EXTERNALLY-PROPELLED GROWTH AND INDUSTRIALIZATION IN THE CARIBBEAN

by

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PREFACE

Despite the preoccupation of the profession with problems of so-called underdeveloped countries in the post-war years, serious work is retarded by a professional dilettantism which is too often offered as a substitute for an effort to isolate the real problem. When faced by the problems of poor countries economists have packed a tool-kit of eclectically assorted propositions ranging from the Ricardian model of "surplus labour" drawn from early English experience to neo-Keynesian growth theories derived from the breakdown of monetary demand in the 1930's. Along with these, and other theories, are offered econometric techniques whose statistical refinement far outstrips the reliability of the data used, and whose categories often do not correspond to the institutional organization of economic activity in the so-called developing countries.

For these and similar reasons our work had addressed itself to the construction of a general theory of Caribbean-type economy within which experience can meaningfully be described. In this way we hope to come to grips with the real constraints on change in the region. Our desire to mobilize the intellectual resources of the university to assist in the social and economic transformation of the Caribbean is shared by many of our colleagues. To this end we offer this report as a contribution to the on-going discussion by university and government economists within the region.

The starting point for this study was a week of intensive and highly stimulating discussion between Mr. Alisteir McIntyre and the authors at St. Augustine, Trinidad, in June 1965. It was there that the first rough formulations of the Plantation Economy models took shape. Since that time, our comprehension of the problem under study has both deepened and widened. Some of the steps along the way are marked by papers and articles prepared by the authors.[1]

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1. Lloyd Best: "Economic Planning in Guyana", The Caribbean in Transition, Andre & Mathews (eds.), University of Puerto Rico, 1965. "A Model of Pure Plantation Economy", Third West Indies Agricultural Economics Conference, Mona, Jamaica, Social & Economic Studies, Vol. 17, No. 3, 1968. "The Economy of the British Commonwealth in the Caribbean" in West Indies - Canada Economic Relations, Institute of Social and Economic Research, U.W.I., 1967. "The Emergence of a Structuralist School of Economics in the Caribbean", A Review of W.G. Demas: The Economics of Development in Small Countries, Seminar in Small Societies in Transition, Mora, 1966, (mimeo)

Lloyd Best and Kari Levitt: "An Ideal-Type Accounting Framework for Plantation Economy Further Modified", Second Conference of Caribbean Commonwealth Statisticians, Georgetown 1968. "Measuring the National Capacity to Import", Regional Conference on Devaluation, Papers, Institute of Social and Economic Research, U.W.I., Jamaica, 1968.

Kari Levitt: "New Mercantilism: Dependence and Disintegration in Canada", New World Quarterly, Vol. IV, No. 2, 1968.

Our work has been shared by many colleagues and associates. In this connection, we wish first to acknowledge our appreciation of the work of Dr. Norman Girvan who contributed the essay on Multinational Corporations and Mineral Industry in the Caribbean and the studies of the Bauxite and the Petroleum industries. Sketches of the performance of the Jamaica and Trinidad manufacturing sectors were prepared by Miss Adlith Brown and Mr. Edwin Carrington, respectively. Statistical material on the economy of Trinidad and Tobago was compiled by Mr. Ainsworth Harewood. A trial quantification of our concept of the National Capacity to Import was made by Mr. Gerard Dedestyre. Initial data compilation of external trade data was undertaken at McGill University with the assistance of Mr. George de Benadetti.[2]

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2. Norman Girvan, a graduate of the University of the West Indies and the London School of Economics, is a member of the teaching staff of U.W.I. in Jamaica. He is the author of a number of studies on the Bauxite industry in the Caribbean.

Adlith Brown, Edwin Carrington and Ainsworth Harewood, all graduates of U.W.I., are completing graduate studies at McGill University. Miss Brown is currently at the Dominion Bureau of Statistics, Ottawa, Mr. Carrington was a Fellow of the C.D.A.S. and is now with the Institute of Social and Economic Research, U.W.I., Trinidad, and Mr. Harewood is returning to work with the government of Trinidad and Tobago. Mr. Gerard Dedestyre is currently a Fellow of the C.D.A.S. and Mr. George de Benadetti was a Fellow of the C.D.A.S. and is now teaching at a Nova Scotia university. Headly Brown and Osbourne Nurse, also graduates of U.W.I. are presently with the government of Jamaica and Cornell University, respectively. The tragic death of Hugh O'Neale in 1966 deprived the Caribbean of one of its most promising young economists and seriously set back the work of our project. The personal sense of loss remains, to this day, impossible to put into words.

Fuller empirical exploration of the approach outlined in this report constitutes a program of historical and statistical research which will, we hope, involve an ever increasing number of scholars and research workers over the next few years. A number of studies are already well advanced. These include work on Domestic Agriculture and on Minor Agricultural Export Staples by Mr. Headley Brown, a study of the Mechanism of Balance of Payments adjustment by Mr. Edwin Carrington and work on the sugar industry by Mr. Osbourne Nurse.

The authors are deeply appreciative of the support received from the Centre for Developing Areas Studies of McGill University and its Director, Dr. Irving Brecher. Most university economists are either forced to confine themselves to armchair theorizing or to empirical work on terms set by the institutions which provide their funds. In this situation we have been fortunate to have found a university old-fashioned enough to commit funds to work with a strictly theoretical bias, and a long gestation period, and yet involving heavy expenditure on empirical investigation.

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INTRODUCTION

The central concern of post-war economic theory and policy in the Caribbean has been how to get the economy to grow fast enough. It was anticipated that rapid growth would place the territories in a position to close the gap in real income per head between the region and the metropolitan countries of the North Atlantic, to create sufficient employment to absorb population increase and enough social and economic equality to ensure political stability. It was expected that the regional economy would ultimately be better placed to reduce if not eliminate its traditional dependence on metropolitan areas for investment, technology, skill and business enterprise, for sheltered export markets and for the overwhelming majority of imported supplies; and to develop its own organizational and technological complex which would clear the market of all factors offering themselves for employment and yield a dynamic equilibrium between capacity and wants simultaneously created. These expectations were based on a crude mix of Ricardian and Keynsian economics, the former being revised to allow for technical progress in agriculture.

The "Ricardian" component of the modern synthesis postulated a typical economy which had two sectors.[1] On the one hand, there was a backward, traditional, primary and largely agricultural sector. This dominated the economy. On the other, there was an embryonic, modern, secondary comparatively advanced industrial sector. The problem of development was seen to be one of eliminating this "dualistic economy" by creation of new capacity in the modern sector. By this means, not only was labour expected to be drawn out of the agricultural sector, but also rising demand would be generated for its produce of food and raw materials. Thus the traditional sector, too, would enjoy more favourable supply and demand conditions for its own modernization through the introduction of technical progress which Marx and the neo-classists had incorporated into the initial model.

The "Ricardian" model as outlined above was thought to be unworkable for several reasons. First, there did not exist, in the typical underdeveloped country -- it was diagnosed -- any big enough entrepreneurial class to mobilize the surplus, undertake accumulation, promote innovation or introduce the backlog of technology known to be available from the 'developed' countries. Secondly,

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1. W. A. Lewis: "Economic Development with Unlimited Supplies of Labour", Manchester School, May 1954.

there was little or no surplus to be mobilized. Income was so low that domestic savings were calculated to be below the critical minimum required to make the "take-off" possible. Thirdly, in this low level equilibrium trap the demand of the dominant traditional sector was not for industrial output but largely for the bare necessities, i.e., for its own agricultudal produce. There was therefore little or no home market for industry or at least, few markets big enough to utilize to the full the minimum economic capacity of industrial plants.

The "Keynesian" component of the synthesis with its heavy emphasis on government spending provided the strategy. A solution to the difficulties was to be found in intervention by the public sector. In demolishing the unstated neo-classical assumption that growth was an automatic process and by being in fact, specific to the rich countries, the General Theory helped unwittingly to draw poor countries into doctrinal community with the North Atlantic. Poor countries had always known growth to be hedged in by formidable obstacles but now they could be persuaded that all were somehow in the same boat. The sense of community was strengthened by the fact that the initiative in the development of doctrine remained in the rich metropolitan countries which were, moreover, deeply involved in managing the dissolution of the empire which the maritime nations of

Western Europe had established since the end of the 15th century. In the event, the problem of economic change even in the poor countries of the hinterland has been formulated in terms of North Atlantic history; the theory which has informed strategy has been basically the Keynesian adaptation of his still largely Ricardian heritage. Foreign businessmen would be encouraged to organize industrial production, introduce techniques from the developed countries, employ comparatively cheap local labour and sell their products -- either in their own home markets or in third markets to which they had or could gain access.

Government inducements to foreign business would be in the form of tax concessions and in the provision of social overhead: the so-called infra-structure -- education, roads, public utilities, etc. Since enough money for social overhead investment would not be forth-coming from traditional taxes, measures were to be taken to increase the effective tax rate by fiscal modernization, to broaden the tax-base by negotiating better terms for traditional exports, and to expand investible resources by securing grants and loans from the wealthier nations.

By this strategy it was expected that in the short-run, the typical economy could be transformed at a rate fast enough and yet without undue imbalances in the budget, the foreign payments or the commodity market, or without much difficulty in matching savings with investment and the supply with the demand for labour.

In the long-run, it was expected that local entrepreneurs would take over the promotional role of Government and displace foreign business as the agents of industrialization. In the process local savings would rise, technology would become more selective and more independent, and local products would create taste in wider international markets and so improve their selling prospects.

This strategy was clearly articulated by the Caribbean Commission. The best statement of the case is to be found in two celebrated essays by Professor Arthur Lewis, entitled "Industrial Development in the Caribbean" and published by that organization.[2] Economic policy along these lines has been pursued with greatest vigour by the Government of Puerto Rico but also with considerable persistence by other Governments, in particular those of Jamaica, Trinidad and Tobago, Surinam and Barbados and also by the Cuban Government between 1952 and 1957.

The evidence which we present elsewhere in this report suggests that the resulting programmes have brought less than the success expected. We believe that the shortcoming is to be laid at

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2. W.A. Lewis: Industrial Development in the Caribbean, Caribbean Commission, Port of Spain, 1951. Reprinted from Caribbean Economic Review.

the door of basic weakness in the theoretical approach to policy-making. The procedure of adopting a model deriving from experience of countries with internal mechanisms of growth, and then prescribing the missing components to be imported into the Caribbean proved an inadequate guide to action. Both the legacies of plantation economy and the new endowments of branch-plant economy have set limits on the capacity of the economies to adjust in the manner anticipated. Thus, attractive wage levels did not induce investment in labour-intensive industry on a scale needed to reduce unemployment. Nor did the shift of the traditional export sector to new products and more capital-intensive techniques enhance its ability to do without metropolitan market shelter. Nor again, has the increase in domestic product produced even a corresponding increase in local savings. Nor did the dependence on metropolitan entrepreneurship and finance diminish.

As it came to be appreciated that the strategy of development adopted in the early post-war period was not bringing the expected results, the first response of theorists and policy makers was to advocate schemes of regional economic integration.[3] The problem of development was interpreted as one of pooling limited national savings and earnings of

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3. See especially W.G. Demas: The Economics of Development in Small Countries with Special Reference to the Caribbean, McGill University Press, Montreal, 1965.

foreign exchange, of combining skewed national resources and of integrating small domestic markets all in support of programmes of import-substition. Deeper investigation into these possibilities and actual experiments with schemes of integration such as the Latin American Common Market and the West Indies Federation have however, revealed that the problems of economic stagnation and economic fragmentation are closely related and that they are a process actively promoted by certain types of national and international economic organization. At the centre of this process is the multinational corporation both in traditional agricultural and in the newer manufacturing sectors.[4]

The predominance of the subsidiary and the branch plant in Caribbean economies re-inforces fragmentation. Each Territory tends to engage in terminal activities of resource extraction at the one end of the spectrum and distribution and final assembly of imports at the other. Linkages both within and between Caribbean economies remain feeble.

It has therefore become clear that fresh theoretical initiatives are called for. Not merely in the Caribbean but elsewhere,

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4. N. Girvan and O. Jefferson: "Corporate versus Caribbean Integration", New World Quarterly, Vol. IV, No. 2, 1968 and N. Girvan: The Caribbean Bauxite Industry, Institute of Social and Economic Studies, University of the West Indies, 1967.

there is a growing number of attempts to construct economic theories more appropriate to the actual conditions in which these countries find themselves.

This is the background against which we have come to the study of industrialization in the Caribbean since the war.

A Structural and Institutional Approach

The Caribbean is fortunate in the availability of a rich supply of statistical material and of numerous studies, survey and development plans undertaken by colonial governments, international agencies, agencies, universities and national governments. There is no lack of empirical and descriptive material. For this reason, no constructive purpose would be served by yet another document of a similar kind.

The most urgent need of the area is for work which describes in detail the structures and institutions of the economy and comes to grips with the real constraints on change. No serious work can proceed without a theoretical framework within which Caribbean experience can meaningfully be described. The search for such a framework, or theory, has thus been our chief pre-occupation.

The criteria which have guided our efforts to construct a model which is realistic, relevant and useful derive from our judgement that economic policy in the region must be directed towards the achievement of structural transformation. We have thus considered it essential to identify the relationships which prevent the Caribbean economy from adjusting in the manner taken for granted in general equilibrium models.

The policy-purpose of a model necessarily affects the choice of variables and parameters. We do not believe that the undoubted technical development of economics has made the modern practice of the profession more "value free" than it was in the old days of political economy. On the contrary, we are impressed by the damage being done by economists as unwitting purveyors of dogma hidden behind the parameters of their discipline. We suspect that here is to be found the reason for a large part of the failure to devise industrialization policies more suited to the needs of poor countries. The almost complete detachment of theory from its historical and institutional context has burdened economic policy with constraints and scarcities imported from other ages and other worlds. The literature on development planning has even imposed a fixed set of policy targets as if they were the natural objectives of all societies.

Indeed without a theory it is impossible systematically to organize the rich supply of statistical material available in the Caribbean. As Myrdal has pointed out, theory is no more than a correlated set of questions to the social reality under study. Theory always has its essential function in relation to research still to be carried out. Theory leads us to pose meaningful questions. While the formation of hypotheses are generalizations induced from observation, "these generalizations about reality and their organization within an abstract framework of presumed inter-relations, precede specification and verification. They constitute 'theory' in research."[5]

This is the methodology which underlies our approach. Here is to be found the reason for the priority which we have accorded to the formulation of a set of hypotheses concerning the mechanisms which regulate the functioning of Caribbean economy. We believe, with Myrdal, that "failure to root analysis firmly in these realities invites both distortion in research and faults in planning."[6]

Our work is in the tradition of the structural approach pioneered by Furtado, Prebish, and others in Latin America, by Innis in Canada, and by Myrdal, Chenery, Seers and others in metropolitan countries. Some of these writers have re-opened the historical dimension;

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5 G. Myrdal: Asian Drama, Vol. 1, Random House, New York, 1968, pp. 24 & 25.

6 Ibid., p. 26

some have emphasized the need to devise a typology of economies and construct models specific to each; all have addressed themselves to the nature of the relationship between growth and structural change. Our greatest debts however, are without doubt to Seers,[7] whose "Mechanism of an Open Petroleum Economy" and "Accounting Framework for Primary Producers" have directly aided our work, and to William Demas[8] whose book constitutes the first comprehensive theoretical statement of the structural characteristics of Caribbean economy. We hope that eventually the continuous discourse of ideas and the on-going work of our colleagues at the University of the West Indies will form a theory of Caribbean economy which can guide economic and social policy towards a resolution of the present problems of unemployment, instability, and increasing dependence on external assistance. The obvious failure of industrialization policies, as presently practised, to solve the problems of the region, make this the most urgent task to which we can address ourselves.

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7. D. Seers: "Mechanism of an Open Petroleum Economy", Social and Economic Studies, Vol. 13, No. 2, 1964.

8. W.G. Demas: op. cit.

A Theory of Plantation Economy

We have sought to study the contemporary economic problems in the perspective of the past performance of Caribbean economy. To this end, employing the method of histoire raisonée we have constructed a series of models. As an interpretation of economic history, these models may be conceived of as successive stages in the evolution of plantation economy. We must emphasize however that our primary interest lies in isolating the institutional structures and constraints which the contemporary economy has inherited from the plantation legacy. The historical stages which underlie the models are to be seen in the contemporary perspective of successive layers of inherited structures and mechanisms which condition the possibilities of transformation of the present economy.

Our major argument is that it is the study of the character of the plantation sector and its relation both with the outside world and with the domestic economy which provides essential insights into the mechanisms of Caribbean economy. These disappear from view in the conventional aggregative Keynsian models of open economies.

Insofar as Caribbean economy is the creation of metropolitan enterprise from the start, current economic institutions in the in the region have been formed by the historical accretion of the hinterland operations of the metropolitan economy from the slave plantation to the modern corporation. It follows that the appropriate definition of Caribbean economy must include all those areas in, around, and near the Caribbean Sea which in the last 450 years have come under the influence of the sugar plantation and its characteristic culture and mode of social and economic organization. It incorporates all the Caribbean Islands, the Guyanas (English, French and Dutch), Venezuela, the North East of Brazil, parts of the coastal areas of Ecuador and Colombia, pockets of Central America and sections of the Southern United States. This is substantially the area defined by Wagley as Plantation America.[9]

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9. Charles Wagley: Plantation America: "A Cultural Sphere" in Vera Rubin (ed.) Caribbean Studies, A Symposium, University of the West Indies, 1957.

In the North East of Brazil sugar was established much earlier than in most of the Caribbean countries. Though Cuba and Puerto Rico had sugar plantations from very early in the 16th century, it was not until the 19th century in Cuba and the 20th in Puerto Rico that they came to dominate economic life.

Trinidad and some of the Windward Islands and the Guyanas were also comparative late-comers and did not become full-fledged sugar economies until the early 19th century, the Leewards and Barbados in the 17th.

Slavery in Haiti was abolished as early as the 18th century. In Brazil, Puerto Rico, and Cuba it was abolished comparatively late in the 19th. In the British territories it disappeared in the 1830's, in the French islands in the 1840's. There are therefore many differences in historical experience to be accommodated into the work.

Mercantile Character of Plantation Economy

Plantation economy falls within the general class of hinterland economy, which can be distinguished from metropolitan economy to which it bears a symbiotic relationship: the locus of discretion and choice rests in metropolitan economy. The relationship between the two may be summarily described as mercantilist.[10] The resources transferred from metropolis to hinterland may be any or all of the following: capital, proprietorship, ownership, management and labour. The initial resource situation in respect to land, labour and organization - to use Nieboer's[11] polar types - may be "open" or "closed"; open if the basic resource, land, is a "free good", closed if it is scarce. In this context we can identify numerous types of hinterlands: enclaves, settlements, garrisons, trading posts, to name a few. In the New World, the penetration of mercantile economy created hinterlands of three types, if we here ignore the preliminary and transient forms such as trading posts and military garrisons: hinterlands of conquest,

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10. See Lloyd Best: "A Model of Pure Plantation Economy" Social and Economic Studies, Vol.17, No.3, September 1968

11. Herman Nieboer: Slavery as an Industrial System, Martinus Nijhoff, The Hague, 1910.

of settlement and of exploitation. In this typology, the Caribbean plantation economy is a pure form of the hinterland of exploitation.

Hinterlands of Conquest [12]

At one extreme there is the hinterland of conquest. Here metropolitan interest is not so much in land as a productive asset, as in the organization of people to facilitate the redistribution and transfer of wealth. Accordingly, state entrepreneurship is paramount and intervention takes the form of military and administrative occupation. The privilege of participating in the venture of conquest is closely circumscribed by royal favour to exclusive ports, exclusive trading houses and favoured conquistadores. The requirements of naval and military defense of the lines of communication to the hinterland dictate a totally exclusivist form of external economic organization.

Resources flow from the metropolis to the hinterland to create infra-structure necessary for the transfer of booty and the collection of tribute. This, in effect, entails the harnessing of native labour to produce communal goods, consumption supplies and precious metals. To this end, the encomienda is devised as an appropriate

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12. This is meant to correspond to the case of Spain, the Andean America and New Spain. See Parry, The Spanish Seaborne Empire, Hutchison, London, 1966.

institution.

The surplus mobilized in a colony of conquest is divided into four shares, the encomendados having already found for themselves. There is the royal tribute, the quinto, a fixed proportion of the treasure gleaned. The remainder is then divided among three groups of claimants. First there is the element of rent accruing to the major officials resident in the hinterland and enjoying royal favour in the form of rights to land and titles to office. Second, there is the element of paniagua accruing to minor bureaucratic officialdom (the "Senior Staff") who supervise the day to day activities of the population. Finally, there remains a residual which accrues as venture profits to the merchants.

Hinterlands of Settlement[13]

At the other end of the spectrum there is the hinterland of settlement. Here mercantilism expresses itself less in the direct organization of production and more in detailed regulations concerning what may be produced and the terms and manner in which trade may proceed. Imports to the colony must come from metropolitan sources;

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13. This is meant to correspond to the case of the North and Middle Colonies and the St. Lawrence settlement of North America. See C.M. Andrews: The Colonial Period of American History, Yale University Press, 1937.

staples must be sold exclusively in metropolitan markets; the carrying trade is typically reserved to metropolitan carriers; there are prohibitions on what may be produced in the hinterland.

Hinterlands of settlement have evolved from early ventures of exploration and trade. They are inhabited by descendents of indentured labourers, soldiers, clerks, and women brought by initiative on the part of the crown, the company, or the private group.

For all practical purposes this type of hinterland is an incipient new metropole. Institutions have little chance of success if they restrict rights which were regarded as customary or even to which settlers simply aspired in the metropolis. The "open resource" situation therefore creates "open" institutions. Production is organized around the family unit.

Initially the settlers engage in production both of export staples and of foodstuffs for home consumption. Their competitive position as exporters of staples is weak and their cash earnings on that account are correspondingly small, their best possibilities for earning foreign exchange to pay back advances as well as to subsist is by selling their food surpluses to colonies specialized in staples.

The family claim constitutes a highly flexible and self-sufficient unit of enterprise. Land is free in exchange for the work of clearing it and defending it against previous and original inhabitants. The difficulty of obtaining metropolitan purchasing power and the high price of imported goods induces an inventiveness in the making of implements and other necessities of life.

A high proportion of the output of the settlers' farmstead is used for own-account consumption and investment. Efforts requiring more resources than can be mobilized by a single family are assisted by neighbours. As land is free there are no landed classes. Taxation is organized by local communities for local purposes. The ethos is democratic and egalitarian, the way of life austere and uniform. Patterns of demand here being formed have a high local content and form the basis of markets for domestic manufacturing industry.

Hinterlands of Exploitation

Between the hinterlands of conquest and the hinterlands of settlement lie hinterlands of exploitation. Here the metropolitan interest shifts from plunder and exchange towards production for trade, though it never reaches production for hinterland consumption. Whereas in the colonies of conquest the metropolis provides only military and administrative infra-structure, now it provides economic enterprise, organization and initial capital, as well. Metropolitan labour however, flows only to colonies of settlement. Here labour is brought in from other countries.

The combination of a merchant-pirate ethos with a short view and the introduction of labour into an open resource situation, governs the form of social and economic organization in the hinterland in much the same way as the mercantilist intent to transfer a surplus dictates exclusivist trading arrangements with the metropolis. Where land is free to be used for subsistence production, the recruitment of labour exclusively for export production imposes a need for "total economic institutions" so as to encompass the entire existence of the work force.[14] The plantation which admits virtually no distinction between organization and society, and chattel slavery which deprives workers of all civil rights including right to property, together furnish the ideal framework. Hence the term Plantation Economy for the particular species of hinterland of exploitation which we have selected for study here.

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14. The concept of "total institutions" comes from E. Goffman, Asylums, Doubleday, New York, 1961 and was adapted to the sociology of the plantation by Raymond Smity. "Social Stratification, Cultural Pluralism and Integration in West Indian Societies" in Caribbean Integration, S. Lewis and T. Mathews (ed.) University of Puerto Rico, 1967.

With the shift to mercantile production, the Crown is now largely passive except in framing the regulations regarding trade, production and property. It participates by dispensing titles of land ownership to favoured intermediaries. These are the lords proprietors. For a consideration tantamount to rent, they in turn, farm out their rights to joint-stock trading companies under the auspices of which ventures are undertaken. Only this unit of enterprise can mobilize the enormous concentrations of capital needed. The trading company initially tends to encourage pooling of capital and sharing of entrepreneurship. Partnership is common. Stock is ventured by lord, merchant, and planter, alike.[15] But even if it is planters who transport their persons to the hinterland, it is by and large a merchant's game and it is he who takes the title of venturer.

Since the economy produces almost exclusively for trade with the metropolis, the merchant occupies a strategic position. He operates at the metropolitan centre where finance and shipping are organized, supplies mobilized, and output disposed of. He is particularly well placed to secure his share of the product, whatever the state of trade.

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15. R. Pares, Merchants and Planters, Economic History Society, Cambridge, 1960, pp.1-13.

In the colony of exploitation then, the typical unit of enterprise is the joint-stock trading company. This mobilizes the venture capital, and converts it into fixed capital - slaves and equipment, - as well as into working capital - the "magazines" of provisions, tools and supplies. The plantation is the typical unit of production. Save for supplies produced and consumed on own-account, it provides a single crop. Accordingly, the hinterland economy is comprised of a single sector, fractured into plantations. Each plantation is a self-contained, self-sufficient, "total" institution, encompassing even its own civil government. Military government is provided by the metropolis. The pure plantation economy is modified only by the existence of a few nomadic native survivors, runaway slaves who resist the hegemony of the plantation and small settlers from the metropolis.

The unit of enterprise and the unit of production are linked by the processes of supply and disposal. Within the framework of mercantile regulations laid down by the metropolitan government, trade and payments are effected as "intra-company" transfers and book transactions. The only breach in the closed nature of the business occurs when the metropolis is unable to furnish provisions. This opens the way to the interloper. Best placed to exploit the opportunity are colonies of settlement attached to the same metropolis.[16] By dint of their disadvantage in staple production, they are most eager to earn exchange and they alone have the required surplus of food and stores. Besides, being within the same mercantile walls, they are better able to finance a triangular trade through the metropolitan merchants than potential competitors.

Little Structural Change in Three Hundred Years

The central thesis of this study is that the Caribbean economy has undergone little structural change in the three hundred years of its existence. By this we mean that the character of the economic process in the region seems not to have been significantly altered over the period. Neither the modifications which through time have been made to the original institutions, nor the new institutions which have from time to time been incorporated into the economy, have relieved its dependence on external development initiatives. The economy remains, as it has always been, passively responsive to external demand or any external investment, but almost exclusively to metropolitan demand and metropolitan investment.

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16. R. Pares: Yankees and Creoles, Longmans, London, 1956.

What is postulated therefore, in all variants of our model, is a hinterland tied, by its nature, to the metropole. The tie may be effected in the first place by political association, but is maintained by the operations of the predominant economic institutions. Typically these institutions are subsidiaries or affiliates of metropolitan enterprises.

Model One: Pure Plantation Economy

At the time when the Caribbean economy first assumed this characteric the predominant economic institutions were invariably the sugar plantations. The early and formative phase of plantation economy thus belongs to the period of the old mercantilism which started with European exploration and colonization at the end of the 15th century, and terminated after its rejection by the American colonies and the subsequent dismantling of the exclusivist structures of Corn Laws, Navigation Acts, Timber and Sugar duties in the middle of the 19th century. The advent of the new order was hastened by the accession to political and economic power of England's middle class and the emergence of European and later, American nation states in the wake of the French Revolution. This initial phase in the structure of the international economy bears a rough correspondence to the establishment of the slave plantation in the hinterland. This first phase thus ended with Emancipation.

This is the phase from which Pure Plantation Economy derives. Model One forms the matrix from which successive modifications derive. It is our contention that the basic mechanisms of adjustment of Pure Plantation Economy continue to operate in contempory Caribbean economy. For this reason, Pure Plantation Economy forms the subject of Volume Two of this Report.

Model Two: Plantation Economy Modified

The major modification of plantation economy which followed Emancipation consists of the creation of a labour market and a residentiary sector. This phase bears a rough correspondence with the period of North Atlantic industrialization in the 19th century. Initially dominated by Britain, international transactions were governed by rules of the game defined by the City of London and institutionalized in the international gold standard. In spite of the re-emergence of protection towards the end of the 19th century and the extension of political colonialism in the 19th century, trade broke out of the narrow confines of the old mercantilism. It was a period of relative "laissez faire". It witnessed large scale movements of European settlers across the Atlantic and heavy investments in transport created the basis for expanded trade to meet food and raw material requirements of the industrializing metropoles. The conditions presented favourable conditions for the creation of the nation-states of the Americas. The close of the period can be dated to the years which followed the unsuccessful efforts to restore the pre-1914 "rules of the game", ending in the slide of commodity prices and the collapse of the world economy in the 1930's. This phase we have termed Plantation Economy Modified. No rigourous treatment of this transitional phase has yet been undertaken. aspiring PhD's take note!

Model Three: Plantation Economy Further Modified

Contemporary Plantation Economy is characterised by the active intervention of government in the hinterland economy, and by the rise of the multinational corporation as the major vehicle of private international capital movement. It thus commences with the breakdown of the economic and political order in the Caribbean in the late 1930's, includes the interlude of the Second World War, and extends to the dissolution of political colonial systems and the establishment of the new nation states of the post-war period. While the operations of multinational corporations in resource extraction are a direct continuation of the old mercantilism, the involvement of these corporations in forward integration from importation and distribution to "branch plant" assembly is one of the characteristics of the new mercantilism of the post-war period.[17]

The imperatives of competition have created the multinational corporation which seeks to minimize risks by converting market transactions into intra-company transfers; by generating its own capital by internal savings; and by creating a captive market through taste-formation and product-differentiation. The corporation seeks to capture the "quasi-rents" of technological progress through operating a world-wide strategy of corporate planning and control. In these new conditions of international trade, private portfolio capital has been supplanted by national and international governmental loans and aid. Hinterland economies thus find themselves in a new mercantilist relationship of dependence on international corporations and metropolitan governments. The entrepreneurial role has reverted to the corporate head offices located in the metropole. The re-assertion of the dominance of the traditional export sectors in Plantation Economy thus leads us to undertake an examination of the role of the mineral sectors in the post-war economy. Volume Four of this report contains studies of the Bauxite and Petroleum Sectors in the Caribbean.

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17. For a discussion of the new mercantilism, see Kari Levitt, "Canada, Economic Dependence and Political Disintegration", New World Quarterly, Vol. IV, No. 2, 1968, p. 59-139. See also W.A. Williams, The Contours of American History, Quadrangle Books, Chicago, 1966, and Kari Levitt, Silent Surrender, the Recolonization of Canada, to be published by Macmillan Company of Canada, 1969.

In the remainder of Volume One of this report we present the outline of a general theory of Caribbean economy, a review of analytical approaches developed by other writers and a summary description of the experience of Post-War Caribbean Industrialization. In Volume Three is to be found our Ideal-Type Accounting Framework for Plantation Economy Further Modified, the introduction of the concept of the National Capacity to Import, and an essay on the general characteristics of the contemporary mineral industry in the region.

A Model of Continuity and Change

Our Outline Model of Plantation Economy Further Modified identifies, therefore, both the legacy of structures from the past, and the new structures introduced in the current period. As such, it comprehends the whole sweep of Caribbean history.

This is feasible not so much because the history is comparatively short but because we postulate structural continuity over time. Also, it is feasible in part because of the smallness and especially because of the structural simplicity of the typical Caribbean economy.

The structure of production is divided into three parts, depicted in the Ideal-Type Accounting Framework by the allocation of producing sectors to three main groups.

There is the Traditional Export Sector. Conceptually, this is meant to be the legacy, as modified over time, from the foundation period. It dominates the economy.

Then there are the Traditional Residentiary Sector and the New Dynamic Sector. In concept again, these are meant to be the fragments successively adjoined to the Traditional Export Sector in two subsequent periods into which we have divided Caribbean economic history.

Each of these three sectors is characterised by institutions peculiar to itself - at least, so far as their ideal patterns of behaviour are concerned. However, none of the three sectors is exclusive of institutions whose actual behaviour is not peculiar to itself. It is largely in this regard that the Model is impure.

The purpose of this particular impurity is to accomodate the fact of structural continuity under conditions where the aim of policy is to achieve structural change. The manifestation of structural continuity is a tendency for institutions to perform as if they belong to the Traditional Export Sector, although their ideal patterns of behaviour place them in the Traditional Residentiary or New Dynamic Sector.

The extent to which this takes place is a measure of the degree to which the Traditional Export Sector defines the terms of emergence and maintenance of new sectors notwithstanding that one of the strongest motivating factors for establishing new sectors is to escape from the influence of the old.

On the other hand, the extent of untypical behaviour on the part of institutions in the Traditional Export Sector is evidently one expression of change - perhaps even of change induced by the existence of the other sectors. This, however, is quite different from any change entailed by reform of the typical behaviour of institutions in the sector.

This latter sort of change is not excluded from the Model. Nor is its inclusion connected with the emergence of new sectors. It is incorporated into the scheme by modification of the legacy itself, as that is handed down from period to period and from Model I to Models II and III. But the modification is never sufficient to alter the character of the structural legacy and the essential relation between the Traditional Export Sector and the rest of the economy.

The attempt to build structural continuity and structural change into the Model without adopting the over-simplification of pure sectors and pure institutional types, means that in the allocation of activities between our three major sector groups, we have in fact employed not one, but three criteria. They are: the period of entry of the activity; the type of producing institution; and, the type of actual behaviour of institutions.

In some cases, these criteria proved to be in conflict. In the cases where sufficient advantage could be gained, we varied the weights assigned to them. Hence, on the basis of typical behaviour, we have placed Other Agricultural Exports with Traditional Exports, in spite of the fact that the typical producing institution is profoundly different from that in the Modified Traditional Sector. The advantage gained here was in placing together activities marked by an important feature of Hinterland Economy; heavy dependence on metropolitan demand.

In contrast, we have kept apart in the New Dynamic Sector, manufacturing and tourist activities. In terms of typical institutions and characteristic behaviour, these are very much like Traditional Exports. The obvious advantage of keeping them separate, lay in not obscuring the traditionalist orientation of the current attempts to modernize the economy.

We have placed the Mineral Exports in the Traditional Export Sector. In relation to their typical institutions and their characteristic performance, these are akin to Traditional Exports. They have in fact, greatly reinforced the Sector.

Conclusion

Here it may be pertinent to follow Myrdal in warning the reader "that the text is not sprinkled with question marks but, for convenience is written largely in declarative form should not obscure the role and function of the generalizations contained in it". Our work is offered in the same spirit. We believe that it opens the way for a more careful examination of the real constraints on industrialization, diversification and transformation in the Caribbean.

OUTLINE OF A GENERAL THEORY OF CARIBBEAN ECONOMY

The frustrations of the post-war industrialization programmes in the Caribbean can only be understood in the light of the legacy which all the territories have inherited from their common plantation history. In spite of important differences, the regional economies are embedded in a well-defined set of institutions and structures and are characterised by a distinct pattern of economic behaviour. Our central hypothesis is that this plantation legacy represents an endowment of mechanisms of economic adjustment which deprive the region of internal dynamic. More specifically, it involves patterns of income distribution and disposal which discriminate against economic transformation. We therefore begin our study with an analysis of the nature of Plantation Economy. What we present are a series of generalisations meant to apply to all variants of the type.

Plantation Economy is a species of Hinterland Economy: it forms part of the Overseas Economy of the Metropole. Its role is to produce staples required by the Metropole. The major source of its entrepreneurship and of its finance, and indeed, the locus of many key decisions are metropolitan. The Plantation Hinterland is essentially a geographical area of production passively incorporated into the world economy.

Plantation Economy is not therefore a unit to which considerations of economic welfare can uncritically be applied. The national economy must be distinguished from the domestic economy as defined in the terms of national accounting. The former is the relevant unit for discussions of economic welfare. The latter is a geographical extension of the metropolitan economy. It is, literally, a Hinterland.

A Plantation Hinterland does not trade in the sense that is implied by the theory of international trade. It does not export in order to complement domestic supply. Nor does it actively seek to exploit the comparative advantage of its national economy. Its trade is ancillary to the production of supplies required in the metropole. In this sense, it imports in order to export and its imports are "intermediate" goods in the earlier stages of metropolitan production.

The Rules of the Game

The relationship between the hinterland and metropolis is defined by certain "rules of the game".

Of these, the first specifies the division of labour. The hinterland is confined to terminal activity: primary production at the one end of the spectrum and distribution of consumer goods at the other end. This we have termed the Muscovado Bias.

The second relates to the carriage of trade. Here goods are almost entirely transported by metropolitan carriers and associated services are provided by metropolitan intermediaries. This is the Navigation Provision.

The third rule specifies the character of the Hinterland monetary system. The banking system is dominated by metropolitan bank and non-bank financial intermediaries. Hinterland currency is typically fully backed by metropolitan assets and fully convertible into metropolitan exchange. This is the Metropolitan Exchange Standard.

Hinterland trade is conducted within a framework of mutual preferences. Exports enter the metropole at lower tariffs than rival output and are typically accorded larger quotas. In the extreme case, facilities in the metropole are specific to the processing and distribution of materials drawn from the hinterland. On the other hand, metropolitan consumer goods are accorded preferential entry into the hinterland. Together these provisions are termed Imperial Preference.

The Dominant Unit of Production

In a Plantation Hinterland, the dominant unit of production is a subsidiary of a metropolitan firm. Its purpose is to extract the staple. To this end, it is organized as a total institution. That is to say, in regard to the Hinterland, it tends to be a self-contained unit. Its primary links are always external and almost exclusively with the parent firm in the metropole. From this self-contained character of the production unit are derived certain specific patterns in the markets for commodities, labour, land and capital, in price and wage formation, and in accumulation and technical change.

In regard to the labour market, the total institution tends to be a total social institution encompassing its own resident labour force. Labour needs to be appropriately trained, to be available at cheap wages and in adequate supply during high seasons. To this end, labour is imported and land is engrossed so that the labour force has little option but to sell wage-services. Education and training are made specific to the production of the staple and tasks requiring expertise of a kind which gives occupational flexibility are reserved for a temporary and privileged imported cadre.

In regard to the commodity structure of output, the typical unit of production concentrates its resources on the direct production of the staple. Since it is established when export prices are high, provisions and supplies tend to be imported. Under these conditions, the diversion of land and labour to the production of these intermediate goods is more expensive than importing. Thus these resources are from the beginning highly specialized in the direct production of the staple. This skewed pattern of land and labour allocation persists when the industry matures, a secular decline in the terms of trade sets in, and adjustment becomes necessary.

It follows from this pattern of commodity production and supply that there are few backward linkages within the Hinterland and limited forward linkages to further stages of processing. What is more, when capacity is established to supply goods and services ancillary to the extraction or elaboration of the staple, these activities tend to be undertaken within the total institution. Thus, on both accounts, the spill-over or "spread" effects on the local economy are relatively feeble.

When the provisioning of the labour force with consumer goods and services is undertaken domestically, a significant line of linkage with the hinterland economy is created. But here, too, the impact is limited. Specifically, there are three types of constraints.

We have noted the resource constraint which concentrates capacity in export production. In addition, there exists a taste constraint. The initial pattern of supply forms preferences for imported provisions. Thus, even when the decline of an export staple releases resources it is difficult to switch them to the profitable production of residentiary output.

The third constraint is an institutional one. The production and distribution of consumer goods and services needed for employees tend to be undertaken within the confines of the total institution. Domestic demand is therefore fragmented by firm and it is only a residual which is freely directed towards the residentiary sector of the national economy.

Income and Employment Determination

A plantation hinterland is also characterised by a distinctive process of income and employment determination. The orientation of the economy towards the metropole implies that activity is determined by the level of metropolitan domestic and re-export demand for the staple, and by the share of the market commanded by the particular hinterland. Aggregate metropolitan demand may or may not be income elastic. But in any event, it is inherent in the situation that demand for the staple output of one particular source of supply cannot remain buoyant for any extended period of time. Lower cost suppliers inevitably enter the market.

This is for two reasons. The first derives from the extractive nature of hinterland operations which eventually result in the depletion of the natural resource. The second relates to the effect of the pattern of income distribution on the allocation of investment between hinterlands and on the differential incidence of technical progress.

The dependence on metropolitan entrepreneurship and capital in the dominant sector of the hinterland implies that all property incomes from this sector accrue in the metropole. So long as reserves of the resource are enough to sustain the competitive position of the hinterland there will be re-investment and new investment in the widening of extraction facilities. The hinterland economy expands. However, when maturation sets in as reserves are depleted, the metropolitan investors have an option. Either they may deepen their investments so as to maintain unit costs or they may switch to altogether new terrain. Typically, the latter alternative is the more profitable. For one thing, technological improvements may be more readily introduced in capacity which is being newly established. For another, the fact that processing facilities are located in the metropolis place the firms in a flexible enough position to exploit this option without sacrificing the external economies associated with the stages of elaboration and marketing.

The resulting expansion of world capacity erodes the competitive position of the more mature hinterlands. Profits decline and these hinterlands are forced to seek ways to adjust.

Emergence of a National Economy

The export sector tends now to grow at reduced rates or even to contract. The main consequence of this is the reduction in the rate of growth of demand for services provided in the hinterland, and most importantly in the demand for labour.

Institutionally, the encompassing character of the typical unit of production is now modified. The plantations find it expedient to shift the incidence of redundancy on to the population by at least a partial switch from bound labour to a quasi-proletariat. Part of the labour force is now moved out of residence onto plots from which they cannot derive sufficient income without engaging in supplementary plantation work. This adjustment requires the release of activation of land and other co-operant factors. There emerges a national economy which is complementary to the traditional export sector.

This national economy however, is circumscribed by the conditions under which it is founded. First of all, its endowments of skills and crafts is limited by the previous specialization of the labour force in plantation work. Secondly, the amount of land which the plantations make available is limited by their need to keep land in reserve and their desire to secure access to labour time in the event of temporary revivals in market fortunes. Thirdly, the dependence of this economy on wage rather than local property incomes both limits investible surpluses and narrows investment opportunities.

Fourth, the inherited structure of demand favours imported rather than residentiary produce. Finally, the instruments of the state are highly specialized to the provision of law and order rather than to the promotion of economic transformation.

The overall effect is that the national propertied class is born in circumstances which restrict its capacity for innovation and self-assertion, and stunt its growth. A national economy emerges with a bias towards the production of output requiring traditional skills and serving traditional demands. Specifically, the new sectors either produce minor staples for export with the assistance of metropolitan distribution agencies or services for residentiary consumption including commercial services associated with importation.

Thus, contrary to the experiences of other economies, the plantation hinterland does not evolve from subsistence units to small-scale, wage employing business and then to large-scale corporate enterprise. Rather, as we have seen, the sequence begins with total institutions employing vast capitals on a commercial basis. It is only later that it passes to wage labour and to family businesses. The national economy is a creation of the plantation sector and local enterprise comes into existence with a distinct plantation heritage. Metropolitan enterprise in the traditional export sector is still paramount. The plantation remains the dominant and exemplary unit of production. A somewhat modified total institution remains the representative firm. It follows from this that plantation economy is in no sense an "enclave" economy.

Mechanisms of Adjustment

The pressure on the traditional export sector eventually forces the economy to adjust. The presence of metropolitan enterprise with a continuing interest in its investments governs the nature of the adjustment. In theory, there are two options. First, the techniques of producing the traditional staple may be rationalized to cut costs. Second, the continuing ties with the metropole admit an increased reliance on imperial preference. In practice the two options are complementary. A rationalization of the total institution and a complete transformation would involve expenditures on a scale denied by the earning capacity of the economy, and social upheaval of a kind which is likely to place intolerable strains on the polity. We have seen that metropolitan enterprise has the alternative of investing in other locations and that national enterprise is not well placed to undertake speedy transformation. It is in this context that that imperial preference becomes attractive to both local and metropolitan property-interests. The effect of this convergence of needs is to create an enduring preoccupation with the maintenance of traditional mercantile ties.

In the short-run, financial support from the metropole permits greater employment in the traditional export sector. Although it is likely to discourage increased productivity and depress wage-rates, it nevertheless retards the decline in the aggregate wage-bill. The further effect of this is to maintain demand for output produced for local consumption by the new residentiary sector. However, the stimulus is never enough to assign the sector a leading role in the process of transformation.

Thus the coalition favouring protection is reinforced by the small producers in the residentiary sector as well as the wage earners in the traditional export sector.

However, the short-run solution of imperial preference adopted by the entire domestic economy involves a sacrifice of the long-run interests of the national economy. The price of postponing transformation is the loss of the income, employment and internal dynamic which would have resulted had protection been abandoned and if the economy had embarked on a programme of import-displacement and diversification.

The consolidation of vested interests in protective shelter provides a prop to an economy which is fundamentally unviable. Occasional windfalls brought by fortuitous changes in market conditions provide additional supports but the economy remains in a precarious balance. It can be rescued only if the discovery of new natural resources revives metropolitan investment on a major scale.

In the absence of such good fortune it is inherent in the situation that the already slender base is progressively eroded by a widening gap between unit costs and market prices set by more efficient hinterlands opened by new metropolitan investment. The outcome is a reduction in the value of any given level of preferences and an increase in the support necessary to maintain viability.

The level of preference needed to maintain the standard of living is further inflated if population is growing. The ratio of labour to land in the residentiary sector rises, leading to the fragmentation of holdings and to technological retrogression, to low productivity, labour intensive techniques in the embryonic industrial trades and to underemployment in the services. In these circumstances, the only recourse of the economy is to export labour. It follows that the more restricted are the opportunities for migration, the greater is the pressure for a total transformation of the economic order as large-scale unemployment becomes endemic. At best, an uneasy equilibrium is achieved on the brink of social revolution; at worst, there is a total breakdown.

<u>Breakdown of the Staple Economy</u>

When the system breaks down its path forward becomes indeterminate. The extent and type of transformation which follows depends, in the first place, on whether or not the traditional mercantile ties are severed. In an island hinterland which is by definition weak and unviable, the most likely possibility is metropolitan intervention to restore order. In this event, there is no modification of the institutional base. The other possibility involves the elimination of any important distinction between the national and the domestic by the localisation of ownership in the traditional export sector.

In both cases there are variants to be distinguished for the purpose of studying problems of transformation. Where the institutional base is maintained, it is useful to make a distinction between hinterland, which discover new major staples and those which establish what may be called quasi-staples. Where the institutional base is altered, and the old metropolitan ties are cut, there are two alternatives: the traditional export sector may be maintained intact or it may disintegrate. In the latter case the economy ceases to be a hinterland economy though it may or may not participate widely in international trade and may or may not stagnate.[1] The former case implies that a quasi-metropolitan relationship is formed

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1. An example of this case is Haiti.

in order to solve the problem of external marketing which is posed.[2]

The distinguishing features of a hinterland which enters into a quasi-metropolitan relationship are two. First, it is to the local entrepreneurship (private or public) that the property incomes of the export sector accrue. Thus, subject to the size of savings, there is full flexibility in the allocation of investment and at least, some flexibility in the choice of techniques. There remain however, the problems of export pricing and security of export markets. These may restrict the freedom which the economy enjoys on account of having localised ownership of the traditional export sector.

Secondly, the act of changing external metropolitan affiliation necessarily disrupts established patterns of supply, taste and techniques of production. It eliminates the traditional commercial interests. The immediate effect is a stimulus to local entrepreneurship. Shortages must now be met by drawing on local resourcefulness. However, the quasi-metropolitan relationship is bound to place pressure on the economy to accept supplies and techniques from the metropole. In

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2. This situation describes, for instance, contemporary Cuba.

this context, it is important that, on account of having localised the dominant sector, the government has greater freedom to resist this pressure by manipulating fiscal and monetary policy and other instruments of economic control.

In the case of a hinterland which leaves its institutional base unaltered but does not discover a new major staple, the only resources available are its location and cheap labour. It is only if this resource can by employed to establish quasi-staples that it is in the interest of the metropole to keep the hinterland passively incorporated into its Overseas Economy.[3] The quasi-staple sector tends therefore to be characterised by service activity.[4] There results an extreme case of an economy which imports in order to export, in which local initiatives are limited, in which the wage-bill of the export sector is the main contribution to the national economy. In such an economy, government expenditure is necessarily heavily financed by metropolitan grants.

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3. This is the case of Puerto Rico, Barbados and the Leeward Islands.

4. Examples of such service activity are finishing-touch assembly manufacturing, tourism and the provision of labour to the metropole by emigration.

Appearance of a New Major Staple

In the event that the economy is salvaged by the discovery of a new major staple, a fresh cycle of expansion and maturation is initiated. However, in much the same way as the national economy before it, the new external sector is adjoined to the domestic economy with a plantation legacy. When a new natural resource is discovered, the national economy has neither the capital nor the entrepreneurship nor the international marketing experience to organize production. Nor does it possess the know-how. Indeed, its effective resource endowment is continuously being re-defined less in terms of local potentialities and indeed, almost exclusively in relation to metropolitan demand and technological progress.

The economy is pressed therefore into a perpetuation of its traditional role as a hinterland. The effect is a renewal of links with the metropole which continues to be the source of entrepreneurship and capital. This is the consequence of the initial Muscovado Bias. The metropole derives cumulative benefits in the form of external economies and a self-perpetuating advantage in its bargaining position. Thus it is the old mercantilism which gives birth to the new.

Although the relationship between the metropole and the hinterland, between the parent firm and the subsidiary and between the new export sectors and the national economy remains essentially unaltered, the forms within which it expresses itself are different. Modifications necessarily arise from changes which have been taking place both within states and in international economic and political systems.

The New Rules of the Game

It is no less feasible and in any case, largely unnecessary for the rules which define the relationship between the hinterlands and metropoles to be formally articulated. Custom now supercedes law. At the level of the general institutional framework, the persistence of the metropolitan-hinterland relationship now tends to be effected through the terms of multilateral and bilateral agreements and through the rules of international and regional agencies.

In theory, the hinterlands are free to adopt more independent monetary systems, to establish their own facilities for production elaboration and import-displacement, to engage in multi-national trading beyond the frontiers of the metropolitan system, to pursue commercial policies which discriminate against metropolitan supplies and to arrange their carriage in the cheapest bottoms. In practice, however, the rules of the international agencies and the agreements which are contracted between metropoles and hinterlands are not impartial. Because of the difference in productive structure, in technological and financial strength and in the degree of flexibility which each group enjoys when operating in the international economy, the effect is often a perpetuation, if not an exacerbation of the traditional dependence.

At the level of the unit of enterprise, the firm in the metropole is now a tightly knit unit complex combining capital, entrepreneurship, and technology within a corporate entity. The dynamics of competition and concentration have called forth oligopolistic forms of organisation which transcend national frontiers. The operations of the multi-national corporation differ both from those of the initial merchant-planter association and from those of the transitional coalitions of metropolitan rentiers and entrepreneurs. The corporations engage in long-term planning and their allocation of investment between hinterlands forms part of an overall competitive strategy. This involves a much more systematic switching of investment funds between hinterlands and places a very high premium on exclusive control of subsidiaries. The corollary of this is that loan operations even to independent metropolitan entrepreneurs become exceptional and direct investment by the corporation in the hinterland becomes the predominant form of penetration.

Big Companies and Small Countries [5]

The typical unit of production of the new major staple therefore tends to be large in scale and to be on the frontiers of automated technology. Moreover, it now forms an integral part of a corporate unit of enterprise whose operations can easily be larger than those of an entire island hinterland and are almost always larger than those of the hinterland government.

Owing to the high degree of mechanization, the share of the new staple in Gross Domestic Product and National Income far exceeds its contribution to employment. Moreover, the small share of the wage bill in total cost renders its profit position relatively insensitive to increases in hinterland wage rates. This places the working force in a stronger bargaining position. Furthermore, the multinational character of the unit of enterprise induces the adoption of the labour standards of the metropole and admits the participation of metropolitan Trades Unions in the organization of hinterland labour. Still further, the subsidiaries typically

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5. See D. Seers: "Big Companies and Small Countries" *Kyklos*,

engage in a continual process of deepening their capital which achieves a high rate of increase in output per man. On this account, the sector is thus continuously shedding labour which in the particular conditions of superior labour organization in the export sector, further reinforces wage differentials in the domestic economy.

Owing to the small share of wage income in total costs and the large share of property income, the retained earnings and depreciation allowances of this dominant export sector constitute a substantial part of gross domestic savings. These savings however, do not accrue to the national economy but to the parent companies which control the Overseas Economy. Thus, the only purposes for which they are available are for rationalization or expansion of the establishments in the hinterland from which they are derived or in affiliated establishments in other countries. The savings resulting from distributed profits accrue almost exclusively in the metropole.

Thus the only means for the national economy to share in savings of the new sector is by the intervention of government to levy taxes or to secure partial ownership. Because of this orientation towards the leading sector the government therefore assumes the major role in the hinterland economy. However, both the importance of this role and freedom with which it can be pursued are circumscribed by the pattern of evolution of the new staple.

Constraints on the Local Government

In the foundation period, the government is under great pressure. It is expected to ensure that the economy be salvaged from the stagnation and unemployment which marks the end of the cycle associated with the previous staple. In practical terms, it has to decide upon the conditions of entry to be accorded to metropolitan enterprise seeking to exploit the local natural resource. In the particular bargaining situation, the governments are handicapped by the absence of information in respect of the real potentiality of the resource. Moreover, it is inherent in the situation that they have far less information than the companies concerning the economics of the new industry. They are therefore inclined to make more concessions than may be necessary to attract the prospective investors. One effect of this is that the metropolitan corporations are likely to gain control of extensive reserves of the natural resource - thus making it more difficult for rivals to enter at some later date. Another effect is that the initial tax rate is low and the effective yield may even be negative owing to inflated depreciation and investment allowances and due to the provision of infra-structure at public expense.

The main contribution which the new establishments make to the national economy consists in the boost to wage employment and to the demand for local materials associated with a construction boom.

Once the facilities have been established however, the position of the government becomes stronger because the metropolitan investors now have a stake in the hinterland. In this Golden Age of the new staple, the yield to the national economy can be increased by a rise in the wage rate, in the tax rate, in the export price and in the scale of output. There are however, limitations on the extent to which the public sector can use its powers to augment national income and government revenue. The integrated character of the companies with their metropolitan controlled complexes permits a certain flexibility in manipulating the declared export price, and in choosing the locations where output may be expanded.

Thus, ultimately, whatever the tax rate the government levies, the actual yield to the national economy is determined by the companies. In this context, a high tax rate implies a high yield only because in the Golden Age, it usually pays the company to maintain the viability of the hinterland economy. It is for this reason that the bargaining position of the hinterland government is at its strongest.

The government's interest is as much in the maximization of revenue yield as in the direct national income yield. The reason for this lies in the comparatively low employment generated in the traditional export sector. In the context of an island hinterland with limited land and limited residentiary transformation, the responsibility for employment devolves most heavily on the public sector. There thus tends to develop a conflict between organized government and labour (in the export sector) over the division of the national income and of foreign exchange earnings.

High wage rates in the export sector exert an upward pressure on the government and residentiary sectors, thus inhibiting employment creation. Furthermore, the expenditure patterns associated with higher wage rates typically imply a rising propensity to import consumer goods and thus depress the level of effective demand directed towards residentiary suppliers.

It is for both these reasons as well as the obvious one that larger taxation revenues gives the government more direct means of determining the priorities as well as the level of national expenditure, that there is a conflict over the distribution of national income and foreign exchange between the public and the national private sectors.

Problems of Transformation

Underlying the conflict is the need for transformation of the residentiary sector. Above all, conditions must be created under which national entrepreneurship can be drawn from the margins to which it has traditionally been confined by the plantation heritage and directed towards the task of economic reconstruction.

When the export sector is in an expansionary phase, and generating high levels of income and revenue, the government is financially strong enough to initiate the process of diversification. But in the context of the institutional framework which has been inherited from the past, these attempts are typically frustrated. The restraints are social, political and economic.

During the boom, political and social limitations express themselves principally in the inability to control organized labour, to select patterns of investment which appear to discriminate against particular racial, cultural or class interests and to resist employment patterns tailored to the needs of political support.

Equally, if not more constraining are the limitations placed on monetary and commercial policy by the rules of the international agencies and the terms of bilateral and multilateral agreements. The heavy dependence on metropolitan markets, investment and technology is inconsistent with the manipulations of the instruments of economic control necessary to change the pattern of taste, wage and price formation. Specifically, when the export sector is generating a high rate of growth of national income and foreign exchange earnings, the "rules of the game" do not favour measures to impose controls on the use of foreign exchange. When the balance of payments is not in obvious "fundamental disequilibrium", import controls are not internationally respectable. Yet it is precisely during an export staple boom that the potential resources available for transformation are greatest.

At such a time control over imports has the effect of diverting considerable foreign exchange resources from consumption to development requirements. It brings about a change in the composition of imports. Prices of food rise, thus providing one of the conditions necessary to induce a larger supply of domestic agricultural output. The rise in the price of other consumer goods and indeed, the total unavailability of luxury and semi-luxury imports is a form of forced post-ponement of consumption, placing command over resources in the hands of the public sector to undertake essential expenditures. In an open economy, this is an alternative to control of money wages or higher taxation. As an instrument of development policy it has the advantage of being more selective and discriminatory in its impact.

Because however, the governments are restricted in their ability to mobilize and re-allocate internal resources they are forced into the only course remaining open to them - external borrowing and concessions. Thus, development programs aimed at the diversification of export and residentiary activity are typically based on traditional reliance on metropolitan capital and entrepreneurship.

Operationally, this entails the attraction of metropolitan subsidiaries by offering a range of incentives and concessions. The hope here lies in the assumption that modifications are likely to be introduced in technology and marketing.

So far as technology is concerned, it is hoped that the availability of cheap labour will induce metropolitan branch plants to introduce labour-intensive techniques suited to the conditions of "surplus labour" in the local economy. As regards markets, the hope here is that the traditional pattern of production of one of a few staples for export to the metropole will be replaced by an export basket diverse enough to bring the economy more flexibility in international competition. Finally, there is the further hope that entrepreneurhsip and skills will increase by means of a "learning process". If these hopes were to be fulfilled, dependence on traditional metropolitan sources of capital and entrepreneurship would be a transitional phase: the growing income resulting from these initiatives would eventually result in a higher rate of national saving and investment, and in the increasing ability of the economy to be self-sustaining.

In point of fact, this strategy of "industrialization by invitation" does not bring transformation. Rather it re-inforces the traditional institutions of plantation economy. The outcome is the emergence of a residentiary sector which engages in import-replacement, rather than import displacement. The importation of parts and components takes the place of the importation of finished articles. What is more, "finishing touch" consumer goods industries catering for the domestic market create a new rigidity in the import bill in the form of political pressure from wage-earners employed in these assembly-type industries. A reduction in imports of intermediate components and parts creates redundancy and unemployment. The combination of protection and income tax concession with product differentiation fragments the local market, which is in any event not very large. The outcome is that the economy is burdened with a manufacturing industry producing too many similar products at high unit cost. These industries typically employ few workers, import a large part of their supplies, and contribute little or nothing to government revenues. Indeed, when the substantial public infra-structure expenditures are charged against these industries, their contribution to the public sector is negative.

In effect the economy is still engaged in terminal activity. Internal linkages remain weak. Imports of final goods yielding customs revenue have been replaced by the duty-free import of semi-finished goods assembled by a relatively small labour force employed by firms which pay little or no income tax and receive large subsidies in the form of public services. The availability of "cheap labour" typically fails to attract export industries. In part this is due to the increasing tendency of metropolitan manufacturing firms to establish subsidiary production facilities within the countries, of common market areas, to which they then export materials and components. In part it is due to the fact that the cost of labour is not low at all compared with other poorer countries.

In these conditions, the distribution of income resulting from the induction of branch plants into the economy re-inforces the traditional weakness of the local capital market. Funds which find their way into commercial banks by way of personal savings from higher local incomes are not, in general, made available to local entrepreneurs. Metropolitan commercial banks prefer to extend credit to the distribution sector or to make personal loans to finance the purchase of cars or other durables, which are either imported or locally assembled from imported components.

Although the strategy of transformation by industrialization was originally derived from the belief that the shortage of land imposed a physical limit to the extension of local food production, import substitution in agriculture has been more, rather than less successful than in manufacturing. But here also, the constraints are those imposed by the traditional structures: the patterns of land and other resource allocation, the taste for imported foods, the difficulties of access to finance, and the structure of distribution channels, to mention only the most obvious.

The result is that the typical manufacturing establishment is taker of highly specific technology, tied to imported tastes, imported intermediate and capital goods, and imported managerial personel and organizational procedures. The result is to deprive the manufacturing sector of the dynamic which the early theorists who formulated the program of "industrialization by invitation" believed it would bring.

It is evident that the dynamic for transformation derives from pressures exerted on domestic suppliers of consumer and intermediate goods. This is the main mechanism by which are induced secondary rounds of employment and income in the domestic economy. The typical manufacturing enterprise in the Caribbean relies on infra-structure established by the government, on inputs imported from metropolitan sources, on tastes formed by free exposure to imports, and on consumption created by the expenditures of the large corporations in the traditional export sector. While it is obvious that the residentiary sector benefit from the stimulus of purchasing power, it appears that it is only when there is an acute shortage of imported goods - such as during unusual conditions of the Second World War - that residentiary activity, including domestic agriculture, responds.

The failure of employment to increase as fast as the labour force, the consequent rising number of unemployed, and the persistence and severe income inequality, forces the government to seek means to create additional sources of employment and income, even when export earnings are rising. When the export sector slows its growth, as inevitably it must, the entire burden of adjustment falls on the public sector. Having failed to effect transformation when conditions were more favourable the government is forced to turn to increased external borrowing to meet its rapidly rising development expenditures.

To give to the economy the internal dynamic necessary to create new internal linkages, it is necessary to change the pattern of tastes, to develop residentiary industries with lower import content and larger local purchases, to increase the degree of local processing of agricultural and mineral resources, to reallocate land resources, to halt the brain drain, to restructure financial institutions to widen the channels of national saving and investment flows, and to break down the economic barriers between individual territories within the region.

In conditions of plantation economy such structural transformation is not possible without breaking the traditional patterns whereby Caribbean economy is incorporated into metropolitan economy. It is for this reason that the localization of economic decision-making lies at the heart of transformation. This appears to be the principal lesson of the study of the legacy of plantation on the contemporary economy.

The Persistence of Mercantilist Patterns

When a parent-affiliate relationship of new enterprises is superimposed upon the pattern of the old mercantilism, the barriers to the emergence of indigenous enterprise are re-inforced. The techniques of production, the consumption patterns and wage structures imposed by external economic initiative frustrate transformation, particularly when income is growing.

Historical evidence strongly suggests that indigenous entrepreneurship is the key to the internal dynamic of development. Dependence on imported enterprise builds into the economy an assured backwardness vis-a-vis countries whose entrepreneurial dynamic is indigenous. The fact that it is the policy of many corporations to staff operations in hinterlands with nationals of these countries in no way modifies technological dependence. Local people employed in a technical or managerial capacity are salaried employees who must adhere to the values and codes of the institutions of which they are a part. Their status within these corporations and their ability to do their job well forces upon them a style of life which mirrors metropolitan consumption patterns.

In a society in which the high import content of consumption has been a structural characteristic inherited from the past, the encouragement of a metropolitan economic presence is particularly questionable as a development policy. The so-called "demonstration effect", whereby people in poorer countries aspire to metropolitan consumption patterns is, in good measure, the result of setting up of metropolitan production facilities abroad. The pattern of income distribution which results from this type of industrialization is highly favourable to imports, and unfavourable to the increase in national savings and employment.

This derives in part from metropolitan trade union organization which follows in the wake of the subsidiaries. High wages in sectors dominated by metropolitan corporations exert a strong upward pressure on wages in other unionized sectors, including the public services. When higher incomes are accompanied by a high propensity to spend on imported goods, the ratio of income saved does not increase. Nor is local enterprise stimulated. This does not interfere with the expansion of the foreign-owned affiliates. They do not depend for expansion on local savings in the hinterland.

In fact the major contribution which the foreign sector makes to national income is in the form of wages and salaries and government revenue. Profit accrues as distributed factor income to the shareholders of the parent corporations or as retained income to the corporation itself. An economy of subsidiaries and branch plants thus chokes off the development of local entrepreneurs. Although the total savings generated by the activities of the subsidiaries are considerable, access to these savings by local enterprise is severely limited.

The savings out of employment income, even when the latter is high, come mainly in the form of contributions to insurance and pension plans and are channelled through financial intermediaries whose placements do not, as a rule, provide for investments of risk capital.

The fractured and partial nature of the capital market of hinterland countries is not due to low levels of income, or a low rate of saving from domestic product. It is the result of mercantilist relations of production with metropolitan corporations, and a system of financial intermediaries which is similarly characterised by the free flow of funds between branches of metropolitan commercial banks and their head offices. Domestic savings may be high, but very little of these are free in the sense that they are easily transferrable from the sector in which they are generated to another sector of the national economy. There is thus the appearance of an excessive shortage of capital.

In spite of the existence of much surplus labour, a strong bias towards the adoption of capital-intensive techniques of production is introduced by organizational ties with the metropolis. This bias is self-re-inforcing insofar as it leads to high wage levels, and continuing substitution of capital for labour. Further, the ability of the public sector to provide jobs for the growing number of unemployed persons is constrained by the tendency for expenditures to exceed revenues. To attract investment, governments undertake heavy outlays on infra-structure, involving substantial recurrent costs on salaries and debt servicing. Fiscal capacity however expands more slowly and further, cannot be fully exploited because fiscal concessions are one of the main instruments of industrialization policy.

The possibility of developing new exports of manufactures is severely limited. Activities which are attracted to cheap labour are limited and even here wage differentials are eventually narrowed by trade union organization. The possibility of expanding industries serving the domestic market into exporting activity is limited by their high unit cost. Most significantly, the possibility of extending the degree of processing of the natural resources of the region is constrained by the mercantilist organization of the plantation and mineral sectors.

The point here is that it is an insufficient diagnosis simply to note that in the Caribbean the units of production have, for the most part, been externally owned. What has also to be taken into account is that these units have usually been minor partners in wider international systems of resource mobilization and allocation. The lines of interdependence run, not laterally between these, but vertically within them. As a consequence, the territorial economy is really comprised of a number of unintegrated segments held together by the political system. Production and pricing and other decisions are made at least as much with reference to international as national considerations.

The internal functioning of firms operating in the Caribbean needs therefore to be explored in detail as the basis for a fresh approach to development. It is now becoming evident that the policies of active government were formulated without much reference to these details. It is for that reason that the ensuing program has reinforced traditional relations. It was assumed that the promotion of manufacturing activity would necessarily activate the economy. But it has to be appreciated that this depends - especially in a small country - on whether or not it is manufacturing of the branch-plant type. On that turns the chances that local people will in fact learn the tricks of industrial enterprise and foreign marketing, that greater flexibility will develop in the choice of techniques and in the use of resources, and that a climate of experimentation and innovation will prevail.

It is also important here to appreciate the significance of the terms on which industry has been invited. For the premise of the open economy has set restraints on the use of exchange, monetary, fiscal, and other government controls and not only in regard to the industrial sector, but also in relation to the economy as a whole.

Thus "active" government in one sphere has led governments to be largely passive in others. Certainly there is a case for tighter monetary controls and more steeply progressive income taxes. But the governments have to calculate the effects of such changes on the investment climate - and that in a world of stiff competition for investment.

The argument here can perhaps be turned round. Possibly the choice of a strategy involving branch-plant manufacturing on the terms of a permissive open economy came naturally to the Caribbean countries because the traditional sectors had already charted the way. But however the argument is put, it is clear that active governments must now conceive their roles as involving a greater direct concern with the institutional facts of segmentation and the excessive openness of the economy.

Regional Economic Integration

If more detailed study of the behaviour of the economy since the War were in fact to indicate that a change in development strategy is called for, and that the central task of the new strategy must be de-segmentation, then certain problems of political economy will immediately arise.

The first of these is the choice of external association. This is not a simple question of the comparative merits of joining LAFTA, the ECM, Canada, the Socialist bloc, or the Central American Common

Market; or of establishing a West Indian Free Trade Area or Customs Union or a wider Caribbean Economic Community. It has to be posed in terms of certain specific tasks such as the reorganization of sugar, bauxite, petroleum, bananas, and manufacturing. The problem now in all these cases is that a mercantilist kind of external association is accepted in order to secure a certain minimum access to external demand. But the resulting segmentation prevents the economy from making a technological breakaway, from using its instruments creatively to direct savings, investment and entrepreneurship, and therefore from acquiring the capacity to do without mercantilist shelter. The system perpetuates itself.

In the nature of the situation, a partial approach to transformation is self-defeating. For it is the lack of interdependence which admits like this! cannibalistic competition. Hence, for example, when Cuba reorganized its sugar, the response of the West Indies was to rush to secure U.S. quotas rather than to call for a reorganization of the whole international market. The result was that Cuba was more easily forced into a quasi-mercantilist relation with Soviet trading agencies. One mercantilist act induced another, providing apparent justification for the reasoning that intervention is futile.

The point here is that an attempt to find a long-run solution to the problem of external demand necessarily involves short-run marketing difficulties. The character of the tie-up between firms means that reorganization must destroy market or at least, the automaticity of disposals. Hence the deliberate U.S. retaliation in the Cuban case, only made an unavoidable problem more acute. These difficulties then admit short-term exploitation even by economies with similar long-run interests. Thus there is need for a prior political decision which acknowledges the common long-run interest. The preoccupation of the economists with regional market and feasibility studies which must, of necessity, be based on existing conditions of technology and demand conditions is misleading. The act of integration offers possibilities of changes in these parameters which introduce a new dimension and make it very difficult to engage in meaningful calculations.

In practice this means that a regional association must be the first form of external association about which the single Caribbean communities must think.

Here, it will have to be in the relations with the international corporations that concrete expression must meaningfully be given to the idea of Caribbean economic integration. In this connection it will suffice here simply to suggest that the work towards both regional collaboration and extra-regional association has to be directed not so much towards the freeing of trade, as with localizing the orientation of these firms.

Regional negotiations will have to concern themselves with devising incentive schemes, of ingenuity equal to those invented to attract industrialists, which would make it more profitable for firms to create links within the region than to do so outside. For example, tax discrimination can be (regionally) practised in favour of regional consortia, or firms which add certain specified proportions of the value of final produce within the region and so on. It will be enough for a start if the region were successful simply in introducing some conflict at the points at which are taken the decisions to create vertical linkages outside the region.

Only on these preconditions can regional economic integration effect any basic changes in the pattern of dependency which characterizes the Caribbean today.

POST-WAR ECONOMIC THOUGHT IN THE CARIBBEAN

The century that began with Emancipation and ended with the arrival of Moyne did not witness any extensive transformation. A legacy of mercantilist structures which largely survived the 19th century trend towards free trade was carried forward to the post-World War II account. Significant changes were there. But they were those which derived most directly and almost immediately from Emancipation: the establishment of a small-farming class and the quasi-diversification of output away from sugar and towards, bananas, cocoa, citrus, coffee, and other minor exports and some domestic food. But the system never quite acquired the independent technological and cultural dynamic that would have brought fully into play domestic productive capacity. Trends in this direction, most pronounced in Jamaica, never effected internal economic integration, either on the level of the territory or the region on a scale sufficient to break the traditional mercantilist links. And this proved a decisive short-coming.

The mercantilist legacy proved too restrictive. For one thing, too much of the choicest land remained in the plantation sector. For another, the open economy and the location of governmental initiative in the metropolis left the colonies largely in their traditional role as hinterlands - a source of materials and produce and an outlet for final goods. It rendered them vulnerable to the 'demonstration effect' and imposed a strong bias towards the adoption of 'imitative technology'. Such initiative as was exercised by the colonial government - now informed by the philosophy of laissez-faire - was directed to the securing of cheap labour for the planters rather than to diminishing the dependence of the economies on sugar.

By the time the Royal Commission arrived in the crisis of 1883, it was already clear that the amendments to the traditional order made in the preceding half-century had failed to eliminate the structural rigidity and the tendency to chronic labour surplus which had first appeared at the end of the 18th century. Lewis at any rate, argued that in Barbados and the Leewards for certain, the load on the land was by now drawing close to maximum carrying capacity and that, within a generation of the Sugar Commission of 1897, most of the islands in their turn had 'matured' sufficiently to shift the burden of adjustment decisively towards technological and organizational development and finally away from the evasive device of breaking fresh land.[1]

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1. W.A. Lewis: Industrial Development in the Caribbean; Caribbean Commission, Port of Spain, 1957, pp. 25 & 26.

The evidence is that, between the First World War and Moyne, the numbers on the land declined - without any major industrial pull. Employment in agriculture reached its peak in Trinidad and the Windward Islands in the period of the First World War; in Jamaica in the first decade of the 20th Century, and in Barbados and the Leeward Islands it has been declining since the 1880's.

The opportunity to rationalize and initiate technical progress which Emancipation had vainly given to sugar by freeing it from fixed labour costs now at last began to be exploited with some sustained vigour. Between 1920 and 1950 the employment per acre declined by 25%.[2] But too late. This only shunted the task of adaptation to those outside the sector without, as Olivier's presence was to attest in 1929, achieving any lasting competitiveness. The result, with population now accelerating and migration opportunities tapering off, was increased fragmentation with average farm size reduced to 2-3 acres, forced exit of women from the labour force, a swelling of domestic service and the petty, unproductive but labour-intensive trades,

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2. In 1920 the sugar industry in the British West Indies employed about one person for every one and a half acres. By 1950 it employed one person for every two acres, a reduction of 25% in labour input per unit of land. "Technical progress has the inevitable result that the land requires less labour in each generation, and it is partly because technical progress has been pretty rapid in the last 30 years that the 1946 Census showed such a big decline in the numbers engaged in agriculture." Ibid, p.27.

and endemic unemployment.

By the time the Caribbean Commission came to make the reckoning and formulate a fresh strategy the situation had become desperate and again a bold new departure was required - bolder even than the adoption of mixed farming on sugar land which had been explicitly proposed by a succession of Commissions (and just as openly ignored by the plantations) in 1897, 1929 and again, in 1938.

In 1940, a decade before Lewis reported, the average Jamaican population load had reached 294 per square mile, the capacity at then current levels of aspiration and productive potential, was estimated by W.A. Lewis at 60 per squate mile.[3] With an estimated backlog of 140,000 people not really occupied, with population estimated to be growing at 2 per cent per annum and with sugar and domestic service destroying employment, Lewis calculated that 413,000 new jobs were needed in the British islands between 1950-1960.[3] He drew up an employment budget for the decade 1950 to 1960 for the British Caribbean.[3]

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3. Ibid: These estimates refer to Jamaica, Trinidad, Barbados, the Leeward & Windward Islands, British Guiana and British Honduras.

Minimum Demand for Jobs	
Backlog of Unemployment	140,000
Population Increase	149,000
Job Destruction in Sugar	74,000
Surplus Labour in Domestic Services	50,000
	413,000

Anticipated Supply of Jobs	
Emigration to British Honduras & British Guiana	25,000
Tourism	20,000
Industry	120,000
Induced Employment	248,000
	413,000

In this calculation it was anticipated that 165,000 "basic" jobs would induce 248,000 additional jobs by final demand and other leakages. The 120,000 new jobs in manufacturing implied an average annual growth rate of 9 per cent for the sector. Lewis believed this to be a safely conservative estimate of the possibilities of attracting labour-intensive manufacturing to the region.[4]

The Quasi-Staple and the Ricardian Model.

The development strategy outlined by W.A. Lewis in 1949 was inspired by the experience of Puerto Rico during the 1940's and by a model which was classical in its Ricardian simplicity. Agriculture had long ago reached the internal and external margin of profitable cultivation. In order to maintain viability, technological progress and the substitution

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4. "Granted the resources and the will, an increase of 120,000 jobs in manufacturing industry in the British West Indian islands in the next ten years would not be remarkable when compared with what other countries have done. And even this rate would fall short of what is needed if work is to be found for a rapidly expanding population." Ibid p. 33

of capital for labour was forcing labour out of the plantation sector. The population was growing faster than the ability of the limited land resource to supply food requirements, either by cultivation or indirectly by the export of the agricultural staple. Lewis thus concluded that the islands should shift to what we have termed a new "quasi-staple"; light manufacturing employing labour-intensive techniques, supplemented by tourism and emigration. Agricultural employment should continue to decline, in order to yield a decent standard of living to those engaged in it, while manufacturing employment, tourism and emigrigration should increase to absorb the labour expelled from agriculture, the backlog of unemployment and underemployment and the natural increase in the labour force. He envisaged that the Caribbean economies would in time import an ever increasing proportion of their food requirements.

Lewis concluded that the local market could absorb only a small fraction of the projected increase in the output of the new manufacturing sector: the islands were too small and too poor to support expansion of manufacturing on an economic scale. Even with a regional pooling of economic resources import replacement could not begin to provide the required 120,000 jobs.[5] A regional customs union and political federation were however,

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5. Lewis calculated that the substitution of all manufactured imports by locally produced output could provide only 26,000 new jobs.

posited as preconditions to the industrialization effort:

> "... it is a commonplace, which sensible people have long known that it is idle to talk about industrializing the islands in any big way until they are brought together under a single federal administration." [6]

To make the switch from the declining agricultural staple to reliance on manufacturing as the "principal" leading sector, the islands would require large volumes of capital, and access to external markets. The new "quasi-staple" could therefore only be developed by external entre-prise.

Since it is difficult and expensive, Lewis argued, to break into a foreign market by building up new distribution outlets, the islands were most likely to succeed if they concentrated on inviting manufacturers who are already well-established in foreign markets:[7]

> "To start manufacturing in a new country is a formidable enough problem; if one adds to it trying to break into an established market, the difficulties may prove almost insuperable. Therefore, one seeks manufacturers who are already established in the market, and tries to persuade them to set up branches in the new country".... [8]

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6. Ibid p.61
7. Ibid p.56
8. Ibid p.50

Transposing the Puerto Rican experience of the 1940's, Lewis argued that the low wage levels of the British Caribbean would attract branch plants of metropolitan manufacturing enterprises engaged in labour-intensive activities:

> "owing to the wage level being much lower in the islands than it is in England or the United States, it would be much cheaper to produce in the islands. This is the main incentive that brings United States manufacturers to Puerto Rico." [9]

The external market most easily accessible, according to this argument, is that of the United States and other rich metropolitan countries with high wage levels:

> "In all the trades where capital is not so important, and where wages are the principal item of cost, the United States is at a disadvantage relative to countries with low wage levels. For these reasons it is paradoxical but true that the West Indies has more prospects for selling successfully in the highly industrialized U.S. market, then in the markets of agricultural Latin America." [10]

The exploitation of the cheap-labour resource by metropolitan

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9. Ibid p.50
10. Ibid p.56

investment would have the further advantage of attracting large sums of capital to the region. Since capital was assumed to be scarce, the strategy outlined by Lewis would have the additional advantage of being self-fincncing:

> "The islands cannot be industrialized to anything like the extent that is necessary without a considerable inflow of foreign capital and capitalists, and a period of wooing and fawning upon such people. Foreign capital is needed because industrialization is a frightfully expensive business quite beyond the resources of the islands."[11]

The balance of payments could not present any problems under the assumptions of this strategy. By and large dependent and passive monetary systems were assumed, although there was some debate on the merits of devaluation as one possible means of increasing competitiveness and foreign earning power. In any event import capacity would be adequate because the traditional export sector would earn enough foreign exchange to finance both its own needs and those of the government, while the new export sector would bring its own investment capital and foreign markets. Thus it would be in a position to sell enough abroad to cover the import content of induced production for the home market. The explicit assumption of a

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11. Ibid p.56

40:60 sharing of new jobs between industry and tourism on the one hand and the "dependent" sectors on the other, seemed to imply a manageable import ratio.

Seen overall, the development program outlined by W.A. Lewis envisaged an exceptionally smooth balancing of productive capacity and demand, of job opportunities and job requirements, and of international payments. It further anticipated that the rationalization of agriculture would proceed pari passu with the establishment of the new manufacturing sector and the economy would thus be placed on the road to structural transformation. In the process the local population would pick up the tricks of the trade of developing industry and marketing manufactures abroad. Ultimately, local savings would expand sufficiently for them to buy out the foreign assets and create their own. While both Arthur Lewis and Dr. Eric Williams argued for taking sugar "out of politics" and seemed to be advocating the breaking up of the estates, it appeared that the new manufacturing industries could be developed by foreign enterprise without re-inforcing the traditional patterns of colonialism.

> "The effect of bringing in foreign capital is to increase the national income, and if the local people are thrifty, they can build up savings which in due course enable them, having learnt

the tricks of the trade, to set up in the business themselves. They cannot do this in agriculture or in mining if all the local natural resources have been signed away, unless they can persuade some of the foreigners to sell - and foreigners tend to be clannish and to refuse to sell. But in manufacturing industry there is no such barrier. Once the local people have learnt the job, and have built up their own savings, they can go right in. There is thus much less danger to the sovereignty of a people from the influx of foreign capital into manufacturing industry than there is from its entrenchment in land or in mining." [12]

There remained only one problem. Where was the drive to come from in an economy in which the planters had shown no dynamic initiative for a hundred years, and in which government was largely a passive agency?

"A visit to the British West Indian islands at the present moment is a depressing experience. Everyone seems to be waiting for something to happen, but the traveller is never quite able to discover what it is that they are waiting for. Some key is needed to open the door behind which the dynamic energies of the West Indian people are at present confined. The key has obviously been found in Puerto Rico where the drive and enthusiasm of a people hitherto as lethargic as the British West Indians, warms the heart, and inspires confidence in the future. The British West Indians can solve their problems if they set to them with a will. But first they must find the secret that will put hope initiative, direction, and an unconquerable will into the management of their affairs. And this is the hardest task of all." [13]

12. Ibid p.56
13. Ibid p.68

As Lewis noted, "local capitalists know very little about industry. They are specialists in agriculture and commerce. They think in terms of import and export rather than production. Some would even be hostile to domestic manufacture which they see as a threat to their wholesale import business...The minds of the capitalists and their money tend to flow in traditional directions." [14] The forces of the market and the local capitalists, if left to themselves would never get industrialization under way. Only positive and intelligent action by the government can provide the initiative and the drive.

To this end Lewis argued it was necessary to create a special industrial development agency and to offer a batch of incentives to offset the handicaps of the initial phases of industrialization. [15]

Thus there was to be an industrial development corporation which "must be a single agency, for the whole area, since it is essential to treat the whole area as a single market for manufactures". [16] From this it followed that there could not be much progress until there was a single West Indian government. The development agency would have to maintain offices in London and New York and its expenses for travel and entertainment would

15. Ibid p. 61-67
16. Ibid p. 61

be high. It would build factories to be leased to new industries, and provide numerous ancilliary services and facilities. These expenditures would have to be financed by external borrowing or aid.

In addition, the foreign industrialists would have to receive protection in the local market (whether by tariff or license), export subsidies, monopoly rights, tax holidays, remission of taxes on imported parts, material and capital goods, etc. Puerto Rico was to be the model:

> "The British islands do not have very far to look if they want to study the technique of industrialization. For, on their very doorstep lies Puerto Rico, whose Industrial Development Corporation is a most intelligent model of what is required."[17]

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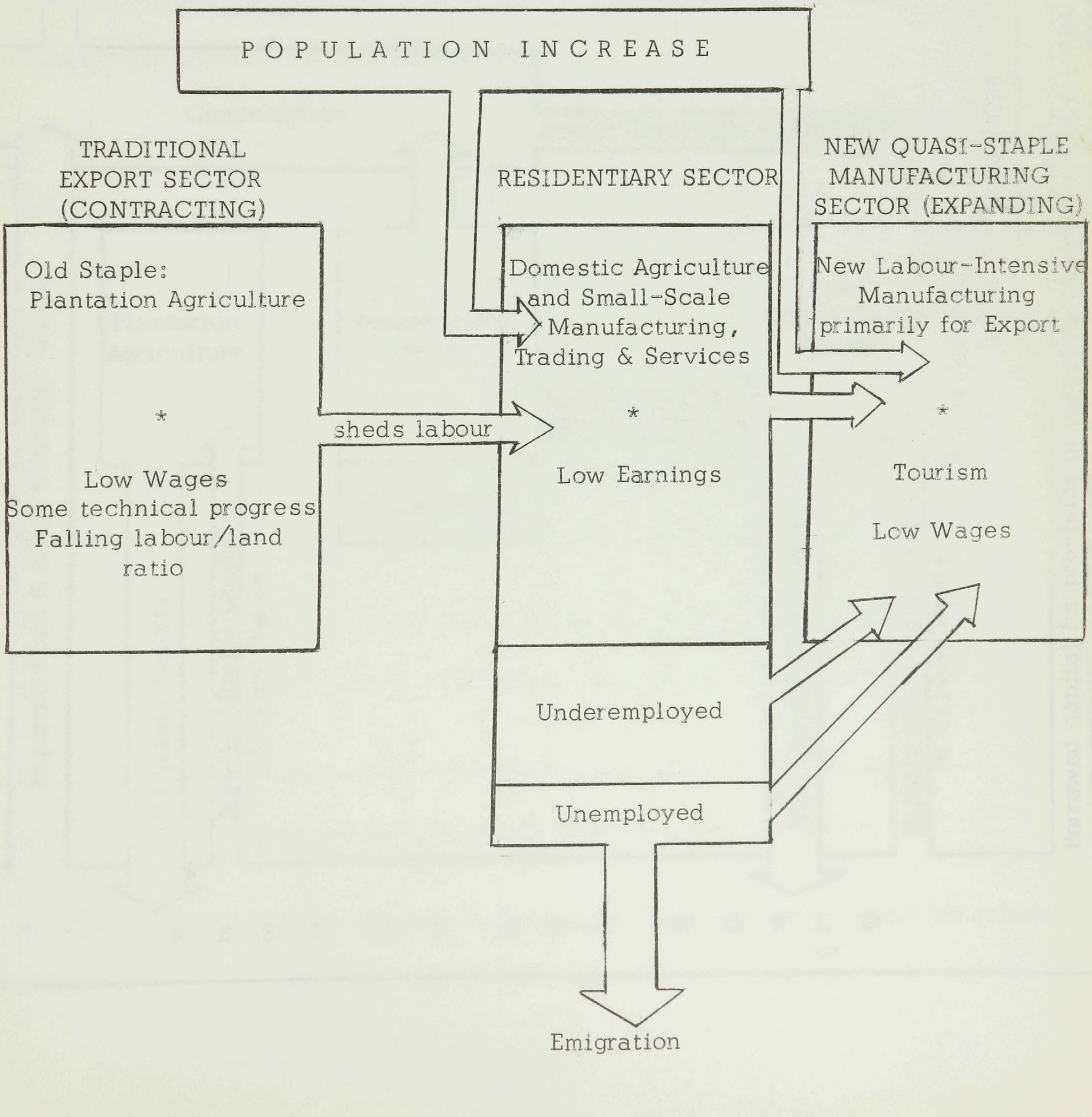
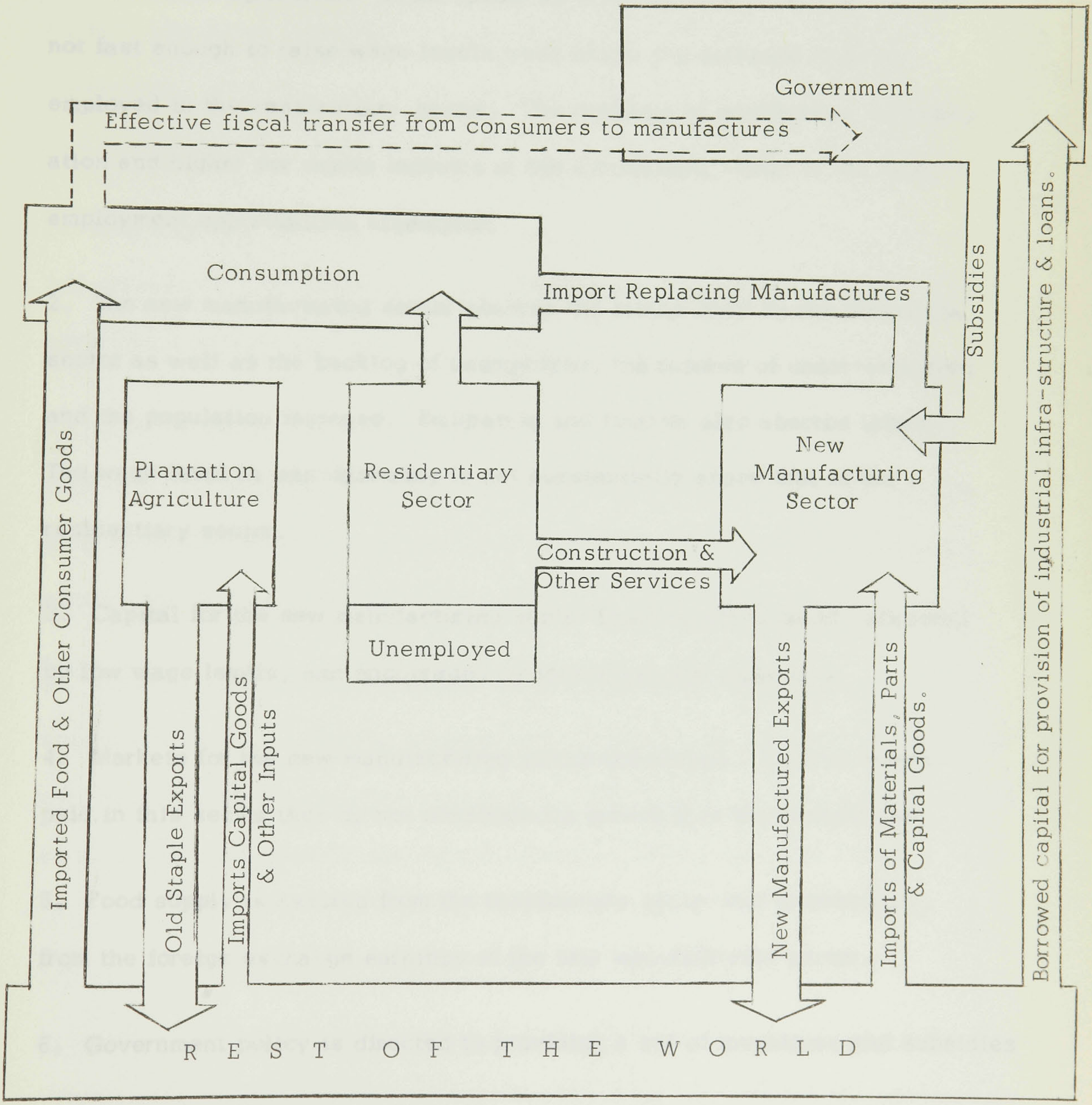
17. Ibid p. 67

The salient features of Lewis' "Quasi-Staple" model as set out in The Industrialization of the British West Indies are depicted in the following schema.

The Flow of Employment in the Quasi-Staple Model



The Flow of Goods in the Quasi-Staple Model



Summary of the "Quasi-Staple" Model

1. Plantation agriculture sheds labour as it contracts and rationalizes; but not fast enough to raise wage levels much above the earnings of those employed in the residentiary sector. The obstacle to accelerated rationalization and higher per capita incomes in the agricultural sector is the lack of employment opportunities elsewhere.

2. The new manufacturing sector absorbs the labour shed by the plantation sector as well as the backlog of unemployed, the reserve of under-employed and the population increase. Emigration and tourism also absorbs labour. The wage level in manufacturing is not substantially above that in the residentiary sector.

3. Capital for the new manufacturing sector flows in from abroad, attracted by low wage levels, and encouraged by incentives and subsidies.

4. Markets for the new manufacturing sector are abroad. The low wages paid in this sector thus do not constrain its growth from the demand side.

5. Food supply is assured from the residentiary sector and increasingly, from the foreign exchange earnings of the new manufacturing sector.

6. Government policy is directed to providing a set of incentives and subsidies

to the manufacturing sector, which in time, replaces the old plantation sector as the leading export sector. As the demand for labour catches up with the supply, plantation agriculture can be rationalized and underemployment eliminated. Thus full employment raises total income and income per head. There is no conflict betweem growth in employment and growth in income.

7. It is expected that the rise in per capita income and the achievement of full utilization of all resources, including labour, will increase savings and government revenue and make the economy "self-sustaining" in time.

8. Because the new "quasi-staple" in this model is cheap labour, the real cost of labour must be kept down either by preventing money wage increases, or by devaluation, or by taxation and subsidization of the new manufacturing sector, and by any measures which raise labour productivity.

9. The rise in agricultural earnings resulting from the rationalization of the scarce land resource and the elimination of unemployment and underemployment will equalize income distribution and widen the domestic market, thus providing an automatic incentive for the derived growth of the residentiary sector.

The New Staple and the New Models

By the time Jamaica and Trinidad had equipped themselves with the industrial development agencies and the incentive legislation suggested by the Puerto Rico "Quasi-Staple" Model, they were riding the crest of a new staple boom - bauxite in Jamaica and petroleum in Trinidad.

The new mineral staples entered with highly capital-intensive and modern techniques, giving rise to very little direct employment. The size of the capital investment in relation to the wage bill placed trade unions in in a strong bargaining position to raise wage rates far above earnings in the residentiary sectors. The growth of local incomes resulting from the associated construction boom and the rising government expenditures (from rising tax receipts) attracted foreign branch plants to local assembly-type manufacturing, the protection, tax holidays and other incentives originally designed to attract cheap-labour exporting manufactures thus provided a shelter for import-replacing industrialization.

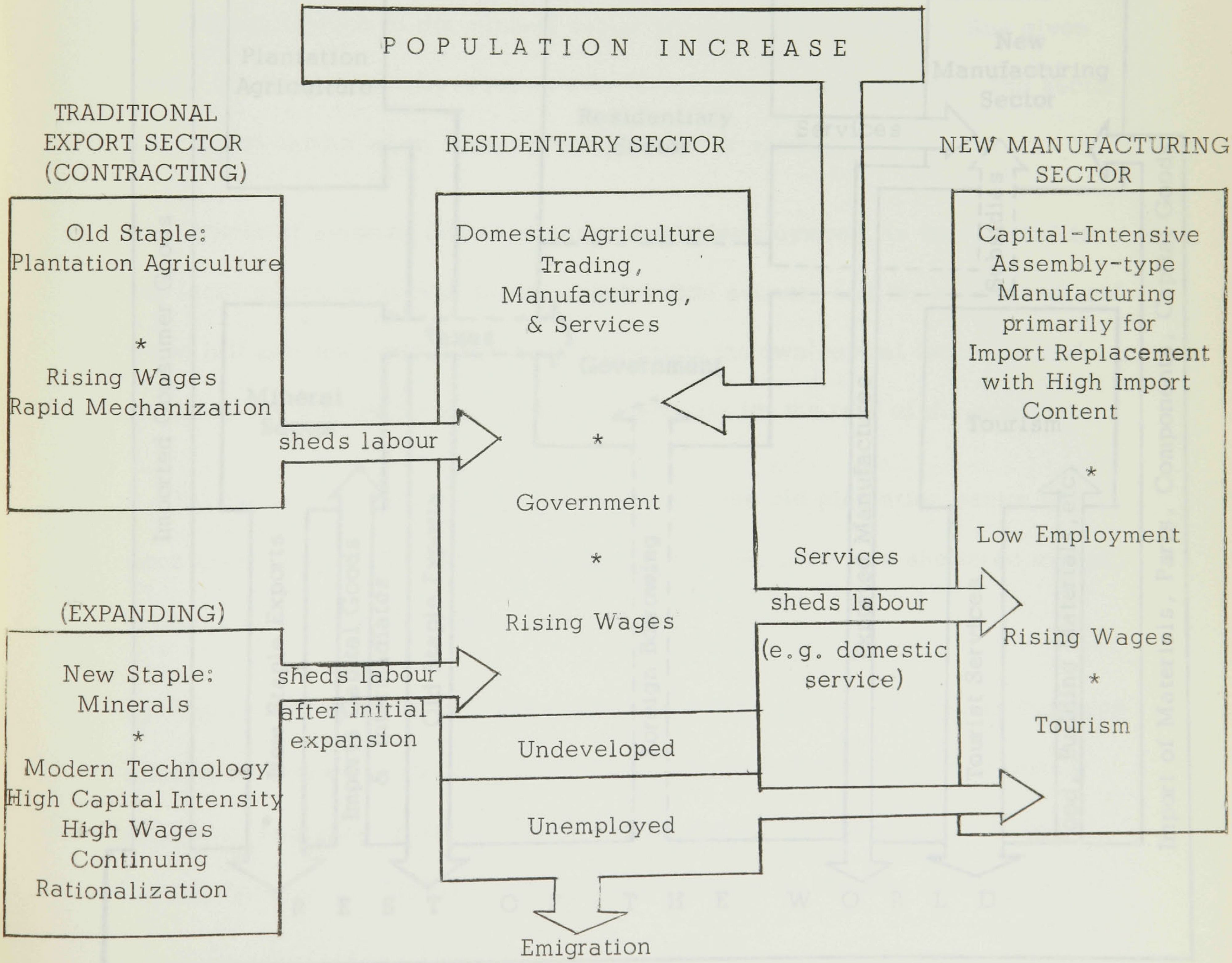
The high wage levels in the new mineral sector exerted a strong upward pressure on wages in all other sectors. The rising cost of labour forced the old plantation sector to accelerate the replacement of men by machines thus creating new unemployment. Higher wage and salary places a "wages fund" limit on the expansion of public sector employment.

Rising labour costs, combined with protective policies in metropolitan markets resulted in negligible growth of the expected exports of labour-intensive manufactures to markets outside the Caribbean. While there was some increase in exports to other Caribbean countries, regional competition in incentives and the absence of a customs union limited the extent of regional trade. Unemployment rates did not diminish; in general they increased.

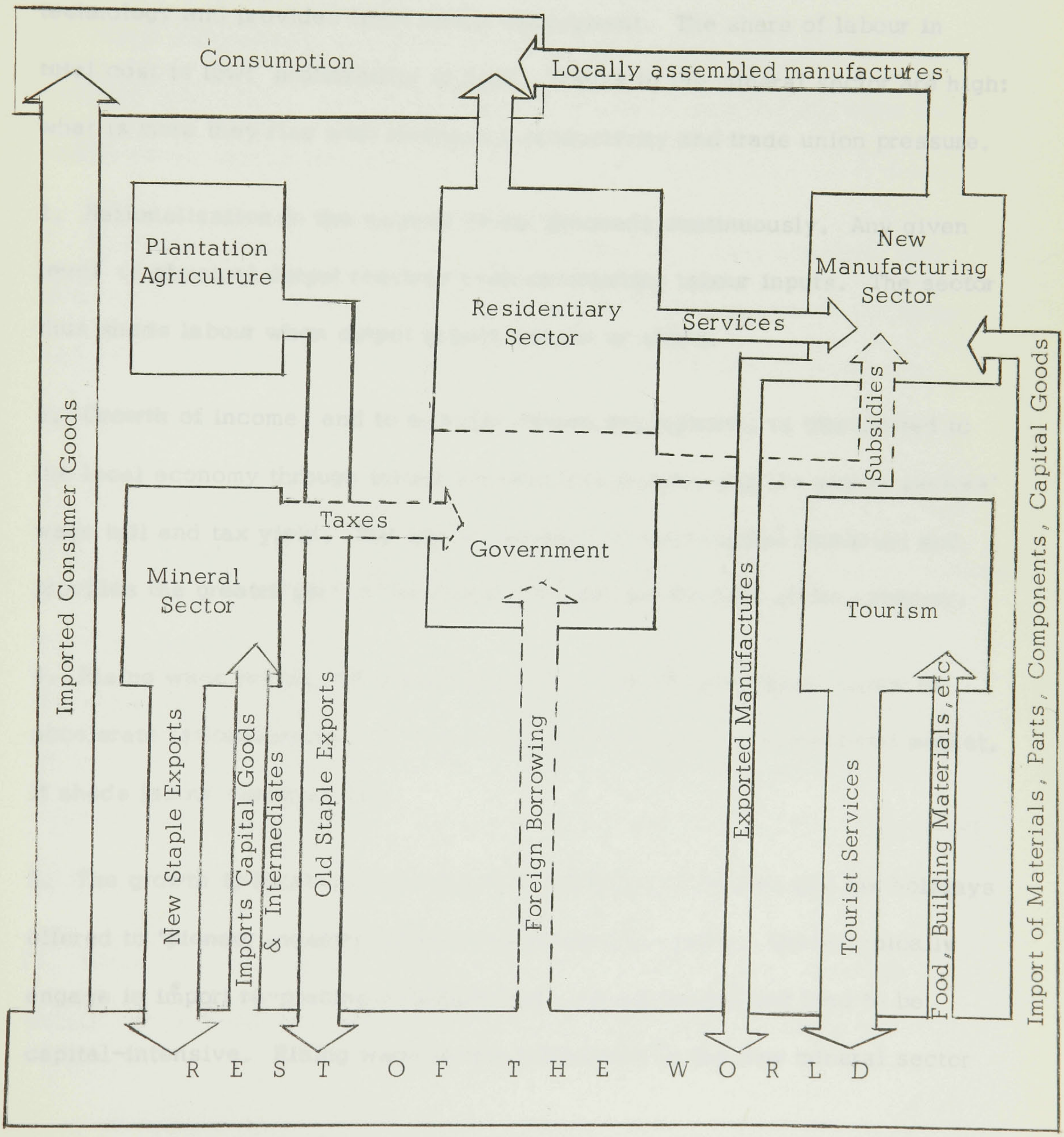
The salient features of the new mineral staple economy are depicted in the following schema:

THE NEW MINERAL-STAPLE MODEL

The Flow of Employment



The Flow of Goods: The New Mineral Staple Model



Summary of the New Mineral Staple Model

1. The new mineral staple enters with modern and highly capital-intensive technology and provides little direct employment. The share of labour in total cost is low: profitability is high. Wages in the mineral sector are high: what is more they rise with increasing productivity and trade union pressure.

2. Rationalization in the mineral sector proceeds continuously. Any given level of physical output requires ever-diminishing labour inputs. The sector thus sheds labour when output growth ceases or slows.

3. Growth of income, and to a lesser degree employment, is transmitted to the local economy through initial construction activity and the export sectors' wage bill and tax yield. The sector finances its own capital formation and provides the greater part of the import capacity for the rest of the economy.

4. Rising wage levels and unionization force the old plantation sector to accelerate rationalization, to remain competitive, even in a sheltered market. It sheds labour continuously.

5. The growth of local incomes and the protective subsidies and tax holidays offered to 'pioneer industry' attract foreign branch plants. These typically engage in import re-placing assembly-type manufacturing and tend to be capital-intensive. Rising wage levels introduced by the new mineral sector

limit the rate of expansion of the manufacturing sector, and re-inforce its high capital-labour ratio.

6. Wage differentials and income differentials widen, unemployment assumes endemic proportions, and social tensions increase, particularly when the export sector growth rate slackens off.

7. Emigration brings some relief. This emigration is not, however, part of a regional scheme to increase population in Guyana or British Honduras, as Lewis had conceived it to be in his original calculations. Access to metropolitan migration outlets is unpredictable and uncontrollable.

8. Tourism is almost as capital-intensive as the new manufacturing sector. It fails to provide much employment, although it earns a lot of foreign exchange.
Not quite true, it is seasonable.

9. The commercial banking sector tends to expand consumer credit during the staple boom. While capital formation in the foreign export sectors and in the new manufacturing sector rises substantially, there is relatively little expansion of capacity in domestic agriculture and facilities to process local materials.

10. When the export sector expansion ceases or slows down, external public sector borrowing becomes an increasingly important source of

finance for capital formation. The commitment to recurrent government expenditures rises, as does the cost of servicing the external public debt.

Evolution of the Lewis "Surplus Labour" Model

With a sweeping sense of realism which has never hesitated to sacrifice consistency for intuitive insight, Professor Lewis gave his "classical" Ricardian model (Puerto-Rico vintage) some new twists. We briefly trace the permutations in the "surplus labour" model over the decade 1954 to 1964.[18]

In this celebrated article[19] Lewis outlines the now well-known classical model in which an "unlimited supply of labour is available at a subsistence wage". Here wages do not rise until the supply is exhausted. The assumption, he maintains is relevant to countries in which population is large in relation to capital and natural resources. "It is obviously the relevant assumption for the economies of Egypt, India, and Jamaica."

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18. The freedom with which Lewis is able to embody new developments into his model stands in commendable contrast to the rather sterile exercise of tidying up the geometry and algebra of his two original articles which has occupied less creative minds. See Ranis and Fei: A Theory of Economic Development, American Economic Review, 1961 and subsequent versions of the article.

19. "Economic Development with Unlimited Supplies of Labour" The Manchester School, Mar. 1954.

Here disguised unemployment is found in peasant agriculture, handicraft industry, petty trading, casual labour and domestic service. "In this situation", Lewis writes, "new industry can be created, or old industry expanded, without limit, at the existing wage rate." He explicitly rejects Ricardo's observation that mechanization can create unemployment. "Nowadays we reject this argument on empirical grounds. It is clear that the effect of capital accumulation in the past has been to reduce the size of the reserve army, and not to increase it, so we have lost interest in what is 'theoretically' possible."

Lewis remains true to the spirit of the classics in dividing the economy into two sectors, representing subsistence activity and capitalist industry. The capitalist sector is not confined to manufacturing, nor is manufacturing activity found only in the capitalist sector. Indeed Lewis notes that mining and plantation agriculture is typically highly capitalized, as are islands of the economy in manufacturing, trade, and the utilities.

In the model the capitalist sector draws labour from the subsistence sector, at a wage differential of some 30%, to cover the higher cost of existence in cities, the psychic costs of transfer, etc. Economic development is a lateral expansion into the subsistence economy and is financed from the profits of capitalist production. "The central fact of economic development is that the distribution of income is altered in favour of the saving class." Thus, he concludes that "if we are interested in savings we must concentrate attention upon profits and rents". Lewis recognizes that behind this analysis lies the sociological problem of the emergence of an accumulating capitalist class. This problem is, however, disposed of by the observation that "most (backward) countries seem to begin by importing their capitalists from abroad".

The conclusions which follow from the model are that capital formation in the capitalist sector expands employment; that capital formation and technical progress result not in raising wages, but in raising the share of profits in the national income; that wages cannot rise above subsistence until the surplus is exhausted and that "the importation of foreign capital does not raise real wages in countries which have surplus labour unless the capital results in increased productivity in the commodities which they produce for their own consumption".

The model is embarrassing in its inapplicability to the typical Caribbean economy - and indeed to the situation of very many other developing countries

Obviously troubled by the fact that his original model had assumed away the possibility that wages levels and unemployment might both rise in a country with large reserves of "surplus labour", Lewis re-visited the English classics to evaluate more carefully the Ricardian and Marxian arguments he had previously dismissed.[20]

Drawing on Ricardo's "Chapter on Machinery" and Marx's reserve army of labour, he noted that substitution of machinery for labour can and does occur, even where "surplus labour" still exists. He re-discovered that capitalist expansion results in the creation of surplus labour:

> "Where Marx was right was in making the point that for a while the capitalist sector creates surplus labour by invading sectors to which it is superior, especially by putting handicraft workers out of business, and also by reducing the labour requirement in agriculture, if it is permitted to reorganize agriculture on a capitalist basis. A corollary of this is that from the point of view of capitalist expansion even a pre-capitalist economy with abundant labour is capable of developing a labour surplus. For example in most of Africa and Latin America labour is more or less fully employed because there is no shortage of cultivable land."

The other shift in emphasis is found in a footnote in which the author observes that "most economies in the early stages of economic

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20. W.A. Lewis: "Unlimited Labour: Further Notes," Manchester School, Jan. 1958.

development have not one economy but two - a high wage economy (mines, plantations, factories, large-scale transport, etc.) and a low earnings economy." We note that this is indeed the situation in many contemporary ex-colonial countries. This is not at all, however, the "classical" English situation from which the model is derived. The capitalist "enclaves" of mines, plantations and transportation facilities are an extension of metropolitan industrial capitalism into the hinterlands. The differentials in wages between these two sectors are far greater than the 30% "cliff" which Lewis referred to in his original article.

In addressing a Conference on Economic Development held in Jamaica in 1958,[21] Lewis expanded the argument in the following terms: the gap between the high wage sector and the rest of the economy tends to widen as the capitalists pass on to the workers some of the gains of high technology and high productivity. The high wage sector having taken such labour as it requires, the rest of the people have to squeeze themselves into the other sectors. The shift from underemployment of this kind to open unemployment is explained in part by the fact that increasing provision is made for the unemployed, in part by urbanization and the spread of education to the countryside, and in part by the growing wage gap which attracts more people

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21. W.A. Lewis: "Employment Policy in an Underdeveloped Area", Study Conference on Economic Development, Social and Economic Studies, Vol. 7, No. 3, Sept. 1958.

to the urban areas. Gone is the easy optimism of the early 1950's. Gone are the employment budgets projecting a half-million increase in employment in the British Caribbean in ten years! "Personally," declared Lewis, "I regard this part of the problem as insoluble. I think it is inevitable that we shall have a considerable amount of unemployment in the towns at this stage of economic development."

In an open economy selling a significant volume of output in rich metropolitan markets, only a lower level of real wages can increase the volume of employment. We thus revert to the neo-classical argument: if the wage level were lower, the region would attract labour-intensive industry and employment would increase. The technologies then would be more appropriate to "labour-surplus" economy. Regaining some of his old optimism, Lewis proceeded to suggest that "In an open economy where some capital comes in and some goes out, it might lead to a very large increase in the level of employment, since a fall in wages might make employment so profitable that there was a very large influx of capital from abroad." [22]

Lewis believed that both employment and national income

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22. Ibid p. 51

would rise if the level of real wages could be reduced. Ruling out the reduction of money wages as impossible, he advocated protective duties, devaluation and pioneer tax concessions.

Throughout the argument, the fact that the techniques employed in the modern export section bear little relationship to wage levels, is overlooked. In point of fact this sector sets the wage pattern for the rest of the economy. In 1958 Lewis had not yet appreciated the fact that the modern high-wage economy as he called it, could create wage-patterns which result in growing income inequality and an increasing volume of unemployment.

By 1964, writing in the Jamaican press,[23] Lewis posed the critical question: "How does a country double its output (in 10 years), lose 11 per cent of its labour force by migration, and still have 12 per cent unemployment?" The answer, he suggested, lies in excessive increases in productivity, resulting from excessive mechanization. Unemployment is thus caused by excessive economic development.

> "Economic development creates in the heart of the economy a new dynamic modernized sector with high capital-intensity. The impact of the modern sector is devestating. As wages move

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23. W.A. Lewis: "Jamaica's Economic Problems, a series of seven articles. The Daily Gleaner, September, 1964

higher and higher in the modern sector, they pull up wages in the traditional sector. As wages rise, the traditional sector can no longer hold the surplus. A business will carry surplus clerks and messengers at three pounds a month but not at thirty. The clerk's wife keeps a servant at eight shillings a week, but not at two pounds ten. Kitchens acquire stoves, refrigerators, and washing machines, and suddenly more women are unemployed than men.

"The process of development carries its own paradox. The expansion of the modern sector of the economy creates new jobs, and raises sharply the incomes of all who live by it. But there is no guarantee that it will not destroy more jobs than it creates through its impact on the traditional sector. Rapid economic expansion and rapidly growing unemployment can easily live side by side, if the social system is not working properly...

"In Jamaica the pace has been set in recent years by the mining industry, paying wages three times as high as any other industry could bear. Before this it was the sugar industry, mechanizing rapidly, and paying wages which other kinds of agriculture could not afford."

Lewis estimated that agriculture and domestic service had shed 38,000 people over the past decade (1954-64); mining had added only 3,700, while the rest of the economy had created 82,000. Despite very heavy investment fewer new jobs were created than the increase in the labour force would have been but for emigration.

It may well be asked how it is possible that the very large productivity increases in the "modern" sector were not passed on to the rest of the economy in the form of lower prices. The answer is found in the fact that the rise in productivity was concentrated in the agricultural and mineral export sectors. The benefits of increased productivity was thus shared among industrial and other consumers in the metropolis, the shareholders, the local wage-earners and the government. None of it is passed on to the residentiary sector. Local industries whose output enters into the cost of living typically did not experience productivity increases. This was especially true of agriculture producing for the local market. While capital-intensive branch plant import-replacing industries also experienced productivity increases, protection ensured that the gains transferred to the rest of the economy from the capital-intensive export sectors created increasing difficulties for producers in the residentiary sectors. It forces them to squeeze marginally employed people out of a job.

How then, asked Lewis, can the rise in the wage level be checked to prevent further unemployment as an increasing number of firms are unable to stand up to external competition? How can costs be brought into line with prices? If wages could be held at their current levels for a while, rising productivity and rising prices abroad could restore the competitive position of the economy. But this, Lewis observed, requires an incomes policy, which, in turn calls for a "sense of social restraint founded in a sense of community". It requires "that people respect each other, take pride in their common heritage, and set the interests of the whole above sectional interests". Without such restraint, he observed, devaluation becomes a nightmare of wages chasing prices; with restraint devaluation is unnecessary.

We suggest that it might have been Professor Lewis' habit of generalizing from the English classical case which prevented him from pointing out that it is the dominance of the export sectors in contemporary plantation economy which introduces social conflict. For the companies in the new mineral sectors prices are not out of line with costs; for them productivity is rising fast; they are not unduly concerned about the level of local wage rates - partly because they do not purchase much from the local economy. The high wages they pay obviously benefit their employees. Thus trade unions in the high wage sectors share sectional economic interests which conflict with those of the unemployed.

Unemployment was becoming a threat to the social order. "Getting rid of the scourge of unemployment is more important than raising the incomes of those who already have work: unemployment means poverty, which in turn breeds illiteracy, crime, hatred and disaffection. Most of

Jamaica's social problems would be infinitely easier to solve if unemployment could be eliminated."

It is all a long way from Lewis' 1954 article where the reader is presented with a "traditional" and a "capitalist" sector, the latter absorbing the unemployed and underemployed from the former in a balanced and harmonious process which expands employment, raises incomes and resuces poverty and inequality. Lacking the pedantic scholasticism of the Ranis-Fei models, Lewis' Gleaner article has a rough realism which is lacking in his earlier two-sector models.

Dudley Seer's Open Petroleum Economy Model

The characteristics of an open mineral economy are succinctly drawn by Dudley Seers in an article first published in 1963.[24] He addresses himself to the same question which troubled Lewis: "It would be useful to know why unemployment is found side by side with high wages. This is the typical paradox of the petroleum economy."

The Keynesian categories of "savings", "investment",

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24. D. Seers: "The Mechanism of an Open Petroleum Economy", S.E.S., Vol. 13, No. 2, 1964

"consumption" and "national product" are set aside as less essential than the aggregate of employment. The justification given lies in the author's contention that in a petroleum economy "the most serious problem is not inadequate income but chronic structural unemployment".

What is more, Seers, like Lewis, notes that investment does not depend on savings. "Should private investment opportunities not be exploited fully by local capital, capital will flow in from abroad... Conversely, if investment opportunities lag behind local savings, capital will flow outward and employment will be adversely affected. The emphasis should be put on the opportunities, not on the flow of savings, which will sooner or later adjust itself to investment opportunities."

Drawing on the experience of Venezuela prior to 1958,[25] Seers suggests that the model might hold lessons for economies such as Trinidad and Jamaica which have large profitable foreign-owned mineral sectors whose tax yield constitutes an important source of government revenue.

The model divides the economy into three sectors: export, government and private domestic. The export sector undergoes constant

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25. See "Economic Developments in Venezuela in the 1950's", ECLA Bulletin, Economic Bulletin for Latin America, U.N. (ECLA), 1961

productivity increase, so that its wage bill rises at the same rate as the wage rate. (Employment is thus assumed constant.) Export earnings are exogenously determined by company policy and world demand. The government sector derives all its revenue from taxing the export sector and spends all of it on wages and salaries. It does not borrow. The private domestic sector obtains a constant proportion of its total requirements from imports. Imports, of course, are equal to the export sector wage bill plus the government's revenue (or expenditure). From this it follows that the increase in employment (over time) depends on the difference between the rate of growth of export earnings and the rate of increase of the wage rate. For any given growth rates of export earnings and wage rates, employment will increase faster the lower is the import ratio, the higher the tax rate, and the smaller the profit margin in the domestic sector. Because in this model all activity derives from the export sector, the level of employment in the economy is a function of the absolute size of the export sector. In this model, the government and the domestic sectors are thus totally dependent on the export sector. They have no independent internal dynamic.[26] There is, in this economy, a kind of "wages

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26. The rigidity with which the rest of the economy is tied to the export sector has induced critics to question the relevance of a model which assumes away the possibility of internal dynamic and induced investment within the private domestic sector. See our comments on Brewster, Kennedy and Cumper below.

fund". Employment in the export sector is taken as fixed. It is insensitive to wage increases. The other sectors must absorb the increase in the labour force. The more quickly wages rise, the more difficult it is for them to do so.

Productivity increases in the government sector do not affect employment in this sector. They simply result in more work getting done with the same number of people. Employment here is determined only by available revenue and the prevailing wage rate.

In the private domestic sector productivity increase will reduce employment in commodities and services which are non-competitive with imports, or which enjoy a local monopoly (examples given are construction, electric power and rum). Where a commodity competes with imports productivity increases are likely to result in import substitution and thus in increased employment.

Productivity rises because of extensive mechanization. Labour is expensive because wage increases can be conceded by the petroleum companies.

> "Labour is in fact only a small item of their costs, and wages are partly 'paid by the government,' being deductible from declaration of taxable income. So wages in petroleum get out of line with other wages, which arouses... a sort of 'demonstration effect' among wage earners. In an expanding economy neither the govern-

> ment nor the domestic producers are forced to offer great resistance to this pressure. Consequently the impetus of rising exports is largely absorbed by the increases in the wages of those already in employment rather than by an increase in employment. Meanwhile men in the country districts are attracted to the cities in search of work, so that what was disguised unemployment becomes open."

Labour is thus expensive (particularly when we allow for its unskilled and undisciplined character) whereas capital goods are often imported with little or no duty. In the private domestic sector the cost structure of the factors of production, from the viewpoint of the employer, may not be very different from that in the metropolis. Consequently there is extensive mechanization, biasing decisions on techniques in an excessively capital-intensive direction, and aggravating the employment problem.

As an export boom proceeds, and the cost of labour becomes high by international standards, imports become relatively cheaper, thus sustaining high import propensities. The shift in internal income distribution re-inforces the demand for imports by stimulating purchases of cars, other durables, foreign travel, etc. The movement of population to the oilfields and the large towns transfers consumption patterns with high import content to persons whose incomes are much lower.

As import substitution becomes more difficult, so does the development of new exports - and for the same reason. In this part of his argument Seers makes the same point which Lewis made - rising costs depress employment.

He then asks the obvious question: why does the country not devalue? Why does it not adjust by the classical corrective mechanism? The answer is that "precisely because of the booming exports, this does not seem necessary on balance of payments grounds:"

> "Competition in the international petroleum market is so imperfect that devaluation would in any event have no effect on foreign exchange earnings. Export prices are totally divorced from costs of local production, and the volume of exports depends mainly on company policy.
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> "Moreover, the groups opposed to devaluation - importers, shopkeepers and those in employment are politically powerful. On the other hand, the (local) industrialists, who might be expected to favour it, are very weak, precisely because the situation has been such that.... the manufacturing sector is small." [27] ...."the agricultural sector may be badly organized as a political force and the more vocal sections can be bought off by subsidies of one sort or the other. The unemployed are much weaker politically than in industrial countries, and the urgency of their claim is to some extent lower because their families will "carry" them, whilst they are out of work."

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27. Seers further notes that the interests of the manufacturing sector will be divided. Those firms which are branch plants of foreign companies will oppose devaluation because they do not wish to remit profit at depreciated exchange rates.

These same forces will also be unfavourable to measures such as exchange controls, import licensing and tariffs. Seers points out that non-petroleum export economies have increasingly been feeling the tensions of slowly growing exports and rapidly rising imports, and have been taking measures which are protective and employment generating, even if intended, in the first place, to protect preserves.

> "A petroleum economy operates differently. Factors that elsewhere would express themselves in balance of payments crises, such as wage increases and inadequate initiative in developing local industry, will here cause unemployment. An economy of this type has what might be called disguised, rather than overt, balance of payments tensions."

When exports level off, even though they may be very high, and prices favourable, all these tensions come to the fore. This is particularly so if wage rates continue to increase and the demand for imports therefore continues to rise. Further, political pressure on the government to provide employment now rises. This is the period in which government essential expenditures exceed revenues. Rising taxes and rising rates of unemployment may induce foreign and domestic capital to leave the country, thus aggravating the difficulties. In the absence of large external loans on favourable conditions, government is presented with a crisis. The conflict of sectional interest is suddenly exposed and tensions mount. "A petroleum economy", Seers observes, "has a potentially explosive character."

A Critical Appraisal of the Seers Model

In the introduction to his article Mr. Seers argues that Keynesian models are not suitable for exporters of primary products "because their fundamental assumptions do not apply". In place of a Keynesian model in which "autonomous" expenditure determines the level of income and employment, Seers has given us a model in which the export sector is the only autonomous variable: the level of income in the rest of the economy is strictly derived from the level of export sector earnings. Given constant parameters β, π, and α and given the assumptions of balanced government budgets and balanced trade the income generated in the private domestic sector in the Seers model is directly proportional to the wage and tax disbursements of the export sector. As export sector earnings are exogenous to the model in the sense that the economy has no control over them, domestic income is thus rigidly determined. There is, in the Seers model, no internal dynamic whatsoever.

In fact Seers does not seem to be interested in the mechanism of income creation; the focus of interest in this model is directed at the level of employment. Here we find a kind of wages fund: given any level of income generated in the domestic sectors (private and public), employment varies inversely with the wage rate. In the export sector employment is assumed to be constant. Export sector wage rates are assumed to rise as export sector earnings rise. If the rate of increase of export sector earnings (X) is greater than the rate of increase of export sector wage rates (ω) the profit margin of the export sector widens. If, on the contrary, $X < \omega$, the profit margin in the export sector narrows. In any event, export sector employment is assumed to be constant. The Seers model assumes that the rate of increase of wage rates in the export sector is carried over to the domestic sector. Employment in the domestic sector then increases if total income of these sectors increases faster than wage rates ($X > \omega$); employment diminishes if total income of these sectors increases more slowly than do wage rates ($X < \omega$).

The only "policy instrument" in this model is therefore the rate of increase of wage rates in the domestic sector. It follows that an increase in employment can only be effected through an incomes policy which will moderate the rate of increase of wages. The government is assumed to be totally passive. Its expenditures are rigidly tied to export sector earnings. The private domestic sector is equally passive in the sense that the model constrains it from infusing any dynamic into the economy through the process of investment and capacity-creation. The most restrictive of all the conditions imposed on the model, however, is the absence of foreign borrowing.

It appears to be the rigid nature of the dependence of the economy on the export sector which prompted Mr. Havelock Brewster[27] to complain that

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27. Havelock Brewster: "Exports, Employment and Wages: Trinidad-Tobago and Mr. Seers's Model of the Open Economy" <u>Research Papers</u>, No. 5, April 1968.

the Seers model "diverts interest from the substantive dynamic issues of structural transformation, the initiation of productive activity and the creation of productive employment....to....the distribution of an export-oriented 'wages fund'". In fairness, however, Brewster acknowledges that the Seers model "does less damage to reality" than the Keynesian model which assumes that investment is an autonomous variable. Nevertheless, Brewster raises some important questions: are these economies entirely export-propelled? Is the Keynesian model of the open economy totally irrelevant? Does Seers' model require ammendment before it can usefully be applied to economies such as Jamaica or Trinidad?

To investigate the properties of the Seers model, let us rearrange the basic relationships into a simple income generation model. Here the local payments of the export sector take the place of autonomous expenditures in the Keynesian model and the average propensity to import takes the place of the average propensity to save in the Keynesian model.[27a]

Thus we have:

1) $Y \equiv (L_x+L_g)+(L_D+\Pi_D)$ Income Identity

2) $(X-P_x) \equiv (L_x+L_g)$ Autonomous Expenditure arising from Export Sector.

3) $(L_D+\Pi_D) \equiv (1-\beta)Y$ where $\beta = \frac{M}{Y}$ and $0<\beta<1$

4) $Y \equiv \frac{(L_x+L_g)}{\beta}$

27a. See Algebraic Note on Mr. Seer's Model, p 139.

From this it follows that $M \equiv L_x + L_g \equiv X - P_x$

and $L_D + \Pi_D = \frac{1-\beta}{\beta}(L_x + L_g)$

In this model, the balance of payments condition $X = M + P_x$ is always met because $M = \beta Y = (X - P_x)$. This balance is analogous to the expost identity $S \equiv I$ in the Keynesian model. In fact, given autonomous expenditures ($X - P_x$) and given the propensity to import β, income increases so as to bring imports into equality with $(L_x + L_g)$.

It is not necessary to the logic of the model that imports be constrained to export earnings. If we assume external borrowing, the autonomous injection of purchasing power may be written as ($L_x + L_g + B$) where B is external borrowing. In this case $Y = \frac{L_x + L_g + B}{\beta}$ and $M = L_x + L_g + B$.

a) In the export sector, there is no increase in employment.

b) In the government sector, there is a direct wages fund. Here we may write $L_g^t = L_g^o e^{xt} = E_g^o w_g^o e^{(\phi + w)t}$ indicating that the total wages bill of the government sector grows at the rate of increase of export sector earnings (given a constant rate of tax α).

Because $L_g^o = E_g^o w_g^o$, $\phi = (x - w)$ where ϕ is the rate of government sector employment, if $x > w$, employment in the government sector will decline; if $\omega < x$, employment in the government sector will increase.

c) In the private domestic sector we have

$$L_d + P_d = \frac{1-\beta}{\beta}(L_x + L_g)$$

$$L_d(1+\pi) = \frac{1-\beta}{\beta}(L_x + L_g) \quad \text{because } P_d = \pi L_d$$

$$L_d = \frac{1-\beta}{\beta(1+\pi)}(L_x^0 + L_g^0)e^{xt}$$

$$E_d^t = \frac{E_d e^{(\phi+\omega)t}}{e^{\omega t}} = \frac{(L_x^0 + L_g^0)e^{xt}}{W_d^0 \cdot e^{\omega t}} \; \frac{1-\beta}{\beta(1+\pi)}$$

$$\therefore E_d^t = E_d^0 e^{\phi t} = \frac{L_x^0 + L_g^0}{W_d^0} \cdot \frac{1-\beta}{\beta(1+\pi)} e^{(x-\omega)t}$$

Evidently $\phi = (x-\omega)$ and the rate of increase of employment in this sector also is $(x-\omega)$.

Mr. Brewster has attempted to test the Seers model with respect to the Trinidad economy. He points out that the highly restrictive assumptions of the model do not in fact correspond to the conditions in Trinidad. For these reasons one would not expect to find that the model fits.

The Nature of the Assumptions

Brewster argues that the assumptions do not fit the case of Trinidad or Jamaica because:

a) In these economies taxation of the export sector provides a third or less of current government revenue. The largest single source of revenue is import duty. Here it should be noted, however, that the operative assumption of the model would still be valid provided that government expenditures were constrained by revenues and imports were constrained by export sector earnings. If these latter two conditions were met, government expenditure would still be determined by the value of external trade. In fact it appears that government revenue bears a closer relationship to the import trend than to the export trend. This reflects the fact that there is a growing trade gap. It thus appears that it is Seers' assumption of balanced trade which does serious violence to reality, rather than the specific assumption that government expenditure is constrained by export earnings. If in fact these countries have increased their rate of foreign borrowing, the Seers model would lead us to expect employment - creation to proceed more rapidly than would have been the case in the absence of external borrowing.

b) The assumption that government expenditure is limited by current revenue does not correspond to reality. To the degree that reality departs from this assumption we would expect public sector employment to grow faster than the model would indicate. This argument is logically valid. However, as we shall see, there is likely to be an offsetting effect on public sector employment.

c) The assumption that all government expenditure can be resolved into local wage disbursements does not correspond to the facts. Brewster suggests that it is likely that the import content of government expenditure has been rising for two reasons: one is that expenditure on infra-structure and social developments tend to have a high import content; the other is to be found in a rising ratio of expenditure on amortization and servicing of external public debt. These factors tend to reduce the rate of employment creation in the public sector, and thus offset a) and b).

d) Imports have grown faster than exports. Given a constant propensity to import, the domestic sector has thus also grown faster than export sector earnings. This has undoubtedly happened and it is here that the Seers model appears to be most vulnerable to attack by "Keynesians" who have argued that there is no limit to the rate of expansion of the domestic sector, provided foreign exchange can be obtained by external borrowing. The "Keynesian" attack on the Seers and Lewis models will be examined in fuller detail later in this review.

Another line of attack launched by Mr. Brewster concerns the fact that the model is not set on a trend of growing population and labour force. "The model is weak by the fact that there can be few countries in which the crucial problem is whether or not absolute employment is increasing. The important question is whether the level of unemployment is being stabilized; more ambitiously the question is whether there is some recurrent net absolute reduction in the volume of unemployment so that full employment may eventuate at some time in the future". The rate of absorption of the labour force should thus be made an integral part of the model.

It is unfortunate that Mr. Brewster's article contains a number of ambiguities and errors. For these reasons the numerical calculations cannot really be accepted as they stand, although it is possible - indeed it is likely - that a more careful reworking of these calculations would yield similar results.

The attempt to obtain a value for the rate of absorption of the labour force such that the backlog of unemployment would be eliminated by some given future date is a useful one. The expression devised by Mr. Brewster however is obviously erroneous.[28]

To examine the conditions in which we can obtain a constant

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28. According to Brewster the (constant) rate of absorption of labour required to achieve full employment in year n is given by the expression $1+\psi = \sqrt[n]{(1+r)^n + \sigma_0}$ where $\psi = \frac{dE}{dt}\frac{1}{L}$; σ_0 is the existing volume of unemployment and r is a (constant) rate of increase of the labour force.

rate of absorption of the labour force ψ, we begin with a constant rate of increase in employment $\phi = \frac{1}{E}\cdot\frac{dE}{dt}$ and a constant rate of growth of the labour force $r = \frac{1}{L}\cdot\frac{dL}{dt}$

Thus we have $(L_0 - \sigma_0)e^{\phi n} = L_0 e^{rn}$

$$e^{\phi n} = e^{rn}\left(1 - \frac{\sigma_0}{L_0}\right)^{-1}$$

$$\phi n = rn - \log_e\left(1 - \frac{\sigma_0}{L_0}\right)$$

and

$$\phi = r - \frac{1}{n}\log_e\left(1 - \frac{\sigma_0}{L_0}\right)$$

Alternately we may write $(1+\phi) = (1+r)\left(1 - \frac{\sigma_0}{L_0}\right)^{-n}$

In either of these forms $\phi = r$ when $\sigma_0 = 0$ and $(\phi - r)$ is an increasing function of $\frac{\sigma_0}{L_0}$ and a diminishing function of n. From either of these expressions we can calculate the rate of increase of employment required to eliminate a given backlog of unemployment σ_0, given a constant rate of increase of the labour force r.

The general relationship between ψ, ϕ and r is given by

$$\psi = \frac{1}{L}\cdot\frac{dE}{dt}$$

$$= \frac{E_0}{L_0}\phi e^{(\phi - r)t}$$

$$= \phi\left(1 - \frac{\sigma_0}{L_0}\right)e^{(\phi - r)t}$$

From this we can see that ψ, the rate of absorption of the labour force can be constant only when $\phi = r$. In that case we have

$$\psi = \phi\left(1 - \frac{U_0}{L_0}\right)$$

In the special case employment and the labour force both grow at rate r, and the rate of unemployment is stabilized at $\left(\frac{U_0}{L_0}\right)$.

To stabilize the volume of unemployment, ψ must be set equal to r.

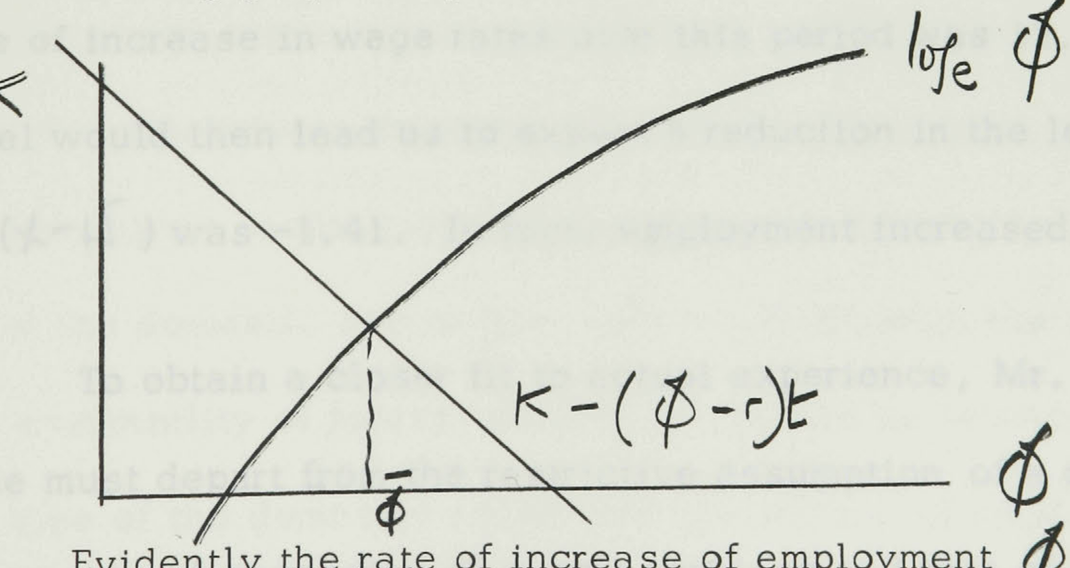
Thus we have $\psi = r = \phi\left(1 - \frac{U_0}{L_0}\right)e^{(\phi - r)t}$

Obviously $\phi = \phi'(t)$ To solve for ϕ, we would have to solve for each value of .

A solution can be obtained from

$$K = \log_e \left(1 - \frac{U_0}{L_0}\right)^{-1} . r = \log \phi + (\phi - r)t$$

Solving graphically we have



Evidently the rate of increase of employment ϕ will be lower the lower is r, and the lower is $\frac{U_0}{L_0}$.

Having obtained a value of ϕ, we know that $\phi = (x - \omega)$ where $\psi = \bar{\phi}\left(1 - \frac{\sigma_0}{L_0}\right)e^{(\bar{\phi}-r)}$ in the Seers model. Thus with a given ϕ, a given x, we can calculate the ω "required" to stabilize the volume of unemployment

The relationship between $(x - \omega)$ and ψ can be estimated by approximation from the following formula.

$$\psi = \frac{\Delta E}{L} = \frac{Ed(x-\omega) + \Delta E_g(x-\omega)}{L}$$

Thus the rate of increase of wages "required" to achieve a given rate of absorption of the labour force is

$$\omega = x - \frac{L}{E_d + E_g}\psi$$

Mr. Brewster found $\frac{L}{E_d + E_g}$ to be approximately equal to 1.3 for the period 1957 to 1963. Thus the maxim allowable ω to achieve a rate of increase of labour equal to the rate of increase of the labour force is calculated to be 6.9. The actual rate of increase in wage rates over this period was 12.1, with $x = 10.7$, the Seers model would then lead us to expect a reduction in the level of employment as the actual $(x - \omega)$ was -1.41. In fact, employment increased.

To obtain a closer fit to actual experience, Mr. Brewster concludes that one must depart from the restrictive assumption of a one to one relationship between rate of expansion of export earnings and rate of expansion of income.

The relationship is thus rewritten in the form

$$w = fx - \psi \frac{L}{Ed + Eg}$$

The increased leverage in income creattion was attributed to induced investment in the domestic economy and it was calculated to be 1.4 for the period 1957-1962.

On this basis the actual rate of increase in w of 11.7 was found to be less than that consistent with stabilizing the level of unemployment (12.0).

The tests performed on data for Trinidad for the period 1957-62/63 showed that employment did in fact increase more rapidly than the Seers model would lead us to expect. The domestic sector appears to be less dependent on export sector earnings than it is depicted to be in the model. As we shall see later, the years during which export sector earnings were almost stationary, nevertheless witnessed a substantial expansion in employment, in spite of rising wage rates. It thus appears that the private domestic sector does have some capacity to generate growth even when export sector earnings are virtually stationary. The constraint on the growth of the domestic sector thus appears to lie with the inducement to invest and the availability of foreign sources of capital to balance actual payments. Insofar as the size of the domestic sector and the volume of employment offered by this sector is a function of the inducement to invest, in activity serving the local market, it can be argued that policies of excessive wage restraint may in fact depress the rate of growth of employment, as well as income. Indeed this seems to be the argument of the Keynesians.

The Open Keynesian Model

We have observed that the Seers model, in which income generation is wholly dependent on the local disbursements of the export sector is too restrictive in its assumptions. The fact that both income and employment in the domestic sectors appear to have grown more rapidly than export sector earnings has led some writers to question Mr. Seers' catagoric insistence on the irrelevance of the Keynesian categories, and the absence of any internal process of income generation.

The case for the relevance of the Keynesian model has been argued most strongly by Professor Charles Kennedy.[29] In these two articles Kennedy argues that growth of income and employment in open economies characterized by "surplus labour" can best be encouraged by expanding the level of domestic expenditure: it follows that only the balance of payments can set the limit to the rate of growth of the economy.

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29. Charles Kennedy, "Keynesian Theory in an Open Economy", Social and Economic Studies, Vol. 15, No. 1, 1966, and "Domar-Type Theory in an Open Economy", Social and Economic Studies, Vol. 15, No. 3, 1966.

According to Professor Kennedy the only reason that orthodox Keynesian theory has appeared unsuitable for tackling the problems of underdeveloped countries is "due to the failure of the Keynesians to develop the theory adequately for the open economy."

In the "Keynesian Theory of an Open Economy" the author substitutes the import ratio $m = \frac{M}{M+Y}$ for the propensity to import $\mu = \frac{M}{Y}$ and indulges in some rather exaggerated claims for the superiority of the former. The import ratio is indeed more convenient because on a <u>sectoral level</u> it is constrained to vary between zero and unity whereas may, on a <u>sectoral level</u>, exceed unity. On a macro-economic level however, μ can exceed unity only in an economy which produces nothing at all for domestic consumption. The two ratios μ and m are algebraically related. Thus $m = \frac{\mu}{\mu+1}$ and $\mu = \frac{m}{1-m}$ The authors' statement that the "import coefficient is natural, direct and in line with the fundamental supply-demand logic that underlies Keynesian theory "whereas the propensity to import μ is unnatural, at best indirect and dependent on simplifying assumptions" is as bamboozling as it is illogical. The further claim that the import coefficient permits disaggregation by category of expenditure, whereas the alternate formation does not, is equally fallacious.

Indeed, Kennedy's "open Keynesian" model is identical with Seers' model, if we amend the latter to permit a deficit in the balance of payments equal to "autonomous investment" I.

The Seers model gives us[30]:

$$Y = \frac{X + I}{\mu} \quad \text{where} \quad \mu = \frac{M}{Y}$$

$$= (1-m)\frac{X+I}{m} \quad \text{if we use the} \quad \mu = \frac{m}{1-m}$$

We see that in this case $M = X + I$ Thus the exogenous expenditure I is in fact equal to the balance of payments deficit.

The Kennedy model gives[31]:

$$Y = \frac{(1-m)X + I}{1 - c(1-m)}$$

$$= \frac{(1-m)(X+I)}{m}$$ if we assume $c = 1$, as does the Seers model.

There again $M = X + I$

We may well wonder what all the fuss is about. The only difference between the two models lies in the fact that "autonomous" expenditure against the local economy in the Seers model is restricted to local disbursements of

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30. See p. - above.

31. Op. Cit. p. 8

export sector earnings and all imports are financed from net export earnings. In Kennedy's model autonomous disbursements include investment expenditures financed by external borrowing and imports consequently are equal to export sector earnings plus the same autonomous investment. In both models income adjusts to bring imports into line with available foreign exchange. The "multiplier" is identical in both models. Neither model deals with the problem of internal growth dynamic.

The substantive argument of Kennedy's article is that output is capable of expansion in response to increased demand provided the necessary increase in imports can be financed and therefore "the balance of payments sets a limit to development." The logic is indisputable and simple. The author however acknowledges that the conclusion rests on the assumption that "domestic resources are not simultaneously setting a limit on expenditures." This Kennedy holds to be quite plausible for a large range of expenditures because of the existence of "surplus labour". Here he follows Nurkse's argument that in such an economy capital formation "can be undertaken with surplus labour on the one hand and imports on the other."[32]

The model leads to the conclusion that investment choice should be governed by weigning the cost and the return in terms of the only scarce resource

32. Ibid, p. 15

in the system - foreign exchange. Kennedy's investment criteria thus becomes "that rate of discount that will make the present value of the future saving in imports and/or the future addition to exports equal to the import cost of the investment."[33] Foreign borrowing should thus proceed "to the point where the marginal import efficiency of investment is equal to the rate of interest of foreign loans."[34] Obviously the analysis hangs on the assumption that there is only one scarce resource - foreign exchange. Kennedy concludes that "it is not too bad an approximation to reality for the open economy which already has the basic infra-structure, though there is no doubt that in principle scarce domestic resources such as the existing capital stock, skilled labour, etc., ought to be introduced into the analysis." He frankly acknowledges that he does not know how to deal with the difficulties presented in the case in which there are a number of scarce resources. "The cruder Keynesian analysis", declares Kennedy, "has in fact surmounted them."[35]

Evidently it has done so by the very sweeping assumption that labour is a free good which has no opportunity costs and by the equally sweeping assumption that cooperating factors of production (such as land, suitable for the expansion of domestic agriculture), can be created by surplus labour plus borrowed foreign exchange exchange. The analysis implies that the "marginal product of labour is zero" -

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33. Ibid, p. 15.
34. Ibid, p. 16.
35. Ibid, p. 17

surely an absurd assumption in the context of the typical Caribbean wage structure as developed by Lewis and Seers'. Here, capital formation is assumed to be costless in terms of domestic resources. It follows that domestic saving is a virtue only to the degree that it releases imports for use in capital formation and "that it is less important to encourage saving as such than to encourage the switching of consumers expenditures from imported goods to goods and services that can be domestically produced."[36] The limits to growth are set by the availability of foreign exchange. Kennedy thus argues that the "orthodox notion that domestic savings should replace foreign borrowing is both muddled and mistaken."[37] We would suggest however, that Kennedy has missed the point of the "structuralist" arguments made by Lewis, Seers, Demas and others. The case for increasing the volume of domestic savings rests on the known fact that foreign capital tends to flow into specific sectors, including traditional exports and is not, in general available for investment in the domestic sectors.

In summary, the open Keynesian model offered by Kennedy does not take us beyond the simple relationships of income generation implicit in the Seers model. As for employment, the assumed one to one correspondence between income and employment of the simple Keynesian models is even less acceptable in Caribbean

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36. Ibid, p. 19.
37. Ibid, p. 21.

economy than in the North Atlantic countries from which the model originated. It simply will not do to ignore substitutes of capital for labour in the Caribbean economy! Seers' model is unsatisfactory in the sense that it lacks both a productive function and an investment function for the domestic sector. But Seers at least is aware of the problem! Kennedy has totally ignored the matter.

Although drawn from the Keynesian world in which there exists idle capacity of all factors of production, including specific fixed plant, the model is in some respects reminiscent of the policies advocated by Malthus in the 1820's in conditions which appear to have some similarity to those in "labour-surplus" economies today. We suggest that the crucial difference between the two situations does not lie in the obvious one that poor countries today are able to borrow foreign exchange on the international capital market or the international aid market.

Rather it lies in the fact that the locus of entrepreneurial initiative in the Caribbean, and indeed in many other open 'labour-surplus' economies today does not fully rest within the national economy. It is in this regard that the Malthus-Keynes model does not fit.

It is for these reasons that a general macro-economic model of open economy can be misleading. If the entrepreneurial dynamic of growth were able to set up a 'Harrod-Domar-type' process of cumulative income and capacity creation, then Kennedy's position that the only constraint consists of a short-run shortage of foreign exchange is fully acceptable. Such a situation implies that these economies export or borrow in order to be able to supply themselves with required imports for domestic consumption.

If however, the locus of entrepreneurial initiative rests outside the country; if more particularly it rests with the institutions which control the country's export sectors, then we have a situation in which the economy continues to import in order to export. In this situation the domestic sector continues to be largely a passive appendage to the export sector, with little capacity to generate its own growth.

We might comment that the Kennedy model is appropriate to an open transformed economy, but not one which he himself describes as "patchy". This casual British adjective surely begs the whole question.

In the article "Domar-Type Theory in an Open Economy" [38], Kennedy again takes up the argument that an open "labour-surplus" economy is always capable of expansion in response to increased internal demands provided the

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38. C. Kennedy: "Domar-Type Theory in an Open Economy", Social and Economic Studies, Vol.15, No. 3, 1966.

associated increase in imports can be financed from external borrowing. The balance of payments is therefore the key to economic growth and development.

Kennedy postulates a conflict between what he calls the "Keynes-type" and the "Domar-type" model. If we consider an open economy with balanced trade the "Keynes-type" model will yield a rate of growth of national income equal to the rate of growth of exports, once the import coefficient is given. The "Domar-type" model on the other hand, will yield a rate of growth equal to $\frac{s}{k}$ and the foreign trade term in the national income identity can be completely ignored. From this Kennedy draws the conclusion that "there is a conflict between the two theories" and that "the rate of growth of output cannot be determined both by the rate of growth of exports and by the savings and capital-output ratios."[39]

The matter is worth pursuing because the relationship between the export sector growth rate and the "own-growth rate" of the domestic sector is of substantive interest.[40]

The "conflict" which so puzzled Kennedy vanishes if we construct a

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39. Ibid, p. 177. "The Domar Model fails to provide any convincing explanation of the well-established correlation between the rate of growth of a country's exports and the rate of growth of "its output." Ibid, p. 178

40. One of the first writers to press the case for the Keynesian approach to income generation in the Caribbean was Professor Cumper who wrote as early as 1958 that "for an economy in which industrialization depends to a substantial extent on the home market we seem to be back to a dynamic model in which there is justification for maintaining effective demand." Social and Economic Studies, Vol.7, No. 3, 1958, p. 6.

dynamic two-sector model in which income generation in the domestic sector is a function both of export sector earnings and of the savings, import and capital-output ratios. It is the failure to disaggregate the economy into these two sectors which let Kennedy into some of his difficulties.

A number of two-sector models depicting an open economy have been constructed. For the purpose of illustration we may consider the following expression.[41]

$$(1+g_d)^t = A\left(1+\frac{m+s}{b_d}\right)^t + B(1+\varepsilon)^t$$

Where g_d is the rate of growth of the domestic sector, ε is the growth rate of export earnings, m is the import ratio of the domestic sector defined as $m = \frac{M}{X_D}$, S is the savings ratio and b_x and b_d are incremental capital-output ratios of the export and the domestic sectors respectively.

In this expression $$A = \left[1 - \left(\frac{1-S+b_x\varepsilon}{m+S-b_d\varepsilon}\right)\cdot\frac{E_0}{X_0}\right]$$

and $$B = \frac{1-S+b_x\varepsilon}{m+S-b_d\varepsilon}\cdot\frac{E_0}{X_0}$$

Hence the growth rate of the domestic sector is a weighted average of the growth rates of the export sector ε and the "own-growth rate" $\frac{m+S}{b_d}$. The weighting obviously relates to the size of the export sector in relation to the

41. United Nations, Economic Commission for the Far East: Development Programming Technique Series, No. 1, Bangkok, 1961.

domestic sector in the base year.

In long-run dynamic equilibrium g_d will approximate $\mathcal{E}$ if $\mathcal{E} > \frac{m+S}{bd}$

In this case there can be no balance of payments disequilibrium. In fact such an economy will accumulate reserves until its domestic sector is growing as fast as its export sector.

If however, $\mathcal{E} < \frac{m+S}{bd}$, the long-run equilibrium rate of growth of the domestic sector will be given by $\frac{m+S}{bd}$. In this case the economy is capable of generating its own growth but will run into foreign exchange difficulties because import requirements will grow faster than export earnings. Such an economy will use up any reserves it has and will then be faced with a choice of foreign borrowing or import substitution. It can readily be seen that a reduction in its import coefficient without a compensatory rise in the savings rate will reduce the growth rate of the domestic sector in this model.

Let us now briefly return to Kennedy's problem. This seems to flow from his assumption that there is spare capacity in any "labour-surplus" economy and it is thus possible to increase real output without any increase in imput. There is, according to Professor Kennedy "no limit on the output of services" and furthermore "the output of services requires no capital."[42]

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42. Ibid. p. 178 and 179

While the correspondence of these assumptions to reality is highly questionable, if only because they would remove any ceiling whatever on the rate of growth of output, Kennedy's models are even more strange.[43]

It might thus be useful to forget about Kennedy's models and consider a simple (static) Keynesian model in which imports are divided into two types - consumer goods and capital goods.

Let us suppose that $m_c = \frac{M_c}{C}$ and $m_i = \frac{M_i}{I}$ where m_c and m_i define import coefficients. Suppose now that export sector earnings are stagnant but we wis to increase investment expenditures by ΔI in order to expand domestic capacity. This would appear to require an initial reduction in consumption of $\Delta S (= \Delta I)$ The foreign exchange released by ΔS would be $m_c \Delta S$ while the additional foreign exchange required for ΔI would be $m_i \Delta I$ if $m_i > m_c$ there will be a shortfall of foreign exchange equal to $(m_i - m_c)\Delta I$. This may now be met from three sources: depletion of reserves; foreign borrowing; or a further reduction in consumption.

We may note that the reduction in consumption of ΔS has already created idle (redundant) domestic capacity equal to $(m_i - m_c)\Delta S$. Clearly the further cut in consumption necessary to release the remaining required units of foreign exchange will create even more redundant domestic capacity.

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43. See especially expression No. 20 which appears to derive from a "national accounting identity" which includes exports but not imports.

If there were access to foreign borrowing, the reduction in the level of consumption would be confined to an amount just sufficient to release the domestic resources required for the additional investment $\left(\text{i.e. } (1-m_i)\Delta I\right)$. If, of course, domestic resources are redundant to start off with, then it is not necessary to reduce consumption at all in order to permit an increase in real capital formation.

If however, we do not have access to foreign borrowing and if the import-content of consumption remains fixed at m_c then there would have to be a very substantial reduction in consumption $\left(\frac{m_i \Delta I}{m_c}\right)$ to balance external payments. In this event very substantial amounts of domestic resources would be rendered idle $\left[\frac{(1-m_c)m_i\Delta I}{m_c}\right]$. The alternative is a reduction in the import content of consumption. In this latter case no resources would be made idle.

Evidently Professor Kennedy believes that certain types of domestic capacity is chronically under-utilized. If this were indeed the case, there should never be a reduction in consumption, only a switching of patterns of expenditure from imported goods to domestically produced goods and services. When the matter is placed in this light it then appears to be the pattern of income distribution and demand which imposes constraints on growth, rather than the balance of payments.

We may conclude by remarking that the "Seers versus Keynes" controversy is rather sterile; what appears to be required is a model of income and employment generation which embodies some of the following characteristics.

1) An export sector, whose local disbursements constitute the prime source of foreign exchange to the economy. This sector is typically foreign-mined, capital-intensive and subject to a high rate of physical productivity increase. Employment is stationary, while wage rates are rising. The sector undertakes its own capital (investment) expenditure.

2) A government sector which obtains its revenue from taxing the export sector and taxing personal income. The government sector may be assumed to undertake all foreign borrowing in this economy while its expenditures consist of factor services, commodity imports and debt servicing.

3) The private domestic sector will have to be subdivided into two parts - that which is competitive with imports, and that which is not. In the former a productivity increase can result in a fall in the import ratio and a rise in employment; in the latter productivity increase is generally associated with declining employment. The rate of increase in wage rates may be assumed to be transfered from the export sector.

ALGEBRAIC NOTE ON MR. SEER'S MODEL

Algebraic Summary of Seers' Mechanism of an Open Petroleum Economy *

Assumptions:

1. All Government Revenue derives from Export tax.
2. All Government Expenditure consists of Wages and Salaries.
3. All Imports are purchased by the Private Domestic Sector.
4. Government Revenue = Government Expenditure
5. Labour force (employment) in Export Sector is constant.
6. Exports = Imports, including Remitted Profits of the Export Sector.

Flow Variables:

	Export Sector	Government Sector	Private Domestic Sector
Profits (net of tax)	P_X	—	P_D
Labour Incomes	L_X	L_G	L_D
Taxes	T_X	—	—
Foreign Trade	X	—	M

Identities:

Expenditure		Receipts	
$L_X + P_X + T_X$	$\equiv$	X	(Export Sector)
L_G	$\equiv$	T_X	(Gov't Sector)
$M + L_D + P_D$	$\equiv$	$L_G + L_X + L_D + P_D$	(Private Domestic Sector)
X	$\equiv$	$M + P_X$	(Rest of the World Account)

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* Based on the the Mathematic Appendix to the article.

ALGEBRAIC NOTE CONT'D

Exogenous Variables:

e^x is the growth rate of export earnings.

e^w is the growth rate of wage rates.

X_o and L_o are base period value of exports and wagebill.

α is a parameter of tax rate such that $T_x = \frac{P_x}{\alpha}$

β is an import coefficient such that $M = \beta (L_G + L_x + L_D + P_D)$

π is the profit margin in the domestic sector such that $L_D = \frac{P_o}{\pi}$

The Model:

$$L_G = T_x = X - L_x - P_x$$

$$= X - L_x - \alpha T_x$$

$$\therefore L_G(1+\alpha) = X - L_x$$

① AND $L_G = \frac{X - L_x}{(1+\alpha)}$ (This determines Government Expenditure)

$L_G + L_x = M$ (Capacity to Import = Export Sector Wage Bill and Taxes)

$$= \beta (L_G + L_x + L_D + \pi L_D)$$

$$L_G + L_x - \beta L_G - \beta L_x = \beta L_D (1+\pi)$$

$$(L_G + L_x)(1-\beta) = \beta L_D (1+\pi)$$

② $L_D = \frac{(L_G + L_x)(1-\beta)}{\beta(1+\pi)}$

ALGEBRAIC NOTE CONT'D

Sum of (1) and (2) i.e. L_{D+G} yields an expression for total wages paid outside the export sector:

Now $L_{D+G} = \omega_{D+G} \cdot \mu_{D+G}$

where ω_{D+G} is average wage rate in the domestic economy,

and μ_{D+G} is employment in the domestic economy.

$$L_D + L_G = \frac{X - L_x}{(1+\alpha)} + \frac{[X - L_x + L_x(1+\alpha)](1-\beta)}{(1+\alpha)\beta(1+\pi)}$$

$$= \frac{\beta(1+\pi)(X - L_x) + (X + L_{x\alpha})(1-\beta)}{\beta(1+\alpha)(1+\pi)}$$

$$= \frac{\beta X - \beta L_x + \beta\pi X - \beta L_x \pi + X + L_{x\alpha} - X\beta - \beta L_x}{\beta(1+\alpha)(1+\pi)}$$

$$= \frac{X(1+\beta\pi) - L_x(\beta\pi + \alpha\beta + \beta - \alpha)}{\beta(1+\alpha)(1+\pi)}$$

Because $L_{D+G} = \omega_{D+G} \cdot \mu_{D+G}$

$$\therefore \quad \mu_{G+D} = \frac{X_0 e^{xt}(1+\beta\pi) - L_0 e^{\omega t}(\beta\pi + \alpha\beta + \beta - \alpha)}{{}_0\omega_{(D+G)}\, e^{\omega t}\, \beta(1+\alpha)(1+\pi)}$$

$$= \frac{X_0 e^{(x-\omega)t}(1+\beta\pi) - L_0(\beta\pi + \alpha\beta + \beta - \alpha)}{{}_0\omega_{(D+G)}\, \beta(1+\alpha)(1+\pi)}$$

and $$\frac{d(\mu_{(G+D)})}{dt} = \frac{X_0 (x-\omega) e^{(x-\omega)t} \cdot (1+\beta\pi)}{{}_0\omega_{D+G} \cdot \beta(1+\alpha)(1+\pi)}$$

ALGEBRAIC NOTE CONT'D

From these identities we note that:

1) employment grows only if $x > \omega$

employment diminishes if $x < \omega$

2) the smaller is α, the faster employment rises. (Small α is a high tax rate.)

3) the smaller is β, the faster employment rises. (β is import coefficient.)

4) the smaller is π, the faster employment rises.* (π is profit margin in the private domestic sector.)

* : Consider $\left[\frac{1+\beta\pi}{\beta(1+\pi)}\right]$ as $\left[1+\left(\frac{1}{\beta}-1\right)\frac{1}{(1+\pi)}\right]$

From this it is evident that a small α and a small β both raise $\frac{d\mu}{dt}$.