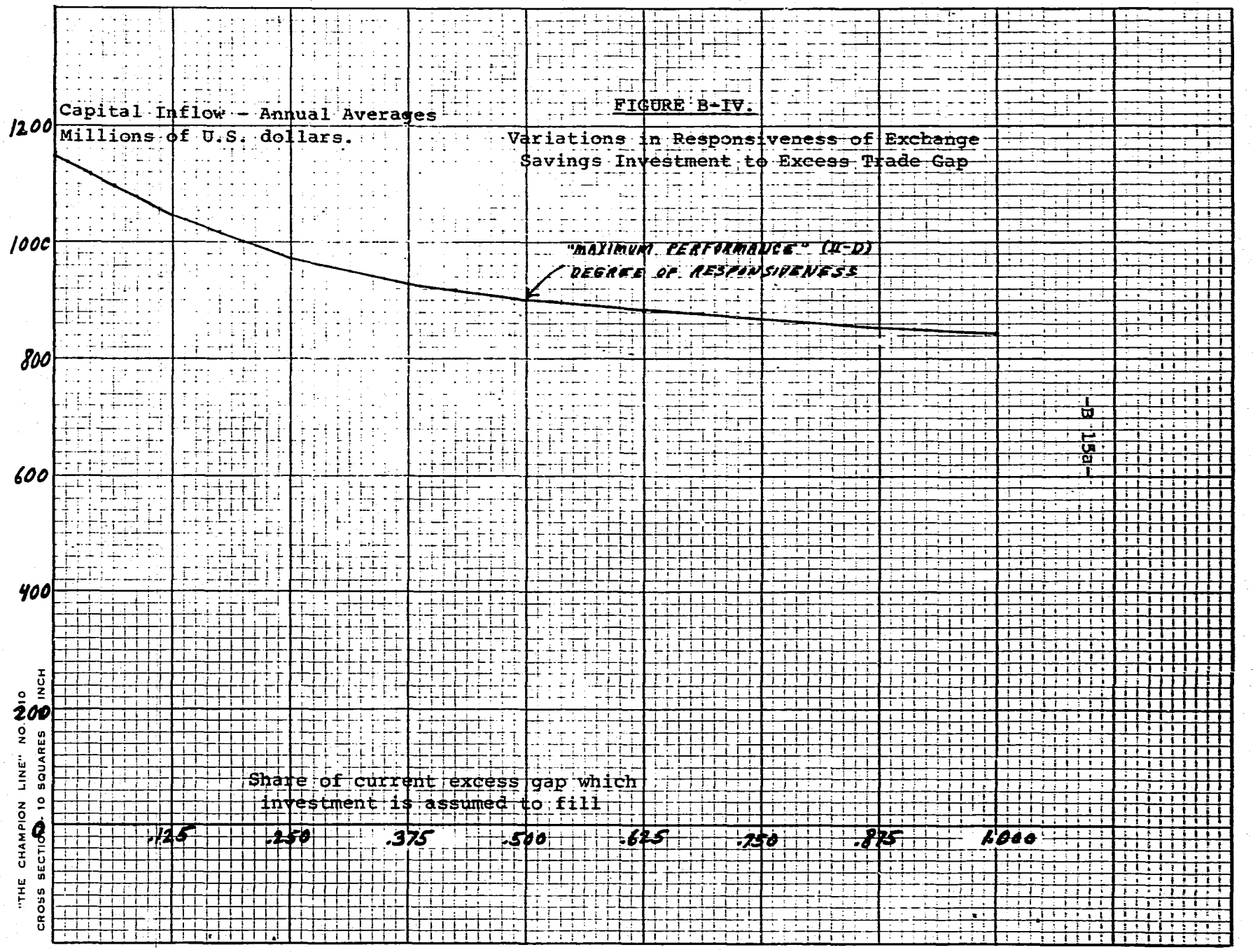

FIGURE B-IV.

Variations in Responsiveness of Exchange Savings Investment to Excess Trade Gap

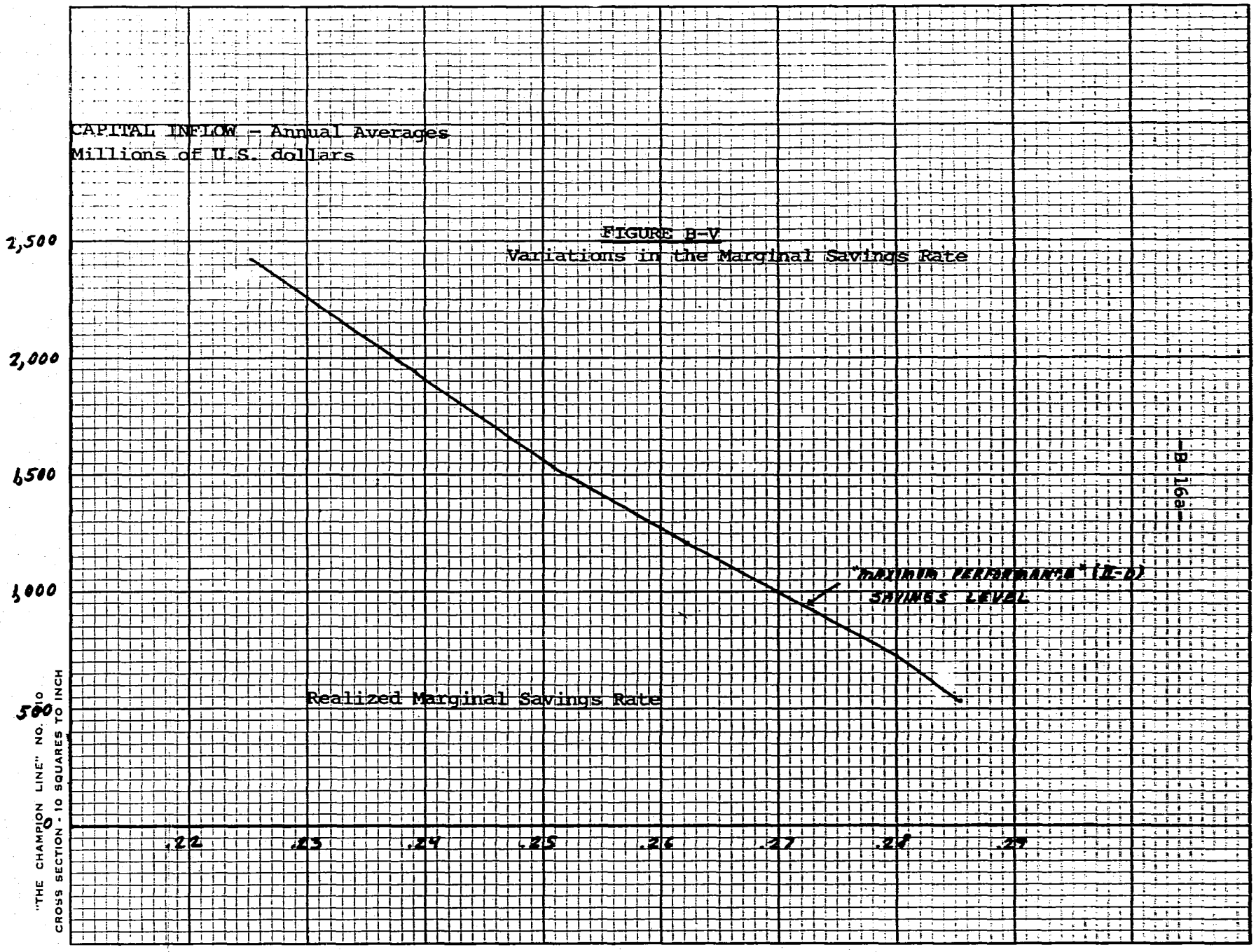

FIGURE B-V
Variations in the Marginal Savings Rate

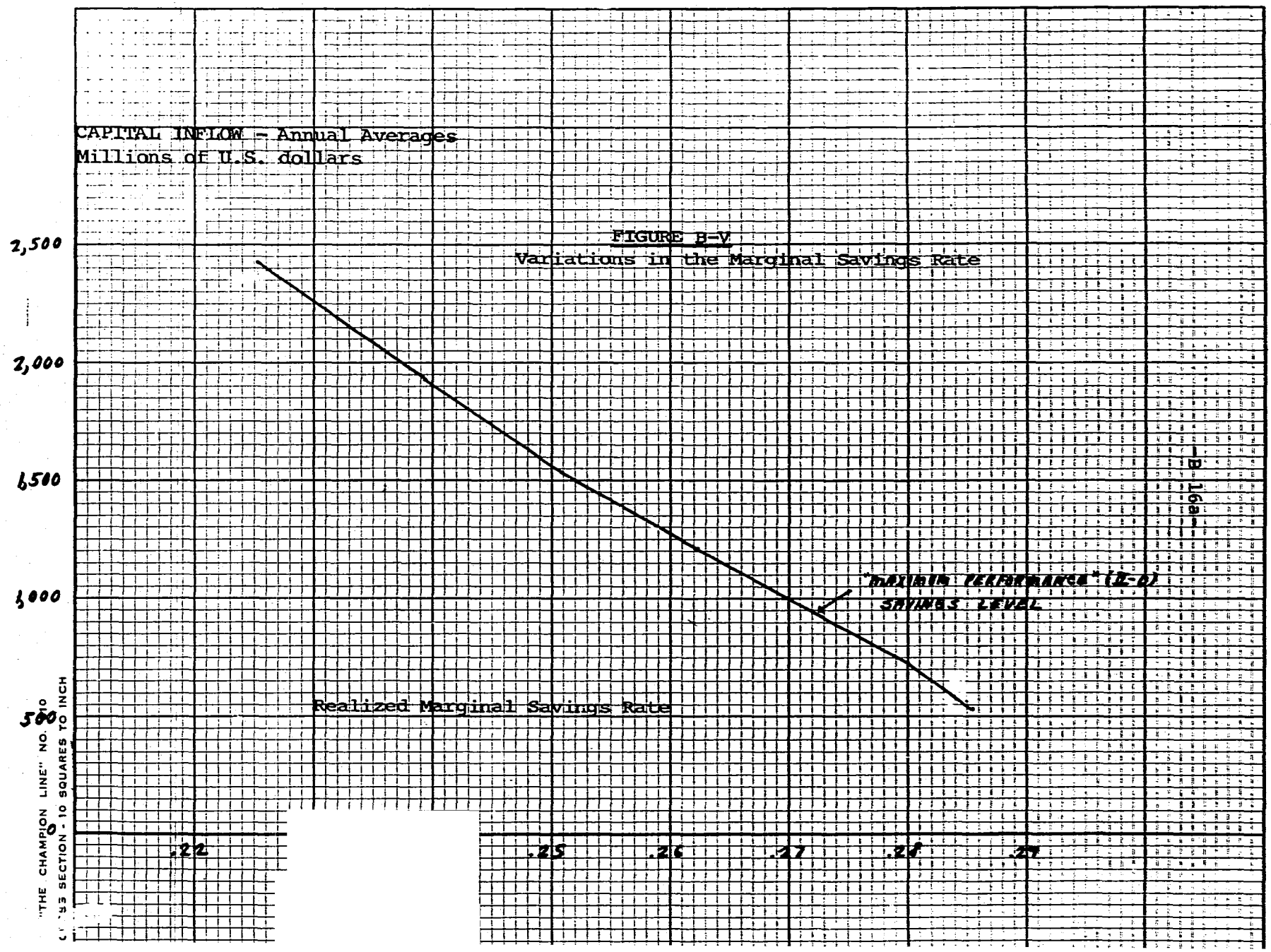

FIGURE B-V
Variations in the Marginal Savings Rate

What these analyses suggest is that no single panacea -- whether aimed at reducing the trade gaps or the savings gaps of Latin American countries -- can be expected to eliminate the need for increasing amounts of aid, at least in the short run. Efforts to reduce the savings gap -- more efficient taxation, reductions in military expenditures, steps against corruption, schemes to promote personal savings and agricultural and business reinvestment, import liberalization to permit fullter utilization of capacity -- may be more important in some countries. Efforts to reduce the trade gap -- export promotion, reductions in import discrimination by the developed countries, selective import substitution, and regional economic integration -- may be more important in others. For Latin America as a whole, however, all such efforts will have to be pursued if its full growth potential is to be realized.

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V. Maximum Performance Projections of Net Capital Inflows, 1966-67

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
BRAZIL											
Current Account Deficit	130	230	351	482	628	669	578	482	380	272	147
Investment Income	200	235	260	265	275	280	280	280	28[illegible]	280	280
Net Inflow	-70	-5	91	217	353	389	298	202	100	-8	-133
CHILE											
Current Account Deficit	208	213	177	159	121	58	78	35	-11	-59	-101
Investment Income	124	158	171	182	193	213	232	230	228	225	221
Net Inflow	84	55	6	-23	-72	-155	-154	-195	-239	-284	-322
COLOMBIA											
Current Account Deficit	164	172	196	163	232	184	172	167	154	144	133
Investment Income	88	75	79	84	117	120	124	128	134	139	143
Net inflow	76	97	117	79	115	64	48	39	20	5	-10
MEXICO											
Net Inflow	-12	151	155	40	9	20	29	36	44	53	62
TWELVE COUNTRIES											
Net Inflow	338	452	506	550	587	585	600	596	590	582	575
TOTAL NET INFLOW to Deficit Countries	498	755	875	886	1,064	1,058	975	873	754	640	637

VI Maximum Performance Projections for Brazil, Chile and Colombia

Projections for the three economies individually studied in the country papers -- Brazil, Chile and Colombia -- were all based on the series included in those papers, but with some modifications in the cases of Brazil and Chile. The objective was a single set of projections for each country which retain the distinctive elements of the country analyses, but are more comparable to the projections for the other 13 countries in the ambition of their growth targets and the optimism of their performance expectations.*

The three accompanying tables describe the projected figures actually included.

The major modification of the Brazil and Chile projections are discussed below.

High savings performance was defined for the other 13 countries as the attainment of a marginal savings ratio halfway between the historical marginal ratio and .35. Applying this formula to the Brazilian historical marginal savings ratio of .17 produces a high-performance ratio of .26. This was within the range of .25 and .30 considered in the Brazil paper and was adopted for the overall projections.

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* The high-but-attainable performance figures included in each country paper (as modified) were taken to correspond to the "accelerated growth, maximum performance" projections (II-D). For the projections intermediate between this and the purely historical (I-A) individual elements of the country projections were used to represent "lower capital requirements," "higher savings" and "high exports."

calculated. It is larger than the trade gap for the years 1967 and 1972-75, and the revised projection indicates that the current account will not show a surplus until 1974 rather than 1972.

calculated. It is larger than the trade gap for the years 1967 and 1972-75, and the revised projection indicates that the current account will not show a surplus until 1974 rather than 1972.

BRAZIL PROJECTIONS 1966-75

-:-

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
A) Gross National Product	20,000	21,200	22,543	24,048	25,734	27,622	29,694	31,921	34,315	36,889	39,657
B) Deficit on Current Account	130	230	351	482	628	669	578	482	380	272	147
C) Total Resource Availabilities (A+B)	20,130	21,430	22,894	24,530	26,362	28,291	30,272	32,403	34,695	37,161	39,804
D) Total Fixed Investment	3,468	3,884	4,350	4,872	5,456	5,988	6,436	6,919	7,439	8,000	8,595
E) Gross National Savings	3,338	3,650	3,999	4,390	4,828	5,319	5,858	6,437	7,059	7,728	8,448
F) Net Factor Income from Abroad	-200	-235	-260	-265	-275	-280	-280	-280	-280	-280	-280
G) Net Capital Inflow (B+F)	-70	-5	91	217	353	389	298	202	100	-8	-133
H) Required Imports	1,651	1,735	1,829	1,934	2,052	2,185	2,330	2,486	2,653	2,833	3,027
I) Exports	1,690	1,812	1,942	2,082	2,232	2,393	2,565	2,750	2,948	3,160	3,387
J) Trade Gap (H-I)	-39	-77	-113	-148	-180	-208	-205	-264	-295	-327	-360
K) Actual Imports (I+B)	1,820	2,042	2,293	2,564	2,860	3,062	3,143	3,232	3,328	3,432	3,534

CHILE PROJECTIONS FOR 1967-76

-:-

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
A) Gross National Product (B+C)	6,019.6	6,313.9	6,644.4	6,993.8	7,361.1	7,776.7	8,210.6	8,677.2	9,169.4	9,669.2	10,238.4
B) Gross Domestic Product	6,144.0	6,471.9	6,815.3	7,176.1	7,553.8	7,989.4	8,443.2	8,907.6	9,997.3	9,914.0	10,459.4
C) Net Factor Payments	-124.4	-158.0	-170.9	-182.3	-192.7	-212.7	-232.4	-230.4	-227.9	-224.8	-221.0
D) Deficit on Current Account	208.1	213.5	177.3	159.3	120.8	57.9	77.8	34.7	-10.7	-58.8	-101.1
E) Total Resource Availabilities (A+D)	6,227.7	6,527.4	6,821.7	7,153.1	7,481.9	7,834.6	8,288.6	8,711.9	9,158.7	9,630.4	10,137.3
F) Total Fixed Investment	865.0	942.0	985.8	1,032.3	1,080.9	1,132.2	1,269.6	1,339.4	1,413.1	1,490.8	1,572.8
G) Gross National Savings	672.9	743.5	822.5	884.5	969.6	1,081.3	1,198.8	1,310.7	1,428.8	1,577.1	1,676.9
H) Net Current Transfers	16.0	15.0	14.0	11.5	9.5	7.0	7.0	6.0	5.0	4.0	3.0
I) Net Capital Inflow (D+C)	84	55	6	-23	-72	-155	-154	-195	-239	-284	-322
J) Potential Savings	672.9	743.5	822.8	906.7	994.9	1,094.6	1,198.8	1,310.7	1,428.8	1,553.6	1,685.4
K) Savings Gap (F-J)	208.1	213.5	177.0	137.1	95.5	44.6	77.8	34.7	-10.7	-58.8	-109.6
L) Trade Gap	208.1	189.3	177.3	159.3	120.3	57.9	-35.4	-50.9	-55.0	-82.3	-101.1

VII. The Projection Model

Basic Variables

V_t = Gross National Product

I_t = actual gross domestic investment

S_t = actual gross domestic saving

M_t = actual imports of goods and services

E_t = actual exports of goods and services

F_t = net capital inflow

1) Savings gap

A) Investment requirements

i) Variable:

$(I)_t$ = basic investment requirements

ii) Constants (for each set of projections):

$\bar{r}$ = target rate of GNP growth

$\bar{i}$ = constraint on rate of investment growth (15%)

k = lagged incremental capital-output ratio ($k = k' + \frac{z}{\bar{r}}$, where k' and z are also constants)

iii) Relationships

$$(I)_o = I_o \text{ 1/}$$

$$(I)_t = \text{the lesser of } \begin{matrix} \bar{r}\, k\, V_t \\ [1+\bar{i}]I_{t-1} \end{matrix}$$

$$V_{t+1} = V_t + \frac{(I)_t}{k}$$

1/ > 0 (see below)

VII. The Projection Model

Basic Variables

V_t = Gross National Product

I_t = actual gross domestic investment

S_t = actual gross domestic saving

M_t = actual imports of goods and services

E_t = actual exports of goods and services

F_t = net capital inflow

1) Savings gap

A) Investment requirements

i) Variable:

$(I)_t$ = basic investment requirements

ii) Constants (for each set of projections):

$\bar{r}$ = target rate of GNP growth

$\bar{i}$ = constraint on rate of investment growth (15%)

k = lagged incremental capital-output ratio ($k = k' + \frac{z}{\bar{r}}$, where k' and z are also constants)

iii) Relationships

$(I)_o = I_o$ 1/

$(I)_t$ = the lesser of $\bar{r}\, k\, V_t$ / $[1+\bar{i}]I_{t-1}$

$$V_{t+1} = V_t + \frac{(I)_t}{k}$$

1/ ... h > 0 (... below)

B) Potential savings

i) Variables

$(S)_t$ = potential savings

ii) Constant

α = marginal propensity to save

iii) Relationships

$$(S)_o = I_o - M_o + E_o \quad (=I_o - F_o)$$

$$(S)_{t+1} = (S)_t + \alpha(V_{t+1} - V_t)$$

Prospective Savings gap = $(I)_t - (S)_t$

2) Trade gap

A) Exchange-Saving Production

i) Variables

V_{mt} = exchange saving production (export expansion or import substitution)

I_{mt} = investment in exchange-saving production (see section 4 for determination)

ii) Constants

b = premium on capital-output ratio (= 1.2)

j = constraint on share of total investment devoted to I_{mt} (= .3)

iii) Relationships

$$V_{mt} = \sum_{t=1}^{t-1} I_{mt}/bk$$

$$I_t = (I)_t + (1-\frac{1}{b})\ I_{mt}$$

B) Import requirements

i) Variable

$(M)_t$ = required imports

ii) Constants

μ = marginal propensity to import

λ = portion of V_{mt} for import-substitution (= .5)

iii) Relationships

$$(M)_o = M_o$$

$$(M)_{t+1} = (M)_t + \mu(V_{t+1} - V_t) - \lambda V_{mt}.$$

C) Exports

i) Constant

ϵ = exogenous growth rate of exports

ii) Relationship

$$E_t = (1+\epsilon)^t E_o + (1-\lambda) V_{mt}$$

3) Determination of capital inflow requirements

Relationships:

$$F_t = \text{the larger of} \begin{array}{l} (I)_t - (S)_t \text{ 2/} \\ (M)_t - E_t \end{array}$$

$$M_t = E_t + F_t$$

$$S_t = I_t - F_t$$

2/ The values utilized for h, b and j insure that the premium on exchange-saving investment (the difference between I_t and $(I)_t$) will never be greater than the "excess gap", so that no reversal

4) <u>Exchange-saving investment</u>

i) Constants

j = constraint on share of total investment allocated to I_{mt}

h = share of current year's excess gap which I_{mt} is designed to fill in following year (= 0 or .5)

ii) Relationships

If $M_t \leq E$, then $I_{mt} = 0$

If $M_t > E_t$, and $(S)_t \geq (I)_t$, then I_{mt} = the lesser of $hbk[(M)_t - E_t]$ and $j(I)_t$

If $M_t > E_t$, and $(S)_t < (I)_t$, and if $(I)_t - (S)_t \geq$ $\geq (M)_t - E_t$, then $I_{mt} = 0$

If $(I)_t - S_t < (M)_t - E_t$, then I_{mt} = the lesser of $hbk[(M)_t - E_t - (I)_t + (S)_t]$ and $j(I)_t$

5) <u>Population growth</u>

i) Variable

N = population

ii) Constant

ρ = growth rate of population

iii) Relationship

$$N_t = N_o (1+\rho)^t$$

VIII. PARAMETERS AND BASE YEAR VALUES.

Historical Parameters (I-A Projections)

	Target GNP Growth Rate ($\bar{r}$)	Marginal Propensity To Save (α)	Capital-Output Ratio (k)	Export Growth Rate (ε)	Marginal Propensity To Import (μ)	Population Growth Rate (ρ)
1. Argentina	.0275	.3400	6.6800	.0286	.0600	.0170
2. Bolivia	.0348	.2200	4.6900	.0500	.2300	.0230
3. Brazil 1/	.0576	.1700	3.1500	.0286	.0700	.0310
4. Chile 1/	.0350	.1300	3.1800	.0600	.1800	.0230
5. Colombia 1/	.0461	.2100	4.9000	.0250	.1600	.0300
6. Ecuador	.0452	.2100	3.6400	.0300	.2300	.0300
7. Costa Rica	.0541	.3800	3.7000	.0248	.3000	.0380
8. El Salvador	.0499	.1900	2.4700	.0488	.3000	.0320
9. Guatemala	.0450	.1900	3.0100	.0464	.2100	.0310
10. Honduras	.0415	.1400	3.6100	.0190	.2100	.0310
11. Mexico	.0601	.2100	3.0000	.0520	.0840	.0320
12. Nicaragua	.0514	.1500	3.0000	.0670	.3000	.0300
13. Panama	.0577	.2100	2.6400	.0477	.3000	.0300
14. Paraguay	.0313	.1800	5.1600	.0250	.1700	.0220
15. Peru	.0533	.2200	4.6800	.0550	.2300	.0300
16. Venezuela	.0693	.3500	4.3500	.0250	.2500	.0340

1/ For Brazil, Chile and Colombia, imports are defined to include (and hence savings to exclude) the outflow of investment income. The projections of capital inflow are rendered comparable for these three countries by the subtraction of a projection of this item for each year (see Net Factor Income from Abroad lines in Section VI.)

MAXIMUM PERFORMANCE PARAMETERS (II-D PROJECTIONS)

	Target GNP Growth Rate $\bar{r}$	Marginal Propensity To Save α	Capital-Output Ratio k	Export Growth Rate ε	Marginal Propensity To Import μ	Marginal Capital-Output Ratio k' 1/	Share in GNP of "Unproductive" Investment z 1/
1. Argentina	.0537	.3450	4.3966	.0286	.0600	2.0000	.1287
2. Bolivia 2/	.0574	.2850	4.4337	.0500	.2300	4.0400	.0226
3. Brazil 2/	.0750	.2600	2.9287	.0720	.0700	2.1900	.0554
4. Chile 2/	.0550	.2400	2.7509	.0740	.1150	2.0000	.0413
5. Colombia 2/	.0700	.3500	3.5000	.0580	.1400	2.5000	.0700
6. Ecuador	.0626	.2800	3.1837	.0300	.2300	2.0000	.0741
7. Costa Rica	.0670	.3650	3.4630	.0248	.3000	2.4600	.0672
8. El Salvador	.0649	.2700	2.3621	.0488	.3000	2.0000	.0235
9. Guatemala	.0625	.2700	3.0100	.0464	.2100	3.0100	-
10. Honduras	.0607	.2450	3.4783	.0190	.2100	3.1900	.0175
11. Mexico	.0700	.2800	2.8671	.0520	.0840	2.0500	.0572
12. Nicaragua	.0657	.2500	2.8041	.0670	.3000	2.1100	.0456
13. Panama	.0688	.2800	2.5363	.0477	.3000	2.0000	.0369
14. Paraguay	.0556	.2650	4.1624	.0250	.1700	2.9700	.0663
15. Peru	.0666	.2850	4.1441	.0550	.2300	2.0000	.1423
16. Venezuela	.0746	.3500	4.3424	.0250	.2500	4.2700	.0054

1/ The Capital-Output Ratio in column 3 is given by the formula $k = k' + z/\bar{r}$.

2/ Values for Brazil, Chile and Colombia, used as basis for variations on maximum performance assumptions. Actual KK-D Projections for these countries are given in Section VI.

Base Year Values (1966) (millions of $US)

	GNP V	Required Imports (M)	Exports E	Potential Savings (S)	Investment I	Population[1] N	Capital Inflow F
1. Argentina	11,506.0	1,344.8	1,615.0	2,592.0	2,113.7	22.0	-270.2
2. Bolivia	693.3	135.4	104.9	52.6	101.8	4.3	49.3
3. Brazil[2]	20,000.0	1,650.8	1,690.1	3,338.0	3,468.0	84.7	- 70.0
4. Chile[2]	6,019.6	985.2	777.1	672.9	865.0	8.7	84.1
5. Colombia[2]	5,384.0	880.0	716.0	950.0	1,099.0	18.5	76.0
6. Ecuador	1,055.2	205.2	175.2	227.1	173.6	5.1	30.1
7. Costa Rica	564.5	160.3	118.0	63.7	105.8	1.6	42.3
8. El Salvador	838.9	219.8	195.9	87.4	103.4	3.0	23.9
9. Guatemala	1,412.3	238.9	201.7	153.7	191.3	4.6	37.6
10. Honduras	499.7	112.4	101.1	68.2	74.9	2.3	11.3
11. Mexico	18,279.6	1,942.2	1,953.9	3,317.5	3,295.8	42.2	-11.7
12. Nicaragua	552.2	159.2	154.9	63.0	85.1	1.7	22.1
13. Panama	642.9	235.7	220.7	105.6	97.9	1.2	14.9
14. Paraguay	397.9	60.4	49.3	55.9	64.3	2.0	11.1
15. Peru	3,261.0	801.8	767.5	718.4	813.4	12.0	95.0
16. Venezuela	7,160.6	1,649.2	2,671.3	2,501.8	1,640.6	9.1	-861.2

1/ Millions of persons.

2/ See footnote 1, Historical Parameters table.

IX. Sources of Base Year Values and Parameters

Data from the period 1950-1965 were the major source of the base year values and performance parameters for each country.* All values were expressed in 1962 dollars.

Base year values

For purposes of projecting future growth paths and capital inflow requirements it was necessary to construct a series through 1966 and begin projections with 1967. There is, however, no reliable economic data as yet for 1966, and there are serious gaps in the record for 1965 and even for 1964. Even if the data were available, the use of single year figures as base values might introduce distortions from any aberrations in the performance of a particular year.

The general procedure followed was to average the values for 1963-65, to attribute these averages to 1964, and to project them to 1966 based on the "historical" parameters derived from postwar experience.**

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* The projections included in the Chenery paper for Brazil, Chile and Colombia are, as described above, modifications of the values in the three country papers. Parameters from the sources indicated formed the basis for most of the modifications.

** Where 1965 values were not available, 1963-64 averages were attributed to 1964 and projected forward. Some of the series for trade variables ended in 1963, so that the 1961-63 averages had to be attributed to 1962 and projected. Export and import figures attributed to 1964 were in each case constrained to conform to the average capital inflow for 1963-65 (for which more recent figures were frequently available) with equal parts of the initial discrepancy added or subtracted from exports and imports.

Parameter Estimates

Growth rates of G.N.P. (r)

Values were derived from regressions of the logarithm of G.N.P. on time from 1950 to 1964 for all countries but Bolivia, and from 1957 to 1964 for that country.

Marginal propensity to save (α)

a) Values for Argentina, Chile and Paraguay were the partial regression coefficients of gross domestic savings (I minus F) on G.N.P. from 1950 to 1964 when the capital inflow (F) was included in the equation.

b) Values for Colombia, Mexico and Nicaragua were obtained from similar regressions but ones in which the export share (E/V) was also included.*

c) Values for Brazil, Ecuador and El Salvador were based on unpublished results of Luis Landau of Harvard University, who regressed per capita savings on per capita income and on F from 1946 to 1960, corrected for population growth.

The general criteria for selection among the above was the explanatory power (R^2) of the equations and the reasonableness of the values.

d) Values for Honduras, Peru and Venezuela were the average savings rate, 1963-65.

e) Values for Bolivia, Costa Rica, Guatemala and Panama were compromises among several conflicting estimates.

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* See [2] for the theoretical basis of these estimations.

Capital-Output Ratio (k)

As explained in Section II, observations of the capital-output ratio and the reciprocal of the growth rate (r) for each year or cycle were weighted by the number of years represented, and estimates of k' and z emerged from the regression of k on $\frac{1}{r}$.

a) The fixed ratios represent the solution of the estimated equation for the reciprocal of the historical growth rates for every country but Bolivia (for which the value used was the Chenery-Strout historical estimate).

b) For the variable ratios, the value used for z was generally half of that obtained in the regressions, and k' was obtained by solving the equation for the value of the fixed ratio given above at the historical growth rate with the lower value of z. This produced values for k' which were often much larger, but for several countries -- Argentina, Ecuador, El Salvador, Panama and Peru -- the value was still below 2. In these cases a value of two was assumed, and z was obtained by again solving the equation for the fixed ratio at historical growth rates. (For Bolivia a low value of z obtained from a pooled regression was used.)

Marginal Propensity to Import (μ)

a) Values for Argentina, Bolivia, Costa Rica, Ecuador, Guatemala, Honduras and Paraguay were the regression coefficients of imports (M) on G.N.P. from 1950 to 1964 and for Mexico from 1951-62.

b) Values for Nicaragua and Venezuela were the recent average share of imports in G.N.P.

c) Values for Brazil, Chile and Colombia were based on the country papers.

d) Values for El Salvador and Panama were compromises among conflicting estimates.

Export Growth Rate (ϵ)

a) Values were derived from the regression of the logarithm of exports on time from 1950-1964 for Costa Rica, El Salvador, Guatemala, Nicaragua, and Panama and from 1957-64 for Mexico.

b) Values were the historical or lower range estimates in Chenery-Strout paper [3] for Argentina, Bolivia, Brazil, Chile, Colombia, Honduras, and Venezuela.

c) Values for Ecuador and Paraguay were compromises based on conflicting estimates in b).

d) The Peru value is an optimistic-but-realistic projection provided informally by Erik Thorbecke of A.I.D.

Population Growth Rate (ρ)

A.I.D. values (Statistics & Reports Division, May, 1966) were used for all countries.

Data Sources

1. GNP (V)

Figures were obtained from U.N. Yearbooks of National Accounts Statistics for Chile, Colombia, Ecuador, Guatemala, Honduras, Paraguay, Peru, and Venezuela, and from A.I.D. National Accounts Summary Sheets (June, 1966) for Argentina, Bolivia, Brazil, Costa Rica, El Salvador, Mexico, Nicaragua, Panama, and Uruguay. Conversion to 1962 dollars used A.I.D. exchange rates throughout.

2. Exports (E) and Imports (M)

Figures were obtained from I.M.F. Balance of Payments Yearbooks. Both the export and import figures used are net of investment income and were converted to 1962 prices using the price deflator of exports in the U.S. G.N.P. accounts.

3. Investment (I)

Figures were obtained from U.N. Yearbooks of National Accounts Statistics, for most countries. I is defined as Gross Domestic Investment, which equals Gross Domestic Fixed Capital Foundation plus change in stocks. For Peru and Venezuela, the source for GDFCF and change in stocks was A.I.D. -- National Accounts Summary Sheets. For Argentina, Brazil, and Costa Rica, this same source provided the total investment figure (no data on stocks).

4. Population (N)

A.I.D. figures were used throughout.