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Economic Development in Puerto Rico

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### ECONOMIC DEVELOPMENT IN PUERTO RICO

In many respects, Puerto Rico constitutes an excellent case study in economic development. In 1940, it was still, as it had been for centuries, a typical tropical monoculture, heavily dependent on sugar, with widespread poverty and low levels of living, and apparently no solution to its basic economic problems in sight. Fifteen years later, per capita output is about double what it was in 1940, manufacturing is equal to agriculture in terms of its contribution to net Insular income, over 400 new factories have been established employing about 30,000 people, and the construction industry is booming; in short, the economy is well along in the transition to a modern, and at least moderately, industrialized society.

During the past decade Puerto Rico, like many other "underdeveloped" areas of the world--including our own South--has been making a conscious, largely governmentally directed, effort to raise its production and level of living. Much has been accomplished. Gross product rose from \$606 million in fiscal year 1947 to \$1,111 million in 1955; adjusted for a rise of 11.6 per cent in the average price of this output, real production grew 58 per cent, or 47 per cent per capita.<sup>1/</sup> These are equivalent to annual growth rates, compounded, of 5.9 per cent and 4.9 respectively.

This growth occurred in spite of stagnation in what had been the Island's principal source of income--agriculture. Measured in terms of purchasing power (net income originating in agriculture divided by the implicit deflator of the entire gross product), agricultural income finished the period where it began, \$162 million dollars of 1954 purchasing power, although it had risen to a peak of \$210 in 1952. The increases in Insular real income, therefore, came from other sectors of the economy, notably from manufacturing, government, construction, and some of the services.

<sup>1/</sup> In deflating gross product (expenditure), exports of goods and services were deflated by import prices instead of by export prices, thus effecting the "terms of trade" adjustment popularized by the Economic Commission for Latin America. In other words the "real" value of exports was determined by what they could buy, not by their own value in terms of constant export prices. The effect of this treatment adds somewhat less than 1 per cent per year to the rate of growth as compared with what it would have been if the terms of trade had not changed between 1947 and 1955.

The 5.9 per cent annual growth of real output in Puerto Rico during the period 1947-55 was exceeded by only one or two of the Latin American republics during the same period--and the difference was so slight as to be within the margin of error of the data. It was well above the growth rate for the continental U.S., 4.1 per cent per annum, for the years 1947-1955.

As to the absolute level of living, there can be little doubt that Puerto Rico is exceeded, again, only by one or two of the independent countries of the area. Per capita gross product, expressed in terms of dollars of 1950 purchasing power, was \$418 in Puerto Rico in 1954, higher than any Latin American country except Venezuela and Argentina (see table 1).

Table 1

Per Capita Gross Product in Selected Areas, 1954

(U. S. dollars at 1950 prices)

Venezuela	678
Argentina	560
PUERTO RICO	418
Cuba	360
Chile	295
Colombia	242
Brazil	222
Mexico	215
El Salvador	189
Guatemala	168
Peru	141

Note: All figures except those for Puerto Rico were given in a communication from ECLA, divided by mid-1954 population as given in Statistical Yearbook of the United Nations. The concept is gross domestic product, and the year is calendar 1954. Puerto Rico data are on "national product" basis, for fiscal year ended June 30, 1954.

In terms of energy consumption per inhabitant, Puerto Rico was surpassed in 1954 by Argentina, Chile, Uruguay, and Venezuela, according to U.N. statistics. The ratio of passenger cars to population is higher in Puerto Rico than in any Latin American republic; the ratio in Puerto Rico in 1954 was 1 car for each 34 inhabitants. The nearest to this was Venezuela, with 1 for each 44; the lowest, Honduras with 1 car for each 800 people (in 1952).

The Puerto Rican experience poses two major questions to students of economic development policy. First, what are the principal factors which account for Puerto Rico's economic growth? Second, to what extent are these factors dependent on Puerto Rico's unique political and economic relationships with the United States and, therefore, not transferable to independent countries, specifically the Latin American republics?

### The Nature of Economic Growth of Puerto Rico

Recognizing the interdependence of all economic events, it is still convenient, for purposes of analysis, to divide an economy into "autonomous" and "derived" sectors. Autonomous sectors are those whose growth is not mainly dependent on rising incomes and purchasing power in general, but to which one would look as directly generating economic growth. In Puerto Rico, those branches of the economy selling mainly to the outside world or whose output is in more or less direct competition with imports (chiefly agriculture and manufacturing, but including employees and suppliers of the Federal government), the construction industry (because so much of its activity is financed by imported capital), and, to a certain extent, the local government may be considered the autonomous groups. The rising incomes in other sectors--mainly trade, services, and most of the local government--may, in the main, be considered the result of rising incomes in the "autonomous" sectors.

A detailed analysis of the growth of the autonomous sectors in Puerto Rico will serve to bring out the major factors responsible for this growth--to the extent that such factors consist of observable and measurable economic phenomena. However, it will also be necessary to mention, at least, other developments--of a more psychological or cultural character--which have undoubtedly played an important role, even if the direct effects of such developments on the rise in income cannot be traced.

## Primary Industries

Agriculture--Agriculture in Puerto Rico, almost in its entirety, can be considered an autonomous industry--one whose growth does not depend to any large extent on the creation of additional income-related demand in the Island itself.<sup>1/</sup> In the first place, about half of the production is for export: sugar and tobacco predominantly so; coffee, pineapples and others to a much lesser, but in many cases increasing, extent. Moreover, with food imports running at \$150 million a year (including freight costs), the possibilities for substituting local production for imports are very great. Dairy and meat products, for instance, are still imported in large volume, although local production has been increasing rapidly in recent years. On the other hand, it would require large changes in the customary diet to dispense with the large imports of rice, beans and codfish--products which cannot be economically produced in significant volume locally--although changes in that direction are already occurring.

The failure of agriculture to show even an absolute--not to speak of a relative--increase in the postwar period is due in the main to Federally imposed production quotas on the principal crop, sugar, and on tobacco. Actually there have been increases in some products, notably milk. As shown in table 2, income generated by crops other than sugar rose by 16 per cent during the period; the income originating in the production of sugar cane declined from \$93 million (1954 dollars) to \$73 million, a drop of 21 per cent. However, this decline was due to the failure of sugar prices to rise as much as the general price level; the tonnage of cane produced was higher in 1955 than in 1947.

As evidenced by the large imports of foodstuffs, the demand for many agricultural products exists, but in spite of the low level of wages in agriculture, producers of foodstuffs for local consumption cannot compete with imported products in many lines. Part of this, of course, can be attributed to the climate, which prevents growing some temperate zone crops, such as wheat and white potatoes. However, it is clear that the main fault lies with agriculture itself, or with the institutional arrangements within which it has to work. With a wide-spread application of modern methods of farming, and improvement in such ancillary activities as distribution and transport, a substantial increase in agricultural output could no doubt be achieved.<sup>2/</sup>

<sup>1/</sup> Note that the claim is not made that growth in general income will not lead, via increased demand, to an increase in agricultural output--merely that the increase in output does not depend on an increase in demand.

<sup>2/</sup> See Koenig, Nathan, A Comprehensive Agricultural Program for Puerto Rico, U.S. Dept. of Agriculture, 1953.

Table 2

Income of Puerto Rico, by Economic Sector

	Fiscal Year		Increase	Change
	1947	1955		
	(Millions of 1954 dollars)			(Per cent)
"Primary" industries				
Agriculture	166	162	-4	-2
(non-sugar)	(73)	(89)	(16)	(22)
Manufacturing and Mining	108	160	52	48
(non-sugar)	(69)	(133)	(64)	(93)
Construction	14	33	19	143
Federal Government	62	113	51	82
Local government <sup>1/</sup>	29	36	6	21
Total "primary" industries	379	504	125	33
"Secondary" industries				
Transportation and public utilities	45	73	28	62
Trade	110	152	42	38
Finance, real estate, and services	82	143	61	74
Local government	35	72	37	106
Total "secondary" industries	272	440	168	62
Total domestic net income	651	944	293	45

<sup>1/</sup> That part of total local government expenditures financed by "external" income, i.e. federal excise taxes and grants in aid, received during the current year. This may, in a sense, understate the 1947 figure, since part of that year's expenditures was financed from existing balances built up out of "external" income of previous years. Note that the full amount of the Federal taxes and grants are included here although some part of the funds obviously was used to purchase goods and services from other sectors rather than to pay wages and salaries.

Note: percentage changes calculated from unrounded data.

Manufacturing—Puerto Rico's industrialization program—known familiarly, at least outside the Island, as Operation Bootstrap—has made the major single contribution to the rise in income since 1947. Excluding sugar mills and refineries which declined from \$39 million to \$27 million (in terms of income created) over the period, manufacturing contributed \$64 million of the \$125 million (1954 dollars) additional income generated by the "primary" industries, rising by 93 per cent. In 1956 (fiscal year), it is certain that the net income originating in manufacturing exceeded that originating in agriculture. This rapid rate of industrialization—which has few if any parallels elsewhere—is of special interest to those concerned with problems of economic development, and for that reason merits thorough study.

However, only some of the principal features of Puerto Rican industry as it has developed over the postwar period are briefly mentioned below.

1. Manufacturing has been almost completely oriented to the U. S. market, and not for local production. Excluding food products,<sup>1/</sup> fertilizers, cement, and wood products (mostly furniture for local use), 70 per cent of all industrial output (in 1954) was for direct export, and part of the remainder for indirect export (partially finished products, e.g. shoulder straps for brassieres). For the tax exempt industries alone, the corresponding ratio was 85 per cent in 1954.

2. By far the largest share of the increase has been in the tax-exempt industries. In 1954, for instance, "value added" by manufacture of all firms established from 1949 onward amounted to \$76.4 million. The tax exempt factories, most of which were established after 1949, produced \$72.8 million. The total growth in "value added" between 1949 and 1954 was \$94.5 million, of which probably at least 75 per cent was contributed by tax-exempt plants.<sup>2/</sup>

3. The average size of the individual plant is relatively small, although the tax-exempt plants, which average 70 employees each, are larger than the average for all other plants, which is only 27 per establishment.

4. For the most part, labor-intensive industries have prevailed and the amount of capital investment per worker has been relatively small. However, there have been some significant exceptions to this—such as the cement plant, originally constructed by the Government—and the recent trend, exemplified by the oil refineries, has been toward industries involving greater capital investment in relation to labor employed.

5. By far the largest proportion of the new plants has been established by nonresidents, mostly firms which manufacture similar products elsewhere. So far, only United States capital has been involved, although attempts are currently being made to interest Europeans.

6. The program has been devised and carried out almost entirely by the Commonwealth Government. The tax exemption, the provision of buildings at low rentals or on favorable sales contracts, and the intensive publicity and recruiting program of the Economic Development Administration (EDA) have been the main factors as far as direct stimulation are concerned. There have been no noticeable efforts by private groups to attract new ventures from outside, as is frequently done in the United States (e.g. by chambers of commerce, utility companies, etc.).

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<sup>1/</sup> Although even here the chief component, sugar, ships over 9/10 of its output to the mainland; however, it is clearly not a "new" industry.

<sup>2/</sup> The 1954 census of manufactures does not present detailed information for tax-exempt plants by date of beginning operations.

7. Moreover the action of the Government in more traditionally governmental fields has also been of inestimable value. This aspect, of course, is felt in all branches of the economy, not just in industry, and is discussed in detail in a later section.

Construction— As indicated in table 2, by far the greatest percentage increase in income produced by any major sector of the economy taken as a whole occurred in construction, which almost trebled from 1947 to 1955.

Table 3  
Construction Activity in Puerto Rico<sup>1/</sup>

	1947 (Millions of	1955	Increase 1954 dollars)	Change (Per cent)
Total, public and private	40	130	90	225
Private	16	68	52	325
Residential	5	35	30	600
Other	11	33	22	200
Public	24	62	38	158
Government enterprises	16	39	23	143
Housing	3	11	8	266
Other	13	28	15	115
Commonwealth Government	6	20	14	224
Contract	4	14	10	250
Force account	2	6	3	150
Municipal governments	2	3	1	50

<sup>1/</sup> The principal reasons for the more rapid rise in total construction expenditures than in income originating in the contract construction industry were: (1) the greater relative importance of force account (i.e., by their own employees, and not by contract) construction by government and government enterprises in 1955 than in 1947 (wages paid to government construction workers are included in "government" rather than in the construction industry), and (2) the substantial oil refinery construction included in the 1955 figure, which has a much lower labor (and possibly profit) content than general construction, due to the expensive character of the equipment involved. Note: percentage changes calculated from unrounded data.

While it is impossible to measure statistically how much of this construction was financed directly by external capital, there is no doubt that it was large. All the public housing, most of the other public authority construction, and a substantial part of private construction was financed by borrowing abroad or by the



inflow of direct investment capital, as, for instance, in the case of the oil refineries. Moreover, the existence in Puerto Rico of the Federal mortgage insurance system (FHA) probably served to direct more local funds into housing mortgages than might otherwise have occurred.

The existence of external sources of credit has permitted a substantial expenditure on housing in Puerto Rico over this period, without absorbing a corresponding amount of domestic savings. Moreover, by encouraging home ownership and committing the new owners to installment payments on their housing debt, it has probably diverted to savings (debt amortization) funds which would otherwise have been spent, at least in part, on consumption.<sup>1/</sup> The direct effect on output (other than the rent, imputed or otherwise, of the houses themselves) of better housing is debatable; capital so invested is undoubtedly less productive, at least in the short run, than capital invested in industry or agriculture. But the long run effects on worker productivity, especially in succeeding generations, may be great.

At the same time, it must be recognized that these external debts will impose a burden of repayment on the insular economy in the future. It was estimated that, as of June 30, 1955, about \$150 million was owed to outside creditors (including the Federal National Mortgage Association) on private housing mortgages, and about \$86 million by public housing authorities. However, a substantial part of the service on the latter obligations will be met out of future Federal subsidies to the municipal and state housing authorities, and therefore does not represent a potential claim on insular production.

Federal Government--Income originating in the Federal Government consists of wages and salaries and supplements thereto paid to Federal employees in the Island, including all military personnel stationed there. From Puerto Rico's point of view, changes in this item must be regarded as almost purely fortuitous--something to be grateful for when upward and to try to offset when downward.<sup>2/</sup> The sharp rise in this "industry" is due primarily to the cold war and the resultant strengthening of military garrisons on the Island. However, there has been a continued growth of non-defense-connected Federal activities as well.

The enlargement of the armed forces after the Korean outbreak brought additional economic advantages to Puerto Rico not reflected in these statistics. A large number of young Puerto Rican males were drafted or enlisted, mainly in the

<sup>1/</sup> Of course, the definition of housing as investment and the purchase of other consumers durables as consumption may be disputed. However, the buildings, mostly of reinforced concrete, will be there long after the automobiles, refrigerators, etc. purchased in the same period are gone.

<sup>2/</sup> Particular note should be taken of the fact that income originating in the Federal Government does not include the large benefits paid to veterans, which are not considered to be payments for services rendered and hence not part of net income. Their economic effect on the Island, however, is similar to that of wages of Federal employees, in most respects.

Army, and for the most part subsequently transferred out of the Island. By definition, the wages of Puerto Rican servicemen stationed outside the Island are not included in Commonwealth net income. However, the withdrawal of these men from the civilian labor force had an ameliorative effect on the chronic problem of unemployment, and the remittances sent home to their relatives (included in unilateral transfers in the Puerto Rican social accounts) added significantly to the purchasing power of the insular economy.

As previously explained, the income originating in each sector has been deflated by the overall implicit deflator for the whole gross product. If U.S. government wages and salaries were deflated by import prices, as was done in arriving at gross product in constant prices, the increase from 1947 would be about 120 per cent instead of 82 per cent. Import prices remained relatively stable over this whole period while the implicit gross product deflator rose from an index of 86 in 1947 to 100 in 1954 and 1955.

Local Government--The classification of local government expenditures as primary or secondary is difficult from a theoretical point of view; in most economic analysis government expenditures (or net expenditures) are regarded as an autonomous factor--in fact, one of the principal means of exerting premeditated influences on the economy. However, in Puerto Rico no overall economic stabilization policies control the total amount of government spending; this is effectively limited by the amount of taxes that can be raised plus the amount that can be prudently borrowed. Since government borrowing was nil in 1947, and less than construction expenditures in 1955, the "primary" effect of expenditures from borrowed funds has already been taken care of by classifying the whole construction industry as primary.

However, as indicated by the footnote to table 2, the Government has certain current revenues which come directly from the outside, namely, Federal excise taxes which revert to the Insular government and Federal grants in aid. The full amount of these has, arbitrarily, been placed in the primary category, although obviously not all of such funds go directly to create income, that is they are not used to pay wages to government employees. However, these transfers make possible the creation of at least an equivalent amount of income over what would otherwise have occurred, and this classification recognizes that fact.

To summarize the preceding sections: the total income generated in the primary industries, expressed in terms of the command of such income over the whole product of the economy, rose by \$125 million (1954 dollars) in the 8-year period, an average annual increase of about  $3 \frac{3}{4}$  per cent. Half of the total increase occurred in (non-sugar) manufacturing, and most of the remainder, on balance, represented increased disbursements by the Federal government. The contract construction industry, although much less important in the overall picture, showed the greatest relative increase--143 per cent.

## Secondary industries

The remaining sectors of the economy have been considered for purposes of this paper as comprising "secondary" or "derived" industries—those whose expansion for the most part derives from and is dependent on the advances made by the more autonomous sectors previously considered.

Transportation and public utilities—The net income arising in this group rose by 62 per cent between the years 1947 and 1955, equal to the average for the secondary group as a whole. However, this represents a combination of a relatively rapid rise in the public service utilities operated by the Government (electricity and water) and trucking, combined with stability or a much slower rate of increase in other transportation enterprises, mainly passenger transportation by bus and publico (public car). The latter phenomenon presumably results from the spectacular increase in the ownership of private passenger cars coupled with the fact that there has been no increase in passenger fares—except in taxis—over this period.

Trade—The rise in net income in trade, as might have been expected, was somewhat less than in the economy as a whole—38 per cent. This would seem to indicate that there has been some relative increase in efficiency in the distribution industry over this period and that distribution costs—as represented by wages and profits—still absorb almost as large a share of the Island's income as in the immediate post-war period. Personal observation indicates that this situation is changing, particularly as the result of the Government's program for technical assistance in the field of food distribution; however, this program only got under way about two years ago and there has scarcely been time for the results to show in the statistics.

Services—Net income in the "other services" group rose by 74 per cent or a total of \$61 million in 1954 prices. About half of this increase was in the item "net rental income of individuals" and reflects the phenomenal amount of residential construction that has taken place in Puerto Rico in recent years. Within this group larger than average percentage increases also occurred in insurance, "other real estate," hotels and business services—the latter including such things as radios, television and advertising. While the increase in income in most of these services reflects the rising demand of the Puerto Rican population, the increase in income in hotels was for the most part the result of the rise in tourist expenditures in Puerto Rico, made possible by the construction of new hotel facilities.<sup>1/</sup>

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<sup>1/</sup> It would have been quite proper, for this reason, to classify hotels as a primary industry, at least with respect to the proportion of their income arising from non-resident guests. However, it would also have been possible likewise to subdivide many other industries; for the sake of simplicity it seems preferable to maintain intact the broader groupings.

Local Government--In terms of dollars of 1954 purchasing power total wages and salaries paid by local government entities in Puerto Rico rose to \$108 million in 1955 from \$64 million in 1947, an increase of about 70 per cent. The amount of this income which we have, somewhat arbitrarily, considered as having been paid from local tax revenues rose from \$35 million to \$72 million, an increase of 106 per cent. Since the Government of Puerto Rico has not in any significant sense engaged in compensatory financing, since it must rely on the U.S. capital market to finance any budgetary deficit that it might incur, and since total debt is limited by law to a fixed per cent of total assessed value of property, the capacity to borrow is effectively limited and government expenditures cannot be substantially higher than total tax collections.<sup>1/</sup> Moreover, the latter tend to respond to changes in the level of Insular net income. For this reason the local government has been classified as a "secondary" industry.

In a sense, however, the percentage rise in these expenditures, more than twice the average in Insular net income as a whole, is purely statistical. The ratio of the Insular Government's income from external sources to its total income was much higher in 1947 than in 1955. If the external income had been applied proportionately to wages and other purchases in both years, the amount of income considered to have been "primary" in 1947 would have been smaller and the amount of income considered to have been "secondary" would have been larger, thus resulting in a smaller percentage increase in "secondary" income and a larger percentage increase in "primary" income than those shown in table 2.

However, it is clear that the relative role of the Government in the Puerto Rican economy has been rising, mainly as a result of a rise in the ratio of government receipts to total income. This rise has provided increased funds for, among others, expenditures on public education and public health and perhaps a relative increase in government salary rates as compared to the general price rise over the period. Evidence of the former can be found, for instance, in the fact that the number of pupils enrolled in the public elementary and secondary schools rose from 336,000 in 1947 to 585,000 in 1955.

#### Underlying Causes of Economic Growth in Puerto Rico

In the preceding pages, the principal avenues of expansion in the economy of Puerto Rico in the eight years ending June 30, 1955, have been described. An attempt will now be made to analyze this growth in terms of the conditions to which the expansion can be most fairly attributed. As usual, it is impossible to measure quantitatively the effects of any particular factor since there is no way of knowing what would have happened under different circumstances. However, the general pattern is clear and in many cases it may be confidently stated that, in the

<sup>1/</sup> It is true that there has been a small increase in public debt over this nine year period, and there could have been more. Moreover, the very large capital expenditures for public utilities and public housing construction have been financed almost in their entirety by outside borrowing. As already noted, however, the income from this construction (except for force account construction, mainly by the electricity authority) has been included in the primary group.

absence of this or that condition, the results would have been quite different, and the nature of the difference would be quite apparent.

Since the purpose of this paper is to draw special attention to those factors in the Puerto Rican situation which may be of value in determining economic development policy in other underdeveloped areas of the world, most which are national states, the causal factors will be divided into two groups. First, there are those which result directly from the special political relations with the U.S.

The second group of conditions will be those which can primarily be attributed to the actions of the people of Puerto Rico and their government. Of course, these actions in themselves are influenced by the United States relation; however, for the most part similar policies could be adopted in independent nations without significant changes in present overall international political relationships.

#### External factors

Free trade with the Mainland--The development of Puerto Rican industry in the last ten years has been greatly facilitated because Puerto Rico is within the customs area of the U.S. and, subject to quotas on sugar and tobacco, its products have completely free access to the American market without the payment of duty.

It has already been indicated that a substantial part of the total manufacturing output of Puerto Rican industry in 1954 was for shipment to the U.S. Looked at another way, exports of the new manufacturing industries rose from a negligible per cent of total exports in 1947 to over 30 per cent in 1955.

This access to the U.S. market has not only made possible the establishment of over 400 new manufacturing plants but has undoubtedly done much to ensure that these plants are economically viable. Since they are not producing solely for a local market behind a protective tariff but in open competition with all similar plants in the U.S. mainland, it is obvious that their economic foundation is more secure than many of the highly protected industries now being established around the world.

Federal expenditures--It has already been noted that 12 per cent of Commonwealth net income in 1955 represented wages and salaries of Federal Government employees, including military personnel. The Federal Government in Puerto Rico is an export industry; the wages which it pays create external purchasing power which can be used to import goods and services, at prices much lower than they could be produced in Puerto Rico. Moreover, these expenditures have a favorable terms-of-trade effect stemming from the fact that almost without exception persons working for the Federal Government--either in the military or civilian service--receive higher wages than those granted for corresponding work by the local government or private industry in Puerto Rico.

Another economic advantage of this system is that many of Puerto Rico's essential government services--defense, weather forecasting, etc.--are paid for by the outside world, thus freeing local resources for other productive uses.

Capital markets--A very important aspect of the political relationship between Puerto Rico and the U.S. is the fact that Puerto Rico comes into the mainland capital markets as a domestic rather than a foreign borrower and that it receives the benefits of certain Federal lending programs, notably for agricultural and housing purposes. Private capital lenders in the U.S. know that their loans to Puerto Rican entities, public and private, are protected by the guarantees of the U.S. constitution and courts.

More important than direct Government loans has been the inflow of mainland capital for public and private housing construction in Puerto Rico under the auspices and effective guarantee of the Federal Government. The quantitative importance of this borrowing has already been indicated. This is a field in which independent countries can scarcely hope to turn to outside capital for assistance. Puerto Rico has thus been able to take care of one of its outstanding necessities--housing--without having to call on relatively scarce local savings.

The importance of external capital in financing investment in Puerto Rico is illustrated in table 4. As will be seen, 47 per cent of gross investment and 67 per cent of net investment was financed by external capital in 1955.

Table 4

Sources and Uses of Capital Funds in Puerto Rico, 1955  
(Thousands of dollars)

Sources of funds	
Undistributed corporate profits	26,054
Personal saving	-28,790
Government saving	38,068
Depreciation	<u>64,067</u>
Subtotal, domestic savings	99,399
Net inflow of external capital	103,575
Statistical discrepancy	<u>15,877</u>
Total funds	218,851
Uses of funds	
Domestic investment, private	123,019
Domestic investment, public	72,547
Change in inventories	4,892
Puerto Rican investment abroad	<u>18,393</u>
Total uses of funds	218,851

Federal taxes--The special financial arrangements between Puerto Rico and the U.S. also contribute to the real income of the Island compared to what it would be if Puerto Rico were either a state or an independent country. The Federal excise tax on Puerto Rican rum shipped to the mainland reverts to the Insular Treasury; that paid by rum produced either in Jamaica or Louisiana goes to the Federal Treasury. In recent years, this tax has added about \$15 million a year to local government revenues, about 10 per cent of the total budget, and presumably an equivalent amount to the real net income of the economy.

As compared with federated states of the Union, though not with independent countries, the fact that Puerto Rico does not have to pay Federal excise taxes on goods imported or produced locally makes it possible to conserve within the economy a great deal of the final value of such products. This is especially true of tobacco and liquor. Local excise taxes on these two products amounted to \$36 million in 1954. Obviously, if Federal excise taxes had been applied to these products, the amount drained out of the economy would have been substantial and the Insular Government would have been deprived of most, if not all, of these revenues. The same thing is true, although to a lesser extent, of other products such as jewelry, automobiles, and electrical appliances, which would be subject to Federal excise taxes if Puerto Rico were a state.

However, the most important single example in this category is the income tax, which provided \$36 million of revenue to the Commonwealth Government in 1955. If Federal income taxes were imposed in Puerto Rico the amount of resources thus drained from the Island would be somewhat greater than the figure just cited, since Puerto Rican income tax rates are lower than those of the Federal system. Moreover, it would probably have been impossible to levy any local income tax if the Island had been subject to Federal taxes.

Federal grants--The Puerto Rican Government also receives in the neighborhood of \$20 million a year of outright grants from the Federal Government, for road building, school lunches, education and welfare programs, and the like. These are the same grants as those available to all the states but are paid to Puerto Rico in spite of the fact that Federal taxes do not generally apply in the Island. Similarly, sugar producers get an outright subsidy amounting to about \$18 million a year; this of course is in addition to the benefits of duty-free entry of Puerto Rican sugar to mainland markets. However, this subsidy, under traditional definitions, is counted as part of the "net income" of the economy. Another significant Federal disbursement not counted as part of the Island's income consists of benefits paid to veterans residing in Puerto Rico. These reached a peak of \$52 million in 1945, and again in 1948, and averaged \$39 million over the period as a whole.

In concluding this section it may be emphasized that, except with respect to Federal excise taxes on Puerto Rican products shipped to the mainland, the tax position of Puerto Rico vis-a-vis the U.S. is essentially similar to that of an independent country. What is different of course is that in spite of its freedom

from Federal taxation Puerto Rico receives almost all types of Federal disbursements ordinarily made in the federated states of the American Union. Moreover, to a significant extent these disbursements consist of unilateral transfers, that is, payments for which Puerto Rico does not have to give up any resources as a quid pro quo. Even in the case of services purchased by the Federal Government--mainly services of Federal employees--the amount received by Puerto Rico for such services (wages) is undoubtedly much higher, as already indicated, than could be obtained by using the equivalent resources for any other purpose.

### Indigenous factors

The external factors which have been discussed included both those which have direct effects on the Puerto Rican economy by providing markets for Puerto Rican output or capital to finance Puerto Rican investment, and those which have indirect effects, such as the taxation system and the presence of American constitutional guarantees in Puerto Rico. The indigenous, or local, factors which are now to be discussed are for the most part of the second type, i.e., they represent institutional situations which are believed to have a favorable effect on economic development but whose effect cannot for the most part be statistically measured. For this reason the order in which the items are discussed should not be considered as indicative of their relative importance as stimulative factors in the Puerto Rican economy.

Public Administration--The existence of a stable, efficient, and honest public administration must be placed at or near the top of the list. The mordida ("bite", i.e. petty graft) is almost completely unknown in Puerto Rico. The tax laws are based on their American counterpart; they are reasonably uncomplicated and are administered with a satisfactory degree of efficiency, although it is believed that evasion of the income tax is more widespread than on the U.S. mainland. The present high administrative officers of the Government are unusually able. Many of them were former college professors or civil servants. Since the beginning of the present administration, there has been brought to light no outstanding case of dishonesty in the public service and to the best of the knowledge of this writer there is widespread confidence in the integrity of public servants.

This is not to deny, of course, that public policy may be directed, consciously or unconsciously, toward the maintenance in power of the present majority party. However, this effort takes the form of measures which have as their immediate objective the benefit of the large mass of common people in Puerto Rico without at the same time doing anything that would substantially impede economic development. An outstanding example is minimum wage policy were the announced intention of the Government is to raise wages as fast as possible consistent with the growth of industry and employment in the Island.

Public utilities--The Government has devoted its primary attention to the development of those basic resources, human and other, upon which economic expansion must rely. Before the second world war the ownership of sewer and water facilities was scattered among the 76 municipalities of the Island, some of which



were without such facilities. These are now all operated by the Sewer and Aqueduct Authority, a Commonwealth Government agency, as a result of which a plentiful supply of potable water exists in almost every town in the Island. Similarly, not only has the supply of electricity kept pace with consumer and industrial demand but, partly with the aid of Federal loans, a substantial degree of progress in rural electrification has been achieved. While it may have been argued that this result has been achieved primarily because it has been relatively easy to raise capital for expansion in the mainland market, this ability is due at least in part to the efficient management of the enterprises concerned and the fact that Puerto Rico has never defaulted on any of its public obligations. It should be noted that the obligations of the electric and water authorities are payable only out of their own revenues and are not guaranteed by the Government of Puerto Rico. The success of these enterprises therefore owes much to the zeal and ability of the people who have been in charge of them.

Human resources--Recognizing that the operation of a modern economy requires a well educated and healthy population, as well as for obvious social and humanitarian reasons, the Government of Puerto Rico has devoted an unusually large part of its resources to public education and public health. In 1956, 48 per cent of the total current budget was for these two purposes. The growth in school population has already been mentioned. While the ratio of doctors to population is still relatively low, public health and hospital facilities are available for practically all of the population that cannot afford private services, as well as, of course, those who can. In addition the Government provides scholarships for higher education both in and outside of the Island, and its technical and vocational schools are so adequate that they attract students from all over the Caribbean area.

There is no class or race discrimination in the operation of these public facilities; as a matter of fact, they are utilized relatively more by the so-called lower classes than the others. This is obviously the case with public health facilities, which are not designed for persons who can afford private services. However, the democratization of the public educational system seems to have resulted in some deterioration of the level of instruction offered. Although this may be more imagined than real, it has had the effect of driving a large number of people of the middle and upper classes into private schools, thus increasing the public facilities available to working class people.

Private enterprise--After relatively unsuccessful attempts at government operation of industrial plants, the whole attitude has turned toward one of frank receptivity toward and dependence upon private enterprise, with no discrimination against external capital. On the contrary the complaint is frequently heard that the Government tends to favor external over local capital. This is not the case; it is simply that mainland entrepreneurs have shown more initiative in taking advantage of the incentives being offered. This will undoubtedly continue until a tradition of local industrial entrepreneurship has been established. The beginnings of this are already evident, notably in the enterprises of the Ferre family, which include an iron works, two cement plants, a clay tile factory, a bottle

factory and others.

This does not mean, of course, that the Government welcomes any and all industry under any and all circumstances. To secure a tax exemption certificate frequently takes many months; in addition one has to run the gauntlet of local zoning and building regulations, to comply with reasonably liberal (from the employees' point of view) labor laws, and to be subjected to investigation to see that the terms of the tax exemption are rigorously complied with. However, compared to the overt or hidden hostility toward foreign capital that exists in many parts of the world, Puerto Rico is a paradise as far as outside private enterprise is concerned.

Tax exemption--The most important manifestation of this desire to let private capital, local or external, do the job is the industrial tax exemption program. In its present form this law provides ten years of complete exemption from Insular income and property taxes on qualifying enterprises, which consist essentially of manufacturing firms producing items which were not in commercial production in Puerto Rico on January 1, 1947. Under this program by the end of 1954 there were 382 factories in operation employing 27,000 people (average for the year) and with a value added by manufacture in that year of \$72.6 million. The program has been gathering momentum, and within the last two or three years has begun to attract larger and more nationally known enterprises. The establishment of two oil refineries promises to induce investments in petro-chemical industries; two important plants have already been started or committed.

Industrial promotion--However, reliance is not placed solely on the passive incentive of tax exemption--the Government conducts a very active promotion program, seeking out firms to interest them in establishing factories in Puerto Rico. This work, which is carried on by the Economic Development Administration, is accompanied by tangible incentives in the form of government-constructed factory buildings for lease or purchase on favorable terms, technical assistance, and training of prospective employees at government expense. The EDA has established branch offices on the mainland and recently entered into arrangements with a firm in Germany to represent it in Europe. An extensive advertising program emphasizing the advantages of Puerto Rico in general and of the tax exemption program in particular is carried out in national periodicals and local newspapers throughout the U.S.

### Conclusions

It will be apparent from the foregoing that Puerto Rico's economic development in recent years owes much to the peculiar economic and political relationship of the Island to the United States. However, especially in its economic aspects, this status is not basically different from the one that has existed from the beginning of the American occupation, whereas rapid economic growth is a

phenomenon of only the last few years. Thus while basic institutional factors existed which made the present program possible, it was due to the initiative of the present leadership that the opportunities were seized and a program actually inaugurated. Many of the factors involved in the success of this program can be employed, although perhaps in lesser degree, by independent countries. In concluding this paper, therefore, I should like to point out which, among the elements described above, are the most important and which at the same time are capable of being adopted by other underdeveloped areas--in some case with appropriate modifications.

1. Perhaps the most important, and at the same time the most elusive, influence is the "climate"--that conglomeration of factors which makes the Island attractive to private investment both domestic and foreign. Private capital is not only eligible but welcome to engage in any legitimate business activity. No special spheres are reserved for local capital and the only field in which the Government has taken a monopoly is that of electric power. There is no significant government competition in any sector of the private economy, with the possible exception of the growing and canning of pineapple. This firm belief in the ability of private enterprise to do the job, without any direct government intervention beyond the usual types of controls related to minimum wages, labor conditions, building and zoning regulations, etc., is one that might well be emulated abroad.

2. The tax exemption program is extremely important. It should be noted that in the main it is limited to manufacturing enterprise, and to those producing items which were not in commercial production in Puerto Rico prior to the beginning of the program. Beyond this there is no attempt to screen the industries except to weed out those that appear to be financially weak or which are not bona fide manufacturing enterprises (e.g. packing, sorting, etc.). There is no attempt to favor industries producing products "essential" for the Puerto Rican market; as already indicated most of the plants are producing for export. No strings are attached to the exemption once given except the obligation to begin production within a certain length of time and to produce the items for which the exemption was granted. The judicious use of tax exemption for a limited period of time may well be effective in underdeveloped countries where the other conditions are also favorable. It should be noted that with respect to the U.S. income tax laws Puerto Rico is in essentially the same position as a foreign country.

3. Puerto Rico has not, as have many other countries, just sat back and waited for foreign capital to come in and then complained bitterly when it did not. On the contrary the Government has actively promoted the establishment of mainland-owned plants in the Island through a costly publicity campaign. As already indicated, it also offers a large variety of services to prospective investors. As far as I know there is no comparable effort by any foreign country in the United States, although it is a common practice of various state governments, public utilities serving particular areas, chambers of commerce, and the like.

4. By virtue of its being part of the United States, Puerto Rico enjoys financial and monetary stability. Exchange controls are impossible. While admittedly this situation is more difficult of achievement in an independent country, it is not impossible. Other things being equal there is every evidence to believe that investors prefer a country where there are no exchange restrictions and where the external value of the currency vis-a-vis the dollar remains constant.

5. The attempt of the Puerto Rican Government to bring education to the masses is another phase of the program that deserves serious consideration, especially in those countries where class or racial differences have resulted in leaving large masses of the population virtually without access to public educational facilities. Social divisions in Puerto Rico are at least as fluid as in the United States; in one respect they are even more so in that racial origin has little effect on economic status. This undoubtedly has the effect of making relatively more human talent available for use in industry and government than would be the case in some of the underdeveloped areas of the world.

6. Finally one should point out the extreme importance of political stability and the protection given to personal and property rights. These are protected not only by the Puerto Rican but by the United States Constitution. There need be no fear of unjust seizure of person or property as a result of political or other extraneous motives. There can be no expropriation of private property without effective, just, and immediate compensation. This again is a situation which, if emulated elsewhere, would undoubtedly prove to be one of the most significant factors attracting foreign capital. Unfortunately, it is not only the present existence of these rights which counts, but confidence in their continued existence for their future. In view of past history in many countries, it may take time to engender this confidence.