A THEORETICAL ANALYSIS OF INVESTMENT PROBLEMS IN A DEVELOPING ECONOMY WITH SPECIAL REFERENCE TO CAPITAL FORMATION IN GHANA SINCE 1951

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INTRODUCTION

Political Economy, from the beginning of the seventeenth century until the middle of the nineteenth, was largely preoccupied with the analysis of the nature, causes, and consequences of the increase in the wealth of nations. Indeed, this search for an explanation of the process of economic development is one of the main links in the history of economic thought. Undoubtedly, from the second half of the nineteenth century until the first half of the twentieth, there occurred a major shift in emphasis, that is, to value and distribution theory; but nevertheless, a substantial part of the work of writers even during this period was concerned with the subject matter of economic growth. If these later writers failed to make explicit their ideas about the topic, it was mainly because, writing during the heyday of capitalist development, they seemed to have taken for granted the underlying forces propelling the capitalist economy on its course, and instead, concentrated their attention on explaining the processes which bring about the most efficient distribution of the ever increasing output produced by the economy. Today, as a result of concurrence of events, economic development has once more come explicitly to the forefront of economic discussion.

Throughout the history of discussion on the subject, economists have reached one definitive conclusion,[1] that is, that

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1. This conclusion does not however imply unanimity among economists about capital investment as the fundamental engine of development. Indeed, it has been convincingly demonstrated in recent years that technological progress has been more important that investment in capital as the dynamic force in the growth of the American economy. See R. M. Solow, "Investment and Technical Progress," in Mathematical Methods in the Social Sciences, eds., K. J. Arrow, et al, (Stanford University Press, Stanford, 1960), pp. 89-104. Besides, there are other views which regard socio-political influences to be of fundamental importance. Nevertheless, since capital investment in developing economies of today invariably implies technological progress, the conclusion is valid for the general case of economies with which we are concerned in this study.

economic development as a process of increasing productivity or output per person, is a result of the process of capital investment, the emphasis being on investment rather than on capital. Investment may be defined as the process of creating capital to be used to facilitate further production, and with regards to a growing economy, in order to increase output per unit factor of production. The general tenor of discussion on the subject has been a groping towards a theory of investment or a systematic explanation of the mechanisms which ensure the flow of investment required for sustained growth.

Two broad approaches have been followed; the historical or empirical approach which attempts examination of historical data of development in order to unravel the socio-economic forces underlying the investment process, and the deductive method which takes as its point of departure the simplest hypothetical economy imaginable, in a state of stagnation, then introduces the process of investment, and analyses its impact on the subsequent course of the economy. In the latter approach, the investment process impinges on the hypothetical primitive economy as a "special kind of shock to tranquility which has repercussions (favourable and unfavourable) throughout the economy, and which renders its past development largely irrelevant to its future course."[2]

Contemporary interest in economic growth has resulted in a hybrid of theories originating from both approaches. These theories are intended to provide a set of strategic variables which may be manipulated either to maintain growth at a desired rate or to start the process of growth for the first time altogether. In spite of differences of

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2. Joan Robinson, Accumulation of Capital, (Macmillan, London, 1956), p. 163.

emphasis and interpretation, three of these variables stand out clearly and may indeed be regarded as the core around which much of the theoretical discussion revolves.

These are the saving-investment analysis, in which attention is focused on the distinctive separation and yet necessary interdependence of saving and investment processes in a production economy; the incorporation of the technological factor in the production function as an endigenous variable, a function which is capable of being "manufactured,"[3] and has the potential of fending off the operation of the classical law of diminishing returns; and related to the second, the phenomenon of external economies or diseconomies which are contingent on technical characteristics of capital investment. How to link these variables in order to produce a concatenation of desired effects more or less spontaneously is the basic problem posed by the process of economic development.

The problem appears in various forms in a low income economy. Indeed, underdeveloped economies, by definition, are characterised by the conspicuous ineffectiveness of these three variables as growth generators. In terms of natural endowments, resources for potential development remain unexploited; there is lack of adequate communications and of cheap and sufficient power to enable processing of raw materials economically. In terms of human resources, labour is on the whole one homogeneous mass, unskilled, untutored in the discipline of regular economic activity, and often characterized by low productivity; business organization, almost negligible, is at a primitive

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3. Harry G. Johnson, International Trade and Economic Growth, (Harvard University Press, Cambridge, Mass., 1958), p. 99.

level and hardly sustained by an effective flow of indigenous entrepreneurial activity. In terms of capital formation, saving as a residual of income flows, whether small or large, does not find an outlet into acts of productive investment which will overcome the operation of the law of diminishing returns of output, largely because of inability to recognise and exploit to advantage external economies that may flow from undertaking such investment. Together with the low level of saving technological backwardness sets an effective limit to the potentiality of expanding the scale of economic activity of the society. For owing to a combination of socio-economic factors, the production function incorporates little of available and usable technical knowledge which will bring about the allocation of factors consistent with maximizing output per unit of input; the combined extent of these prior two factors has been the inability of a poor economy to generate external economies as a substantial propellant of self-induced development.

Nevertheless, most underdeveloped countries have been experiencing some measure of economic growth largely through the impact of foreign trade. It will be our task in this study to analyse, first in general theoretical terms, the problems of investment in a growing economy, and then to relate that analysis to the specific problems of investment experienced in Ghana during the period of concerted development, 1951-62. Our main purpose is to analyse the process of capital investment in Ghana from two aspects. The first aspect has to do with the problem of structural adjustment, that is, the problem of creating and adjusting the structure of fixed reproducible capital to the requirements of population growth and rising per capita income within the context of a reasonable degree of domestic and external balance. The

second aspect is concerned with the problem of financial adjustment or that aspect of the problem of saving which concerns the development of financial policies and institutions in order to facilitate the process of capital accumulation in real terms.

With specific reference to the economy of Ghana, we are essentially concerned in this study with analysing the sources of the economic surplus and its utilization in maintaining and expanding the volume of production. We contend that while the economy was fortunate to have reasonably adequate investible surplus during the first half of the period under study, the disposition of this surplus in terms of the pattern of investment on public account that was undertaken, was such as to precipitate serious economic difficulties during the latter part of the period, and, indeed, for subsequent years these difficulties are largely reflected in the conditions of adverse balance of payments which began to afflict the economy persistently from 1959. While we do not deny that conditions of adverse balance of trade generally accompany periods of large-scale capital expansion, especially during the phase of incipient economic development, we propose to demonstrate that the foreign trade problems of Ghana during the latter part of the period under study originated largely from a fundamental imbalance in the structure of capital formation rather than from the mere process of capital accumulation. We further argue that financial policy for long-term development not only lagged behind, but was also largely inconsistent with, the declared policy of contrived capital development; finally, we advance the proposition that the apparent failure of private investment to undertake directly productive investment, that is, production of consumer goods, at a level conforming to official expectations and as consistent with the

level of domestic demand, with due account taken of the principle of comparative advantage, may be explained largely by a definite lack of clearly defined sense of direction by the government in the field of industrial development; and the lacuna in the government's conception of development has been the reluctance to realize that radical changes in agricultural production, to form a sound basis for further expansion of investment in other sectors, were the fundamental problem of development to be tackled.

The study falls into two parts. The first part consists of a comprehensive exposition of the major theoretical developments from the classical school to the present day, in a rather selective fashion, with the objective of unravelling the nature of the successive analyses of investment problems and of suggesting any relevance they may have for present developing economies. For purposes of analytical clarity, this section is divided into four chapters; the first deals with the saving investment analysis of the classical and neo-classical schools and its emphasis on thrift and productivity; the second deals with the innovational theories of Karl Marx and Schumpeter, emphasizing the role of the entrepreneur and technological progress as strategic factors in the process of growth; and the third chapter attempts a summary of the major post-Keynesian contributions to the theory of growth in two sections, the first having to do with the pathbreaking contribution of Harrod and Domar to the analysis of the conditions for equilibrium growth, and the second dealing with the theoretical developments in the field of economic underdevelopment.

The significant impact of international trade on underdeveloped economies is taken into account in the first section of

Chapter Four; the second section of this Chapter delves into the policy implications of the analysis in the previous three chapters, especially Chapter Three, implications which are based on the conceptual tools of the accelerator, external economies, and the capital-output ratio in terms of their relevance for the formulation of investment criteria in a developing economy. The concept of investment criteria raises the issue of the role of the State in economic development to which some consideration is given in this Chapter. The whole of Chapter Four is intended to constitute a link between the general theoretical analysis of the first three chapters and the more specific study of the second part.

The second part opens with a Chapter, the fifth, on the historical role of foreign trade in determining the structure of the Ghanaian economy during the first half of the twentieth century. Emphasis is placed on the colonial nature of the economy, on its typically high export-orientation, and on the investment effort undertaken especially between 1919 and 1929 to promote and support its export bias.

In the sixth Chapter, we consider the structure of investment demand during the period 1951-1962 as shown in the development programmes between 1951-58 and by the capital formation which occurred between 1958-1962. This chapter presents the evolution of the economy of Ghana from a macro-economic viewpoint, and draws attention to the emphasis placed on the category of social overhead capital in contradistinction to directly productive types of investment activities. Chapter Seven is devoted to the analysis of the supply of investment capital, the relationship between various sources of capital supply, and the sectoral allocation of capital funds. In Chapter Eight we present a critique of main issues of development policy as they relate to the

supply of saving, the agency of investment, and the consistency of specific development objectives. A short section of this last Chapter draws together the main elements of the general conclusion toward which we have been tending in the preceding chapters.

Having stated our intended line of argument, we must also present here a brief statement on the definition of major economic terms which we are going to use often in the text. The first of these is capital formation. We define capital formation as the process of creating, maintaining, and increasing the stock of real capital - as opposed to financial capital[4] - used as an input in the process of production. Capital is here taken to refer to the heterogeneous collection of assets which are man-made expressly for use in production, and we shall limit our conception of this factor of production to such goods. Capital may be tangible or intangible in form, be durable or non-durable with respect to time, and be fixed in situ or movable.

In our analysis we shall restrict the term to man-made means of production which have dimensions of physical concreteness and temporal durability. Specifically, we consider only fixed capital as usually classified into the two groups of structures - buildings, engineering works like dams, irrigation, means of transportation and communication - and plant together with machinery and equipment. In thus restricting our definition we shall however bear in mind the important implications for a developing economy of investment in inventories and in such intangible assets as health, education and general social welfare, all of which must be included in a wider view of capital

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4. T. Barna, "Alternative Measures of Measuring Capital," The Measurement of National Wealth, Series 8, (Bowes and Bowes, London, 1959), p. 35.

SHORT TITLE

AN ANALYSIS OF PROBLEMS OF ECONOMIC DEVELOPMENT IN GHANA, 1951 - 1962

by

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formation especially in the context of economic development in the long run. Furthermore, we must emphasize that our concept of fixed capital formation embraces not only industrial capital,[5] but also what is generally referred to as social capital or infrastructural capital.

In these respects, the concept of investment as the active diversion of resources from current consumption to assist in further production has a wider connotation than capital formation, since it encompasses the building up of the stocks of different factors of production such as labour, natural resources, capital, and technical knowledge. Two concepts of fixed investment must be differentiated; gross fixed investment and net fixed investment. Gross fixed investment refers to the flow of fixed assets which are installed partly to replace worn-out and old assets, and partly to add to the stock of capital. Net investment is the addition to the capital stock which occurs after depreciation, that is, deductions for the consumption of existing capital. Strictly speaking net capital formation may mean the amount by which existing capital stock is increased.

From the point of view of determining changes in the capital stock, a measure of net capital formation is most desirable. Nevertheless, the determination of depreciation which reflects the true economic lives of a heterogeneous mass of productive assets is befogged by practical and statistical difficulties. The determination of the economic lives of assets, the distribution of these assets by age, the appropriateness of using straight-line or reducing balance methods of depreciation, and the estimation of depreciation at current replacement

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5. From the point of view of measuring the stock of capital, Barna finds it convenient to limit his concept of fixed capital to "tangible fixed assets of industry." op. cit., p. 41.

prices are difficult problems which must be solved first to arrive at the capital consumption which is appropriate to a given structure of capital assets. Partly in view of these problems, but mainly because of the orientation of our study towards emphasizing the magnitude of the investment effort whether to maintain or add to the capital stock, we have chosen to use the more relevant concept of gross capital formation.

Consequently, we use the concept of gross national product. Conceptually, there are three methods of measuring gross national produce in current market prices: (i) the expenditure approach which involves summing final purchases by residents of a country plus exports and the value of physical change in inventories minus imports; (ii) the income approach by which are summed factor incomes plus capital consumption and indirect taxes less subsidies; and (iii) value added approach which requires summing value added by production units plus indirect taxes minus subsidies. For statistical reasons, only the first approach has so far been attempted in official statistics in Ghana. Gross national product must be differentiated from gross domestic product which measures the flow of output originating within the physical boundaries of a country, while national product measures the flow of output produced by residents of the country.

While gross domestic product is relevant to the determination of the production structure of the economy, we choose to use gross national product because it excludes factor payments to recipients outside Ghana, and includes factor income accruing from abroad to residents of Ghana, and thereby constitutes the measure of output that may be regarded as lying within the ambit of development policy.

A more desirable measure would have been national product at factor cost, that is, gross national product estimated at prices which exclude indirect taxes but include subsidies.[6] But statistical difficulties prevent such estimates at the present stage. A still more proximate measure is the conversion of current value estimates into base-year prices so that estimates may reflect physical volume changes over time. While it has been possible in Ghana to have estimates of imports and exports in base-year prices, it is exceedingly difficult at the moment to derive reliable and meaningful price indices with which to deflate national product so as to obtain a measure of changes in real output. The available series of consumer price indices provide rough guidelines for the determination of the movement of real wages but they are too spotty in coverage and quite inappropriate to use to deflate national product at current market prices. But while constant value estimates are required for meaningful intertemporal comparison of various economic variables, yet a comparison of these variables in current values at a given point of time may still be meaningful so long as they are subject in the same degree to the same forces of price trends, market structure, government policy, and random circumstances. Thus taking into consideration the proverbial deficiency of precise statistical information in underdeveloped economies, the estimates presented in this study should be taken as indicative of broad orders of magnitude rather than of precise calculations. This qualifying statement is especially called for in the case of statistics

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6. National income refers to the measure of national output at factor cost net of depreciation.

relating to economic activities in contradistinction to the foreign trade which are generally regarded as least unreliable.

Finally we define economic growth as quantitative increase in the measurable economic concepts of real output, employment and investment as opposed to economic development which conveys the idea of structural change, for example, the transformation of a predominantly agricultural economy into an industrial economy. For purposes of stylistic variation, however, we found it convenient to use both terms interchangeably without necessarily intending to blurr the analytically significant distinction that marks one from the other.

A claim of originality is required in a study at this level and we hasten with due modesty to establish some such claim. We claim that we have undertaken to provide in this study not only a comprehensive analysis of investment effort in Ghana in terms of Keynesian macroeconomics, an undertaking which to the best of our knowledge is a pioneer effort, but also, more importantly, an insight into the nature and magnitude of the specific problems which a fledging economy like that of Ghana is likely to encounter. Being a tropical, and formerly colonial economy, which is comparatively richer and more developed than other tropical African countries, and in view of the intense political consciousness of its people as well as of their self-imposed mission of spearheading political revolution in Africa, the economy of Ghana assumes special importance, for its pattern of development has great significance far beyond its borders. Hence, although we do not press the claim too far, we cannot resist the temptation of stating that the conclusions which follow from this study may be applicable, in the large, to other tropical African economies.

In a larger, albeit not too concrete sense, we have attempted in our analysis to blend together the methodology of economic history and that of economic theory, to undertake a study of a pre-industrial economy, an attempt which, we feel confident, can withstand relevant and valid criticism.

CHAPTER I

SAVING-INVESTMENT ANALYSIS OF THE CLASSICAL AND NEO-CLASSICAL SCHOOLS

1.1 Introduction

By the classical school, we shall mean the body of economic doctrines formulated by Adam Smith, the founder, David Ricardo, the leading exponent, and John Stuart Mill, the chief Disciple. Undoubtedly, there are a galaxy of lesser stars, including writers like James Mill, the father of John Stuart, McCulloch, Nassau Senior, Longfield, Lauderdale of Ireland, and J. B. Say of France; but in this chapter we shall devote our attention to the exposition of the theory of capital accumulation as presented by the big three. However, we shall also mention the contribution of T. R. Malthus whose work, in an important respect, stands outside the main stream of the classical propositions.

The case for capital accumulation has been sufficiently stated by Adam Smith.[1] Man's emergence from the rude state of society in which labour is the only means of production, is possible only by the accumulation of a stock of produced means of production which will facilitate greater production of output than is possible without their assistance; in other words, the rate of growth of output is determined by the rate of capital accumulation. Smith underlined two interrelated principles which characterise this process of economic development; the principle of division of labour, and the law of capital accumulation. The first principle clearly depends on the second, for capital is required for the emergence of the specialization of functions which the division of labour entails, hence availability of capital sets a limit to the principle of division of labour. This is merely another form of the

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1. Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, (Everyman's Library, London, 1910) 2 vols.

first of Mill's fundamental propositions about capital which is that industry is limited by capital. In stating that capital accumulation always gives effect to division of labour, the classical writers have assumed that labour and capital are always cooperative, that is, they excluded the possibility of substitution between labour and capital,[2] or in modern phraseology, a change in the production function biased against labour.

The law of capital accumulation is a generalization of the human tendency to set aside some part of the product of his labour to serve as a means of increasing his power or production in the future; it expresses a dynamic view of human nature, the urge for self-improvement, or the improvement of one's heirs by manipulating the conditions of one's existence.[3] The classical economists extended this proposition from the individual plane to the social plane, and proceeded to analyse the course of society's economic development from this point of view. In a given society, in order to sustain and increase the level of output, part of it must be continuously withdrawn from immediate consumption. The classical economists defined the output set aside both in the technical sense as a stock set aside for investment which is capable of employment

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2. Ricardo's famous chapter on the effect of machines on the employment of labour certainly touched on the phenomenon of technological unemployment, but he failed to incorporate his awareness of the problem into his general model of growth. David Ricardo, Principles of Political Economy and Taxation, Vol. 7 of Works ed. P. Sraffa (Cambridge University Press, London, 1951) pp. 386-397.

3. This expresses itself in the human propensity, in an exchange economy, to truck, barter, and exchange one good for another as emphasized by Adam Smith. In a production economy, the archetype of this propensity is the morality of the peasant who sets aside some part of the produce of his farm for sowing in the next round of production. Joan Robinson, op. cit., p. 33.

in further production and also in the distributive sense as being a source of income.[4] Ricardo defined this investible output as "that part of the wealth of a country which is employed in production and consists of food, clothing, tools, raw materials, machinery, and necessary to give effect to labour".[5]

The process of capital accumulation involves the performance of two functions, saving and investment; the one an act of immediate non-consumption or postponement of consumption, and the other a process of decision-making about using saving in order both to maintain the existing level of production, and, more relevant to our discussion, to achieve a higher level of output. Both functions are necessary for the existence of each other, and the nature of the relationship between them constitutes one of the complex problems in economics. The act of saving is not coincidental to the decision to invest, that is, the decision to save does not necessarily constitute a direct demand for capital goods, a demand which may call forth their supply. Nevertheless, it is the chief doctrine of the classical school that saving constitutes a form of demand for capital investment. This proposition arises from their theory of income distribution and saving. Within the given structure of society, the social product is distributed on the basis of the function of each group in the economy. The landlords receive rent as owners of land, a factor whose supply is inelastic; capitalists receive profits as a reward for their entrepreneurship; and labourers receive wages in return for the use of their labour power. Of the three classes in the classical model

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4. G. S. L. Tucker, Progress and Profits in British Economic Thought, (Cambridge University Press, London, 1960) p. 82.

5. Ricardo, op. cit., p. 95.

only the capitalists undertake saving; the landlords cannot save because of their unitary marginal propensity to consume, and labourers earn just enough to subsist. The profits of the capitalists then constitute the vital link in the process of investment for growth.

We may now state the fundamental principles underlying the classical model. The first is the law of diminishing returns in agricultural production which states that, with a given technique, the returns to successive additions of equal amounts of a given combination of capital and labour to land both on the intensive and extensive margin eventually diminish. From this proposition, Ricardo developed his theory of differential rent to explain the relationship between wages and profits.

Another fundamental principle of the classical system is the Smithian notion of the "invisible hand" which fuses the spontaneous pursuit of the self-interest of each individual into a harmony of effort for the social benefit. Inherent in this conception, is the idea of the "economic man" rationalising his activities in the perspective of cost and profit, and undertaking those activities which have the maximum prospective profit. The effect of the invisible hand, or in modern terms, competition, is to equalize for all individuals the profit dimension in investments of similar risk and uncertainty. Finally, the classical economists upheld with unambiguous tenacity Say's law of markets, that supply creates its own demand; that is, in the long run, desired investment is equal to saving. The assumption underlying this doctrine is that money serves only as a medium of exchange and has no

value as an asset on its own account,[6] and that any disturbances caused by differences between saving and investment, usually in the short-run, are corrected by automatic wage-price adjustments in the long-run.

1.2 The Classical Model

The classical model may be expressed as a series of functional relations between economic variables of the system. Following Professor Benjamin Higgins,[7] we may begin with the production function; national product is a function of the labour force, land and capital. We exclude improvements in technique, since the classical writers assumed a fixed production coefficient as well as constant returns in industry other than agriculture. Furthermore with land fixed and subject to eventually diminishing returns, the real operative functional relationship is the rate of increase in population and the rate of increase in capital investment. Investment is a function of saving from profit, and the supply of labour is a function of the wage rate which in turn depends on the level of investment; the rate of increase of the labour force becomes a function of the rate at which net national product is increasing.

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6. For the difference in interpretation of Say's Law with special reference to the quantity theory of money see D. Patinkin, Money, Interest, and Prices, (Row, Peterson and Company, Evanston, Ill. 1956) pp. 245-55, who limits the validity of the law to a barter economy in which only relative prices are significant for economic decisions; and G. Ackley, Macroeconomics, (Macmillan, New York, 1961) pp. 120-123 who criticises Patinkin's interpretation and asserts that the law is fully consistent with a production economy provided money is held only as a medium of exchange.

7. We take exception, however, to his exclusion of Ricardo from the classical group of dynamic economists, see B. Higgins, Economic Development, Problems, Principles, and Policies, (Norton, New York, 1959) p. 87 and for our authority, see Roy F. Harrod, Towards a Dynamic Economics, (Macmillan, London, 1948) pp. 16, 18.

Development occurs as capital investment enables output to rise at a rate higher than the rate of population increase. A rise in the volume of investment per man raises the productivity of labour bringing about an increase in aggregate output; and, with output increasing at a rate higher than the rate of growth of population, output per head rises. The effect of increased output on individual welfare depends on the prevailing distribution of income. In the classical system, income distribution is based on the class structure of society, specifically of English society; landlords to whom accrues rent, entrepreneurs-cum-capitalists who receive profits and interest, and labourers who earn wages.

The organization of enterprise during the classical period was essentially individualistic rather than corporate; the development of joint-stock companies as an impersonal instrument of business organization operating on the principle of limited liability, was in its infancy, and the "typical entrepreneur was an individual who invested his own finance in a business which he managed himself and bequeathed to his heirs as a going concern."[8] Ownership and control therefore were integral functions exercised by one individual. This feature of business organization has a significant imprint on the analysis of the investment process offered by the classics.

Investment entails the acquisition of command over resources, and the direction of this command in the production of capital goods. In the organizational set-up of the classical period, the command over investible funds and the employment of this command for capital goods production are twin processes undertaken by the same individual.

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8. Robinson, op. cit., p. 6.

The strategic factor which urges the entrepreneur to undertake investment is expectation of profits; and one of the basic principles of the classical analysis is that given a constant emergence of profit horizon, the entrepreneur always transforms his saving into productive investment. In aggregate terms, that is, from the point of view of the economy as a whole, the classical model postulates that this occurs as a hitchless operation so long as profit opportunities emerge and profit expectations are largely being realized. But the model contains within it the seeds of its own destruction. As formulated, it describes a condition of full employment growth, and, in the long run, this condition tends to lead to the phenomenon of the stationary state, a state in which profit expectations become ineffective as an inducement to investment.

The phenomenon of the stationary state crystallizes the crucial problem of the classical model; at root, this problem lies in the gradual evaporation of profit and expectations. Profits are the dynamic factor which spurs the capitalist economy towards a path of development, hence their extinction halts the advance of the economy. The classical model attempts an explanation of the disappearance of profits in terms of changes in the labour force (population), and the rate of capital accumulation as they affect the relationship between wages and profits in the process of growth.

Assume a given increase in the volume of investment both in physical equipment and advances to labour, which brings about an increase in output. Given the initial amount of labour, the total wage-bill tends to rise and labour attempts to establish a new standard of living which in course of time becomes the customary level of living. Meanwhile, however, labourers react to the rise in wages by increasing

their numbers through procreation with the result that, in due course, their increased numbers tend to reduce per capita income probably to its initial level. But in order to maintain the newly established higher level of per capita income, production is expanded; and as output is largely composed of food (corn), expansion of production takes the form of greater investment in the agricultural sector. This means either bringing under cultivation marginal lands of inferior quality, or the intensive cultivation of existing farms. With the technique of production unchanged, the expansion of production to intensive and extensive margins is accompanied by increasing costs in the form of rising wage bill. Operating in a non-inflationary model with a stable price-wage relationship, the classics maintained that an increase in costs reduces profit and thus postulated an inverse relationship between wages and profits. The nature and cause of this relationship, however, have been differently analysed by Smith and Ricardo.

For Smith, capital accumulation increases the demand for labour, and, with a given labour force, raises wages. The rise in wages is real, for as capitalists invest, they compete with each other and this competition tends to lower prices; and with high labour costs, profits decline. Obviously, Smith assumes investment opportunities are fixed;

> in a country fully stocked in proportion to all the business it had to transact, as great a quantity of stock would be employed in every particular branch as the nature and extent of trade would admit. The competition, therefore, would everywhere be as great and consequently the ordinary profit as low as possible.[9]

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9. Smith, op. cit., Vol. 1, Book 1, pp. 84-5

Smith also assumes that consumption demand does not rise with an increase in productive capacity. Thus capitalists face not only rising labour costs but also a buyers' market.

According to Ricardo, however, the rate of accumulation exceeds that of population only in the short-run, and is soon caught up by the latter, propelled on its course by the desire of labour to reproduce itself. Unlike Smith, Ricardo does not base his arguments on the tendency of profits to fall; for he argues that "at the same time that capital is increased, the work to be offered by capital is increased in the same proportion."[10] He explains the inverse relationship between wages and profits by the law of diminishing returns in agriculture. The product of the marginal no-rent land is composed of wages and profits, so that when wages rise with the extension of cultivation, profits fall.

In the Ricardian model, it is money wages and not real wages, which rise. As population increases, the need to feed the increased number brings under cultivation marginal farm lands from which a given output per acre can be produced only at successively higher marginal costs than expended on the intra-marginal acres. Thus with increasing costs and rising demand, the price of food goes up and in order to enable workers to subsist at prevailing customary levels, money wages must rise too. But the price of manufactured goods remain unchanged, because, according to the Ricardian labour cost of value,

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10. Ricardo, op. cit., p.75

no additional amount of labour has been employed in their production.[11] The rise in money wages, however, spreads to all sectors of the economy, thereby increasing costs and reducing profits. Thus the phenomenon of increasing costs in agriculture rather than competition among investors is the underlying cause of the fall of profits;

> there is no adequate reason for a fall of profit but a rise of wages, and further it may be added that the only adequate and permanent cause for the rise of wages is the increasing difficulty of providing food and necessaries for the increasing number of workmen.[12]

In addition, the necessity to maintain the labour force at a customary level sets a limit at the level to which real wages can fall. Since in the classical model, this is constantly rising step by step with increase in accumulation, it means increases in money wages and consequently increased money expenditure

> so that the vicious spiral of money wages chasing prices sets in. There is then a head on conflict between the desire of entrepreneurs to invest and the refusal of the system to accept the level of wages which the investment entails; something must give way. Either the system explodes in a hyperinflation - (which the classics ruled out) - or some check operates to curtail investment."[13]

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11. Ricardo obviously ignored the influence of increased demand of workers on the manufacturing sector. In the words of Stigler, "he temporarily forgot that other things besides food enter the workers' budgets." Indeed, Stigler asserts that Ricardo's basic theorem on distribution is "strictly dependent on his measure of value. The product of a given quantity of capital and labour .. always has the same value; hence the larger the value of labour (wages) the smaller will be the value of capital (profits). This is not equivalent to the proposition that a rise in wages will lead to a fall in the share of the total income received by capitalists, for Ricardo had no theory of the share of total income going as rent." G. J. Stigler, "Ricardian Theory of Value and Distribution", Journal of Political Economy, Vol. 60 No. 3, June 1952 pp. 201-3.

12. Ricardo, op. cit., p. 76.

13. Robinson, op. cit., p. 48.

In the classical model, the check curtailing investment is a fall in profits, occuring over a period of time and leading to the stationary state in which no growth investment is undertaken.

For the effect of falling profits is to undermine the motive for saving, and hence to leave unutilised investment opportunities; and with a continuous fall in the rate of investment, output grows at a declining rate. The rate of population increase falls, and eventually the economy stagnates around a low level income equilibrium characterized by low wages and high rents. In the strictly Ricardian model, this state of affairs is characterized by the lack of surplus from agriculture, and as McKinley observes,

> the classical school's rate of development depends on the size of the agricultural surplus and the size of the population available to utilize the surplus in new production. The case with the stationary state is that one of these factors is absent,[14]

and like Keynes' marginal efficiency of capital in his stagnation thesis, the tendency of profits to fall is the villain of the whole piece.

The classics regarded their model as a self-correcting mechanism which operates in the long-run at full employment capacity without disturbances. They denied the possibility of cyclical underemployment of the factors of production; they assumed not only full mobility of factors of production, but also flexibility of prices, and they denied any dynamic effect of money on the economy. Given their assumptions, their conclusions are quite understandable. Any criticism of their model, therefore, must begin with an examination of their

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14. E. McKinley, "The Problem of Underdevelopment in the English Classical School," Quarterly Journal of Economics, Vol. 69, No. 2, (May, 1955) p. 251.

assumptions. The one most relevant to our discussion is their assumption that desired saving and realized investment are always equal. This conclusion is based on their notion that the thrift of the saver always supports and never frustrates the enterprise of the capitalist because of the integral coexistence of saving and investment functions in the same individual. But this integration of functions is favourable to progressive capital accumulation only when profit prospects are good. For, while it is acceptable that one saves in order to invest, nevertheless, the decision to invest does not depend on saving but on the perspective of future price-cost relationship as filtered through the mind of the investor, and this relationship is subject to the uncertainties of expectations. When, for example, prospects of profits are poor, entrepreneurial expenditure both on investment and consumption is likely to be cut, and this will have the effect of further deteriorating profit prospects owing to the weakening of prospective effective demand, so that thrift in this instance certainly frustrates investment, and therefore the growth of the economy. With a decline in the growth of output, savings fall also.

An equally serious demonstration of lack of insight was their failure to incorporate into their theoretical model the role of technological improvement in economic development, standing as they were on the brink of immense revolution in techniques of production. Undoubtedly, Ricardo conceded that the introduction of a new technique would suspend the operation of the law of diminishing returns, and raise

profits,[15] but this was an isolated flash of light which was quickly dimmed by the preponderant force of population explosion. One would have expected a bolder analysis from his chapter on machinery than the apparent retraction of a useful idea, that is, that introduction of machinery has a favourable effect on the employment of labour.[16] In his ambivalence on the effect of machinery, Ricardo certainly sensed the possibility of a breakdown in the automatic adjustment of his model, but failed to analyse the nature and causes of this breakdown.

Furthermore, the classical model does not attempt any clear-cut analysis of the relationship between investment and the level of consumption; indeed, besides the subsistence theory of wages, it has no comprehensive theory of consumption; it merely assumes that production furnishes its own consumption. This postulate, however, confuses two propositions; first, that the earnings of all productive factors derive from selling their output, which is obviously both true and trivial, and secondly, that all costs of output are necessarily covered by the proceeds of sale which is obviously desirable but invalid.[17] For aggregate demand may not necessarily be adequate to cover costs of production including normal profits so as to leave entrepreneurs on the whole in a state of satisfaction with their previous performance and to induce them to extend their programme of investment. A short-fall

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15. In his analysis of rent, Ricardo classified "improvements" into two types: (i) those which increase output per acre, and (ii) those which produce a given output per acre with less labour; but with the progress of population, "the advantages of these improvements will be gradually transferred to the proprietors of the soil." Ricardo, op. cit., pp. 80 and 335.

16. Ricardo, op. cit., pp. 386-397.

17. Alvin H. Hansen, A Guide to Keynes, (McGraw-Hill, New York, 1953), p. 28.

in aggregate demand may occur, as indeed does happen, when consumer demand which is primarily a function of current output does not rise as much as increase in output,[18] and when the demand for investment goods is unrelated to the level of current output, but to factors like technological developments and expectations about the rate of growth of output. In other words, there is no inevitability about the equality of aggregate demand and aggregate supply price in a growing economy whether with or without full employment.

The failure to relate investment and consumption derives from the identification of investment and saving already emphasized, for in the classical model investment is a function of saving (profits) and saving is related to consumption only in a negative way; it is non-consumption. Since for the classics, saving constitutes demand for capital goods, investment activity becomes a passive element in their analysis, that is, given saving, investment is inevitable. Hence saving assumes a crucial importance. And the basic problem it poses is how to maintain a permanent source of saving or a continuous stream of profits. The problem remains unresolved in the classical model because of the positive correlation presumed to exist between the rate of growth of output and the rate of growth of population a relationship which is employed to reach the conclusion that, with a given technique of production, profits tend to fall as capital accumulation occurs. But economic considerations as a factor in population growth is merely one of many

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18. This is Keynes' "fundamental psychological law" of human nature with regard to consumption which constitutes his main frontal attack on the validity of Say's Law in its short and long run relevance. See J. M. Keynes, The General Theory of Employment, Interest and Money, (Macmillan, London, 1936), p. 91.

factors which influence people's decisions about bearing children. The history of modern industrial nations has shown the tendency of population to decline in the process of increasing affluence. On the other hand, the tendency of population to outstrip capital accumulation is a characteristic of many poor economies today. This latter development is brought about by the application of improved methods of disease control which are imported from advanced economies with the result that population increases at a rate greater than that of the growth of output, and depresses the already low standard of living in these areas. Nevertheless, the classical correlation is valid in a closed agricultural economy, and we shall see later the use of the concept of subsistence level of wages in modern analysis of economic underdevelopment.

1.3 The Malthusian Version

From the law of population, we proceed uninhibitedly to the contribution of Thomas R. Malthus[19] whose earlier work on population formed the basis of Ricardo's theory of development. To begin with, Malthus defined the problem of accumulation in terms of explaining any difference between potential output capable of being produced by the resources of a given society, and the actual output achieved over a period of time. He did not regard economic growth as an automatic process, and he rejected the mechanistic relationship assumed by the classics to exist between population growth and the growth of output, stressing that one is by no means a necessary cause of changes in the other. His basic attack on the classical propositions took the form of rejecting Say's Law in its relation to saving and investment.

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19. Thomas R. Malthus, Principles of Political Economy, (Angus, Kelly, New York, 1951. See also his An Essay on the Principles of Population or a View on its Past and Present Effects on Human Happiness, (Ward, Lock and Co., London, 1890).

According to Malthus, a rise in the volume of capital investment (i) increases supply of goods in relation to consumer demand, and influences conditions of sale; (ii) raises the demand for labour in relation to its supply, thus causing a rise in wages. These are long-run effects, and Malthus' concern is to show that in the process of accumulation, the consumption component of effective demand is weakened. He argues thus: while new saving may always be invested to employ productive labourers, the demand generated by the new income receipts does not rise enough to maintain such prices as would realise reasonable profits at a constant rate of investment. This occurs because capitalists, in order to invest, refrain from consumption, and labourers consume only at the subsistence level; and the consumption of landlords is not enough to raise total consumption to the appropriate level. There occurs as a result a glut of commodities; prices fall, and profits decline, slowing down accumulation. In the Malthusian model, therefore, it is the conditions of exchange between producers and consumers that determine the level of profits, and hence the rate of growth of the economy. Malthus' basic conclusion then is that these conditions are such that the economy is subject to periodic fluctuations in employment, output and prices and that these fluctuations prevent it from moving along an orderly, progressive path of growth.

He regarded as the basic problem of a capitalist economy, the tendency towards an excess of desired saving over realized investment, and he therefore looked upon abstinence or thrift on the part of capitalists as the factor checking further growth.[20] He did not deny the

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20. Malthus, Principles of Political Economy, (New York, 1951), p. 311.

necessity of saving for growth, but he held that beyond a certain level, the optimum propensity to save, saving reduces consumer spending to such an extent as to discourage investment. To prevent saving from exceeding this optimum level, he advocates, contrary to Ricardo's opinion, that the revenue of landlords should not be subject to taxation, and he suggested the creation of a class of unproductive consumers. He also suggested that the taste of consumers should be increased by the import of exotic commodities, the desire for which will make them work harder. This last policy conclusion shows an insight into the role of foreign trade in economic development, especially in terms of its stimulating effect on creating new wants, and on the supply of effort to satisfy them.[21]

This notion of expanding consumer tastes may be considered as an aspect of Malthus' general view of the process of economic development as a structural transformation in the relative importance of manufacturing and agriculture, with the former expanding while the latter diminishes. Expansion of industry depends on technological progress which brings about increasing returns and is a crucial factor in expanding employment.[22] Diminishing returns persist in agriculture largely because all agricultural lands are being cultivated at their optimum output and employment capacity; hence rural unemployed labour could be removed only if technological progress occurred in industry on a scale large enough to absorb the surplus labour from agricultural sector. In essence, Malthus posits a theory of sectoral dualism in the

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21. A. Smithies, "Rising Expectations and Economic Development," Economic Journal, Vol. 71, No. 282, (June 1961) pp. 255-272

22. Malthus, op. cit., p. 352.

process of development - the agricultural sector, and the industrial sector - emphasizing the interrelations between them. This sectoral approach facilitates understanding of the problem of underdevelopment in developing economies today, and in that respect, Malthus' analysis has a decisive edge in relevance over the single sector model of the classics.

1.4 Relevance of Classical Model to Developing Economies

To be sure, like Malthus, the classics did not ignore the role of foreign trade in economic development. Adam Smith clearly saw the advantage of an economy taking part in external trade. This advantage comes in three forms: first, in the form of higher profits accruing to overseas investment than domestic profits; secondly, in the form of increased productivity resulting from international division of labour; and thirdly, in the form of an increase in the level of consumption as a result of the exchange of one country's surplus produce for new commodities from abroad.[23] This third advantage is emphasized by Malthus, and John Stuart Mill[24] argued that foreign investment and colonial development, attracted by higher profit opportunities abroad than existing at home, could postpone the emergence of the stationary state for a considerable time. Nevertheless, he still believed in the automatic adjustment of the economy, and in his theory of international trade, he based the adjustment of the balance of payments on the unfettered operation of the gold standard. Ricardo, arguing on the basis of his comparative

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23. Hla Myint, "The 'Classical' Theory of International Trade and the Underdeveloped Countries", Economic Journal Vol. 68, No. 270, (June 1958) pp. 317-337.

24. John Stuart Mill, Principles of Political Economy, (Longman's, New York, 1904.)

cost doctrine, denied that foreign investment has any counter effect on the falling tendency of the rate of profit, because competition among investors would equalize the level of profits both at home and abroad, and population increase reinforced by diminishing returns in agriculture would set in to accelerate the decline of the rate of profit.

The significance of saving in the model of the classics cannot be overemphasized. Although they analysed the process of growth in terms of classes, there is explicit statement of the role of the individual as the entrepreneur and initiator of economic change. The motive of entrepreneurship is the prospect of profits, and the pursuit by each of this motive is believed to increase the wealth and well-being of all. But the possibility of the stationary state is full of disappointment with regards to entrepreneurial expectations, especially to Ricardo; though for Mill, the stationary state will usher in the golden age which he believed "would be, on the whole, a very considerable improvement on our present condition."[25]

Prerequisite to this form of economic process is public order, security of person and property, which it is the role of the government to ensure not merely by the force of law, but more effectively by the creation of a mental climate congenial to individual initiative. Indeed, "much of the security of person and property in modern nations is the effect of manners and opinion rather than of law."[26] The British society of the times and ever since has fulfilled this requirement; hence it appeared the classics relegated the discussion of these social

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25. Mill, op. cit., p. 748.

26. Mill, op. cit., p. 71.

requirements to the background as given parameters. Nevertheless, they showed awareness of the problem that would arise in societies lacking in these preconditions:

> in those unfortunate countries, indeed, where men are continually afraid of the violence of their superiors, they frequently bury and conceal a great part of their stock in order to have it always at hand to carry with them to some place of safety, in case of their being threatened with any of those disasters to which they consider themselves as at all times exposed.[27]

This passage, written in the eighteenth century, is nevertheless largely relevant to the socio-political conditions existing in many of the developing countries today. Perhaps, if the classics ignored analysis of the investment process, it was because the social framework was conducive to spontaneous transformation of saving into productive investment; whereas to a large extent one of the basic problems of investment in poor economies today is the lack of ability to direct resources into growth inducing productive enterprises. For it is not too infrequent that in some instances of developing economies today - and India comes readily to one's mind - the words of Professor M. M. Postan are directly applicable: "what was inadequate was not the quantity of stored up wealth, but its behaviour. The reservoirs of saving are full enough, but conduits to connect them with the wheels of industry are few and meagre."[28]

Since the classical economists took this connection for granted, we cannot help concluding that they underrated the strategic importance of investment decisions, and hence the supply of enterprise, the lack of which constitutes the main problem of developing economies

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27. Smith, op. cit., p. 250.

28. M. M. Postan, "Recent Trends in the Accumulation of Capital," Economic History Review, Vol. 6, No. 1 (October, 1935), p. 2.

today. Nevertheless, their emphasis on saving is not misplaced, and their analysis of the behaviour of wages, prices and profits, in relation to the growth of output and employment unravels one of the fundamental problems in economic development, that is, the problem of keeping the real wage level, and therefore, the level of consumption in such relationship to total output as to ensure a sizeable margin of output for net investment in order to raise and sustain the economy's rate of growth. In the following section we shall examine the neo-classical approach to both problems, the supply of enterprise and the supply of savings in the investment process.

1.5 Neo-Classical Analysis of Investment in the Development Process

The term neo-classical is used here to refer to the group of economists who were prominent during the period 1870-1914, the heyday of marginalism. The marginal revolution was a shift in the main topic of economic discussion from the macro-dynamic analysis of the classical writers to the static, partial and general, analysis of Alfred Marshall and Leon Walras respectively. Marginal theory is essentially consistent with an assumption of given factors of production in limited supply and fully employed; in general, it presumes the existence of an already advanced economy, that is, the concept of the margin is based on the presumption that the growth of the economy is gradual and steady and does not involve drastic structural changes, discontinuities, or lumpiness in investment generally characteristic of a newly developing economy.

Marginalism thus applies to the post-revolutionary phase[29]

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29. S. Pollard, "Investment Consumption and the Industrial Revolution," Economic History Review, Vol. 11 (Second Series), No. 2, 1958, p. 215-220. Also, it is not without relevance that Alfred Marshall chose to preface his Principles of Economics, (Macmillan, London, 1956) 8th ed. with the slow-moving motto, Natura non [illegible]; a proposition the generality of which is, however, evidently open to debate.

of a progressive economy in which the infrastructure and the existing organization of industry are capable of sustaining further changes imperceptibly but effectively. In this period, the marginalists argue, investment decisions are concerned with making small additions to the stock of capital, rather than with bringing about a fundamental change in its structure. Since in a free enterprise economy, based on possessive individualism,[30] investment profitability is assessed from the investor's private point of view and as he normally constitutes the unit of business enterprise, the productivity of marginal investment is measured in terms of private marginal productivity, with the emphasis on the concept "private," thus stressing the supremacy of the entrepreneur's interest in the outcome of his investment activity, as opposed to its consequences for, say, the public in terms of social marginal returns whether favourable or unfavourable.[31] The significance of this distinction is that while the neo-classical theory of the margin as applied to investment may be an adequate explanation of that process as carried on by private initiative in an advanced and steadily progressive economy, it fails to explain the nature of the investment process in a newly developing economy. Indeed, Professor Keirstead argues that in any progressive economy the relevance of the concept of margin in

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30. C. B. Macpherson, The Political Theory of Possessive Individualism; Hobbes to Locke, (Clarendon Press Oxford, 1962), pp. 9-17. Professor C. B. Macpherson of the University of Toronto used the term in his staff seminar paper at McGill in the spring of 1962 on "Towards a New Theory of Liberalism which underlies the Market."

31. The point being made here is vital to the discussion of investment criteria in developing economies. We shall have an opportunity in Chapter Four to discuss more fully various investment criteria suggested for developing economies.

investment activity is limited to the case of perfect competition, perfect foresight, and complete divisibility of factor input. For the

> decisions to invest or not to invest are not decisions about a continuous input inflow but are rather decisions of a 'once and forever' nature about large, lumpy and indivisible inputs. In such cases marginal productivity analysis does not apply.[32]

Nevertheless, there abound in the writings of the period explicit ideas on the general process of economic progress, with particular emphasis on the problem of maintaining a steadily rising trend of growth. We shall attempt a synthesis of these ideas as they concern the twin problems of supply of saving and demand for saving, for growth-inducing investment. We shall concentrate on Alfred Marshall as the chief representative of this period.[33]

Neo-classical theory posits three determinants of the rate of growth; capital investment, size and quality of the labour force, and technical progress which is assumed to be a function of time.[34] Of these variables, the most important, or the most dynamic, is capital investment. The chief source of capital is saving, which in the neo-classical model, is induced by the existence of a positive rate of interest as a reward to the saver for his thrift. On the demand side of investment, the existence of a positive rate of interest is the expression of the fact

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32. B. S. Keirstead, Capital, Interest, and Profits, (Macmillan, Toronto, 1959) p. 77.

33. Alfred Marshall, Principles of Economics, (Macmillan, London, 1956), 8th. ed.

34. J. E. Meade, A Neo-Classical Theory of Growth, (G. Allen and Urwin, London, 1960), p. 8. This book attempts a synthesis of marginal, equilibrium and growth analysis; the underlying assumption, explicitly stated, is an advanced industrial economy.

that factors of production, being fully employed, require higher rewards to bid them away for employment in new investment projects. Thus the rate of interest, while, with income, determining the volume of saving, also serves as a price which allocates scarce resources among competitive uses; the price that the investor is willing to pay depends on the productivity of his investment: the real forces behind saving and investment, therefore, are thrift and productivity, and these determine the rate of investment.

Since the prospective investor launches a project with the expectation of earning profits which, we assume, he attempts to maximize, he will continue to purchase capital assets until the marginal revenue productivity of the last unit of asset just equals the prevailing rate of interest. With a low rate of interest, the point of equality lies further down and the volume of investment rises. Hence, given the marginal productivity of capital, the rate of interest must be low to induce a high volume of investment. The rate of interest thus becomes the most important variable in the system.[35]

In the process of accumulation, the rate of interest expresses two things: on the one hand, a time dimension inherent not

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35. The equality of the rate of interest and the marginal revenue productivity of investment is not confined to the investor's chosen line of activity, for the principle of maximization based on rational behaviour requires that its application should embrace every possible line of investment within a given production function of the whole economy; that is, for two or more lines of investment, the rate of interest should equal their respective marginal revenue productivities, so that the elasticity of substitution between them is zero. This is a condition for equilibrium which underlies neo-classical analysis. In a highly competitive system where the rate of interest tends to be equal, the marginal revenue productivities of different lines of investment must be equal. For the relationship between this analysis and the principle of substitution, see Marshall, op. cit., p. 296.

only in thrift, that is, waiting of the saver, but also in the process of production, that is, in the fact that it takes time to transform the thrift of the saver into the productivity of the entrepreneur; on the other hand, it expresses a value dimension which arises from the scarcity of saving in relation to its competing uses, and from the productivity of investment. In general, theories of interest have been a variant of either propositions and neo-classical theory tends to amalgamate both aspects. Marshall, indeed, prefers "waiting" to Nassau Senior's "abstinence" as an explanation of the rate of interest, but he also adds scarcity of savings originating from an excess of investment demand for savings. Given the condition that waiting is induced by the scarcity premium of saving, there is no essential conflict between both explanations. For time which is involved in waiting, although an essential element of every economic activity, indeed of all human activities, does not receive any reward on its own account; and our interpretation of the neo-classical view of interest lays emphasis on the scarcity premium of saving which is created by excess investment demand.

Thus scarcity and productivity, both involving time, are the twin determinants of the rate of interest. But it must be stated that it is not the productivity of the end process of investment but expectation of it that constitutes the investor's influence on the determination of the rate of interest. In other words, interest is not paid in the final analysis because a scheme of investment actually turns out to be productive or profitable, for expectations about profitability may be realized or disappointed,[36] and while invested capital itself

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36. This is a shaft directed at the view that interest is inherently an inseparable part of profits. Reasoning on the basis of this view will lead to the conclusion that the failure of an investment project in terms of profits ipso facto abolishes the necessity of interest payment so far as that particular project goes, a conclusion which is obviously absurd.

may be physically productive, it does not provide any necessary source for interest.

In the classical model in which the saver and investor are the same individual, the role of interest in investment decisions is limited to the influence of interest paid on riskless government securities; so long as returns on investment are expected to yield more than the yield on riskless bonds the rate of interest as a factor in investment decisions loses much of its significance in this type of model. Profits then form the core of analysis, and this was the classical preoccupation. In the neo-classical model, however, the institutional bifurcation of the functions of saving and investment necessitates greater stress on the role of interest in investment decisions, and from this necessity arises the distinction between profits, the earnings of the investor, and interest, the return to the saver which is also a cost to the entrepreneur.

The rate of interest in a given period, in the neo-classical model, is therefore determined by the conditions of supply of waiting, and of demand for waiting.[37] Besides the psychological factors which influence an individual's or a community's propensity to save,[38] it is possible to underline three objective factors relevant to saving. The first is the power to save out of a given income, that is, income must be at such a level as to enable its earner to have a surplus after

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37. Dennis H. Robertson, Lectures on Economic Principles, (Staples Press, London, 1958), Vol. 2, pp. 50-87. The following discussion is closely based on these "Lectures."

38. Keynes listed eight of them: motives of precaution, foresight, calculation, improvement, independence, enterprise, pride and avarice. cf. Keynes, op. cit., pp. 107-108.

the ordinary expenses of maintaining a customary standard of living. It is characteristic of advanced economies that a sizeable margin exists between total income and the outlays on consumption; while, in poor economies, this margin is either negligible, or virtually non-existent. In the latter case, the problem of capital accumulation is how to create this margin without undue distress, for all other factors being favourable, it is the existence of a margin between output and consumption which measures the power of accumulation and hence, the potential rate of growth of the economy.

Nevertheless, the existence of the power to save does not ensure that saving will be undertaken; for this to take place and without compulsion, there must be willingness to save as an expression of voluntary initiative on the part of individuals. In a capitalist free-enterprise economy, where the power to save ordinarily exists, the strength of the willingness to save depends on a third factor, that is, reasonably reliable and productive avenues into which saving may be directed. In economic terms, there must exist, or at least be seen to exist, profitable opportunities for investment which ensure reasonably safe returns to justify both the saver's risk of parting with his command over resources and the investor's expectations. Reasonable safety in this context implies a fair degree of stability of fundamental economic and political institutions with respect to safeguarding the security of property and of the fruits of saving and investment. In newly-developing economies, because the capacity to save is generally limited, it is difficult to make a definitive statement about the existence of willingness to save voluntarily. For even if there were the capacity to save, the strength of spontaneous willingness to save must be seen

in relation to the conditions of reasonable safety afforded by social and political institutions as well as by the scope of investment opportunities. It has been a characteristic feature of much of the literature on capital accumulation in these economies to single out lack of the power to save as the main problem of development and to infer the conclusion that once this is solved, invariably by gift or aid from outside, the problem of development vanishes, the assumption being that lack of saving rather than the structure of social institutions constitutes the basic bottleneck in the process of development.[39] This twist of thinking obviously begs the question; for although the capacity to save may facilitate the willingness to save, it does not ensure the latter's exercise; indeed the relationship may be seen more clearly the other way round; the willingness to save when put into practice increases the capacity to save; and because of its forward looking relationship to investment opportunities, the willingness to save requires a reasonable degree of social and political stability. Hence, the problem of growth in this respect may be more fruitfully viewed as creating such social mechanisms as will evoke and increase the willingness to save; social values must place a premium on the willingness to save, for in the long run the supply of waiting is contingent on the demand for it.

The demand for waiting depends on three factors: first, the behaviour of population - its growth, migration, and decline; secondly, the introduction of new products into the economy; and thirdly, the need for cost-reduction or of maintaining an adequate profit margin.

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39. For an incisive critique of the philosophy of foreign aid based on this reasoning, see P. T. Bauer and J. B. Wood, "Foreign Aid: the Soft Option," Banca Nazionale Del Lavoro, Quarterly Review, No. 59 (December, 1961), pp. 403-418, especially p. 408.

In the classical model, the increase in population furnishes the basic source of demand for the accumulation required to increase output at least in proportion to the growth of population. Investment for this purpose is referred to as capital widening; as population grows accumulation increases to keep the ratio of capital to labour constant in other words, to prevent per capita income from falling.[40] In some developing economies today most of development effort is directed at pursuing this static goal. In most of these cases population growth is not merely a function of the level of output but also of other extra-economic factors which do not contribute to output increment in any direct and effective way.

In the neo-classical model, however, the rates of growth of population and output do not possess any direct functional relationship as assumed in the classical model, and although growth in population furnishes an effective demand for investment, the type of investment demand with which the neo-classics are preoccupied comes from the introduction of new products and the need for cost-reduction. Investments of these types are capital-deepening in their effect; greater capital is required relative to the increase in labour or output. Both depend on invention and technological research. Capital-deepening for purposes of cost-reduction is an aspect of the basic principle underlying neo-classical investment theory, that is, the principle of substitution with respect to the use of factors.

The effects of investment in the neo-classical model may be formulated as follows: we assume a change in one of the variables;

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40. The terms, capital widening and capital deepening, were first used by Alvin H. Hansen, Fiscal Policy and Business Cycles, (Norton, New York, 1941), pp. 354-57.

capital, labour or technique of production. Since we are concerned with the effects of capital investment on the economy, it is appropriate to begin with a change in the volume of desired investment. This change requires explanation, and one is not difficult to find. We may posit the desired increase in investment on the growth of the labour force, but this also requires further explanation.[41] We are left with technical progress, say, an outward shift in the production function.[42] Let us attribute the occurrence of this change to the mere passage of time,[43] or more appropriately, to independent scientific discoveries.[44] The economic effect of this change is an increase in investment opportunity either lowering the cost of producing existing commodities or enabling the production of new commodities at lower cost than the production of existing ones, the net effect in either case being a price/cost relationship favourable to the investor, that is, an increase in his (expected) profit margin. With the increase in investment opportunity, the demand for capital goods rises, and borrowing of loanable funds become intensified; as a result, with a given volume of saving, the rate of

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41. Neo-classical theory does not rely on any specific assumptions about population, and there is no direct relationship between population growth and the level of economic activity as in the classical model. The principle of substitution between factors of production on which the model operates contradicts any kind of predetermined relationship as the wage fund doctrine of the classical model implies. For his animadversions on this aspect of classical economic theory, see A. Marshall, op. cit., Appendix J., pp. 677-82.

42. There is no clear-cut definition of technical progress in neo-classical theory.

43. J. E. Meade, op. cit., p. 8. L. M. Lachmann disputes this notion, we think, very effectively. See his Capital and Its Structure. (G. Bell, London, 1956), p. 84.

44. Joan Robinson, op. cit., p. 131.

interest goes up, and the rising rate of interest, in turn, induces increased saving. The price of capital goods already fully employed, rises with the increase in the level of investment; and this effect, with the rising cost of borrowing, reduces the profit margin of the investment. This in turn causes investment activity to slacken, thereby reducing demand for loans.

The fall in demand transmits a depressing effect to the rate of interest possibly to such an extent as to reduce the volume of saving considerably. Or, the fall in investment may be due also to the possibility that the investment opportunity has been successfully exploited.[45] In any case, the general effect will be the same as analyzed and with the assumption of constant money supply, the increase in output lowers the general level of money prices. Thus, the problem which the working of the model raises is not that of inflation, but the limiting effect on investment, of deflation, arising from monetary policy. It is seen that money prices are flexible up and down, and neo-classical theory infers from this that the economy will be on an even keel so long as money wages are correspondingly flexible.

We may now examine the effect of population increase under conditions of a given technique of production. Since supply of money is constant, money wages decline, and with the price level unchanged, real wages fall; producers employ more labour, but up to the point of optimum capacity, the intensive use of a given amount of capital equipment raises its marginal productivity and, therefore, causes the demand for investment goods to rise. The rate of interest

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45. But this possibility is not open to the neo-classics who, contrary to the classics, assumed a boundless horizon of investment opportunities.

rises, and induces a high rate of saving to sustain the increased volume of investment. As the investment activity proceeds, shortages develop in the labour force, raising money wages, and therefore with prices stable, reducing profits. Meanwhile, the high rate of interest curtails the volume of investment, and hence demand for investible funds; the rate of interest falls, and the process reverses itself as before. But the advance and retreat in investment activities is a significant aspect of the process of gradual development rather than a mere forward and backward movement around a particular value of output or volume of employment, for accumulation in the neo-classical model enables the economy to grow to higher levels of production and the movements of the rate of interest constitute a mechanism of stable adjustment of the process at each successive level of higher output.

In this respect these steps are a concatenation of equilibrium points, and neo-classical vision about the ultimate goal of development differs from that of the classical stationary state.[46] In the words of Marshall,

> There seems to be no good reason for believing that we are anywhere near a stationary state in which there will be no important wants to be satisfied; in which there will be no more room for profitably investing present effort in providing for the future, and in which the accumulation of wealth will cease to have any reward. The whole history of man shows that his wants expand with the growth of his wealth and knowledge.[47]

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46. Nevertheless in their general "painting" of the development process, they discern three patterns of development, regularly progressive development in which all variables change at the same rate, development towards the stationary state, and what one may label disproportionate growth with a tendency towards equilibrium which is, however, never attained. See D. H. Robertson, Growth, Wages, Money, (Cambridge University Press, London, 1961), pp. 5-8.

47. Marshall, op. cit., p. 223.

The neo-classical theory of growth as presented so far depends largely on the assumption of competitive market conditions; it is necessary that all significant economic relationships consummate themselves in the market. But there is one important relationship in neo-classical theory which is essentially non-market in nature, that is, the concept of external economies,[48] a concept introduced by Marshall in his analysis of the behaviour of the firm to explain the problem of the indeterminacy of the long-run supply price of a commodity in partial equilibrium. This problem derives from the phenomenon of increasing returns which is the result of external and internal economies.

External economies are distinguished from internal economies; the latter refers to the increase in the scale of production arising from the resources and efficiency of the individual firm, while the former refers to the benefits accruing to the firm as a result of output expansion by the industry within which it operates, or of other industries with which it deals independently of its own individual outputs. Marshall's use of the concept of external economies was limited to the analysis of the effects of changes in the output of the industry as a whole on the output of one firm with a given demand curve within conditions of perfect elasticity of factor supply. Under these conditions the expansion of industry, brought about, for example, by the entry of a new firm into the industry "may enable all firms to produce more cheaply so that while each produces at its minimum average cost, the level of the minimum is reduced."[49] Thus, the essential element in the Marshallian

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48. Marshall, op. cit., p. 221.

49. Joan Robinson, The Economics of Imperfect Competition, (Macmillan, London, 1934), p. 340.

concept is cost-reduction as a mechanism of investment expansion. Nevertheless, the role of external economies as an engine of economic progress and as a concept for analysing the process of a developing economy has been fully recognized by Marshall and other writers.[50, 51, 52]

Indeed, Marshall broadens the scope of external economies to include not only the beneficial effect of increase in aggregate volume of production of the industry on one firm, but also "others again, especially those connected with the growth of knowledge and the progress of the arts (which) depend on the aggregate volume of production in the whole civilized world." Specifically, and most relevant to our discussion, is the external economies resulting from

> the growth of correlated branches of industry which mutually assist one another, perhaps being concentrated in the same localities, but anyhow availing themselves of the modern facilities for communication offered by steam transport, by the telegraph, and by the printing-press.[53]

The importance of the concept of external economies in modern theories of economic development cannot be over-emphasized, and since we shall have opportunity later to discuss fully its applicability to developing economies, in the context of the doctrine of balanced growth, it may suffice to state at this stage that its use in the neo-classical model underlines the interdependent and complementary nature of the economy;

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50. Tibor Scitovsky, "Two concepts of External Economies," Journal of Political Economy, Vol. 62, No. 2, (April, 1954) pp. 143-57.

51. Allyn Young, "Increasing Returns and Economic Progress," Economic Journal, Vol. 38, No. 152, (December, 1928) pp. 527-42.

52. H. W. Arndt, "External Economies and Economic Growth," The Economic Record, Vol. 31, No. 61 (November, 1955), pp. 192-214.

53. Marshall, op. cit., pp. 265-66.

that the growth of one industry not only induces but also depends on the growth of another. It is the dynamic element of the concept which was analyzed by Allyn Young, in his famous article. He expands the concept into a major part of an integral theory of economic development. Not only do increasing returns accrue to old firms, but the impact of external economies result in qualitative changes in the old industries as well as in the creation of new ones; all economic operations must be viewed as an integral whole. Basing his analysis on Say's Law, from the point of view of the whole economy, Young argues that since it is the volume of production that determines and defines the size of the market an increase in output widens the markets for goods in general. This argument implies that there must be some sort of balance, that different productive activities must be proportioned one to another.[54] The expansion of the market consequent upon an increasing output is the result of a previous growth in the division of labour. For

> the securing of increasing returns depends upon the progressive division of labour, and the principal economies of the division of labour in its modern forms are the economies which are to be had by using labour in roundabout or indirect ways.[55]

Thus although the division of labour depends on the extent of the market, yet from the discussion above, the conclusion emerges that "the extent of the market also depends on the division of labour."[56] For Young, therefore, the source of increases in output due to market widening is a rise in productivity, that is, a rise in the efficiency with with existing resources are employed; the possibility of increasing output by

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54. Young, op. cit., p. 533.

55. Young, op. cit., p. 539

56. Ibid.

using hitherto unemployed resources does not form part of his argument. As a result, like Marshall, he laid stress on cost-reduction and product effects rather than on process effects of investment, that is, the facilitating effect of a sequence of investment schemes: "the stimulus given to investment by a widening of the market (for further investments) is not his primary concern."[57] Nevertheless, his analysis portrays the dynamic interdependence of investment schemes and hence the cumulative feature of the growth process, though in the neo-classical model, this occurs gradually.

The view of the growth process as a gradual phenomenon is held to have a basis in nature: " ... the maxim that 'Nature does not willingly make a jump' ... is applicable to economic developments."[58] Linked with this continuity of the process is the notion that economic development is a comprehensive process which embraces a constellation of determinants expressing the total historical situation of a society; this organic view is essentially the economic parallel of biological Darwinism which Marshall often employs as analogy in his economic analysis. And although it is explicitly recognised, the role of external economies in this process does not constitute the backbone of neo-classical economic analysis.

A. J. Youngson[59] has systematized the Marshallian constellations of economic determinants under three headings. First, long-term determinants, comprising climate, natural resources, and human freedom. The inclusion of freedom as a determinant is of crucial

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57. Arndt, op. cit., p. 196.

58. A. Marshall, Industry and Trade, (Macmillan, London, 1919), p. 6

59. A. J. Youngson, "Marshall on Economic Growth," Scottish Journal of Political Economy, Vol. 3, No. 1 (February, 1956), pp. 1-18.

importance, for the essence of economic welfare is to enable the individual to develop himself as best as he can. Thus with this in mind, Marshall asserts that the importance of competition lies not so much in its efficient allocation of resources as in its contribution to individual self-development and assertion. Secondly, there are the major influences which include thrift, enterprise, security and massive production, that is large-scale production based on specialization in areas for which the economy is most favoured. Finally, the minor influences resulting from the existence of a middle class, efficient government, and stable price level. From the standpoint of present day problems, influences in this third category can hardly be regarded as minor, because it is their almost non-existence that aggravates the underlying conditions of economic backwardness.

In the neo-classical model, the rate of growth is a function of the rate of increase in the stock of capital, given the labour force and the rate of technical progress. While the rate of growth of the labour force and that of technical progress are generally regarded as independent of the model, the rate of growth of capital depends on the volume of saving which is a function of the rate of interest, the level of income and elasticity of factor supply, given reasonable confidence in the future as created by the stability of socio-political institutions, and the existence of the habits of thrift. Saving is furnished by the thrift of the consumer and investment outlays are made in expectation of profits accruing from the productivity of capital. Investment decisions are made within the framework of a competitive market and according to the marginal calculus principle as it applies to the individual investor. The existence of

a competitive market enhances the vigorous assertion of the motive of economic gain. The pursuit of economic gain in a competitive economy demands the exercise of initiative especially in the expansion of investment; and the growth of investment is accompanied by external economies which act as an engine of further expansion.

1.6 Appraisal and Conclusion

Needless to say, in relation to developing economies, the neo-classical model, like the classical one, has certain severe limitations. The most important is the notion of marginal changes of the economic process which presumes the existence of an already advanced and growing economy in which changes resulting from investment decisions are marginal rather than structural in their impact. In other words, the idea of smooth continuity does not take into account the discontinuity and lumpiness of capital investment which is the main characteristic of economies where much of the initial investment for development is for the purpose of building overhead capital that will sustain subsequent investment. For this structural change, the usefulness of the marginal concept as a criterion of investment decision becomes highly doubtful; hence the need for other criteria becomes compelling.[60] The Marshallian motto of "natura non facit saltum" has no prospect of popular acceptance; indeed, nature may not jump willingly, but the belief that it can be forced to jump is so strong and so widespread that the immediate problem is the search for new operational rules which, it is hoped, will expedite the process of

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60. That the very discussion of investment criteria assumes a non-neo-classical political framework was first pointed out to me by Professor Supple.

investment, and hence, of growth.

Another limitation of the neo-classical model in its relation to the problems of developing economies is the lack of emphasis on the significance of entrepreneurial activity in the process of growth. The model, like its classical predecessor assumes a continuous flow of entrepreneurial talent capable of transferring saving into investment, whenever profitable investment opportunities emerge. Indeed, the relatively insignificant attention which the classics and the neo-classics paid to the role of the entrepreneurial function led B. S. Keirstead to conclude that the classical entrepreneur "has no problem of anticipation, no real risk to bear, no serious charge (is) put upon his judgement."[61]

Both models rightly emphasize the role of saving in accumulation; both postulate that the supply of saving (from profits) is readily employed in accumulation; in the classical model by a rise in the demand for investment brought about by increasing population, and in the neo-classical model, by the need to reduce costs in a fully employed economy. But while population growth provides an inducement to invest in the former model, it tends as Malthus pointed out, to constitute

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61. Strictly speaking the apparent functionlessness of the classical entrepreneur to which Professor Keirstead draws attention derives logically from the extreme automatism which characterizes the classical economic system, especially the Ricardian variant. In a wider perspective the element of automatism in the general classical model of the economic system, reflects a deep urge for determinacy which contrasts sharply with the emphasis on individual freedom and voluntariness in economic matters. For a penetrating account of this ambivalence in the writings of the classical writers, see S. G. Checkland, "Growth and Progress: The Nineteenth Century View in Britain," Economic History Review, Vol. 12, (Second Series), No. 1, 1959, pp. 49-62. There is no doubt, however that as McKinley emphasizes with regards to the entrepreneurial function, "a not inconsiderable role" is assigned implicitly to the entrepreneur in the classical system as innovator, risk bearer and decision maker. McKinley, op. cit., pp. 243-4.

a brake on development in most backward countries because of the absence of entrepreneurial ability.

A third and final criticism concerns the role of technological progress in both models; while the classics explicitly failed to take account of technological progress as a powerful factor of growth, the neo-classics paid due attention to its significance without however, weaving it into the analytical structure of their model. In effect, both models emphasize the relationship between investment and saving and conclude that the former is limited by the latter. In the classical model, saving is ultimately exhausted by the phenomenon of diminishing returns in agriculture which reduces profits. But the model does not emphasize the close relationship between investment and technological progress, the latter being assumed to be autonomous in nature, as it depends on the creative guesswork of scientific invention which is presumed to have no direct relation with saving or the level of output. It is common experience today that in the investment programmes of most developing economies, the demand for investment has no functional relationship with the level of output or with the natural rate of growth of the respective economies, but rather with the level of technological development prevailing in advanced economies.

Nevertheless, these observations do not detract from the general relevance of the classical and neo-classical model to investment problems of today. Both provide a general framework of saving-investment analysis. Their emphasis on the supply of savings, rather than being misplaced, gives considerable insight into a basic problem of economic development, that is, adequacy of savings. In addition, as an analytical contribution to the understanding of the process of growth they,

specifically the neo-classics, fashioned the vital tool of external economies, although initially for a different purpose, as an effective mechanism of growth; and the two-sector model of Malthus focuses on the realities of intersectoral problem of investment in poor economies. It will be our task in the next Chapter to discuss the related problems of technological progress and entrepreneurial function as dynamic factors in the investment process.

CHAPTER TWO

MARX AND SCHUMPETER ON INNOVATION AND ENTREPRENEURSHIP

2.1 Introduction

In the previous chapter we discussed the importance of saving in the classical and neo-classical models as a fundamental condition of investment, and we noted that in the context of present day problems, though essential, it does not constitute by itself a sufficient condition which facilitates a sustained process of investment. For, as we shall show in this chapter, investment decisions, involving changes in the structure and composition of capital, are related also to the progress of technological knowledge, and not exclusively to saving. Besides changes in capital stock, especially in a developing economy, are characterized by indivisibilities and lumpiness which are the source of external economies, and which therefore constitute a dynamic instrument for further growth. The classics and neo-classics by and large did not emphasize this force as an integral element of a comprehensive theory of growth, and we have to look to Karl Marx for bringing the relationship between the process of investment and technological progress into the forefront of the dynamics of capitalist development.

Just as in production, the use of capital entails a certain degree of technical complementarity with other factors of production, so the application of technology to industry or the economy requires a certain degree of human ingenuity at a level higher than possessed by the average entrepreneurs of the classical and neo-classical models. The process of innovation involves a leap into the dark, an adventure into the fog of uncertainty which demands a high degree of tough-mindedness on the

part of those making it.

The type of individual who undertakes this adventure has been idealized by J. A. Schumpeter as the entrepreneur, a type of individual whose social existence is not sui generis but derives from undertaking the functions of innovation. A normally progressive capitalist economy presupposes a continuous flow of entrepreneurs who undertake the process of capital investment but the continuity of the flow of entrepreneurs cannot be taken for granted, and the occasional lack of continuity in the flow of entrepreneurs may aggravate the problem of lack of saving. In this chapter we shall relate the analysis of Marx and Schumpeter to the nature of the entrepreneurial problem in developing economies.

2.2 Karl Marx and the Investment Process

Any discussion of Marx must be prefaced with a statement defining the field of reference. Undoubtedly, an examination of any part of Marx's doctrine in isolation does grave injustice to the essential unity of his thought, and especially so in the context of the present discussion. It is imperative, therefore, that we state at the outset that the analysis of Marx's theory of economic development which we are going to present here forms an integral part, indeed, an essential part, of his general materialistic philosophy of history. A brief sketch of this philosophy may be desirable.

At its point of departure, Marx's philosophy of history[1]

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1. Karl Marx, Capital, A Critique of Political Economy, 3 Vols. The analysis of this section is based on Volume 1, The Process of Capitalist Production, (1867), originally translated into English by Moore and Averling; revised and amplified according to 4th German edition by E. Untermann, (Charles H. Kerr and Company, Chicago, 1906); and on Paul M. Sweezy's, The Theory of Capitalist Development: Principles of Marxian Political Economy, (Oxford University Press, New York, 1942).

assumes that it is the mode of production in material life which determines the general character of social, political and spiritual relations. The mode of production is the technique of production as provided by existing technical knowledge, and upon which is based the organisation of labour; and the relations of production refer to the class structure of society which, even before the rise of capitalism, was dual in character; a dominant class, forming a minority of the population, and an oppressed class. Both the mode of production and the relations of production generate a superstructure of ideas and institutions. Society changes as the material forces of production change; these forces are the motive power of social revolution, and the changes in them are produced by internal contributions inherent in their nature. As the techniques of production change, the relations of production as well as the superstructure of ideas corresponding to the previous mode of production become inconsistent with, and in course of time, harden into fetters on, the new forces of production. This leads to a conflict which is reflected in a struggle between the social classes; a period of social revolution follows terminating in the victory of the oppressed class. Thus continued changes in the techniques of production cause changes in the social system until the communist stage arrives (still to come). This stage of communism is characterized by the existence of only one class, neither dominant nor oppressed; and at this stage the contradictions which produce changes in the means of production are in abeyance.

Marx contends that all human history is a series of class struggles; he discerns four periods of such struggles; primitive communism, ancient slave state, feudalism, and capitalism. Each period, with the exception of the communist era, which is yet to come, is a mere historical

epoch that passes away and is succeeded by another, also of temporary existence.

In his analysis, Marx is concerned with the past only in so far as it serves to unveil the future, that is, to prove that the present is temporary. The "present" is capitalism. Marx, then, is concerned with showing how capitalism would transform itself into a new form of social organization. And in doing so he is compelled to analyse the forces which are at work in the development of capitalist economy, thus providing a comprehensive theory of economic development at the core of which lies capital accumulation based on a constant revolution in the means of production. It will be our main task to highlight in this section some of the insights emerging from his analysis which may be considered relevant to our discussion.

Among the intellectual inheritances of Marx, the most outstanding for his economics is the classical labour theory of value. From this he derives his famous theory of surplus value which serves as the foundation of his theory of capitalist development; labour has the capacity of producing more than is necessary for its own maintenance, and the essence of the capitalist system is that the surplus product remaining after paying out labour's necessary share, is expropriated from labour by the capitalist. There are two kinds of labour; living labour (workers), and past labour (capital), and the social structure of capitalist economy is such that workers who constitute the major class have only their living labour power to sell for survival, while the minority class are capitalists who transform surplus value expropriated from labour into capital for further production and expropriation. In addition to the labour theory, Marx also employs the principle of division of labour, an inheritance

from Adam Smith, as the basis of capitalist production; and finally, he uses the classical concept of competition which, among capitalists, he maintains, enhances their urge for accumulation, and, among workers, ensures a subsistence level of wages which tends to have the effect of conserving the profits of the capitalists.

We may begin our discussion of the dynamics of capitalist production by analyzing the components of aggregate output. In capitalist production, labour and capital combine and yield output in excess of the cost of their maintenance; thus total output is divided into three components. The symbol c, stands for the value of equipment and raw materials used in production; Marx calls this constant capital. The value of labour power spent during the period of production is represented by the symbol v, and the excess value accruing to the capitalist by s; total value is thus made up of $c + v + s$. Marx, expresses these components in three ratios which constitute the analytical bone-structure of his system. The first

$$\frac{s}{v}$$

is the degree of exploitation; the second is the rate of profit on total capital invested which is expressed as

$$\frac{s}{c+v}$$

and the third, the ratio of circulating capital and total capital,

$$\frac{c}{c+v}$$

which Marx calls the organic composition of capital. An important relationship between these three ratios can be expressed by the equation

$$\frac{s}{c+v} = \frac{s}{v} \frac{c}{c+v}$$

which states that the rate of profit is directly proportional to the rate of exploitation, but inversely related to the organic composition of capital.

Although the rate of profit will differ in different industries according to the organic composition of capital, the force of competition tends to make it equal in all industries in the long run, as the volume of profits received by each entrepreneur tends to be equal to the share of his investment in total capital.

In order to underline the nature of capital accumulation Marx employs, as an expository device, the concept of the circular flow economy, an adaptation of Quesnay's "tableau economique" for what we may call his pure model; this describes a capitalist system in which the operative variables are related in fixed proportions. There is no net investment, and only replacements are made. The economy is composed of two sectors; the capital goods sector, and the consumption goods sector and total output is composed as follows:

$$c_1+v_1+s_1+c_2+v_2+s_2 ,$$

Constant capital equals output of capital goods sector,

$$c_1+c_2=c_1+v_1+s_1$$

while consumption of both capitalists and workers must equal output of consumer goods sector,

$$v_1+s_1+v_2+s_2=c_2+v_2+s_2$$

Simplifying the equations we have

$$c_2=v_1+s_1$$

the basic condition which must be satisfied in order to preserve the stability of the pure model. Marx contends that in the real capitalist system, this condition cannot be satisfied because of the capitalists' expropriation of surplus value; they disturb the system by withdrawing

$$s_1$$

from the consumption stream and investing it in further production. It

is this process which transforms the pure model into the model of Enlarged Reproduction which is characterised by a continuous process of accumulation.

Two comments deserve to be made on the pure model. First, it reveals the interconnections between output and income; while production is divided into two categories, income is divided into three: the income of the capitalist which, qua capitalist, he must advance for further production, the income of the capitalist qua consumer, and the income of the worker. These constitute aggregate demand. In equilibrium, aggregate demand and aggregate supply balance but the relationship between the various elements of the two aggregate may not be such as to produce an overall equilibrium. This lack of balance Marx contends, is the bane of capitalist development which subjects the system to recurring disturbances, and which forebodes its ultimate breakdown. Secondly, associated with the pure model is Marx's notion of simple production, meaning commodities produced and exchanged for their use value, a system in which the mechanism of exchange is characterized by the formula: M-C-M (M = money; C = Commodities), a formula which, according to Marx, expresses the idea that commodities are exchanged solely for their use values. But because of the capitalist qua capitalist, simple production is transformed into complex production and commodities are exchanged no longer for their use value but now for their exchange value, which invariably exceeds cost of production. The sole purpose of exchange becomes the appropriation of more value, and the formula now changes to M-C-M', M' being greater than M (M = money (value) advanced to acquire C, commodity in order to acquire more money, M'). This is the law of capitalist production and the sole function of the capitalist is the ceaseless pursuit of the process of accumulation.

Thus in enlarged reproduction capitalists have as their goal the maximisation of surplus value. This motive is akin to the

profit motive of the entrepreneurs in the classical model. Functionally, they are similar, but as categories of analysis they are entirely different. The classical writers posited the profit motive as a law of human nature, a subjective factor which drives man to truck, barter and exchange one thing for another in order to further his self-interest, and this he does in a social frame-work in which relations are regarded as immutable. Marx, on the other hand, states that the urge for accumulation is an objective phenomenon of the social relations which prevail only under capitalism; these relations differentiate capitalism from all other historical epochs; the capitalist, that is to say, merely undertakes a historical mission in the specific historical era of capitalism. He performs an objective function, and the fact that he expresses this objective role in subjective terms, that is, in relation to himself, is the great illusion of the capitalist epoch.

Another characteristic of complex production arising from the capitalist motive for accumulation is the nature of capital investment; it is heavily capital-goods biased and labour-saving. And this is based, as we shall show, in Marxian terms, on the capitalist belief that only this ensures an unending stream of profits. For in order to obtain a greater surplus value, the capitalist increases the rate of exploitation. This may be done by appropriate changes in one or a combination of three variables which determine the magnitude of the surplus.

First the working day may be extended, that is, if it takes, for example, two hours for labour power to produce commodities necessary for its own maintenance, then the longer labour produces beyond the initial two, the more will be the surplus value fof the capitalist. This is an increase in absolute surplus value. Second, the quantities of commodities entering into the real wage of the worker can be reduced; but this can be

done only as a temporary measure, for the wage rate, being already at the subsistence level, cannot be lowered permanently without resulting in a reduction of the labour supply.[2] Third, the productiveness of labour may be increased by investment in more capital, for under conditions of constant labour force earning constant subsistence wages, raising the level of productivity increases surplus value. The second and third methods produce an enlargement of relative surplus value. The third variable, productiveness of labour, requires improvements in methods of production; indeed, in Marx's model constant changes in the production function based on technical progress is, besides accumulation, the second dynamic variable which constitutes a necessary condition for the continued existence of capitalist production. This condition is essentially an aspect of the mode of production which, as we have seen, Marx posits as the motive force of social evolution.

Marx, therefore, contends that of the three factors, the most effective in increasing surplus value is the third, that is, a rise in the productivity of labour by investment in capital goods. Indeed, he says this is what capitalists in fact do. Each capitalist is eager to undertake innovation first in order to reap monopoly gains. But owing to the force and competition the others follow soon after, and the new techniques spread to all parts of the economy. The process is never-ending and involves constant investment outlay which requires reinvestment of profits. Marx, thus, unlike his predecessors, established a link between investment and technical progress as the driving force of the capitalist system. In the classical system, we have seen the significance of technical progress is minimized and the analysis deals with "going concerns within

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2. Labour, in this instance, may be forced to transfer to the next world. See A. W. Stonier and D. C. Hague, A Textbook of Economic Theory, (Longman's, London, 1961) p. 297.

given production functions",[3] with changes in technique living a sort of autonomous existence.

What is the effect of accumulation on the demand for labour? As a general principle, with other things being equal, a rise in the demand for any normal good is followed by an increase in its price. The increase in price will be a signal to producers who, under conditions of relatively stable level of costs, will be lured by the prospect of higher profits into increasing the supply of the commodity. The increase in supply, given no further growth of demand tends to lower the price, and may restore it to its original level. In the model of Marx, labour power as a commodity is not subject to the working of this mechanism for "there are no capitalists who can turn to producing labour power when its price goes up, in fact, there is no 'labour power industry'..."[4] This raises a theoretical problem calling into question the validity of Marx's analysis. Surplus value, the existence of which characterizes capitalism, arises from the spread between value of necessary labour power and the value of the commodity produced. In order to maintain and increase this differential, there must exist forces which operate to keep wages equal to the value of necessary labour power, for if there were none, wages will rise with increasing accumulation to exhaust total product. In the classical model, real wages are kept at the subsistence level by the operation of the Malthusian Law of population. Marx rejects categorically the classical theory of population branding it as a libel on the human race and as the "dogma of the economists".[5] He

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3. R. V. Clemence and F. S. Doody, The Schumpeterian System, (Harvard University Press, Cambridge, Mass., 1950) p. 99.

4. Sweezey, op. cit., p. 84

5. Sweezey, op. cit., p. 86

was certainly aware, as were the classical writers, of the tendency of wages to rise with increasing investment, but he denied that this tendency constitutes a major feature of the system.

Instead, he finds the mechanism which tends to keep wages at subsistence level in the reserve army of workers, that is, relative surplus labour force. This group is made up of unemployed workers whose competition for jobs exercises a continuous pressure on the wage level; it is the

> pivot upon which the law of demand and supply of labour works. It confines the field of action of this law within the limits absolutely convenient to the activity of exploitation and to the domination of capital. 6

Marx seems to regard the reserve of unemployed army as a constant proportion of the labour force.

There are two forces which operate to counteract any rising trend of wages: first, the pressure of the reserve army, and second, the tendency of capitalists to respond to the wage increase by further investment in machinery in order to economize on the wage bill. The aggregate effect is an increase in unemployment and a fall in wages to the subsistence level. Underlying these forces are two assumptions: an infinite though not necessarily instantaneous, elasticity of labour supply for any rise in wages above the subsistence level; and a fairly high elasticity of substitution between capital and labour - the former being substituted for the better in the Marx's model. Ricardo had analyzed the labour displacement effects of machinery; he realized that, in order to re-employ the displaced labour, more investment will have to be undertaken. But in the model of Marx, increased investment is accompanied by displacement of labour from employment at a rate exceeding the rate of absorption. Thus, with a given labour force, unemployment increases pari passu with capital accumulation. This

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6. Sweezey, op. cit., p. 87.

tendency is the main factor which frees the Marxist analysis from dependence on any population theory. Thus the theory of the reserve army of labour depends ultimately on the nature of investment in the system. Arising from this feature of capitalist production is the problem of crises and depressions, an awareness of which is central in Marx's analysis and differentiates him from the classical writers. To Marx capitalism without crises is inconceivable, for crises and violent collapse constitute the "grand tragedy of capitalist production."[7]

A discussion of this tragedy however lies outside the scope of our analysis but we can state briefly its general nature. The chief villain of the tragic piece is the tendency of the rate of profit to fall as accumulation increases. Accompanying accumulation is the mechanisation of the production process especially in the form of capital deepening. This means a rise in the organic composition of capital. With a constant rate of surplus value the rate of profit, as already noted varies inversely with the organic composition of capital. But, according to Marx, the organic composition of capital rises with an increase in accumulation, hence the rate of profit tends to fall. This tendency of the rate of profit to fall does not set, as in the classical model, a barrier to the indefinite expansion of the process. While in the classical model, the falling tendency of the rate of profit diminishes the power and the urge to accumulate, in the Marxian model, it intensifies the capitalist's urge to prevent it from falling; they undertake further accumulation in the hope of raising their surplus value through an increase in the productivity of labour. But the force of competition among them defeats their hopes, and the fall in the rate of profit is the starting point not only of short-run crisis but of the long-run breakdown of a capitalist economy.

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7. Fan-Hung, "Keynes and Marx on the Theory of Capital Accumulation", Review of Economic Studies, Vol. 7, No. 1 (October 1939) pp. 41.

There are two types of crisis, one arising from the tendency of the rate of profit to fall, and the other, from the tendency of the failure of the law of value, that is, the failure of commodities to sell at their equilibrium values due to a fall in market prices as result of over-production. In this latter case, the fall in profitability is a symptom of a previous disequilibrium, although it still constitutes the starting point of the crises. When the law of values fails to operate, disproportionality develops among the various lines of production. The chief characteristic of this disproportionality is general over-production to such an extent that capitalists are unable to sell their products at profitable prices. Not only the rate of profit but absolute profits fall, and investment activity slackens. Here the chief cause of the disproportion is the general planlessness of capitalist production. Finally, Marx develops another crisis theory on the basis of under-consumption. He rejects Say's Law of the classical school and argues that because of the law of capitalist production, the consumption capacity of the capitalist class is limited. In addition, he asserts that the consumption power of the worker is kept low at the subsistence level with the result that the consumption goods industry is unable to absorb the output of the capital goods industry; overproduction therefore results in this sector and this manifests itself in crisis.

These crises are short-run periodic occurrences, and Marx's analysis of them interests us for two reasons: first, it brings to light the problem of finding an optimum level of effective demand that will absorb total output so as not to affect the inducement to invest adversely; and secondly, it raises a fundamental issue that planlessness is one of the basic factors at the root of the instability in a capitalist economy.

Marx states three principles which underly the long-run

collapse of capitalism; the falling tendency of the rate of profit the increasing misery of labour,[8] and the concentration of capital. In order to prevent the falling tendency of profits and hence postpone the threat of economic collapse, capitalists search for profitable opportunities outside their own countries. To secure foreign markets, both for commodities needed at home and for higher profits, capitalists form monopolies, and imperialism develops to maintain these monopolies; monopoly capital increases as the quantity of capital becomes increasingly concentrated under the control of few capitalists. Together with concentration of capital goes centralization of capital. Although Marx does not define this process in detail, it could be inferred that he is referring to economies of large scale production which result from competition among capitalists to expand their capital and cheapen commodities. The cheapening of commodities depends on increased productivity of labour, and this latter, of course, depends on expanding the scale of production. This, as we have noted in the last chapter, is an important principle in Marshall's analysis of the firm which is now widely employed in theories of economic development. Marx deserves credit for its explicit recognition and incorporation into the framework of his analysis.

There are three main results of capital centralization: first, it results in the rationalization of the labour process, secondly, it hastens technical progress; and thirdly, it leads to monopoly control of the market.

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8. The theories of the reserve army and the increasing misery of labour must be understood in the context of an industrial economy, and hence must be differentiated from the misery of people in underdeveloped areas except in case of the latter where there is undoubted evidence of exploitation of the people by "monopoly capital", in which case the cause of the misery is akin to the Marxist one.

Monopolistic control of the market which accompanies capital concentration is an essential element in Marxist theory[9] of capitalist imperialism, according to which the struggle to avert the falling tendency of the rate of profit embraces the export of capital to non-capitalist undeveloped economies for investment in mines, plantations, and other export oriented economic activities. In most of these economies, the standard of living is relatively low and invariably at the physical subsistence level and since capitalists export capital in order to maintain the rate of accumulation, or even increase it, so as to mitigate or reverse the fall in profits at home,[10] wages of workers in these areas are kept close to the subsistence level and prevented from rising in step with increasing labour productivity. Capitalists are able to keep wages low because of unlimited supplies of labour coming from the peasant sector of the economy, or coming from other parts of the world by immigration as indentured labour.

Foreign control over the entire economy takes the form of three disequalizing factors,[11] operating against the native population: first, the latter, as sellers of labour power, are faced with a buyer's market of foreign capitalists; secondly, as consumers whose tastes have been attuned to foreign goods concurrent with the displacement of local

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9. This theory was not developed fully by Marx himself, but later by his disciples, principally by Rosa Luxembourg, The Accumulation of Capital translated from the German by Agnes Schwarzschild, (Routledge and Paul, London, 1951) and in a different tradition J. A. Hobson, Imperialism, A Study by J. A. Hobson, (Allen and Unwin, London, 1938).

10. Robinson, op. cit., p. 369.

11. The analysis of the "disequalizing" Factors "was not original with Marx; it was recently offered by H. Myint and is brought into the exposition here for the sake of emphasis. See H, Myint, "An Interpretation of Economic Backwardness". Oxford Economic Papers Vol. 6, No. 2 (June, 1954) pp. 152-159.

products, they are forced to buy in a sellers' market of foreign importers; and thirdly, as producers, they face a monopoly of the export business in the hands of foreigners. The cumulative effect of this pervading presence of foreign economic influence is to introduce and perpetuate a dualism in the economy which tends to affect natives adversely and prolong their condition of underdevelopment.

2.3 Critique and Relevance of Marx's Analysis

Disagreement with the general ideological element in Marx's analysis of imperialism has been frequent and vehement but it is difficult to encounter differences of opinion on the general nature of the impact of external capital on hitherto non-capitalist economies. The outstanding characteristic is the dual partition of the economy into capitalist and subsistence sectors. Investment in the capitalist sector is initially structural, has the effect of displacing traditional occupations, and, in most cases, causes unemployment largely of unskilled labour as the new investments do not absorb as much labour as they displace. This unemployment is aggravated by the process of capital deepening in certain lines of the capitalist sector in which it is "much less troublesome to use the same methods in both countries - advanced and developing economies, - so far as mechanizing production is concerned."[12] For, in that way, is obviated increasing costs attendant on training labour for skilled jobs or on designing new machines specially for unskilled labour. Because of the generally low level of specialization of economic functions, most of the displaced labour employ themselves in the service sector of the economy in order to scratch a modicum of living. This phenomenon is dubbed "disguised unemployment" by Joan Robinson. Both from analytical and practical

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12. Robinson, op. cit., p. 157.

points of view it should be distinguished from the incidence of over-population in the peasant sector of the economy which lies at the basis of Lewis' concept of "unlimited supplies of labour,"[13] although given a high degree of cohesion between both sectors, the distinction may be less clear in practice. And the degree of intersectoral mobility determines to a large degree the wage level in the capitalist sector[14] which in turn affects decisions about the degree of mechanization of industry in the capitalist sector.

While the effect of monopoly capital then is to create unemployment in the capitalist sector, it is the lack of capital and efficient economic organisation which underlies the phenomenon of rural unemployment.[15] As analytical tools, Marx's concept of the industrial reserve army and Lewis' unlimited supplies of labour serve the same purpose of analyzing how investment output can be increased without a rise in the real wage rate, or even if there were, without riding to such a level as will cut back further investment schemes.

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13. W. A. Lewis, "Economic Development with Unlimited Supplies of Labour" Manchester School of Economics and Social Science, Vol. 22 No. 2, (May, 1954), pp. 139 - 191.

14. The Relationship between wages in the capitalist sector and mobility between both sectors is more complex than indicated above. The degree of intersectoral mobility itself is a function of a number of factors not excluding the wage level in the capitalist sector. Other notable factors include physical accessibility, transportation, and the profitability of the subsistence economy.

15. Indeed to Professor Maurice Dobb, the basic problem of underdeveloped economies is the conspicuous lack of economic organization for growth and he sees the organizational problem as one of (a) utilizing the surplus labour in an agricultural economy where rural unemployment exists, and (b) creating a marketable surplus for agricultural production; Maurice Dobb, Some Aspects of Economic Development, (Delhi, 1951). The theory of accumulation based on rural unemployment will be critically discussed in the next chapter.

In terms of methodology, Marx's model may be contrasted with the classical model. The classical school built their model on the assumption of unchanging patterns of social relations and their analysis deals with gradual quantitative changes in population, capital, wages, profits and rent; and the final result is simply a state of affairs in which all these rates of change equal zero, that is, the stationary state. Marx, on the other hand, begins with the stationary state, the Simple Reproduction Model, and develops his analysis in terms both of quantitative changes of capital and technical progress and of qualitative changes in social organization and social relations. For him, as Sweezey puts it, "the end product is a revolutionary reconstitution of society."[16]

Unlike the classical school, though with the exception of Adam Smith, investment rather than saving assumes an active role and is the driving force in the model, but like them, Marx did not differentiate between the act of saving and that of investment; both are still performed by the capitalist as saver and investor; indeed, the capitalist does not undertake saving in the model of Marx, he invests what he expropriates from labour. While the classical school assumes a given state of technical knowledge and relies on population increase and diminishing returns in agriculture to set a limit to further expansion, Marx's theory is independent of any assumptions about population; in his model, technical progress limits capital expansion. But whether it is population or technical progress, both models exhibit the law of the falling tendency of the rate of profit as the chief vehicle by means of which capitalist development is brought into harness or collapse.

This law of the falling rate or profit has received adequate

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16. Sweezey, op cit., p. 94.

criticism from serious students of Marx. We can do no more than state briefly this criticism. Mrs. Joan Robinson observes that "his (Marx) explanation of the falling tendency of profits explains nothing at all."[17] As we have seen, Marx assumes a constant rate of exploitation

$$\frac{s}{v}$$

This means that when output rises as a result of capital accumulation, it is divided between capitalists as profits and labour as wages in a constant ratio; the worker thus receives a constant share of a growing amount of output; that is, real wages increase absolutely. This contradicts Marx's assertion that for the most part wages remain at the subsistence level.[18] Furthermore, profits may rise or fall depending on the relationship between

$$\frac{c}{c+v} \text{ and } \frac{s}{v}$$

a relationship which is not as direct as Marx takes it to be. For it is possible that productivity may increase without a substantial rise in

$$\frac{c}{c+v}$$

Marx, indeed, erred in his theory of profits, but it is noteworthy that if we assume a highly capital intensive economy which is always labour displacing, it may be possible to uphold his theory to a limited extent.

In this respect, Marx's emphasis on capital deepening is particularly relevant to the problem of choosing between different techniques of production on the one hand, and pursuing a policy of full employment on the other in densely populated economies which are characterized by a high degree of rural underemployment and displaced

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17. Joan Robinson, An Essay on Marxian Economics, (Macmillan, London, 1949) p. 29.

18. And it is also in sharp conflict with his theory of value.

labour.

For the choice between various degrees of capital intensity hinges on their total impact on productivity and employment. In most under-developed economies where there is an abundance of labour, generally raw labour, which can be absorbed in productive employment, it would seem logical to undertake investment projects which are labour using. But the experience of some countries has been otherwise, that is, investment in labour saving equipment which tends to increase the unemployed labour force. Nevertheless, capital investment is not always and necessarily labour saving, and Marx's failure to take this into account in his analysis renders his theory vulnerable. For capital accumulation may set in motion additional labour[19] and with flexible occupational and spatial mobility, displaced labour may be absorbed in other lines of activity which are complementary to the original labour saving investment. Thus given the elasticity of mobility, unemployment due to capital investment occurs only when the rate of displacement of labour exceeds the rate of emergence of complementary activities and its rate of labour absorption.

Associated with his concept of capital centralization is the principle of economies of large scale production which has the process effect of setting the pace for further investment. Marx does not discuss in detail the nature of these economies, he is concerned mainly with their end product, that is, monopolization of capital. It seems, however, that he had in mind both horizontal and vertical economies.

In spite of these significant insights into the nature

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19. E. Swan, "Economic Growth and Capital Accumulation," Economic Record, Vol. 22 No. 63, (November, 1956), p. 339.

and effects of the investment process, Marx presents us with no comprehensive analysis of the personal element that applies technology to the economic process and for this we shall now turn to J. A. Schumpeter from whom we have inherited an original theory of entrepreneurial leadership.

2.4 The Schumpeterian System: the Role of the Entrepreneur

In this section, we shall attempt an analysis of the entrepreneurial function in Schumpeter's model of economic development,[20] consider its relationship with the process of investment, and appraise its relevance to the investment problems of a developing economy. It may be noted from the outset that the model, although derived from a position of stable equilibrium, is inherently unstable, that is, like Marx, Schumpeter portrays capitalist development as a process of disequilibrium. This disequilibrium is a characteristic feature of an economy in which change and uncertainty exist; and the relevance of change and uncertainty for a theory of investment is that there is no longer a supply-price which just suffices to call forth a definite quantity of entrepreneurial services[21] at given levels of profits, as is assumed in the classical and neo-classical equilibrium models. In these models, as noted, profits as a supply price, are a return to capital in excess of return to capital invested in riskless ventures; the pricing system would not eliminate this profit so long as there

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20. J. A. Schumpeter, The Theory of Economic Development, translated from German by R. Opie, (Harvard University Press, Cambridge, Mass., 1932).

21. Robert Triffin, Monopolistic Competition and General Equilibrium Theory, (Harvard University Press, Cambridge, Mass., 1949), p. 168.

are opportunities for investment. 22 In other words, the supply of profitable investment opportunities is generally accompanied by a supply of entrepreneurship.

Schumpeter parts company with this supply-price analysis of entrepreneurship, but, he employs the equilibrium analysis of his predecessors to explain the bunching of innovations. He replaces the traditional analysis of entrepreneurship with a sociological theory of leadership, and brings more glaringly to light than before the vital link between entrepreneurship and technological progress in its application to the investment process. It is our task to concentrate on this contribution of Schumpeter and its relevance to present day conditions in developing economies.

Schumpeter draws a distinction between two concepts of economic development; first, development due to adaptation of economic conditions to changes in environment external to the economy, such as a change in population; and, secondly, the development of the economy induced by changes in economic factors within the system itself. He rejects the first definition on the ground that the "economy in itself without development, is dragged along by changes in the surrounding world", 23 and he adopts the second definition as appropriate to real economic development, by which "we shall understand only such changes in economic life as are not forced upon it from without, but arise by its own initiative, from within". 24

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22. B.R. Williams, "The Impact of Uncertainty on Economic Theory with Special Reference to the Theory of Profits", in Uncertainty and Business Decisions, ed. C.F. Carter, (Liverpool University Press, Liverpool, 1954), p. 67.

23. Schumpeter, op. cit., p. 63.

24. Schumpeter, op. cit., p. 63.

The initiation of investment depends on the supply of entrepreneurs. In Schumpeter's model the supply of entrepreneurs is a function of social factors, for example, as expressed in attitude towards change, as well as a function of profitable economic prospects as they are subjectively assessed by the individual. The primary factor is the social environment, for the existence of profitable investment opportunities and their exploitation depend on the degree of orientation towards change prevailing in any society. For it is the essential characteristic of investment to effect change not only in the economic but also in the social structure. Indeed, it may be said that if any economy fails to develop, the cause of the failure is not lack of investment opportunities - with the exception of the state of bliss, or perhaps the classical stationary state - but a weakness of the propensity of the social structure to change. To be sure, a society may be oriented towards change but not without resistance, and it is this proposition which underlies Schumpeter's model in which the entrepreneur personifies supremacy of the social forces making for change over those resisting it.

The entrepreneur as the motive force of growth is characterized by a certain quality of leadership; he has a dogged determination to overcome the resistance of rigid social custom, and of fixed habits of thought and action. He has the

> dream and the will to found a private kingdom.... the will to conquer, the impulse to fight to prove oneself superior to others, to succeed for the sake, not of the fruits of success, but of success itself....the only joy of creating, of getting things done, or simply of exercising one's energy and ingenuity. 25

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25. Schumpeter, op. cit., p. 93

He is the economic path-breaker in a progressive economy. The entrepreneur is not a member of a social category existing regardless of his function; thus, he does not exist in the circular flow economy in which "the people who direct business firms only execute what is prescribed for them by wants or demand or by the given means of the method of production."[26]

He, is therefore, differentiated from the managers of the circular flow economy, as well as from those imitators in a progressive economy. Furthermore, he is not synonymous, except in rare cases, with the capitalist who, in Schumpeter's model, lends finance to the entrepreneur to enable the latter to gain control over real resources for investment. What characterizes the progressive economy is the leadership of the entrepreneur and his purposeful direction of resources for investment which promises a profitable return, rather than their ownership. Finally, the entrepreneur is not necessarily the inventor of the new method of production which he introduced into the economic process. His essential function is the introduction of the new method.

In undertaking investments, the entrepreneur enters a world of uncertainty, a world in which the routine calculation of the circular flow does not suffice. The uncertainty of the economic world becomes an important factor which need be taken into account in any investment undertaking; and it requires men of exceptional will power far greater than possessed by ordinary business men. The entrepreneur or the innovator is this type of person. As he emerges to the forefront of the economic scene, the consumer becomes a passive element, and

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26. Schumpeter, op. cit., p. 63.

subject to the dictates of the entrepreneur. This reversal of the functional significance of the consumer underlies Schumpeter's theory of change. He asserts

> therefore, while it is permissible and even necessary to consider consumer wants as an independent and indeed the fundamental force in the theory of the circular flow, we must take a different attitude as soon as we analyze change. 27

A close affinity may be detected between the relationship of the entrepreneur and the consumer in Schumpeter's model, and the way by which governments in developing economies today, acting as entrepreneurs, try to change the consumption pattern of their citizens through development programmes.

What constitutes Schumpeterian change or entrepreneurial activity is the process of carrying out new activities in the form of one or any group of the five following cases: (i) the introduction of a new good not yet known to consumers, or of a new quality of a good; (ii) the introduction of a new method of production. This need not necessarily imply a new scientific invention; it may be a new method of handling a commodity commercially; (iii) the opening up of a new market; (iv) the conquest of a new source of supply of raw materials or half-finished goods; and (v) the carrying out of a new organization of industry such as the creation of a monopoly position or its breaking up.

The direct relevance of these changes to the nature of the development process in today's developing countries is self-evident.

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27. Schumpeter, op. cit., p. 65. For an opposite view about this relevance, see the discussion on the general relevance of Schumpeter's model to developing economies in section four of this Chapter.

Before discussing how the entrepreneur carries out his function, we may elaborate on the distinction which, as noted earlier, Schumpeter draws between invention and innovation. The former refers to the scientific discovery of a new technique which may or may not open new avenues of more profitable economic activity than existing ones, and yet still possess no economic significance; it remains pure invention. However, given its economic profitability, the process of enmeshing it in the stream of economic activity in order that it may realize its potentiality, is known as innovation. This economic application of the invention is the function of the entrepreneur or the innovator. Thus, although invention is necessary as a condition for economic development, it is not by itself sufficient. Indeed, economic development today may be regarded as the problem of applying successfully, in order to include sustained growth, the backlog of inventions, technical or otherwise, of the industrial countries to the economics of the backward areas.

A related idea of the concept of innovation is that the success of the new combinations of production entails the destruction or the obsolescence of old ones. In terms of the impact on existing cost-price relationship, this is a tenable proposition, for as the new production method produces goods at cheaper prices than previous ones, their cost-price advantage will undercut existing methods of production, causing a shift in favour of its utilization and, therefore, the economic obsolescence of existing methods. In economic terms, the test of a successful innovation is its displacement of previous techniques of production as a result of its superior efficiency. Displacement occurs as an effect of dynamic competition by imitators who seek to employ the

new techniques both to prevent being undersold into bankruptcy and to obtain a share of the gains of the innovation. But there is a wider context in which Schumpeter employs the concept of creative destruction, and that is the relationship between the entrepreneur and the social environment in which he is operating.

Social attitudes are normally resistant to change and innovation, and it is the task of the successful entrepreneur to overcome this social resistance; his eventual success means the destruction of the hostile social environment, or, in positive terms, the emergence of a new pattern of social relationship. In the developing countries of today much of the obstacle to the process of growth is largely of this type, and the success of any development effort depends to a large degree on the ability to destroy or eradicate the inhibiting social factors. In this regard, the Schumpeterian insight of the destructive tendency of growth forcefully applies to the process of development in these areas.

How does the progressive economy get started? Analytically, Schumpeter posits the beginning of the entrepreneurial function on the circular flow economy in which there is neither net investment nor population growth, but in which full employment exists. There are, however, opportunities for new combinations but the exploitation of these are made possible only with the rise of entrepreneurs. Let us assume, heroically, that an entrepreneur emerges on the economic scene. His first need is to acquire control over real resources which he must use to exploit investment opportunity. These resources must be diverted from their current employment in the circular flow economy, for by hypothesis, there are no savings or unused resources in the circular flow.

The only source of obtaining this control over the means of production is to borrow from credit institutions or capitalists. The credit obtained does not come from any accumulated stock resulting from previous development; it is purely inflationary, and its sole purpose is to secure the detachment of the means of production from the circular flow for employment in new investment. The form which the process of credit-creation takes is immaterial.

The breaking of the circular flow by entrepreneurial action is similar to the breaking of the vicious circle of a backward economy. The vicious circle economy is characterized by a stagnation of output at a low level because productivity is low, which in turn results from low employment of capital. The break of the vicious circle occurs when productivity, especially of labour, is raised by efficient organization and increase in the use of capital. The resemblance goes beyond mere circularity, for the breakthrough of the vicious circle depends on just that type of the entrepreneurship which uncoils the circular flow economy. There is however a fundamental difference which may be noted; the circular flow economy is a full employment economy, albeit at a low level of output, so that the withdrawal of resources for new investment is possible only at prices higher than prevailing in the circular flow. In the vicious circle, on the other hand, there is large scale unemployment, though disguised, and in this case, one may talk about the existence of relatively free resources, and it is possible, in principle, to carry out new investment at practically no scarcity cost. In spite of this basic difference, the similarity of the concepts as analytical tools is significant. Indeed Schumpeter's concept of the circular flow is much more a conceptual tool than a description of reality, and the vicious circle as a concept is richer

by serving both as a tool of analysis and a description of reality.

We may note Schumpeter's distinction between the entrepreneur and the capitalist. While the former innovates, the latter provides the finance which enables the former to get control over real resources for his investment. Until the neo-classical writers, the entrepreneur and the capitalist is invariably the same individual, and since he has little access to external credit, he has to save in order to exploit investment opportunities. In the neo-classical model a distinction is drawn between the entrepreneur and the investor, essentially a Schumpeterian manager, and the saver, both of which may be an institution or an individual. But nevertheless, credit inflation plays no role in the model as an instrument of financing investment. In Schumpeter's model, however, credit creation becomes the function of the capitalist which he performs, not by saving, but merely by creating new money. Thus the entrepreneur gets access to purchasing power which is not yet backed by an productive service. The raison d'etre of this operation is the expectation by the entrepreneur that the value of output from the new investment will exceed the value of the credit granted plus interest. The excess of output over this sum is entrepreneurial profit.

Capital formation through credit inflation is a common experience of most developing economies, especially Latin America. But whereas in Schumpeter's model the inflation is followed by deflation and with an enlarged flow of output from the new investment, the inflation of the developing economies tends to be cumulative gyrating upwards and causing increased unemployment as well as maldistribution of resources. Although it is theoretically conceivable to undertake capital formation by the process of cumulative inflation so

long as the creation of credit continues to be ahead of increase in prices, yet there is a limit to which this is technically possible, and beyond this limit, the rise in prices leads credit expansion. This signals the collapse of the economy. Thus in a developing economy, credit inflation and price inflation reinforce each other resulting in a break in the profitability of further investment. The credit inflation arises from the fact that, in general, the type of capital formed by the initial credit inflation does not result in the flow of output which characterizes Schumpeterian investment; as a result, the increased purchasing power generated by the credit inflation is not matched by a rise in consumption output. It may be argued that with adequate fiscal instruments, the surplus income can be syphoned off to prevent the price inflation. The fact is, however, that these developing countries on the whole do not possess adequate credit institutions the existence of which is presumed in Schumpeter's model, so that while it is easy to create credit, especially by the public authorities, it is very difficult to contract purchasing power at the proper time. Even if they do, the validity of the argument depends on the assumption of maintaining a certain level of output in the consumption sector which is consistent with absence of demand induced inflation. The situation, however, is often that not only is there no increase in output following the new investment but also the existing level of output is not maintained but reduced because of the misallocation of resources into the new investment. To sum up this analysis, the net effect of credit inflation in a developing economy tends to differ sharply from that in a Schumpeterian model. While in the latter credit is created only on the demand of innovating entrepreneurs, in the former, this is

not always and necessarily so.

As in the earlier models of growth, the motive that sets the entrepreneur on the move is the lure of profit. In Schumpeter's model, this is his sole criterion of economic activity. While profit is regarded in the earlier models as a return on capital invested above the return on safe ventures, it is quite a different element in Schumpeter's model; it is not determined by marginal productivity of capital; nor is it an element in price as is the classical school's rent. It is not a permanent source of income. In Schumpeter's own words, it has "an independent form from the concrete form of economic organization.. ..it is fundamentally connected with the role of leadership in the economic system."[28] To the victor go the spoils. Thus the existence of profit is contingent on successful innovation.

This is undoubtedly a rather limited concept of profit. Suppose the innovation of the successful entrepreneur, which is, for example, cost-reducing is widely imitated by other businesses, the question arises whether their new earnings above cost constitute profits. Schumpeter answers in the negative arguing that since imitators merely reproduce the original innovation, they are in fact transforming it into a routine process, hence, the only reward for their routinizing effort is wages of management, so that what they receive in excess of costs as a result of the imitation cannot properly be regarded as profit. In effect, the reward of the innovator is a monopoly reward which vanishes with the erosion of the monopoly position as a result of successful imitation. Its duration, then, is a direct function of the imitation lag, that is, the period between innovation and effective imitation which is a function of the degree of competitiveness of the economy, as well as, of patent regulations. Profit, indeed, is at

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28. Schumpeter, op. cit., pp. 147-154.

the same time the "child and the victim of development." [29]

The relation between profit and monopoly position in Schumpeter's model throws an interesting light on the tendency of entrepreneurs in most developing countries to request the establishment of monopoly positions for their activities lest they are competed out of business by rival, in most cases, non-indigeneous entrepreneurs. In Schumpeter's model, the monopoly position is the product of entrepreneurial innovation, and this position is subsequently destroyed by the natural competitive forces of the market structure operating in the economy. In the latter case, however, monopoly power is not attendant on any innovation as such but is the result of removing the natural forces of competitive market behaviour. It is an interesting point for debate whether changing the market structure in this way can be regarded as Schumpeterian innovation. It appears to us that this constitutes removal of one of the fundamental assumptions of the Schumpeterian analysis, namely, the existence of competition which not only

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29. Schumpeter, op. cit., p. 154

ensures the diffusion of innovation resulting in increased output at relatively lower prices, but also makes profit a temporary phenomenon for a particular entrepreneur in the economic process. The transitory nature of profits means that the entrepeneur's expectations about profitability of an innovation ultimately rests on the prospect of establishing some degree of monopoly position in his new line of investment. To the extent that this is real in practice , then the potentiality of monopoly power as an inducement to entrepreneurship is an integral part of the process of growth in a free enterprise economy.

Indeed, in the words of J.M. Clark,

> Monopolistic factors or delayed action of competition act to give the innovator incentives to make innovation while the competitive features operate to diffuse the benefits of past innovations bringing them into the public domain. 30

The competitive reaction must be imperfect and delayed to give the innovator some period of absolute entitlement to the rewards of his achievement, otherwise, knowing that the fruits of his achievement will be instantaneously dissipated, he will hesitate to carry out any new

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30. J.M. Clark, Competition as a Dynamic Process, (Brookings Institution, Washington, D.C., 1961), p. 181.

venture in the first place; but competition must also be ultimately effective to ensure that a reasonable portion of the gains are passed on to the public.

We may examine briefly Schumpeter's theory of interest. In the neo-classical model interest has a dual function; first, as an inducement to thrift, and second, as a scarcity price allocating resources between investment opportunities. But in Schumpeter's model thrift has no role in its determination: interest acts as a brake on investment; it is a kind of tax on entrepreneurial profit derived from carrying out new combinations; it originates from productive investment. It is not difficult to build a scarcity element into this concept of interest, however. Given a flow of investment opportunities, and hence the demand for credit, the volume of investment will be determined by the highest price paid for obtaining credit, and the higher this is, the smaller the volume of investment projects which will be undertaken whose prospective profit are high enough to cover the price of borrowing finance. Furthermore, as resources are fully employed in the circular flow economy, their detachment from the existing uses and employment in new lines introduce a scarcity element into the rate of interest. Nevertheless interest occupies a minor position in the analytical framework of Schumpeter.

One of the original analytical contributions Schumpeter made to investment analysis is his distinction between what Hicks[31] labels autonomous and induced investment. Autonomous investment is that

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31. J.R. Hicks, A Contribution to theTheory of the Trade Cycle, (Clarendon Press, Oxford, 1959), p.59.

type of investment which is not called forth by the current levels of output, consumption, or saving or by changes in them, while induced investment is a function of an increase in consumption demand, and hence, with no lags between incomes and outlays, of the current level of output. In the latter case, investment is undertaken in response to spontaneous change in consumer demand, but in the former, consumer demand becomes the dependent variable of the independent force of spontaneous investment. [32] While classical and neo-classical models concentrated on analysis of induced demand as a sufficient inducement to invest, Schumpeter minimized its importance. Schumpeter's model of economic development is essentially concerned with autonomous investment. This preoccupation, while relevant in one respect to the type of investment entailed by the economic development of low income economies today, in another respect results in minimization of the expansionary effect of high expectation of consumption, and thus ignores one important source of potential inducement to invest in developing economies. For the so-called revolution of rising expectations surely affords a basis for an inducement mechanism which may generate a willingness to increase the supply of effort and to exploit investment opportunities. [33]

Innovations are lumpy in character, and as a result of the competitive process, come in clusters, thus making the path of economic

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32. Schumpeter, op. cit., p. 65

33. For a recent attempt to link the desire to satisfy wants created by the introduction of novel consumption goods in a developing economy with the flow of productive effort to satisfy this desire, see A. Smithies, op. cit., pp. 255-72. Doctrinal history, however, credits Sir James Steuart with the first use of the aspiration effect in development economies. For this rediscovery, see R.V. Eagly, "James Steuart and the Aspiration Effect", Economica, Vol. 28, No. 109 (February, 1961), pp. 53-61.

growth discontinuous. In order to divert resources from their existing employment, an entrepeneur invades the circular flow by bidding higher prices for productive factors with credit obtained from capitalists. Soon after the introduction of the innovation, given the competitive structure of the economy, other businesses, suffering the effects of price cuts and attracted by the new profit opportunity, imitate the innovation which they finance with bank credit. The rapidity and extent of imitation give a swarm-like appearance to economic activity. Prices and money incomes in the investment sector rise as entrepreneurial spending permeates the entire economy. Two opposing developments begin to take place with a lag: with money incomes rising higher than real income, forced saving diverts factors from consumption goods industries. But the general rise in the overall price level, induces a secondary economic wave in the consumption good industries; for old firms, encouraged by consumer spending, expand production of consumer goods. Meanwhile, speculation develops as businessmen anticipate additional rises in price and money income, and capitalists finance not only innovational activity, but also a general expansion in lines using previous methods of production. Nevertheless, since increase in consumer expenditure lags behind increase in investment outlays, the result of both developments is that the phase of the upswing is characterized by a shift in the composition of total output from consumer to producer goods.

Sooner or later, however, the innovations are completed and absorbed into the normal economic system, and a stream of goods start flowing from the new firms. Then ensues the process of creative destruction: old firms find their markets either destroyed or curtailed

by new ones, and some firms fall into bankruptcy. Credit deflation sets in as entrepreneurs pay back their loans, and no new investments are undertaken because the market is flooded with commodities both new and old, creating a disequilibrium which renders difficult the calculation of cost and receipts. This decline in entrepreneurial activity is made more rapid by increasing uncertainty and risk. The economy moves towards a new equilibrium at which output is higher than previously to the benefit of all the major income groups. The depression fulfills what the boom promised, that is, lower costs and increse in real income. The stage is then set for a new burst of entrepreneurial activity and repetition of the cycle. Schumpeter asserts that this cyclical fluctuation is an essential feature of capitalism, and that the only remedy a la longue is an improvement in business techniques of prognosis.

That within the model, entrepreneurial action is a condition for the process of development is evident from the analysis above: the entrepreneur becomes the engine of growth. But he requires certain conditions, First, there must be a social climate which, in spite of its resistance to change, does not succeed in choking it but rather accepts it. Secondly, the existence of credit institutions facilitates the financing of investment plans. A third check on entrepreneurial activity is the rate of interest. Although Schumpeter does not regard this check as an important barrier to the fulfillment of investment plans, yet its potential restrictive effect cannot be ignored; hence, a low rate of interest is desirable from the investor's point of view. Indeed, the relationship between the rate of interest and credit inflation in

Schumpeter's model may be compared with development by means of foreign loans and the attendant rate of interest to be paid by the borrowing country; a low rate of interest enables the borrowing country to carry out projects with loans more readily than would have been possible at higher rate of interest, or at the prevailing rate of saving within the developing country.

That the process of investment is essentially a process of disequilibrium underlies the concept of economic development as a series of discontinuous steps characterized by a rising scale of output. The exploitation of an investment opportunity demands the most massive effort by the entrepreneurs in order to effect a change in the total pattern of production and consumption. This process of creative destruction may be interpreted with respect to the developing countries to mean the breakdown of the institutional structure of the pre-existing economy, which are not merely indifferent to growth but actively tend to stifle it.

2.5 Relevance and Conclusion

Much of the preceding discussion contains an implied appraisal of Schumpeter's model and its relevance to developing economies. This appraisal does not take into account the problem of business cycles and the ultimate fate of capitalist development. Our concern has been to isolate those elements of the theory which have some bearing on our main topic of discussion. The role of the entrepreneur is the most relevant. It is a truism that what the developing economies of today need most are Schumpeterian entrepreneurs, men of broad vision, strength of character, and steadfastness of purpose. Little more need be said about that than to note that Schumpeter considers only the individual as

capable of undertaking the entrepreneurial function effectively rather than groups or the state. Therefore, the tendency that problemsof economic development are tackled at the governmental level has been given as one of the reasons for dismissing Schumpeterian theory as inapplicable to developing economies of today.[34]

Specifically, Schumpeter's analysis is considered irrelevant to developing economies on three grounds[35] relating to the investment process. First, the agency of development; while private entrepreneurs are the propelling power in Schumpeter's model, in the case of developing economies, it is asserted, governments are likely to be the agent of growth. Secondly, the process of innovation means introduction of new techniques, but in developing economies investment entails introduction of techniques of production already existing in advanced economies. And thirdly, the motivation of investment in Schumpeter's model originates from the side of supply in the profit seeking propensities of entrepreneurs, while in the developing economies, it originates from the demand side, that is from consumers aspiring to attain higher levels of consumption.

In his article Douglas Rimmer attempts a rebuttal of these assertions. With regard to agency, he argues that there is no functional distinction between government action and private action.

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34. H.C. Wallich, "Some Notes Towards a Theory of Derived Demand", in The Economics of Underdevelopment, ed. A.N. Agarwale and S.P. Singh, (Bombay, 1958) pp. 189-204.

35. The following discussion is based substantially on a recent article by Douglas Rimmer which purports to refute the alleged ground of irrelevance attributed to Schumpeter's analysis. D.Rimmer, "Schumpeter and Underdeveloped Countries", Quarterly Journal of Economics, Vol 75, No. 3 (August, 1961), pp. 422-50.

"Government action," he says,

> has no special character that enables it to be distinguished sharply from other forms of human action. Entrepreneurial motives do not vary with the institutions through which they are translated into action. 36

And he states that the only difference between them is one of institutional form. He asserts that government is a mechanism by means of which economic leadership is exercised and, therefore, that it provides entrepreneurs in developing economies with an apparatus through which they can activate their desire to improve general living standards, [37] for "to regard the entrepreneur simply as a profit taker ... is completely to miss the point of Schumpeter's characterization of this distinct and uncommon type of personality."[38] In other words, the entrepreneur in Schumpeter's model, according to Rimmer, has motivations other than private gain, and in its application to developing economies, "the substitution of government entrepreneurship for private entrepreneurs merely changes the administrative form, not the economic character of the development undertaking."[39] Hence, he concludes, the appearance of a sharp contrast results from an eminently unscientific view that is commonly taken of the nature of "state action, and which finds reflection in a simple-minded attitude towards the entrepreneurial motivation of politicians as compared with that of private persons."[40]

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36. Rimmer, op. cit., p. 428.

37. Rimmer, op. cit., p. 429.

38. Rimmer, op. cit., p. 430.

39. N. S. Buchanan and H. S. Ellis, Approaches to Economic Development, (Twentieth Century Fund, New York, 1955), p. 82.

40. Rimmer, op. cit., p. 448.

Rimmer dismissed the argument based on method with the argument that H. C. Wallich and H. W. Singer made an unwarranted identification of Schumpeterian innovation with technological novelty and asserts that

> the sense in which the underdeveloped countries rely on an existing fund of technical knowledge does not differ materially from the sense in which there has been dependence always and everywhere on existing knowledge. 41

Finally, the proposition that investment is undertaken in response to consumption aspirations in developing economies is dismissed by the argument that the international demonstration effect on which the proposition is based has limited practical validity and even so, it "hardly seems realistic to assume that want alone will bring the new industry or service into existence; in other words, it would be wrong to say that the entrepreneurial function ceases to exist in these circumstances." 42

Rimmer's rebuttal of the second ground of the inapplicability of Schumpeter's model to developing economies is very effective and we shall not let that detain us. Also, we agree that the dispute over the goal of investment involves a difference of emphasis, although it may be noted that his conclusions regarding the absence of the entrepreneurial function is trivial to the argument, if not irrelevant, for it is a misrepresentation to attribute to Wallich and Singer the simple-minded notion that "want alone will bring the new industry or service into existence."

With the first point of debate, however, Rimmer certainly moves uninhibitedly in a realm of confusion regarding the nature of the entrepreneurial state. Two concepts of the role of the state in the

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41. Rimmer, op. cit., p. 448. For the source of Rimmer's attribution of this view to Singer, see H. W. Singer, "Obstacles to Economic Development", Social Research, Vol. 20, No. 1, (Spring, 1953) pp. 19-31.

42. Rimmer, op. cit., p. 440

investment process must be distinguished;[43] first, the role of the state as providing the institutional framework and social overhead capital within which private enterprise will operate, and secondly, the policy of the state to endow itself with the entrepreneurial function as a monopoly power. The first is the general case of classical laissez faire and is hardly the point at issue in the debate, while the second, it seems to us, is the heart of the matter in deciding the relevance of Schumpeter's model to the developing economies. It is on this score that Rimmer's rebuttal misses the point, for he does not seem to be aware of the importance of the distinction, and it is our contention that the difference between Schumpeter's entrepreneurs and the entrepreneurial state is not one without distinction but involves profound qualitative difference. Undoubtedly, from the purely functional approach which preoccupied Rimmer, there is nothing inherent in the entrepreneurial function which prevents its being performed by the state or a collective. But a qualitative difference emerges as soon as we think in terms of the consequences of the entrepreneurial function for the future progress of the economy.

In a private enterprise economy, competition or the market mechanism is relied on to diffuse the gains of innovation to the economy as a whole in an automatic way, while under government entrepreneurship with sole monopoly of the process of innovation, there is no guarantee of the spontaneous diffusion of the gains of investment; this has to be

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43. See also Harry G. Johnson, Money, Trade, and Economic Growth, Survey Lectures in Economic Theory, (G. Allen and Unwin, London, 1962), pp. 152-3 for a threefold classification of the role of the state in investment.

done as a matter of policy decision by the government. And the fact that "policy is politics" as recognized by Rimmer himself and that governments have an inherent tendency towards possessing interest of their own which may diverge from the general public interest, makes it difficult to affirm that government entrepreneurship will be more effective from the point of view of its effect on further growth than competitive individualism based on pursuit of profit. For it is the chief virtue of competition that it operates independently of the separate wishes of the participants in the economic process, and that while it may operate contrary to the interest of each individual as conceived by himself, yet it may result in the gain for the community as a whole and, more important, at the same time preserve the process that creates the gain. It is this invisible hand that underlies the achievement of the capitalist process.[44] In a governmental set-up with monopoly of entrepreneurial initiative there is no effective mechanism which will automatically pass on the gains of innovations, independently of the wishes of the administrators. Whether gains should be diffused and how they should be diffused becomes issues for arbitrary decision by people who are likely to have developed a vested interest in the process which will receive priority in their thinking.[45]

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44. In this respect, E. Haley's phrase "spontaneous harmony of egoisms" is elliptical and highly condensed, and is likely to mislead one to interpret crudely the classical proposition about the relationship of private and social interests as one marked by no conflict. The spontaneity of harmony is not that of egoisms - the classics were far from saying that - but is is the spontaneous reconciliation of conflicting interests by the invisible hand of the competitive process in diffusing the gains of accumulation while at the same time providing the mechanism whereby the latter can be effectively pursued further. For the source of Haley's phrase see E. Haley, The Growth of Philosophical Radicalism, translated by Mary Morris, (Faber and Faber, London, 1928), p. 15.

45. Johnson, op. cit., p. 161

It is clear, therefore, that the superior efficiency of competitive entrepreneurship in terms of certainty of results constitutes a differentia specifica between private entrepreneurship and the state entrepreneurship; and it is significant that competition which lies at the heart of Schumpeter's analysis, and of capitalist economy should have eluded participants of debate on the relevance of Schumpeter's model to developing economies as regards the role of the state. Once this qualitative difference is established, the issue of relevance at the purely functional level recedes into sterility, and the real test of the relevance of Schumpeter's model must be found in the consequences as regards autonomous dynamism and distributive efficiency. The State satisfies the first but only on its own terms, while experience of graft in developing economies drives the second further from the reach of the State. In this latter respect, and indeed in both, the competitive market mechanism, with all its imperfections, remains unsurpassed.

Some writers argue that the concept of innovation is either too wide or too narrow to be applied in any specific instances of development; for example, the doubt is raised whether the investment in developing countries which depend on inventions outside them really fall in the category of innovations. We do not intend to enter the debate here except make the point that to the extent that the investment represents a new economic influence on the society, it constitutes an innovation.

Furthermore, with the removal of competition, the swarm-like appearance of innovations which characterize Schumpeter's model cannot

be expected to occur automatically and the question whether the economy under state entrepreneurship will be subject to the cyclical fluctuations inherent in Schumpeter's model remains unanswered. Even in the model of Schumpeter, the concept of clustering of innovations is difficult to sustain without positing a discontinuity over time in the distribution of entrepreneurial activity. The most satisfactory explanation we can give is that Schumpeter is generalizing from the historical experience of capitalism during the beginning and closing years of the industrial revolution, and there is no prior basis for assuming that the pattern will be repeated in the future.

One doubts whether the profit motive alone is involved in the entrepreneurial function when it is performed collectively, for it is evident that collective entrepreneurship may be motivated by non-economic, and even irrational, forces, such as nationalism, to undertake the process of economic development.[46] Undoubtedly, this takes us beyond the limits of Schumpeter's analysis and conflicts with his fundamental assumption of social or collective resistance to change.

In terms of this fundamental assumption, the problem of investment in the backward countries today may therefore be seen as the need for concentrated efforts directed at overcoming a web of resistances, economic, social or even political; the resistances of imperfect market structures, of rigid social customs, and of doctrinaire political philosophy. Against this background emphasis on entrepreneurial activity assumes total significance, and it is Schumpeter's greatest achievement that he provided this insight.

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46. B.E. Supple, "Economic History and Economic Underdevelopment", Canadian Journal of Economics and Political Science, Vol 27, No. 4, (November, 1961), p. 478.

Marx and Schumpeter related the entrepreneur to technological improvement and showed that the pattern of this relationship sets a distinctive imprint on the course of economic progress. The former stressed the technological basis of investment as it reflects itself in capital deepening, while the latter emphasized the role of entrepreneurial leadership in its application of technological inventions to the process of production. In both cases the pursuit of profit is the activating motive, but in the latter greater emphasis than before is laid on social factors as the determinant of entrepreneurial supply. In both again attention is focussed on the nature of the investment process as one of continual disequilibrium. The main cause of this disequilibrium is autonomous investment which has a sort of independent extra-economic origin. Investment is now treated as a function of expectations about profitability rather than of saving. And Schumpeter, going further than Marx, made the entrepreneur the grand debtor of capitalist economy. The necessity of debt or credit for the model makes equally essential the development of adequate financial institutions, the relevance of which to a developing economy cannot be exaggerated, especially in the light of the fact that most initial programmes of investment in developing economies are of the type that depend on credit or finance rather than on domestic saving.

Emerging from their analysis, therefore, are three problems; first the problem of absorbing technology into the economic stream of production; secondly the supply of entrepreneurial talent to undertake innovations; and thirdly, the need to create the institutions of confidence and credit within which entrepreneurs can function. In the next Chapter we shall be considering aspects of these investment problems as they relate to developing economies.

Moreover, the analyses of Marx and Schumpeter have been descriptive of the development and working of capitalist economy. In doing so, little attention was paid to the role of policy on the part of the State and its influence on the course of development. It is characteristic of post-Keynesian economics that it has a slant towards prescriptive analysis and this tendency has affected discussion of development problems as well. In the next two Chapters, we shall, therefore, be concerned with a combination of descriptive and prescriptive analysis as applied both to mature economies and developing ones with respect to the process of capital accumulation.

CHAPTER THREE

POST-KEYNESIAN, ANALYSIS OF INVESTMENT PROBLEMS IN A PROGRESSIVE ECONOMY

3.1 Introduction

Keynesian economics, in spite of its preoccupation with analysis of short-period problems, has been shown to be capable of extension to the analysis of dynamic long-run problems. The central problem of Keynes' own investigation is cyclical unemployment and the remedies likely to eradicate or mitigate it. Post-Keynesian dynamic economics, however, concentrates on the problem of maintaining a steady growth of output at full employment in the long-run without deflation or inflation. This problem can be approached by analysing the role of investment in a dynamic economy. Keynesian theory, in considering the saving-investment relationship, concentrated on effective demand, that is, on the income-generating effect of investment, and gave little attention to the capacity-creating effect. This is consistent with the preoccupation of Keynesian analysis with the problem of making maximum use of existing capacity provided by a constant stock of capital. Post-Keynesian economics, on the other hand, states that as new investment is undertaken, not only new purchasing power, but also an additional productive capacity, is created; and the problem of a dynamic economy in the long run is to ensure that the rate of investment expansion, that is, of capital capacity creation, matches the rate of growth of output that is consistent with full utilization of productive capacity and full employment of labour. Classical economics paid attention to the capacity-creation effect of investment but assumed that the income-generating effect always occurs in the long run to match the increase in capacity. Post-Keynesian economics, therefore, in paying attention to both effects, is an attempt at the

integration of Keynesian and classical long-run dynamic economics.

The primary efforts of importance at this integration, originally for advanced economies, were made by R. F. Harrod and E. Domar independently on either side of the Atlantic. Both theorists adopted similar approaches and reached practically the same conclusions. In this chapter, however, we shall consider each approach separately, and attempt a critical appraisal, mainly of Harrod's, with regards to its relevance to developing economies.

The path-breaking analyses of Harrod and Domar have been accompanied by a birth of interest in the study of non-industrial low income economies, and it will be our task to examine the nature of the investment problem as expressed in the writings of noted economists.

3.2 Harrod-Domar Analysis of Capital Accumulation and Economic Growth

Harrod defines dynamic economics[1] as the study of an economy in which rates of output are changing, and contends that the study of such an expanding economy is best approached from the standpoint of changes in output rather than of employment;[2] he maintains, therefore, that short-run fluctuations in economic activity should be regarded as variations around a changing trend of output. For his

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1. Professor Harrod's original contribution in this field was his article in the Economic Journal Vol. 49, No. 193 (March, 1939) pp. 14-33 entitled "An Essay in Dynamic Theory"; his second was a series of lectures published in a book in 1958 under the title Towards A Dynamic Economics; (Macmillan, London, 1948) and the third was an article in the Economic Journal Vol. 70, No 278 (June, 1960) pp. 276-93 bearing the title "A Second Essay in Dynamic Theory". For his definition of dynamic economics, see Towards A Dynamic Economics, p. 4.

2. See also J. R. Hicks, A Contribution to the Theory of the Trade Cycle, pp. 6-9.

dynamic theory, Harrod makes the following assumptions: (i) he abandoned Keynes' concept of the wage-unit, and employs his own concept of constant goods value of money;[3] (ii) the rate of interest is constant throughout the relevant period; (iii) the effect of diminishing returns from land is ignored; (iv) technical progress is neutral on balance, in other words, it leaves the capital coefficient constant; (v) population growth is an independent variable; (vi) the average propensity to consume is stable; and, finally, (vii) investment is mainly induced, that is, related to the rate of growth of final output. Autonomous investment, Harrod admits, can be included in the analysis, but he prefers to ignore it altogether, and even where he is compelled to take it into account, he does not make clear what constitutes induced and what autonomous investment. These assumptions operate in a system composed of three fundamental variables; manpower, output per head, and quantity of capital available.

Harrod now proceeds to analyse the secular causes of unemployment and inflation as well as the factors which determine the optimum and the actual rates of investment. He begins with a fundamental equation,

$$(1)\quad GC = s$$

G is the relative rate of growth of output defined as the retio of the increase in income to total income during a given period; C is the ratio of investment to the increase in income that is, the amount of investment per unit increase of output, or the accelerator which

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3. Harrod was obviously trying to avoid the index number problem, but, as Mrs. Joan Robinson points out, his concept has no more operational value than those he rejected. J. Robinson, "Mr. Harrod's Dynamics", Economic Journal, Vol. 59, No. 233 (March, 1949) pp. 68-85.

expresses the relationship between increased demand for final output and new investment; the productive capacity resulting from new capital investment in response to an increase in demand for final output is a certain multiple of the increase in demand. The quantitative value of this multiple is the accelerator or the relation and given successive output increments, the volume of required investment can be determined. The symbol $ is saving expressed as a proportion of income. Harrod assumes that saving intentions are always realised, and that in the long-run the average propensity to save rises.

Assuming that the equation, actually an ex-post identity, expresses a full employment equilibrium condition, then saving out of full employment income is matched by an equal amount of desired saving. But the fundamental equation does not necessarily express a full employment condition, it merely expresses the state of actual growth of the economy and this may not be at full productive capacity. In order to achieve full capacity growth the fundamental equation must be

$$(2)\quad GwCr = s$$

Gw being the "warranted rate of growth" which is defined as the rate of growth of output that will make entrepreneurs content and continue their line of investment activity.[4] Cr is the capital coefficient required to sustain Gw, and s is the same as in equation (1). It is important to note that Gw is a subjective and an ex-post concept; it is subjective because it reflects the approving mood of entrepreneurs, and it is ex-post because it is not a plan of action which is formulated and pursued

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4. Harrod nowhere elaborates on his notion of entrepreneurial contentment; and there is no inevitability about entrepreneurial contentment issuing forth into further investment activity. Indeed, the whole concept of Gw is a slippery tool.

by entrepreneurs but a situation into which they arrive, and finding it satisfactory,[5] continue to advance on the same line. When this line of advance coincides with the first equation, GC, then all is satisfactory. Actually, however, and unfortunately too often, these two paths diverge; indeed, the essence of Harrod's analysis is that the economy may follow, and usually does follow, some other path than

$$GC = GwCr = s$$

and when this happens, Harrod contends, "centrifugal forces are at work causing the system to depart from the required path of advance."[6] If G is greater than Gw, then C (the ratio of actual investment to income increment) must be less than Cr, for s is the same in both equations; thus more capital goods are desired than produced to sustain the increase in income. This results in an inflationary gap between desired investment and desired saving, and output falls short of aggregate demand. When entrepreneurs try to correct the deficiency of capital goods by desiring more investment than saving allows, the inflationary gap widens, and G departs further from Gw.

On the other hand, when G is less than Gw, actual investment exceeds desired investment, and a deflationary gap develops between planned saving and planned investment, as entrepreneurs cannot sell their output at such prices as would make them contented. Thus either way, the deviation from

$$GC = Gw = s$$

is cumulative; and this, Harrod says, is the nemesis of the capitalistic

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5. Retrospectively, desired investment equals desired saving.

6. R. F. Harrod, Towards A Dynamic Economics, p. 86.

system, and the force perpetrating this nemesis is the relation which also explains the paradox that if the actual rate of growth is too high, the economy will actually produce at a lower level of output than required by the level of effective demand and vice versa. For if G exceeds Gw, output rises but demand rises even more because of induced investment which generates additional effective demand through the multiplier process. Hence, given GC and GwCr and with no variations in the proportion of income saved, there seems to be no limit to fluctuations up or down once the system diverges from the steady path. Harrod forestalls this disturbing possibility by pointing out that generally there is an upper limit to the expansion which is set by the fundamental conditions of manpower, output per head, and the quantity of capital available. These factors determine the natural rate of growth, the rate of growth consistent with full employment. Harrod allows for changes in these conditions, say, population growth, resource development, and technical progress. The equation expressing these conditions takes the form;

$$(3)\quad GnCr = s$$

Gn being the natural rate of growth of output, Cr the capital coefficient required to generate Gn. GnCr may not be equal to s. This follows from Harrod's insistence that GwCr must equal GC for steady growth, and his awareness of the possibility that GnCr may not equal GC.

Before subjecting Harrod's dynamics to critical analysis, we may examine Domar's contribution. The main point of Domar's model may be stated succinctly as follows;

> assuming a full employment equilibrium level of incomes, the maintenance of this level year by year requires that the value of spending generated

by investment must be sufficient to absorb the increased output made possible by investment. 7

Given the average propensity to save, the higher the level of output, the greater must be the volume of investment. To maintain full employment, the volume of net investment must be expanding, but this requires expansion in output also. Domar sets himself the task of finding the conditions which will match income and capacity creation in order to ensure steady growth. His model depends on the following assumptions; (i) constant general price level, (ii) absence of lags so that saving and investment refer to income of the same period, and are both net, (iii) productive capacity of an asset or of a whole economy is a measurable concept, (iv) the average and marginal propensities are equal, and the propensity to save and the capital coefficient are both constant, (v) the economy is initially in full employment equilibrium, and (vi) the economy engages in no foreign trade.[8]

Let P be productive capacity, and Y income. Now with

$$P = Y$$

initially, the problem is to determine the conditions which will maintain the equality through time. In Keynes' theory, employment is a function of the level of income. Domar posits that employment is a function of the ratio of income to productive capacity. Let investment be I, and s the ratio of increase in real income to a unit increase in capital so that total increase in productive capacity of I is Is per year. If I is brought about at the expense of a fall in output of previous investment, then productive capacity of the whole economy will

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7. G. M. Meier and R. E. Baldwin, Economic Development: Theory, History, Policy, (John Wiley and Sons, New York, 1957) pp. 102-3.

8. E. Domar, "Capital Expansion, Rate of Growth, and Employment", Econometrica, Vol. 14, No. 2, (April, 1946), p. 137-8.

not increase by Is, but by a smaller amount which we may designate Ir. r is less than s and both are constant; s is the maximum potential that can be obtained and is not affected directly by changes in the distribution of income. Thus, Ir is the aggregate supply of the economy. Aggregate demand involves the Keynesian multiplier. Assume an increase in investment ΔI, and in income ΔY, and let the propensity to save be x, then;

$$\Delta Y = \frac{1}{x}\Delta I.$$

This is the demand side. In equilibrium, therefore, we have

$$\frac{1}{x}\Delta I = Ir.$$

Multiplying by x and dividing by I we have

$$\frac{\Delta I}{I} = xr.$$

For full employment growth, the annual rate of growth of investment must equal the product of the propensity to save and the average productivity of investment, that is, income must grow at the same rate as investment which means that in the long-run investment must grow at a constant rate equal to xr.

In spite of the close resemblance of the analyses of Harrod and Domar, there exists a significant difference in their treatment of the relationship between investment and changes in income. While the Harrod model employs the acceleration coefficient, Domar uses the reciprocal of the capital coefficient or the average productivity of investment. The acceleration coefficient relates to induced investment which is treated as a dependent variable, changes in demand for final goods being the independent variable; on the other hand the capital coefficient relates to total investment, both induced and

autonomous, and takes this total as the independent variable. The difference between both coefficients may be expressed in the conventional Keynesian form,

$$\text{Acceleration Coefficient} = \frac{I_t \text{ (induced)}}{Y_t - Y_{t-1}}$$

(I being investment, Y income and t relevant time period); and

$$\text{Capital Coefficient} = \frac{I_t \text{ (autonomous plus induced)}}{Y_{t+1} - Y_t}$$

As is evident both coefficients are equal only under restrictive assumptions. There is little doubt, however, that the economic sense of Harrod's model depends on treating the acceleration coefficient as a capital coefficient.[9]

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9. D. Bodenhorn, "The Stability of Growth Models" American Economic Review, Vol. 46, No. 4, (September, 1956), pp. 608-9. It may be noted that the classic formulation of the accelerator principle, as a dynamic factor, was in terms of the relationship between investment and changes in consumption, that is

$$I_t \text{ (induced)} = B(C_t - C_{t-1})$$

See P. Samuelson, "Inter actions between the Acceleration Principle and the Multiplier", Review of Economic Statistics, Vol. 21, No. 1, (February, 1939) pp. 75-8. Since consumption in one period is assumed to be a function of income in the previous period, the formula can be expressed as

$$I_t \text{ (induced)} = XB(Y_{t-1} - Y_{t-2})$$

X being the marginal propensity to consume. It is this formulation that Professor Hicks employed in his A Contribution to the Theory of the Trade Cycle. We see therefore that the Harrodian formulation involves a deliberate change in the dating of the relevant variables so that change of income does not precede investment, a device designed to raise the accelerator to the status of a capital coefficient. See Harrod's "Notes on the Trade Cycle Theory", Economic Journal, Vol. 61, No. 242, (June, 1951) pp. 274-275 For a sharp comment on Harrod's formulation of the acceleration coefficient see J. R. Hicks, "Mr. Harrod's Dynamic Theory", Economica, Vol. 16, (New Series) No. 62, (May, 1949), p. 110, where he writes "It is not really reasonable to assume that current investment should depend on the increment of output in the same period (especially if periods are very short), and still less is it reasonable to assume that saving depends wholly upon the income of the same period."

Domar, unlike the classical writers and Marx, asserts that there is nothing to prevent the economy from going along this path, but he concedes that factors like the growth of monopoly are capable of inhibiting such steady advance. Harrod, as we noted, contends that a capitalist economy is inherently unstable, although he would search for conditions that will keep the economy on a "razor edge" path of equilibrium growth as posited by Domar.

We may now summarise the main points of the Harrod-Domar analysis. Investment holds the centre of the problem of steady growth owing to its dual character as income generator as well as creator of productive capacity. Depending on the behaviour of income, increased capacity can result in greater output and/or greater employment. Conditions can be stated such that income and capacity grow together at full employment. This rate of growth must equal the prepensity to save multiplied by the inverse of the accelerator. However, the actual path of the economy may diverge from this, for example, if the actual rate of growth exceeds the warranted rate of growth, the economy is subjected to inflationary pressures, and vice versa, to deflationary pressures. Around the long-run trend are short-run fluctuations.

3.3 Appraisal and Relevance to Developing Economies

The main criticism of the Harrod-Domar analysis is that the assumption of constant average propensity to consume and constant capital coefficient ignores the effect of capital accumulation on these crucial variables which are subject to change in the course of growth. There is no other defence for the assumption than analytical convenience but it does seem that this convenience is achieved at the expense of the problem to be solved, that is, the changes that occur in these variables

and their effect on further growth. Harrod, using a very powerful relation has been unwilling to include autonomous investment in his system, whereas it is part of the experience of growth that, with the exception of a Marshallian world of short-run equilibrium, the growth of the capitalist economy depends largely on types of investment that are not related in any direct way to changes in the level of output. We have pointed out that Harrod assumes that consumer spending necessarily rises with investment while at the same time he insists that saving and investment are always equal so that if entrepreneurs consider their investment too low, they also consider their saving too low. B. Higgins[10] denies the validity of this proposition. An increase in investment which is financed by an equal and simultaneous increase in saving, he argues, will not raise income at all, and consumption will actually fall. Harrod tries to exclude the possibility of new investment being financed by new saving with the argument that the change in the saving propensity over time is negligible as compared with change in income, and goes on to say

> Without any great revolution G might easily change from 2 per cent to 6 per cent. This clearly could not cause saving to be trebled .....The extreme case of saving being as low as two per cent of income, and all extra income due to a rise in G, being saved may be ruled out. If saving is greater than two per cent, then for saving as a fraction of income to increase as much as G, consumption would have to be cut as income rose, and this, too, may be ruled out. 11

Higgins criticises this argument on three grounds: first, he argues

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10. B. Higgins, op. cit., p. 155.

11. Harrod, Towards A Dynamic Economics, p. 86.

> so long as growth depends on investment to meet current requirements, it would take something of a revolution to change the rate of growth of national income G, from 2 per cent to 6 per cent....and it is precisely such a revolution that underdeveloped countries are trying to encourage with so much difficulty in their development plans; 12

secondly, he denies the assertion that if G is greater than Gw, then G rises further necessarily, arguing that a rise in G depends on whether and to what extent entrepreneurs finance their investment with new saving, and on the size of the multiplier as well as that of the relation; thirdly, as already noted, the bulk of investment in the real world is independent of current requirements. He concludes his criticism with the assertion that

> the manner in which new investment is financed is crucial to Harrod's analysis. Unless he can demonstrate beyond a shadow of a doubt that it is impossible for enough of an increase in investment to be financed by new saving to make
>
> $$\frac{d}{dI}\left(\frac{dCn}{C}\right)$$
>
> zero or negative, he can argue that an initial divergence of G and Gw may start a cumulative movement; but he cannot argue that it must start a cumulative movement. 13

Mrs. Joan Robinson could not agree with Harrod that he has overcome the index number problem by using a constant goods value of money; for, she contends, capital accumulation entails constant changes in the composition of output so that it is really impossible for a constant goods value of money to be maintained. [14] She points out further that Harrod does not elaborate on his concept of entrepreneurial

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12. Higgins, op. cit., p. 155.

13. Higgins, op. cit., p. 156.

14. Robinson, op. cit., p. 68

contentment, and she finds the model representative of a world without politics, without conflicting interest, a world in which there is time but no history. Harrod might have anticipated these criticisms when he concluded his first essay with the reminder that "the main object of this paper is to present tools of analysis and not to diagnose present conditions."[15]

In applying the Harrod-Domar analysis to developing economies, we may note that, although they themselves limited their initial efforts to mature economies, there has been a trend, continued by Harrod himself in a recent article,[16] towards drawing implications for newly developing economies. In Harrod's most recent article on the subject, the rate of interest forms an integral part of the analysis which proceeds in terms of per capita changes in output. In this article, Harrod abandons his insistence on equality of

$$GC = GwCr = s,$$

and instead posits that

$$GwCr = sr.$$

The model consists of three equations;

$$(i) \quad GC = s$$

$$(ii) \quad \frac{Rn = pcGn}{e}$$

R being the rate of interest that will ensure Gn per caput, and e the elasticity of income utility, and

$$(iii) \quad sr = CrGn$$

sr being s which is consistent with R.

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15. Harrod, "An Essay in Dynamic Theory", op. cit., p. 33.

16. Harrod, "A Second Essay in Dynamic Theory", op. cit., pp. 276-93.

With s greater than sr, a deflationary gap develops, and with s smaller than sr inflation ensues. Harrod identifies the latter with developing economies in which G is greater than Gn, and the crucial question is whether with the rate of growth of G, s will rise to equal sr. He argues that the time preference of the community may fall, enabling a rise in the trend of average propensity to save. Otherwise, s could be raised by a policy of compulsory saving during the period when G is greater than Gn, which he calls the transitional period. In developing economies, owing to strong time preference, the equilibrium rate of interest is normally above Rn and during the transition period there may be two rates, a high open market rate governed by time preference, and a lower rate used to sieve official investment projects. Harrod advises that the latter should be kept high to ensure maximum rate of growth and prevent capital being deflected into low yielding projects, for he advocates yield as the criterion of investment in this period. Significantly, he warns that the effective obstacle in the period of transition may not be lack of s but lack of personnel and know-how both of which he includes in G, and most commonly presence of graft.

Before Harrod's own attempt, Higgins had considered the implications of the former's analysis for developing economies. He considers, first, a truly stagnant economy which is characterised by the equation

$$GnCr = s = 0$$

and therefore

$$Gc = 0.$$

Then he assumes an economy with net saving so that

$$GC = sO$$

with GwCr positive, but GnCr still zero. Obviously, saving and investment can only take place through chronic inflation if no other fundamental factors are changing in the economy. But an economy with no long run factors changing to induce saving and investment is hard to find in reality. Higgins,therefore,introduces population growth keeping the other fundamental conditions constant. In developing economies today, population growth does not necessarily evoke inducement to invest, and does not raise effective demand; it rather serves to depress G. But if the increased population is employed, output may increase, GnCr would be greater than zero; but unemployment may be rising faster, and per capita income may fall. But suppose the economy earns external balances due to increase in her export prices, then G increases and is further raised by the multiplier and the relation. If this investment is initially financed from saving, and does not employ idle resources, the result will be cumulative inflation; hence, although developing economies are hypersensitive to inflationary forces, the application of Harrod's analysis does not demonstrate the absolute inevitability of chronic inflation in these countries insofar as there exist idle resources with a high degree of supply elasticity.

By analysing employment and growth in an integrated model, Harrod and Domar have provided a useful framework within which analysis of capital accumulation may be pursued; their own models have isolated the strategic elements of the problem of matching the growth of income with full employment of productive capacity, a problem which afflicts developed industrial economies. This analysis has relevance also for developing economies especially as it affects the relations between capital accumulation, employment, and real income. In most of these

economies, investment tends to generate purchasing power more rapidly than it increases output so that inflationary tendencies are a constant plague. On the other hand, surplus capacity develops easily in these economies, either in its Hobsonesque form, with effective demand lagging behind capital formation, or in its Marxian form of capital overproduction, in which case labour is lacking to utilize the newly created equipment. These possibilities are real in developing economies, and it cannot be gainsaid that the Harrod-Domar analysis serves to draw attention to them.

In a fundamental respect, their analysis is a synthesis of the classical and neo-classical saving and investment models. And underlying this synthesis is emphasis on the relationship between changes in output and investment as manifest in the principles of acceleration and the multiplier, twin dynamic forces energising the inducement to invest. Although Harrod and Domar did not consider explicitly the policy implications of their models, the concept of the capital-output ratio which emerges from their analysis constitutes the core of policy discussions in both mature and developing economies. In the following Chapter, we shall undertake an analysis of its application to the process of investment in a developing economy. Meanwhile, we shall present in the following section an analysis of economic theories of the phenomenon of under-development.

3.4 Nature of the Investment Problem in an Underdeveloped Economy

Our discussion so far has been preoccupied with the exposition of the investment problems of a growing and mature capitalist economy. In a free enterprise economy, the spontaneous urge to action by each individual pursuing his own good provides the basic dynamism

for growth. The fundamental problem posed by this system is that of ensuring that the spontaneous decisions to save and invest by individuals are compatible with the maintenance of a steadily rising level of output subject to the fundamental conditions of the economy. For an economy which has been stagnant at a relatively low level of output, however, the basic problem of investment is more fundamental, and appears in three interrelated forms: lack of saving; lack of creative entrepreneurship, both of which may be largely due to absence of growth-oriented institutional framework; and lack of technical progress. In the theoretical analysis of underdevelopment all three aspects of the problem have received attention but with greater emphasis on the first two as the real limiting factors, since, it is often argued that, unlike the mature economies at their initial stage of development, present-day developing economies have the technological backlog of the advanced economies to apply. In this section we shall focus our attention on the contribution of four writers[17] as they relate to the first two problems, not however ignoring the problems posed by the third.

We shall begin with Ragnar Nurkse. Nurkse's analysis of underdevelopment shows a balanced emphasis on the supply of saving and the demand for investment. Taking the latter first, the demand for investment depends on consumer demand which is a function of the strength of real purchasing power, that is, of the level of income. Nurkse argues that what hinders investment in poor economies is the low level of

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17. R. Nurkse, Problems of Capital Formation in Underdeveloped Countries, (Oxford University Press, London, 1953); W. A. Lewis, The Theory of Economic Growth, (G Allen and Unwin, London, 1955); H. Leibenstein, Economic Backwardness and Economic Growth, (John Wiley and Sons, New York, 1957); A. O. Hirschman, The Strategy of Economic Development, (Yale University Press, New Haven, 1958).

demand, not the Keynesian effective demand, but real purchasing power which is low because output is small; and applying Say's Law of markets, he suggests that the point of attack to break the vicious circle is to increase output per head not only in the physical, but also in the value sense. For increasing output per head, assuming a reasonable distribution of income, strengthens real purchasing power, extends the market, and therefore, raises the inducement to invest. Increase in per capita output given technical conditions of production, implies an increase in the productivity of labour which may be achieved along any of three lines; (i) improving the average quality of labour through education, (ii) combining more efficiently a given quality of labour, and (iii) combining a given quality of labour with more capital goods. As Hoselitz points out in practice,

> it will often be impossible to combine labour of a given quality with more or better capital, and change in the quality or quantity of one input usually will entail a complementary qualitative improvement of the other. 18

Nurkse's analysis, without ignoring the first, however, takes into account only the last two lines of increasing productivity per worker with emphasis on the second in relation to the rural sector of the economy, and on the third in connection with the industrial sector.

In the industrial sector, productivity tends to be a function of the capital intensity of production that is, the degree of capital utilization per worker. But Nurkse argues that for "any individual entrepreneur the use of capital is inhibited, to start with, by the small size of the market."[19] The effect of the small size of the

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18. B. F. Hoselitz, "Economic Policy and Economic Development" in The State and Economic Growth, ed. H. G. Aitken, (Social Science Research Council, New York, 1959) p. 326.

19. Nurkse, op. cit., p. 11.

market is to render economically unprofitable the establishment of a production process whose output at minimum average cost capacity, at given product prices, exceeds the output that the market can absorb at those prices. In other words, from the entrepreneurial point of view the market is too small to sustain profitable investment in isolated production processes. The depressing effect of the low price elasticity of demand on aggregate demand for the output of a single production unit is reinforced by the technical character of investment, namely, the discontinuity and indivisibility of capital. The effect of capital lumpiness on investment decisions is to make unprofitable investment on a scale of production which satisfies only the small current demand. It is, however, usually the case in practice that this characteristic of capital compels investment to be undertaken on a scale far in excess of current and immediately foreseeable demand, that is to say, capital indivisibility tends to create excess capacity in initial stages of investment expansion, and this may persist for a considerable period of time. Nurkse's argument then is that in directly productive activities where private profitability is the chief motive for investment expansion, the possibility of excess capacity prevailing for an indefinite period tends to reduce further the inducement to invest. In developing economies, installations of, and additions, to capital come in relatively big units, for example, investment in overhead capital such as railways, power plants, and water works, which are characteristically lumpy. Thus while technical discontinuities entail sizable leaps forward in the rate of output, the small and inelastic demand in a low-income economy tends to render investment risky in any given line of economic activity considered by itself.

Nevertheless, this riskiness vanishes, at least in principle, "in the case of a more or less synchronized application of capital to a wide range of industries,"[20] resulting in an overall enlargement of the market.

> People working with more and better tools in a number of complementary projects become each others' customers. Most industries catering for mass consumption are complementary in the sense that they provide a market for, and thus support each other. 21

Thus simultaneous production in related industries must create demand for their products.

This conclusion has come to form the basis of the theory of balanced growth in a variety of forms. In its Nurksian version, the theory postulates the development of a balance in demand for outputs and advocates a wave of capital investment in a wide range of industries.

> Where any single enterprise might appear quite inauspicious and impracticable, a wide range of projects in different industries may succeed because they will support each other, in the sense that the people engaged in each project, now working with more real capital per head and with greater efficiency in terms of output per man hour, will provide an enlarged market for the products of the new enterprises in the other industries. In this way the market difficulty and the drag it imposes on individual incentives to invest is removed, or at any rate alleviated by means of a dynamic expansion of the market through investment carried out in a number of other industries. The rate at which any one industry can grow, although naturally some industries will grow faster than others since demand and supply elasticities will vary for different products. Through the application of capital over a wide range of activities, the general level of economic efficiency is raised and the size of the market is enlarged. 22

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20 Nurkse, op. cit., p. 11

21. Ibid.

22. Nurkse, op. cit., p. 14.

The doctrine of balanced growth is primarily concerned with the problem of demand for capital, and it takes the supply of capital for granted; "it is an exercise in economic development with unlimited supplies of capital, analogous to Professor Lewis' celebrated exercise in development with unlimited labour supplies."[23] Moreover, the doctrine presumes a high elasticity of supply of entrepreneurial talents. Furthermore, it seems to be restricted to those types of investment which A. O. Hirschman has termed "directly productive activities" in contradistinction to social overhead capital. Directly productive activities consist of business investment in the whole range of industry, trade, agriculture which typically undertake the production of tradeable goods; overhead investment, on the other hand, is directed at providing the framework within which directly productive investment can be undertaken, and is typically characterized by a relatively long period of gestation and a relatively high degree of lumpiness.[24]

In spite of its apparent overtones of underconsumption theory,[25] Nurkse's analysis is fundamentally concerned with the proximate problem of increasing production rather than with raising the level of

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23. R. Nurkse, "Balanced Growth and Specialization," in Equilibrium and Growth in the World Economy, ed. G. Habeler (Harvard University Press, Cambridge, Mass., 1961) p. 250.

24. For a comprehensive presentation of various forms of investment disaggregation and their respective usefulness in theoretical analysis, see A. J. Youngson, Possibilities of Economic Growth, (Cambridge University Press, London, 1959) pp. 65-87.

25. C. P. Kindleberger, Economic Development, (McGraw-Hill, Toronto, 1958), p. 154.

consumption to match the output of existing productive capacity. His peculiar way of approaching the problem from the side of demand is prone to be misleading especially in view of his emphasis on investment in the production of increased output. While it can hardly be denied that complementarity of demand among a wide range of products tends to have a buoyant effect on the general inducement to invest, it is not quite obvious that large scale programmes of simultaneous investment in several activities can be effectively sustained by the demand these investments are likely to generate for each others' products.

For the different lines of investment are not likely to have the same gestation periods, hence the flow of output from the various pipelines of production is unlikely to be synchronized in any determinate pattern. Besides, complementarity in demand does not only express a condition at a point of time, but is also a phenomenon through time, so that even if it were technically possible to have a batch of final foods on the market simultaneously, the time element in demand complementarity is likely to be reflected in some delay in the purchase of some goods with respect to others.[26] Furthermore, if we take into account the possibility, which cannot be slightly dismissed, that certain industries depend on the output of other industries especially

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26. For a slightly different and more distinct statement of the same idea, see Hirschman, op. cit., p. 68 "there are many situations in the course of economic development where the increased availability of one commodity does not compel a simultaneous increase in the supply of another commodity but induces slowly, through a loose kind of complementarity in use, an upward shift in its demand schedule."

for their inputs[27] it becomes obvious that complementarity of demand does not lend support to the view of undertaking simultaneous investment on all fronts.

Balance in demand is only one form of the meaningful formulations of balanced growth theory,[28] the other two being sectoral balance, and balance in supply. Undoubtedly, elements of these last two are implied in the Nurksian formulation, but they are capable of independent statement and analysis.

In extending his theory of balanced growth to include intersectoral relations, Nurkse notes that the relationship between agriculture and manufacturing "offers the clearest and simplest case of balance needed for economic growth."[29]

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27. It should be pointed out that, within a given enterprise, the tendency for complementarity among inputs is dominant, but this technical complementarity should be distinguished from value complementarity which lies at the basis of Nurkse's argument. For the classic analytical exposition of technical complementarity see J. R. Hicks, Value and Capital, (Clarendon Press, Oxford, 1957) 2nd ed. pp. 192-226, also p. 291. We must note however that although his formulation of the doctrine of balanced growth emphasizes complementarity of demand for final output, Nurkse also refers to the extension of the market which comes from the side of supply that is, in the form of external economies derives not only from the technical indivisibility of capital but also from complementarity of demand for inputs. Nurkse, op. cit., p. 14.

28. Although Kindleberger delineates, for analytical purposes, two types of balance which are frequently discussed in the theoretical literature, on development, he proceeds with analysis of balanced growth theory in the three forms we state above in the text. Kindleberger, op. cit., p. 150, also pp. 150-7.

29. Nurkse, "Balanced Growth and Specialization," op. cit., p. 251.

Nevertheless, the writer who may be associated with an explicit statement of sectoral balance is W. A. Lewis. He states the doctrine in general terms as follows:

> ... even an economy which has no tendency towards deficiency of demand ... has yet another hurdle to jump, namely, that the various sectors of the economy must grow in the right relationship to each other or they cannot grow at all ... Innovation in one sector of the economy is checked unless other sectors expand appropriately.[30]

Lewis provides a more specific statement:

> if capital is being put into developing manufacturing industries while a country's agriculture remains stagnant, the result is bound to be distress in the manufacturing sector ... but if there is balanced development, with the productivity of farmers growing rapidly, and the demand for manufacturers correspondingly there is ample scope for investment in industry ... The secret of most development problems is to maintain a proper balance between sectors.[31]

The generality of such phrases like "right relationship," "expand appropriately," and "proper balance," does not convey any precise meaning to Lewis' concept of balance. But a fairly reasonable interpretation of Lewis' idea of balanced growth may be the equality of rates of growth of output for all sectors. This interpretation is limited by the assumption upon which it is based that the initial relation between different sectors, in terms, for example, of output ratios, represents a desirable intersectoral relationship; for if this were not the case, and a desirable intersectoral relationship must first be established then the interpretation of balanced growth in terms of equality of rates of output

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30. Lewis, op. cit., pp. 276-7.

31. Lewis, op. cit., p. 141.

growth is no longer valid until the desirable intersectoral relationship is attained. For in order to establish this relationship different sectors must grow at different rates.[32]

We must emphasize that Lewis' definition of sectoral balance includes no reference to the dimension in which balance must be established that is, whether in terms of output, the volume of employment, or the amount of capital. Our choice of the dimension of output is based on consideration of the subject matter of his book, namely, "the growth of output per head of population."[33]

Lewis bases his theory of balanced growth on what he considers to be the fundamental characteristic of underveloplment, the perfect elasticity of labour supply at wage rates prevailing in the industrial or capitalist sector. The underdeveloped economy is composed of two sectors, the capitalist sector which comprises a small proportion of the total economy, and the subsistence sector which is largely engaged in agricultural pursuits and characterized by underutilization of labour.

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32. For a different interpretation of Professor Lewis' view of balanced growth, see M. Lipton, "Balanced and Unbalanced Growth in Underdeveloped Countries," Economic Journal, Vol. 72, No. 287 (September, 1962) p. 641. Lipton also delineates three forms of balanced growth; (i) extreme form which posits that output expand at equal rates in all sectors, a proposition which is attributed to P. N. Rosenstein-Rodan; (ii) moderate version which states that all sectors should be expanded simultaneously though not necessarily, according to Lipton, at equal rates, a version which he identifies with Lewis; and (iii) the sophisticated version, attributed to Nurkse, which stresses balance in demand.

33. Lewis, op. cit., p. 9.

The excess supply of labour in the agricultural sector tends to have a depressing effect on the level of wages in the capitalist sector. Indeed, Lewis asserts that the level of wages in the capitalist sector exceeds marginal productivity of labour in the subsistence sector only by a small constant amount, and since the latter tends to be low, the earnings of the worker in the capitalist sector also tend to be low and invariably lower than his marginal product. This intersectoral wage relationship favours the capitalist who accordingly develops a direct interest in holding down the productivity of the subsistence workers.[34]

Since Lewis agrees that the rate of development of the economy is a function of the expansion of the capitalist sector,[35] he concludes that the existence of unlimited supplies of labour and the downward pressure they have on the level of wages in the capitalist sector, endow an underdeveloped economy with a blessing in disguise. For, from the capitalist's point of view, up to the level where the supply of labour becomes less than perfectly elastic with respect to variation in the wage level, investment can be expanded at virtually constant wage levels. Given increasing labour productivity, profits rise and are reinvested by capitalists. Thus, given investment opportunities, the existence of surplus labour theoretically assures the capitalist sector of a rising level of profits as investment expands.

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34. W.A. Lewis, "Economic Development with Unlimited Supplies of Labour," op. cit., p. 149.

35. Lewis, The Theory of Economic Growth, p. 233.

In Lewis' own words,

> ... the more rapidly the opportunities for productive investment expand, the faster profits grow, and the greater is capital accumulation ... once there are fruitful opportunities for investment it is almost certain that profits will grow relatively to national income, and therefore that the share of national income reinvested will rise continuously. 36

Thus on the basis of the classical proposition that profits are the main source of saving and investment Lewis argues that inequality in the distribution of income which favours capitalists who are recipients of profits is a desirable condition for rapid capital formation and the assured development of the economy as a whole.[37]

Nevertheless, the expansion of the capitalist sector must be in harmony with changes in the subsistence sector. The relationship between the capitalist or industrial sector and the subsistence or agricultural sector may be expressed in terms of interlocking complementarities. The most notable forms in which the complementarities express themselves are in the supply of productive services of labour and land by

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36. Lewis, op. cit., p. 235.

37. However, as H. J. Bruton points out it is not inequality of income per se that facilitates accumulation, but the inequality that favours the group whose raison d'etre is to enable entrepreneurs to undertake productive investment; in a free enterprise economy, the capitalist qua capitalist fulfils this role by providing finance. Consequently, in countries where the rent of landowners constitutes a considerable proportion of national income which is not productively invested, "it is possible that a more equal distribution of income ... would result in a more rapid rate of capital accumulation if this greater accumulation was achieved at the expense of rents and in favour of larger returns to owners of productive capital equipment." H. J. Bruton, "Growth Models and Underdeveloped Economies," Journal of Political Economy, Vol. 63, No. 4, (August, 1955), p. 330.

the subsistence sector, and capital from the industrial sector on the one hand, and in the demand for final output of one sector by the other. It is the essential ingredient of Lewis' analysis that the process of capital accumulation is greatly facilitated where there exists a high degree of sectoral interdependence. This must not be taken to imply that sectoral complementarity in terms of factor supply and output is a necessary precondition for development, for the establishment of a desirable intersectoral relationship may be a goal of development policy rather than an initial condition from which the development process begins.

The apparent existence of underemployment in the non-capitalist sector with the implied availability of surplus labour has led some balanced growth theorists to infer that the problem of capital formation may be more appropriately stated in terms of utilizing the labour for investment either in the subsistence or the capitalist sector. Where density of population has the effect of reducing to zero, or making negative, the marginal productivity of labour, then the transfer of the excess labour from the subsistence sector not only reduces the factor disproportionality and tends to raise output per head in that sector, but it also enables the formation of durable productive assets which will facilitate the production of greater output.

Two elements which are often confused in the analysis of disguised unemployment must be clearly distinguished; first the analysis which relates to the transfer of unemployed labour from one sector, usually agriculture, to another sector, generally manufacturing; and secondly, intrasectoral employment of the excess supply of labour, that

is the productive employment of surplus labour in the sector where it exists. This distinction has important implication for the analysis of the problem of financing capital formation in an economy characterized by disguised unemployment.

Discussing the phenomenon of disguised unemployment, Kindleberger argues that if under conditions where marginal productivity of labour is zero, the transfer of unemployed labour from agriculture raises per capita income but leaves total output unchanged, then the remaining workers in agriculture have two choices; first, they may maintain their previous level of consumption of agricultural output and spend their increased per capita income on goods now produced by labour transferred to, and employed in, industry; secondly, if they have a high income elasticity of demand for food, they may instead raise the level of their consumption and exhaust the amount of increase in their per capita income, leaving nothing to trade with the workers in the industrial sector.

On the basis of this analysis, Kindleberger draws the conclusion that in the first instance, the gain of the workers who left the agricultural sector "is the dubious one of becoming self-supporting. They eat as before but now are obliged to work for it."[38] In the second case, the transferred workers may not even have anything to eat. In other words, they "were better off when they lived on the farm. There they had a seat at the table and received transfers of income in kind from the producers, or the work was spread evenly so that there was underemployment rather than disguised unemployment."[39]

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38. Kindleberger, op. cit., p. 156.

39. Ibid.

Without engaging in any extensive argument on the conceptual content and operational relevance of the distinction between underemployment and disguished employment, we may state that Kindleberger's latter conclusion is no less dubious than the assumption upon which it is based, namely, that output remains unchanged after the transfer of excess labour. While we cannot deny that a high income elasticity of demand for farm output raises immense difficulties for financing capital accumulation, we must assert that the rationale for capital formation based on rural underemployment is to raise the productivity of farm labour which will be reflected in increased aggregate output. The major limitation of Kindleberger's analysis in this regard is its failure to distinguish between two types of surplus labour inherent in the principle of accumulation on the basis of rural underemployment, these types being the marketable surplus, and the investible surplus.

Marketable surplus, with which Kindleberger is basically concerned in his analysis, constitutes the agricultural sector's demand for non-farm output, and it is the one relevant to the doctrine of balanced growth in terms of output. Investible surplus arises as a result of a condition of saving in the farm sector which serves as a source of financing capital supply in either the farm or non-farm sector, the finance taking the form of advance of wage goods to the workers transferred to the production of investment goods. It is this second type of surplus which lies at the basis of intersectoral analysis of capital accumulation using unlimited supplies of labour, and it

presupposes an increase in per capita output brought about directly by the establishment of efficient factor proportions. The increase in per capita output must be of such magnitude as to raise total output so that the new capital producing labour can be maintained without reducing the previous level of consumption of any group of workers. Indeed even if the process of transfer were to be occasioned by an increase in the level of consumption by those remaining on the farm provided the marginal propensity to consume is less than unity this may be desirable on account of the stimulating effect on effort to expand production.[40]

But in practice, the theory raises a number of problems. First, there is the problem of who will go off the land; secondly, there is the problem of getting control over the food required to feed workers in their new employment, and/or of making up any possible deficiency in farm output and in the amount required to maintain workers should peasants or the workers consume more than before, which is more likely in the case of the latter, as they are likely to work harder now than before; thirdly, there is the problem not only of equipping workers with tools, but also of deciding on particular types of tools. Proponents of the theory do not gloss over these problems, but they are keen on demonstrating the principle that, given rural underemployment, there is theoretically no need for anyone to cut down consumption below the original level[41] at least in the initial stages of

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40. P. Wonnacott, "Disguised and Overt Unemployment in Underdeveloped Economies," Quarterly Journal of Economics, Vol. 76, No. 2, (May, 1962), p. 281.

41. Nurkse, Problems of Capital Formation, p. 44.

capital accumulation a proposition which is contrary to the classical teaching.

There are some economists, notably G. Haberler, who view with skepticism the validity of the theory of capital accumulation based on rural underemployment, regarding it as "simply four dimensional, deus ex machina economics better described as wishful thinking."[42] Haberler bases his doubt on Schultz' testimony that he "knows of no evidence for any poor country that would suggest that a transfer of over a small fraction of, say 5 per cent of the labour force from agriculture to industry can be made, with all things equal, without reducing output."[43] It is significant that Schultz qualified his declaration - as quoted by Habeder - with a restrictive ceteris paribus. If however, we remove this, and allow for productivity increase which lies at the basis of the theory, then Habeder's objection is weakened; for with increase in productivity, a given output can be produced by fewer hands on the farm, and labour displaced from the rural sector can be absorbed in the industrial sector.

The third version of balanced growth, from the point of view of capital formation, is that which stresses balance in supply, and has been linked with T. Scitovsky.[44] While balanced growth in terms of demand is based on the income elasticity of demand for the output of horizontally interrelated industries, balance in supply posits the utilization of external economies which become internalized when an

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42. G. Haberler, International Trade and Economic Development, (National Bank of Egypt, Cario, 1959) p. 28.

43. Haberler, op. cit., p. 10.

44. T. Scitovky, "Two Concepts of External Economies," Journal of Political Economy, Vol. 62, No. 2, (April, 1954), pp. 143-52).

investment is undertaken simultaneously on a large scale in a large number of sectors. Emphasis on the utilization of external economies has led to the exposition of the theory in terms of investment in capital assets which are characteristically lumpy and particularly social overhead capital. Thus the doctrine of balance in supply has been labelled the "theory of the big push." [45]

In his analysis of the role of external economies as a basis for balanced growth, Scitovsky distinguishes between the external economies that arise in non-market conditions which relate to direct interdependence among producers; and those external economies which relate to interdependence of producers and are expressed through the market mechanism. These latter are pecuniary external economies. Taking into consideration only pecuniary external economies, Scitovsky concerned himself with finding the conditions under which private profitability of investment will be "a reliable index of its social desirability," [46] in other words, the conditions under which private profit and social benefit will be congruent.

Scitovsky states that the basic condition for achieving congruence of private and social benefit is the integration of industries where expansion in an industry A is likely to raise profits in (i) an industry that produces a factor used in industry A; (ii) an industry the product of which is complementary in use to the product

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45. P.N. Rosenstein-Rodan, "Notes on the Theory of the 'Big Push'," in Economic Development for Latin America, ed. H.S. Ellis, (St. Martin's Press, London, 1961) pp. 57-73.
46. Scitovsky, op. cit., p. 149.

of industry A; (iii) an industry whose product is a substitute for a factor used in industry A; or (iv) an industry whose product is consumed by persons whose incomes are raised by the expansion of industry A.[47]

Two conclusions emerge from Scitovsky's analysis: first, the price mechanism is inadequate as a guide to investment decisions in an underdeveloped economy; secondly, the complete internalization of external economies can only be ensured by the planning of the whole economy as one hugh integrated trust. While the first conclusion may be justified by the tendency of the response of private producers in these economies to price incentives to be "by and large spotty and slow,"[48] the second conclusion does not necessarily follow, and it is significant that criticism[49] of this conclusion led Scitovsky to reduce the implication of his analysis from integrated planning to coordination of investment decisions,[50] the emphasis shifting from structural integration of operations to the "simultaneity of interrelated decisions;" for "more information is likely to be exchanged around a conference table than if each businessman tries to find out about the others' plans without disclosing his own."[51]

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47. Scitovsky, op. cit., p. 149.

48. J.H. Adler, "The Economic Development of Nigeria: Comment," Journal of Political Economy, Vol. 64, No. 5, (October, 1956), p. 428. See also W.A. Lewis, The Theory of Economic Growth, p. 75.

49. J. A. Stockfisch, "External Economies, Investment Decisions and Foresight," Journal of Political Economy, Vol. 63, No. 5, (October, 1955) pp. 446-9.

50. T. Scitovsky, "External Economies, Investment Decisions, and Foresight: A Reply," Journal of Political Economy, Vol. 63, No. 5, (October, 1955) pp. 450-1.

A variant of the theory of the big push is that of the critical minimum effort propounded by Harvey Leibenstein.[52] Also starting from the notion of a vicious circle of a stagnant economy, he develops a concept of stimulants or shocks, to the values of the variables which are consistent with low-income equilibrium. A stimulant is an event that changes the value of a variable away from its equilibrium value so that the consequence of this event is an initial increase in per capita income. Every stimulant has dimensions of time and size and its necessity arises from the need to (i) overcome internal diseconomies of scale due to indivisibilities in the factors of production, (ii) overcome external diseconomies due to external interdependencies, (iii) overcome income depressing obstacles that may be generated by the stimulants to growth, and (iv) generate sufficient momentum in the system so that the factors that stimulate growth continue to play their part.[53] Every stimulant or shock generates income-depressing and income-raising forces, and the critical minimum effort posits that a stimulant to the variables must generate income-raising forces to a level that will overcome the income-depressing forces. In other words, the income-depressing forces attain a maximum beyond which income-raising forces bring about sustained economic development. This maximum constitutes

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51. Scitovsky, op. cit., p. 450.

52. Harvey Leibenstein, op. cit.,

53. Leibenstein, op. cit., p. 106.

the level to which the stimulant must be raised to ensure sustained development.

M. Fleming and Hirschman have subjected the balanced growth theory to severe criticism. Fleming accepts the validity of that part of the doctrine which asserts that profitability of investment is enhanced with increase in demand, and therefore that the unprofitability of a single investment project is due to the small size of the market and inelasticity of demand. But he takes issue with the heart of the demand aspect of the doctrine which states that increased output resulting from reduction in cost per unit raises real demand for other industries. He argues that interindustry horizontal relationship with respect to price and profitability of outputs depends on elasticities of income substitution between commodities, and on elasticities of their supply, and concludes that the doctrine's preoccupation with horizontal economies renders it inapplicable because of inelasticities of factor supply. He believes that vertical economies are more favourable for growth than horizontal economies, for "the crucial question so far as the creation of external economies is concerned, is whether the expansion of industrial branch A would lead to a transfer of labour from agriculture to industry sufficient to permit the expansion of branches other than A."[54]

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54. M. Fleming, "External Economies and the Doctrine of Balanced Growth," Economic Journal, Vol. 65, No. 258, (June, 1955) p. 251.

He even argues that where there is a single factor of production in fixed supply the installation of an unprofitable new plant in industry A, even though its unit cost, at the least profitable output, is below that of pre-existing production, is likely to induce contraction rather than expansion in other consumer goods industries, and yield external diseconomies rather than external economies.[55] In other words, in placing emphasis on vertical integration as a basis for balanced growth, Fleming rejects the complementarity postulate and takes the contrary view that the limitation of factor supply causes the relationship among indu stries to be "for the most part competitive."[56]

One critic has noted a paradox in Nurkse's analysis of economic underdevelopment, namely, inadequate propensity to save resulting from a combination of low level of income and the demonstration effect on the one hand, and insufficient inducement to invest owing to inadequate aggregate demand on the other.[57] For given a high average and marginal propensity to consume, as is implied by the demonstration effect, it is difficult to conceive how entrepreneurs will be discouraged from undertaking investment as long as they have access to capital as is subsumed by the balanced growth doctrine. The paradox however disappears, if it is explained that even though the level of

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55. Fleming, op. cit., p. 246.

56. Ibid.

57. Wonnacott, op. cit., p. 287.

purchasing power is high relative to the prevailing level of income, it is considerably below the level that will sustain optimum capacity of a given investment in productive plants. On the basis of this interpretation, Nurkse's formulation of the investment problem seems a trifle confusing and it appears to have merely the objective of supporting the balanced growth theory which "tends upon examination to dissolve into the proposition that lumpiness of capital projects may create difficulties for investment in a small market." [58]

If the possibility of international trade on the basis of comparative advantage is taken into account the problem with which balanced growth theory is concerned ceases to depend on any particular demand elasticities but on factors such as overvalued currency, transport costs, and difficulties of market entry arising from deliberate restrictive policies, which tend to keep constant the supply of other factors and products when investment expansion in a given line of productive activity is taking place. [59] Hence given the opportunities for imports the validity of the case for balanced growth as propounded becomes doubtful. This doubt, however, does not extend to that "core of reality to the problem of investment incentives within limited markets where new projects add significantly to existing supply." [60] For this

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58. Wonnacott, op. cit., p. 292.

59. J. Sheahan, "International Specialization and the Concept of Balanced Growth," Quarterly Journal of Economics, Vol. 72, No. 2, (May, 1958), pp. 187-93.

60. Sheahan, op. cit., p. 193.

problem is real and significant enough to provide a case for the need to search for a policy of investment coordination.

The doctrine of balanced growth of a developing economy was subjected to severe criticism by Hirschman also. He takes the theory to task for its basic assumption that is for combining "a defeatist attitude toward the capabilities of underdeveloped economies with completely unrealistic expectations about their creative abilities,"[61] that is, the vicious circles of poverty with unlimited supply of capital and entrepreneurship. He argues forcefully that if a country were ready to apply the doctrine of balanced growth, then it would not be undeveloped in the first place, for it is a characteristic of poor economies that the "initial resources for simultaneous developments on many fronts are generally lacking;"[62] and he concludes that the theory is essentially an exercise in retrospective comparative statics. He espouses his own theory of the process of investment as a chain of disequilibria in which the basic problem is to establish the connecting link of the ability to invest. By the use of sequence analysis, he relates the forward and backward effects of investment, and considers their effectiveness in terms of their contribution to facilitating the ability to undertake further investment.

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61. Hirschman, op. cit., p. 53.

62. H. Singer, "Economic Progress in Underdeveloped Countries," Social Research, Vol. 16, No. 1, (March, 1949) pp. 7-8.

The fundamental proposition of Hirschman's view of the development process is that the normal pattern of development is the sequence that "leads away from equilibrium"[63] and that the ability to invest, which is a function of the pace of development, is the factor which fosters disequilibrium as a necessary characteristic of a dynamic economy. Starting from the same base of complementarity effect and external economies of investment as balanced growth theorists Hirschman develops a concept of induced investment which he defines as investment that is a "net beneficiary of external economies"[64]; and he points out that the strategy of economic development is to focus the ability to invest on the search for efficient sequences that tend to maximize induced investment. Maximization of induced investment depends on the combined strength of two inducement mechanisms; the input-provision or backward linkage effect, and the output-utilization or forward linkage effect; their combined impact is such as to set up pressures and disproportions which must be removed in the process of achieving further development.

Investment decisions that are based on the creation and subsequent exploitation of backward and forward linkages give rise to a pattern of development that is not dissimilar to a jig-saw

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63. Hirschman, op. cit., pp. 66-7.

64. Hirschman, op. cit., p. 271.

puzzle.[65] Thus according to Hirschman, unbalanced patterns of growth is the characteristic feature of the development process, and the lack of balance is expressed in the occurrence of investment in leading sectors in a Rostowian fashion.[66]

Under the impact of these criticisms, Nurkse conceded that a distinction must be made between balanced growth as a method, and balanced growth as an outcome or objective,[67] but unfortunately, he did not live long enough to elaborate on the distinction.

It is difficult to come to a definite conclusion on the significance, for development process and policy, of balanced and unbalanced growth doctrines. While one must recognize that theoretical analysis involves some degree of generalization one must also emphasize the requirement that the operational usefulness of a generalization be determined within the context of the phenomenon being described. The major defect of the balanced and unbalanced growth analyses, it seems to us, is that they achieve the former without embracing the latter with the result that one finds it difficult to undertake a critique of both doctrines in terms that are operationally relevant and unambiguous.

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65. For an emphasis on the psychological variant of unbalanced growth, see P. Streeten, "Unbalanced Growth," Oxford Economic Papers, Vol. 11, No. 2, 1952, pp. 167-90. Streeten argues that the process of development is unidirectional and that certain wants, one satisfied, engender new wants, hence investment should be concentrated on satisfying these rather than dispersed, for it is this process of "analadism of wants" which provides a strong stimulus for growth.

66. W. W. Rostow, The Stages of Economic Growth, (Cambridge University Press, London, 1960) for a similar concept of growth points, see also the noted French economist François Pérroux, "Notes sur la Notion de Pôle de Croissance" Economie Appliquée, 8, 1953, pp. 307-20.

67. R. Nurkse, "Notes on Unbalanced Growth," Oxford Economic Papers, (New Series) Vol. 11, No. 3, (April, 1959), p. 296.

Balanced growth theory, for example, is hardly specific about the categories that must be balanced, whether as noted already employment, capital, or output; and it is not a matter of indifference, with respect to consequences, to which of these categories the theory applies. For, as noted by one critic,[68] unless marginal capital-output and labour-input ratios are the same in all sectors, balancing each of the three categories simultaneously leads to different results which are bound to conflict with the balanced growth theory itself, and may be inconsistent with the enforcement of economic efficiency. Furthermore, the analytical distinction between social overhead capital and directly productive activities is too hazy to provide strong support for the theory of unbalanced growth. Because of borderline disputes as to which project belongs to which category, there arises the problem of analytical consistency in categorizing social overhead capital as autonomous investment and directly productive activities as induced investment. Induced investment, being recipient of net external economies, may be regarded as the balancing factor in Hirschman's pattern of development, and autonomous or "compulsion" investment, being net generator of external economies, is the destabilizing element. If we accord this interpretation to Hirschman's argument, we then see clearly that the pursuit of a pattern of unbalanced growth requires emphasis on the "compulsion" sector of investment which, being largely social overhead capital, is usually associated with the agency of the state.

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68. M. Lipton, op. cit., p. 653.

Hirschman uses this demarcation of investment sectors as a basis for comparing balanced and unbalanced patterns of growth; but this is quite illegitimate on practical grounds since the line of demarcation between social overhead and directly productive investment has not been, and, indeed, cannot be, drawn too hard, as it shifts largely according to non-economic factors.

Nevertheless, the difficulties associated with expressing these concepts in operationally relevant terms do not detract from the relevance of the basic problem posed by the balanced and unbalanced growth doctrines, namely, the relationship between a given volume of investment and its allocation among sectors so as to maximize output per person over a given period; and in another form, the problem of choice among different time sequences in which projects may be established in order not only to maximize the magnitude and speed of the flow of output but also to achieve a desirable output mix. Out of the diverse arguments in support of both doctrines, there thus emerges a unity of agreement that a part of the solution to the problem of investment in a low-income economy lies in the creation of interdependences throughout the entire economy.

3.5 Conclusion

In this chapter we concentrated on the analysis of the relationship between investment, output, and employment in a progressive but closed economy. The basic analytical constructs of Harrod and Domar have been originally fashioned to cope with the problem of secular growth in a developed capitalist economy; but they

have been shown to be capable of limited extension to analyse the problem of economic underdevelopment. In the tradition of the Harrodian preoccupation with equilibrium growth, this extension has tended to emphasize the requirement of balance, defined in various senses, in the process of development. There is however no consensus among economists on the precise relevance of the concept of balance as a tool of analysing economic development; and it is argued by some that economic development is essentially characterized by a series of imbalances as continuous investment constantly upsets the potential or actual stability of prevailing economic conditions. This is especially the case in newly-developing economies. The criterion of investment in these economies therefore must take into account the essential unbalancing effect of investment.

One of the major series of internal economic disturbance lies outside the sphere of the economy in the mechanism of international trade. Indeed, in the case of most developing economies today, international trade has been the main factor which sparked the process of internal development. However, opinions of economists on the effect of this factor on developing economies have widely differed. In the next chapter, we undertake to examine and appraise the divergent interpretations of the foreign trade experience of these economies.

CHAPTER FOUR

THE ROLE OF INTERNATIONAL TRADE AND INVESTMENT CRITERIA IN THE DEVELOPMENT PROCESS

4.1 Introduction

In the previous Chapters we have been concerned with analysing the major aspects of the investment process in an essentially closed economy; the discussion of the role of foreign trade in economic development, albeit substantial, has been incidental rather than integral to the analysis. While there is little doubt that the development of present-day advanced economies has been accompanied by, indeed associated with, a substantial engagement in foreign trade, there is lacking general agreement on the precise role which foreign trade has played, and is likely to play, in the development of underdeveloped economies of today. On the one hand, there are those who maintain that foreign trade has invariably been the main instrument of economic change and development of low-income economies; on the other hand, there are others who argue that with respect to today's developing economies, the pattern of trade relationship that prevails between advanced and less developed economies has the effect of shunting the development of the latter to the advantage of the former. It is noteworthy that while both sides base their respective views on historical experience of growth, the exponents of the pro-trade arguments use this experience as proof of the validity of the classical trade principle of comparative advantage, while the antagonists of trade employ the historical evidence to contradict this principle.[1]

In this Chapter, we shall analyse these divergent views, not for their own sake, although they are interesting on their own account, but only to the extent that they shed some light on the problems

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1. This is to say that there are differences in the interpretation of the historical experience.

likely to face an economy in the process of capital accumulation at a rate higher than its domestic rate of saving. We intend to examine the factors that underly the relationship between accelerated capital development and the external balance of the economy. To this, we shall devote the first section of the Chapter.

The analysis of Chapter Three has made clear the need for a strategy of investment in a developing economy different from the criterion of private profitability. Because the market mechanism is largely non-existent or ineffective in a low-income economy, because of the need for a substantial social overhead capital, and because of the consequent divergence between private and social values in such an economy, there is need for a set of criteria to provide reliable guidance in investment decisions to achieve desirable objectives. This problem is as much part of the process of capital accumulation in a closed economy as it is in an open one whenever scarcity of resources is the factor which acts as a brake on development. Indeed, the specific problem of maintaining external balance in a capital-short but capital accumulating economy, for example, raises to the fore-front of development policy the need for investment criteria. In the second section therefore we shall consider the problem of investment criteria in relation to declared objectives.

In the third section we present a brief examination of the function of the state in the development process as suggested by the analysis of foreign trade and investment criteria in the previous two sections.

4.2 Divergent Interpretations of the Role of Foreign Trade in Economic Development

Adam Smith, consistent with his over-emphasized oppo-

sition to mercantilism and its excessive adulation of foreign trade, expressed unambiguous preference for the sequence of development which places priority on investment in agriculture and manufactures for the domestic market, a sequence in which foreign trade emerges as a consequence of development rather than as a cause of it.[2] The preference for this sequence seems to be based on the notion which Smith entertained that foreign trade was concerned with the import of consumption goods and services that are not matched by a corresponding investment in productive capital. In his own words,

> the capital ... employed in the home trade of any country will generally give encouragement and support to a greater quantity of productive labour in that country, and increase the value of its annual produce more than an equal capital employed in the foreign trade of consumption; and the capital employed in this latter trade has in both these respects a still greater advantage over an equal capital employed in the carrying trade. 3

Nevertheless, with his characteristic perspicacity, and conducting his searching analysis without the latter-day doctrine of comparative advantage, Smith advanced a theory of foreign trade which is no less relevant to the problem of resource allocation than it is significant in its comprehensive statement of the essential role of trade in economic development.

> If the society has not acquired sufficient capital to cultivate all its lands, and to manufacture in the completest manner the whole of its rude produce there is even considerable advantage that that rude produce should be exported by a foreign capital in order that the whole stock of the society may be employed in more useful purposes. 4

This "vent for surplus" theory suggests the main elements of a particular

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2. Adam Smith, op.cit., p.340

3. Adam Smith, op.cit., pp.332-3

4. Adam Smith, op.cit., p. 340

sequence of development through foreign trade. First, is the element of the possibility of overcoming capital shortage through trade, that is by acquiring foreign exchange. Secondly, it suggests the priority of domestic agricultural and industrial development, thus having to do with trade policy regarding the composition of imports. Thirdly, there is the notion that such domestic development is advanced by the export of primary products which raises the issue of the terms of trade. Fourthly, there is inherent in the statement the possibility of having the export sector developed by foreign capital which relates to the issue of the distribution of gains from such investment between the capital importing and exporting countries.

Although Smith's reason for letting foreign capital be invested in the export sector was to release domestic capital for more productive investment at home, it is clear from his own analysis of the sequence of development that it is the export agricultural sector which sustains the profitability of domestic production. For, in the absence of exports, an excess supply of primary produce relative to the domestic demand for it, will tend to result in lower prices for the product, and with a constant structure of costs, in lower profits. Although the lower price will be welcome to the manufacturing sector, there is a limit to which it will be capable to absorb the excess flow of output; in the short run, this limit is determined by the technical capacity of the manufacturing industry, and by the price elasticity of demand for its products. In the long run, the growth of demand and income elasticity of demand for the product may not be significant enough to match the increase in supply. Thus in reality the problem which Smith touched on is not a problem of an economy enjoying abundance and indulging in trade as a superfluous activity, but rather an economy which, given its desired rate of growth of output, is characterized by a shortage of capital; in a Smithian

developing economy, as in today's, this domestic capital shortage may be removed by resort to foreign trade embracing the inflow of foreign capital.

The comparative cost doctrine of international trade has been criticised for being merely a "significant part of the explanation of the present status of nations, of incomes, prices, well-being, ... with its assumption of given quanta of productive factors already existent and employed",[5] instead of dealing with the process of economic change and development. While stating the case for the doctrine in terms of its relevance for efficient allocation of productive resources, Nurkse notes its lack of clarity with respect to the development of low-income countries:

> the case for international specialization is firmly based on considerations of economic efficiency. The world is not rich enough to be able to despise efficiency. The optimum pattern of specialization is governed by the principle of comparative advantage. This principle remains as valid today as it was in Ricardo's time. And yet there is some question whether it alone can give all the guidance needed by countries whose dominant and deliberate aim is economic development. If he asks what help it offers here and now to low-income countries in search of development, the answer is not altogether clear. 6

For the maximization of the gains from trade between two economies trading on the principle of comparative advantage, the pure theory of international trade assumes given production possibilities as well as fixed consumption preferences for both countries. The gains from trade will be greater, the greater the difference between conditions in both countries with respect to demand for tradeable products, factor proportions, and the technical coefficents of production for different goods and services. The determination of the maximum gain from trade is possible, at present, only within

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5. J.H. Williams, "The Theory of International Trade Reconsidered", Economic Journal, Vol. 39, No. 154 (June, 1929), p. 196

6. R. Nurkse, "International Trade Theory and Development Policy" in Economic Development of Latin America, ed. H. S. Ellis (St.Martins London, 1961) pp.234-235.

a framework of static equilibrium analysis.[7]

While there is little disagreement on the static basis of the pure theory of international trade, the significance of international trade in the historical experience of present-day developing economies has been a subject of considerable debate. We shall consider the controversy relating to different interpretation of the historical experience in terms of the four issues which we have delineated as implicit in Adam Smith's conception of the role of foreign trade, namely, (i) the capacity to earn foreign exchange; (ii) the impact of trade on the composition of output; (iii) the behaviour of the terms of trade; and (iv) the effect of foreign capital inflow on the pattern of investment in the developing economy.

The importance of having access to a dependable supply of foreign exchange cannot be over-emphasized for a capital-short economy. The general historical experience of economies that have passed through the process of transformation shows that this access has been acquired largely by the development of an export trade, and that this development has, almost invariably, been associated with substantial foreign investment, mostly in the form of equities and partly, as loan capital. On the supply side, the ability to export, preferably surplus produce, enables the exporting country to gain access to a wider market than its own, and thus provides an inducement to the economy to rationalize its methods of production especially where there is external competition in the supply of its export product.[8] In the words of J. S. Mill,

> a country which produces for a larger market than

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7. E. J. Mishan, "A Survey of Welfare Economics", Economic Journal Vol. 70, No. 278 (June, 1960) pp.197-265, especially pp.214-16

8. J. S. Mill, op.cit., p. 580.

> its own, can introduce a more extended division of labour, can make greater use of machinery and is more able to make inventions and improvements in the process of production. Besides, the opening up of foreign trade works a sort of industrial revolution, 9

by creating new wants and introducing new techniques of production. Moreover, the inflow of foreign capital accompanying the opening of trade reduces the dependence of domestic production on the rate of saving of the developing economy. [10]

Thus in Mill we find a link between the role of the exportable surplus and the inflow of foreign capital which sustains domestic capital formation at a higher rate than would have been possible in the absence of trade.

In the first place, the production of exportable commodities together with the inflow of foreign capital increases the economy's capacity to import necessary investible resources. [11] In the second place, the enlargement of the market consequent upon opening up of trade increases the developing economy's scope of investment opportunities. Thirdly, the economies of large-scale production which attend substantial capital investment and which are based on efficient allocation of resources bring about a continued rise in income, and with a given propensity to consume, an increasing ability to save.

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9. J. S. Mill, op.cit., p. 581.

10. Ibid. See also G.Haberler, International Trade and Economic Development, pp.10-15 for four ways in which foreign trade bestows dynamic benefits on a developing economy; these are (i) the provision of capital equipment as well as raw and intermediate goods; (ii) acquisition of access to technological knowledge; (iii) receipt of capital through international investment; and (iv) the stimulating influence of international competition.

11. Inasmuch as the supply of exports constitutes demand for the import of investment goods, foreign trade and foreign capital therefore endow the economy with the beneficial opportunity of exchanging "goods with less growth potential for goods with more growth potential, thereby quickening the progress that results from a given effort on the saving side."G.M.Meier, International Trade and Economic Development, (Harper and Row, New York, 1963), p. 157.

The historical record of today's advanced economies in general provide substantial evidence in support of the thesis that international trade has been an "engine of growth"[12] in their process of development. The United Kingdom, Sweden, Denmark, Canada, Australia, Switzerland and Japan have depended heavily on export trade to propel the development of their economies;

> in the case of Britain, development was fostered by the export trade in woollen manufacture and cotton textiles; for Sweden, it was the timber trade; for Denmark, dairy produce; Canada, wheat; Australia, wheat and wool; Switzerland, lace-making and clock-making; and Japan, silk. 13

In the nineteenth and early twentieth century growth through trade was most conspicuous in the case of regions of recent settlement like North America and Australia, where trade was accompanied by a parallel inflow of capital and labour supporting each other.[14]

Undoubtedly, the dynamic effects of trade were not limited to these regions of recent settlement; they were instrumental in bringing the economies of Africa and Asia into the system of the international economy. While little doubt exists about the integrative force of trade, especially with reference to the underdeveloped world, there are considerable differences of opinion regarding the capacity of international trade, conducted on traditional classical principles, to confer developmental benefits on these low-income but emerging societies. We may isolate two strands of the general argument against the traditional

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12. D. H. Robertson, "The Future of International Trade", Economic Journal, Vol. 48, No. 189 (March, 1938), p.1-14 reprinted in Readings in the Theory of International Trade, American Economic Association (The Blakiston Company, Toronto, 1949) p. 501

13. Meier, op.cit.,p. 159

14. R. Nurkse, "The Problem of International Investment Today in the Light of Nineteenth Century Experience", Economic Journal, Vol. 64, No. 256 (December, 1954) pp.745-56.

view that trade fosters growth.

The first strand of the argument may be associated with R. Nurkse who upheld the validity and applicability of the doctrine of comparative costs but argued forcefully that, unlike the nineteenth century the flow of trade and the movements of capital and labour in the twentieth century are not reinforcing;[15] there is an aggravating lack of synchronization in export development, capital inflow, and labour mobility. In terms of export trade, the low-income economies, being exporters of primary commodities, face sluggish international markets with the result that the share of trade from underdeveloped economies in total world trade fell from 33.8 per cent to 31.3 per cent between 1928 and 1957 (excluding oil-exporting economies, the corresponding figures are 32.2 per cent and 24.4 per cent).[16] Nurkse attributed this decline to six factors : first, the change in the industrial structure of advanced economies in favour of capital intensive industries with a low content of imported raw materials, secondly, the rising share of services in the total output of advanced economies; thirdly, the low-income elasticity of demand for many agricultural products; fourthly, agricultural protectionism in developed economies; the fifth factor is the tendency to economize in the use of raw materials, through, for example, processing of scrap; and the sixth factor is the introduction and use of synthetic materials in the advanced economies.

In terms of foreign capital inflow, the twentieth - century experience differs from that of the nineteenth century since capital now flows as a substitute for labour mobility, and goes to economies which are already densely populated. Nurkse argues that it is characteristic of

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15. R. Nurkse, op.cit., p. 750.

16. R. Nurkse, Patterns of Trade and Development,(Basil, Blackwell, Oxford, 1962), p. 21.

such investment to "create not only a dual economy, but also a dual society, in which conditions for the diffusion of western technology may actually be the reverse of favourable."[17] For, owing to the small size of the domestic economy, foreign investment in general tends to be in the direction of developing raw materials for export. This pattern of foreign investment invariably leads to a colonial type of economy with a high degree of dependence on foreign demand for one or two staple products. The high degree of dependence on external factors induces a large element of instability to the economy's capacity to earn exports which has a growth-depressing effect on the economy.

From this analysis Nurkse concluded that disparities in the rates of growth of exports of capital, and of labour, create investment problems for a developing economy. Since the economy's incremental comparative advantage in primary exports is low, the only real alternative,[18] is the development of the domestic market by simultaneous investment in industry and agriculture, that is, the pursuit of balanced growth in order to ensure increases in output that are diversified in accordance with domestic income elasticities of demand so as to provide local markets for each other.

The second strand of the case against the capacity of international trade to transmit growth may be stated in the words of G. M. Meier as "denying the relevance of the conclusions of traditional trade

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17. R. Nurkse, "International Investment Today in the Light of Nineteenth Century Experience", op.cit., p. 752.

18. One avenue of growth-inducing trade is the export of simple types of manufactures, but Nurkse ruled out this possibility as not a very easy policy to pursue in the context of the present structure of international trade.

theory."[19] Two elements in this denial must be separated; first, the criticism that the theory of comparative advantage describes only a snapshot picture of trading economies at a given point in time and therefore irrelevant to conditions during periods of change and secondly, the denial that the theorem of factor price equalization based on the doctrine of comparative costs has any correspondence in the real world. We proceed immediately with the second line of criticism.

The factor price equalization theorem states that, in the absence of transportation costs, trade will equalize relative commodity prices, and, therefore, under certain conditions, will also tend to bring about the equalization of factor prices. The conditions which will ensure equalization of factor prices may be stated as follows: (1) the existence of perfect competition in all markets; (ii) constant returns to scale in the production of each commodity; (iii) identical production functions in all countries; and (iv) partial specialization in production in all countries, that is, each country, produces some quantity of each commodity.

While the obvious restrictiveness of these conditions renders the theorem a mere "intellectual curiosity"[21] yet its implied conclusion that trade tends to equalize international incomes has been a subject of heated controversy. This implication has been vigorously denied by not a few economists, notably Gunnar Myrdal, R. Prebisch, and, with less vigour, by H. W. Singer, and Hla Myint.[22] In their criticism of the theorem and

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19. Meier, op. cit., p. 162. 20. P. Samuelson, "International Trade and Equalization of Factor Prices," Economic Journal, Vol. 58, No. 230 (June, 1948) pp. 163-84.

21. C. P. Kindleberger, International Economics, (Richard D. Irwin, Homewood, Illinois, 1958), rev. ed. p. 98.

22. G. Myrdal, An International Economy, (Harper and Brothers, New York, 1956). For Prebisch's denial, see United Nations, The Economic Development of Latin America and its Principal Problems (New York, 1950). See also Singer, "The Distribution of Gains Between Investing and Borrowing Countries", American Economic Review, Papers and Proceedings, Vol. 40, No. 2, pp. 473-485.

and its implication, these writers assert that, in reality the pattern of international trade has been associated with an increasing imbalance in the international division of incomes in favour of the industrialized nations and against the underdeveloped economies. Myrdal sees this pattern of distribution as "a cumulative process away from equilibrium in factor proportions and factor prices, engendered by international trade."[23] The degree of inequality in factor prices tends to be increased by international trade:

> a quite normal result of unhampered trade between two countries, of which one is industrial and the other underdeveloped is the initiation of a cumulative process towards the impoverishment and stagnation of the latter. 24

Three types of evidence are adduced to support this view of the adverse impact of trade on underdeveloped economies. In the first place, there is the unfavourable effect of factor movements, especially of capital, in the second place, there is the tendency of a secular deterioration in the underdeveloped economy's commodity terms of trade, and thirdly, the phenomenon of the international demonstration effect.

The effect of foreign capital movement in an underdeveloped economy, as noted in Chapter Three, has been to create disproportionality in the use of factors of production, the foreign capital dominates the export sector and tends to use a different set of factor combinations from the capital-short subsistence sector, the one being capital intensive with a high degree of rigidity in its technical coefficients, and the other labour intensive with a relatively variably technical coefficient. [25]The

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23. Myrdal, op.cit., p. 225

24. Ibid.

25. Indeed, as Kindleberger points out "on occasion, there will be two sets of factor proportions even within the export sector of the economy, one based on the combination of foreign capital with native land and labour, the other with only native factors." C. P. Kindleberger, op.cit., p. 544.

problem of disproportionality appears in the existence of different payments for the same factor in different uses. This phenomenon of factor disproportionality, both within a given sector or between two sectors arises "either because a single factor receives different returns in different uses or because the price relationships among factors are out of line with factor availabilities."[26] The underlying conditions which lead to this result have been attributed to what H. Myint calls "disequalizing factors",[27] and R. S. Eckaus "market imperfections hypothesis".[28]

Myint aggues that the penetration of an underdeveloped economy by foreign capital, being an extremely risky and costly undertaking, has been possible largely through the inducement of monopolistic and monopsonistic opportunities, which were exploited by foreign enterprise. The dominant (in terms of market strategy) position of foreign enterprise expresses itself in three forms; (i) as the dominant employer of unskilled labour services, and hence in a position to dictate the level of wages, (ii) as the dominant buyer of peasant export produce, paying very low prices, and (iii) as the dominant wholesale dealer in imported commodities, charging relatively high prices. Thus the gains from trade and from development accrue to foreign enterprises in a greater proportion than to natives, and this accentuates the in-

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26. C.P.Kindleberger and E. Despres, "The Mechanism of Adjustment in International Payments: The Lessons of Post War Experience", American Economic Review, Papers and Proceedings, Vol. 42 No. 2 (May, 1952), p. 339.

27. H. Myint "An Interpretation of Economic Backwardness", op.cit., p.148.

28. R. S. Eckaus, "The Factor Proportions Problem in Underdeveloped Areas", American Economic Review, Vol. 45, No. 4 (September, 1955), p. 541.

equality of international levels of incomes.[29] In addition to these disequalizing factors, imperfection of factor markets are reflected in market transformation curves so that for a given technical transformation curve there are many market transformation curves, for different types of imperfection in the factor market cause different types of shifts away from the given technical transformation curve. With a given structure of demand, the effect of this is to reduce output and bring about a wider range of factor combinations over which a particular factor is likely to become unemployed.[30]

The second way in which international trade is alleged to have adversely affected the low-income economies is through a secular deterioration in the exporting economy's commodity terms of trade, implying an international transfer of income from the poor nations to the rish. The chief exponent of this view is Raoul Prebisch.[31] The Prebisch

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29. H. Myint, op.cit.,pp. 154-62. From the point of view of foreign enterprise, these disequalizing factors form an essential part of the concept of free market; a strong monopoly power buttressed by political influence on the part of foreign individuals and firms. For a persuasive statement of the "backwash" effect of foreign enterprise in the financial sector of a colonial type of economy, see T. Balogh, "The Mechanism of Neo-Imperialism: The Economic Impact of Monetary and Commercial Institutions in Africa",Bulletin, Oxford Institute of Statistics, Vol. 24, No. 3 (August,1962) pp 331-34. "the share of profits and salaries going to the metropolis was substantial... and the latter (metropolis) reaped a greater part of the benefits of the development which it initiated and which would not otherwise have taken place."

30. R. S. Eckaus, op.cit., pp. 561-2.

31. For his main exposition of the doctrine of declining terms of trade, see United Nations, The Economic Development of Latin America and its Principal Problems (New York,1950). See also the United Nations Relative Prices of Exports and Imports in Underdeveloped Countries (New York,1949) M. K. Atallah, The Terms of Trade Between Agricultural and Industrial Products,(Netherlands Economic Institute, The Hague, 1958), and H. W. Singer, "The Distribution of Gains Between Investing and Borrowing Countries" American Economic Review,Papers and Proceedings, Vol. 40, No. 2 (May, 1950) pp.473-85.

thesis is usually expressed in the following form: underdeveloped countries are primarily producers of food and raw materials, products in which productivity increases are smaller than in manufacturing. The gains in the manufacturing sector, due to greater productivity, accrue to foreign enterprise in the form of profits which are transferred to the advanced economy. With respect to the manufacturing industry in a developed economy, the gains from rising productivity are distributed in the form of higher wages and profits rather than in lower export prices. On the other hand, the smaller productivity increases in the production of food and raw materials in an underdeveloped economy are distributed in the form of lower export prices.[32] Reinforcing the deteriorating commodity terms of trade has been the fact that prices of industrial products tended to fluctuate less over the business cycle than prices of primary products so that over successive cycles the gap between both sets of prices has widened. The widening of the gap reflects the effect of a relative decrease in the demand for primary products, for reasons already noted, and a relative increase in the demand for industrial goods.

The third form in which international trade is said to increase the inequality of incomes between the advanced and underdeveloped economies is through the international demonstration effect. The doctrine of international demonstration effect asserts that as a result of the impact of international trade, the consumption pattern of under -

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32. United Nations, The Economic Development of Latin America and Its Principal Problems, pp. 13-24. See also R. Prebisch, "Commercial Policy in Underdeveloped Countries" American Economic Review, Papers and Proceedings, Vol. 49, No. 2 (May, 1959), pp. 261-4.

developed economies closely follows that of advanced countries;[33] the marginal propensity to consume is relatively higher in the former than in the latter so that, because of the low level of income in the former, little saving is undertaken to effect capital formation at a desirable rate. Thus contrary to the classical assumption that trade induces shifts in production leaving tastes unchanged, the international demonstration hypothesis states that tastes change without a corresponding change in the allocation of domestic resources so that the shift in demand tends to be in favour of imported goods and services, and against goods and services in the production of which the economy has a comparative advantage. Since, it is argued, prices of imported goods have remained relatively stable while prices of primary exports have undergone secular decline, it follows that

> the industrialized countries have had the best of both worlds both as consumers of primary commodities and as producers of manufactured articles, whereas the underdeveloped countries had the worst of both worlds, as consumers of manufactures and as producers of raw materials.[34]

These arguments demonstrating the adverse effects of international trade have been met with vigorous criticism, A.K. Cairncross denies Nurkse's reason for the failure of international trade to generate development on the pattern of the nineteenth century, that is, the hypothesis of the lag of exports of the underdevelopment economies.[35] He uses

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33. This doctrine was first applied by W. F. Stolper to economies of Western Europe. See his "A Note on the Multiplier, Flexible Exchange, and Dollar Shortage", Economia Internazionale, Vol. 3, No. 3, (August 1950), pp. 765-80.

34. Singer, op.cit., p. 479.

35. A. K. Cairncross, "International Trade and Economic Development", Kyklos Vol. 13, No. 4 (November,1960) reprinted as "Patterns of Trade and Development", in Factors in Economic Development, (George Allen and Unwin, London, 1962), pp. 191-208.

the findings of L. Yates[36] to show that the underdeveloped economies of Africa, Asia and Latin America enjoyed a rising share of world exports between 1913 and 1953, and that although the emergence of oil exporting from some of these economies boosted the overall rise in their share of exports, yet the exclusion of all exports of fuel "still leaves a total which increases faster for the three poor continents than for the richer continents between 1913 and 1953".[37] According to Cairncross the growth inducing factor characteristic of the nineteenth century pattern of growth was "progressive specialization"[38] not merely in the sense of a dynamic flow of resources from the advanced economy to the underdeveloped but

> in the quite different sense, that it took time for the structural adaptations to cost differences to be brought about, for the exporters of primary producers to capitalize their advantages, and for the importers to make room in their industrial structure for the larger volume of imports; 39

and it is the disappearance of this element of progressive specialization that accounts for the subsequent decline in the rate of growth of foreign trade. While it is true that underdeveloped economies appear to have been affected most adversely by the loss of this element of progressive specialization, it does not follow that these economies cannot restore this specialization in another form. But Cairncross is not specific about the concrete forms which this specialization may take.

The most persistent and belligerent critic of the anti-

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36. P. L. Yates, Forty Years of Foreign Trade, (George Allen and Unwin, London, 1959), pp.23.1.

37. Cairncross, Factors in Economic Development, p. 195

38. Cairncross, op.cit., p. 197,

39. Ibid.

trade school of economists is Gottfried Haberler.[40] He emphasized his view that "substantially free trade with marginal, insubstantial corrections and deviations, is the best policy from the point of view of economic development,"[41] particularly for the underdeveloped economies. He denies the efficacy of government action to improve upon the allocative efficiency of the international market mechanism; he calls to question the existence of a systematic trend of the commodity terms of trade to move against or in favour of a particular trading country; he dismisses as entirely unrealistic that "there are large masses of unused resources free for the asking and ready to be put to work";[42] and he asserts that the relationship between advanced and underdeveloped economies favours the latter and that the backwash hypothesis lacks empirical substance.[43]

These assertions are substantially repeated by G. M. Meier who draws the conclusion that much of the criticism of the contribution of international trade to growth is misplaced;

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40. Haberler, op. cit.,

41. Haberler, op. cit., p. 5

42. Haberler, op. cit., p. 27

43. Haberler, op. cit., pp. 28-33. For an excellent treatment of the scope of Haberler's disagreement with Nurkse, see Cairncross, op. cit., p. 205. To the declining terms of trade argument, Haberler asserts with characteristic vehemence, "To my mind the alleged historical facts lack proof, their explanation is faulty, the extrapolation reckless, and the policy conclusion irresponsible, to put it mildly." See his "Critical Observations", p. 8. On this acid tone of Haberler's language, Cairncross makes the apt comment "This is a good knock-about economics calculated to make some readers bristle and others purr" op. cit., p. 205.

> once it is recognized that the relevant comparison is not between the pattern of resource utilization that actually occurred with international factor movements and some other ideal pattern, but between the actual pattern and the pattern that would have occurred in the absence of the capital and labour inflow. 44

Furthermore, Meier argues that a deterioration in the commodity terms of trade may be accompanied by an improvement in its income terms of trade provided the foreign offer curve is sufficiently elastic to increase the economy's volume of exports. Indeed, an improvement in the income terms of trade is implicit in the argument of secular deterioration of commodity terms of trade " in so far as it relies on productivity increasing in both primary producing and industrial countries, but at a higher rate in the latter."[45] Nevertheless, Meier concedes that the growth of exports has not been a propellant of development, and he finds the explanation of this failure in "the differential effects of different exports and in the domestic market conditions of the poor country."[46]

With regard to the first factor, the effectiveness of exports as a growth agent depends on the production function, for the relative shares of factor earnings in total output will vary according to the prevailing form of organization of production, for example, whether agricultural production is undertaken by peasants or on plantation lines, is important for its effect on the resulting pattern of income distribution, and therefore the pattern of consumption and the rate of saving. In general, exports will be a stronger stimulus to economic development,

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44. Meier, op.cit., p. 170

45. Meier, op.cit., pp. 62-3

46. Meier, op.cit., p. 177.

> the higher is the growth rate of the export sector; the greater is the direct effect in the export sector on employment and personal income; the less the distribution of export income favours those with a higher marginal propensity to import; the more productive is the investment resulting from any saving of export income; the more exports expand through a change in the production functions rather than by a simple indering process; and the more stable are retained export earnings. 47

Concerning the second factor Meier argues that the lack of intersectoral relations in underdeveloped economies, restrictions on the market mechanism, ignorance of technological possibilities and lack of entrepreneurship hinder the "penetrating power"[48] of foreign trade. This cluster of hindrances is essentially inherent in socio-cultural institutions. Thus instead of the economic factor of an export lag being the villain in fobbing off the possibility of sustained development, social structure and custom impose a debilitating influence on the energizing potential of foreign trade. In terms of E. E. Hagen's scheme [49], the world view of the society is inconsistent with the requirements of dynamic change. The society that is to say, has yet to pass through the Rostowian stage of establishing preconditions,[50] the transitional

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47. Meier, op.cit., pp.181-2

48. For the source of this apt phrase quoted by Meier, see H.A.Innis, "The Penetrative Powers of the Price System" Canadian Journal of Economics and Political Science, Vol. 4 No. 3 (August,1938) pp.299-319.

49. E. E. Hagen, On the Theory of Social Change, (The Dorsey Press,New York, 1963).

50. W.W.Rostow, The Stages of Economic Growth (Cambridge University Press,London,1960). Rostow delineates five stages of the developmental process, (i) the traditional society; (ii) the stage of preconditions; (iii) the take off into self-sustained growth; (iv) the drive to maturity; and (v) the stage of high mass consumption. Rostow not only claims analytical usefulness for his schematization but also endows it with historical validity. For a persuasive critique of this analysis on both grounds see A.K.Cairncross, "The Stages of Economic Growth", Economic History Review, Vol. 13 (Second Series),No. 3, 1961.pp.450-58

era, when the politics, social structure, and values of traditional society are altered in such ways as to permit growth.[51]

On the other hand, we must argue, the phenomenon of the demonstration effect, though of varying degrees of intensity in different countries, clearly shows that the cake of social custom has not been impregnable, even if its operation is limited only to the sphere of consumption. This proviso is not, however, justifiable as a general rule and the case for the demonstration effect being an obstacle to capital formation is not conclusive. Indeed, as P. T. Bauer emphasizes,

> the effects of contact with more advanced countries are usually very different from those assumed by the international demonstration effect. It almost invariably accelerates economic growth in less developed countries by encouraging production for the market, by suggesting new wants, new crops, and improved methods generally. This indeed is a commonplace of economic history.[52]

The desire for higher consumption can stimulate increased effort, saving and investment, and the effect of contact with new goods in terms of inducing higher economic performance underlies the proposition that a rising consumption level need not be a barrier to economic growth so long as it leads to a proportionately greater supply of

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51. Meier, op.cit., p. 84

52. P. T. Bauer, Economic Analysis and Policy in Underdeveloped Countries, (University of North Carolina Press, Durham, 1957), p.65

effort which would not be forthcoming in the absence of new wants generated by novel goods. Furthermore, the implicit assumption of the demonstration effect that the supply of effort is fixed is hardly consistent with the recent economic history of developing economies. For the pattern of development of most of these economies exhibits acquisitive responses by natives expressed in a greater supply of effort which is invoked to explain the need to isolate developing economies from contact with the advanced rather establishes a link between the desire for higher levels of consumption and increased supply of effort to achieve these levels. In so doing, it emphasizes the beneficent role of international trade in economic development.[53]

For this reason, dissatisfaction with the failure of comparative cost theory, arising from its failure to take account of these benefits of trade, has led to recent attempts to consider the effect on comparative advantage of an economy, and on its terms of trade, of changes in the fundamental conditions of demand, factor proportions, and the state of technology. The purpose of the attempts is to determine how these effects in turn affect the trading position of the economy and hence its pattern of development. If we interpret an economy's development in terms of outward shifts in its pro-

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53. The demonstration effect as expounded however has plausible validity in the area of government spending which tend to be based more on conspicuous and spectacular imitation of advanced economies for the sake of national pride than on any realistic estimate of the productivity of the investment.

duction possibilities curve, we can trace these shifts to autonomous changes in factor supply, techniques of production and labour productivity. A change in each of these produces two groups of effects, production effects and consumption effects: the resultant of these effects causes shifts in the economy's offer curve, the extent and direction of such shifts depending on the strength of the production and consumption effects. The ultimate result in the change in the volume and composition of trade and hence in terms of trade.[54]

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54. The most recent exposition of the effect of fundamental changes on comparative advantage of a country is by G. M. Meier, International Trade, and Economic Development, pp. 20-38. Drawing mainly on the pioneering works of J. R. Hicks, J. Bhagwati, and H. G. Johnson, he attempts to establish the relevance of comparative cost doctrine to an economy in which the fundamental conditions are changing. To simplify the analysis he uses the methodology of comparative statics to analyse the effects of these changes on the comparative cost position of the economy as well as the various patterns of development indicated by the changing trade position of the economy. For an earlier attempt in this field, see also his "A Note on the Theory of Comparative Costs and Long Period Developments," Economia Internazionale, Vol. 5, No. 3, (August, 1952), pp. 609-18. The Major Works of the authors drawn upon are as follows, J. R. Hicks, Essays in World Economics, (Clarendon Press, Oxford 1959), and "An Inaugural Lecture," Oxford Economic Papers, Vol. 5, No. 2 (June, 1953), pp. 117-35; J. Bhagwati, "Growth, Terms of Trade, and Comparative Advantage," Economia Internazionale, Vol. 12, No. 3 (August, 1959), pp. 393-414; and H. G. Johnson, International Trade and Economic Growth, op.cit., For a brilliant analysis of the effect of technical change on comparative costs in a developing economy, see also H. G. Johnson, "Effects of Changes in Comparative Costs as Influenced by Technical Change", in International Trade Theory in a Developing World, eds. R. F. Harrod and D.C. Hague, (Macmillan, London, 1963) pp. 96-112.

With regard to foreign trade, the combined production and consumption effects may be (i) export-biased, (ii) import-biased,[55] or (iii) neutral, if

$b_c + \frac{P}{C} b_p$ is (i) greater than, (ii) less than, or (iii) equal to zero; where b_c is the degree of bias in consumption, b_p the degree of bias in production,[56] P the domestic production of importable goods and C the domestic consumption of importable goods. For both consumption and production, the degree of bias will be positive for export-bias and negative for import-bias. The overall bias however will not be neutral even if production is export-biased and consumption import-biased, with the biases being of the same degree. As Meier explains, this is "because the consumption of imports initially represents an excess demand over the domestic supply of importables, so that to have neutrality on balance the import-bias in consumption must be offset by a sufficiently greater opposite bias in production."[57] In the absence of this condition the consumption effect will dominate in determining the ultimate bias of the economy.

The essence of the attempt to emphasize the dynamic aspect of international trade theory is to demonstrate that the gains

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55. For definition of biases in trade theory see J. R. Hicks, Essays in World Economics, Supplementary Note B, pp. 251-259. H. G. Johnson uses the term pro-trade-biased instead of import-biased. See his International Trade and Economic Growth, pp. 76-7.

56. The degree of bias in production is measured by the excess over unity of the output-elasticity of the domestic production of importable goods, and the degree of bias in consumption by the excess over unity of the output-elasticity of demand for importable goods. Output-elasticity is defined as the ratio of percentage change in the demand or supply of importables and percentage change in income. Johnson, op. cit., pp. 66 and 78.

57. Meier, op. cit., p. 35.

from trade derive from taking advantage of comparative cost differences through specialization in international exchange. This specialization evolves, or must evolve, as a consequence of the "dynamics of technical progress, accumulation, and population increase, and their diffusion through the world economy."[58] Nevertheless, the solution to the problem of merging together the gains from trade and the gains from growth ultimately depends on the consistency and efficacy of domestic policy measures in producing a socio-political framework that is conducive to maximizing favourable responses to the stimulus of trade.

4.3 Investment Criteria and the Role of the State

A country undertaking contrived economic development has three basic decisions to make: first, the determination of the proportion of its aggregate product it should invest in the maintenance and expansion of its productive capacity; secondly, the pattern of investment it should adopt; and thirdly, the specific combination of resource inputs that it should choose for the various sectors or industries.[59]

While it is generally agreed that the determination of the desired rate of saving and investment in contrived economic development is largely a political decision,[60] the rate of investment chosen is

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58. Johnson, "Effects of changes in comparative Costs as Influenced by Technical Change," op. cit., p. 112.

59. As A. K. Sen warns, while it is important to appreciate the differences between these decisions, one should not consider them as independent. See his Choice of Techniques, An Aspect of the Theory of Planned Economic Development, (Basil Blackwell, Oxford, 1960), p. 19.

60. A. K. Sen, "On optimising the Rate of Saving," Economic Journal, Vol. 71, No. 283 (September, 1961), pp. 479-95.

however not unaffected by the particular pattern of investment chosen or by the specific combination of factors adopted in a given state of technical development. In reaching a particular choice regarding these three problems, the decision-makers must develop a set of tests by means of which they can distinguish between, or rank, different strands of consequences upon adoption of alternative courses of action, so that they will be able to choose, on a rational basis, that course of action which yields maximum returns relative to cost.

In general investment criteria have been formulated in terms of maximization of output per unit of resource input, maximization of employment per unit of investment, and the maintenance of balance of payments equilibrium. One of the vexed problems of investment in a developing economy is the lack of synchronization in the achievement of these three objectives which is reflected in the persistent conflict in simultaneous pursuit of all three goals. The problem becomes more intractable especially when the desired rate of investment exceeds the rate warranted by the spontaneous saving decisions of individuals in the economy, and when external inflow of capital is insufficient to remove the deficit.

In this latter situation it becomes necessary to contain the pressure on the balance of payments within tolerable limits. The optimum rate of investment that avoids a serious balance of payments disequilibrium is that rate which is large enough to leave no substantial unused balances of foreign exchange and yet not so large as to induce demand for exchange in excess of the available foreign exchange balances[61]. The determination of this rate is a matter for the

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61. J. J. Polak, "Balance of Payments Problems of Countries Reconstructing With the Help of Foreign Loans," Quarterly Journal of Economics, Vol. 57, No. 1 (February, 1943), pp. 208-40, reprinted in Readings in the Theory of International Trade, p. 480.

authorities and has to be based on appraisal of the propensities to consume and to import. To the extent that the marginal propensity to import is less than unity, it is possible for investment, depending on the favourable operation of the multiplier, to generate income at a rate higher than the rate of capital inflow. This situation will hold so long as the ratio of the rate of investment to the rate of capital inflow does not exceed the ratio of total investment (domestic plus foreign) to foreign loans.

The effectiveness of the criterion depends on the existence of domestic excess capacity, an assumption inherent in a less than unitary marginal propensity to import, and dependent on relatively elastic supply of factors of production. The concrete form in which this balance of payments criterion is expressed is the maximization of the "rate of turnover of investment projects"[62] that is, the ordinary principle of maximizing the rate of return on capital invested. Since capital and capital goods have to be imported, application of this criterion places emphasis on quick-yielding, preferably, exportable or import-substitutable investments, the capital content of which must be minimal.[63]

This criterion does not rank employment as a primary objective of investment; its preoccupation with balance of payments, while not inconsistent with maximization of output may not ensure investment in activities which are more productive but neither

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62. Polak, op. cit., p. 471.

63. The same criterion is also suggested by N. S. Buchanan; "if investment funds are limited the wise policy, in the absence of special considerations, would be to undertake just those investments having a high value of annual product relative to the investment necessary to bring them into existence." See his International Investment and Domestic Welfare, (H. Holt and Company, New York, 1945), p. 24.

export-oriented nor import-substitutable. Furthermore, taken alone by itself, the criterion neglects the "spill-over effect" of investment on other sectors and on subsequent investment opportunities.[64]

A more comprehensive variant of the rate of turnover criterion, taking into account the balance of payments, has been suggested by A. E. Khan and, more importantly, H. Chenery.[65] The maximand is social marginal productivity which is expressed in its Chenery form, as the product of the rate of capital turnover and the net percentage margin of social value added plus the balance of payments premium. In symbolic form,

$$SMP = \frac{V\,(V-C)}{K_i\,(\ V\ )} + \frac{Br}{K_i}\ ,$$

V being value added, C total cost of domestic factors, K_i required investment, B total balance of payments effect, and r, the marginal rate of substitution between effect of investment on income and B.[66] In the calculation of value added, tariffs, taxes and subsidies must

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64. Siro Lombardini, "Qualitative Analysis in the Determination of Efficiency of Investment in Underdeveloped Countries," International Economic Papers, No. 9, 1959, pp. 125-45.

65. A. E. Khan, "Investment Criteria in Development Programmes," Quarterly Journal of Economics, Vol. 65, No. 1, (February, 1951), pp. 38-61. Khan's formulation is solely in terms of straight maximization of social output-capital ratio (social profitability) without explicit consideration of employment and balance of payments effects. H. B. Chenery, "The Application of Investment Criteria," Quarterly Journal of Economics, Vol. 67, No. 1 (February, 1953), pp. 76-96.

66. Chenery, op. cit., p. 89

$$B = a\,B_1 + B_2$$

a represents combined amortization and interest charges on current loans, B_1 the effect of installation of investment on balance of payments, and B_2, the effect of operation of investment on balance of payments.

be eliminated, while account is taken of external economies. In measuring total cost, there must be included the social cost only of those resources which would remain utilized in the absence of the investment. If we exclude the balance of payments effect, and ignore the social cost of employed factors the formulation becomes the original Khan criterion of maximizing value added per unit of investment, which is essentially an ordinary rate of return criterion.

While the criterion of social marginal productivity attempts to take account of structural interdependence, it fails to show how to measure the effects of this interdependence. It ignores the interdependence of marginal productivities of investment in different sectors as well as the effects of particular method of income distribution.[67] In collaboration with W. Galenson,[68] H. Leibenstein proposed a variant of the social marginal productivity criterion on a per capita basis. Given the objective of maximizing output per head any investment policy must aim at making each unit of investment provide each worker, in general, with greater productive power than any other alternative investment. In terms of the choice of technique, this criterion requires that between alternative techniques, one must be chosen that maximizes the expression

$$\frac{p - e.w}{c}$$

where p, is output per machine, e, the number of workers per machine,

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67. Leibenstein specifies four variables which the criterion fails to take into account: the effect of investment on (i) the expansion of such growth factors as entrepreneurship, quality of labour force, and expansion of skills; (ii) future saving habits and therefore, the future rate of investment; (iii) future pattern of consumption, and (iv) the rate of population growth. op. cit., p. 259

68. H. Leibenstein and W. Galenson, "Investment Criteria, Productivity, and Economic Development," Quarterly Journal of Economics, Vol. 69, No. 3 (August, 1955) pp. 343-70.

w, the real wage rate, and c, cost per machine. In terms of sectoral allocation of investment, Leibenstein in his book[69] extended this criterion into a "general reinvestment criterion." A given volume of investment has a direct effect and an indirect effect; the direct effect is the capitalized value of net addition to output which is attributable to the investment, and the indirect effect is a combination of (i) the amount of reinvestment in physical capital that results from the additional output stream created by the unit of investment, and (ii) the amount of human investment.[70]

In order to incorporate the time preference between alternative time patterns of general reinvestment, the amount of general reinvestment per capita to be maximized must be discounted on the basis of the extent to which the present is preferred to the future. Once a particular stream of general reinvestment per capita is chosen, "the guiding principle is to achieve the best allocation by equating at the margin the discounted value of the general reinvestment stream in the various uses to which the investment is put."[71]

Leibenstein's general reinvestment criterion, certainly a grand tour de force, has the advantage of explicitly taking into account the use of time in investment decisions. But in essence, it turns out to be a profit maximizing criterion expressed in real terms with the assumption that all profits are reinvested, and all wages are

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69. Leibenstein, op. cit., pp. 264-8

70. Leibenstein, op. cit., pp. 265-7. Human investment is the investment that improves "the quality of the population, that is, its skill, knowledge, energy, adaptability, and its perceptiveness, and capacity to ferret out new economic opportunities."

71. Leibenstein, op. cit., p. 268.

consumed.[72]

More comprehensive application of time preference to investment decisions is seen in the work of A. K. Sen.[73] He argues that the choice of a particular technique depends on the time preference of the community. A technique with a lower immediate output than another may produce output at a higher rate. Given that the rates of growth of output of techniques are an exponential function of time, the technique with the higher growth rate catches up with, and surpasses, the output level of the other technique, if this latter had a higher initial level of output than the former technique. Thus given different rates of growth of output associated with two techniques, the time it takes to equalize the differences in the levels of output before and after the point where both rates of growth become equal measures the period of recovery.

Sen's time series criterion postulates that in choosing between two techniques this period of recovery must be related to social time preference; in his own words, "the choice of technique depends on the degree to which the period of recovery approximates to our planning horizon."[74] Thus the introduction of the time element does not yield a unique criterion by which investment choices may be

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72. D. G. M. Dosser, "General Investment Criteria for Less Developed Countries: A Post-Mortem," Scottish Journal of Political Economy, Vol. 9, No. 2 (June, 1962), p. 86. In grappling with the time preference problem, O. Eckstein advocates the use of a shadow discount rate which expresses society's evalution of the future in relation to the present; this rate should generally be lower than the market rate of interest so that projects of high reinvestment potential may be undertaken. See his "Investment Criteria for Economic Development and the Theory of Inter-personal Welfare Economics," Quarterly Journal of Economics, Vol. 71, No. 1 (February, 1957) pp. 56-68.

73. Sen, Choice of Techniques, Footnote 4, pp. 32-4.

74. Sen, op. cit., p. 33.

made especially as concerns the choice of technique but rather suggests the complexity of the problem of choice between alternative investment possibilities. For as the planning horizon is largely based on value judgement and "not entirely a matter of positive economics"[75] the choice of a particular technique cannot be made in any simple and straightforward manner.

We must bear in mind that Sen's criterion applies specifically only to the choice of technique of producing a single commodity in a one-sector economy, and thus that the problem of choice of technique in a multi-commodity multi-sector economy becomes exceedingly complex. Nevertheless, this latter problem can be analysed as part of the larger problem of the choice of investment pattern that is most conducive to the attainment of desired objectives. The pattern of investment problem has often been posed in the economic literature as a choice between investment in agriculture and investment in manufacturing, or a choice between investment in the production for export and investment in the production of goods for the domestic market. Expressing the problem of investment choice in this form is relevant especially in the context of a specific stage of the economy in its process of development, for it draws attention to the factor that, at a given stage, hinders the development of the economy.

One concept which features prominently in the analysis of investment criteria is the capital-output ratio. The relationship between capital and output through time is a fundamental element in the Harrod-Domar analysis of dynamic economics. We are here in this context

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75. Sen, op. cit., p. 88

interested in the concept as a tool of economic policy. For the economy as a whole the relationship between capital and output may be expressed in terms of gross or net output that is produced by the gross or net stock of capital, both expressed in constant prices, within a given period, usually a year. It is conventionally expressed however as[76] the amount of capital per unit of output. The Harrod-Domar model uses the marginal form of this expression, that is, the incremental capital-output ratio, the ratio of the increment in the capital stock - capital formation - to the increase in output per year.[77]

If we postulate a given ratio of capital increment to an increase in output to exist in an economy, then we can derive the amount of additional capital, that is, the net capital formation necessary to produce a desired increase in output; inversely, given the level of investment, the output increment can be determined. The rate of investment necessary to achieve a desired rate of growth of output is the product of the given desired rate of output growth and the incremental capital output ratio. Thus if we postulate, for example, a rate of growth of income of five per cent per year and know that the marginal capital-output ratio is three to one per year, then the rate of investment required to sustain the desired rate of income growth is fifteen per cent per year.

Thus, in a developing economy, the concept is used for

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76. On the application of the concept of the capital-output ratio to the economy of the United States of America, see S. Kuznets, Capital in the American Economy, Its Formation and Financing, (National Bureau of Economic Research, Princeton, 1961), pp. 80-81. See also p. 199 for sectoral capital-output ratios.

77. See Chapter three, p.110 however for the difference between the specifically Harrod and Domar models in their use of the concept.

two purposes, first, as criterion of achieving maximum benefits from a given volume of investment, which calls for the minimization of the ratio or maximization of its inverse. This is essentially a rate of return criterion with emphasis on capital as the scarce factor. The second use of the concept is as a planning tool in estimating capital requirements of a given development programme which has established output targets to be accomplished within the plan period.

The concept of the capital-output ratio as a tool of investment policy has received severe criticism. The conceptual and statistical difficulties of measuring capital and output are likely to undermine the reliability of estimates of capital-output ratios.[78] Even if reliable estimates are available, the resulting capital-output ratios cannot be taken to be independent of other variables in the economy such as labour and technical progress. For changes in these variables are likely to cause changes in output that are not related to the level of the capital stock or its increment. The existence of excess capacity, and unemployed resources may have an effect on increasing output in a greater measure than the increment in the existing stock of capital.

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78. For an excellent and comprehensive discussion of some of the major problems involved in capital measurement see T. Barna, "Alternative Methods of Measuring Capital" in The Measurement of National Wealth, Series 8, eds. R. W. Goldsmith and C. Saunders, (Bowes and Bowes, London, 1959) pp. 35-59. See also an earlier treatment of the same subject by R. W. Goldsmith, "Measuring National Wealth in a system of Social Accounting" in Studies in Income and Wealth, Vol. 12, (National Bureau of Economic Research, New York, 1950) pp. 23-101. Also Higgins, op. cit., pp. 642-8 for an analysis of the complicated theoretical problems involved in the use of the capital-output ratio. Leibenstein differentiated between three expressions of the capital-output ratio, (i) ex post facto ratio between capital and output; (ii) the net incremental capital-output ratio, and (iii) the adjusted incremental capital output ratio. The first refers to the historical ratio, the second to the ratio of capital to output assuming no change in all other variables, and the third to the ratio which incorporates the effects of changes in other factors. Leibenstein, op. cit., p. 178.

Even if due allowance is made for these factors, in the estimation of the capital-output ratio, the fact that the concept subsumes a technological constraint in production tends to result in underestimation of economic considerations in the determination of the desired rate of investment and the choice of technique of production.[79] The emphasis on the capital-output ratio may tend to overlook the fact that in an advanced economy "given a current level of national income and a stock of technological knowledge the required capital...could be but a small part of the actual capital stock except in the more underdeveloped countries."[80] Indeed, the "greater the economic element, the greater the doubt that the capital-output ratio is an illuminating approach to the analysis of capital formation."[81]

In addition to these deficiencies, there is considerable debate as to whether the ratio remains constant, declines, or increases over time. Although it is difficult to determine, a priori, the behaviour of the ratio, some economists have held definite views on the historical behaviour of the ratio. Harrod, Domar and Robert Solow stress the tendency of the ratio to be constant through time.[82] The constancy of the capital-output ratio implies that capital input ceases to be a variable that can be manipulated to achieve a desired rate of growth of output.[83] Leibenstein on the other hand holds that the ratio

ratio

79. Kuznets, op.cit., pp.86-90
80. Kuznets, op.cit., p.88
81. Kuznets, op.cit., p.87
82. R.Bicanic, "The Threshold of Economic Growth" Kyklos, Vol.15 No.1 (January,1962) pp.7-22.
83. E.F.Dennison, The Sources of Economic Growth in the United States and the Alternatives Before Us. Supplementary Paper No. 13, (Committee for Economic Development,New York,1962),p.126.

diminishes because of the tendency of particular commodities to require less capital per unit at later stages of production, and also because of changes in the structure of production in the direction of mass consumption goods which require less capital per unit of product.[84] A third view is held by Simon Kuznets, Colin Clark, and J. Spengler to the effect that the ratio rises from a low level and tends to fall after the basic capital structure of the economy has been set.[85] Broadly speaking as a capsule description of the process of growth the third view seems to fit well the general historical pattern of development.[86]

But in this context we are interested in the ratio as a tool of economic policy. In its ex-post form, it presumes an already prevailing process of growth, Even in the experience of the past or of advanced economies could be applied, the usefulness of the concept depends on assumptions about the relation of the ratio to such other variables in the system as the behaviour through time of the interest rate, the production function with respect to returns to scale, technological progress and changes in the composition of output. Nevertheless, as Bruton puts it, the real problem in developing economies may involve starting the process of investment rather than continuing on the basis of ratios derived from past performance. In spite of these drawbacks, the concept of the capital-output ratio is operationally useful as a rough guide[87] to the formulation of development plans.

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84. Leibenstein, op. cit., p. 126.

85. For the empirical evidence on the American data, see Kuznets, op. cit., pp. 84-5. Table 7.

86. R. Bicanic, op. cit., p. 21.

87. United Nations, Programming Techniques for Economic Development With Special Reference to Asia and the Far East. (Economic Commission for Asia and the Far East, Bangkok, 1960) p. 77.

4.4. The Role of the State.

The discussion of balanced and unbalanced growth in Chapter Three, and of investment criteria in this one, has far-reaching implications for the role of the State in economic development. In principle, the theory of balanced growth does not presuppose state entrepreneurship,but in practice, its application in a developing economy is posited on the active leadership of the State. Furthermore, the rejection of private profitability as a criterion of investment entails public responsibility in the choice of investment criteria, and this has been the pattern of development policy in developing economies today. Besides these economic considerations, state entrepreneurship may prevail as an outcome of ideological commitment. In this concluding section we examine briefly the economic role of the State in the process of development.

By the State we do not mean an entity exogeneous to the economy as legal theory will have us believe, but the group of people normally called the government or administration who are in charge of formulating and executing public policy. Little attention is paid to the role of the State in the development of capitalist economies. For Adam Smith, the most effective role the State needs play in the process of development is to levy easy taxes and impose a tolerable administration of justice.[88] This policing concept of the role of the state in economic affairs is based on the postulate of competitive market conditions the existence of which favour the effective exercise of private entrepreneurial activity.

In practice,however,there occurs a greater measure of dovetailing between business and government in a private enterprise economy than inherent in the Smithian laissez-faire principle. The

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88. Adam Smith, op.cit., Vol.2, pp.72-3.

history of American economic development, for example, clearly reveals a close partnership between business and government. In a great number of instances the successful launching of a private investment project depends on the acquisition of some form of influence in government circles, and this influence might be sought in order to make government action negative that is, to prevent the government from adopting certain policies, or positive; and as L.M.Hacker remarks, the "idea of unadulterated laissez-faire, in this regard, is a fiction"[89]

Nevertheless, there is a substantial difference between the role of the State in a free enterprise economy and the doctrine of central planning which is current today. The difference is not merely one of degree, but is fundamental and based on ideological prejudice or conviction. In spite of the important role of the state in the former case, the prevailing ideological climate is favourable to private individual enterprise goaded by the urge for private gain so that much of what the state does is merely to provide the foundation upon which the superstructure of private achievement can be erected; the willingness and ability to take risks for capital creation is an individual response. In the latter case, however, ideological trend is against private initiative which is found to be philosophically and ethically untenable. It is not our intention to enter into this great debate. We feel however, that sometimes there is a confusion between the fact that the state is necessary as a framework for private initiative and the proposition that every initiative must come from the state. In developing economies especially these quite divergent issues are not clearly separated. It is often argued that the gravity of the development problem requires massive effort to

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89. L.M.Hacker, "Anticapitalist Bias of American Historians", in Capitalism and the Historians, ed.F.A.Hayek (University of Chicago Press, Chicago, 1954) p.73.

solve it and that only the state is capable of undertaking capital growth on a scale sufficient to lift the economy out of poverty. This argument is supported by the view on external economies that in developing economies private rationality and social good are often incongruent, and therefore, that private investment although it may be rational from the individual point of view, tends to have no expansionary effect on the whole economy. The process of creating these external economies and expanding the market is regarded as normally beyond the effectiveness of private initiative, and can only be performed by public authorities.[90] A further argument is advanced that as the economy progresses, the range of investment choice becomes much wider and complex, and that the task of allocating resources efficient - ly becomes so complicated as to be beyond the capability of individuals. It becomes necessary therefore that a solution be found along lines "which will concentrate the responsibility of decisions in the hand of specialists and not dissipate responsibility over the whole vast heterogeneous group of people who have a little money to invest."[91] As remarked earlier, this economic justification of the State is often confused with the ideological prejudice in favour of state control of the economy.

Few people would gainsay the need for the State to provide social overhead capital when private enterprise fails to do so. We contend that the limitation of governments in developing economies to the provision of such capital will be more conducive to spontaneous private initiative and stable capital growth than possible otherwise.

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90. For Hirschman's criticism of this view see op.cit., pp.54-6

91. A. G. B. Fisher, The Clash of Progress and Security, (Macmillan, London, 1935), p.147.

Advocates of state entrepreneurship place too much faith in the ability of the state to run the economy without malaise; they contend that only the State would be more able to reduce the aggregate amount of uncertainty that has to be carried. There is no basis for this view except as a matter of assertion and of faith, for, the State or government is composed of a group of individuals like everybody else and are therefore not immune from human errors of calculation and judgment. As Harrod asserts, the State could only "reduce those uncertainties due to changes in technology or taste at the price of being less progressive, and repressing the standard of living." Furthermore, the hoped-for reduction in uncertainty would not be achieved if, as may well be the case, adaptation is less rapid in a socialist system;

> the amount of uncertainty in the economy as a whole would be increased, since there would be a less close-fitting together of the various productive activities and more deviations of realized values from those hoped for when each activity was set going. 92

The need for adjustment is part and parcel of the process of economic development. It is attendant on changes not only in techniques of production but also on the emergence of new patterns of social relationships, changes which are essentially qualitative. The problem with state control is that it does not possess any built-in automatic inducement towards progress and it invariably tends to place a premium on security rather than on change. Lack of competition leads to complacency, and formal conformism replaces creative idiosyncracies. The individual becomes pegged into a fixed organizational set-up which develops a vested interest in routine, rather than in innovation. It is possible for such a system to achieve some measure of spectacular success

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92. R. F. Harrod, Economic Essays, (Macmillan, London, 1952) p. 190.

but it only lasts as long as the strength, will and disposition of the planners. The advantage of private initiative is that it permits continuity of spontaneous growth independent of the will of any particular ruler. Its chances of success and failure are evenly spread out through the economy so that its achievements, though less attractive at a point of time, have permanence and endurance in the long run.

Nevertheless, our view of the process of investment posits a considerable emphasis on the positive role of the state as an inducement mechanism to stimulate the latent forces of growth. The need for this role is most acutely felt in the domain of mobilizing resources for investment. Our analysis so far suggests three fields in which mobilization is most desired; to solve the problem of lack of saving, to extend the market mechanism as an inducement to increase the flow of entrepreneurship, and in the case of investment in social overhead capital, to apply such criteria as would be compatible with the fundamental conditions of the economy as well as with profitability of directly productive enterprises.

The degree of state participation in these fields depends on the intensity of the initial problems to be solved. For at a particular stage of the economy, the problems of capital demand and supply may assume greater or less importance than the problem of entrepreneurship, or of labour supply, and this requires that the State change its priorities accordingly.

It is the responsibility of the State to establish and review priorities as necessitated by the fundamental conditions of supply and demand in order to achieve maximum growth compatible with a reasonable measure of internal and external balance. This responsibility

requires that alternative means of achieving a given objective be banked in order of their effectiveness up to the point where the pressing of that objective is minimal and at which another objective becomes more pressing. In this way a scheme of priorities is established among objectives. The effectiveness of the State in undertaking overall decision-making depends on the society's structure of political organization, the degree of social cohesion and the government's own determination, ability, and willingness to enforce its decision by the due processes of law.

4.5. Conclusion

We must now draw together the main conclusions of our discussion in this and the preceeding chapters as they relate to a developing economy. The development of an economy is a function of three main forces: (i) saving and investment, the one, based on thift, and the other, on enterprise, and both, in a free economy, related by the prospect of profit; (ii) technical knowledge and the ability to apply this knowledge to the organization of production in order to achieve an efficient use of resources; and (iii) the socio-political milieu in which non-economic uncertainty is reduced to tolerable limits so that investment effort can be undertaken with a high degree of calculability of risk and reward. While it is difficult to lay down specific principles *a priori* about the combination of these factors required for effective development, an examination of their combinations at a particular stage of development is the appropriate means of discovering the real problems of investment in the development process of a given economy.

The ultimate objective of economic development is to increase welfare per head of the population over a period of time, and

the economic index of increased welfare is the rise in per capita consumption. The increase in consumption must be based on a rise in production. A rise in production is possible only with the creation and expansion of productive capacity, that is, investment, in the long run, in productive assets. Investment which competes with consumption for the disposition of available output can be undertaken only through the process of saving. Since saving and investment are processes undertaken by different groups of decision-makers, there arises the problem of striking a balance between both. On the supply side, saving constitutes an obstacle to development if the rate of saving is less than the rate of investment.

In a developing economy where the level of income is generally low, the proportion of income saved tends to be small, and consequently the level of saving is low. If the rate of investment required in consonance with per capita output increment, as is usually the case in practice, is greater than the prevailing rate of saving, the economy faces the problem of capital shortage. Nevertheless, there may be sources of potential saving in the form of (i) under-employment of rural labour, (ii) the conspicuously high consumption of the elite group in the society, and (iii) the operation of the international demonstration effect on increasing the supply of effort, the incentive to save, and the inducement to invest. These potential sources of saving, and investment, can however be illusory, and if real, sometimes costly. Assuming that supply of saving is sufficient, we cannot take for granted that demand always exists to utilize it productively, for the inducement to invest is correlated, along other factors, with (i) the ability to undertake entrepreneurial function, and (ii) the prospect of profit. In a

developing economy, the entrepreneurial function tends to be in short supply with regard to opportunities for directly productive activities and generally inhibited by social backwardness; the prospect of profit is usually distorted by imperfect market structures and uneconomic factor combinations.

The developing economy may find some solution to its problem of lack of saving and enterprise by opening up trade with other nations on the basis of the principle of comparative advantage. Foreign demand for its primary produce may enable it to import goods and services required for development purposes. In addition the inflow of foreign capital and technical knowledge may help revolutionize its methods of production and economic organization. But these advantages are likely to be accompanied, and indeed may be outweighed, by certain unsavoury consequences. The instability of foreign demand for its products and of conditions of supply subject the foreign earnings of the economy's exports to wide periodic fluctuations. The effect of these fluctuations is to render extremely difficult the orderly execution of investment programmes financed by export earnings. The economic horizon of the economy dependent on export earnings tends to become characterized by instability and extreme uncertainty.

The resources of an active government are necessary to reduce these elements of instability and uncertainty. In the absence of conditions which ensure the productive operation of the motive of private profit, that is in the production of concrete goods and services, the state has a responsibility to step in as the central decision-maker, and to formulate criteria for investment by means of which the objective of increased output per head of the population will be achieved over

time. The State as a lever of conscious investment effort can best achieve this objective by (i) limiting itself to the creation of social overhead capital which will induce private investment in directly productive activities and (ii) expanding the scope and effectiveness of the market mechanism, and (iii) adopting such general public policy as will give purposeful direction to the latent forces of growth in the economy.

In the next four Chapters which deal with the empirical study of economic development in Ghana between 1951 and 1962, we examine the three forces of saving and investment, the introduction of new methods of production and economic organization consequent on foreign trade, as well as the role of government policy, in the process of capital accumulation.

CHAPTER FIVE

TRADE AND INVESTMENT IN A DEPENDENT ECONOMY: 1919-1950

5.1 Introduction

From the beginning of the twentieth century, the development of trade and investment has been the main force binding together the four divisions of Ghana formerly known as the Gold Coast. Although the coastal section of the country had been declared a British Crown Colony in 1874 and thus administered until 1957, the protracted wars with the Ashanti continued for over a quarter of a century until decisive British victory and conquest in 1901. In the same year, the northern section of the country came under British protection, and it was not until 1924 that the fourth section, the trust territory of British Togoland, became, for all practical purposes, a part of the Gold Coast. In terms of political relationship with Great Britain, therefore, the Gold Coast, until 1951, has been an amalgam of colony, conquered territory, a protectorate, and a trust territory. But in practice and specifically, with regard to economic matters, colonial policy was in the direction of fostering the growth of an integral economy.[1]

At the beginning of the century, there were marked differences in the pace of economic activity among the various sections: the northern territories, including a substantial part of northern Togoland were predominantly a subsistence economy, while Ashanti, maintaining its homogeneity under a restored Confederacy, directed its energies toward cocoa cultivation for export in which it was later to surpass the coastal section where the earlier development of the industry combined with longer and closer mercantile association with Europeans had already resulted

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1. David Kimble, A Political History of Ghana, 1850-1928, (Oxford University Press, London, 1963), p.60.

in the establishment of a relatively complex exchange economy with a growing moneyed middle class.

The striking feature of the evolution of the economy of Ghana has been the predominant role of external trade, especially with Europe, as the main vehicle of economic progress. The purpose of this chapter is to provide a historical foundation of our study in the chapters that will follow, and its main subject matter is the development and course of external trade, and the commercial relations as well as the pattern of capital investment associated with it. In its trade relations with modern Europe, the economic history of Ghana may be considered as falling conveniently into three bread periods, each distinguished from the other largely by the nature of the goods traded. The first period was the era of the lucrative slave trade, having its origins in the sixteenth century and lasting to the middle of the nineteenth; the second phase began before the middle of the nineteenth century when humanitarian movements in combination with the interests of nascent industrial capitalism, especially in England, were successful not only in causing the abolition of the trade in human beings which was legally effected in 1824 by the British Parliament but also in promoting the establishment of legitimate commerce in which goods such as rum, tobacco, firearms, beads, and cotton textiles from England were exchanged for palm oil, gold dust, timber, and rubber; this "traders' era" was succeeded by the era of the search for tropical produce and for markets for the products of a highly developed industrial England, an era which was marked by the rise of the concept of Empire, and of the establishment of the Pax Britannica. During this period the second half of the 19th, Ghana was being considered to be of economic

value, since

> (1) it could produce tropical commodities in demand in the English market; (2) it possessed considerable mineral deposits of gold; and (3) it could provide an expanding market for British manufactured goods, especially cotton textiles. 2

It is with this third era that we are concerned in this chapter, and a brief statement of British colonial policy during this period may be appropriate at this juncture.

The general principles of British colonial policy as it evolved may be stated as follows: politically, the colonial subjects were to be guided through a gradual process of tutelage to self-rule, and the best instrument of this guidance is the system of indirect rule by means of which political progress would be made compatible with the stability of traditional processes of government. The economic corollary of this principle was that, at least in West Africa, land which provides the main source of livelihood for the population should remain in native hands as it has been, that is, collectively owned by the people but under the control and disposition of their traditional rulers. Being largely agricultural economies, the colonies of tropical West Africa were regarded as natural complements of the economy of industrial England, and the concept of the identity of economic interests of England and her colonies was forged as the cardinal principle of colonial economic policy. "The primary criterion must continue to be the interest of the colonies themselves but in practice the interests of the United Kingdom and the colonies are complementary." 3 This concept of complementarity of interests was not without foundation in fact, for given the industrial leadership of England, the European demand for tropical

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2. F.M. Bourret, Ghana, The Road to Independence, 1919-1957,(Oxford University Press, Lond, 1960), p. 115.

3. The Colonial Territories, 1948-49, Cmd. 7715, (H.M. Stationery Office, London, 1949), p. 42.

products, and the technical and industrial backwardness of the colonies themselves, the most profitable alternative open to the colonies was the production of those commodities for which they were most favourably endowed by nature and for which there was a constantly rising demand in Europe. Thus by laying emphasis on the production of agricultural commodities for export, colonial economic policy, without explicit statement of awareness, was largely following the operation of the classical doctrine of comparative advantage and the specialization of economic production activities.

This orientation of colonial economies to international trade received another impetus from the principle of colonial self-sufficiency in financial resources necessary to maintain the peace, order, and good government of each colony. In the words of Earl Grey, the proponent of this principle, "the surest test of the soundness of measures for the improvement of an uncivilized people is that they should be self-sufficing."[4] and the need for financial self-sufficeney led to the encouragement of international trade from which colonial administrations derived a major part of their revenue both for ordinary administration and also for long-term capital outlays of a developmental nature. International trade became a convenient handmaid of the colonial system, but, in the course of time, it also succeeded in undermining the very foundations of that system. The nature of its role in transforming primitive Gold Coast into the world conscious society of modern Ghana is our immediate subject for consideration.

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4. The Colonial Policy of Lord John Russell's Administration,(London, 1853), Vol. 2, p. 281 quoted in Allan McPhee, The Economic Revolution in West Africa, (George Routledge and Sons, London, 1926), p. 208.

In considering the role of trade in the economy of Ghana since the beginning of the twentieth century, we are struck by three related developments of utmost significance for our study of capital formation after this period. First, the decline of the palm oil industry and the rise of cocoa cultivation; secondly, the controversy over plantation and peasant systems of cultivation; thirdly, the nature of the economic relationship among the three groups of participants in the economic activity of the country, that is, the mass of African producers and traders, the expatriate mercantile firms, and the local colonial administration.

5.2 Development of Primary Production for Export

When Sir Gordon Guggisberg assumed governorship of Ghana in October, 1919, the economic prospects of the country appeared brighter than ever before. Table 1 shows the course of visible foreign trade between 1910 and 1921. The value of domestic produce exported reached a record figure of £10,706,000 of which £8,279,000 or 77.3 per cent of total export value, was contributed by cocoa, and in the following year these figures rose respectively to £12,225,000 for total export produce, £10,056,000 or 82.3 per cent being cocoa exports. The value figures for the year 1910 were £2,608,000 for total exports, £867,000 or 33.2 per cent contributed by cocoa, and in 1900 the values were £852,000, £27,000 or 3.2 per cent respectively. In 1919, the second most important export commodity was gold which was valued at £1,425,000 or 13.3 per cent of total export value, showing a slight rise in the absolute value of £1,152,000, but a rather sharp drop from 29.5 percentage share of total exports of the year. It should be noted that rubber exports which in 1900 were valued at £328,000 and constituted 38 per cent of total export value, fluctuated in value to £359,000 in 1910 but made up

TABLE 1.

VISIBLE TRADE STATISTICS OF GHANA, 1910-1921
(With Major Components of Exports)

Year	Merchandise Imports	Exports Domestic Produce	Cocoa Export		Gold Export		Rubber Export		All Mineral Exports	
	Value £000	Value £000	Value £000	%	Value £000	%	Value £000	%	Value £000	%
1910	2,783	2,608	867	33.2	790	30.3	359	13.8	790	30.3
1911	2,903	3,463	1,613	46.6	1,070	30.9	219	6.3	1,070	30.9
1912	3,452	3,996	1,643	41.1	1,470	36.8	169	4.2	1,470	36.8
1913	3,510	5,014	2,489	49.6	1,656	33.0	88	1.8	1,656	33.0
1914	3,584	4,460	2,194	49.2	1,687	37.8	22	0.5	1,687	37.8
1915	3,472	5,800	3,651	62.9	1,782	30.7	25	0.4	1,782	30.7
1916	5,007	5,561	3,848	69.2	1,242	22.3	79	1.4	1,248	22.3
1917	3,220	5,505	3,147	57.2	1,741	31.6	110	2.0	1,789	32.5
1918	2,920	3,970	1,797	45.3	1,384	34.9	57	1.4	1,440	36.3
1919	7,111	10,706	8,279	77.3	1,425	13.3	35	0.3	1,497	14.0
1920	14,141	12,225	10,056	82.3	901	7.4	27	0.2	970	7.9
1921	6,817	6,387	4,764	74.7	863	13.8	7	0.1	877	13.3

Source: S. H. Frankel, Capital Investment in Africa, p.220, Table 78

only 13.8 per cent of total experts; and from 1911 rubber became an insignificant export item. In 1921 its export value was only £7,000 forming one-tenth of one per cent of total value of exports. [5] It should be further noted that from 1900 the export of palm oil and kernel which was the mainstay of the economy during the last quarter of the nineteenth century had fallen to an insignificant proportion of total domestic exports, and declined also in absolute value.

The import trade was largely in cotton textiles, foodstuffs, tobacco and drinks. In 1919 the value of imports rose to £7,111,000, almost thrice the value of the previous year, reaching a post-war peak of £14,141,000 in the following year. The total value of trade in 1919 and 1920 brought a trade boom of unprecedented magnitude to the country.

But it was also a boom of very brief duration. Because of its high external orientation, the economy suffered adversely from the impact of the world economic depression which began from 1920 ending late 1922. In 1921, the value of imports fell by more than half of the value in the previous year, and exports of domestic produce dropped in value by slightly less than half of the value in the preceding year. The fall in the value of exports was mainly the direct result of the sharp drop in the value contribution of cocoa in the magnitude of sixty per cent from the previous year. Although total tonnage of cocoa exported fell only slightly from 176,176 tons in 1920 to 133,195 tons in 1921, there was a sharp decline in the price per ton from £80.59 to 35.77 in the respective years, indicating a decline in world demand for cocoa. It is worth noting that the drop in the percentage contribution of cocoa from

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5. These figures are taken from S. Herbert Frankel, Capital Investment in Africa, (Oxford University Press, London, 1938), p. 320, Table 78.

82.3 per cent in 1920 to 74.6 per cent in the following year was almost taken up by mineral exports, especially gold whose percentage almost doubled from 7.4 per cent to 13.5 per cent while its value contribution actually fell from £901,000 to £863,000 in the respective years. Thus by 1919, the economy of Ghana was well established as a monoculture of cocoa depending on an external market which was (and still is) characterised by high instability of demand.

This rise of cocoa to a dominant position in the economy of Ghana, and the rise of Ghana as the world's largest producer, occurred in less than three decades. Cocoa was first introduced into the country in 1879 from the Portugese plantations of Fernando Po, an island off the coast of Nigeria, by Tetteh Quarshie, a Ghanaian labourer. Its cultivation by Africans was encouraged by Scottish missionaries and the colonial government, and in 1891 the first export in the amount of five tons was recorded. Table 2 shows the phenomenal rise in quantity exported in three decades, between 1891 and 1921.

Before and during this period the staple export commodities of the country were palm oil, palm kernel, and rubber. The demand for palm oil was provided by "a number of reactions from the Industrial Revolution". [6] The trade in it replaced the illegitimate but lucrative trade in slaves, and although it experienced a rapid growth from 55 tons worth £2,224 in 1785 to 40,000 tons worth nearly two million pounds in the middle of the nineteenth century, [7] it merely sufficed to bridge the gulf between

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6. McPhee, op. cit., p. 30. The main factors were increased population and the rise in per capita income accompanying the Industrial Revolution. In addition, there were new vogues of cleanliness and nocturnal illumination which added new source of demand to the traditional one based on culinary and edible purposes.

7. McPhee, op. cit., p. 32.

TABLE 2

VOLUME OF COCOA EXPORTS, 1891 1934

(five-year averages)

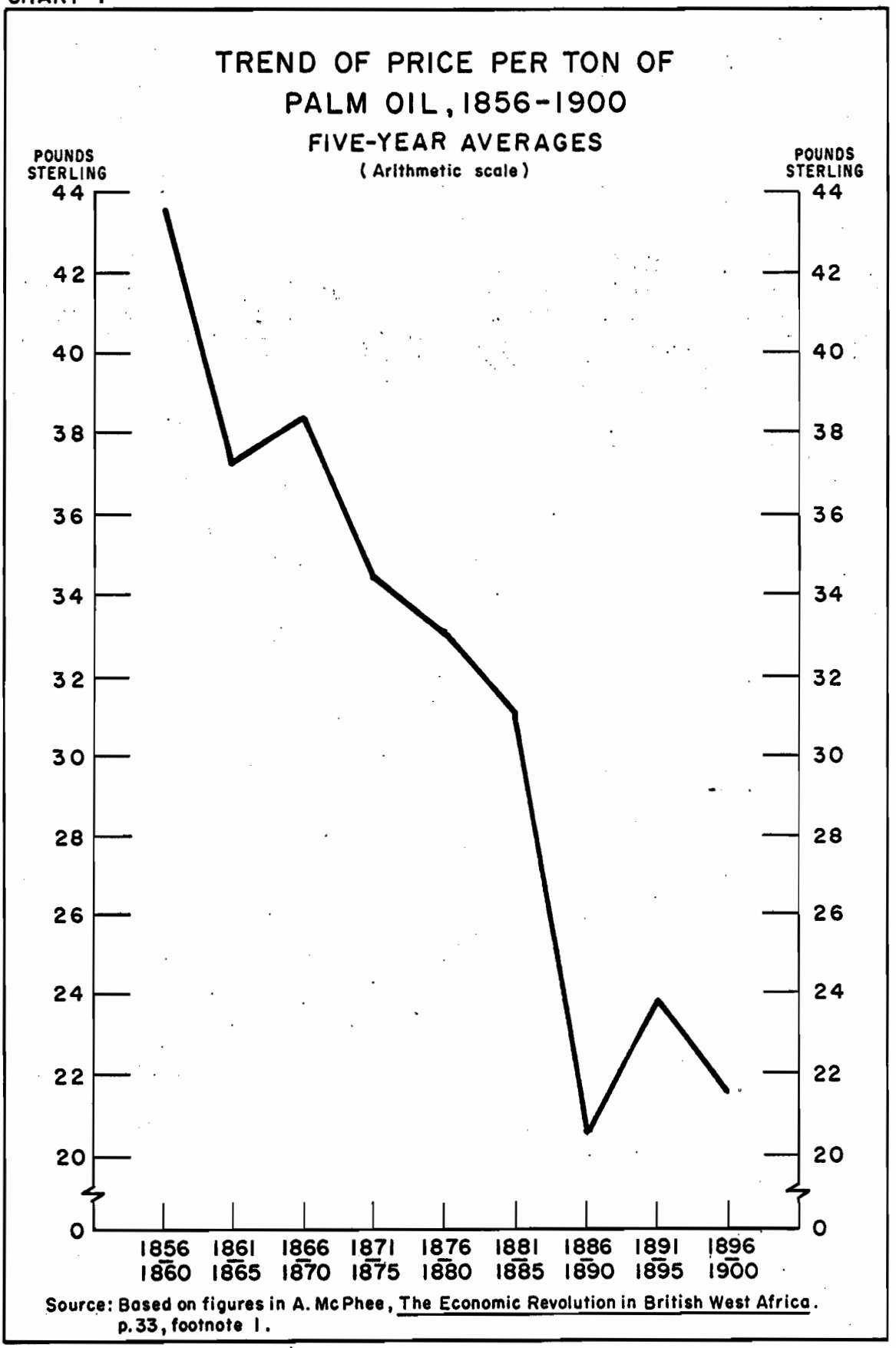
Period	Tons
1891-95	5
1896 1900	230
1901 1905	3,172
1906-1910	14,784
1911 1915	51,819
1916-1920	106,072
1921 1925	186,329
1926 1930	218,895
1931 1934	236,088*

* Four-year average.

Source: Gold Coast Handbook, 1937

(London, 1937) p.38

CHART-I



Source: Based on figures in A. Mc Phee, The Economic Revolution in British West Africa. p. 33, footnote 1.

the slave trade era and the period of modern commerce. For, by the middle of the nineteenth century, the discovery of petroleum in the United States, the entry of India into the oils and fats market as a producer, and the growth in the tallow trade of Australia and Russia posed a serious competitive challenge to the African palm oil, which the latter hardly survived. Following the decline in demand for African palm oil, prices fell almost steadily from the middle of the nineteenth century to the end of the century as shown in Chart 1. However, the market for palm oil remained steady until the last decade of the century owing largely to the continuous growth of the tin-plate industry in which palm oil was unsurpassed as a tinning flux. Meanwhile the palm tree had another lease of economic life in the discovery of the use of palm kernel oil in manufacture, and even in agriculture as cattle cake or cattle meal. So extensive did its application become within a short time that by the closing decade of the century the value of palm kernel exports had exceeded that of palm oil.

Indeed, the War of 1914-18 accentuated the demand for palm kernel oil. Before the war, the bulk of palm kernel exports went to Germany which alone had developed a kernel crushing industry. The event of the war emphasized the need for the establishment of this industry in England and led to an increased Imperial interest in the palm industry, and the immediate result of this interest was that the exports of both palm oil and palm kernel were steadily maintained during the war. But in the long run, the urgency of this interest had adverse effects on the growth of the palm industry in Ghana. For the failure of Ghanaian exports to meet immediate urgent demand led to the development of plantation grown and factory made palm oil and palm kernel in Java, Sumatra, and Malaya, where

a combination of scientific cultivation with cheap native labour succeeded within less than a decade in attaining a higher export volume than in the whole of West Africa. In 1923 Sumatra exported 3,000 tons of palm oil, and together with Malaya in 1930 exported 50,000 tons, an amount which increased almost fivefold in eight years to 145,000 in 1938,[8] while Ghanaian exports declined from 15,138 tons in 1900 to 241 tons in 1921[9] as shown in Table 3 compared with exports of cocoa during the corresponding years. Although exports of palm produce rose again to eleven thousand tons in 1936,[10] the economy had come to depend on cocoa production as its main export activity. Thus while foreign competition in the production of palm oil was an important factor in the decline of the palm industry, it was the competition of the more remunerative cocoa industry which hastened its demise as a staple export. For the areas covered by the latter were practically the same where cocoa production developed so that the expansion of cocoa effected some readjastment between both cultures in such a way that the "trade in cocoa had virtually extinguished the trade in the more primitive palm oil".[11]

Another product which spanned the transition between the decline of palm oil exports and the rise of cocoa exports was wild rubber. By 1890 this product had attained considerable importance as an export commodity. The quantity exported rose from 70 pounds in 1882 to over 31 million by 1890 making Ghana the third largest producer in the world. In 1899 rubber exports were valued at £556,000, and although the building of railways during this period opened up new areas of exploitation, production

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8. A. W. Pim, Colonial Agricultural Production, (Clarendon Press, Oxford, 1946), pp. 136-7.

9. McPhee, op. cit., p. 41.

10. Report of the Commission on the Marketing of West African Cocoa, Cmd. 5845, (H.M.S.O., London, 1938), p. 17. Hereafter this report is referred to as the Nowell Report after the Chairman of the Commission, Justice W. Nowell.

11. McPhee, op. cit., p. 41.

Table 3

Exports of Palm Produce and Cocoa for Selected Years

Years	Palm Oil	Cocoa
	Tons	Tons
1900	15,138	536
1906	7,654	8, 975
1912	5,159	38, 647
1914	1,771	52,888
1921	241	133,195

Source: A.McPhee, The Economic Revolution in British West Africa, p. 41, footnote 2.

fell sharply. The demand for labour generated by railway construction and by mining during this period as well as by the development of the cocoa industry diverted labour from rubber collection. Furthermore, plantation rubber from the Far East, like palm products, began to enter the world market with a competitive advantage over wild rubber from West Africa. Thus rubber exports which were valued at £328,000 in 1900, and constituting 38.5 per cent of total domestic export value, fell to £27,000 in 1920 and formed an insignificant 0.3 per cent of total domestic export value.[12]

With the exception of minerals, and, later, of sawn timber, the domestic production of export commodities are in the hands of Ghanaians. Strictly speaking, in the cases of palm oil, palm kernel, and wild rubber, there was hardly any cultivation of the trees, and especially as regards the first, "the industry remains very much where it was a century and more ago - merely a collection and preparing of sylvian produce."[13] There was however a large oil palm concession at Sessi on the Krobo hills covering an area of thirty-seven square miles, but until after the first world war there had been little scientific selection of palms, and the extraction of the oil and cracking of the kernel were done normally in the household. Even after the war when mechanical extractionwas introduced on the plantation, there was constant difficulty of getting labour to cut and carry the palm fruits. The cutting of the palm fruit involved climbing trees a task which requires a great exertion of labour; their collection and transportation to the factory was an arduous task, especially since the latter had to be done on the head, and the remuneration did not compare

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12. Frankel, op. cit., p. 320.

13. McPhee, op. cit., p. 35.

favourably with alternative forms of economic activity such as cocoa production or "employment on road, railway, and harbour works." [14] Indeed, the opening up of alternative sources of earning a livelihood enabled the African to avoid what a noted economic historian describes as "the dull and laborious necessity of climbing very many very tall trees."[15] The transition from palm to cocoa cannot however be explained simply in terms of the African desire to avoid the physical exertion of climbing trees, or in terms of the invalid generalisation by one writer that Africans had to a large extent "lost the climbing aptitude."[16] Nor can it be attributed to the superficial observation that "cocoa is notoriously one of the least exacting forms of permanent cultivation known to mankind."[17] The real explanation of course, lies in the attraction of the relatively higher earnings offered by the cocoa industry.

Thus international and domestic economic developments made certain the eclipse of the palm industry. Undoubtedly, in combination with the rubber industry, it succeeded in providing a convenient transition from the slave trade to legitimate trade but it did not provide the dynamism which

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14. F.Gordon Guggisberg, The Gold Coast: A Review of the Events of 1920-1926 and the Prospects of 1927-1928,(Government Printer,Accra,1927), p.53. This solves the "mystery" posed by the author himself: "It has always been a mystery to me why the factory should suffer from a scarcity of fruit, considering that a man can earn between £6 and £9 a month by bringing bunches to the plantation tramways where it is (sic)collected by the company." Ibid.

15. W. K.Hancock,Survey of British Commonwealth Affairs, (Oxford University Press,London,1943), Vol.2,Problems of Economic Policy,1918-1939.p.161.

16. Pim, op. cit., p.135. As Professor Keirstead points out to me, on a wider level of generality the loss of skills is not permanent and can be easily repaired if economic conditions make such repair worthwhile.

17. Hugh Clifford, Governor of the Gold Coasts, quoted in F.D.Lugard, The Dual Mandate in British Tropical Africa, (W.Blackwood & Sons, London, 1929) 4th.ed.,p. 399. For a recent authorative evidence of the exacting nature of cocoa production, see P.Hill,Migrant Cocoa Farmers of Southern Ghana. A Study in Rural Capitalism, (Cambridge University Press, London, 1963).

was to transform the economy from its static state of subsistence to the buoyant state of an exchange economy. Being grafted unto the old economy, it grew as it did without effecting any revolution in the society of the country; the mass of the people remained "as ignorant and as down-trodden at the close of last century as they had been in the days of the Slave Trade."[18]

5.3 Plantation Production Versus Peasant Production.

The demise of the palm industry was regarded as the result of a contest between techniques of production; "the technique of scientific cultivation and processing on the one hand, the technique of casual and primitive forest exploitation on the other hand,"[19] and that behind this contest in techniques lay a fundamental conflict between the demands of progress and of security, that is, a conflict between the requirements of scientific cultivation and the native policy of the colonial government as regards the use of land. In other words, the scientific organisation of the palm industry which at the time could only be undertaken with foreign capital entailed a substantial acquisition of native land by foreigners, a requirement which conflicted sharply with colonial policy which aimed "primarily, mainly, and eventually at the development of the agricultural resources of these countries through the agencies of their indigenous inhabitants."[20]

Indeed, colonial land policy is intricately woven with the problem of economic development and lay at the root of the controversy over peasant or plantation cultivation in West Africa which was intensely argued immediately after the First World War. In the absence of any

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18. McPhee, op. cit., p. 40.

19. Hancock, op. cit., 197.

20. Hancock, op. cit., p. 193.

pressure for European settlement the question of the establishment of European plantations in West Africa was regarded primarily from the economic point of view.[21] The whole controversy centred around the problem of maintaining steady and adequate supply of agricultural produce for export.

The proponents of the plantation system were invariably foreign investors whose main consideration was the development of an assured source of regular supply of their desired product which must be reliably graded at a common standard. The case against exclusive reliance on the peasant system was the uncertainty of supplies forthcoming from a large number of separate small production units, the continually deteriorating quality of the product,[22] and the lack of proper grading. The essence of the argument is that there is a considerable scope for raising the quality and quantity of both palm oil and palm kernel, and that the technical backwardness of native production can be overcome by capital investment in plantations in order to ensure ordered production. But since "the maintenance of a good and constant quantity of palm oil demands methods and a scale of production beyond the present reach of native enterprise, capacity, and capital,"[23] in practice, therefore, the question turned on conditions of occupation and the use of land.

This raises a substantive issue as to whether the introduction of improved techniques of production, which it was claimed, would be consequent on foreign control and utilization of land, would raise the material standard of living of Africans to an extent that would offset the social costs of being dispossessed of their land. In the first place,

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21. Pim, op. cit., p. 134.

22. I. C. Greaves, Modern Production Among Backward Peoples. (G. Allen and Unwin, London, 1935) p. 80, especially footnote 1.

23. Pim. op. cit., p. 260.

while foreign control and utilization of land would bring about a concrete improvement in the organization of production, it is doubtful whether this could have been accompanied by any substantial dose of technical progress. Plantation economies tend to be generally characterized by technological dualism, "a combination of highly mechanized processing operations with intensive agricultural operations."[24] As the mechanized aspect of the palm oil industry was undertaken in Europe, and owing to the technical conditions of palm cultivation and the collection of the nuts, which limit the scope of technical progress in the form of labour-saving devices, a large scale development of the plantation system was likely to involve a great demand for labour rather than for capital, a demand which in the prevailing conditions of relative labour shortage could be met only by organized immigration, or compulsory labour. Both courses of action were prone to arouse African hostility.

In the second place, it is not certain that the distribution of gains would follow a pattern which could be regarded as being favourable to the long-run economic interests of the African, namely, steadily rising real wages, and increasing opportunities for training and acquisition of skills. The monopolistic organization of enterprise which would likely follow the establishment of the plantation system, the limited scope for capital investment in the plantations, the expectation of monopoly profits, and the desire to repatriate them were potent factors which would militate against the possibility of a steady appreciable rise in the African's standard of living.

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24. Higgins, op. cit., p. 260.

In the third place, the establishment of the plantation system, depriving the African of the private use of land, would bring about the creation of a class of workers depending solely on wages for their livelihood at a subsistence level. In a country whose people are noted for political consciousness, this state of affairs could not be tolerated for long, and the colonial authorities have not been oblivious to its social and political implications.

Nevertheless, in spite of these compelling reasons against the establishment of palm oil plantations, there have been persistent requests by foreign industrialists to obtain direct control of the palm industry. The most notable effort made by foreign investors to establish palm plantations in West Africa was by the Lever Brothers during the first two decades of this century. Having established the soap industry in Europe, they wanted to establish a vertical combine and undertake direct production of palm oil on plantations with natives employed as wage earners. But because of its declared policy not to violate native customs especially with respect to land, the colonial Office received their overtures with frigid suspicion and only gave them permission to buy the palm fruits from the natives. The refusal of the Colonial Office to grant rights of freehold of land was based not only on its declared policy of preserving traditional African ownership of land but also on ethical grounds as well. The foreigner's demand for land included the request that the colonial office sanction compulsory African labour for work on plantations, and compulsion of African private producers to sell their palm produce at a particular price, to a particular individual or concession. The Colonial Office did not hesitate to declare its unequivocal opposition to the

introduction of the element of direct and physical compulsion in its relations with the territories under its control.[25]

The case for maintaining the peasant system of production was forcefully presented by Governor Sir Hugh Clifford in his address to the Legislative Council of Nigeria in 1920:

> Agricultural interests in tropical countries which are mainly or exclusively in the hands of the native peasantry have, first, a firmer root than when owned and managed by Europeans because they are natural growths and not artificial creations, and they are self-supporting as regards labour while European plantations can only be maintained by some system of organized migration or by some form of compulsory labour; secondly, they have incomparably the cheapest instrument for the production of agricultural produce on a large scale than has yet been devised; and thirdly, they are capable of rapidity of expansion and a progressive increase of output that beggar every record of the past, and are altogether unparalleled in the long history of European agricultural enterprise in the tropics. 26

He maintained that the object of colonial policy must be to ensure the provision of scientific assistance in order to improve methods of cultivation

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25. W.G.A.Ormsby-Gore, Report ... on his Visit to West Africa during the Year 1926, Cmd.2744, (H.M.Stationery Office, London, 1926), p.108. In Sierra Leone however the Colonial Office granted Lever Brothers a twenty-one year lease for plantation development, but the offer drew the following comment from Lever: "If the government had offered us a twenty-one days' lease we might have been wise in buying a wheelbarrow or two, but that would be about the extent of the capital we would wisely expend on a twenty-one days' lease. On a twenty-one years' lease we could go further but, after all, it would be comparatively a very small amount of money that we would be justified in expending holding a twenty-one years' lease. I sometimes wish that all native chiefs in the British Colonies, in Africa at any rate, were made dukes. In my opinion we would then take the sensible view that this land was theirs for development and the advancement of civilization, and just as we will not tolerate a duke keeping his land for his own pleasure, or to lock it up, and have passed laws that make this impossible in the United Kingdom, so I can never understand why a black man should be allowed to assume a different attitude and neither develop his own land nor allow other people to do so." Charles Wilson, The History of Unilever: A Study in Economic Growth and Social Change, 2 vols. (Cassell and Sons, London, 1954), Vol.1, pp.166-167.

26. See Greaves, op.cit., p. 209.

and yield per acre. The Colonial Office accepted this argument, and in Ghana, permitted a foreign company to establish a factory at Sesi which provided mechanized extraction of the oil and crushing of the kernel; and in order to provide scientific knowledge of production, the colonial government itself established in 1924 an experimental plantation at Anoji near Takoradi. Nevertheless, it was too late to save the industry, for African collectors, for reasons already discussed, have become disinterested in the economic returns of the palm oil industry. Commenting on the effect of colonial land policy on the palm industry, Hancock made the poignant assertion, "they created a desert and called it a trusteeship."[27]

But this aphorism expresses a misleading half-truth. While we cannot deny the role of colonial land policy in the demise of the West African palm industry, we entertain serious doubts on regarding it as the sole explanation for the decline of the industry. It is true that compared with other enterprises, like mining especially, to which the colonial government adopted a policy of non-intervention in land concessions, the palm industry was accorded a persistent shelter from foreign intrusion by the land policy of the colonial government. But a more fundamental factor in the fall of the palm industry surely was the greater profitability of the cocoa industry and of employment in capital development works which gained momentum during the Guggisberg period; for it is doubtful that given the conditions of a free labour market, the profitability of the palm industry could have been maintained even for foreign investors in the face of the stiff competition by alternative lines of economic activity. Thus

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27. Hancock, op. cit., p. 198.

although colonial government policy of putting land "out of reach of the laws of supply and demand"[28] with respect to the palm industry, certainly deterred foreign investment not only in that industry but possibly in others yet it is clear that the shift towards more lucrative enterprises was the underlying factor in hastening the eclipse of palm as the stable export of Ghana. In other words, foreign investors sought a trusteeship of a wasteland which the African had abandoned for his newly-found oasis of cocoa; and the colonial trusteeship of land was actually a marginal influence. In a fundamental sense, even if it were self-evident or proven that foreign control and rational use of African land would confer certain economic benefits upon Africans which would be otherwise unattainable, it must not be supposed, however, that these benefits would make Africans readily give up their political demand, which is indeed inevitable, for ownefship and control of land of which they have been dispossessed.

5.4 The Structure of External Trade: Composition, Production and Organization

5.4 (i) Composition

After the first world war, the composition and pattern of the country's export trade was clearly established and has hardly changed ever since. The main export products are cocoa, minerals - gold, diamond, manganese, and later bauxite - and timber both logs and sawn. In 1929 cocoa

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28. F. J. Pedler, "Foreign Investment in West Africa," International Affairs, Vol. 31, No. 4, (October, 1935), p. 460. Indeed, the staunch stand by the Colonial Office with respect to land and the palm industry may have prompted the following conclusion from which the quotation was taken: "From the moment when they put the land out of reach of the law of supply and demand, the governments of the four countries embarked upon a course which led towards state enterprise." While there is substantial force in this conclusion, it however fails to account for the conspicuous development of the mining industries of the various West African countries by foreign private capital, and also in Ghana of the individualization of land holdings by Africans which accompanied the development of the cocoa industry.

formed 78 per cent of the value of total domestic exports while the mineral group accounted for 17.8 per cent of which gold exports, which alone formed over 30 per cent of total export value before the war, contributed only seven per cent owing largely to an absolute decline in the value of gold exports during the nineteen thirties. As a result of the appreciation in the value of gold in 1931, however, the industry revived and in 1936 it alone contributed 24.9 percentage points of a total mineral contribution of 34.7 per cent of domestic export value. Compared with previous years, that year recorded the highest value of mineral exports in the amount of £4,248,000 of which £3,048,000 came from gold. In that year, cocoa exports, gradually recovering from the effects of the depression, were valued at £7,660,000 being 62.6 per cent of total export value. Between 1949 and 1951 the total value of exports averaged £71,073,000 of which 69.8 per cent came from ocoa, 23.3 per cent from minerals valued at £16,615,000 nearly half of which was derived from gold. The value of timber during these years averaged £3,676,000 being 5.2 per cent of total exports.[29] The remaining value contribution came from palm kernel and oil, copra, and rubber, each forming less than one per cent of export value. Table 4 summarizes the principal exports from Ghana between 1949 and 1951 and their relative share in total exports.

In 1937 Ghana became the third largest world producer of diamonds and manganese, and its bauxite deposits which were estimated at some 229 million tons became an export commodity in the early 'forties. The mineral industry was largely the creation of expatriate capital and remained "extraneous to the traditional life of the African."[30]

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29. Peter T. Bauer, West African Trade, (Cambridge University Press, London, 1954), p. 198.

30. The Nowell Report, p. 17.

Table 4

Principal Exports from Ghana, 1949-1951

Item	£000	Average 1949-51 % of total exports	£000	1951 % of total exports
Cocoa	49,644	69.8	60,310	67.6
Gold	7,898	11.1	8,562	9.6
Manganese	5,410	7.6	7,217	8.1
Timber	3,676	5.2	4,977	5.6
Diamonds	3,066	4.3	5,971	6.7
Bauxite	241	0.3	226	0.3
Palm Kernels & Oil	145	0.2	143	0.2
Copra	72	0.1	129	0.1
Rubber	36	0.1	49	0.1
All Others	885	1.2	1,666	1.9
Total Exports	71,073	100.0	89,250	100.0

Source: P. T. Bauer, West African Trade, p. 198, Table 13.

One important non-mineral export product which remains to be mentioned is timber. It is the only export commodity in the extraction of which African and foreign private enterprise are actively engaged together. Timber exports take two forms, either as sawn timber, or as logs. Much of the export trade in logs lie in the hands of Africans who are both producers and shippers of the logs. In 1949, for example, African shippers handled two-thirds of the trade in logs while sawn timber was shipped by eleven saw mills owned and operated by expatriate firms. The value of timber exports rose from £70,000 in 1899-1901 to £123,000 in 1909-1911, rising further to £217,000 in 191901921, but owing to the great depression, there was a decline from the previous decade to £104,000 in 1929-1931, after which there was a slight recovery in 1935-1937 of £112,000; and in 1951 export value reached a boom figure of £4,977,000 which was 5.6 per cent of total export value.[31] Quantitatively, timber exports rose from 4,310,300 cubic feet in 1946 to 10,383,600 in 1950[32] two-thirds of which were in logs.

The import trade of Ghana has expanded rapidly during the first half of the twentieth century, and, like exports, have been subject to marked fluctuations. Table 5 depicts changes in the volume of imports from the beginning of the century to 1951. At the beginning of the century, imports of petroleum products, of artificial silk manufactures, and of machinery and technical goods were negligible; and there were hardly any imports of cement, wheat flour, sugar, high grade apparel, and higher quality provisions. Towards the close of the nineteen forties, and during the early years of the nineteen forties, all these became important import articles as shown in Table 6 for the years 1949-51.

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31. Bauer, op. cit., p. 227.

32. A Foggie, "Timber, Fuel, and Minor Forest Produce in Agriculture and Land Use in Ghana, ed. J. Brian Wills, (Oxford University Press, London, 1962), p. 236.

Table 5

Imports of Selected Commodities into Ghana, 1899-1951

Item	1899-1901	1909-1911	1919-1921	1929-1931	1935-1937	1951
Cotton piece goods £000's	289	471	2,121	1,142	1,726	10,787
(million sq. yd.)	16	22	25	31	65	83
Wheat flour (oo's cwt.)	27	49	58	205	154	501
Sugar (000's tons)	0.8	1.6	1.5	4.8	6.2	14.7
Cigarettes (m.)	-	20	125	159	214	811
Cement (incl. lime)	-	-	19	43	64	222
Motor fuel (000's tons)	-	-	4	20	23	75
Kerosene (000's tons)	2	3	5	11	11	23

Note: Some of the figures for the earlier years are estimated chiefly from value figures on the basis of export prices from the supplying countries.

Source: P. T. Bauer, West African Trade, p. 47, Table 2.

Table 6

Principal Imports into Ghana, 1949-1951

Item	Average 1949-51		1951	
	£000's	% of total	£000's	% of total
Cotton Manufactures	11,052	21.3	11,970	18.9
Machinery	2,932	5.6	3,254	5.1
Petroleum Products	2,505	4.8	3,234	5.1
Artifical silk piece goods	1,846	3.6	2,282	3.6
Cement	1,440	2.8	2,200	3.5
Commercial vehicles and parts	1,273	2.5	1,375	2.2
Wheat flour	1,223	2.4	1,541	2.4
Footwear and other apparel	1,126	2.2	1,565	2.5
Fish	1,013	2.0	1,412	2.2
Corrugated iron sheets	992	1.9	1,454	2.3
Cigarettes	933	1.8	1,068	1.7
Sugar	900	1.7	1,139	1.8
Private cars and parts	831	1.6	1,146	1.8
Road vehicle chassis with engines and fitted tyres	783	1.5	832	1.3
Bags and sacks	734	1.4	767	1.2
Unmanufactured tobacco	352	0.7	431	0.7
All others	21,937	42.3	27,652	43.7
Total (exclu. bullion and specie)	51,908	100.0	63,322	100.0

Source: P. T.Bauer, West African Trade, p. 49.

The organisation of the import trade has certain characteristics peculiar only to West Africa. Imported commodities reach the African consumer through European, Levantine, Indian, and African merchants. The European firms are vertically integrated import houses, that is, besides importing they also operate wholesale and retail establishments, but the non-European merchants confine their trading activities largely to both wholesale and retail distribution of imported goods. Between the importer and the consumer is a long chain of intermediary traders either wholesaling or retailing goods which diminish from bulk quantities to smaller quantities as they get nearer the consumer. The stage of the distributive chain nearest to the consumer is largely in the hands of Africans while that farthest away from him is almost entirely in the hands of non-African trading firms, largely Europeans.

Another feature of the import trade until very recently has been its lack of specialization by type of commodity. Poor communications, the low level of capital and lack of adequate storage facilities outside the coastal points of entry tend to reinforce the narrowness of the market which inhibits specialization in trading operations, since, because of the narrow market, firms have been led to stock a very wide range of goods in anticipation of opportunities for profits which occur unpredictably in such markets. The result of this tendency on the part of the firms has been to make it difficult for new importers to enter the import trade independently, or for wholesalers to emerge and supply the semi-wholesale and retail traders. This had the effect of leaving the import trade highly concentrated in the hands of a few foreign firms who had the capital resources and the skill to operate under such conditions as well as the advantage of having been in the field first for a long time.

These foreign firms provided a link between the local

subsistence economy and the external markets. They have a dual middleman's function; as importers which they are first and foremost, they serve as a conveyor belt bringing novel goods into the economic horizon of the local economy, in addition to satisfying the demand for commodities which have become established in usage; as exporters, they open the local economy to opportunities of participating in the larger world economy by encouraging the cultivation of goods for which there exists external demand. In preparing these functions they have invariably found it necessary to finance local enterprise in both the import and export trade. In the provision of finance, they have further found it necessary to impart some techniques of merchandizing to local traders. Their outstanding contribution is seen more conspicuously in the use of an African merchant class in the retail distribution of import trade than in the export sector.

From 55 to 90 per cent of the value of all imports into Ghana, with the exception of sugar, were handled by six foreign merchant firms. The prevalence of this high degree of concentration enabled the expatriate trading firms to engage in a series of market-sharing agreements. The most important, from the point of view of our study, were the Staple Lines Agreement, and the Merchandise Agreement. The Staple Lines Agreement which operated from 1934 to 1937 divided the import trade in such staples as corrugated iron sheets, cement, sugar, flour, salt, and so forth on a percentage basis among the participants to the agreement. In 1937 this agreement was converted into the Merchandise Agreement which, covering almost the entire range of import trade and operating until 1948, divided the trade into broader classes of goods on the same principle as before and allowed occasional minimum price setting. The effectiveness of these agreements was facilitated by further "Agreements with suppliers who granted

preferential and sometimes exclusive terms to the participating firms,"[33] and more so by the willingness of the colonial authorities to sustain the latter agreement during the war. The decision by the authorities to support the agreement aroused intense bitterness among the African population and was largely responsible for the trade boycott of 1948 and the events associated with it which in turn decisively changed the course of the political and economic development of Ghana.[34]

Nevertheless, the structure of the merchandise trade enabled expatriate capital to develop a large class of African wholesalers and retailers, especially the market women, through the provision of credit, commercial knowledge, and experience. From the importer to the petty trader

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33. Bauer, op. cit., p. 78

34. The chief effect of these trade agreements, as pointed out, has been to restrict entry of new merchants. In spite of them, however, there has been one major entry into the West African trade just before the beginning of the war, that is, the firm of A. G. Leventis. So bitter was the hostility of the "Agreement" firms that they charged Leventis with obtaining illegal favours under the exchange control regulations in force during the war years and thereby importing merchandise well above the quota due to the firm by past performance. A Commission was set up to investigate these charges - the Martindale Commission - in 1946 the report of which came out the following year finding that the allegations against Leventis were justified. But following a press campaign of bitterness another Commission was set up to review the findings of the Martindale Commission. The new Commission - the Sachs Commission - reversed the findings of its predecessor, and established that the share of the firm of Leventis in restricted imports over these years was no greater than it would have been entitled to under a policy of past performance uniformly and fairly applied." The widely publicized evidence before the Sachs Commission, especially on the operation of trade controls and the proceedings of the Martindale Commission, had the effect of discrediting the government, the Association of West African Merchants, and the judiciary since the Martindale Commission was headed by a judge of the Supreme Court. For during this period, imported goods were scarce and profit margins were very high. All these factors combined to create a highly charged atmosphere which in 1948 broke out into riots. See Bauer, op. cit., p. 83 and also p. 81-83 for a comprehensive history of trade agreements during the period.

the structure "ultimately...is to a considerable extent founded on credit furnished by expatriate enterprises; the larger firms act to a certain extent as bankers in transmitting European capital for the financing of African trade."[35] This "benefit of fertilization by outside capital"[36] was no less significant in the production of cocoa and its organization for export, since the import and export trades in so far as they concern importers on the one hand, and African producers on the other, until 1947 were closely intertwined.

5.4 (ii) Production

From the beginnings of its cultivation as an export crop to the present day, cocoa is produced on parcels of land seldom exceeding six acres in the forest regions of Ashanti, southern Togoland, and the northern fringes of the coastal area.[37] In 1959 the area under cocoa cultivation was nearly two million acres.[38] The relationship between the farmer and the farm has changed from that of the peasant who grew food for subsistence with his own land and family's labour and then engages in cocoa cultivation as an occupation marginal to the subsistence economy to that of a complex system of farmer-tenant-labourer relations in which subsistence farming has

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35. Bauer, op. cit., p. 62.

36. Wilson, op. cit., p. 324.

37. P. Hill, The Gold Coast, Cocoa Farmer, A Preliminary Survey, (Oxford University Press, London, 1956), p. 27. P. Hill, "The Migrant Cocoa Farmers of Southern Ghana," Africa, Vol. 31, No. 3, (July, 1961) pp. 209-230. See The Nowell Report, p. 17 for an estimate of number of cocoa farmers. In the thirties the total number of cocoa farms was "estimated by the Department of Agriculture at 300,000 and the acreage under cocoa at somewhere between 1,250,000 and 1,500,00 acres." This gives an overall average of less than six acres per farm.

38. The Gold Coast, Annual Report of the Department of Agriculture 1950-51, (Government Printer, Accra, 1952), p. 5.

become an "accessory"[39] to exchange of cocoa for cash income. The lucrativeness of the trade in cocoa caused a great mobility of labour into the cocoa growing areas from other parts of the country as well as from neighbouring territories, resulting in a sharp increase in the demand for land suitable for cocoa cultivation. The original owners of the land, normally stools and clans, seized the opportunity for making quick and easy money and allotted land to the newcomers according to certain traditional practices. The usual form of land acquisition is for the prospective farmer to become a tenant-farmer on a crop sharing basis, an arrangement known as the abusa system. Under this system, the entire crop, during the first few years of bearing, belongs to the tenant-farmer, but afterwards, he begins to pay two-thirds of the crop either in kind or value to the chief or landlord in perpetuity. Thus, in practice, it is the tenant-farmer, not the "owner farmer who largely determines the amount of cocoa produced in any one season, hence in many cases the effective supply price in any season is a third of the official buying price."[40] The abusa tenant normally hires labour to clear the forest in order to establish new farms and then to tend existing ones. Labour so hired is also on a crop sharing basis, the labourer receiving one-third of the proceeds of the farmer. After a period of serving as a labourer and depending on his resourcefulness, he may become a tenant-farmer himself. The abusa farmer and labourer grow on the farm practically all the food they require other than meat, and they constitute the core of the cocoa industry.

Besides, however, there is the nkotokuano labourer whose job it is to pluck, ferment, and dry the cocoa; he earns extra remuneration for carrying the cocoa to buying stations. He does not have a duty to help the farmer in food production, and his wage rates are very low compared with the actual earnings of the farmer.

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39. The Nowell Report, p. 16.
40. Hill, The Gold Coast Cocoa Farmer, pp. 9-10.

Finally, there is the annual labourer who works daily except Sunday on tasks set by the farmer, mainly the establishment of new farms, and is provided with tools, clothing, and food, with part of his wages paid in advance; contract labourer who is assigned a specific task such as weeding. The average rate of wages of annual labourers for six survey districts were £18 16s.[41] a year in 1951 compared to four to five pounds[42] a year in 1936, and four to ten pounds in 1926.

The cocoa tree takes from five to twelve years after planting to bear fruit, During the first two or three years, the land remains available for growing such food crops as cassava, plantains, maize, yams, and cocoyams which must however be grown on separate grounds after the cocoa tree begins to close in and shade the ground. The actual clearing of the forest is done with the hoe and cutlass, and until recently, beyond the periodic cutting of the undergrowth necessary for access and apart from the collection of the crop, the trees are virtually left unattended. Draining, manuring, and pest control were not provided and even the shade which the cocoa tree requires from the sun is provided by the natural forest trees and there is no general inclination towards its orderly provision.[43] In other words, from the viewpoint of methods of production, the cultivation of cocoa is not capital intensive, and even though it requires some amount of labour after the tree bears fruit, the favourable natural conditions of the country makes actual production accommodate itself to the technical backwardness of the peasants.

Nevertheless, its success caused a revolution in land and commercial relations both among the Africans themselves and between them

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41. Hill, The Gold Coast Cocoa Farmer, p. 36.

42. Frankel, op. cit., p. 323.

43. Nowell Report, p. 22.

and the foreign trading firms. By requiring a long time to mature and a certain amount of care and attention however negligible, the cocoa tree has

> induced the farmers to claim 'perpetual and undivided proprietorship.' This tendency means the end of communalism and tribal authority as such, and the introduction of private rights and commercial ownership in land and also a new society based no longer on relations of fealty but on territory and taxation. 44

The most significant characteristic of the transition from the peasant owner-farmer to the abusa system is the rapid growth of cash relations among producers. With the development of the industry, also increased the farmer's needs for cash either for productive expenditure or for consumption. The basic form which this relation took was the practice of pledging cocoa farms to money lenders. Pledging of farms is a kind of indigenous mortgage system,[45] which enables funds in short supply to circulate through the economy. The Nowell Report enumerates four standard methods of borrowing.[46] First, the farmer in need of cash accepts an advance from a cocoa buyer before the cocoa season, that is, the time for marketing the crop for export - normally around September and October - in return for an agreement that the lender shall be sole buyer of the crop, the loan being repaid usually in cocoa either at the price ruling at the time of sale or at a price fixed at the time the loan was given. In the latter case, the operation is really a forward purchase and relates more to the financing of cocoa marketing than to actual production. Secondly, the borrowing farmer may enter into a bond with the lender under which the usufruct of the land belongs to the lender until such time as it is considered to have yielded,

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44. G. C. Dudgeon, Agriculture in the Forest Products of British West Africa, p. 57, quoted in McPhee, op. cit., p. 43.

45. Hill, The Gold Coast Cocoa Farmer, p. 48.

46. Nowell Report, pp. 23-4.

enough to cover the principal of the loan and interest, the latter being seldom less and often more than fifty per cent. Or, the bond may entail the use of the land by the lender and the subdivision of the crop in an agreed proportion such as one-third as payment of interest, one-third as principal and the remaining one-third belonging to the borrower. In some cases the whole crop is pledged and any additional crop as well. Thirdly, the crop may be treated as a perquisite of the lender who then will be entitled to repayment of the principal in cash as well as to interest calculated at more than fifty per cent per annum. Fourthly, the borrower may entrust his daughter or close female relative to the lender to act as his servant until the debt has been paid. Although this practice had been outlawed since 1844, it persisted under very subtle forms in rural areas, until recently, without detection by the authorities.

Through one or more of these forms about thirty per cent of cocoa farmers pledged their farms by the middle of the nineteen thirties. Most of the loans were for unproductive purposes. Polly Hill lists the major causes of indebtedness as building construction, inherited debt, litigation, land purchase, sickness and death, other medical expenses, defaulting relatives, educational expenses, and business losses which refer to losses sustained in economic activities other than cocoa cultivation, for example, trucking business. These last, however, constitute an insignificant percentage of the total. She concludes that "farmers pledge farms for economic reasons which are far more social than agricultural"[47] and therefore that there is no real problem of agricultural indebtedness.[48]

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46. Nowell Report, p.p. 23-4

47. Hill, The Gold Coast Cocoa Farmer, p. 71, footnote 3.

48. P. Hill, "Some Characteristics of Indigenous West African Economic Enterprise, "Economic Bulletin of Ghana, Vol. 6, No. 1, 1962, p. 12.

Nonetheless, the lack of scientific cultivation and the system of pledging did not fail to have a harmful effect on the cocoa industry. Indiscriminate expansion of the area under cocoa has led to the destruction of much of the natural forest and consequently to serious deterioration of the soil. Lack of knowledge of the pest control at first brought about production of diseased and mouldy beans which towards the end of the nineteen twenties earned for the country the reputation of being the producer of inferior quality of cocoa with resulting lowering in prices. The most serious threat to the industry, however, began to appear about this time when the cocoa trees were widely affected by the rapidly spreading "swollen shoot"[49] disease. Although successive colonial administrations made efforts to help develop and maintain the industry, yet by 1937 there did not exist within the cocoa growing area of the country a single agricultural station where research could be undertaken into the requirements of the crop, and when the disease broke out the Agricultural Department was unable to suggest proven measures to fight it.[50] Thus, in 1936 F. A. Stockdale, an agricultural expert, on a visit to the country remarked pointedly, "the Gold Coast with the largest cocoa industry in the world, is still contented with the

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49. The virus which causes swelling of the shoots is carried by the mealybug. It was estimated that in 1950 more than fifty million trees were infected. See the Gold Coast, Report of the Department of Cocoa Rehabilitation 1949-1950 (The Government Printer, Accra, 1950) p. 5

50. Pim, op. cit., p. 143.

present and is taking no steps to safeguard the future."[51] He noted further that

> the practices of mortgaging farms or of pledging crops for advances received have been increasing in recent years, and may be accepted as the basic cause of much of the indifferent attention which is given to the farms themselves and the preparation of the crop.[52]

This judgment was repeated with emphasis three years later by Justice Nowell in his report;

> Even where the farmer himself occupies his farm the incentive to careful cultivation and harvesting is frequently removed by his having pledged the usufruct as security for a loan. As the prospect of his ever being able to pay the loan diminishes, the farmer inevitably becomes more and more indifferent to the condition of the farm and to efforts by agricultural officers towards his education in proper methods.[53]

It was not until after 1950 that the control of the disease began to be vigorously pursued as a matter of government policy.

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51. F. A. Stockdale, Report on His Visit to Nigeria, the Gold Coast, and Sierra Leone, October, 1935 - February 1936, Quoted in Hancock, op. cit., p. 250.

52. F. A. Stockdale, quoted in Hill, The Gold Coast Cocoa Farmer, p. 65.

53. Nowell Report, p. 22.

In addition to these technical and social problems of cultivation, there also arose intricate problems from the organization of marketing the cocoa for export. While the actual production was entirely in the hands of Africans, before 1939, marketing of the produce involved contact with the European firms many of whom were also engaged in the import trade. For the actual buying of the cocoa t hese firms maintained a network of buying stations in the cocoa districts staffed by various categories of middlemen who were mostly Africans and financed largly by the firms to purchase cocoa from the producers or other intermediaries. The Nowell Report estimated that about 1,500 brokers and 37,000 sub-brokers were required to market the whole crop in a season.[54] By 1937 no less than ninety-eight per cent of the total cocoa shipment passed through thirteen foreign-owned trading firms.

5.4 (iii) Organization of External Trade

The first three decades of commercial activity on the West African coast during the twentieth century was characterized by waves of fierce competition and excessive combinations[55] which centered mainly

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54. The Nowell Report, p. 29

55. McPhee, op. cit., p. 74. See also Charles Wilson, op. cit., p. 304, "the contemporary trend towards the establishment of various forms of mergers and pools was characteristic of these years." Professor Hancock, commenting on this characteristic of the period, remarked that "the economic freedom which nineteenth century liberalism postulated was not merely freedom to compete, it included freedom to organize for the elimination of competition", he blamed the tendency towards concentration in West African trade on the unhealthy climate as part of the reason for large capital overheads especially for the maintenance of health; there was also the prestige value of establishing impressive organizations. Hancock, op. cit., pp. 202-3.

around the export trade in cocoa. As a result of tonnage fights, an agreement was reached among the leading foreign exporters of cocoa in 1903 to divide purchase of cocoa in certain proportions for one year, and other yearly agreements were made until 1906 when a five-year agreement was concluded and was followed by one covering the period 1910-17. These inter-firm agreements on the West Coast of Africa were followed after the war during the period 1925-27, and a new one was made to cover 1929-32. Finally, and most significant in its effects, the most comprehensive agreement of all, was made in 1937 to last for four years. This agreement as usual entailed the division of the total purchases of cocoa among all signing members and the allocation to each of an agreed proportion based on past performance; and, subject to certain permitted exceptions, the payment of a maximum price by all members for cocoa purchases based on the world price ruling from time to time less an agreed amount to cover cost of collection, handling, and shipping of the product from the coast to the world market and a reasonable profit to the firms.[56] The exporters participating in the agreement were so convinced that the principle of price fixing and their method of doing so would assure the African producer the highest possible and most steady price for his cocoa that they did not consider it necessary to consult either their opinion or that of the local administration before entering into the agreement, or to explain its terms to them after putting it into effect.

The wide fluctuations in the price of cocoa as shown in Chart 2 have naturally been resented by the African producer, and largely not understood by him to be the result of the interplay of supply and demand.

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56. The Nowell Report, p. 50.

CHART-2

Source: Based on figures in Trade Report, 1938, (Government Printer, Accra, 1939) p. 219

In his mind, these irregular fluctuations in price especially from high to low prices were the result of the machinations of foreign firms who were intent on exploiting him. Given the farmer's lack of knowledge about world market conditions and the operation of the price mechanism as well as the structure of the export trade, his suspicion was not entirely incomprehensible. Besides, it was based on the fact of a series of coincidences of a price decline and a purchaser's agreement, and on several occasions, in association with his fellow producers, he has protested against these agreements by holding up supplies. Indeed, the 1929 - 32 agreement which followed a price fall led to the formation of "Gold Coast and Ashanti Federation" of cocoa producers which fought the agreement albeit unsuccessfully. Thus when news of the 1937 agreement came closely on the heels of the sharp decline in cocoa prices which began during the previous year, 57 producers organised not to sell cocoa in protest against the agreement. The boycott of sales took effect from September, 1937, and it was extended to cover boycott of purchases of imported commodities, except very bare necessities. The producers had the wholehearted support of all sections of the African population who also consider themselves as victims of the Merchandise Agreement which was concluded the same year by almost the same group of firms.

So effective was the boycott that in 1938 the Colonial Office appointed the Commission, whose report we previously quoted, under the Chairmanship of a judge of England, Justice W. Nowell to investigate, and report with recommendations on the entire system of cocoa marketing in West Africa. The Commission reported in September of the same year and not only condemned the purchasing agreements as instruments of trade restriction but also found the whole system of cocoa marketing least desirable; it recommended

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57. Hancock, op. cit., p. 224.

a statutory organization of a sellers' pool in which producers would be associated "for the collective marketing of their produce, and for the representation of their joint interests." The essential features of such an organization were described as follows: (i) the nature and functions of the organization adopted should be acceptable to the agricultural community; (ii) producers should be associated throughout the cocoa areas in a system of local marketing groups; (iii) cocoa should be collected for joint sale at depôts operated by such groups; (iv) the cocoa so assembled should be offered in bulk lots freely and without discrimination to buyers already established and any newcomers to the trade; (v) the possibility of direct export for sale should be provided; (vi) Africans should be employed wherever possible; and (vii) buyers should be given definite guarantees of quality and suitable incentives should be offered to producers to maintain quality.[58]

The intervention of the war[59] prevented any legislative action and it was not until 1944 that the Colonial Office issued directives for the establishment of the Cocoa Marketing Board in 1947. The establishment of this Board whose subsequent accumulation of large funds was the key factor in the process of capital formation in Ghana during the decade 1951 - 1961, shall be discussed in the first section of Chapter Six.

The significance of the 1937 - 1938 cocoa holdup was that for the first time it brought into sharp focus the nature of the economic relations between African producers and middlemen on the one hand, the foreign-owned and foreign-operated import-export firms on the other; and caught in the middle was the colonial administration in an uneasy posture of ineffectual through well-intentioned neutrality.

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58. The Nowell Report, p. 157,

59. On the outbreak of the war the Colonial Office bought West African cocoa in bulk until the establishment of the West African Produce Marketing Board in 1941.

The foreign firms in their role as importers have been largely responsible for developing through credit an entirely African enterprise of retail distribution of imported articles; as exporters they have provided the funds, the equipment, and expertise required to facilitate the marketing of cocoa, a contribution which aided considerably in the rapid expansion of the industry. Yet beneath this appearance of co-operative enterprise between Africans and Europeans, lurked a deep feeling of resentment bordering on distrust by each side of the other. Although the foreign traders have always proclaimed consciousness of the identity of their economic interest with that of the Africans,[60] nevertheless their actions did not give expression to this consciousness, nor did they constitute any decisive effort to make Africans generally aware of this identity of interests.[61] And under the prevailing conditions, the latter, just recently emerging into an unfamiliar world of impersonal economic relations were only too prone to suspect every action by the former, especially when such action is shrouded in secrecy.

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60. In their submission to the Nowell Commission the firms denied the charge of attempting to reduce producer price of cocoa with the argument that "the prosperity of their merchandise trade, which is a far more important part of their business than the export of cocoa depends on the purchasing power of Africans and that it would therefore be against their own interest to depress the world price of cocoa, even if it lay in their power to do so." p. 114. However, compare Hancock, op. cit., p. 220. "No doubt this is in a broad sense true, but it does not follow that firms and their agents invariably possess the vision or even the power to refuse immediate advantages for the sake of the long-term interests of their businesses."

61. For example, the firms refused to let African producers know the contents of the Agreement of 1937 while they insisted it was in the latter's best interest. The Nowell Report commented on this attitude that although publication during the holdup would have intensified producers' resentment, yet "by refusing all along to make the actual contents of the agreement known, the firms provided the chiefs and farmers with strong grounds for their suspicion. ... it must contain something which was prejudicial to their interests ..." p. 61.

The suspicion which many such actions as the trade agreements engendered lingered on in the minds of Africans and was excerbated by events in the retail sector of the import trade immediately after the Second World War. The strain of the war and the necessity of post-war adjustments not only intensified old problems but also created new ones. To most Africans the end of the war was taken to represent immediate removal of war-time restrictions and rationing of imported goods. A large increase in the population of the country[62] coupled with an unprecedented rise in purchasing power[63] generated largely by the war, intensified the demand for these imported articles whose quantities were actually reduced during the war. Inevitably, prices rose sharply especially to the ultimate African consumer who had to bear successive margins set by the numerous middlemen along the chain of distribution. Unfortunately neither the colonial administration nor the expatriate firms made any effort to explain to the Africans both actual and expected post-war economic difficulties.[64] Thus when African expectations of larger supplies immediately after the war were disappointed not only by the continuation of controls but also by disproportionate rise in prices with respect to their incomes, they accused the

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62. Report of the Commission of Inquiry into Disturbances in the Gold Coast, 1948, Colonial No. 231 (H.M. Stationery Office, London, 1948) p. 37 (hereafter referred to as The Watson Report after the Chairman of the Commission, Justice Aitken Watson).

63. The total amount of money in circulation in 1948 was about £18 million, an amount four times the pre-war amount. Watson Report, p. 38. The main factors responsible for this large increase in purchasing power were (i) the expenditure of foreign servicemen and their dependents stationed in the country during the war and not yet withdrawn immediately after; (ii) the withdrawal by African ex-servicemen of money deposited in their accounts during the war. There were some 45,517 of them whose deposits totalled £1,200,000 of which 90 per cent was withdrawn on their demobilization; (iii) there was a sharp increase in cocoa prices from £28 in 1945 to £51 per ton in 1946 making farmers recipients of large sums of money. See Colonial annual reports, Gold Coast, 1946. (London, 1948), p. 6.

64. The Watson Report, p. 32.

importing firms of exploitation and the colonial administration of connivance.[65]

The frustration and dissatisfaction which followed crystallized into an organized boycott of imported goods during the first quarter of 1948 which was accompanied by looting and d estruction of some foreign-owned business property in the large commercial towns. Just as during the 1937-38 holdup, a Commission of inquiry was appointed under the Chairmanship of Aitken Watson in 1948 to investigate the causes of the disturbances. The Commission reported in the same year making far-reaching recommendations for the political evolution of Ghana and indeed of tropical Africa consideration of which however lies outside our field of present interest.

The foregoing section demonstrates the cardinal role of foreign trade in the economic progress of Ghana, underlines the economy's transition from the staple export commodity of palm oil and kernel to cocoa, and places in focus the nature of the economic relations between Africans, foreign businessmen, and the colonial administration in this process of transition. We contend that this pattern of trade and the relationship among the economic participants associated with it have far reaching implications for later economic development policy in Ghana. In the following section we consider the nature of the capital investment which occurred during these formative years of incipient economic change.

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65. Especially as regards the findings of the Martindale and Sachs commissions about the market-sharing agreements of the foreign firms already mentioned.

5.5 The Pattern of Investment, 1919 - 1950

Capital formation in a developing economy has a definite interaction with its export trade. In Ghana, the rapid expansion of the cocoa industry in its initial stages was the direct result of the development of railways during the last decade of the nineteenth century, and of motor transport in the first two decades of this century. Moreover, the development of mining which was carried out by foreign private capital depended heavily on relatively cheap means of transpertation which was offered by the construction of railways and ports. The general orientation of capital investment has been towards the creation of an economy almost entirely dependent on international trade.

In this section our primary task is to analyse the capital investment which was made by successive colonial administrations between 1919 and 1950. We preoccupy ourselves with investment on public account because the bulk of fixed capital formation has been social overhead in transport, communications, waterworks, and power generation activities which have been, and still are, the responsibility of the government.[66] With the exceptiam of mining, private investment from abroad, as evident from the previous section, has been predominantly mercantile and consequently characterized by relatively little fixed asset formation. Although there are no reliable estimates of African private investment, it is possible to offer the view that African private investment, apart from the development of the cocoa industry, has been largely in the construction of dwellings both urban and rural. The amount of total private investment in machinery and equipment was limited to the requirements of the mines, of the merchandize trade, that is, lorries, trucks and steam launches, and on a small scale to the timber industry. Thus the dominant investor in the nonsubsistence sector of the economy has been the central government.

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66. Some mining companies such as the Tarkwa-Abosso Mines generate power for their own use, and the United Africa Company, until 1960, operated ferry services and river transport on the navigable sections of the Volta river, the latter covering some sixty-eight miles from Ada on the estuary to Akuse upstream.

In achieving the general objectives, of British Colonial policy, economic policy was formulated to embrace a mixture of purely economic and general welfare considerations; capital investment was made from the point of view not only of immediately calculable economic returns, but also of intangible welfare benefits to the population as a whole.

Although the colonial administration had invested in the construction of railways and roads between 1898 and 1917, it was not until 1919 during the governorship of Gordon Guggisberg that a comprehensive plan of capital expenditure covering a period of ten years was formulated for the entire country. Indeed, Guggisberg

> seems to have been not only the first in the British Colonial Empire but also among the first in the modern world to have put forward in outline...an integrated ten-year development plan.[67]

The original Guggisberg programme envisaged a total capital outlay of nearly £25 million to be spread over the ten-year period between 1920 and 1930. Table 7 shows the allocation of the total amount among various activities. For purposes of financing, the plan was divided into three sections. The first consisted of loan expenditure, that is, the capital funds for projects in this section were raised through loans, and the criterion for allocating loan funds was that projects financed by them, must yield revenue directly. A total loan capital of £8.8 million was to be raised and employed to finance construction of Takoradi

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67. Barbu Niculescu, Colonial Planning, A Comparative Study, (G. Allen and Unwin, London, 1958), p. 63. For a descriptive analysis of the Guggisberg development plan see D. K. Greenstreet, "The Guggisberg Ten-Year Development Plan," The Economic Bulletin of Ghana, Vol. 8, No. 1 (1964), pp. 18-26. It may be pointed out that this chapter was written before the publication of this article, and that the latter reached me in Ottawa in late August, 1964. Thus the sameness of Table 4 in Greenstreet's article and Table 10 in this Chapter is coincidental. Table 3 in the article is also the same as Table 7 in this Chapter, the slight difference in dates being the result of differences in sources. Greenstreet's Table is taken from Legislative Council Debates 1927-28, p. 70 while the Table in the chapter is reproduced from Guggisberg, op. cit., p. 68.

Table 7

Ten-Year Development Programme, 1919-1929

Item	Estimated Cost	Expenditure based on a Loan of £4 million		
		From Loan Funds: First 4 years	From Revenue First 4 Years	Required Expenditure for Second Six Years
	£000	£000	£000	£000
Harbour	2,000	1,000	-	1,000
Railways	14,581	3,000	-	11,581
Roads	1,000	-	500	500
Water Supply	1,790	-	200	1,590
Drainage	1,350	-	200	1,150
Hydro electric works	2,000	-	170	1,830
Public Building	1,100	-	1,000	100
Town Improvements	500	-	250	250
Telegraphs & Telephones	90	-	80	10
Maps, Political & Industrial	200	-	100	100
Total	24,611	4,000	2,500	
		6,500		18,111
Grand Total	24,611		24,611	

Source: Guggisberg Review of the Events, Gold Coast, p.68.

Harbour, improvement of Accra harbour, and extension of the railways. In the second section were projects which would be financed by Budget surpluses; these projects included improvement in harbours and railways, construction of new motor roads, provision of water supplies, electricity, medical and educational facilities, all estimated at a cost of £3.6 million. The third section consisted of "special expenditure" of a little over four million pounds covering road building, water supply, town improvements, electric works, schools, agriculture and forestry. These projects would be financed from budget surpluses accumulated over a period of time. It is worth noting that agricultural development was originally included under the item entitled "Maps, Political, and Industrial" and was allocated the comparatively meagre sum of £251,645. Table 8 gives details of planned agricultural capital investment in the original and revised programmes.

Thus of the total proposed expenditure of £2[illegible].6 million, one-third was to be financed by loan capital raised largely in the London money market, and the remaining two-thirds provided from the general revenue of the country's treasury. The programme was actually drawn up on the basis of a loan for four million pounds raised in 1920 at six per cent per annum and maturing 1945-70, and on an accumulated budgetary surplus of £1.6 million in 1919. The remaining amount of planned loan capital was raised later in 1925, a sum of £4.6 million at 4½ per cent per annum maturing 1956.[68]

The success of financing the major part of the programme through budgetary surpluses depended on the prior creation and expansion of those activities which would substantially raise the revenue of the country, and Guggisberg realised that the solution to the problem of making the plan largely self-financing lay in measures that would (i) increase the country's external trade; (ii) lessen

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68. Before 1919, public capital outlay was financed also by loans raised at guaranteed market rates as follows: £1,098,000 at 3 per cent per annum in 1902 maturing 1927-52; £1,030,000 at 3½ per cent per annum maturing 1924-59; £1,035,000 at 4 per cent per annum in 1914 maturing 1939-59.

Table 8

Agriculture and Forestry Development, 1919-1929 Plan
(in the revised plan)

Item	Fund Allocated	
	Planned £	Actual Investment £
Sisal production	47,777	47,777
Copra Development	31,600	16,345
Firewood Reserve, Achimota	17,000	5,590
Rice Development	5,268	5,268
Plant Sanitation	100,000	51,476
Forest Reserves Survey	20,000	9,082
Cotton Development	30,000	15,000
Total	251,645	150,538

Source: Guggisberg, op.cit., p.73.

the cost of production of exports; (iii) reduce the price of imports. He further realised that these three objectives could only be achieved through the creation and improvement of transportation - harbours, railways, and roads. In his own words,

> the harbour (Takoradi Harbour) will earn a direct revenue of no inconsiderable value. Its indirect value will be enormous in saving time, labour freights, and cost of shipping and landing; the extension of our railways will cheapen transportation and will open up country rich in produce but at present too distant to permit paying trade. The principle of low charges for long distances will be adopted, but even with this concession the railway will and must be the chief revenue earning department of the country ... Finally come the roads...they must be kept up to feed the railways.[69]

The port of Takoradi was to be constructed as a deep water harbour in order to enable ships to berth directly on quays contrary to operations at the lighterage port of Accra at which cargo and passengers had to be transported in hand-operated canoes and dug-outs to and from ships anchoring a considerable distance from the shore.[70] Since Accra developed as the main commercial centre of the country there was some advantage, from marketing and distribution points of view to land imported cargo at its port, especially as no better alternative port facilities were available. But with the shift in the location of export activity from the palm oil belt of the east to which Accra is central, to the potentially rich mining timber and cocoa areas all located west of Accra in the southern part of the country, the necessity for a new port to transport these bulky export commodities at a comparatively cheaper cost was recognized, and the location of Takoradi, some 160 miles west of Accra, combined with its suitability for the construction of a modern harbour became an obvious choice. Nevertheless until 1962 the port of Accra, in spite of its physical hazards and inefficiency, continued to serve the needs of the import trade, especially as regards such non-fragile bulk commodities like textiles which for a long time constituted a substantial proportion of the value of imports. Thus proposed total capital outlay on transportation in these three forms

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69. Guggisberg, op. cit., pp. 69-70.

70. For a vivid and detailed account of the adventuresome but hazardous landing characteristics of the port of Accra, see F. G. Guggisberg, We Two In West Africa,(C. Scribner & Sons, New York, 1909), Ch. 5 especially p. 42.

amounted to £17.5 million which constitutes more than two-thirds of total projected investment expenditure.

Nevertheless, the Guggisberg programme underwent a major revision in 1922 in the light of developments which were not anticipated. First, the transportation system of the country during the first years of the plan was "so backward ... that they could not be extended sufficiently to bring in the revenue required to undertake some of the more ambitious items on the scale originally intended."[71] Secondly, the world recession of 1920 affected adversely the country's trade causing a budget deficit for the financial year 1921 - 22. Thirdly, as a result of the preceding two factors, severe criticism was levelled at the administration not only by African members of the colony's Legislative Council, but also by members of the British Parliament for what they considered to be excessive capital investment plans unmatched by adequate revenues. As a result, the original planned investment expenditure was scaled down to £16.6 million which was allocated, as shown in Table 9, with transportation forming almost three-quarters of total planned outlay.[72] In column four of the Table are shown the estimated amounts of actual expenditure made up to March 1927, the last year of Guggisberg's governorship of Ghana.

By the end of 1926, the transportation section of the programme was implemented as follows: (i) Takoradi harbour, the first deep water port of Ghana was nearly completed, (it was actually opened in 1929); (ii) 206 miles of new railway line were laid, a further 17½ miles of new line were partly completed, and a reconstruction of 150 miles of old line in addition to a survey of 250 miles of railway to the northern part of the country was undertaken; (iii) 3,380

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71. Guggisberg, op. cit., p. 73.

72. Guggisberg, op. cit. p. 71.

Table 9

Revised Guggisberg Programme, 1922-1929

Item	Proposed Expenditure 1920-1930 £	Expenditure Up to 1926 Estimates £
Harbours	3,550,714	2,263.825
Railways	5,948,002	5,620,900
Roads	1,619,449	1,223,147
Water Supply	634,181	204,135
Town Improvements	740,170	465,182
Hydro electric works	198,784	187,482
Public Building	2,272,978	1,511,770
Posts & Telegraphs	335,616	276,156
Maps & Special Surveys	200,068	178,247
Agriculture and Forestry Development	251,645	150,538
Miscellaneous	225,538	159,991
Takoradi Town	668,703	189,148
Total	16,645,848	12,430,521

Source: Guggisberg, op.cit., p.73.

miles of new motor roads were constructed, while 360 miles of metalled and tarred rural roads and 50 miles of urban roads were reconstructed, and concrete bridges and culverts on 1,000 miles of reconstructed pioneer roads were provided. These developments increased the road mileage from 1,300 in 1919 to 4,688 miles in 1926.

The economic effects of this emphasis on transportation[73] were immediate. Compared with the cost of railways and roads which came to £6.8 million, the value of the country's trade rose from the annual average value of £7.1 (1913 - 18) to £20 million in 1926. This increase in the value of external trade provided the administration with a considerable source of revenue largely through customs duties and railway freights. Table 10 shows the yearly revenue derived from customs and railways. Thus the treasury's revenue rose from an annual average of nearly one and one-half million pounds (1914 - 18) to over four million pounds in 1926 - 27. Of the total capital invested in railways and roads, five million pounds was raised through loans on which the annual interest payment was calculated to lie between £305,400 and £410,600. Moreover, the railways in providing the means of transportation which facilitated the expansion of the cocoa industry, also freed "thousands of carriers from the burden of head porterage,"[74] and made them available for work in agriculture, largely in cocoa cultivation.

This transport revolution brought about by the Guggisberg plan

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73. Although two projects in the Guggisberg programme - the Korle Bu Hospital and Achimota School - were of considerable importance in the long-term social development of the country, we shall emphasize here achievements in the field of transportation for their immediate economic effects.

74. Guggisberg, op. cit., p. 113.

was commented upon by the Under-Secretary of State for the Colonies, W.G.A. Ormsby-Gore during his visit to West Africa in 1925;

> wherever there is the population, and the land capable of agricultural production - and in British West Africa there is both - money spent on transport facilities is an investment of the most profitable kind. There are few better ways in which an undeveloped country can improve its financial position than by courageous spending on roads and railways. No clearer example of such a policy could be found than the example of the Gold Coast during the last ten or fifteen years.[75]

The opening of the Takoradi harbour in 1929 completed the transportation programme initiated by Guggisberg and set the basic physical development pattern for the next two decades.

For owing to the onset of the world depression in 1929, the economic neglect of the middle nineteen thirties, and the outbreak of the Second World War in 1939, no general programme of capital expenditure was formulated for the country until after the war.[76] In 1944 acting on the request of the Colonial Office, Sir Allan Burns, Governor of the country, prepared a general plan for the development of the country over "a number of years" involving the expenditure of five million pounds.[77] Although the plan placed considerable

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75. W.G.A. Ormsby-Gore, op. cit., p. 31.

76. There were, however, explicit intentions on the part of the British Government that such plans should be formulated especially after the passing of the first Colonial Development and Welfare Act in 1929. The passing of the second Act in 1940 was accompanied by a request to the governor of Ghana to "prepare a general plan of development .... in connection with which applications for funds granted under the Colonial Development and Welfare Act might be considered." Sir Allan Burns, "General Plan for Development in the Gold Coast." (Government Printer, Accra, 1944), p. 1.

77. Burns, op. cit., p. 1.

Table 10

Revenue Derived From Customs and Railways, 1921-1928

Year	Customs £000	Railways £000
1921-1928	1,777.4	706.1
1922-1923	2,035.4	877.9
1923-1924	2,154.7	1,024.8
1924-1925	2,282.9	1,066.6
1925-1926	2,438.8	1,102.3
1926-1927	2,409.6	1,156.5
1927-1928	3,181.5	1,215.8
Total	16,280.03	7,149.9

Source: Gold Coast, Colonial Annual Reports, 1921-28 (H.M.S.O., London)

emphasis on the development of agriculture and secondary industries[78] the items among which funds were allocated were essentially welfare oriented relating mainly to health improvement. Out of a planned total development expenditure of £3.7 million, only £250,000 was allocated to agriculture mainly for credit in marketing non-cocoa agricultural produce. The salient features of the Burns' plan compared with that of Guggisberg may be noted as follows: (i) the Burns' programme was limited in scope and magnitude, and mainly welfare oriented because of the influence of the Colonial Development and Welfare Acts 1929 and 1940 which gave priority to welfare programmes in the colonies as contrasted with directly productive activities; (ii) unlike the Guggisberg programme, the Burns' plan does not refer to any specific period of time, and does not aim at operating on the principle of self-finance even in the long run, mainly because the capital funds required were to be provided as grants by the British Government; (iii) the Burns' programme contained an elaborate machinery for its execution which was lacking in the Guggisberg programme. The execution of the plan would be entrusted to a Central Planning Committee which would be a combination of two other committees, the Central Welfare committee composed of heads of government departments engaged in social welfare and selected members of the public with the Governor as Chairman and the Economic Development Committee consisting of heads of departments responsible for economic development and suitable unofficials, with an Economic Adviser as its secretary and executive officer. The Guggisberg programme was carried out by the various departments separately but under the overall direct supervision by the Governor himself.

The Burns' plan was however soon merged into a new ten-year development programme for the country scheduled to begin in 1946 and involving

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78. Such industries as soap making, furniture building, bricks and tiles, cloth weaving, and fruit canning. Burns, op. cit., pp. 2 - 3.

a total investment of £51 million.[79] Of this amount nearly £26 million was to be expended on non-revenue earning services, £21.5 million on basic imported equipment, and £3.5 million on productive activities. The items coming under each of these three expenditures were as follows: (i) general administration, including statistical services, education, health, and scientific research; (ii) transport and communications, electric power, water for irrigation and domestic use; (iii) agriculture, animal husbandry, forestry, fisheries, mineral resources, industry, trade, and finance.[80]

By the end of 1950, only about £15 million was actually invested, and half of this amount took place in 1950 alone. But the programme's further execution was overtaken by political developments which, resulting in the coming to power of the national government in 1951, changed drastically the pace and in no small measure the orientation of subsequent capital development.

From the point of view of the economy as a whole, these colonial programmes were exclusively limited to the creation of social over-head capital and without any specific reference to any contribution expected from private enterprise especially in the development of industries. The absence of any definite programme of industrialisation reflects no unwillingness on the part of the administration to have secondary manufacturing industries established in the country, but rather, an abiding faith in the capability of private enterprise to exploit any potentialities of profit that might arise from the build-up of the economy's social overhead capital. Owing to the general lack of/or backwardness of African economic enterprise, private enterprise in a colonial economy tended to be almost invariably identified with foreign private enterprise, and reliance

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79. Organization for European Economic Co-operation, Investments in Overseas Territories, p. 83, Tables 1 and 2 (U.S. dollars were converted into pounds at the rate of exchange $2.80 U.S. for £ U.K, see p. 85, op. cit.). Overseas Territories - Paris, 1951)

80. Organization for European Economic Co-operation, op. cit., p. 27. These categories of investment are not mutually exhaustive.

on external private capital on a relatively large scale tends to place an effective limit on the scope of development programmes, in the sense that a target of the rate of investment for the whole economy cannot be accurately determined since it is difficult to have a reasonably correct estimate of the contribution of private capital beforehand. Moreover, even if the magnitude of the flow of foreign private capital can be predicted, there is no guarantee that it will be invested in the sectors of the economy which social policy may regard as most desirable for development. Neverthless, the lack of development targets expressed in concrete terms of growth rates of output, employment, and capital may be a reflection of the times when these expressions were not fashionable, but it is a reflection of the more fundamental economic problem of capital shortage.

As was shown in the previous section, the economic activities of foreign private business in Ghana have been mercantile rather than industrial. While this reflected the low-income level of the economy, it tended to be slow in generating dynamic multiplier effects in the economy, which might hasten the development of some manufacturing activities. Indeed the laissez-faire disposition of British colonial economic policy, as well as the lack of African enterprise, were so reinforced by preoccupation with exports as the sole means of domestic economic enrichment that successive colonial administrations did little to encourage manufacturing for the domestic market based on utilization of domestic raw materials. African opinion was not lacking in expressing the need for such industries, however an African member of the Legislative Council expressed this opinion as follows:

> Now ... as industries are the main stay of any country I desire to emphasize the necessity of fostering native industries such as soap, salt, tobacco, sugar, rice, pottery, clothweaving, fishing and palm oil with a view to establishing good internal trade in the country ... are we to understand, Sir, that our Agricultural Department is incapable of helping us to produce locally the articles mentioned ...? Surely, they are capable unless, in order to protect European trade, it is not intended to help us develop economically. It may be contested that this is a

> misconception, but I say, Sir, that this is what really exists in the minds of the people of this country. [81]

Indeed, this quotation reveals forcefully the divergence between the African's conception of the role of the colonial administration in the economic affairs of the country and the administration's own conception of its economic role, the one for a positive government intervention, the other in favour of a neutral passive role. It also reveals the often mistaken association of manufacturing with economic prosperity and wealth and little appreciation of the case to be made for the operation of the law of comparative advantage. For although there was a strong case for government encouragement of domestic production of salt pottery, clothweaving and fishing, not only was demand insufficient to justify the establishment of manufacturing processes for refining these products, but also the country was at a comparative disadvantage in the production of sugar, soap, and rice, commodities which were relatively cheaper to import than to produce at home; with respect to palm oil production, it is evident from the tenor of our argument in section two that factor allocation has shifted against the palm industry, hence official encouragement of its revival would interfere with free and efficient mobility of resources. This is by no means to imply that African demand for the development of some manufacturing was unreasonable, for it related to products which require only simple processes of manufacturing, and these could easily have been established with proper guidance and encouragement.

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81. The Gold Coast, Legislative Council Debates 1939, p. 155, quoted in Bourret, op. cit., p. 129. In addition to African opinion, there has been a growing body of opinion in Britain favouring the development of secondary industries in West Africa. "It is now generally agreed that such a development is essential in the interests of the territories themselves and for the ultimate benefit of Great Britain and the world." R.W. Stopford, "Some Problems involved in the Development of Secondary Industries in West Africa," Africa, Vol. 14, No. 4, (October, 1943), p. 165. See also in the same issue Theresa Cahan, "Secondary Industries for Tropical Africa," pp. 170-76.

The argument of the preceding paragraph therefore should not be taken as an unqualified defence of the government's position in matters relating to industrial development. Undoubtedly, it may be considered a little uncharitable to declare that the response of the colonial authorities to the growing opinion in favour of secondary industries has been to "drift away from even its restricted participation in the planning for development in the colonial territories towards the more aloof position of recording angel."[82] But while affirming the good intention of successive administrations we must draw attention to their remarkable failure to assume at least a semblance of economic leadership if not of economic participation, in the encouragement of production of those commodities for the domestic market for which there was sufficient demand in which the country has a prima facie evidence of definite comparative advantage. Thus even the surge of a new spirit of generosity and hope for positive action expressed in the Colonial Development Acts was unable to lift and discard the dead weight of the "negative sameness of colonial policy."[83]

Nevertheless, the investment programmes, especially the Guggisberg programme, had the effect of welding together "disparate social, tribal, and political units into one-interdependent economy,"[84] based on international trade. Indeed, the Guggisberg programme laid the foundation for the country's further economic progress, and as B.M. Niculescu rightly observes

> it would be difficult today in Ghana to mention any major project whether still under discussion or already implemented which had not been investigated, sometimes in a fair amount of detail under the impulse of the 1919 plan. [85]

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82. Niculescu, op. cit., p. 83.

83. W.M. McMillan, Africa Emergent, (Faber and Faber, London, 1938), p. 294.

84. Kimble, op. cit., p. 60.

85. Niculescu, op. cit., p. 64.

Besides, the present generation of nationalists and economic planners, with the exception of the current political disposition of the former, are themselves concrete embodiments of the Guggisberg vision.

CHAPTER SIX

TRADE AND INVESTMENT IN A DEVELOPING ECONOMY, 1951-1962

6.1 Introduction

With the coming to power of the national government in 1951,[1] the dynamics of the Guggisberg vision, which had waned between 1930 and 1950, was revived and given fresh impetus. The promotion of the economic development of the country became an issue of direct government responsibility. The new government inherited a ten-year development programme from the out-going colonial administration, and set about to revise its scope and duration. In addition to primary objective of achieving political independence for the country, the party in power had economic development as one of its principal objectives; and it expressed this objective in terms of industrialization which it regards as the only means of achieving a higher standard of living for the people of Ghana.[2]

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1. In 1951, the first country-wide general elections were held in Ghana under a constitution which provided for African effective majority in the Legislative and Executive branches of government.

2. The manifests of the Convention People's Party issued for the general elections in 1951, included, among other objectives the industrialization of Ghana, for, in the words of the manifesto, " it is under industrialization...that a higher standard of living of the people of this country can be guaranteed, " reprinted in The Ghanaian Times, (Accra, February 8, 1962), p. 5.

But a policy of industrialization can only succeed within a framework of adequate social overhead capital and an efficient agricultural system. In spite of the tremendous achievements of the Guggisberg programme, by 1951, the infra-structure of the economy was too fragile[3] to sustain the rising volume of foreign trade, the growth of populations, and the size of desired investment. The scope of government services as well as the machinery for providing them could hardly undertake the amount of development expenditure necessary to effect an appreciable transformation of the economy. Thus the basic objective of immediate development came to be focused on the expansion and improvement of government services, the extension and improvement of communications, and the establishment of a comprehensive educational system as well as a country-wide provision of health services.

During the period under study programmes of capital investment have been formulated to achieve this objective. The first plan was formulated in 1951 involving an expenditure of £75 million, and was subsequently revised to involve a total capital

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3. The fragile base of the Ghanaian economy was emphasized in an official report to the Government when it took over office. See D. Seers and C. R. Ross, Report on Financial and Physical Problems of Development in the Gold Coast, (Government Printer, Accra, 1952). It must be pointed out that the services of Seers and Ross were originally engaged in December, 1950, by the out-going colonial administration "to enquire into building costs in the Gold Coast and into the organization and utilization of the building resources in relation to the economy of the territory, and to make recommendations," op. cit., p. i. On the request of the new national government, the inquiry was extended to cover the "relation between capital development and the Gold Coast economy," pp. i-ii.

expenditure of £98.7 million to be spread over a period of seven years, 1951-1957; in 1957, a "consolidation plan," entailing an expenditure of £44.6 million over two years, was implemented in order to complete specific projects initiated under the first programme; finally, there was started in 1959 a five-year development programme with an intended investment of £343 million (including £100 million for hydro-electric power development to be undertaken independently of the plan). This last plan was suspended in 1961 after two years in operation.[4] Since the plans between 1951 and 1958 differed from each other mainly in the amount of funds spent rather than in the structure of their allocation - and they were almost entirely for social capital development - we shall treat them as one programme covering a period of eight years. As regards the abandoned 1959-64 plan, we shall consider only the actual capital formation that took place between 1959 and 1962.[5]

Although the development programmes did not specify investment targets for private enterprise, they were formulated on the assumption that private enterprise, mainly foreign private enterprise would play a major role in the country's economic development. In other words, the programmes assumed a certain degree

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4. Although no explicit official explanation was offered for the suspension of the plan, it was evident that the administrative machinery, as then constituted, was incapable of implementing a large-scale plan.

5. However, we shall make references to the plan if necessary.

of complementarity between private and public investment. In this Chapter, therefore, we examine the nature of this complementarity, and the degree to which it has, in fact, been accomplished. We consider this in the wider context of the relationship between the country's foreign trade and its rate of capital development.

The interconnection between an economy's accumulation of capital and its foreign trade has been clearly established in Chapters Four and Five. In this Chapter, we probe further into (i) the role of Ghana's foreign trade as the major vehicle of capital accumulation as a source of investible surplus, and as the means of acquiring capital goods; (ii) the disposition of investible surplus in developing social capital; and (iii) the interaction of the emerging pattern of capital formation with foreign trade with respect to the economy's capacity to generate further flows of investible surplus for further investment expansion. We propose to argue that the major economic difficulty facing the country today - the acute foreign exchange constraint on the rate of investment - derives as much from overemphasis on social capital development during the first half of the period under study as from the adverse conditions of external demand for the country's major export product of cocoa, during the second-half of the period. We now proceed to sustain this proposition.

6.2 Developments in Foreign Trade

It is convenient to begin our argument with an examination of developments in the foreign trade sector, since from the point of view of saving and financing investment, these developments

were decisive in shaping the pattern of economic development in Ghana. Four destinctive developments in the foreign trade sector may be identified; first, the statutory monopoly control of the export trade of cocoa through the Cocoa Marketing Board which was established in 1947; secondly, the post-war boom of the world cocoa market which began with the establishment of the marketing board system and lasted until the peak year of 1954 and which gave rise to the windfall accumulation of overseas liquid balances during the period 1947-1955; thirdly, the steady decline in the world annual average price of cocoa beginning from 1955, and being an important factor in the persistent adverse balance of payments which the economy has been subjected to without interruption from 1959; and fourthly, as a result of the third factor which has resulted in the progressive decumulation of external balances, the imposition of trade restrictions and exchange control in 1961 as an instrument of development policy.

6.2(i) The Cocoa Marketing Board and Accumulation of Sterling Balances, 1947-1954

In 1947 the colonial administration following directives from the Colonial Office to implement the recommendations of the Nowell Commission, established the Cocoa Marketing Board to supersede in Ghana the West African Produce Marketing Board which had been exporting the primary produce of the British West African territories since 1941. The Cocoa Marketing Board was empowered to purchase the total output of cocoa, fix prices to be paid to producers during each crop season, and sell the cocoa on the world

market; in addition, it was to "assist in the development by all possible means of the cocoa industry of the Gold Coast for the benefit and prosperity of the producers."[6] The primary objective of the Board was to shelter the producer of cocoa from the short-run effects of fluctuations in the world price of cocoa; but in the long run, producer price was to reflect the trend of world price, and the Board was not expected to accumulate cocoa earnings at the expense of the producer.

The Board began its operations with sixteen million pounds which it received from its predecessor, the West African Produce Marketing Board, as Ghana's share of the export earnings withheld from producers since 1939. All previous buyers and direct exporters of cocoa which included foreign firms became buying agents for the Board. At the beginning of each buying season - September for the major crop and March for the minor one - the Board announced the price per load[7] to be paid to the producer at designated buying stations, and paid the transportation of the cocoa purchased to the port of exit. The actual selling of cocoa on the world market was done by a subsidiary company of the Board, The Cocoa Marketing Company, established in London.

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6. The Gold Coast Cocoa Marketing Board, First Annual Report and Accounts, 1948, (Accra, 1949)

7. A load of cocoa, the unit of measurement used by producers, weighs sixty pounds. In conformity with world market quotations, the price paid to producers, is usually calculated on per ton basis.

TABLE 11

SUMMARY OF FINANCIAL OPERATIONS OF COCOA MARKETING BOARD 1947 TO 1955

Year	World Price £ per ton (1)	Outlays £ per ton (2)	Producer Price £ per ton (3)	Volume Exported Thousand Tons (4)
1947/48	201.2	85.9	74.6	206.3
1948/49	136.7	139.6	121.3	174.6
1949/50	178.4	109.8	84.0	252.8
1950/51	268.5	195.8	130.7	261.8
1951/52	245.1	235.6	149.3	210.5
1952/53	231.3	212.6	130.5	246.9
1953/54	358.7	315.0	134.4	208.2
1954/55	355.1	328.3	135.0	218.2

	Total Export Earnings £ million (5)	Export & Local Duty £ million (6)	Aggregate Farmers' Earnings £ million (7)	Net Surplus £ million (8)
1947/48	41.5	0.4	15.3	+24.1
1948/49	37.5	1.7	21.2	-0.134
1949/50	45.1	3.5	21.2	+18.0
1950/51	70.3	13.4	34.2	+20.1
1951/52	51.6	14.7	31.4	+ 3.5
1952/53	57.1	16.0	32.2	+ 6.4
1953/54	74.7	34.0	27.9	+11.1
1954/55	77.5	38.3	28.4	+ 8.0

Outlays include payments to producers, export and local duty, shipping and administrative expenses and allowances of buying agents.

Source: Gold Coast Cocoa Marketing Board, Annual Reports, 1947-55 (Accra)

Table 11 summarizes the financial results of the Board's operations between the cocoa seasons of 1947 - 1948 and 1953 - 1954. We see that while the world average seasonal price declined from £201.2 per ton in 1947 to £136.6 per ton in 1948 - 1949, a fall of 37 per cent, the price per ton paid to the producer rose sharply from £74.6 per ton to £121.3 per ton, an increase of 62 per cent during the same period. Although the producer price in the latter year was still below the world price the cost per ton, £139.5 exceeded the world price thus involving the Board in a loss of nearly three pounds per ton; this loss, in aggregate, amounted to £134,440.

As a result of this relatively minor deficit, the Board set the producer price in the following season 1949 - 1950 at £84 per ton, a drop of 33 per cent from its previous level.[8] But a substantial rise in the world price to £178.3 per ton accompanied by an increase in tonnage brought about a large accumulation of surplus balances for that year in the amount of £18 million. Between 1950 - 1951 and 1953 - 1954 producer price per ton was relatively stable compared with average seasonal world price per ton; the range in the former being less than £19 compared with a range of £127 in the latter. Owing to the effect of increased export and local duties especially in 1952, the cost per ton figures also reflect a considerable range from £195 per ton in 1950 - 1951 to £315 per ton in 1953 - 1954, a range of £120.

However, the relative stability of producer price level would not necessarily be reflected in the total money inc ome received by producers, for the aggregate income received by farmers depends also

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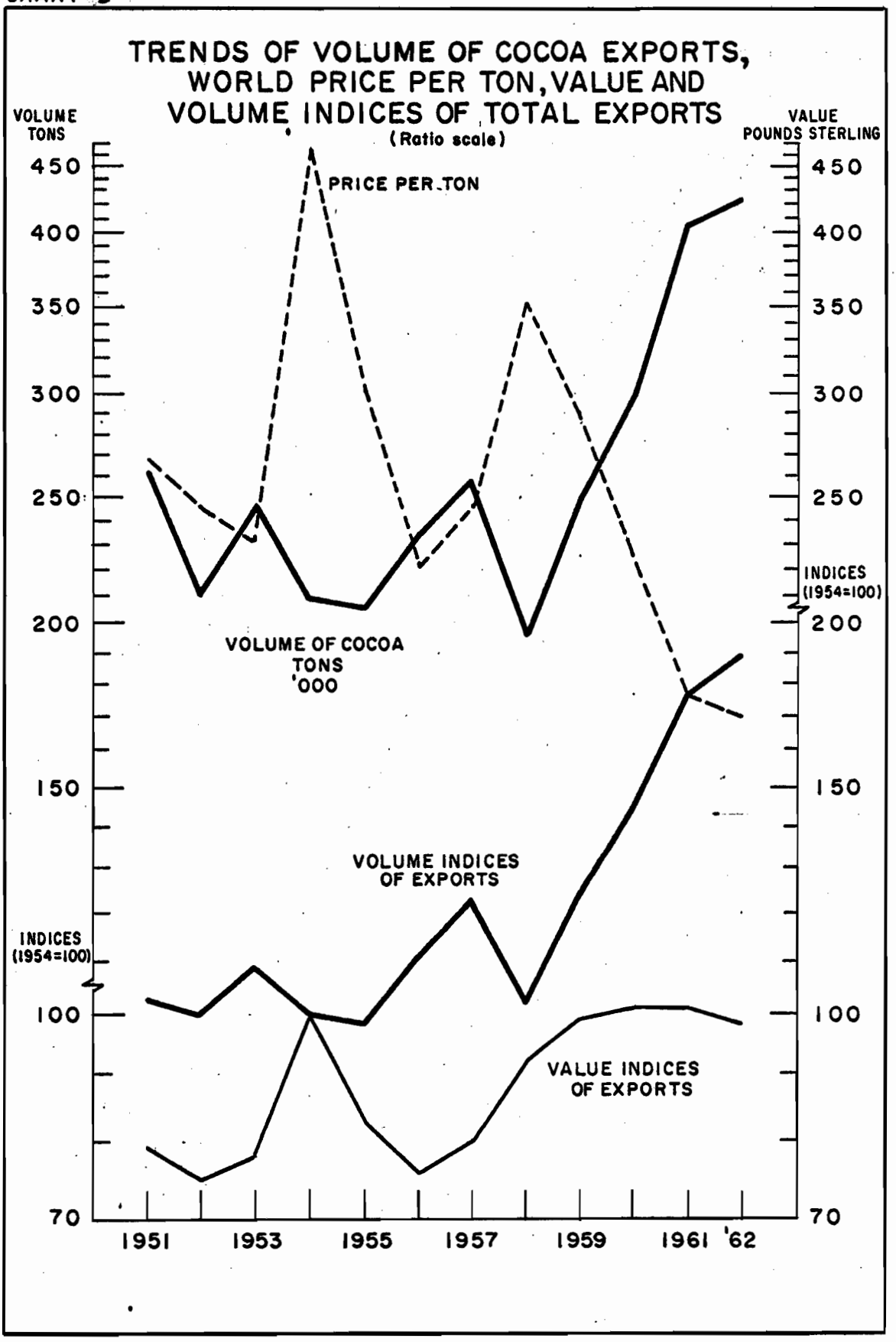
8. This was the largest interseasonal fall in producer price since 1922.

CHART 3


TRENDS OF VOLUME OF COCOA EXPORTS, WORLD PRICE PER TON, VALUE AND VOLUME INDICES OF TOTAL EXPORTS
(Ratio scale)
VOLUME TONS
VALUE POUNDS STERLING
450
400
350
300
250
200
150
100
70
INDICES (1954=100)
PRICE PER TON
VOLUME OF COCOA TONS '000
VOLUME INDICES OF EXPORTS
VALUE INDICES OF EXPORTS
1951
1953
1955
1957
1959
1961
'62

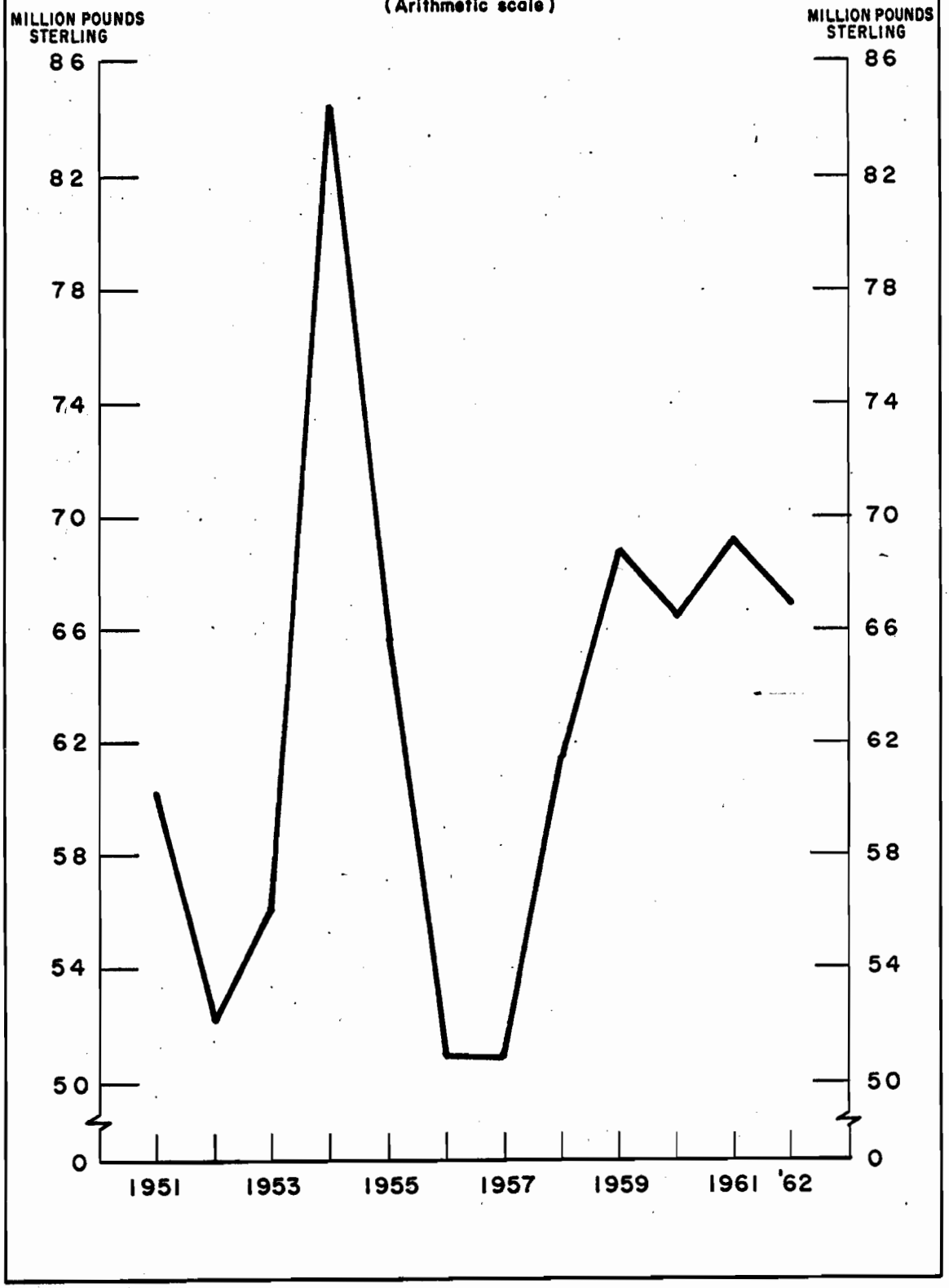
on the volume of purchases made by the Cocoa Marketing Board or the total volume of cocoa produced and/or offered for sale since the Board is commanded to purchase all cocoa offered for sale by the farmers. With the exception of 1948-49 season, the fluctuation in tonnage bought by the Board was fairly moderate hence the relative stability of producer price from 1950-51 was reflected in a stable level of aggregate money earnings of cocoa farmers. This stability of money incomes is reinforced by the fact that during the relevant period the movements of producer price per ton and of volume sold to the Cocoa Marketing Board were in opposite directions. Indeed, for the entire period 1947-1954, the contrariness in the direction of movement of producer price and volume sold was absent only once between 1949-50 and 1950-51 seasons when both producer price and total volume moved in the same direction, that is, increased. In the same way during the period 1951-1962 the world price per ton and the volume of cocoa exported moved in opposite directions as shown in Chart 3; but until 1959 the variations in price were far greater than those in volume, and as a result, gave rise to significant annual fluctuations in the value of cocoa earnings as shown in Chart 4.

Since the Board could not estimate accurately the size of each year's cocoa crop in advance, and before announcing its buying price, it could not claim credit for the relative stability of producer money incomes which was characteristic of its operations, for the stability was due largely to fortuitous circumstances surrounding each year's cocoa harvest. Besides, money income stabilization was not a declared objective of the Board which was primarily interested in maintaining a set price throughout each season. It is further evident from Table 11 that taking the period as a whole it

CHART-1

TREND OF EXPORT EARNINGS OF COCOA, 1951-62

(Arithmetic scale)



was unable to achieve a stable producer price policy.

Our immediate concern however, is to establish the capacity of the Cocoa Marketing Board to accumulate investible financial resources. From Table 11 is evident the large increases in the annual accumulations of the Board. In 1952, for example, while the surplus balances for the year were relatively small in amount, the Board's accumulation of liquid assets totalled £74.7 million an amount which is nearly twice as much as the Board's total cost of operations during the 1951-52 season excluding payment of export duty. By the end of 1954 the Board was holding £86.9 million in external balances.

In a capital-short economy the accumulation of such large liquid assets which were held abroad in low-yielding securities and bank deposits requires a satisfactory justification. The justification which readily comes to mind is the objective of stabilization of any of the three variables, producer price, producer money income and producer real income. But as, the Board was not to accumulate balances in the long run at the expense of the cocoa producer, stabilization must therefore, be interpreted to relate to the short run. Inter-seasonal producer price stabilization was not specifically laid down as a responsibility of the Board, and, as was shown, has not been pursued by the Board. Inter-seasonal price setting which may be regarded as a "market period" [9] price stabilization was pursued, and had the advantage of protecting the producer from the wide fluctuations of the world price which usually

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9. J.W. Williams, "The Cocoa Price Policy in the Gold Coast", Proceedings of the Second Annual Conference of the West African Institute of Social and Economic Research; (University College, Ibadan 1953) pp.82-97, especially P.83 "the advantage of this degree of stabilization should not be underestimated. Many Marketing Boards in other parts of the world attempt to do no more than this."

occur during a given season, as shown in Chart 2 of Chapter Five.

Nevertheless, the growing size of the surplus balances cannot be justified on this basis alone; and even allowing for this exception, no meaningful interpretation of the concept of stabilization could be put forth to explain the extent of the Board's accumulation. There is little indication as to whether inter-seasonal price, money income or real income should be stabilized; and the period over which such stabilization should cover is left undefined.[10]

There is little doubt, however, that the existence of the accumulations and the efficiency of the Board in bringing them about attracted the attention of the national government. This attention was expressed during the 1954-55 season when for the first time the producer price for the season was set and announced by the government instead of by the Board.[11] This marked the beginning of the conscious manipulation of the Board by the government as an instrument of saving. Before 1954, however, the Board was an important source of finance for the government which it supplied in the form of loans.

In this connection we may examine the activities of the Board with respect to its holdings of financial assets. In Table 12 we present the Board's yearly holdings of surpluses net of current operating expenses, as well as the various expenditure undertaken between 1947 and

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10. In Chapter Eight we explore further possible justifications of the Board's accumulation.

11. This action by the government provoked considerable opposition from the farmers since the new price of £3 12s per load set by the government was lower than the prices paid to them in previous years by the Board. The discontent of the farmers was fanned and seized by political parties opposed to the party in power, and developed into a serious political crisis which deepened into a demand Ashanti to secede from Ghana.

TABLE 12

DISTRIBUTIONS OF ASSET HOLDINGS

BY THE COCOA MARKETING BOARD

£ million

Year End	Total Reserves (1)	Cash and Bank Deposits (2)	Holdings of United Kingdom Govt. Deposits (3)	Grants & Loans to Govt. and other Institutions (4)
1948	36.2	17.9	17.5	1.1
1949	36.3	13.3	21.8	1.4
1950	53.0	25.7	26.2	0.3
1951	72.3	36.9	40.9	2.2
1952	74.7	30.3	40.9	1.8
1953	78.3	29.8	40.9	5.9
1954	86.9	36.4	35.9	6.2

Year End	Loans to Persons (5)	Investment in Building and Equipment (6)	Scholarships (7)	Investment in Subsidiary Companies (8)
1948	-	0.04	-	-
1949	-	0.01	-	-
1950	-	0.04	1.0	-
1951	-	0.01	-	-
1952	-	0.002	-	0.2
1953	0.1	0.05	-	0.5
1954	2.0	0.04	2.0	1.0

Source: Adapted from E. K. Hawkins "Economic Development in Nigeria and Ghana", Review of Economic Studies, Vol. 26 (1), No. 69, (October 1958) pp.60-61

1955. Three characteristics of the Board's financial structure emerge from the Table: (i) the large amount of cash holdings in London which as a proportion of its annual stock of accumulated balances ranged from a minimum of 36.6 per cent in 1949 to 51 per cent in 1951 during the seven-year period 1948-54; (ii) the equally large placements in United Kingdom Government Securities which constituted 41.3 per cent of total stock of financial assets in 1954, and 60 per cent in 1949. There is an appreciable steadiness in the decline of the ratio of security holdings to total assets from 56 per cent in 1951 to 52 per cent in 1953, which, owing to the constancy of the value of securities during these three years, resulted from a steady increase in liquid assets. The sharp decline in the share of security holdings in total financial assets was due to a fall in the value of securities and a rise in bank deposits; (iii) as a consequence of the previous two features, direct expenditure of the Board on domestic activities was small in absolute and relative terms. Financial disbursements which took the forms of grants and loans rose from nearly £1.2 million in 1948 to about £11.2 million in 1954 with sharp increases from 1952 to 1953 and again from 1953 to 1954. In percentage terms, these amounts constituted three per cent of annual stock of assets between 1948 and 1952, rising to eight per cent in 1953 and to nearly 13 per cent in 1954.[12]

With the exception of 1950, grants and loans to the central government constituted the bulk of the Board's total outlays. In 1950 the Board established a scholarship fund of one million pounds out of a total expenditure of £1.3 million. It is further noteworthy

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12. The steadiness of these proportions is however, not reflected in the ratios of annual surplus to annual stock which fluctuated widely from 0.2 per cent in 1949 (actually a deficit/stock ratio to as high as 66 per cent in 1948.

that in 1954, the Board's endowment of two million pounds for scholarships together with its personal loans[13] of another two million pounds accounted for two-thirds of its total disbursements during that year.

On the other hand, the Board's direct domestic investments were limited to the fixed assets of buildings and vehicles acquired for its own use, and this hardly exceeded three per cent of its outlay in 1948, and fell below one per cent of total annual outlays for the remaining years, 1949 to 1954. The sharp rise in grants and loans to the government in 1953 and 1954 compared with previous years indicates the beginning of government de facto use of the Board as a major fiscal instrument.

To conclude the financial activities of the Board, we note that the sum of annual surpluses for the period 1948-54 amounts to £83.1 million and the amount spent domestically by the Board during the same period came to £25.9 million, nearly £17 million of which went to the central government in grants and loans. In addition to its outlay, the payments of export duty added up to £92.9 million during the period. Meanwhile, the Board's overseas assets more than doubled from £36.2 million in 1948 to £86.9 million in 1954.

Thus from the point of view of investment finance, the Cocoa Marketing Board emerged as a potential instrument for harnessing social saving. The availability of these financial resources avoided

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13. These were actually loans made to cocoa farmers ostensibly to help relieve them of indebtedness. The loans were made through the Cocoa Purchasing Company which was set up in 1952 by the Cocoa Marketing Board and charged with the responsibility of being a buying agent for the Board as well as a financial intermediary between the Board and cocoa farmers. The notorious mishandling of its second function is a matter of historical record which we shall mention in our critique of development policy in Chapter Eight.

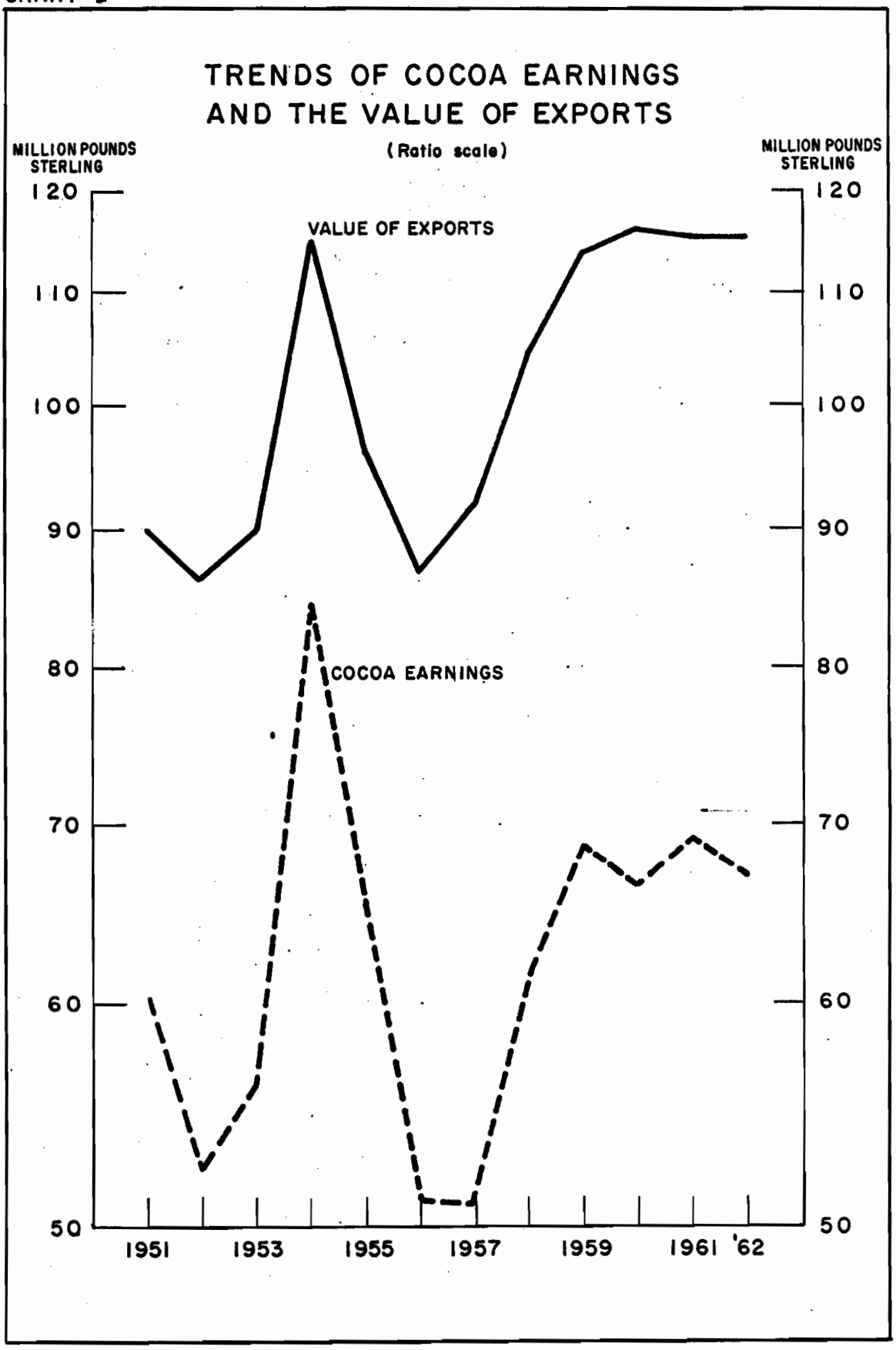
TABLE 13

PRODUCTION STRUCTURE OF THE ECONOMY

Year	Gross Domestic Product £ Million (1)	Total Exports £ Million (2)	Exports as % of G.D.P. % (3)	Cocoa Exports £ Million (4)	Cocoa Exports as % of G.D.P. % (5)	Cocoa Exports as % of Total Exports % (6)
1951	293	90.0	30.7	60.3	20.5	67
1952	293	86.4	29.4	52.3	17.8	60.5
1953	318	90.0	28.3	56.1	17.6	62.3
1954	359	114.6	31.9	84.6	23.5	73.8
1955	335	95.7	28.5	65.6	19.5	68.5
1956	345	86.6	25.1	51.0	14.7	58.8
1957	363	91.6	25.2	50.9	14.0	55.5
1958	383	104.6	27.3	61.6	16.0	58.8
1959	435	113.4	26.1	68.8	15.8	60.6
1960	469	116.0	24.7	66.4	14.1	57.2
1961	497	115.1	23.1	69.3	13.9	60.2
1962	535	115.0	21.4	67.0	12.5	58.2

Source: Value figures are collated from publications of Annual Trade Statistics and Economic Surveys, (Central Bureau of Statistics, Accra).

CHART-5


TRENDS OF COCOA EARNINGS
AND THE VALUE OF EXPORTS
(Ratio scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
120
110
100
90
80
70
60
50
VALUE OF EXPORTS
COCOA EARNINGS
1951
1953
1955
1957
1959
1961
'62

the necessity for the government to raise finance externally and lessened its dependence on other probably more politically risky,[14] sources of domestic finance. While the existence of this Fund appears to facilitate development financing, the fact that it was a windfall gain, makes it "notoriously difficult to dispose of in a wise manner."[15]

6.2 (ii) The Composition and Trend of External Trade 1951-1962

The undisputed predominance of cocoa earnings in the value of exports is shown in Table 13. This Table also shows the relationship between the value of total exports and gross domestic product, and between the total value of cocoa exports and gross domestic product providing a measure of the export dependence of economic activity in Ghana and the monocultural character of this dependence. Cocoa earnings fluctuated between a minimum of £50.9 million in 1957 and a maximum of £84.6 million in 1954 during the twelve-year period with an annual average value of £62.8 million. The predominant influence of cocoa earnings on the trend of export earnings is indicated in Chart 5. which relates the trend of cocoa earnings to that of total value of export earnings. Before 1959 annual changes in cocoa earnings and total value of exports moved in the same direction with the exception of 1956-57 when the movements were in opposite directions, positive for total value of exports, and negative for the value of cocoa exports. Between 1959 and 1962 this parallelism of movement in annual changes is not pronounced suggesting a slightly declining influence of the value of cocoa exports on total value of exports.

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14. For example, the imposition of wide-spread effective direct taxation.

15. Hicks, Essays in World Economics, p. 189. See also p. 190 "The most that can be hoped for from....finance of this type (external balances) is a single initial push; it is not a source of continuous expansion."

TABLE 14

COMMODITY STRUCTURE OF DOMESTIC EXPORT PRODUCE

Items	1951 Value £ million (1)	1951 % of Total Exports of Dom. Produce (2)	1956 Value £ million (3)	1956 % of Total Exports (4)	1961 Value £ Million (5)	1961 % of Total Exports (6)
Cocoa Beans	60.3	67.1	51.1	60.0	69.3	61.3
Timber (logs)	3.2	3.6	5.2	6.2	9.0	8.0
Timber (sawn)	1.2	1.4	4.3	5.0	6.2	5.5
Bauxite	0.2	0.2	0.3	0.3	0.5	0.4
Manganese	7.2	8.1	7.0	8.3	6.0	5.3
Gold	8.6	9.4	7.5	8.9	10.7	9.5
Diamonds	6.4	7.2	7.9	9.3	7.1	6.3
Kola Nuts	0.5	0.6	0.2	0.2	1.0	0.9
Cocoa Paste	0.4	0.4	0.9	1.0	1.0	0.9
Other	1.8	2.0	0.7	0.8	2.2	1.9
Total Exports of Domestic Produce	90.0	100	85.3	100	113.2	100

Owing to rounding, the sum of individual items may not balance with total given in Table.

Source: Statistics of External Trade and Shipping and Aircraft Movements 1935-1953, Statistical Abstracts, No. 1 (1956), pp.29a - 36d., Economic Survey 1957, and 1962 (Central Bureau of Statistics, Accra).

The main factor underlying this trend is the steady decline in the annual average world price per ton for cocoa which has been sufficiently large to overcome the effect, on total earnings, of increases in the volume of cocoa exported. In addition since from 1960 the value of total exports surpassed albeit by a thin margin, the value in 1954 when the value of cocoa exports was absolutely and relatively at its peak, it means that non-cocoa exports of gold, diamond, bauxite and timber have raised slightly their contributions to total export earnings. These are, however, marginal, and the commodity structure of exports remains little changed.[16] Table 14 compares the commodity structure of export in 1951, 1956, and 1961.

While the volume index of exports, with 1954 as base year, increased steadily from 122 per cent in 1959 to 189 per cent in 1962 the index of average export price decreased without interruption from 82 per cent to 52 per cent during the same period. Since, as has been shown in the previous section, the cocoa exports provided the main source of finance for development during the first part of the period, its lag in earning ability during the second half, especially when the accumulated balances of the past have been already drawn upon, poses a serious threat to the ability of the economy to expand its investment activity. Given the declining trend in the rate of increase of export earnings, and with little prospect of foreign capital moving in spontaneously to correct potential trade deficit in the long run, a policy of trade controls, at least, as a temporary measure is inevitable. The

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16. As the Economic Survey, 1962 observes, "The Composition of exports for Ghana has not changed much. Cocoa continues to lead...The pattern of excessive dependence on cocoa has therefore, not changed. "Ghana Economic Survey, 1962, (Central Bureau of Statistics, Accra, 1963) p. 121.

TABLE 15

IMPORTS CLASSIFIED

BY ECONOMIC USE

YEAR	CONSUMPTION Value £ million (1)	CONSUMPTION % of Total Imports (2)	INVESTMENT Value £ million (3)	INVESTMENT % of Total Imports (4)
1951	36.7	57.5	23.8	37.3
1952	35.5	53.3	26.5	39.7
1953	41.8	56.6	28.0	37.9
1954	39.6	55.7	27.4	38.5
1955	50.3	57.2	32.9	37.4
1956	48.1	54.1	36.3	40.8
1957	54.9	56.7	35.7	36.9
1958	46.1	54.4	32.9	38.8
1959	56.8	50.2	50.7	44.8
1960	64.7	49.9	58.9	45.4
1961	70.6	49.4	66.8	46.7
1962	56.6	48.1	54.2	46.1

YEAR	FUEL AND LUBRICANTS Value £ million (5)	FUEL AND LUBRICANTS % of Total Imports (6)	TOTAL Value £ million (7)
1951	3.3	5.1	63.8
1952	4.6	6.9	66.6
1953	3.9	5.2	73.8
1954	4.1	5.7	71.0
1955	4.7	5.3	87.9
1956	4.4	4.9	88.9
1957	5.9	6.1	96.7
1958	5.6	6.6	84.6
1959	5.5	4.8	113.0
1960	5.9	4.5	129.6
1961	6.0	4.2	142.8
1962	6.5	5.5	117.5

Owing to rounding, the sum of individual items may not balance with total given in Table.

Source: (Central Bureau of Statistics, Annual Trade Statistics, Accra)

objective of this control would be to prevent the value of imports from exceeding the value of exports in excess of the trade deficit that can be comfortably financed.

Up to 1961 Ghana adopted an open import policy with very few restrictions on imports mainly from the dollar area and Japan. In Table 15 are summarized the value composition of visible imports in terms of consumption goods and investment goods. While the total value of imports has more than doubled between 1951 and 1961 in current prices, the import of consumer goods increased substantially but relatively less, and the value of investment goods rose almost three fold.[17] The proportion of consumer goods in imports declined from 57.5 per cent in 1951 to 49.4 per cent in 1961 as the share of investment goods rose from 21.7 per cent to 44.6 per cent in the respective years. The increasing share of investment goods in total imports undoubtedly reflects expansion of domestic capital formation, but an important qualification must be noted. Until 1954 import statistics embraced finished manufactured goods which were subsequently re-exported to neighbouring countries. As these commodities were composed largely of consumer goods, their removal from statistics of imports-export statistics were accordingly adjusted - is likely to raise the proportion of investment goods, in total imports for any given year. While the magnitude of this effect is slight in the case of Ghana, it is not unlikely that such a change in the method of compiling trade statistics in other West African countries will lead to results which do not reflect the actual state of economic activity in these countries.

Since the index of annual average price of imports changed little after 1954, increasing by not more than seven percentage points since the base year of 1954, it follows that the absolute rise in the value of imports was due to increases in the volume of commodities imported.

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17. We shall compare later the import of durable investment goods with gross fixed capital formation.

Substantial upward changes in the volume of exports were accompanied by decline of export prices, while considerable rise in the volume of imports were associated with relatively stable import prices so that relating the trend of export price index to that of import price index, we see that the economy experienced persistent decline in its commodity terms of trade during the period.

The trend of the terms of trade especially after 1954 must, however, be taken with caution for the choice of 1954 as base year would seem to introduce a large element of bias against imports and in favour of exports since that year represents a peak year in export earnings brought about by the strength of world demand rather than by increases in export volume.[18] Between 1953 and 1954, however, it may be argued that certain factors underlying the economic activity during these early years seem to justify the trend of the commodity terms of trade associated with a 1954 base year. Three of these factors may be identified. First, there was a high demand for consumption imports in 1951 and 1952 associated with large cash payments to cocoa farmers in the amounts of £62.7 million and £58.1 million in the respective years. These amounts represent the second and third largest annual payments to cocoa farmers during the entire period of 1951 and 1962, the largest annual cash income of cocoa farmers being in 1956, in the amount of £74.7 million.[19] Secondly, owing to the outbreak of hostilities in Korea, during this period, there persisted a shortage of consumer imports especially from the United Kingdom, producing a large inflationary pressure in the economy especially during the whole of 1951 and the greater part of 1952. Thirdly, inflationary effects of the relative shortage of goods in the face of high

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18. Indeed, the volume of cocoa exports declined from 247 thousand tons in 1952-1953 to 208 thousand tons in 1953-1954.

19. These annual figures were derived on a calendar basis by converting the seasonal figures.

level demand was accentuated by lack of shipping space which caused a rise in freight rates, and by inadequate port facilities of the country which caused substantial increases in landed costs of imported goods. These factors combined to produce annual increases in the import prices from an index of 111 per cent in 1951 to 116 per cent the following year. Although the index fell to 105 per cent in 1953 it must be noted that after 1954 this level was exceeded only twice in 1960 and 1961, both having an index of 107 per cent.

The point that must be emphasized in this analysis is that between 1951 and 1953 export prices deteriorated more than import prices relative to 1954 price levels. While export prices decreased, import prices increased. On the other hand, the volume of imports fell below the 1954 level while that of exports were higher so that in balance the greater volume of exports swamped the adverse effect of the higher price of imports, thus making possible the favourable trade balances during this period. After 1954, however, volume of imports and the prices of imports were quite stable, rising only slightly above the 1954 level, while export prices never regained their 1954 level and showed wide annual variations, falling as low as half of their base year level. Thus while the net barter terms of trade remained unfavourable throughout the dozen-year period, the excess of the volume of exports over that of imports during the first half of the period resulted in balance of trade surpluses; during the second half of the period, however, the greater growth in the volume of exports with sharply declining prices produced a strain on the balance of trade which became adversely chronic from 1960. The relative stability of total export earnings during the period has been due largely to the inverse

relationship between the volume of cocoa exported and the average annual level of cocoa prices. Between 1954 and 1961, for example, while export earnings increased by only one per cent on the average, the volume of exports rose by 77 per cent.

In Table 16 we present the trend of the balance of payments between 1951 and 1962. Owing to the small magnitude of net private capital movements, the main factor in the balance of payments adjustment has been changes in official holdings of external reserves, with the exception of two years to be mentioned shortly. The official concept of Ghana's international reserves is very imprecise. The Official external trade statistics refer to "external balances"[20] which comprise private holdings of external liquid assets, the claim on foreigners held by such institutions as the central government, the Central Bank which took over the monetary functions of the West African Currency Board, the Commercial Banks, the Cocoa Marketing Board and other public institutions, educational institutions and local government authorities. While this information, including private foreign claims, is relevant for determining the economy's balance of international indebtedness at a given moment of time, it is not useful for analysing balance of payments adjustments. For this latter purpose we need to have information relating not only to the economy's claims in foreign currency but also to those claims which "represent international monetary settlements rather than the commercial investment, speculative or other autonomous transactions, requiring such settlement"[21] the

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20. See, for example, the Economic Survey 1962, p. 127, Table 117, in a discussion of balance of payments.

21. N. John Brady, "Problems of Compiling Gold and Foreign Exchange Statistics," International Monetary Fund Staff Papers, Vol. 11, No. 2, (July, 1964), p. 262.

TABLE 16

BALANCE OF PAYMENTS, 1951-62

£ million

	Balance of Visible Trade (1)	Other Current Account (2)	Current Account Balance (3)	Changes in Official and Banking Reserves (4)
1951	+34.6	-15.3	+19.3	+12.8
1952	+25.1	-13.6	+11.5	+10.2
1953	+20.8	-15.6	+ 5.2	+ 6.7
1954	+53.6	-12.9	+40.7	+39.8
1955	+17.0	-15.2	+1.8	+11.6
1956	+ 3.1	-16.4	-13.3	- 4.3
1957	+ 4.2	-18.6	-14.4	-13.3
1958	+ 29.0	-18.2	+10.8	+ 3.4
1959	+ 5.9	-17.2	-11.3	- 3.4
1960	-2.7	-30.8	-33.5	-29.8
1961	-18.6	-34.1	-52.7	-56.9
1962	+ 3.4	-31.7	-28.3	-20.5

	Movements in Short-term Private Capital (5)	Movements in Long-term Private Capital (6)	Errors and Omissions (7)
1951	+4.4	-10.8	
1952	-1.9	+ 0.6	
1953	-5.1	+ 6.6	
1954	-9.4	+ 8.4	
1955	+5.4	+ 4.3	
1956	+6.5	+ 2.5	
1957	-4.9	- 3.8	
1958	-4.2	- 3.1	
1959	+7.9	- 1.5	1.5
1960	+1.2	+ 1.9	0.6
1961	-	- 8.4	4.2
1962	+2.0	+ 4.8	1.0

Note: A plus sign indicates surplus, additions to reserves, and capital inflow, and vice-versa for a minus sign.
Errors and omissions are not shown in the official estimates before 1959.

Sources: Balance of Payments Estimates 1950-58 and Economic Surveys, 1960-62 (Central Bureau of Statistics, Accra.)

concept of international reserves should embrace only those "kinds of claims on foreigners, which by type of asset and holding sector, are usable directly to finance balance of payments deficits."[22]

A clear-cut classification of foreign claims by Ghana cannot be made easily, for while certain quasi-government institutions like the Post Office Savings Bank and the Cocoa Marketing Board hold their foreign assets for investment and other purposes than balance of payments accommodation, they are capable of being controlled directly by the monetary authorities, that is, by the government and the Central Bank, so as to make their transactions become deliberately accommodating rather than autonomous with respect to the balance of payments. Even then the long-term nature of some of the investments of these institutions constitutes a hindrance to the facility with which the monetary authorities can utilize their foreign resources in an emergency situation without undue loss. However, the effectiveness of the authorities' control over the holdings of these institutions justifies the inclusion of their assets as part of international reserves and it is not inappropriate to designate these as part of official reserves.[23]

Changes in the balance of current transactions were reflected by changes in the official holdings of sterling balances. The only years in which private capital movements were influential in

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22. Ibid. See also, Kindleberger, International Economics, p. 497, "The relevant reserves are those convertible or usable assets available to the authorities which may be expended in time of balance of payments difficulty,"

23. With regard to the Cocoa Marketing Board, this must not be taken to imply a justification of the use of its balances for balance of payments purposes; nor does this use vindicate the size of its accumulations.

adjusting imbalances were in 1956 and 1959.[24] In 1956, a trade deficit of 13.3 million was largely financed by autonomous private capital inflow both short and long run in the amount of nine million pounds. In 1959, a large influx of autonomous short-term private capital worth £7.9 million financed a trade deficit of £11.3 million by more than half. The relatively significant entry in the accounts for private capital inflow in 1962 does not represent fresh inflow from abroad but reinvestment of profits earned on capital already invested in the country. To what extent this reinvestment could be regarded as autonomous, it is difficult to say, for it was largely induced by the restrictions imposed by the authorities on the repatriation of capital and profits in the latter part of 1961 in order to halt capital flight and reduce the trade imbalance. In the absence of autonomous forces tending to balance the trade accounts, official compensatory action was exerted, in the case of surpluses, by building up reserves overseas; and, in the case of deficits, by running down external balances, and, since 1961, by restricting imports of commodities and services. Thus while private capital played a significant role in the evolution of Ghana's pattern of trade and general development, it did not seem to show in the balance of payments accounts as a significant factor in the removal of adverse imbalances.

We now examine the important relationship between Ghana's trade, and the level of her national product, and the rate of capital

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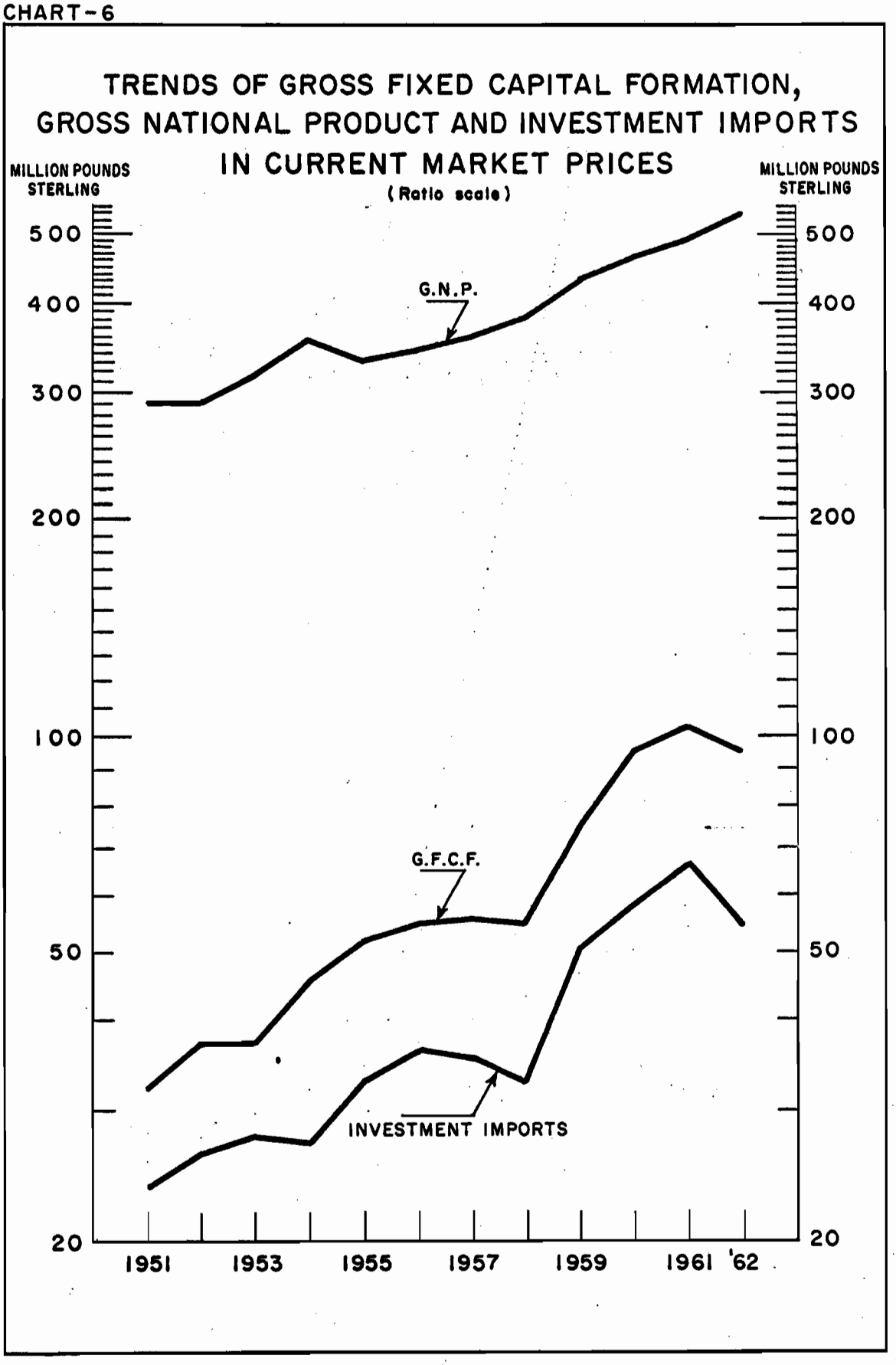
24. In general, the movement of private capital exhibited lack of correspondence with movements in the trade balance; a trade surplus implying outflow of private capital, and a trade deficit, a capital inflow. While the statistics of private capital movements are the least satisfactory of balance of payments statistics, this lack of correspondence however may be an indication of the autonomous nature of these movements.

formation. The relationship between the value of imports and the national produce may be expressed in terms of average and marginal propensities to import; and the relationship between import of investment capital and domestic capital formation provides a measure of the import dependence of investment effort in the economy, and thereby, the potential influence of the balance of payments on the rate of domestic expansion.

The disposition of national product in Ghana is undertaken by private individuals and institutions on the one hand, and the central government and public bodies on the other. The main components of domestic expenditure of national produce are (i) private personal consumption, (ii) government expenditure on current and capital account (iii) and private business expenditure on investment. These constitute aggregate domestic demand. The proportion of this demand which is satisfied by means of imports ranged between a minimum of 19.9 per cent in 1954 and a maximum of 27.9 per cent in 1960 with an average of 24.5 per cent for the twelve-year period. It is noteworthy that the average was 23.4 per cent for the first pre-independence half of the period, 1951-1956, and 26 per cent for the second post-independence half, indicating an increasing import orientation of domestic demand. As has been noted earlier, the fall in the share of consumer imports during the latter part of the period is due largely to relative decline in the expenditure on imports of goods and clothing. The chief factor in the proportionate rise of producer goods in total imports has been a rising demand for raw and semi-finished materials, and for machinery and equipment. One main exception, however, is the relative share of construction materials which has been steady over the period ranging between a low percentage share of

CHART-6


TRENDS OF GROSS FIXED CAPITAL FORMATION,
GROSS NATIONAL PRODUCT AND INVESTMENT IMPORTS
IN CURRENT MARKET PRICES
(Ratio scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
500
400
300
200
100
50
20
G.N.P.
G.F.C.F.
INVESTMENT IMPORTS
1951
1953
1955
1957
1959
1961
'62

10.2 per cent in 1959 and 13.0 per cent in 1961.

In order to underline the implication for development of the growing expenditure of national product on imports, we must relate the average propensity to import to the propensities to consume and to invest. Table 17 shows the various components of gross national expenditure between 1955 and 1962 at current market prices. The average propensity to consume ranged between four-fifths and nine-tenths of national product, the latter occurring in 1961. It is notable however that private consumption as a proportion of national expenditure varied between a minimum of 73 per cent in 1960 and a maximum of 80.8 per cent in 1957 while share of government consumption increased steadily from 7.8 per cent in 1955 to 11.9 per cent in 1962; the relative increase in government expenditure reflects a steady rise in absolute amounts during the seven-year period. The proportion of total domestic consumption sustained by consumer imports decreased from 18.9 per cent in 1955 to 12.0 per cent in 1962, the average for the post-independence period 1957-62 being 15 per cent. Thus while the proportion of national product spent on consumption cannot be said to show any discernible trend during the period - it averages over 85 per cent - nevertheless the import content of this expenditure has shown a definite trend of relative decline. This relative fall, however, reflects a restraint in the rise of private consumption demand, since government expenditure on consumption increased sharply during the period. As a corollary, imports of durable investment goods maintained a steady proportionate movement with national product and gross fixed capital formation as shown in Chart 6.

If we assume that the propensity to consume and to import

Table 17

Expenditure on Gross National Product at Current Market Prices

£million

	1955	1956	1957	1958	1959	1960	1961	1962
Private Consumption expenditure	252	262	291	279	317	339	393	405
General Government Consumption	26	30	33	35	39	48	55	63
Gross domestic fixed capital formation	52	56	56	55	75	96	104	96
Increase in stocks.....		+ 5	- 6	- 1	+10	-11	-14	- 6
Exports of goods and services (excluding factor income movements)	101	91	96	110	120	123	122	121
Less: imports of goods and services	-97	-99	-107	-95	-126	-148	-163	-144
Expenditure on gross domestic product at market prices.....	334	345	363	383	435	469	497	535
Net factor income from abroad	-2	-2	-3	-2	-3	-5	-7	- 5
Expenditure on gross national product at market prices.....	332	343	360	381	432	464	490	530

Source: Economic Survey 1962, (Central Bureau of Statistics, Accra) p.20

in a given period is a function of the income of that period, then we can relate annual changes in expenditure on consumption and on imports to annual changes in gross national product to obtain measure of the marginal propensities to consume and to import for the economy as a whole. While changes in national product and consumption were positive during the period, negative changes occur in 1957-58 and 1961-62. Taking only the years 1958-61 we obtain a marginal propensity to import of 0.52 and a marginal propensity to consume of 1.35. A greater than unitary marginal propensity to consume implies that the economy has been consuming more than the increases in its national product, that is, exhausting its past savings. We must emphasize the crude and elementary nature of these calculations but they do indicate a broad order of magnitude the implication of which cannot be overlooked. For the high marginal propensity to consume and the relatively high import content of this propensity places a severe restraint on the economy's capacity to save and invest out of increases in the national product.

There are four major factors which account for this trend of a high marginal propensity to consume and to import. First, a rapid increase in population occurred between 1948, when the population of the country was counted at slightly over four million people, and 1960, when it increased to nearly seven million people. The rise in population is marked by a movement of people from the rural to the urban areas which are non-agricultural, and which in 1960 contained more than twenty per cent of the total population. Since farmers consume less and save more than urban dwellers at any given level of income, this shift from rural to urban residence tends to lower the level of saving[25]

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25. Arthur Smithies, "Forecasting Post-War Demand I", Econometrica, Vol. 13, (No. 1, January, 1945) pp. 1-14.

because of the rise in the higher propensity of urban dwellers to consume. Secondly, although a significant amount of the increase in population was due to immigration, yet the natural increase was such that nearly three million of the total population were below fourteen years of age in 1960. The introduction of fee-free primary education in 1951 and the proliferation of secondary education tend to reduce the productive capacity of the six to twenty-one age-group, while raising their consumption capacity to unprecedented levels. If some 22,000 people who are sixty years old and over are added to the age-group below fourteen years, the economically non-productive but consuming element of the population amounts to a little over three million, nearly about half of the total population. 26 Although in comparison with other countries, this proportion of economically inactive people is not unusually high, yet it must be noted that the productivity of the economically active population is much lower in Ghana than in more advanced countries, implying a greater economic burden than in similarly placed but more productive economies.

A third factor at work in increasing to economy's marginal propensity to consume is the process of "Africanization," that is, the policy of replacing foreigners in high income executive posts both in business and government by Africans. This process is usually characterized by the tendency to appoint some nationals to higher income positions than they were with as well as to employ more nationals than is economically optimal. 27 During the immediate phase of economic

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26. Ghana, 1960 Population Census, Advance Report, Vols. 3 and 4, (Census Office, Accra 1962) p. 6, Table 6.

27. For an extended treatment of this phenomenon in the developing economy of Quebec, see A. Breton, "The Economics of Nationalism," Journal of Political Economy, Vol. 72, No. 4 (August 1964) pp. 376-386.

elevation the marginal propensity to consume of this new middle class tends to be higher than that of the displaced foreigners, and hence likely to sustain an already high level of aggregate propensity to consume or contribute to its increase. The fourth factor is the increasing expansion of the scope of government activity, and government expenditure in public services of education, health and social welfare, the product of which are not calculable as an addition to the national product.

While these factors influenced the propensity to consume in an upward direction, the negligible capacity of the economy to produce at home, the commodities demanded gave an import orientation to consumer demand, and the most conspicuous and significant aspect of this incapacity of domestic production is the low-level stagnation of food out-put. 28 To a large extent, the pattern of consumer demand, and the import orientation of this demand, during the post-independence period emerged as a direct and indirect effect of the previous investment activity especially between the pre-independence years of 1951 to 1957.

6.3 Capital Expenditure and Gross Fixed Capital Formation

Although both foreign and domestic private enterprise has constituted a greater proportion of investment in fixed capital, the major influence on the pattern of investment has been the implementation of development programmes by the central government.

These programmes were conceived and executed as capital

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28. W.A. Lewis, Report on Industrialization and the Gold Coast, (Government Printer, Accra), p. 4. See also United Nations, Economic Bulletin for Africa, Vol. 1, No. 1. (Economic Commission for Africa, Addis Ababa, 1961), p. 28. "The significant fact was that while government expansion was generating new income, domestic production of consumer goods was unable to keep pace with rising incomes and population growth."

expenditure plans. Table 18 shows the allocation of investment funds among the various activities in the programme between 1951 and 1958 as well as the actual investment expenditures. The emphasis on social capital is clearly evident. The development of communications received the greatest allocation in the amount of £48.4 million followed by social services of education and health with an allocation of £38.4 million. It is significant that industry, trade and agriculture combined received only £15.8 million, constituting a meagre 11.2 per cent of total planned expenditure.

The total actual expenditure on the categories of the plan fell short of intended investment by some sixteen per cent, although expenditure on services for law and order exceeded its allocation by 21.8 per cent. In drawing attention to the proportion of planned expenditure that was actually undertaken, we must emphasize that the degree of fund utilization, taken by itself, provides no useful test of plan fulfilment. Nevertheless in a situation where finance is available, as could be said to be the case with Ghana between 1951 and 1958, a short-fall in the amount of finance actually expended as compared with amount of intended expenditure, may indicate either lack of investment opportunities, or, more in keeping with the situation in Ghana, inadequate machinery, and lack of man-power to execute a given expenditure programme. However, it is indeed difficult, if not impossible, to undertake a meaningful appraisal of programme fulfilment when the items on which expenditure is undertaken are not expressed in terms of measurable economic categories like output and/or employment. This is especially the case when a large proportion of expenditure of developmental nature does not result in output which can be measured either in physical units or in terms of

Table 18

al Expenditure, 1951-58

l Planned -58 llion (3)	Actual Expenditure 1951-58 £ million (4)	Percentage Distribution of Actual Expenditure (5)	Actual Expenditure as % of Planned Expenditure (6)
3.4	35.9	30.0	74.2
5.8	13.2	11.0	83.5
5.5	6.7	5.5	121.8
3.4	35.4	29.5	92.2
3.5	15.2	13.2	85.4
5.7	13.0	10.8	92.8
2.3	119.4	100.0	83.8

cond Development Plan 1959-64 p.1 (Central Bureau of Statistics, Accra)

value. It is true that a major share of expenditure was on construction, and that it is possible to arrive at estimates of physical quantities, such as the number of public buildings constructed, or the number of miles of road built under the programme, but it is not possible to compare this to physical targets of the plan which was formulated merely in terms of financial expenditure. Even if these were possible it provides merely a test of programme fulfilment in terms of physical output without taking into account the criteria of employment, of efficiency, whether and to what extent the physical output not only satisfies demand but also stimulates further production. Some light may be shed on these more relevant issues if we approach the expenditure programmes from the point of view of the amount of gross fixed capital formation that they brought about.

Table 19 shows gross national product and domestic fixed capital formation in current market prices between 1951 and 1962 and Table 20 gives distribution of gross domestic fixed capital by type of investment. While the sum of the amounts invested in building and other construction works increased steadily, with the exception of 1957, its proportion of total fixed investment fluctuated between 63.5 per cent in 1960 and 77.1 per cent in 1962, reflecting fluctuations of investment in transport equipment, machinery, and other equipment. Indeed, in 1958 the slight decline in total fixed investment as compared with the previous year was caused by a sharp fall of investment in transport equipment from eight million pounds in 1957 to five million pounds.

Again, the decline in the total investment of fixed capital from £104 million in 1961 to £96 million in 1962 was due to a

TABLE 19(a)

GROSS NATIONAL PRODUCT AND GROSS FIXED CAPITAL FORMATION AT CURRENT MARKET PRICES 1951-62

	Gross National Product £ 000 (1)	Gross Fixed Capital Formation £ 000 (2)	(2) as of (1) Percentage (3)
1951	290	32	11.0
1952	290	37	12.7
1953	315	37	11.7
1954	356	46	12.9
1955	332	52	15.6
1956	343	55	16.0
1957	360	56	15.5
1958	381	55	14.4
1959	432	75	17.3
1960	464	96	20.6
1961	490	104	21.2
1962	530	96	18.1

Note: The estimates of gross national product and gross fixed capital formation from 1951-54 were obtained by an upward revision of the estimates in the United Nations Yearbook of National Accounts Statistics 1957 and 1958 as reproduced in United Nations Economic Survey of Africa since 1950 (New York, 1959) p. 205. For the estimates from 1955-62, see Economic Survey, 1962 (Central Bureau of Statistics, Accra) p. 20.

TABLE 20

DISTRIBUTION OF CAPITAL FORMATION

by type of asset 1955-62

£ million

	1955	1956	1957	1958	1959	1960	1961	1962
Buildings	27	30	30	30	36	44	50	53
Other Construction Works	12	11	11	12	16	17	20	21
Transport Equipment	6	7	8	5	11	17	20	10
Machinery and Other Equipment	7	8	7	8	12	18	14	12
Gross Fixed Capital Formation	52	56	56	55	75	96	104	96

Source: Economic Survey, 1962 (Central Bureau of Statistics, Accra) p.25.

fifty per cent reduction in the investment in transport equipment and 14.3 per cent fall in purchase of new machinery and other equipment has given a stabilising upward trend to total fixed investment. This upward trend is however marked by spurts from 1959 following the initiation of the 1959-64 programme. The successively large annual increases in fixed investment from 1958 to 1961 raised the average annual rate of increase to 10.5 per cent compared with the average annual rate of growth of 7.5 per cent for the national product. Chart 6 compares the trends of national product and gross fixed investment between 1951 and 1962.

As a proportion of national product, gross fixed investment, varied from eleven per cent in 1951 to 21.2 per cent in 1961. Table 20 summarizes the proportion of national product devoted to investment in fixed capital during the period with comparative date in selected years for various countries. W. A. Lewis suggests that in the initial process of economic growth a quarter of national product should be devoted to the provision of the public services and capital formation, and that the basic problem of development is to effect a reduction in the share of consumption from the prevailing 85 per cent of national output to 75 per cent in order to release the remaining quarter for investment in capital construction.[29] It is evident from the Table that only Canada comes close to fulfilling the Lewis requirement on a sustained basis and that Ghana falls short of this requirement throughout the whole period. Furthermore, government revenue from taxation, expressed as a proportion of national product, is on

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29. W. A. Lewis, "Some Reflections on Economic Development," in G. Meier, Leading Issues in Economic Development, (Oxford University Press, New York, 1964), pp. 95-98. Originally appeared in Economic Digest, Vol. 3, No. 4 (1960), pp. 3-5.

TABLE 20

PERCENTAGE OF GROSS NATIONAL PRODUCT DEVOTED TO CAPITAL FORMATION IN SELECTED COUNTRIES FOR SELECTED YEARS

	Canada (1)	Ceylon (2)	Chile (3)	Burma (4)	Ghana (5)
1953	23	10	9	14	12
1958	25	12	10	21	14
1962	21	14	13	15	18

Source: United Nations, Statistical Yearbook, 1963, (New York, 1963), p. 515.

the average fifteen per cent which is significantly much less than the twenty per cent reported by Lewis to be the case in Ghana.[30]

It may be convenient to analyse fixed capital investment by type of asset within the framework of type of investor. The two basic types of investors have been private persons and businesses on the one hand and the government on the other. During the period the share of public investment has been less than half of the total but showing a marked decline from 47 per cent,[31] on the average, for the period 1951-55 to 40 per cent for 1956-61.

Public investment in social overhead capital accounts for the preponderance of construction and building in fixed capital formation during the period. Construction investment included engineering works like road, railway and harbour works as well as building both residential and non-residential. Public investment in buildings related to office structures and physical facilities for education and health; but while substantial outlays were made by the government for building purposes, engineering construction stood out most conspicuously.

The public expenditure programme with regard to engineering works could be regarded as a package of projects. The outstanding projects carried out in this field were (i) the extension of Takoradi

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30. Lewis, "Some Reflections on Economic Development," in Meier, op. cit., p. 97.

31. For an independent estimate of Capital formation which confirms this proposition for the period 1951-55, see E. K. Hawkins, "Capital Formation in Nigeria and Ghana," Oxford Institute of Statistics, Vol. 2, No. 1 (February, 1959) pp. 39-46.

harbour, 32 plans for which had been drawn up in 1937, and the construction of an entirely new harbour and township at Tema, near Accra; (ii) the extension and modernization of the railways; (iii) the spanning of the Volta River at Adomi to link the former British Togoland which now forms part of the Volta Region of Ghana; and (iv) the construction of a country-wide network of all-weather trunk roads. These engineering works constitute an extensive transport development. The extensions to Takoradi harbour which were completed in 1956 involved additions to wharf and handling facilities, a two-storey transit shed and improved road, rail and utility services to the new installations, all estimated at a cost of six million pounds. In spite of these extensions, there was still the need for a new port to serve the eastern part of the country, especially the recently developed cocoa-growing area of Ahafo in the Volta region for which the surf port facilities of Accra were inadequate and uneconomic. Besides, the necessity of a modern port in this area became increasingly evident as a decision on the Volta River project was imminent. 33 Thus in 1952 the fishing village of the Tema which lies some twenty-two miles east of Accra was chosen as the site of the new harbour and industrial township. The advantages of siting the

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32. Extension work actually commenced in 1949, and strictly speaking, the greater part of its cost was financed by loans of four million pounds raised in London by the colonial administration, and were originally not included in the development plan.

33. In 1949, the British Government commmissioned a firm of consulting engineers, Sir William Halcrow and Partners to "examine a proposed power scheme and report on the wider aspect of the development of the Volta River in respect also of irrigation, health, navigation, and communications." Ghana's New Town and Harbour Tema, (a publication of the Ministry of Information, Accra, 1961), p. 6. Before the consultants presented their preliminary report in 1951, endorsing the creation of a new port, the national government had decided to construct a new port regardless of the Volta River project.

harbour at Tema included (i) proximity to Accra which enables Tema to avoid the costly road or rail transport of heavy cargo intended for the capital if landing was to be at Takoradi, (ii) comparatively steep shelving sea-bed of rock at Tema affording deep water close to the land and thus reducing the amount of dredging required, and (iii) proximity of plentiful supplies of rock suitable for building the break-waters and other works related to the harbour and township. 34 Thus while the new harbour is a specific prerequisite for the Volta River project its general economic desirability is however independent of the power project.

The township aspect of the Tema project was under the direction of a public corporation set up for the purpose of transforming this hitherto fishing village of less than four thousand people into "the commercial and industrial centre of Ghana, leaving Accra free to fulfil its present role of Capital," 35 Between 1954 and 1961 the population of Tema increased almost nine-fold from four to thirty-five thousand people. Since the majority of these people were from the rural areas, their entry into urban life would affect their pattern of consumption, and the level of this consumption in an upward direction. Their new residence also imposes heavy demands on available resources tending to divert them into the provision of more social capital in housing, hospitals and schools which in the short-run limits [illegible] activities which are immediately productive of tradeable goods.

The construction of the Tema harbour and township was facilitated immensely by the previous expansion of rail transport.

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34. Port of Tema, Office Handbook, (a publication of the Ministry of Information, Accra, 1962), p. 8.

35. Ghana's New Town and Harbour, p. 23.

The 1951 programme made extensive proposals for railway development at a cost of £16.4 million but in 1952 it became evident that rail transport has a doubtful future in a small country like Ghana with relatively low density of population of 73 persons per square mile and very scarce productive resources. Hence in addition to construction of a forty-mile line to Tema, the other new railway construction was the fifty-one mile Achiase-Kotoku railway connecting Takoradi and Accra more directly. It reduced the rail distance between Takoradi and Accra by 195 miles,[36] and opened up for development the rich timber area of the central part of southern Ghana through which it runs. Also constructed was the double-tracting of the line from Kojokrom to Manso. But the major fixed investment in railways comprised additions to locomotive and rolling stock, and the introduction of diesel electric services.

Extensive railway development was abandoned in Ghana owing to the effective competition of road transport. There has been little fundamental change in the overall network of trunk roads since the Guggisberg period. As one writer observes, "from 1951 improvements have been aimed rather more at overcoming gaps than at embarking on entirely new construction."[37]

The major road works undertaken and completed by 1960 were (i) reconstruction of the trunk roads linking Accra, Takoradi, Kumasi and Tamale; (ii) two entirely new trunk roads, a coastal road

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36. Previously rail transport between the coastal cities of Accra and Takoradi had to pass through the inland city of Kumasi which lies about 190 miles north-east of Accra and about 165 miles north of Takoradi.

37. H. P. White, "Communications and Transport," in Agriculture and Land Use in Ghana, ed. J. Brian Willis, (Oxford University Press, London, 1962), p. 175.

to Takoradi, and a route from the coast to the north through Kintampo and (iii) a bridge across the Volta to replace the Senchi Ferry some seventy miles from the mouth of the Volta. By 1961 the total mileage of trunk roads increased from 3,500 miles in 1951 of which 300 miles were bitumen surfaced, to 4,792 of which 2,018 miles were bitumen-surfaced and all-weather roads. In addition, some 15,000 miles of roads of various quality are maintained by regional organizations, local and municipal councils, thus bringing the road mileage of the country to nearly twenty thousand miles. Most of these are in the rural areas where they facilitate trade and commerce. In relating the transportation pattern of a country to its economic development, we must bear in mind that economic considerations sometimes play only a secondary part in determining the routes of transport. In Ghana, for example, the construction of the Sekondi-Kumasi railway was motivated largely by the military objective of acquiring a means to transport troops and heavy weapons in the battles against the Ashanti during the closing years of the nineteenth century. Besides, the Volta bridge at Adomi was constructed in haste as a result of the determination to secure the political integration of former British Togoland into Ghana. Nevertheless, the importance of cheap and adequate transport facilities in economic development cannot be over-emphasized, and the pattern of transport development must reflect geographical distribution of economic activity. Three characteristiics of the Ghanaian economy - indeed of tropical African economies - to a large extent determine transport development. First, the dominance of products produced inland for export requiring transportation to the port of exit; secondly, the reliance on imported tradeable goods which must be distributed over

the country, and thirdly, as a corollary of the second, the lack of industries established on a regional basis to reduce transport requirements. The railways carry most of the export goods of cocoa, timber, and all of the manganese ore from the production centres to the ports of Takoradi. The development of railways in Ghana was controlled by the possibility of exploiting mineral rather than agricultural resources and the railways have therefore been concentrated in the area of mining activity, about sixty miles of a centre at Dunkwa. Road transport seems to predominate in the distribution of imported goods. Nevertheless, a keen competition between rail and road transport is a characteristic of the transport[38] pattern in Ghana, even in the export field.

Between 1956 and 1962 the freight traffic of the railways fluctuated between 1.6 million tons in 1959 and two million tons in 1961 with an average charge of four shillings and six pence per ton mile compared with an average of two shillings per ton mile charged by road transport. This differential in freight-rates partly reflects the organizational structure of transport in Ghana. The railways are completely state-owned and financed by borrowed capital while road transport is generally privately owned and makes use of roads constructed and maintained by the State out of tax revenue. The effect of this organization with respect to railways has been to impose on them obligations which hinder their ability to compete with private transporters. A major obligation on the railways has been interest and capital repayment charges which raises their overhead cost as

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38. Though this is not as keen as in Nigeria, see United Nations, Transport Problems in Relation to Economic Development in West Africa, (Economic Commission for Africa, New York, 1960), p. 89.

compared with road transport.[39] Besides, the railways usually undertake to provide generous terms of service pension funds, which private transport operators are not obliged to provide. Thus, on the other hand, road transport is predominately operated by African private enterprise which is organized on a one-owner basis with little overhead capital requirement. In order to avoid the threat of unprofitable operation of the railways consequent upon their competitive disadvantage vis-a-vis road transport, the government on more than one occasion had to ban competition from road transport on routes parallel to the railway lines so as to ensure traffic for the railways. The most recent experience of this ban was in 1959 when the Kumasi-Takoradi road transport was prohibited from trafficking in the export commodities of cocoa and timber.

The main form of private transportation has been the ubiquitous multi-purpose "mammy" lorry, which is an imported chassis[40] fitted with a locally built wooden body. Since its introduction in the nineteen-twenties lorry transport has contributed immensely to the expansion of internal trade and production. By opening up areas hitherto inaccessible to large towns, it facilitated a transition from subsistence production dictated by lack of markets to production for exchange. The opening up of markets consequent on the introduction of road transport has determined the comparative advantage of producing one commodity with

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39. For a penetrating discussion of road motor transport and its relation with railways transport, see A. W. Cardinal, The Gold Coast, 1931 (Government Printer, 1931), pp. 114-117. For a critique of inconsistency in official attitudes towards road and rail transportation, see also Rita Hinden, Plan for Africa, (London, 1944) pp. 150-1. "By some kink in the mind of the colonial administration, railways have been expected to pay for themselves... roads are built without thought of direct return and their provision is reckoned to be an elementary function of the State."

40. For a meticulous description of this vehicle see White, op. cit., p. 176

respect to another; furthermore, lorry transport has served as the vehicle of supplying producers with new commodities on which they might spend their cash receipts. Indeed, in certain areas of the North, the supply of produce for sale is determined largely by the availability of commodities on which cash proceeds may be expended;[41] and the lorry has played a vital role in bringing about not only the exchange of surplus produce for imported goods but also, in making this exchange possible, some degree of specialization in production between different areas. Thus while it could be said that the impact of the railways was on international trade, road transport by means of the lorry has been instrumental in expanding the scale of the internal economy and in introducing some regional specialization of economic activities. The major field in which lorry transport plays its most significant role is in internal production and distribution of goods. Indeed, in the present stage of the country's development, "the most important - virtually, the sole - implement in the mechanization of agriculture has been the all-carrying mammy lorry."[42] Nevertheless, the effectiveness of this role from the point of view of satisfying domestic demand for food has been limited severely by neglect of agricultural production for the domestic markets.

In the long run manufacture and agriculture are closely interdependent and are best conceived as complementary activities in any development programme. In a basically agricultural economy like Ghana, efficient agricultural production provides the only basis for a successful manufacturing activity. For increasing output per labour input

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41. White, op. cit., p. 173.

42. J. B. Willis, "The General Pattern of Land Use" in Agriculture and Land Use in Ghana, ed. J. B. Willis, p. 210.

in the agricultural sector will enable labour to be released for employment in manufacturing. Moreover, especially in the case of food production, increasing output of the agricultural sector serves as a rise in the real income of producers and therefore provides a corresponding rise in their demand for manufacturing output; in addition it provides factory workers with an adequate supply of food at prices sufficiently low to deter potential demand for wage increases as a result of high prices of food products. Besides non-food agriculture provides the basic raw materials required for an industrial programme, and for a developing economy which initially has to import its capital requirements, the development of a domestic raw-material base where comparatively advantageous will result in a substantial reduction in the economy's expenditure of scarce foreign-exchange on imports of food and raw materials.

It is noteworthy that of the total capital outlay of £117.5 million between 1951 and 1958, only £7.6 million was spent on improvements in agriculture, an amount forming less than six per cent of total capital expenditure during the period. This amount was devoted mainly to the rehabilitation of the cocoa industry, and, to a less extent, to animal health, fisheries, forestry, and control of the tsetse fly. The small size of public investment in agriculture may be explained by three factors. First, agricultural production occupies more than three-quarters of the population, and is undertaken as a peasant enterprise in a complicated system of land tenure. The main feature of this system is the communal ownership of land with individual rights to use but with no right of the individual to transfer of land. While communal ownership does not provide incentive for conserving the productivity

of land, matrilineal inheritance gives rise to a lot of litigation among sons and nephews[43], and this prevents efficient use of land resources. The inhibiting effect of this system on agricultural production may however be exaggerated, for in actual practice, there has grown up a widespread tendency towards freehold mainly in the cocoa growing areas and especially in the densely populated agricultural regions of the country. As R. J. H. Pogucki[44] notes land is not "ex commercio," and "the fact that in some areas customary sales are not made is the result of absence of demand, or of lack of willingness by landowners, and not a manifestation of prohibition." Nevertheless, a comprehensive reform of land tenure, and reorganization of land holdings are necessary before large-scale investment in agriculture can be profitably undertaken.

Secondly, until about 1960, there has prevailed in official circles a certain complacency about the level of food production in Ghana, and this complacency led to the view widely held until recently that the real problem of agriculture was wasteful distribution and not inadequate production, and therefore that the solution to the problem lay in the construction of feeder roads which would facilitate distribution of output. Thirdly, there was little in the form of an industrial programme before 1959 which would create demand for agricultural raw materials capable of being produced efficiently in Ghana.

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43. S. La Anyane, "Agriculture in the General Economy," in Agriculture and Land Use in Ghana, pp. 192-200.

44. R. J. H. Pogucki, "The Main Principles of Rural Land Tenure," in Agriculture and Land Use in Ghana, p. 183. For an excellent account of the problems of land ownership in Africa in general, see C. K. Meek, Land, Law and Custom in the Colonies, (Oxford University Press, London, 1949), especially Chapter Fourteen.

Thus the various schemes of agricultural investment which were undertaken as economic services by the government were largely in the form of research and demonstration stations, and these were entirely peripheral in their impact on direct production by farmers. Out of 829 tractors in the country in 1958, 684 belonged to the government agricultural stations, 134 were used for commercial production and eleven were privately owned.[45]

Public investment in manufacturing was equally insignificant as in agriculture. Between 1951 and 1958, five-and-one-half million pounds of public expenditure was devoted to the promotion of secondary manufacturing. Until 1961, the main instrument by means of which government sought to encourage industrial development has been the Industrial Development Corporation. The Corporation was a statutory body established in 1947 to undertake and encourage industrial investment by (i) financing industrial investments and exercising full control over management; (ii) entering into partnership with private firms of proven business capacity and financial soundness on terms mutually agreeable; (iii) helping small unincorporated business with loans; and (iv) assisting incorporated industries with loans or by the provision of machinery, and technical knowledge. In addition, the corporation was to establish industrial estates in the urban centres to be rented to private industrialists.

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45. Report of the United Kingdom Trade and Industrial Mission to Ghana, (H.M.S.O., London, 1959). p. 41 notes that "at present practically all the tractors used for purely agricultural purposes in Ghana, and the implements which go with them, are in the hands of Research and Agricultural Stations," and "are used primarily for the work of the stations themselves." The source of the number of tractors in the country is Motor Vehicles Statistics 1958, Statistical Reports, Series V., No. 3, (Central Bureau of Statistics, Accra, 1959, p. 5.

The responsibilities of the Corporation may be expressed in a five-fold classification as (i) entrepreneurial, (ii) innovational, (iii) managerial, (iv) financial, and (v) administrative. It is important to isolate these distinct, and in some cases conflicting, functions. For, lack of clarity of functions hinders successful operations of any organization, and it may, indeed, be surmised that the dismal record of the Industrial Development Corporation derived in no small measure from multiplicity of functions which were not clearly defined.

The effective performance of entrepreneurial function by an organization requires the adoption of the technical dynamism which characterizes the Schumpeterian entrepreneur which is expressed in the constant urge to seek new forms of economic activity and organization. As a semi-government institution, the Corporation lacked this dynamic urge from the start. The requirement of accountability to both legislative and executive branches of government imposed a severe limit on the scope of its initiative in developing any latent entrepreneurship it may possess. The feeling of being responsible not to the organization itself but to an outside body tended to induce conformity to regulation and reluctance to initiate an extra-ordinary action.

With its entrepreneurial potential greatly reduced, the Corporation's scope for innovation became limited accordingly. Undoubtedly, an organization like the Corporation, may be capable of making some economically useful technical inventions with respect to either techniques of production or methods of business organization, but it has little incentive of incorporating these inventions successfully into the process of production as long as it is encumbered with other responsibilities which have little direct relationship with entrepreneurship or

innovation. Successful entrepreneurship and innovation require that the Corporation be divested of such distracting responsibilities so that it may be enabled to devote its energy and resources to autonomous decision-making.

The managerial responsibility of the Corporation presumes the existence of enterprises which are in need of sound management. While this may be the case in specific instances, it is much more the case that lack of entrepreneurial ability is the most important missing link in the chain of development processes. Hence the primary objective of industrial policy must be to emphasize the need to increase the supply of entrepreneurship. Indeed, it may be postulated as a general principle that entrepreneurship breeds management, but management scarcely breeds entrepreneurship. A specific shortage of managers can be relatively easily repaired by hiring foreign managers for a fee if necessary, but entrepreneurship cannot be hired in this way as a long-run proposition. It is therefore necessary that we emphasize that while we do not deny the relevance of emphasis on the need for managers, yet we are inclined to the view that, as entrepreneurship is a basic factor inhibiting development, it would be desirable to place priority on its supply, and not to confuse this priority with the separate albeit urgent need for managers.

The three functions of entrepreneurship, innovation and management are also distinct from the Schumpeterian capitalist function of supplying finance for investment. The responsibility of acting as a non-monetary financial intermediary between the government and private borrowers induces in a government sponsored Corporation the tendency to be excessively formalistic in its procedures, to be routine-minded, and deliberately cautious. These characteristics are especially intensified

if the Corporation assumes also the responsibility of administering how the loans are used. In this latter instance, the role of the Corporation is likely to become an obstacle rather than an inducement to the spontaneous development of entrepreneurship among borrowers.

From the point of securing national participation in industrial activity, the Corporation may provide an alternative means of securing some measure of partnership with private enterprise to outright nationalization. But this procedure has certain disadvantages. One of these disadvantages arises from the potential danger of restriction of competition in an industry in which the Corporation is in partnership with a particular firm.

Furthermore, there is likely to arise a conflict of objectives, especially when actions dictated by market conditions which are favourable to private profitability conflict with other objectives of national economic policy, unless the Corporation is limited in its function as an independently motivated entrepreneurial device.

Thus in setting up an Industrial Corporation, it is not only necessary to distinguish clearly between the separate functions, which it is desired to entrust to the organization, it is also imperative to assign only responsibilities which are closely mutually related in order to secure economies of integrated decision-making. An examination of the functions imposed on the Ghana Industrial Development Corporation reveals the diverse and conflicting character of these functions. In view of the limited availability of qualified man-power to carry out these functions, the Corporation, invariably, tended in practice to be deliberately selective in the functions it wished to exercise. Throughout its history, it developed a marked propensity for taking over and controlling the management of private businesses, and was remarkably negligent in the performance of its other assigned functions.

In its early stages, the Corporation functioned primarily as a loans board supplying medium and long-term credit to private small businesses. But from 1954, there was a change of emphasis towards direct investment by the Corporation in industrial enterprises; and direct investment was accompanied by full control of management of industries for which the Corporation supplied the entire capital.

In 1955, the limit on the capital fund of the Corporation was raised from one million pounds to four million pounds. By the end of the same year, the Corporation had received £1.4 million in grants from the government. Of this amount £97,000 was spent on defraying administrative expenses, an amount representing 6.7 per cent of the loanable fund available to the Corporation. Besides, during the same period, £68,000, being 4.7 per cent of total grants received, was written off as losses on loans and investments. Thus, from the beginning of its operations up to the end of 1955, administrative costs and losses accounted for 11.4 per cent of the Corporation's investible finance. This percentage is likely to be higher if we take into consideration the fact that the industrial projects undertaken by the Corporation have subsequently turned out to be largely unprofitable.

The diversity of the Corporation's industrial activities is shown by the following list of the main products of enterprises, which the Corporation either managed and controlled directly, or in which it participated with private enterprise: brick and tile, matches, nails, cigars, soap, edible oil, biscuits, storage tanks for fuel and water, laundry and hotel services. Out of fifteen companies

under direct management of the Corporation which were in operation, ten showed total losses of £245,656 in 1957, and £171,772 in 1958. While it must be pointed out that most of these enterprises were in operation for not more than three years, and that these losses might be regarded as not unusual for new enterprises engaged in developing markets for their products, it must also be emphasized that there is little evidence that these losses arose from outlays on advertising and sales promotion. Certainly, the limitation of demand arising from lack of knowledge about the Corporation's activities was a factor in the failure of these enterprises to compete with imported products, but high production costs resulting from inadequate and faulty management was the major factor underlying the poor record of the enterprises undertaken by the Corporation.

It is tempting to conclude that inadequacy of resources of man-power and capital was the chief factor behind the Corporation's ineffectiveness as an agent of investment, but it may be more relevant to affirm, in view of the diverse responsibilities of the Corporation, that the Corporation was crippled into inaction by the multiplicity of functions imposed upon it.

While the most desirable course of action would have been to assign a limited responsibility to the Corporation consistent with clearly defined priorities, it must not be subsumed that the experience of the Corporation would have been necessarily less dismal than it actually turned out to be. It is probable, however, that the clarity of purpose which is associated with a specific task might have elicited concentrated and imaginative action from the Corporation in the promotion of industrial development.

Between its establishment in 1947 and its abolition in 1962 the Industrial Development Corporation invested nearly four million pounds in thirty-one companies, twenty-two of which were under its direct management and in which it held majority shares. It also lent £634,000 to 456 private businesses to help towards the purchase of new plants and equipment. When it was finally wound up in 1961 only six of its subsidiaries were operating at profit. It is notable also that concerning the establishment of industrial estates, the Corporation could not report any progress and repoted in 1958 that it had "no immediate plans for further action in this field"[46]. Thus the Industrial Development Corporation failed in its role as the agent of industrialization.

Undoubtedly the major problem of the Industrial Development Corporation was lack of management expertise and entrepreneurial initiative. But this basic problem was compounded by four serious difficulties: (i) lack of adequate streamlined procedure for obtaining government approval necessary for schemes involving more than £10,000; (ii) lack of basic services of industrial water, and of priority for connecting public services to industry; (iii) resistance of consumers including the government in the cases of products of which it is a large consumer, to the products of the industries run by the Corporation; and (iv) lack of adequate tariff concessions on imported raw materials for manufactur e.[47]

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46. Ghana, Industrial Development Corporation Report, 1957-58, (Accra, 1958) p. 24.

47. D. E. Carney, Government and Economy in British West Africa, (New Haven, 1961), p. 119.

Of these difficulties, besides lack of entrepreneurship, the lack of cheap power constitutes a serious bottleneck to successful industrial and agricultural expansion. In order to remove this bottleneck the government has engaged, since 1951, in investigating the possibilities of harnessing the Volta river for hydro-electric power development as a separate development task. After nearly a decade of careful analysis of the physical and financial soundness of the project, final agreement on its implementation was reached in 1960, and actual construction began in 1962, with completion date set for the end of 1966.

The Volta river project is an integrated complex of investment activities having as its main objective the production of aluminium utilizing the country's large deposits of bauxite. The project comprises (i) a dam and a power house at Akosombo with the dam causing a lake of about 250 miles to be formed, (ii) an aluminium smelter at Tema which being undertaken as a foreign private investment by a consortium of aluminium companies who are also wholly responsible for financing the mining of the bauxite and its supply to the smelter, (iii) the provision of a 400-mile transmission network covering the area formed by Akosombo, Accra-Tema, Kumasi and Takoradi, (iv) the resettlement of about 77,000 people who are likely to be displaced by the formation of the lake behind the dam, and (v) the irrigation of the Accra plains and the south-eastern Savannah lands. Items (i), (iii) and (iv) are estimated to cost £70.6 million, and half of this amount is being financed from the country's own resources, with the other half being financed with loans by the United Kingdom Government, the Government of the United States of America, and the World Bank.[48]

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48. The method of financing the project is discussed in detail in Chapter Seven.

The project when completed is expected to be the major dynamic force in bringing about diversification of the economy. Through the provision of cheap power, it will enable existing industries to become modernized and new ones to be established. It will induce investment in productive activities which in their net effect[49] will be both export-biased and import-substituting. First, the aluminium produced will not only supply the domestic market, but also be exported; secondly, the domestic production of power will considerably reduce the import of raw materials for power production; thirdly, the implementation of the agricultural aspect of the project will enable introduction of improved methods of production and lead to a substantial increase in productivity of food agriculture and a subsequent relative decline in imports. In addition to these post-project benefits, the actual construction will provide a major opportunity to Africans for the acquisition of invaluable skills at the technical and professional levels, besides providing employment for a sizeable number of people. The project's most important effect, however, lies in its potentiality of transforming radically the social structure and values of the society.

6.4 Pattern of External Private Investment

In this transformation, private enterprise, given the opportunity and necessary incentives, has a vital role to pay as it has indeed played before and especially since 1951. The limitation of

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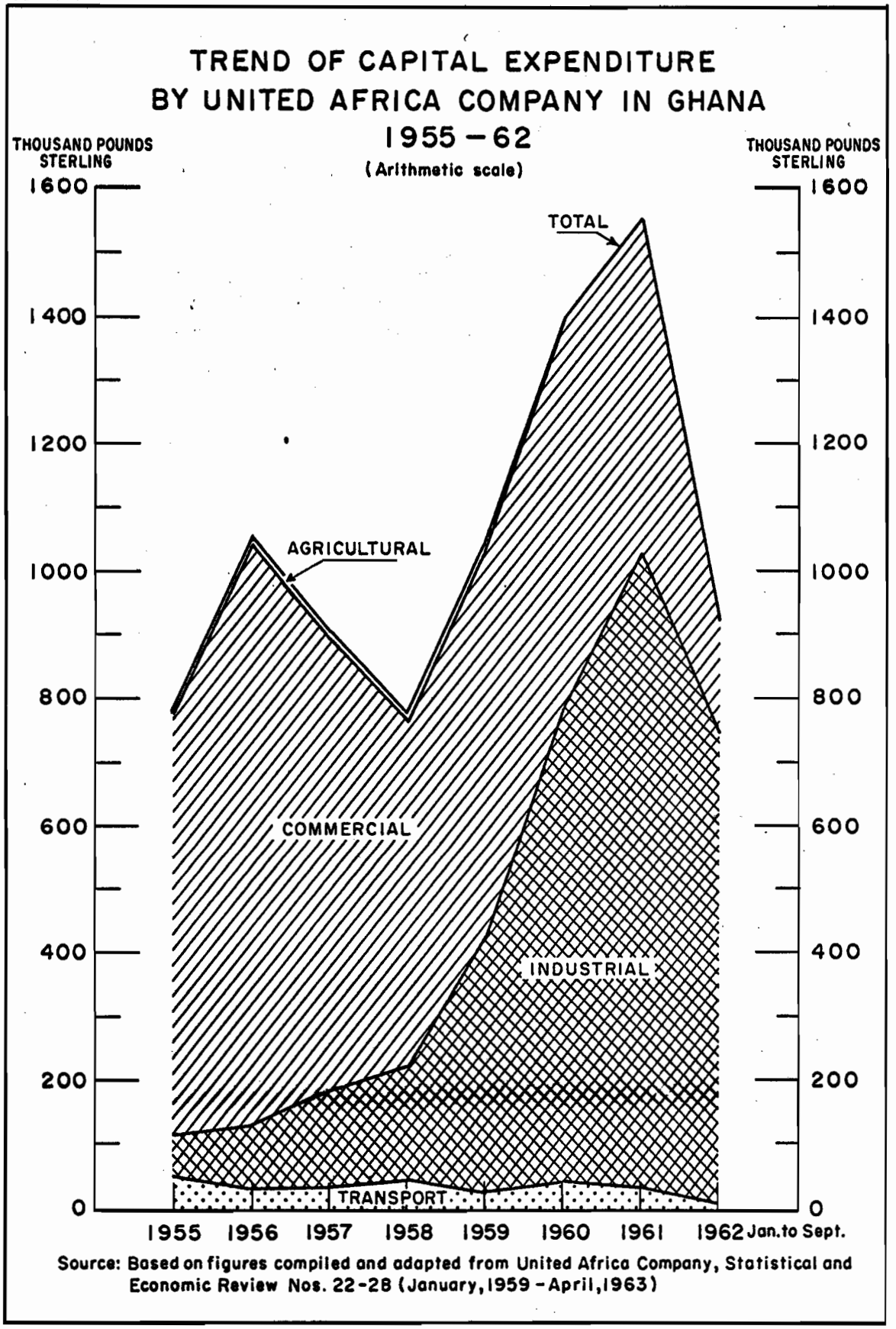
49. Raw materials such as coke, pitch, and electrolyte will have to be imported for use by the smelter to the extent of about 350,000 tons a year. See B. K. Hartshorne, "Construction and Materials" in Wealth from the Volta, undated pamphlet issued in 1957 in Accra, p. 26.

CHART-7



Source: Based on figures compiled and adapted from United Africa Company, Statistical and Economic Review Nos. 22-28 (January, 1959 - April, 1963)

government investment to social overhead capital was dictated by the lack of entrepreneurial ability and experience to undertake directly productive industrial activities. Thus the availability of external enterprise was an important factor in sustaining the government's level of investment in terms of the relative facility with which supplies of consumer imports were made available.

External direct investment has been traditionally concentrated in the export activities of mining and forestry, but between 1951 and 1962, its role has become significant in manufacturing for the domestic market. Fourfold advantages flow from the participation of foreign capital in the economy: first, it has provided an important source of trade capital;[50] (ii) by investing in durable capital of plant and equipment it helps build up the productive capacity of the economy; (iii) it employs African labour generating domestic purchasing power; and (iv) it creates conditions enabling Africans to acquire industrial skills and entrepreneurial experience.

Chart 7 gives the trend of capital expenditures of a representative foreign firm, the United Africa Company, between 1955 and 1961 under the four headings of commercial, industrial, transport and agriculture in Ghana. While four-fifths of the group's investment

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50. The contribution of external capital to the development of commerce and trade is most marked in the financing of cocoa marketing before 1939 and import trade through the provision of credit to African trades. For a detailed account of the credit relations between African retail traders of imported goods, and the merchant firms, see I. Acquah, Accra Survey, a social survey of the capital of Ghana, (University of London Press, 1958), pp. 69-70. The author estimates that in 1954 there were 1,466 credit customers with four major import firms, and of this number, 356 were resident in Accra.

in Ghana in 1955 was on commercial activities, with expenditure on manufacturing forming no more than four per cent, by 1961 the situation had changed and four-fifths of its capital outlay was on industrial activities, the share of investment in commerce falling to twelve per cent. This change should be viewed in relation to the fact that total capital expenditure doubled from £777,000 in 1955 to nearly £1.6 million in 1961, and the fact that the company ceased investing in agriculture from 1960, and began reducing investment in transportation from 1961.[51]

This significant change from predominantly commercial to predominantly industrial investments reflects partly the effect of political factors,[52] but largely the active response of external equity capital to the changing needs of an expanding economy. While it appears that the organisation of the export trade in cocoa under the Cocoa Marketing Board and the subsequent intention of the national government to exclude external firms from this trade imposes a severe limit on the scope of commercial activities in an economy based on international

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51. The company's investment in transport comprised rivercraft, plant and wharves, etc., and in agriculture was limited to depots and transport for cocoa collection as foreign enterprise was prevented from agricultural cultivation for the domestic market.

52. Political pressure for African participation in the mercantile business has passed through two phases: (i) pressure applied by the colonial administration on the mercantile firms to encourage and accept African participation and competition, that is, the incorporation of the African into the scope of private enterprise; and (ii) the intention of the national government to reserve to itself the field of import trade and business as symbolized in the formation of the National Trading Corporation in 1961. In this phase the intention is to exclude external capital not for purposes of reserving it for Ghanaian private enterprise whose previous insistence on this limitation played no small part in the government's action, but for the entirely different purpose of establishing nationalized industries. It is not uncommon for African business groups to ask for the exclusion of external capital from some businesses even though they themselves admittedly are incapable of undertaking such businesses. See Gower Report.

trade it is certainly the case that participation in the external trade of cocoa has never been the primary business of these firms who in the past have often deprecated the vagaries of the world price of cocoa and the domestic costs of its handling and transportation.[53]

The fundamental cause of the shift is the increase of consumer demand and its growing sophistication as money incomes rise. The enlargement of consumer demand induced the entry of new competitors, mostly Africans into the merchandise trade, who, operating with lower overheads than the established firms succeeded in reducing the profit

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53. Indeed, in 1959 the United Africa Company withdrew from produce buying, a year ahead of the target date set by the government. Besides, the company handed over to the government the operation of its ferries. See A. H. Smith, "Considerations relating to sound private investment in commerce and industry in West Africa," being originally a lecture delivered to the students in the Business Administration class at the University College of Ghana in January, 1960, published by the United Africa Company (Accra, 1962). On the company's withdrawal from export trade, Smith made the following comment: "I suppose it is fair to say that we might have dug our toes and used our financial resources to make unduly large over-payments to cocoa farmers and thus squeeze out for a while some of the smaller produce buyers. But that would have been a short-term policy; worse it would have been an unfair and hence inevitably a politically damaging one. The plain fact was that many of these smaller buyers had thoroughly learned their trade and were operating just as efficiently as we were; with their lower overheads they were also doing it more economically. Circumstances were such that we were slowly being beaten in a straight and fair commercial contest. This is the way competition should be waged, and the answer for us was not to try to roll back the tide of progress, but to accept the facts of life and redeploy our skills and our money into new fields where we could make a genuine contribution to the African economy. Some may read into this situation political implications of the national versus the expatriate firm; I won't deny that these national considerations exist and have to be taken into account, but it seems to me that the more important substance of the question is commercial and economic. The requirement of competition, and the need to move ahead with the times, is equally vital for the national and the expatriate company."

margins especially of the trade in traditional staples. Meanwhile sophistication of demand meant the rise in importance of more refined consumption articles of a durable and luxurious nature, as well as of producer goods; and this changing pattern of demand may induce, or be induced by, changes in the structure of investment. In either case, the external firms face a real "change in the structure of market opportunity"[54] which "calls for added commitments of capital and manpower, if the widened range of demand is to be catered for, and brings into focus the need to redeploy their overall resources so as to concentrate them into fields of greatest commercial promise under the changed conditions."[55]

From the point of view of the evolution of the economy, and provided that government policy does not have any adverse effect, this development is desirable, for it enables external equity capital, after having helped evolve a growing local consumer demand, to initiate, on the spur of local competition, a specialization of functions on the basis not only of comparative economic efficiency but also of mutual interdependence with local traders. For the preoccupation with maximizing net income compels private enterprise to search constantly for new lines of profitable investment whenever established lines become threatened with the growing competitive efficiency of new entrants, thus external equity capital will be compelled by the dynamics of the situation to engage in a continuing process of capital redeployment and be a strategic factor in pioneering investment possibilities.

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54. United Africa Company, "Redeployment, An Aspect of Development in Tropical Africa," Statistical and Economic Review, No. 28, (April 1963) p. 3.

55. United Africa Company, op. cit., p. 4.

This pioneering role, if accompanied by a policy of hiring Africans, enables a less costly transmission of business talent and its diffusion among a growing number of Africans. From the point of view of the consumer, the competitive efficiency of new entrants means lower costs and hence reduced prices for consumer goods, and therefore an increase in real income. Furthermore, the structure relieves the government of the necessity not only of finding finance for investment in such fields but also of attaining and ensuring by itself a continuing process of efficiency through innovation especially based on technical change. In this context, it would become the responsibility of the government to pursue enforcement of competition irrespective of the origin of capital and based on the objective of cost-reduction and quality improvement. In this way, the benefits of the dynamic role of external capital as "generators of growth and as priming agents of African enterprise"[56] diffuse to embrace the whole economy.

By 1959, the following manufacturing industries were already established in Ghana, the majority of which have been operating for less than five years:

Sawmilling
Furniture
Pre-fabricated doors
Boat building
Matches
Bricks and tiles
Leather and plastic bags
Tyre-retreading
Pottery
Concrete products
Machinery repair
Bicycle assembly
Refrigerator assembly
Nails
Foundry products
Steel storage tanks
Oxygen and Acetylene
Soap
Face Powder
Breweries
Minerals and soft drinks
Refrigeration
Biscuits
Food Processing
Edible oil refining
Confectionery
Cigarettes and cigars
Clothing
Footwear
Printing

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56. United Africa Company, op. cit., p. 37.

During the crucial transitional period when the actual rate of growth tends to be higher than the natural rate of growth of the economy, the avoidance of inflation means a greater degree of reliance on external capital to sustain the level of desired domestic investment. In recent years, the government has decided to enter the field of manufacturing, and while postponing a critique of this policy decision to Chapter Eight we must emphasize here that this decision, while not diminishing the economy's dependence on external finance, certainly affects the conditions of its supply, and its effectiveness as an innovating agent contributing to the expansion of the economy.

6.5 Some Major Effects of the Pattern of Investment

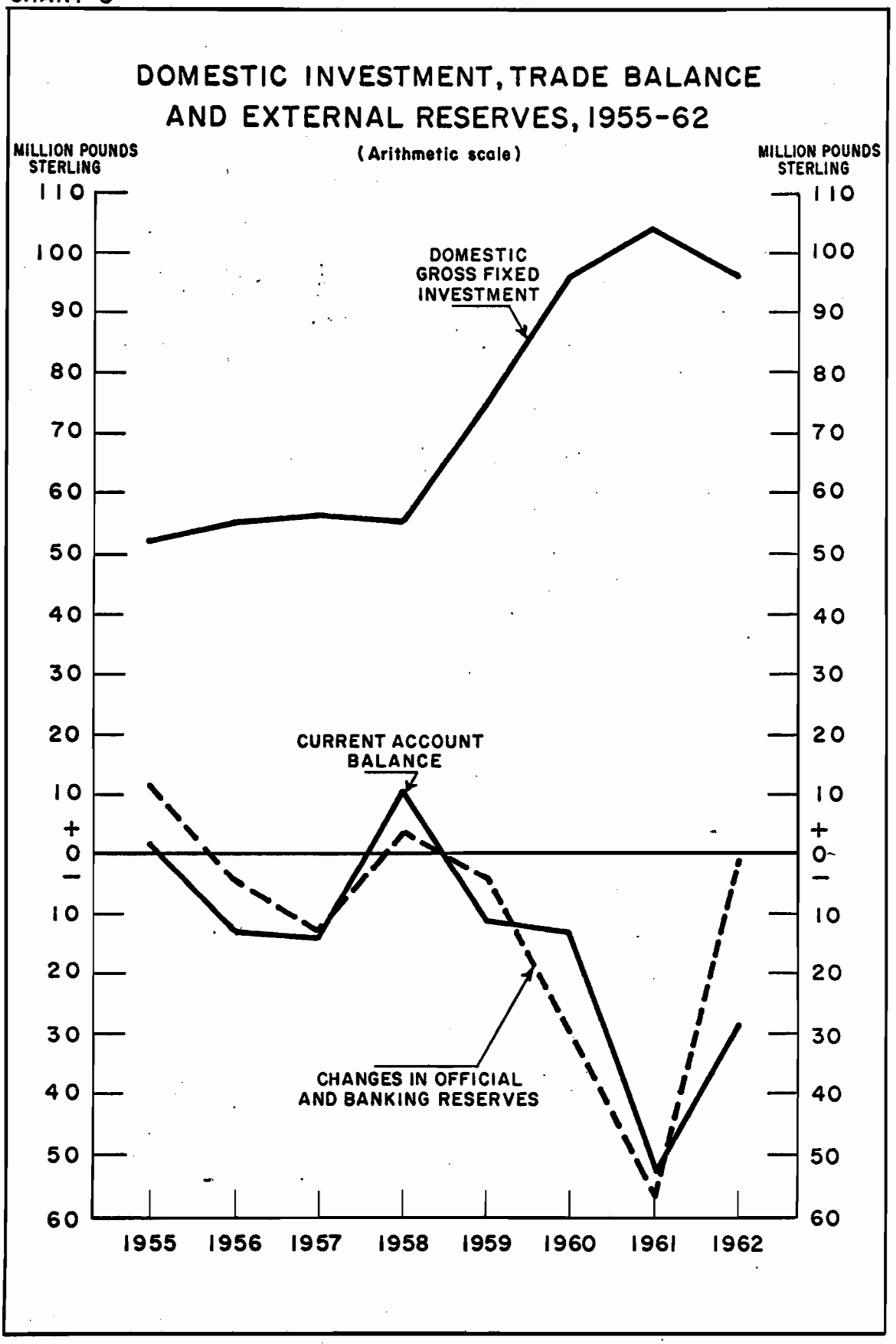
The emerging pattern of investment, especially on public account, has significant effects on the trade balance factor proportions, and the structure as well as balance of government finance. The adverse turn of the trade balance on current account was as much a result of the pattern of domestic fixed investment as it was induced by the persistent decline in the world price of cocoa. Indeed, since total export earnings did not actually exhibit a secular decline because increases in volume counteracted the effects of declining prices, the emerging trade deficits could be appropriately attributed to the higher rate of growth of imports, particularly between 1958 and 1961. The importance of this period from the point of view of the balance of trade lies in the fact that it represented the phase during which the effects of investment activities in previous years became fully felt in the economy, especially in the form of increasing demand for imports.

The demand for imports arose from three sources: first, the direct demand for capital goods and intermediate goods as expressed in the capital expenditure programmes between 1951 and 1958 and in the

development plan of 1959-64; secondly, the demand for imports induced by recurrent expenditure in the maintenance of capital assets, and thirdly, the demand for predominantly consumer goods created by money incomes which capital and recurrent outlays have generated. Thus while exports increased on the average at 2.2 per cent per annum, imports grew at the rate of 4.3 per cent per annum exceeding exports since 1959 in absolute value terms. The main thrust in the growth of imports appears to have been provided by investment demand with its import content more than doubling in absolute value terms between 1958 and 1961. Nevertheless, although in 1961 the import of consumer goods increased by slightly over half of its value in 1958, it is noteworthy that food imports not only increased absolutely from £14.6 million in 1958 to £26.2 million in 1961, an increase of 79.4 per cent, but that their share of total imports rose from 17.4 per cent to 19.4 per cent in the respective years. Given the relative stability of import prices during the period, this represented large increases in the volume of food imports, thus reflecting a less than proportionate increase in domestic supply of food output relative to the growing internal demand for food.

These trends were duly reflected in the balance of trade on current account which changed from a surplus of £10.8 million in 1958 to an unprecedented deficit of £52.7 million in 1961. In addition to this huge deficit, there occurred official external capital transactions of ten million pounds in loan to the Republic of Guinea, and of five and one half million pounds in payment for mines acquired from foreign mining companies. With an outflow of private capital to the amount of £8.4 million induced largely by intimations of political instability in the same year, the total deficit requiring finance amounted to £76.6 million. This was

CHART-8


DOMESTIC INVESTMENT, TRADE BALANCE AND EXTERNAL RESERVES, 1955-62
(Arithmetic scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
110
100
90
80
70
60
50
40
30
20
10
+
0
−
10
20
30
40
50
60
DOMESTIC GROSS FIXED INVESTMENT
CURRENT ACCOUNT BALANCE
CHANGES IN OFFICIAL AND BANKING RESERVES
1955
1956
1957
1958
1959
1960
1961
1962

met by running down external reserves which dropped from £148 million in 1960 to £72 million in 1961, with the government and Cocoa Marketing Board holdings falling from £115 million to £16 million during the same period. In Chart 8 we depict the trends of trade balance and external reserves between 1955 and 1962.

In 1961 the government reacted to these developments by imposing stiff tariffs on imports, especially of durable consumer goods, ranging from 15 per cent to 66 per cent of bonded value, then quantitative control of external trade, and finally exchange control. While the sharp fall in external balances reducing their size to a precarious level called for drastic corrective measures, the authorities did not seem to recognize the necessity to differentiate between short-term and long-term justifications of their actions so as to underline the possible conflicts inherent in achieving short-term and long-term goals. Thus the trade restrictive actions were at once justified by the short-run need to control the balance of trade from further deterioration, and at the same time, by the infant industry agreement to promote domestic production in the long run. Although greater emphasis was placed on the justification of shifting import demand from consumption to investment goods, the effect of these policies was actually to reduce both consumption and investment components of the demand for imports. This is quite clearly shown in Chart 6.

The drop in the current account deficit to £28.3 million in 1962 resulted from equi-proportionate decline of both consumption and investment imports, the decline of the latter being reflected in a slight but marked fall in domestic fixed investment in 1962 compared to the previous year.

The current account deficit of 1962 was financed by a drawing

of five million pounds from the International Monetary Fund, by suppliers' credits in the amount of £12.4 million and bilateral trade credit of one million and one half pounds with Eastern European Countries, and by running down reserves by £1.6 million. A private capital inflow of £6.8 million helped adjust the remainder of the deficit.

The second important effect of the pattern of investment lay in its influence on factor proportions. Owing to the large size of investment projects, their characteristic lumpiness and relative engineering complexity on the one hand, and the technological backwardness of the labour force and specific shortage of skilled labour on the other hand, there has been a tendency to substitute capital for labour. This is particularly relevant to construction work undertaken in areas not only sparsely populated but also lacking in a tradition of even elementary engineering works, as is the case with the region surrounding the Volta River project. A decision to use local labour even if available with the requisite skills would entail costs of transporting workmen, housing them and providing other ancillary social services requiring large capital outlays. In the construction of the extensions to Takoradi harbour, for example, one of the major problems which faced the firm engaged for the project was an acute shortage of labour; and the firm's determination to utilize Africans to the utmost on the work in all its phases in order to minimize, for economic reasons, the number of foreigners who had to be imported aggravated the problem of labour shortage. This determination to use African labour involved "training, teaching, and encouraging Africans to do work of which previously they had little or no experience. To accompany that decision, it had been decided to move very much in the direction of mechanisation of operations".[57] For machine-paced operations require less specific training of African unskilled labour than operator-

57. A.J.Clark and J.H.A.Broughton, "Extensions of Takoradi Harbour", Institution of Civil Engineers, Proceedings, Vol.3, Part 2, (1954) p.444

paced activities, and therefore served as a great buffer against the impingement of extra labour cost. The firm which built the Volta bridge at Adomi observed that "with present prices of labour, mechanisation was as important in Africa as in any other part of the world",[58] and that "in all that they are thinking and planning in the Gold Coast today, it was generally agreed that all heavy civil engineering, to be economic, must be based on the fullest possible mechanisation. That was from the financial point of view as well as because there was a certain labour shortage."[59]

This tendency towards mechanisation motivated by the need to avoid excessive labour costs coupled with the characteristic durability of the capital assets - roads, buildings, and engineering works - has the effect of raising the capital intensity of investment in the economy. Although reliable estimates of capital stock are not yet available, the results of a recent preliminary study confirm this trend of increasing capital intensity.[60]

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58. "Scotts and Roberts on the Volta", Institute of Civil Engineers, Proceedings, Vol.3, Part 2, (1954) p.444.

59. "Scotts and Roberts on the Volta", p.429.

60. R.Szereszewski, "Capital and Output in Ghana, 1955-61", The Economic Bulletin of Ghana, Vol.7, No.4, 1963, pp.33-41 see especially p.39 Table 3 which shows capital intensity calculated as the ratio of the estimated gross capital stock to the total population increasing from 131 in 1955 to 188 in 1961 while gross domestic product per head of the population varied between a low of £60 and a high of £70 per annum. In the author's words, "the economy was simply substituting capital for labour along the production function combining growth with a change in proportions".

CHART-9

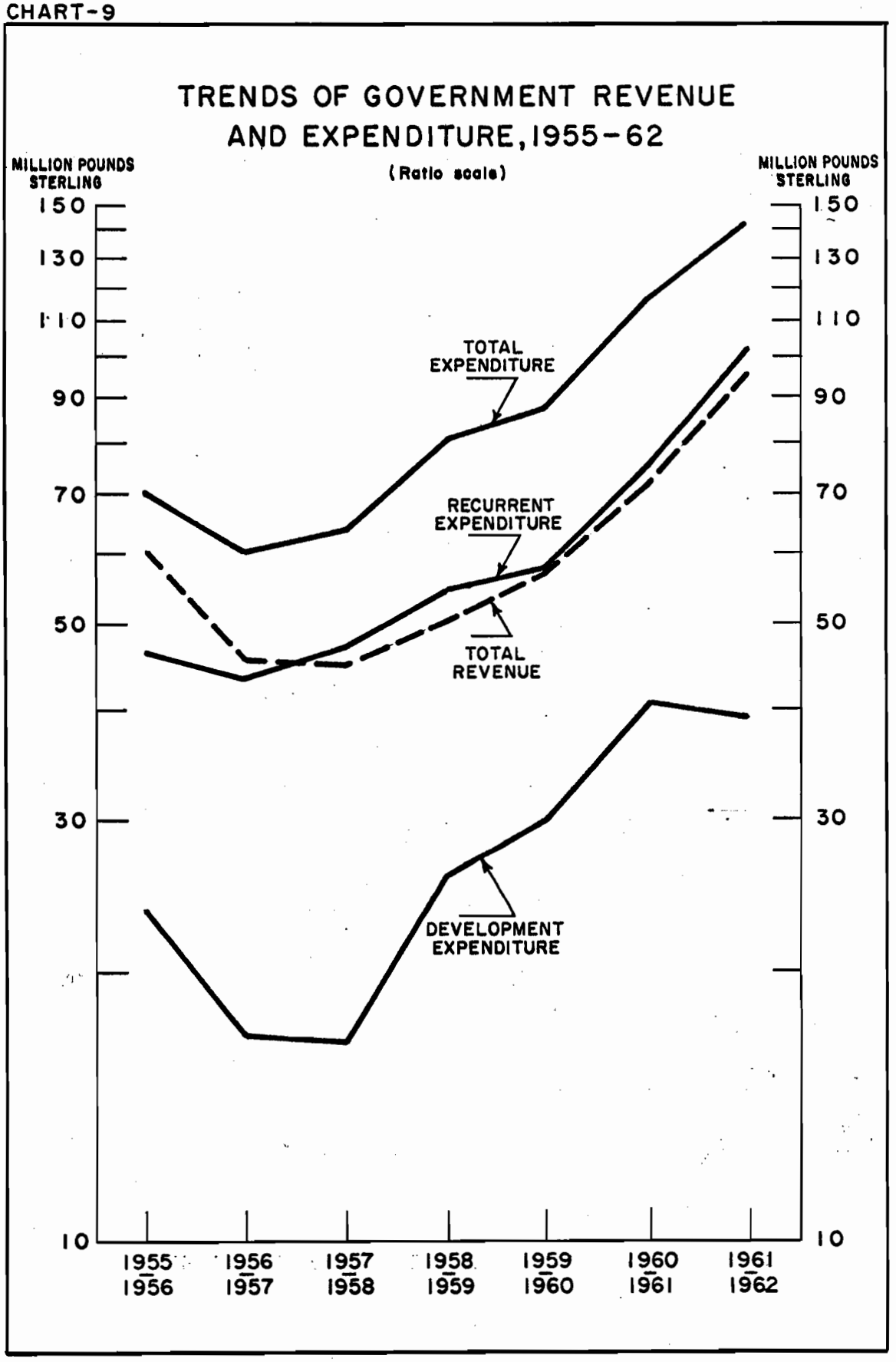
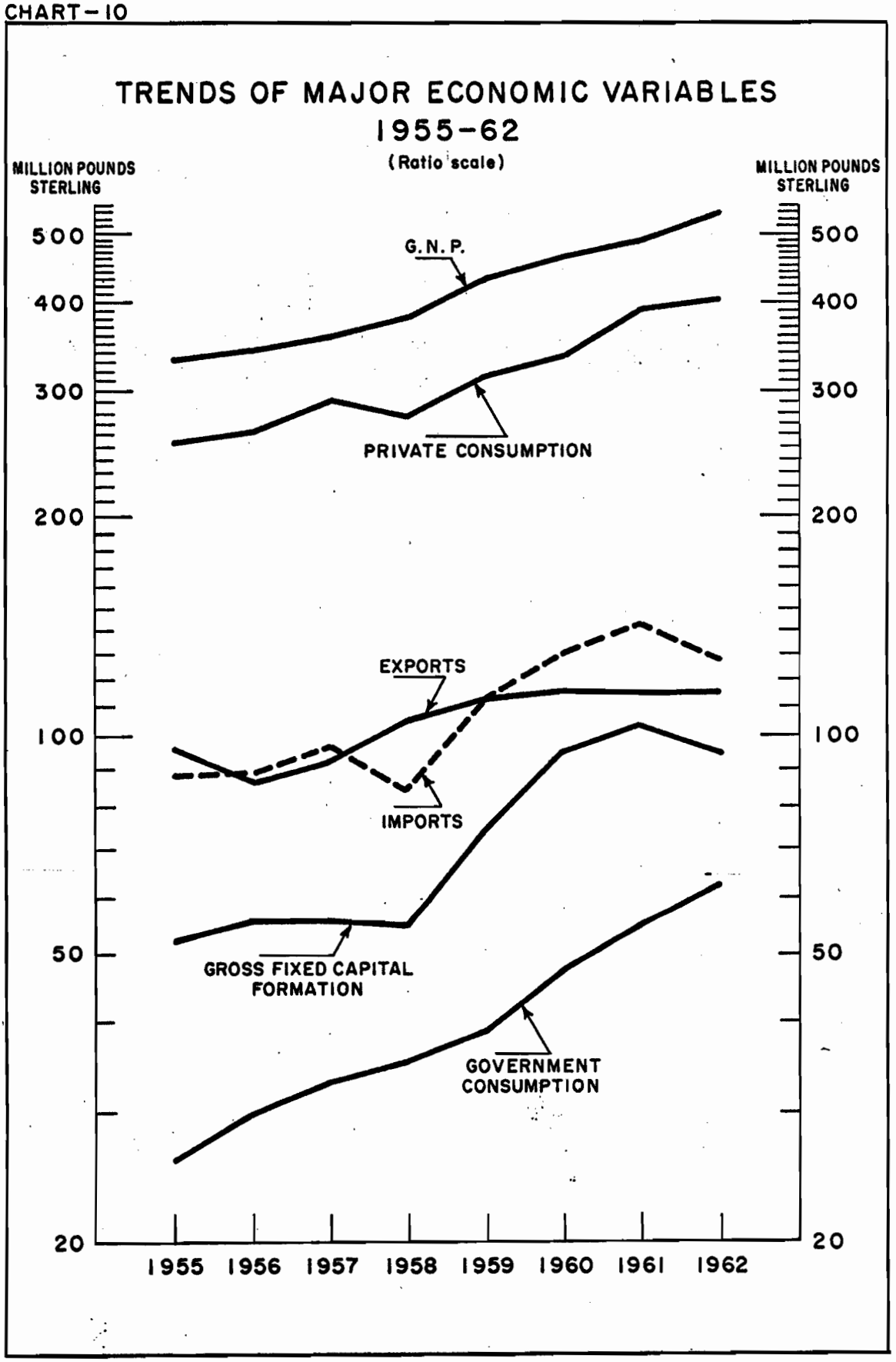

TRENDS OF GOVERNMENT REVENUE AND EXPENDITURE, 1955-62
(Ratio scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
150
130
110
90
70
50
30
10
TOTAL EXPENDITURE
RECURRENT EXPENDITURE
TOTAL REVENUE
DEVELOPMENT EXPENDITURE
1955-1956
1956-1957
1957-1958
1958-1959
1959-1960
1960-1961
1961-1962

CHART – 10


TRENDS OF MAJOR ECONOMIC VARIABLES
1955–62
(Ratio scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
500
400
300
200
100
50
20
G.N.P.
PRIVATE CONSUMPTION
EXPORTS
IMPORTS
GROSS FIXED CAPITAL FORMATION
GOVERNMENT CONSUMPTION
1955
1956
1957
1958
1959
1960
1961
1962

The third impact of the pattern of investment concerns the growing annual recurrent expenditure by the government. Besides financing ordinary business of government these outlays are necessary to maintain physically such struc tures as buildings,roads,and construction projects, and to defray the expenses of personnel and equipment required to run them. In chart 9 we have clear evidence of the increasing trend of government recurrent expenditure. Between 1955 and 1962 government recurrent expenditure rose from £46.5 million to £102.9 million with capital expenditure showing a substantial but relatively modest increase from £23.6 million to £39.3 million. Total expenditure doubled during the period while government revenue increased only by 58.1 per cent of its level in 1955-56 from £60.3 million to £95.7 million, thus increasing the annual financial deficit from £9.8 million to £46.6 million during the same period. The rising magnitude of the deficits was accompanied by the absolute and relative decline in the revenue from exports duty on cocoa, and by the emergence of import duties as the source yielding the greatest revenue for the government. In Chapter Seven we undertake a detailed examination of government finance in the context of capital development associated with it.

It suffices to conclude with emphasis on the implication of the trends of major economic variables between 1955 and 1962 for further investment expansion especially as envisaged in the development plan covering the seven-year period 1964-70. Chart 10 summarizes these trends all estimated in current market prices. While gross national product increased on the average at 7.4 per cent per annum, total consumption expenditure on private and public accounts rose at the higher rate of 8.1 per cent per annum thus increasing its share of national product from 84.1 per cent in 1955 to 88.1 per cent in 1962. With the value

of imports exceeding that of exports and growing at a higher rate per annum thus exhausting financial resources accumulated in the past the problem of financing capital accumulation at even the modest rates prevailing in the recent past becomes singularly acute. This development necessitates a reassessment of the pattern of investment pursued in the past.

While we cannot deny the need for social capital development yet it is evident that the degree of emphasis placed on social capital formation particularly during the period 1951 and 1958 was excessive and proved detrimental to the development of a sustained balance between domestic demand and supply. For the pattern of investment that emerged was characterized by a conspicuous lack of active encouragement to the production of domestic tradeable output, especially even of those food items which the country is capable of producing relatively cheaply. In the country's initial stage of contrived development, food agriculture remained a Cinderella activity.[61]

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61. The Watson Report, p. 57, "Agriculture appears to have been the Cinderella Department - before as well as since the war." See also Barbara Ward, The Rich Nations and the Poor Nations. The Massey Lectures of Canadian Broadcasting Corporation, (The Hunter Rose Company, Toronto, 1961), p. 61, "Farming I think has been the Cinderella of developing economies."

CHAPTER SEVEN

THE MONETARY SYSTEM AND PUBLIC FINANCE; SOURCES OF PUBLIC INVESTMENT FINANCE, 1951-62

7.1 Introduction

From the point of view of the supply of finance on public account, the period of 1951-62 falls into two distinct phases. The first phase covers the period of the 1951-58 investment programme during which the bulk of finance for the programme came from domestic sources in the form of balance of trade surpluses; the second phase begins from 1959 during which there has been a significant shift in the direction of financing investment on public account with external loans. The reliance on external loan capital during this latter phase has been rendered compelling by the adverse reversal of the country's external trade balance which has not been significantly corrected by autonomous capital inflows on private account.

During the entire period, however, private investment continued to play an important role in the economy showing a clear shift away from trading to manufacturing activities as analysed in chapter 6. In terms of origin, this finance is predominantly external equity capital in the form of reinvestment of profits earned in existing enterprises, and in the form of capital withdrawn from old enterprises such as trading. With regard to private domestic saving, the main source of potential saving, cocoa incomes, has passed into the hands of the government through the operation of the Cocoa Marketing Board; the only quantitative data which are available on other private domestic saving may be found in the saving deposits of the Commercial banks and of the Post Office Savings Bank, and these deposits constitute a very small proportion of the accumulated balances of the Cocoa Marketing Board. With the exception of these sources of positive savings

African enterprise sector is a capital short sector, and that the real problem is how to supply this sector with finance.

In this chapter we shall analyse the supply of finance for investment on public account.

The analysis will be conducted in the context of the monetary and financial system of the country, and we shall contend that although the sterling exchange standard imposed certain limits on the scope of government financial policy, the actual policies pursued by the government in its search of finance were free from any restrictions inherent in the system, and that these policies tended to over-emphasize short-term financial considerations, especially with regard to the government's need for revenue, to the disadvantage of policies designed to create conditions favourable to the long term supply of finance for economic development.

The chapter is divided into three sections: (i) the structure of the monetary and financial system; (ii) sources of internal finance; and (iii) sources of external finance.

7.2 The Monetary and Financial System and the Supply of Loanable Funds.

From 1912 to 1957 the monetary system of Ghana was based on the colonial sterling exchange standard. As it operated under the management of the West African Currency Board, local currency was issued in return for an equivalent amount of sterling, the latter being deposited with the Board in London. In other words, the supply of local currency was backed fully by deposits of sterling, but as the conversion of one currency into the other was carried out at a commission charged by the Board at a rate not exceeding three fourths of one per cent of the amount involved, the result has been that local currency in circulation became

backed by sterling to an extent invariably exceeding one hundred per cent.[1] These sterling holdings of the Board were invested in liquid assets which were readily marketable in the London money market. Although the Board was not forbidden to invest its assets in a country from which they were originally acquired, it hardly explored the possibility of undertaking local investment of its assets. It was, however, authorised to distribute periodically to the local colonial administrations some of its net earnings.[2]

Between 1912 and 1950, Ghana's share of the total amount of £8.7 million distributed by the Board to its four West African territories was £3.3 million; and since 1945 these distributions hardly constituted two percent per annum of return on invested reserves.

The central objective of the currency board system is to maintain a fixed exchange ratio between sterling and local currency, and thereby help promote the development of international trade and commerce. In the pursuit of this objective, the Board acted merely as a conversion slot

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1. In 1955 the colonial governments were informed by the Secretary of State for the Colonies that they could withdraw a small proportion of the Sterling and replace it with their own securities in order to reduce the proportion of Sterling backing local currency from 100 per cent to not less than 70 per cent. Until 1961, Ghana has not taken advantage of this permission, and her currency continued to be largely backed by sterling with the exception of a token amount of gold valued at two million pounds which was just introduced as part of currency backing in 1960. For an exhaustive analysis of the currency system in former British West Africa, see I. Greaves, Colonial Monetary Conditions, Colonial Research Studies No. 10 (H.M.S.O., London, 1953).

2. In practice sterling holdings, in excess of 110 per cent of local currency were transferred to the account of the local governments.

exchanging local currency for sterling at par, and although its function yielded some revenue for the governments it dealt with, it possessed no authority to manage the money supply of the economies under its control.

The principal determinants of money supply under this system are the balance of trade, external capital inflows, and domestic commercial bank credit; government policy as a determinant of the supply of money is felt only indirectly through its effects on any or all of these three factors. In the absence of the latter two factors, the supply of exports imposes a limit on the demand for imports, and assuming a unitary marginal propensity to import with no lags between receipt of export incomes and payment for imports, the supply of currency for the non-export sector is nil. Given the domestic supply of exports and the foreign demand for them, the expansion of output in the non-export sector can be undertaken only by creating a trade surplus through a reduction in imports. In other words, from the point of view of availability of currency for finance, the export sector becomes the growth point which sets the pace for the development of the non-export sector. This conclusion is valid even if both sectors are competitive with each other in terms of their demand for resource inputs so that the expansion of one takes place at the expense of the other. The trade surplus enables the development of the non-export sector but whether this will be undertaken depends on particular objectives of development policy, and the effectiveness of implementing them.

It is thus clear that insofar as the economy is capable of producing a trade surplus over an extended period of time, or of eliciting continuous inflow of external capital in excess of expenditure on

imports, or of undertaking expansion of domestic bank credit which is not spent on imports, the hundred per cent principle of the currency system does not impose any restrictive influence on the formulation of financial policy to promote domestic investment. It is undoubtedly true that the currency system removes one of the major policy instruments from the parameter of action, that is, the rate of foreign exchange; nevertheless under conditions of favourable balance of payments and of large scale domestic economic underdevelopment, the rate of foreign exchange is not a crucial instrument for the pursuit of a policy aimed at expanding domestic investment, especially in the non-export sector. The crucial policy relates to (i) the availability of credit and the behaviour of the institutions which control the supply of credit, and (ii) capital expansion on public account to supplement the volume of investment.

Before the establishment of the Central Bank of Ghana in 1957, the main financial institutions which operated under the sterling exchange standard were (i) the local administration with its public institutions, the most important of them, from the financial point of view, being the Cocoa Marketing Board and the Post Office Savings Bank, (ii) three commercial banks, and (iii) the foreign trading companies. There has been a small number of foreign-owned insurance companies but they do business in general rather than in life insurance, and their policies are almost exclusively issued to the European non-resident community. Besides, like the other financial institutions as has been shown to be the case with the Cocoa Marketing Board and as will be shown for the others they invest their premiums outside the country. Thus as financial intermediaries between savers and investors, the insurance

companies are largely irrelevant to the Ghanaian economy, although the funds originated from economic activity in the country. The same conclusion applies to the pension funds of private business and institutions with the significant difference that a few African employees contribute to these funds.[3]

The establishment of the Central Bank was not immediately accompanied by the abolition of the sterling exchange standard based on the principle of one hundred per cent backing of local currency with sterling assets. Although the West African pound was replaced by the Ghana pound, the latter was issued at par with sterling and fully backed by it until 1960. In that year the composition of the currency cover was slightly changed to include gold which was valued at £2 million, and in 1961 a fiduciary issue of £6.2 million consisting of Ghana government securities was first introduced and formed 12.9 per cent of total currency cover. Thus in discussing the role of financial institutions we shall consider the operation of the currency system as effective until 1960.

The outstanding characteristic behaviour of the financial institutions of the country has been their persistent tendency to hold their financial resources in sterling, and invest them outside the country, mainly in the London money market. With regard to the government,

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3. In 1963 the government declared its intention of establishing national insurance and pension funds, but up to date no specific proposals have been outlined. Some of the companies have reacted to this announcement by offering their businesses for sale to the government. Although no transactions are yet made, it appears the government is willing to accept the offer.

the chief source of its external sterling investments has been budgetary surpluses. Since we shall analyse in the next section the sources of government revenue and the role of the budget as an instrument of development policy, we shall limit our discussion at this state to the examination of how government disposed of its budget balances.

Charts 11 and 12 show the trend of government budgetary balances, and of government and Cocoa Marketing Board holdings of sterling respectively between 1951 and 1962. Between 1950 and 1955 persistent budget surpluses were reflected in the rise of government sterling balances abroad, and the first budget deficit during the period was accompanied by the first fall in these external balances. The slight rise in government sterling holdings in 1958 which was a budget deficit year was due to the fact that the government received a windfall income from the West African Currency Board which exceeded the amount of the deficit. The windfall income was the last payment by the Currency Board to Ghana as her share of profits accruing from the operation of the Board. After 1958 the close relationship between the trend of budgetary balance and government asset holdings resumed.

The government's external balances were invested mainly in long term British government securities[4] with less than ten per cent being held in short term securities. On the other hand, owing to the need for liquidity to facilitate the financing of cocoa purchases, the Cocoa Marketing Board held a higher proportion of its sterling holdings in short term funds which averaged 37 per cent between 1951 and 1955.

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4. Report on the Finances and Account of the Gold Coast 1954-55, (Government Printer, Accra, 1956) pp. 133-42. At the end of 1959 for example, only £51.6 million out of a total of £166.7 million of Ghana's overseas balances were short-term. See United Nations, Economic Survey of Africa, Vol. 1, No. 1 (Addis Ababa, 1961 p.67)

CHART-II

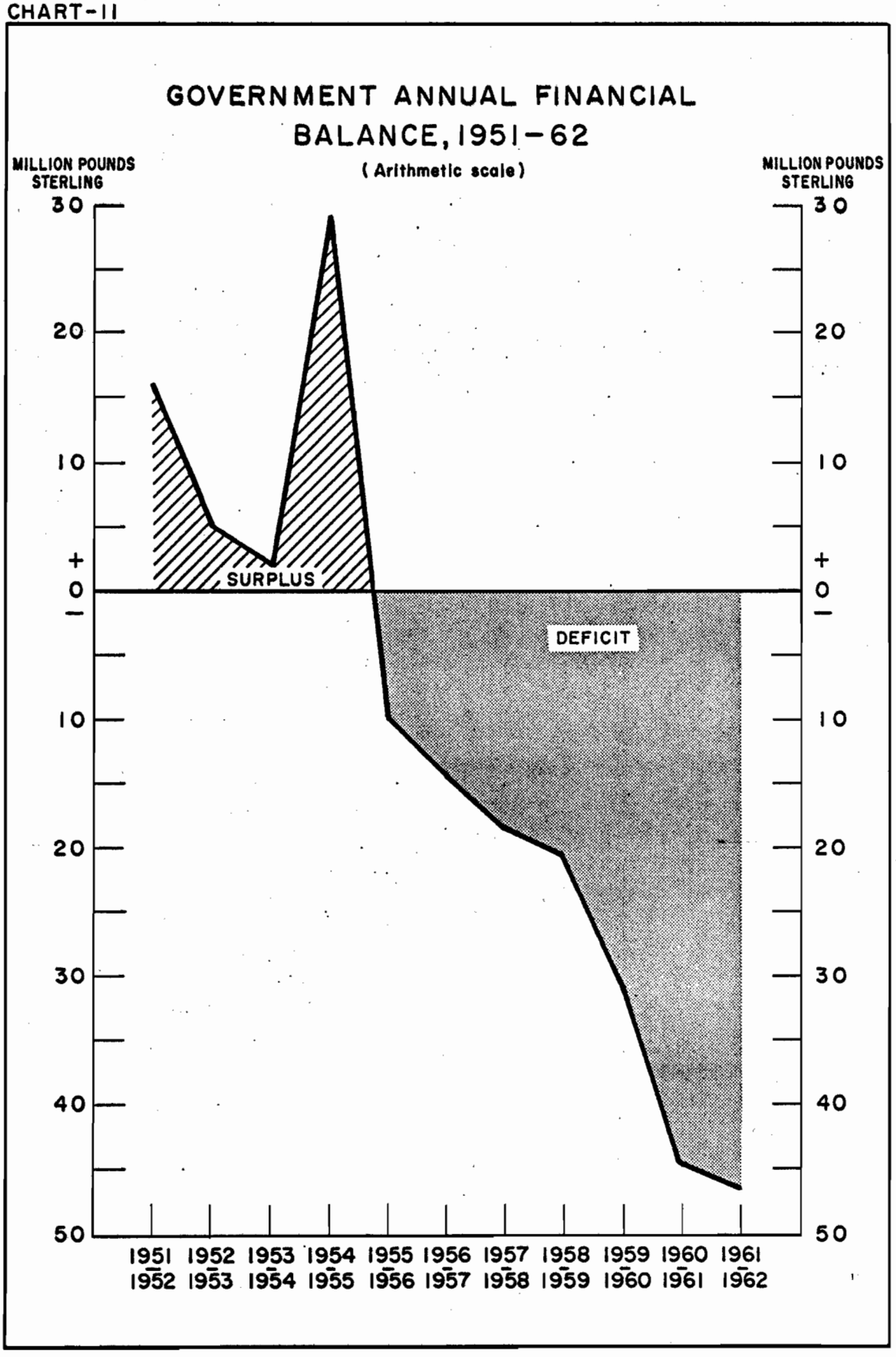
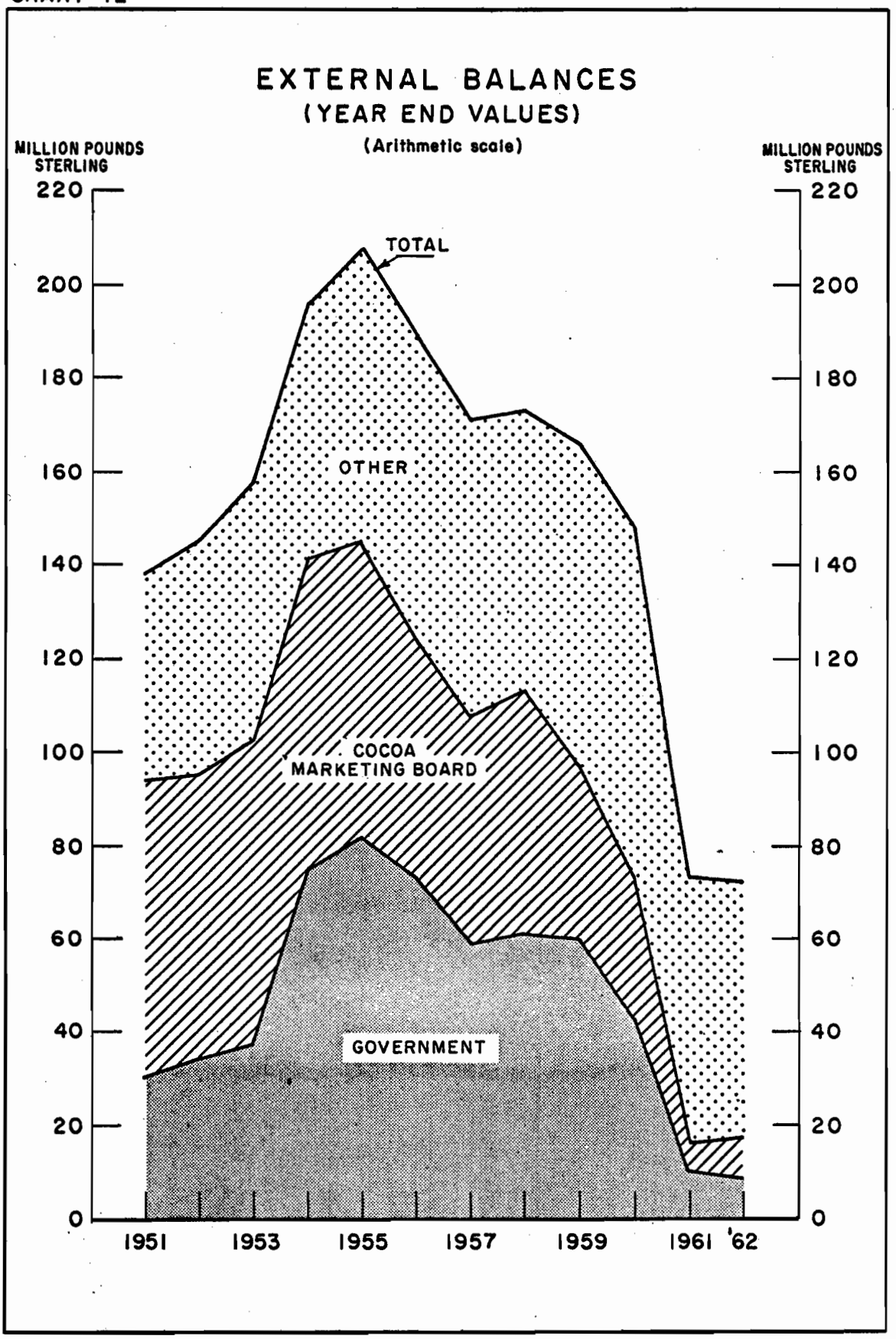

GOVERNMENT ANNUAL FINANCIAL BALANCE, 1951–62
(Arithmetic scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
30
20
10
+
0
–
10
20
30
40
50
SURPLUS
DEFICIT
1951 1952
1952 1953
1953 1954
1954 1955
1955 1956
1956 1957
1957 1958
1958 1959
1959 1960
1960 1961
1961 1962

CHART-12


EXTERNAL BALANCES
(YEAR END VALUES)
(Arithmetic scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
220
200
180
160
140
120
100
80
60
40
20
0
TOTAL
OTHER
COCOA MARKETING BOARD
GOVERNMENT
1951
1953
1955
1957
1959
1961
'62

The remainder was invested in long term securities of the United Kingdom government bearing three per cent rate of interest per annum.[5] At the end of 1955 the Cocoa Marketing Board's holding of Ghana government securities amounted to £11.8 million which represented 17.7 per cent of the Board's external assets for that year. Undoubtedly, the Board undertook some local investment of its funds as was shown in Chapter Six, but its propensity to hold the bulk of its accumulated balances outside the country militated against the development of institutions capable of undertaking financial intermediation.

In theory, given conditions enabling a free flow of factors of production, the external drain of finance could be regarded as a natural economic phenomenon of a factor of production being attracted by higher rewards overseas than available at home. The pursuit of this profit motive implies that capital funds will be invested, in relatively risky activities, where, in the short run the rate of interest tends to be highest, and where in the long run, profits are high. As noted earlier the overseas investments of the government and the Cocoa Marketing Board were in riskless securities bearing interest at the rate of three per cent per annum which is considerably below the general level of the rate of interest of industrial securities in the United Kingdom, and of credit in both the bank and non-bank finance sector of a capital-short economy like Ghana.

It may be argued that while the profit motive generally underlies domestic and international movement of private capital, it cannot be assigned a primary role in influencing the investment behaviour

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5. The Gold Coast Cocoa Marketing Board Eighth Annual Report of Account, 1955, pp. 22-24

of public institutions like the government and the Cocoa Marketing Board. Moreover, even in the case of private capital, institutional factors like the structure of demand for loanable finance expressing itself in non-market forms may hinder the efficient domestic deployment of locally available finance and cause private capitalists, particularly non-Africans, to entertain comparatively favourable impression of investment conditions abroad to which they are led to export their capital. But where conslusive evidence exists that the overseas investments are not in accordance with the motivation of profit maximization and are indeed contrary to the principle of efficient allocation of scarce resources, the preceeding argument ceases to hold.

Thus while it must be admitted that there may be short run economic justifications for this apparently perverse financial behaviour of government in a capital-short economy, it is a little difficult to reconcile the preponderant preference for investment in external long term securities with the long term domestic need to develop the mechanisms and institutions for internal finance. Even in the short run, in the event of the government being compelled by unforeseen circumstances to accomodate short-run demand for finance with these investments, the sale of these long term securities before their maturity dates is bound to be made at substantial loss to their owner, as indeed happened during the balance of payments crisis of 1960-61.

The commercial banks were no less afflicted by this perversity in the direction of the flow of loanable funds. Before 1953 there were two commercial banks operating in Ghana;[6] these were

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6. For an informative discussion of the development of banking in West Africa, see Albert Adomako "The History of Currency and Banking in some West African Countries", The Economic Bulletin of Ghana. Vol.7 No.4 (1963) pp. 3-17

the Bank of British West Africa which was established in 1894, and Barclays Bank which began its operations in 1926. Both banks are foreign-owned and operated as branches of London banks. Their main business has been the provision of finance for the external trade by means of credit advances to imports and exports. Besides, the Bank of West Africa served as the currency distributing agent on the coast for the West African Currency Board.

The banks' preoccupation with external trade meant that the distribution of bank branches tended to follow the areas where external trade activities are concentrated. Since the final stages of exports and the first stages of imports used to be largely in the hands of foreign companies, it was natural that the banks dealt mainly with the foreign trading companies. This tendency has often aroused the suspicion of Africans who accused the banks of discriminating between non-African and African borrowers. Although the African accusation that banks discriminated against them on non-economic grounds was generally ill-founded, Barclays Bank and the Bank of British West Africa did pursue a discriminatory policy with regard to types of credit which they were willing to provide.

African demand for credit has generally been in the direction of medium and long term loanable funds. On the contrary, the banks operated on the rigid precepts of English commercial banking, the essence of which has been an unequivocal unwillingness to go beyond the provision of short term credit accompanied by an equally unequivocal unwillingness to accept mortgages as security, however sound these may be. One might expect that local credit conditions together with

considerations of internal development would have compelled the banks to modify the application of their orthodox credit policy; but the fact that they operated as branches with policy imposed by the parent bodies from London could not have failed to impose a certain limit on the scope of initiative by local branch managers. It is questionable, however, whether, in actual fact, the local banks expressed a genuine tendency to modify their credit policy to suit local conditions, but found themselves inhibited by directives from an unyielding headquarters.[7]

It must be emphasized that even if the banks were willing to satisfy African demand, there still remains the problem of Africans meeting the banks' standards of acceptability for borrowing, especially as it was usually difficult and costly to ascertain the validity of ownership titles to assets which Africans would offer as security. Thus owing to the large element of risk arising from this source, the banks charged interest at rates varying from five per cent to ten per cent per annum on short term loans to Africans, with local interest rates exceeding those which the banks earned on their liquid investments in London.

In spite of the banks' close liaison with the external trading companies, the latter's demand for bank loan was small mainly because these enterprises provided their own finance. Nevertheless, the seasonal nature of the external trade, especially of the purchase of cocoa, which demands large seasonal reserves of liquid assets makes the banks a convenient depository for the balances of the trading companies. But as the largest of these companies, the United Africa Company which until 1960 handled nearly 60 per cent of the import trade,

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7. As P.T. Bauer observes, "there are circumstances in which African businessmen find it difficult or even impossible to obtain short term bank accommodation even if their financial position is sound." West African Trade, p. 188

hardly kept its balances with the banks, the scope of even short term credit activities of the banks was greatly limited. Consequently, bank income arising from credit activities was relatively low.

Furthermore, financial investment abroad, involving the conversion of local currency into sterling for liquid investment in London, is dependent on three factors; the London short term rate of interest, conversion charges of the Currency Board, and shipping costs.[8] When the sum of the latter two factors exceeds the earnings provided by the first, the banks tend to hold idle cash on the coast during the season of low economic activity. This has the effect of further diminishing their income earning capacity.

To compensate themselves for their small earnings from credit transactions, the banks charged high rates for ancillary services; for example, three-fourths of one per cent was charged for the transfer of currency within the country, a cost factor which often induced some trading companies to undertake their own currency distribution. The burden of these charges falls heavily on African businessmen who could not circumvent the banks with respect to these charges. Thus while the operation of the banks did not satisfy his demand for finance, the African businessman had to pay a heavy price for the use of local currency.

If the commercial banks restricted the scope of their credit policy, they were also conspicuous in their lack of enthusiasm for eliciting savings. They seem to be content with being primarily outlets for large customers, and they failed to realize their potential of serving as "collecting centres for small deposits."[9] It is noteworthy

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8. The aggregate cost of this operation in one season is made up of twice the sum of the conversion charges plus cost of transportation.

9. Greaves, op. cit., p. 65

that the banks established saving deposits for the first time during World War II "as a gesture to the official savings campaign,"[10] and they tended to regard this aspect of their business as "a social service maintained ... as an inducement to the native population to adopt alien customs (rather) than as savings and investment institutions of the usual type."[11] The passivity of the banks in connection with mobilizing savings may be regarded as a consequence of the relatively low level of income of Africans, and therefore of their limited ability to save. But we may also offer the view that the persistent indifference of the banks until recently could not have failed to react with and reinforce the limiting effect of the low level of income on the capacity to save. As the marginal propensity to consume tends to rise with increases of income from near-subsistence levels, the absence of the restraining influence of an active policy of mobilizing savings is likely to widen the extent of the increase in the marginal propensity to consume. This has inflationary and adverse balance of payments implications for the economy if there is a short-fall in the supply of consumer goods from domestic and foreign services relative to domestic consumer demand. Thus the operation of the banks had little impact on the economy in terms of the dual effects of a savings function actively performed, namely, (i) the investment-inducing effect of intermediation between savers and borrowers - mobilizing and channelling savings from consumers to investors; (ii) the effect of attaining internal balance by serving as an instrument of [illegible] saving especially during periods of rapid increases of money income.

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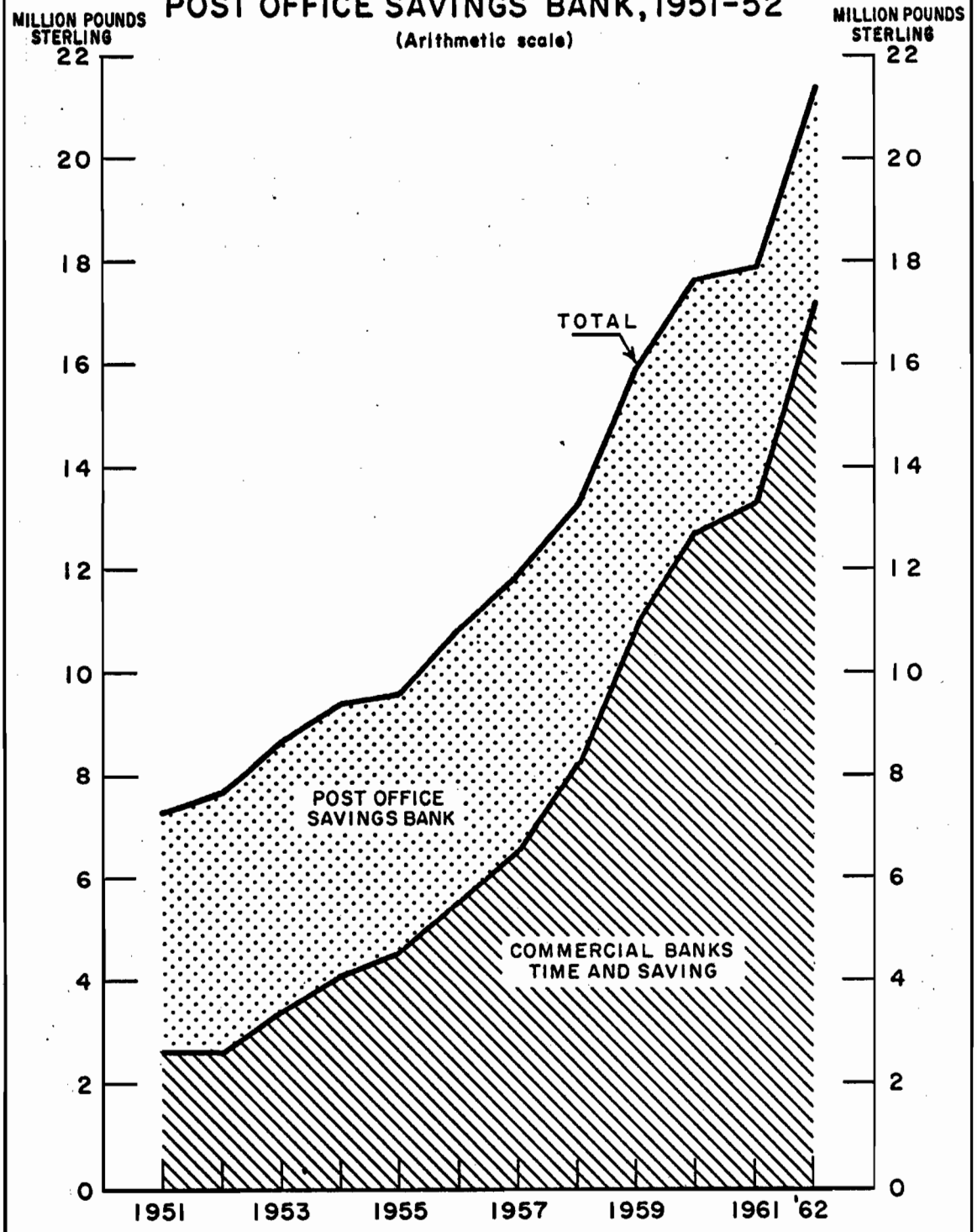
10. Greaves, op. cit., p. 41

11. Greaves, op. cit., p. 55

CHART-13

TRENDS OF SAVINGS AND TIME DEPOSITS AT COMMERCIAL BANKS AND THE POST OFFICE SAVINGS BANK, 1951-52

(Arithmetic scale)



Source: Based on figures in Quarterly Digest of Statistics Vol.9, No.4 (1960) p.61, and Economic Survey, 1962 pp.89-90, (Central Bureau of Statistics, Accra.)

Nevertheless, during the decade 1951-60 saving deposits at the commercial banks experienced a significant though steady increase as shown in Chart 13. Two factors account for this increase: first, the establishment of a national commercial bank in 1953; and secondly, savers' dissatisfaction with the services of the Post Office Savings Bank which was reflected in a shift of savings deposits from the Post Office to the commercial banks.

The Ghana Commercial Bank was established on the recommendation of Sir Cecil Trevor's report on banking which was published in 1951.[12] After examining African criticisms of existing banking conditions, the report reached the conclusion that "in theory the financial requirements of the country are adequately provided for by existing institutions, but, in practice, ... the facilities are not always sufficient for the needs of the community,"[13] and that "there is a considerable weight of public opinion which appears to have some justification for feeling that conditions could be improved and a more progressive policy followed ..."[14] To achieve this purpose, the report proposed the establishment of a national bank which should be a semi-government bank to be operated on commercial lines to meet the needs of African industry, agriculture, commerce, and trade. In addition, it would be the function of the bank to

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12. Cecil Trevor, Report on Banking in the Gold Coast and on the Question of setting up a National Bank, (Government Printer, Accra, 1951). This report was preceded by another banking report which found no economic need for a national bank, either commercial or central, except on grounds of political expediency. See G. D. Paton, Report on Banking in the Gold Coast, (Government Printer, Accra, 1948).

13. Trevor, op. cit., p. 33

14. Trevor, op. cit., p. 103

facilitate the spread of the use of banks as saving institutions among the African population.

In order to meet the African demand for finance, the report recommended that the bank should be able to accept such security as land or whatever security Africans are able to provide. Furthermore, the bank should take the initiative in developing a local bills market by undertaking a limited obligation to deal in locally issued Ghana government securities.

From the point of view of bank accessibility, the establishment of the Ghana Commercial Bank has marked the beginning of a rapid expansion in commercial bank branches. In 1955 there were a total of 35 commercial bank branches in the country, 19 of which belonged to the Bank of British West Africa, 14 to Barclays Bank, and 2 to the Ghana Commercial Bank.[15] This number increased to 87 in 1959 and was distributed among the three banks as follows, 34, 49, and 4 respectively;[16] and in 1962 the total reached 139, a score of which belong to the Ghana Commercial Bank.[17] The increase in the number of commercial bank branches has been accompanied by a tendency towards dispersion among rural areas. This tendency is most characteristic of the Ghana Commercial Bank whose branches are relatively concentrated in the cocoa growing areas where they are most needed to facilitate the movement of cash for the purchase of cocoa and to provide an institution where producers can deposit their cash receipts.

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15. Gold Coast, Handbook of Commerce and Industry, (Government Printer, Accra, 1955) pp. 7-8.

16. Ghana, Handbook of Commerce and Industry, (Government Printer, Accra, 1958) pp. 7-8.

17. Ghana, Economic Survey, 1962, (Government Printer, Accra, 1963) p. 99.

The major development accompanying the expansion of bank branches, however, lies in the growing attention the banks are paying to the accumulation of savings. In order to attract saving deposits, the Ghana Commercial Bank pays interest at the rate of three and one-half per cent per annum on savings compared to the long standing two and one-half per cent paid by the foreign banks and the Post Office Savings Bank; since 1959 the foreign banks have increased their rates to three per cent while the Post Office still pays the traditional two and one-half per cent.

Compared with the Post Office Savings Bank, the commercial banks offer simpler and more efficient services especially regarding withdrawal of deposits. The mechanism of withdrawal of deposits adopted by the Post Office Savings Bank is "rather cumbersome",[18] "rather complicated and ... inconvenient."[19] The encumbrances include identification of depositors, which, in the case of illiterate savers, requires[20] the services of underwriters who charge fees at rates varying from two and one-half per cent to ten per cent of the amount to be withdrawn. Besides, very rigid regulations govern the amount to be withdrawn on one occasion and the frequency of withdrawals.

Before 1957 however, the volume of saving deposits at the Post Office Savings Bank exceeded the saving deposits at the three commercial banks combined as evident in Chart 13. Before the proliferation of commercial bank branches and their active policy for attracting savings,

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18. Economic Survey, 1962. p. 91

19. Economic Survey, 1961. p. 92

20. Although this is not a legal requirement it has in practice become a necessary adjunct of transactions with the Post Office as far as illiterate customers are concerned.

the Post Office Savings Bank possessed the advantages of accessibility both in terms of branch coverage and of willingness to accept and deal in very small sums. Furthermore, from the point of view of credit supply the savings of the Post Office Bank are particularly suitable for medium and long term lending which is really what African businessmen need. But the record of the Bank in meeting African demand for loanable funds of this type is disappointing. In the first place, the Post Office Savings Bank ordinance placed a ceiling on the proportion of total savings that could be invested in local securities at one-third. In the second place, as W. T. Newlyn and D. C. Rowan point out, in actual fact, less than 10 per cent of the deposits of the Post Office Savings Bank are invested domestically.[21] Indeed, in a typical year of 1955, out of a total saving deposits of five million pounds, only £124,000 was invested locally in Gold Coast Registered Stock, an amount which constituted 2.5 per cent of the total,[22] the remainder being held in overseas long term investment. Thus the Post Office Savings Bank had the effect of mobilizing domestic savings for overseas lending.

Up to 1961 even the commercial banks continued to show a clear preference for external investment of their loanable funds. Chart 14 indicates the trends of domestic assets and liabilities of the commercial banks between 1951 and 1962. With the exception of 1962, domestic liabilities exceeded domestic assets during the entire period. The excess of domestic liabilities over domestic assets is reflected in Chart 15 which shows the trend of foreign liabilities and assets with the latter

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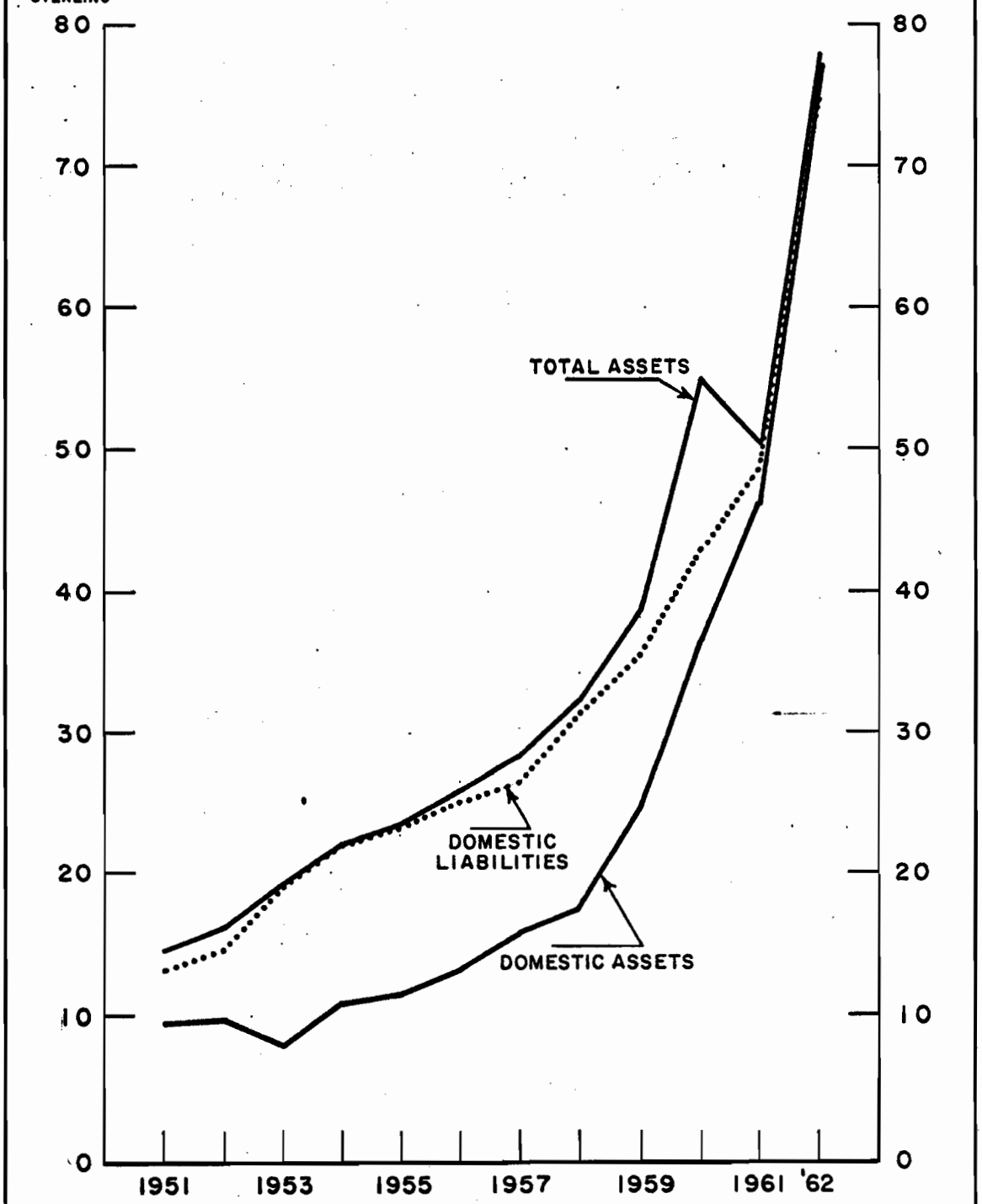
21. W. T. Newlyn and D. C. Rowan, Money and Banking in British Colonial Africa, (Oxford University Press, London, 1954) p. 131

22. Report on the Finances and Accounts of the Gold Coast, 1954-55, op. cit., p. 137

CHART-14

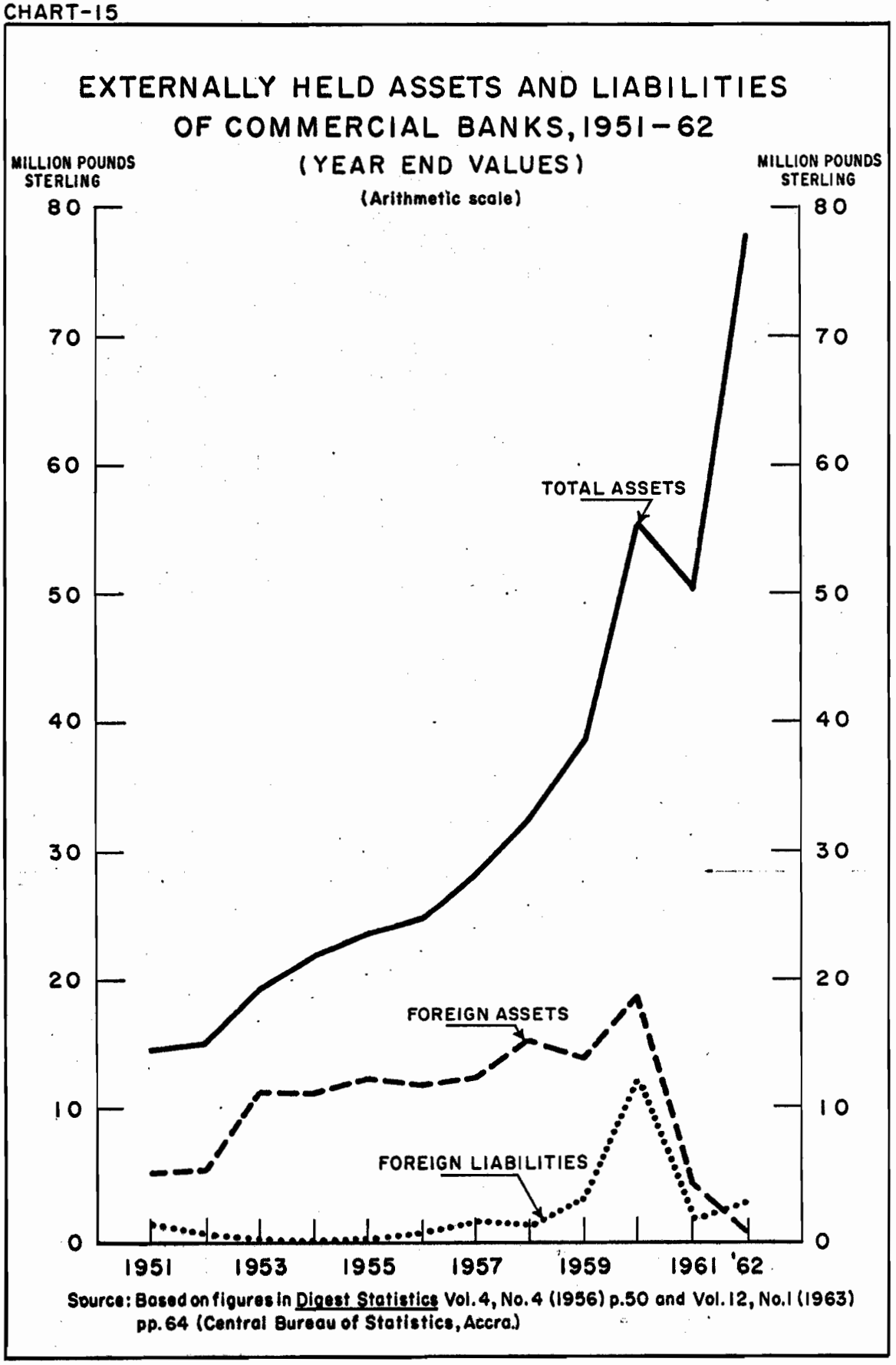
DOMESTICALLY HELD ASSETS AND LIABILITIES OF COMMERCIAL BANKS, 1951-62

(Arithmetic scale)



Source: Based on figures in Digest of Statistics Vol. 4, (1956) p.51, and Vol. 12, No. 1 (1963) p.65 (Central Bureau of Statistics, Accra.)

CHART-15



Source: Based on figures in Digest Statistics Vol. 4, No. 4 (1956) p.50 and Vol. 12, No. 1 (1963) pp. 64 (Central Bureau of Statistics, Accra.)

exceeding the former. The narrowing of the gap between domestic assets and liabilities which began from 1958 was due to an active process of repatriating loanable funds for internal lending. This change in the direction of the flow of bank finance accompanied by the establishment of a Central Bank in 1958 was facilitated by the commercial banks' willingness to hold Ghana government treasury bills which were first issued in 1961.

A significant aspect of this domestication of commercial bank assets is the sharp rise in bank loans and advances to domestic customers during the period 1958-62. The record of commerdial bankers loans for the period 1951-62 is summarized in Table 22 in absolute and relative terms, and Table 23 gives the distribution of loans and advances among domestic customers between 1958 and 1962. The tremendous increase in advances for cocoa marketing from £1.053 million in 1958 to £10.509 million in 1962 was a result of the reorganization of the operations of the Cocoa Marketing Board whereby funds for financing cocoa purchases are channelled from the Board through the Ghana Commercial Bank to the purchasing agencies. Loans and advances to non-cocoa agricultural sector averaged 0.46 per cent of annual loans during the period; and excluding cocoa and categories unaccounted for, trading absorbs the largest proportion of loans.

From this we see clearly that the increase in bank loans has not been accompanied by a significant change in the time structure of the loans. In other words, the commercial banks are still primarily engaged in short-term lending, and the large scale entry of the government in the credit market especially in 1962 tends to accentuate this predominance of short-term lending. Thus the problem of supplying

Table 23

dvances to Domestic Customers

mmercial Banks, 1958-1962

£000

959	% of Total	1960 £	% of Total	1961 £	% of Total	1962 £	% of Total
5.8	0.7	13.8	0.1	13.8	0.1	70.7	0.2
1.8	0.5	154.0	0.8	154.0	0.5	77.7	0.3
	-	-	-	-	-	210.4	0.7
9.4	4.6	536.4	2.7	1053.4	4.0	911.1	3.0
.0	0.3	232.5	1.2	266.2	1.0	258.5	0.9
4.9	2.4	377.4	1.9	847.7	3.2	691.5	2.3
9.6	4.1	875.2	4.5	894.3	3.4	2241.8	7.5
8.2	5.2	1130.9	5.8	316.3	1.2	10509.2	35.1
	-	-	-	-	-	122.2	0.4
3.9	5.1	726.4	3.7	1361.9	5.1	498.7	1.6
20.0	18.5	5972.9	30.5	8304.3	31.2	5974.1	20.0
	-	-	-	-	-	350.1	1.2
6.4	9.9	1235.4	6.3	771.5	2.9	555.2	1.9
	-	-	-	29.9	0.1	4078.4	13.6
2.7	48.7	8331.0	42.5	12599.3	47.3	3388.1	11.3
02.7	100	19585.9	100	26269.8	100	29937.7	100

(Central Bureau of Statistics, Accra) p.97

finance for medium and long-term investment remains unsolved by commercial banks. Indeed, it is noteworthy that contrary to the Trevor report's declared intention of developing a market for medium and long-term loanable funds through the operation of the Ghana Commercial Bank, the detailed proposals of the report which were incorporated in the Act establishing the bank limited the lending operations of the bank to "Loans and advances payable on demand or on expiry of fixed periods not exceeding six months."[23]

Nevertheless, the trend to domestic employment of loanable fundsis now firmly established. While it would be expected that the establishment of the Central Bank in 1958 was one of the major influences which brought this about, Central Bank activity was hardly felt by the commercial banks before 1960-61, and even then the influence exerted on the latter was slight.

As noted earlier, the Central Bank did not bring about an immediate change in the requirement of full backing of local currency by sterling. In mid-1960, after three years of operation of the Central Bank, the currency liabilities of Ghana were s till fully backed by sterling assets;[24] the Central Bank, in other words, has not established its power to determine the supply of money.

In February, 1960, the Central Bank undertook the first transaction of treasury bills on behalf of the Ghana government and this was accompanied by the introduction of a rediscount rate policy.

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23. Trevor, op. cit., p. 54. Section 15 of Ordinance No. 49 of 1952 under which the bank was established allows mortgages to be accepted as collateral with certain restrictions.

24. The initial impotence of Central Banks with respect to Monetary and banking policy is a general feature of underdeveloped economics. See A. R. Prest, Public Finance in Underdeveloped Countries, (Weidenfeld and Nicolson, Lond, 1962) p. 103, and also E. Nevin, Capital Funds in Underdeveloped Countries. (Macmillan, London, 1961) pp. 7-8

Initially, the discount rate of the treasury bills followed closely the buying rate of the London discount market since the bulk of the financial investment of the commercial banks in Ghana were undertaken in the London money market. The purpose of establishing parity of discount rates was to induce the commercial banks to invest their liquid assets in Ghana and the Central Bank's rediscount rate was pegged at one-eighth of one per cent above the discount rate. In June, 1961, as a result of the Central Bank's decision that its rediscount rates in Ghana should reflect conditions of the domestic money market the discount rates have been announced independently of the rates prevailing in the London discount markets, with the rediscount rate still fixed at one-eighth of one per cent above the local discount rate as shown in Table 24.

The introduction of the rediscount rate does not seem to have exerted any influence on the financial transactions of the commercial banks. This stems from the relative stability of the rediscount rate as well as of the interest rate structure of the commercial banks as shown in Table 25. Tying the bank rate to prevailing market discount rate reduces the effectiveness of the bank rate as an independent tool of financial policy for it merely reflects a prevailing market conditions rather than influences them, unless the market discount rate is itself determined chiefly by the operations of the Central Bank so that its rediscount rate is intended merely to "keep in line with the Market."[25]

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25. R. McIvor, Canadian Monetary Banking and Fiscal Development, (Macmillan Toronto, 1958) p. 234. Whether a Central Bank rediscount rate which is pegged to the discount rate is effective in influencing market rates depends ultimately on the Bank's "Conditioning" of the market which as McIvor notes "if less obvious, will be no less real".

TABLE 24

BANK OF GHANA RATES 1960 - 62
(DECEMBER RATES)

PER CENT PER ANNUM

	Dec.1960	1961	1962
Rediscount	4	4½	4½
Advances Against Treasury Bills	4	4½	4½
Other Treasury Bills	5	5½	5½
Discount	3-27/32	4-3/8	4-3/8
Selling Rates			
Over 2 Months Maturity	3-25/32	4-5/16	4-5/16
Over 1 Month and up to 2 Months Maturity	3-23/32	4¼	4¼
1 Month or Less	3-21/32	4-3/16	4-3/16

Source: Economic Survey, 1962 (Central Bureau of Statistics, Accra,) p.100.

TABLE 25

COMMERCIAL BANKS' RATES 1958-62
(DECEMBER RATES)

PER CENT PER ANNUM

	1958	1959	1960	1961	1962
Borrowing Rates					
6 Months Fixed Deposits	1½	1½-2	2½	2½	2½
12 Months Fixed Deposits	2½	2	3-3½	3-3½	3-3½
Savings Deposits	3	2½	3	3-3½	3-3½
Lending Rates					
Interbank Call Loan	--	--	5	5½	5½
Bills Purchased and discounted	7-10	6-6½	6½-7½	7	7
Loans and Overdrafts Secured by Government Securities	6½	4-5	6-6½	5½-7	5½-7
Stock in Trade	6	6-6½	6½-7	6-7	6-7
Immovable Property	5½	4½-5	6½-10	6½-10	6½-10
Other	7½	4½-5	6½-10	6½-10	6½-10
Loans Unsecured	9½	6	6-7	6½-7	6½-7

Source: Economic Survey, 1962 (Central Bureau of Statistics, Accra), p. 101.

But there is not yet any evidence of the determination of the Market discount rate by the Central Bank.

For there is at present a definite limitation on the influence of the Central Bank over the commercial banks; the Central Bank has not yet established, either in principle or in practice, the requirement of reserve ratios of cash and liquid assets to deposits which the commercial banks should maintain. Meanwhile, the banks are still disposed to the maintenance of high levels of liquidity with the liquidity ratio ranging from a low level of 32.3 per cent in December, 1961 to 61.8 per cent in September 1962.[26]

Thus, it does not seem to accord with the facts that the domestication of commercial bank finance has been the result of Central Bank policy as claimed in the Economic Survey of 1962.[27] There is no doubt that the issue of government treasury bills enlarged the banks' scope of domestic short-term investment, but this does not necessarily require a Central Bank, and the role of the Central Bank of Ghana in this operation during the relevant period was not fundamental. In 1962, the fall in commercial balances held with foreign banks was due largely to the imposition of exchange control, hence the consequent transfer of loanable funds to Ghana cannot be regarded as an outcome of considered Central Bank policy. It is more in keeping with the facts to suggest that the increasing domestic investment of bank finance reflects the increasing awareness of an underlying process of natural evolution of the economy with a long-run trend of progressively emerging investment opportunities in the economy.

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26. Economic Survey, 1962 p. 99. See also The Bank of Ghana Bulletin, (Third Quarter), (The Bank of Ghana, Accra, 1961) p. 8.

27. "In the past, the policy of the Central Bank has been directed towards encouraging the commercial banks to employ their idle funds locally instead of investing them abroad." Economic Survey, 1962. pp. 100-1.

Nevertheless, the commercial banks, including the Ghana Commercial Bank, have been reluctant to expand the structure of their credit policy beyond the orthodox limits of commercial banking, and even within these narrow limits they have not shown active response to the financial needs of African businessmen. Within the context of the currency system, the banks possessed unregulated control over the supply of credit, and this control was exercised on the basis of a strictly short-term view which led to the paradox of making the economy a net exporter of finance amid undoubted shortage of domestic investment finance.

The passivity of the banks was reinforced by the absence of government leadership with respect to the active development of financial institutions which suit local conditions, and by the government's own engagement in perverse financial operations - the accumulation of balances overseas and their investment in predominantly long-dated securities. Thus from the point of view of capital supply, the activities of the government and its agencies, on the one hand, and of the commercial banks, on the other, have tended to deprive the economy of the earlier opportunity of the mainsprings of an incipient loan market. It must be emphasized that this conclusion is independent of the structure of the currency system, and relates to the activities of the financial institutions within this system. For this reason, it is at a variance with the view of those writers who consider the activities of these institutions to be circumscribed by the currency board system itself.[28]

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28. See, for example, E. K. Hawkins, "The Growth of Money Economy in Nigeria and Ghana", Oxford Economic Papers, Vol. 10, No. 3. (August, 1958) p. 342 where the author writes, "The colonial sterling exchange standard does not adapt itself easily to internal economic development and its introduction in the form it took in West Africa may have created obstacles to internal development at the same time as it assisted the export sector as it was intended to do."

From the point of view of long run development the stability of exchange of the currency has provided a bulwark of confidence among external investors in the economic evolution of the country. And the system's ultimate justification has been the facility with which it enabled external private capital to infect the economy with the dynamism of growth.[29] Admittedly, it was a justification based on undue homage to the "requirements of an outdated orthodoxy,"[30] that is, the orthodoxy of full backing of local currency with sterling.

But the real obstacle in the path of internal financial development has been the more crippling orthodoxy of the commercial banks with respect to their aversion to medium and long-term lending. In the absence of government credit policy, this orthodoxy has resulted in the subjection of the non-export sector of the economy to a position of irrelevance, and of protracted underdevelopment. In this connection, the dominant influence yielded by the orthodoxy of the banks and the "laissez-faire" attitude of the government could hardly be claimed to have been the work of God.[31]

7.3 Internal Finance

From the analysis in the preceeding section it is clear that the banks have been slow in playing an active role in mobilizing private domestic savings, and that African private investment demand had to be satisfied by the trading companies, by a few local moneylenders, and by the government through its Industrial Development Corporation.

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29. This is not to imply that the inflow of private capital has been sufficient to meet the growth requirements of the economy.

30. Newlyn and Rowan, op. cit., p. 204.

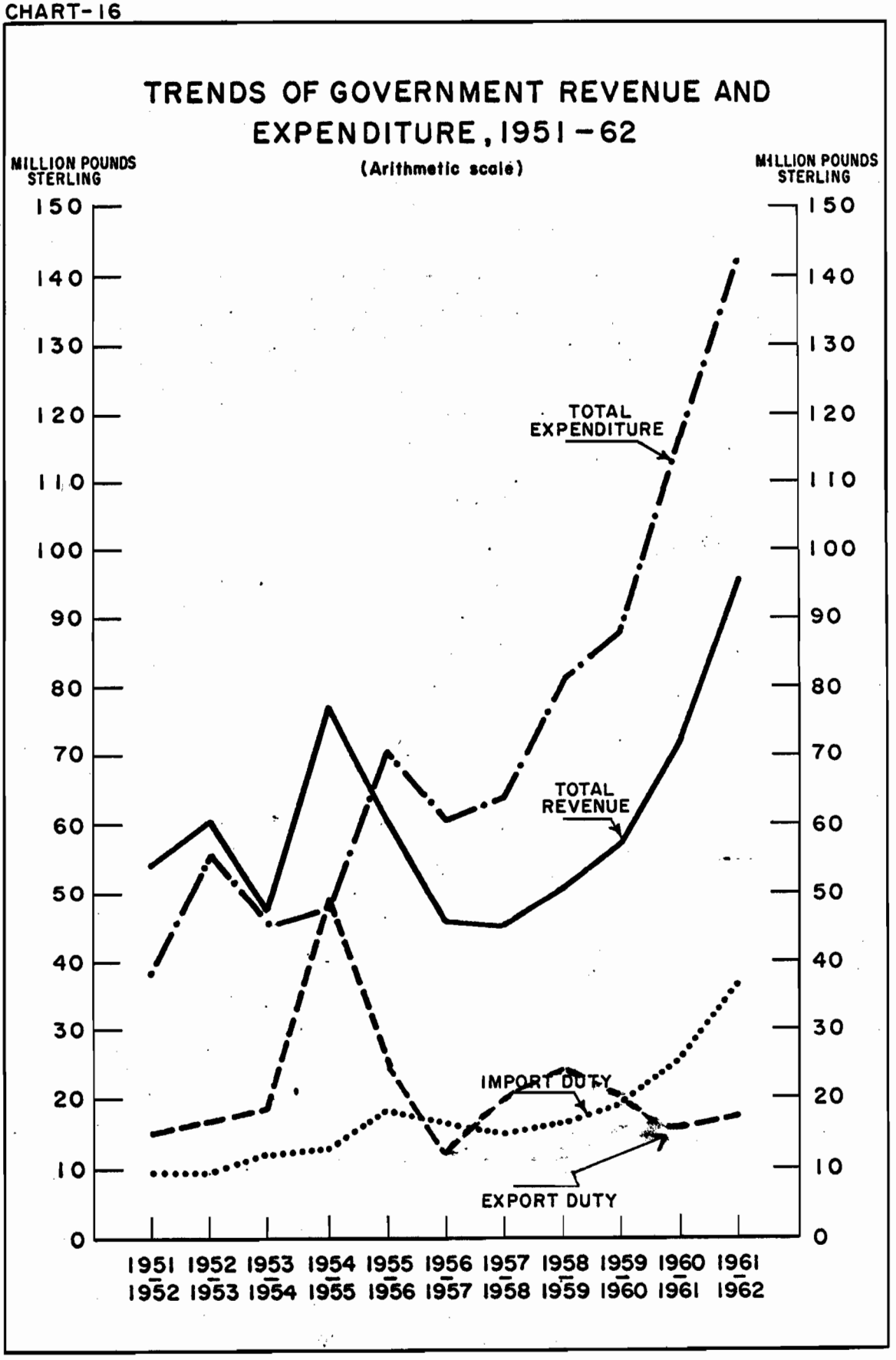
31. Greaves, op. cit., p. 2 "The dominant influence in indigeneous colonial economy is still the work of God and not the work of Keynes."

The most important form in which domestic savings were mobilized was the overseas sterling balances of the Cocoa Marketing Board. In addition from the point of view of government investment finance, duty paid by the Board on export of cocoa provided the major source of finance for public investment between 1951 and 1958. Thus the organization which was set up and originally intended to cater to the exclusive interests of cocoa producers, became, in the hands of the national government, an instrument of public finance for general development of the country as a whole. In analysing the sources of internal finance, therefore, we shall concentrate on the financial policy of the government as the dominant agent of mobilizing internal savings.

The main instrument of government financial policy is the annual budget. As an effective instrument for financing capital expansion in an economy operating under a currency system which does not enable the government to formulate an independent monetary policy with respect to the supply of money, the budget becomes restricted to preoccupation with excess of revenue over expenditure. A budget deficit in such a system, in the absence of an accomodating loan, means financial bankruptcy; and owing to the lack of a local capital market such a loan would have to come from abroad.

Since export earnings form a large proportion of national income and provide the basis for imports, taxation of export income and of their expenditure on imports yields the main source of revenue for the government. In Ghana, where the people are resistant to taxation, income tax was introduced in 1943, but was limited to the salaried employees of the government and the trading firms; and it came to affect the urban middle class only in 1961. The chief source of revenue was from custom duties. This is easily understandable because the country has only two

CHART-16


TRENDS OF GOVERNMENT REVENUE AND EXPENDITURE, 1951-62
(Arithmetic scale)
MILLION POUNDS STERLING
MILLION POUNDS STERLING
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
TOTAL EXPENDITURE
TOTAL REVENUE
IMPORT DUTY
EXPORT DUTY
1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961
1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962

ports and excise is easily collectable. A land tax, owing to the complexity of land tenureship, is expensive to collect.

Table 26 shows the composition of government revenue between 1951 and 1962; noteworthy are the predominance of the combined yields of export and import duties and, taken separately, their changing relative importance. The absolute decline in the amount of export duty collected beginning from 1958 has been due primarily to the continuous decline in the world price of cocoa which started in the same year as already emphasized in Chapter Six. Chart 16 relates the trends of total revenue and total expenditure to those of export and import duties.

The yield from export duty is almost entirely derived from excise on cocoa exports. From 1951 to 1954 the export duty of cocoa was levied at a rate of 10 per cent on the f.o.b. price when this did not exceed £100 per ton; when the f.o.b. price was between £100 and £120 per ton, the duty levied was constant at £10 per ton; and when the f.o.b. price exceeded £120 per ton duty was levied at half the amount by which the f.o.b. price exceeded £100. In 1954 these rates were changed as follows: where f.o.b. price does not exceed £120 per ton, duty was to be levied at 10 per cent or £10 per ton whichever was less; where the f.o.b. price lies between £120 and £260 per ton, duty was imposed at an amount per ton equal to one-half the difference between the f.o.b. price per ton and £100 per ton; and where the f.o.b. price exceeded £260 per ton, duty was levied at an amount per ton equal to the difference between the f.o.b. price per ton and £180. Between 1951 and 1958 revenue from cocoa duty alone amounted to a cumulative total of £118 million which exceeded the amount expended on capital development on public account

Table 26

rnment Revenue 1951-62

£million

4	54-55	55-56	56-57	57-58	58-59	59-60	60-61	61-62
	48.9	24.1	11.9	22.1	25.1	21.6	15.3	16.7
	0.3	0.5	0.6	0.6	0.7	0.8	0.8	0.7
	12.9	18.3	16.3	15.0	16.1	18.9	25.5	36.8
	0.1	0.3	0.8	2.8	3.8	4.0	4.5	5.2
	-	-	-	-	-	-	-	2.9
	6.1	6.2	5.3	5.6	6.3	5.8	1.1	1.4
							5.5	11.8
	1.2	1.3	2.0	2.3	1.7	1.5	2.3	2.0
								0.1
	4.8	4.2	4.5	4.6	5.5	6.5	8.0	10.8
	2.4	3.5	2.6	3.4	4.3	3.8	7.0	3.5
	3.4	4.2	3.8	3.1	2.3	1.1	1.4	0.3
	-	-	-	-	-	5.6	11.0	-
	0.7	1.8	1.9	0.7	1.1	0.5	0.7	3.5
	80.8	64.4	49.7	60.2	66.9	70.1	83.1	95.7

1.1962: Report on the Accounts and Finances of the Gold Coast 1954-55

by less than one million pounds.

In 1954 also, the government took over from the Cocoa Marketing Board, the responsibility of settling the seasonal price per ton to be paid to the cocoa producer. In previous years, the Cocoa Marketing Board announced at the beginning of each marketing season, the price per ton it would pay to the producer depending on its estimate of the world price per ton for that season, and there were variations in producer prices not only from season to season but also within seasons. In 1954, however, the government decided to pursue a policy of keeping producer prices at a fixed level over a period of years; the producer was to be paid a price of £149 per ton effective from the cocoa season of 1954-55 and extending over the next four years, irrespective of changes in the world price.[32] The effect of this policy together with the export duty was to enable the government to impound the boom earnings of cocoa exports which were used to finance domestic expenditure.

With the exception of producer goods and a few other commodities, import duty is levied at varying rates on a wide range of commodities. As non-durable consumable staples constitute a large proportion of the country's imports, and as the demand for these tend to be relatively inelastic with respect to changes in price, duty on such imports has been an effective instrument of raising revenue. From the point of view of equity and capacity to pay, however, it constitutes a regressive form of taxation, as a greater proportion of the burden of taxation inherent in the duty was

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32. In actual fact, the original producer price which was set by the government was £134 per ton, but owing to protest by cocoa farmers resulting in political unrest especially in Ashanti where cocoa growing has become a predominant economic activity, the government was forced to raise the price to £149 per ton. But this higher price was maintained for only part of the 1954-55 season; between 1955 and 1959 the effective price was at the original level of £134 per ton which has been reduced further.

borne by the poorer section of the community.

Although the yields from import duty rose steadily during the period 1951-62, they exceeded the yields from export duty in only three years, 1956-57, 1960-61, and 1961-62. The percentage of import duty in total revenue rose from 24.1 per cent in 1958-59 to 38.5 per cent in 1961-62, while the percentage of export duty fell from 25.8 per cent to 20.3 per cent in the respective years. It is noteworthy that the absolute increase in the yield from import duty between 1960-61 and 1961-62 amounted to only £3.4 million, and that, owing largely to the decline in total revenue during the latter year, the percentage point increase of revenue from import duty was as high as 7.9 per cent. The fall in total revenue of that year was brought about by the decline in the yields from the following sources of revenue; export duty, interest, profits, rents, grants, and "voluntary contributions."[33] In 1960-61, revenue from the last source accounted for 13.7 per cent of total revenue. In other words, from the point of view of revenue, the net effect of the 1961 budget which raised existing tariffs and imposed new ones was to curtail imports and raise yields only by a modest amount compared with the increase during the two preceeding years.

The failure of the 1961 import duty to raise revenue as expected

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33. In 1959 members of the National Assembly decided to contribute 10 per cent of their annual salary towards the development fund, and in the following year cocoa farmers were reported to have agreed to deduction at source of £11 4s. per ton from a producer price which had now been reduced to £112 per ton. Although the entire public was invited to contribute, the actual contributions came almost entirely from cocoa farmers.

was due to two influences. First, the new duties were mainly on durable consumer goods the demand for which is small and has a positive income elasticity greater than one. As the purchasing power of consumers were reduced by other features of the budget such as compulsory saving, demand for such durable goods fell sharply. Secondly, the effect of this reduction in demand was reinforced by the effect of increased prices brought about by the duty, and the total impact was that the volume of imports was reduced, thus resulting in a disappointment of government expectations of increased revenue.

In 1961 there occured a major change in the income tax structure; for the first time sales tax was imposed on a wide range of consumer goods, and the income tax structure was simplified and extended to embrace for the first time the bulk of African salary and wage earners as well as self-employed persons. Sales tax was levied at rates rising from five per cent to sixty-six and two-thirds per cent of retail price; lower rates are imposed on commodities which are mainly non-durable in character and are generally regarded as necessities among the majority of the population, and the rates rise as commodities assume a durable character, are capital intensive, and considered to be luxury items for a few people.

The reform of the income tax structure was brought about by (1) the introduction of a single uniform schedule of income tax "applicable to all individuals irrespective of personal circumstances and irrespective of the nature of their income."[34]; (ii) the extension of taxable income

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34. Budget Statement, 1961. Supplement with Ghana Today, Vol. 5, No. II July 19, 1961, p. 14.

to include allowances for family housing, car maintenance, and entertainment which were hitherto excluded from taxation; (iii) the introduction of a system of provisional assessment in the case of self-employed persons and unincorporated businesses. In this third case, tax would be assessed on a presumptive chargeable income of seven and one-half per cent of turnover, and irrespective of profit or loss, taxable income would be based on two per cent of turnover in a particular year for mercantile, mining and manufacturing businesses which are not incorporated.

Table 27 compares the tax rates of 1952 with those of 1961; and noteworthy are the latitude of exemptions in the former, and the complete absence of these exemptions from the latter. In comparison, an unmarried individual with an average income of, for example, £960 a year, bears a greater tax burden under the 1952 schedule than under that of 1961. Such a person with no claims to tax exemptions except for himself would pay £23 income tax in 1952 while he would pay only £12 in 1961. If he earns an income of £480 a year he would pay £4.10s in 1952 and no income tax in 1961. On the other hand, while his tax position remains unchanged in 1961 whether he is married or not, under the 1952 schedule he would pay only £1 7s 6d on an income of £960 a year if he is married, has four children going to school, and a dependent relative; and he is likely to pay no tax on that income if he deducts exemptions from his contribution to life insurance and pension funds. If he earns £480 a year he pays no income tax.

The number of personal income tax-payers rose from 7,596 in 1951-52 to 11, 926 in 1959-60.[35] In the latter year, only 4,961 were

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35. Ghana, Statistical Yearbook, 1962 (Central Bureau of Statistics, Accra 1964) p. 157.

TABLE 27

PERSONAL INCOME TAX EXEMPTIONS AND RATES, 1952 and 1961 COMPARED

1952		1961
EXEMPTIONS	**£**	
1. Individual	200	Basic general exemption of £40 a month or £480 a year.
2. Wife	150	
3. Each Child	50	
4. Children's Education	50-200	
5. Dependent Relative	100	
6. Life insurance premiums limited to (a) one-fifth of income (b) 10 per cent of capital sum assured on death (c) (including any pension or provident fund contributions)	1,000	
7. Any earned income of wife up to	150	
RATES		
£- -s. 3d.	on every £ of first 200	
- - 6	on every £ of next 200	£- -s. 6d. for every £ on next £480
- - 9	on every £ of next 200	- 1 - for every £ on next £960
- 1 -	on every £ of next 200	- 1 6 for every £ on next £1200
- 2 -	on every £ of next 400	- 2 - for every £ on next £1200
- 3 -	on every £ of next 800	- 3 - for every £ on next £1680
- 4 -	on every £ of next 1000	- 4 - for every £ on next £3600
- 5 -	on every £ of next 1000	- 6 - for every £ on next £9600
- 7 -	on every £ of next 1000	
- 9 -	on every £ of next 5000	
- 11 -	on every £ exceeding 10,000	

Sources: Annual Report of the Gold Coast, 1952, (HMSO, London, 1954) p. 174 and 1962 Statistical Yearbook, (Central Bureau of Statistics, Accra, 1963)

Ghanaians whose aggregate taxable income was £4.9 million, an average of £992 per person. The corresponding figures for non-Ghanaian African Tax-payers were 228 people having a taxable income of £237,000, an average of £1,039; the largest group of personal income tax-payers are non Africans mainly from the United Kingdom who number 6,739 in 1959-60 with an aggregate taxable income of £10.3 million which averages about £1,536 per person. Thus the bulk of personal income tax has come from foreigners resident in Ghana, Table 28 shows the distribution of personal income tax-payers in 1959-60 according to various income ranges. We see that more than half of tax-payers earn less than £800 a year, over one-fourth between £800 and £1,200 a year; and some one-tenth earn between £1,200 and £2,000 a year. Thus about 85 per cent of tax-payers earn below £1,200 a year. Owing to the low rate of taxation, the low level of personal income, and the extensive exemptions, the annual yield of personal income tax has been negligible in absolute and relative terms, scarcely reaching one million pounds a year between 1951 and 1960.

The effect of the 1961 tax structure was to eliminate the exemptions in order especially to embrace the increasing number of salary and wage earners whom the liberal exemptions have, and would have put outside the scope of income taxations.

According to the Minister of Finance the reformed personal income structure of 1961 was designed to serve as a model of simplification into which complexities of exemptions would be introduced gradually.[35] The

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35. Ghana, Statistical Yearbook, 1962 (Central Bureau of Statistics, Accra, 1964) p. 157

TABLE 28

DISTRIBUTION OF PERSONAL INCOME TAX PAYERS, OF TAXABLE INCOME AND AMOUNT OF TAX CHARGED, 1959-60

All Personal Income Exceeding (1) £	Not Exceeding £	No. of People (2)	Assessable Income (3) £000	Tax Charged (4) £000	Average Tax Charged Per Person (5) £
-	800	7,100	5,734	70	9.8
800	1,200	3,314	5,102	154	46.5
1,200	2,000	1,025	2,444	152	148.3
2,000	3,000	252	861	80	317.2
3,000	5,000	221	1,197	191	864.2
5,000	10,000	14	172	47	3,357.6
10,000	-	-	-	-	-
Total		11,926	15,512	695	58.3

*Tax charged may not correspond with tax collected

Source: 1962 Statistical Yearbook (Central Bureau of Statistics, Accra, 1964) p.157

Minister, however, failed to give an indication of when the first exemptions would be introduced, nor did he reveal what form these exemptions would take when they are introduced. The budget statements of 1962 and 1963 included slight upward modifications of rates imposed in 1961 and [illegible] widening of tax base; but neither contained any provision for personal income tax exemptions of any kind.

Incorporated businesses in the fields of merchandise trade, mining, and manufacturing have been subject to direct taxation before the reform of the personal income tax. The rate of company tax has been set at nine shillings in the pound of net income in 1952; this rate was reduced in 1958 to eight shillings in the pound in order to encourage the inflow of private foreign capital, but the reduction was accompanied by a withholding tax of six-pence in the pound on dividends transferred from Ghana. In 1963, the income tax was raised to its 1952 level, and the withholding tax [illegible] to 4s. in one pound. Between 1951 and 1960 the annual total contribution of company tax to government revenue did not exceed five million pounds largely because the value of taxable company income was substantially reduced by extensive allowances which the government granted to these companies as an encouragement either to initiate investment or to expand their productive capacity.

The contribution of income tax paid by business corporations to government revenue has been marginal. If government grants liberal tax exemptions and then imposes a relatively high rate of taxation which yields little revenue, the question arises whether the tax exemptions create sufficient incentives to companies which will enable them to expand investment and employment, so that the resulting increase in domestic incomes is large enough to offset the potential loss in revenue to the government. If we assume, as is generally supposed to be the case, that investors are likely to be more deterred by relatively high rates of income taxation than

attracted by tax exemptions and allowances, then we must conclude that company tax policy in Ghana has tended to undermine the objective of inducing expansion of private investment.

Undoubtedly, the bias of tax policy against inducements originates in a conflict of objectives, that is, the conflict between the long-term desirability of creating inducements for private capital especially from abroad, and the short-term problem of augmenting government revenue. But as income from company taxation forms only a small proportion of total government revenue, it certainly appears that the revenue objective has been given undue weight in the formulation of government income tax policy. Indeed, it is a curious characteristic of government policy that while it has backed its declared aim of encouraging private investment with extensive tax exemptions, it has simultaneously imposed a disincentive tax rate the yield of which is relatively unimportant.

In addition to the general company income tax, mining companies pay other taxes. By the Minerals Duty Ordinance of 1952, duty was levied at varying rates of yield ratio on the value of minerals won. Yield ratio is defined as the value of minerals produced less cost of production which includes transport, processing, and selling costs - and less allowances for depreciation and amortization, expressed as a ratio of the market value of the minerals. Table 29 gives the rates of duty corresponding to various yield ratios. The revenue from this duty varied between £0.88 million in 1951 and £0.18 million in 1955.

Since 1954, the mining industry, which has been a touchstone

TABLE 29

YIELD RATIOS AND RATES OF MINERAL DUTY

YIELD RATIO (Per Cent)	RATE OF DUTY (Per Cent)
15	Nil
20	1
30	3
40	7
50	11
70	19
80	21

Source: Annual Report of the Gold Coast, 1953, (H.M.S.O. London, 1954) p. 36.

of the country's economic development[36] has experienced serious economic difficulties which finally led to the purchase by government of five gold mining companies in 1961, and of a diamond mining company in the following year. A discussion of the underlying factors of this development will be undertaken in the next chapter.

The development of direct taxations, especially of personal income, as a budgetary instrument has been influenced by three factors. First, although the local administration upheld the principle of financial self-sufficiency which was laid down by the Colonial Office, it has been careful, in enforcing the principle, not to arouse the direct hostility of the population. Even when the Colonial Office gave legal sanction to the establishment of native authorities under the rule of the chiefs during the last quarter of the nineteenth century, no provision was made for the imposition of direct taxation as was imposed in other African territories; nor was there established treasuries with regulation governing the disposition of funds. The result has been that the chiefs were left free to dispose of funds which came their way, mainly from mining and mineral concessions "with only such check as might be provided by the discontent of those who did not share in the proceeds."[37]

Indeed, opposition to any form of direct taxation became the rallying point of African politicians, and it was not until 1939 that native authorities were compelled to establish treasuries, the imposition of local levies having been given legal sanction three years earlier.

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36. Hailey, Capital Investment in Africa, P. 210

37. Lord Hailey, Native Administration in the British African Territories Part III (HMSO) London, 1951. p. 201.

Even when direct taxation of personal income was belatedly introduced at the level of the central government, it affected mainly the higher grades of personnel in the civil service and in commercial establishments who were, predominantly foreigners.

Secondly, even if direct taxation of the majority of Africans were feasible during the nineteenth century and the early decades of the twentieth century, the tax rates would have to be very low indeed owing to the low level of income. While a low level of income reduces taxable capacity of the economy, it does not necessarily imply that the imposition of direct taxation must be eschewed. It may however be granted that under certain conditions a decision not to impose direct taxation may be based entirely on economic considerations which originate directly from the fact that income is low; for example, given minimum cost conditions of tax collection, income may be so low as to make expected marginal tax yields less than the [illegible] cost of collection. Nevertheless, one cannot sustain the argument that a low level of income has been the decisive factor in the reluctance on the part of the colonial government to introduce direct taxation. For in the first place, the economic evolution of the country during the past half century has been characterized by a rising trend of income; and in the second place, this increasing income has sustained a high level of indirect taxation.

The decisive factor lay in the administrative ease and political convenience of indirect taxation by means of customs duty, This method has the advantage of incorporating the principle of direct taxation especially in the case of export duty on cocoa which places a greater burden of the cost of government finance on those who are most

capable of bearing it without incurring their hostility directly.[38] The administrative convenience of customs duty is enhanced in Ghana by the country's location on the seacoast which enables easy check on external trade through the two ports of Takoradi in the west and in recent years, of Tema in the east. With regard to imports, the duty may also be regarded as an indirect method of taxing not only consumers of the commodity on which the tax is imposed, but also the profits of suppliers in a way much more efficient than direct taxation.[39] Thus political expedience and the relative economy of administering custom duties have combined to reduce the need to resort to direct taxation as an instrument of raising revenue. The general effect of adopting this course of least resistance has been "a failure in the development of local government and fiscal institutions; so that, Ghana, in spite of her relatively great wealth and degree of development - substantially exceeding those of other tropical African countries - was a laggard in her fiscal and political education, though not of course in her political consciousness."[40]

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38. Although it is generally asserted, as Kaldor notes, that "the typical underdeveloped country collects in direct taxation no more than one-fifth or possibly one-tenth of what is due", it does not necessarily follow that full tax potential can be realized by widening the tax base to embrace the whole economically active population. In an economy where there is a high degree of inequality in the distribution of income, the problem of realising full tax potential is best approached by deepening the tax base to comprise the relatively wealthy few. The efficiency with which this can be done, of course, depends on the efficiency of the tax machinery on the one hand, and on the social attitudes and political influence of the taxable group on the other. For quotation, see N. Kaldor "Taxation for Development". Journal of Modern African Studies Vol. 1, No. 1, (1963) p. 8.

39. N. Kaldor, op. cit., p. 17.

40. U.K. Hicks, Development from Below, (Oxford University Press, London 1961) p. 85.

The implementation of public investment programmes brought about an increase in government demand for finance, thus making it necessary for the government to exploit other domestic sources of finance. The sources which were utilized with varying measures of success include long-term borrowing from the Cocoa Marketing Board, and from the general public; short-term loans from the commercial banks; and grants from the Cocoa Marketing Board as well as from cocoa farmers. Table 30 shows the extent of these loans.

The first attempt by the government to raise loans from the domestic public was made in 1953, and within the following two years, three loans were floated as follows: £0.5 million at 4 per cent Gold Coast Registered Stock (1968-73); £1 million at 3½ per cent Gold Coast Registered Stock (1969-74); and £0.5 million in Gold Coast Registered Premium Bonds (1954-64). Of the first two issues, private firms and individuals subscribed £0.85 million, with the Cocoa Marketing Board taking up the rest in the amounts of £0.1 million of the first, and £0.55 million of the second. At the end of 1954 four hundred and twenty-four individuals held £129,948 worth of stock of which £7,990 was subscribed by three hundred and fourteen African individuals. In his budget statement of 1955, the Minister of Finance regarded the amount of private subscription as a "moderate success".[41]

Besides the objective of raising revenue floating these loans was partly aimed at inducing firms and individuals to hold their savings in domestic assets; it was also expected to provide the African population with the opportunity of adopting the savings habit, as expressed

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41. Ghana, Official Record of Parliamentary Debates (Accra, February 22, 1955) p. 278.

TABLE 30

INTERNAL PUBLIC LOANS 1951-62 £million

Nature of Loan	51-52	52-53	53-54	54-55	55-56	59-60	60-61	61-62
4% Stock 1968/73				0.5				
3½% Stock 1969/74				1.0				
Registered Premium Bonds 1954/64				0.5				
Bearer Bonds 1955/65					0.5			
Development Loan 1956 (Cocoa Market Board)					4.0			
Takoradi Harbour Extentions								
£2-3 million 1951-52 Loan	2.3							
£1.35 " 1952-53 Loan		1.3						
£1.15 " 1953-54 Loan			1.1					
£0.35 " 1954-55 Loan				0.3				
Railway Investments								
£2.17 million 1952-53 Loan		2.1						
£2.56 million 1953-54 Loan			2.5					
£1.35 million 1954-55 Loan				1.3				
Volta Region Development								
£0.3 million 1953-54 Loan			0.3					
£0.7 million 1954-55 Loan				0.7				
£2.0 million 1956 Loan					2.0			
Development Loan 1959 by Cocoa Marketing Board						16.3		
Compulsory Saving Bonds								5.2
Bank Loans						6.0	13.9	36.3
Total Loans Outstanding	2.3	5.6	3.9	4.3	6.5	22.3	13.9	41.5
Cocoa Marketing Board Loans								

Source: Economic Survey, 1955, and 1962 (Central Bureau of Statistics, Accra) pp.28 and 110 respectively

by the Minister of Finance in his optimism regarding the "not too distant future when it (the purchase of bonds) will be a normal part of our savings habit."[42] But the Minister's optimism proved immature, for out of half a million pounds worth of Registered Premium Bonds which was expected to be subscribed fully by Africans, only one hundred and ten thousand pounds worth of bonds were bought by them, the remaining amount being taken up largely by corporate institutions like the Cocoa Marketing Board.

Besides its own separate loans and grants to the government, the Cocoa Marketing Board subscribed nearly half of the loans which were originally intended to be raised from domestic private sources. The failure of private domestic savers to respond to the opportunity presented was partly because the bonds carried a lower rate of return than the opportunity cost of purchasing them. For those Africans who could afford to buy the bonds, alternative lines of investment such as trading, transport, and residential construction provided more profitable outlets for their savings. Besides, to the majority of Africans, the idea of lending money to a government was completely novel and alien. Moreover, the majority of Africans hardly understood the concept of the bondholding as a form of financial asset formation.

In 1958 the premium bonds scheme was superseded by the establishment of a national lottery in 1958, a system of development financing which has the potential of raising revenue for the government, but tends to

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42. Ghana, Parliamentary Debates. (Feb. 22, 1955) p. 278.

raise the liquidity preference of the public to the detriment of the evolution of preference from the short to the long view.

The last attempt during the period 1951-62 to raise loans from the general domestic public took the form of compulsory subscription to development funds. As a major part of the reform of the budgetary system undertaken in 1961, wage and salary earners were to surrender five per cent of their current annual income towards the purchase of national development bonds. These bonds have a maturity of ten years, and carry a tax-free interest of four per cent per annum which would be collected with the principal at maturity. Professional persons, the self-employed, and private companies were to allocate ten per cent of their income to the purchase of the bonds; owing to administrative and technical difficulties of extending the scheme to the farm sector, farmers - mainly cocoa farmers - were directed to contribute ten per cent of the price they receive which was £112 per ton.

The scheme was introduced without prior education of the public in its purpose, and the general suspicion which surrounded it in the minds of the majority of people was an important factor in the workers' strike which occurred in Sekondi-Takoradi as a protest against the introduction of the scheme. Although the workers accepted the scheme after succeeding in having their contributions reduced,[43] it was revoked in 1963, barely two years after its inception, owing to the fact that

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43. Those with wages below ten pounds a month were exempted as well as non-African residents who did not wish to buy the bonds. As a result only seven million pounds was realized in revenue out of an estimated eleven million pounds expected from the scheme for the financial year 1961-62. In 1962-63 owing to further decline in the world price of cocoa, the Cocoa Marketing Board was unable to pay the farmers' contribution of some four million pounds.

administrative machinery was inadequate and unprepared for its efficient implementation. Although the government will enforce no more contributions, it will not make a refund of the amounts already collected until after ten years; for cocoa farmers, there will not only be no refunds even after that time, but also they will continue to contribute as they used to do before, on a "voluntary" basis. In the place of the compulsory saving scheme was reintroduced the previously unsuccessful method of raising domestic loans by means of bearer bonds on a voluntary basis.

The Cocoa Marketing Board therefore was the main source of internal loan finance during the entire period. These development loans were allocated among what the Minister of Finance belatedly termed in 1958 "a multiplicity of funds".[44] The majority of these funds were set up in 1951 for specific development outlays. In addition to the Consolidation Fund into which accrues the general revenue of the government unless it is required to transfer part of it to any other fund or account, there were in 1951 three other funds; the Sinking Fund, the Supplementary Sinking Fund, both of which were set up for liquidating the principal and interest of loan capital, and a Special Development Fund which was set up in 1949, and into which were paid yields of additional export duty on cocoa imposed to raise development revenue. Between 1951 and 1956, there were established six more funds which, with the exception of one, had to do with capital outlay.

The main capital outlay fund, the Development Fund, was established in 1951 to provide for the financing of the 1951-58 capital investment programme; it derived its revenue from budgetary surpluses as well as from loans which came mainly from the Cocoa Marketing Board.

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44. Ghana, Parliamentary Debates. Series 1, Vol. 11 (August 25, 1958) p.1,795

There was established also in the same year a Reserve Development Fund to finance Tema harbour and township project; and the Second Development Fund which was set up in 1954 to finance "urgent items such as new feeder roads and electricity stations, the main benefit of which will accrue in the Second Development Plan period (1959-64)."[45] This latter fund was accompanied by two reserve funds, Reserve Fund, and Supplementary Reserve Fund, the second one being "created to provide for large scale development outside the scope of the normal development programme."[46] Table 31 summarizes the allocation of finance among the various development funds between 1951 and 1955. It appears that after the funds have been established, allocation of funds among them was hardly guided by considerations of changing priorities.

From the point of view of development strategy, there are certain drawbacks in having a plethora of funds committed to specific outlays. First, it results in a duplication of accounting machinery, and adds to the administrative cost of managing these accounts especially as they are usually scattered under numerous government departments. Furthermore, owing to the shortage of qualified personnel, the proliferation of funds would inevitably lead to a decline in the quality of fund administration particularly if accounts are to be prepared within regular intervals to ensure efficiency. Even if there were enough qualified personnel to manage these funds separately and efficiently, the situation would still be undesirable, for it would constitute an uneconomic use of resources in the sense that an integrated system of fund management would release qualified personnel who may be more use-

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45. Ghana, Parliamentary Debates (February 22, 1955) p. 279.

46. Ibid.

TABLE 31

ALLOCATION OF INTERNAL FINANCE FOR DEVELOPMENT EXPENDITURE 1951-55

£ Million

	Total Finance	Development Fund	Special Development Fund	Reserve Development Fund	Second Development Fund	Reserve for Second Development Fund	Supplementary Reserve Development Fund
Contribution from Cocoa Duty	91.4	12.6	23.4	27.1	10.6	3.5	14.1
Contribution from Budget Surplus	19.7	19.7	--	--	--	--	--
Net Yield from Investments	1.6	1.6	--	--	--	--	--
Loans From Cocoa Marketing Board	6.9	6.9	--	--	--	--	--
Local Loans	2.5	2.5	--	--	--	--	--
TOTAL	122.1	42.3	23.4	27.1	10.6	3.5	14.1
AMOUNT SPENT	66.5	36.3	22.3	7.8	0.1	--	--
BALANCE AT DECEMBER 31, 1955	55.6	6.0	1.1	19.3	10.5	3.5	14.1

Source: Ed Survey 1955, (Central Bureau of Statistics, Accra), p. 72.

fully employed in other fields, especially as advisers to private African business. However, this is an academic argument, as there was and still is a definite shortage of qualified accounting personnel in the civil service which makes the government also a net borrower of such personnel from private business.

Secondly, the existence of separate funds committed to specific projects tends to prevent or distort the necessity of taking an aggregate view of the finance position, and therefore tends to diminish the inclination to undertake reviews of project priorities necessitated by new situations. In other words, there is a built-in tendency to allocate finance on the basis of priorities which now become irrelevant. For example, it is not inconceivable that a project which has high priority may be delayed because of insufficient funds while a number of established funds have an excess of incomes over outlays.[47]

Although it may be possible to shift finance from one fund to another as required to meet changing priorities, the legislative and administrative processes necessary to effect these shifts constitute a positive and unnecessary burden for a capital-short economy to bear.

Thirdly, it is not unlikely that the separate existence of these funds will tend to engender conflicts of vested interest on

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47. From the recently published Seven-Year Development Plan, (January, 1964) come the following striking lines: "At present although most Government departments and other public institutions keep their accounts with the Central Bank, many maintain accounts with commercial banks. Often there are credit balances on the accounts of Government departments with commercial banks while the Government is compelled to arrange for ways and means advances from the Central Bank. This system is wasteful in so far as it increases the cost of government operations unduly while at the same time precluding full control of the expenditure of Government departments." pp. 245-46

occasions of priority revision; prolonged departmental bargaining is likely to characterize decisions to reallocate finance, and this certainly constitutes an undesirable social cost. It is true that even where there are no separate funds, decisions about project priorities by government officials are likely to be marked by such bargaining, but it must be conceded that the conflict of interest will tend to be less intense here than in the former case where they will be reluctant to part with funds already under their control. As a result of increasing though belated recognition of the force of these arguments the government began in 1958 a process of consolidation of funds: the Supplementary Sinking Fund was integrated with the Sinking Fund; in 1960 all the development funds were consolidated into one fund; and in 1961 the Development Fund was integrated into the Consolidated Fund. The only exception to these capital outlay and capital repayment funds was the Road Fund which was intended for recurrent expenditure on roads. Established in 1953, it was intended to provide (i) for the maintenance of all roads which are the responsibility of the central government; (ii) grants in aid of municipal and city councils for the maintenance of certain town roads, and (iii) for the maintenance of ferries operated by the central government. It derived its revenue from taxation and direct licensing of motor vehicles; in 1959, it was integrated into the Consolidated Fund.

Emphasis on the immediate objective of raising revenue has been the predominant feature of government budgetary policy, and the long-term goal of assisting the development of financial institutions capable of generating the requisite finance was generally given scant attention.

Undoubtedly, had the voluntary loan schemes been given the opportunity to develop successfully by means of policies designed to overcome the resistance of African savers, it would have been a substantial contribution to the earlier development of a market for loanable funds. But their premature cancellation, coupled with a subsequent imposition of a scheme of compulsory lending to the government, could scarcely be considered a realistic search for solutions to the long-term problem of internal financing.

The failure of both loan schemes does not reflect lack of private saving or the unwillingness to invest, but rather the unattractiveness of the benefits offered compared with alternative opportunities. The volume of private saving, however, is small and must, therefore, in conditions of high demand, command a scarcity value much higher than offered by the government. As long as there exist investment opportunities which pay this scarcity value, any borrower offering relatively lower remuneration would price himself out of the market.

On the other hand, should the government decide to suppress investment demand other than its own, thus depriving the individual investor of more profitable investment alternatives, there remains open to him, with no simultaneous restraint placed on consumption, the alternative of raising the level of his consumption. Indeed, the effect of compulsory saving is to increase the marginal propensity to consume; if compulsory saving reduces the level of consumption, the marginal propensity to consume is likely to become unity as any increase in income will most likely be devoted to consumption rather than to voluntary saving on private account.

In other words, such a scheme is destructive of the habit of

saving. Indeed, the immediate reaction to the imposition of the compulsory saving scheme in July 1961 was a substantial withdrawal of savings deposits resulting in a fall from £14.7 million in June 1961 to £12.6 million in October of the same year. This was the result of two separate forces reinforcing each other, namely, the desire to maintain existing levels of consumption, and the fear of subsequent impounding of savings by the government.

While the measure of compulsory saving is generally justified in terms of the capital outlay that it will make possible, it is conceivable that its actual disposition will be towards sustaining government consumption. In Ghana, capital expenditure on public account as a ratio of government consumption has shown considerable steadiness increasing from more than half in 1951 to about three-quarters in 1956. It dropped to less than half in 1957, but recovered ever since, and now stands at more than half. Between 1957 and 1962 capital expenditure increased by an annual average of 21.9 per cent while current expenditure rose annually by 17 per cent. It should be noted, however, that while current expenditure rose steadily during the period, capital expenditure decreased in absolute amounts in 1957 and 1962 compared with the respective preceeding years. With the implementation of the new seven-year development plan, it is expected that the proportion of expenditure devoted to capital investment will tend to show an upward trend.

At the present state of development, there are two sources of increase in the capital stock: the widening and deepening of social overhead, the latter of which is beginning to gather momentum; and the establishment of industrial plant and equipment which is now in its initial stage. The first, widening and deepening of social capital,

has been historically, and is now, as a matter of national policy, a direct responsibility of the central government. The second has so far been predominantly undertaken by private enterprise which is largely foreign owned. It is this bifurcation of investment function which has enabled the government to concentrate on the expansion of social capital at a higher level than would have been possible had the government undertaken both functions.

The limitation of government investment to social overhead was dictated not only by historical circumstance and the lack of finance, but also by the insufficient supply of entrepreneurial talent for directly productive activities. Thus the availability of external enterprises to undertake the supply of consumer goods has been an important factor in sustaining the government's level of investment. External enterprise becomes even more necessary especially during the crucial transitional period when the actual rate of growth tends to be higher than the natural rate of growth. Given the failure of domestic saving schemes and the absence of methods of deficit finance, a greater degree of dependence on external enterprise and finance is required in order to sustain the level of desired investment. The Economic Survey of 1960 summarizes the situation clearly as follows: "the cardinal issue facing Ghana's economy is how to maintain and even increase the present high rate of economic growth. The favourable conditions which have made this possible in the past have now changed...there is need to investigate new sources from which the country can obtain funds which are necessary for rapid economic development."[48]

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48. Ghana, Economic Survey, 1960. p. 124

Nevertheless, the government's recent entry into the field of directly productive activities, while not diminishing the dependence on external finance, certainly affects the conditions of its supply and the degree of its effectiveness as a trail-blazer in methods of production and cost-consciousness, and therefore its strategic role in the expansion of the economy.

7.4 External Public Finance

As we have shown in the analysis of the Guggisberg investment programme, there has been a continuous historical tradition of reliance on external loan capital chiefly for the development of physical social overhead to form the backbone of the export-import trade. Although from 1951 to 1958 the public investment programme was financed almost entirely from internal resources, yet a not insignificant amount of external capital was employed in financing the extensions to Takoradi harbour and of the railway system. Table 32 summarizes the external non-equity capital expended during this period, and it is significant that the share of non-equity capital in all forms in total public capital investment was about nine per cent during the period.

The pattern of loan capital can be traced by an examination of the national debt. It is noteworthy that external debt which in 1958 constituted 0.8 per cent of gross national product rose in absolute amount to £50.5 million in 1962, forming 9.9 per cent of gross national product. This rapid increase both in absolute and relative terms may be explained by the altered nature of external loan capital from the traditional bonds subscribed by private individuals and secured by the Colonial Office to governmental and international agency loans and credit arrangements, especially as these latter tend to be relatively easier to arrange. Between 1951 and 1957, the national government undertook no issue of

TABLE 32

EXTERNAL NON-EQUITY FINANCE FOR PUBLIC INVESTMENT

£ Million

	51-52	52-53	53-54	54-55	55-56	56-57	57-58
LOANS:							
4½% Inscribed Stock 1956 (for Takordi Harbour and Railways)	4.6	---	---	---	---	---	---
4½% Inscribed Stock 1960-70 (for Takordi Harbour and other Public Worsk)	1.17	---	---	---	---	---	---
3% Inscribed Stock 1963 (for redemption of part of Gold Coast 6% Stock 1945-70)	2.0	---	---	---	---	---	---
GRANTS:							
Colonial Development and Welfare Scheme (Genja Project)[1]	0.09	0.07	0.4	0.5	0.4	1.3	---
United Kingdom Government	---	---	0.01	0.1	0.1	0.14	---
United States[2]		0.001			0.06	0.02	0.07

Sources: Economic Survey 1955 (Central Bureau of Statistics, Accra.) p.22 United Nations,
2. Economic Survey of Africa Since 1950 (New York, 1959) p. 233.

1. Total grants under the scheme amounted to £3.4 million between 1946 and 1957. See Colonial Development Corporation, Reports and Accounts for 1957 (H.M.S.O. London, 1958) p. 1.

external loan capital and the £8.4 million outstanding in 1954 represented the last external private loan capital to Ghana under the Colonial Stocks Act (1877).

Since 1958, the country has engaged in negotiations with external governments for loans and supplier's credits, and this effort was intensified especially during the period 1960-61 when the country's external relations were extended to embrace Eastern Europe, the Soviet Union, and mainland China. Table 33 shows the loans contracted between 1958 and 1962, their sources, and the projects for which they were intended.

Contrasted with the projects financed by external loans in the past, the loans in recent years with the notable exception of those for the Volta River Project are secured to finance the construction of factories for the domestic production of consumer goods. In the past, external loan capital has been allocated to projects on the basis of their capacity to yield revenue to cover principal and interest. As a result, governmental policy has been in the direction of restricting such competition as might endanger the financial returns of projects thus financed. The railways have been the chief beneficiaries of this favoured treatment against the competition of road transport. In the thirties, when they were sustaining heavy losses and had huge amortization and interest charges to pay, competition by road transport was restricted by reserving for rail transport certain of the major import and export commodities, and by scheduling road transport away from areas served by the railways. In 1959 following the decline in freight earnings from the export trade in timber, road transport of timber to Takaradi , the port of timber export, was totally banned. The effect of this policy is to deny consumers of transport service the choice of service with the lowest cost, and thus deny the economy the benefits of new and improved methods in transportation. In this situation

TABLE 33

INTERNATIONAL LOANS
INSTITUTIONAL AND GOVERNMENTAL
1959-62

Country	Amount of Loan £ Million (1)	Terms		Project (4)
		Rate of Interest (2)	Period (Years) (3)	
Israel	7.4	—	6	Shipping Line, Construction Company
United States	13.0	3½	30	Volta River Project
United Kingdom	5	6	25	Volta River Project
World Bank	17	5¾	25	Volta River Project
West Germany	17	—	Long Term	A bridge across the Volta
Soviet Union	29.5	2½	10	For financing the construction of factories ranging from textiles to steel mills. A short catalogue may be indicative: Furniture making plants, electric motors, soap factory, building of sports stadium, polytechnic, tannery, drilling equipment for oil and gas exploration, aspirin plant, cement works, cutlery, tyre factory, tomato juice.
Czechoslavakia	10.0	2½	10	
Poland	10.0	2½	10	
China	7.0	2½	10	
Yugoslavia	3.6	3	8	
Rumania	3.0	2½	5	
Hungary	2.5	2½	10	
Bulgaria	2.0	2½	10	
Total	127.0			

Compiled from West Africa, (March 10,1962)

the basis for the rational allocation of investment funds cannot be properly assessed.

The ultimate necessity of repaying interest and principal on the new loan funds raises the possibility of restrictive practices to protect markets for industries financed by external loans. The notion that the prospective yield of an enterprise which is financed by external loan capital must at least equal interest, principal, and other costs of administration with some margin of normal profit, while generally sound in principle from a micro point of view, should be assessed in the context of a dynamic situation and from an aggregative viewpoint. In the perspective of a broader view, the individual financial profitability criterion emerges as a curiously persistent vestige of the Smithian fallacy of composition, that is, the extrapolation of individual interest to community interest.

Furthermore, the policy measures to which this criterion leads tend to be preoccupied only with raising earnings in order to match rising costs over which little control is exercised. There tends to be little realization that from the viewpoint of the economy as a whole, what matters is not necessarily whether the yield of each loan-financed enterprise is sufficient to exceed whatever costs it desires to incur, but whether the operation of all industries together at minimum costs yields maximum net surplus. For there is not any necessary relationship between the ability to repay a loan and the productiveness of the enterprise financed by the loan, the operative principle from the government point of view being whether the loan has enabled total output to rise sufficiently

so that the loan can be conveniently repaid.[49]

The tendency to enforce financial profitability of an enterprise financed by external loan capital has a strong foundation in the dual characteristics of foreign loan investment today; namely, the fact that developing economies in general need foreign loans to buy capital equipment from abroad, and the practice of lending countries tying their loans to purchases only in their own countries. While the first is an accurate statement of practice, it is erroneous in principle, "except in the limiting case where the capacity to transform one sector to another is zero,"[50] for demand for external loan is not in principle a demand for a specific type of factor of production, but a demand for control over and reallocation of resources in general in order to raise domestic saving to the level of desired investment. The task of disabusing the minds of practical politicians of this analytical error is complicated by the practice of international lenders of tying loans not only to specific projects but also to spending it in the lending country.

As Kindleberger notes, first, "to loan only the currencies to be spent is to require the borrower either to borrow in the dearer market for loans or to buy in the dearer market for goods, unless the cheapest market for goods and loans are the same"; secondly, "a loan limited to the cost of imports needed for a project is insufficient to balance the international accounts except in the limiting case where all the local expenditure is raised in a deflationary fashion."[51] For an inflationary

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49. J. J. Polak, "Balance of Payments Problems of Countries Reconstructing with the Help of Foreign Loans", op. cit., p. 481, footnote 23.

50. C. P. Kindleberger, International Economics, p. 382.

51. Ibid.

financing of local expenditure will tend to raise money incomes and imports together, and is thus likely to affect adversely the balance of trade.

A third objection arising from the preceeding two lies in the possibility that preoccupation with foreign exchange purchasing power rather than with general purchasing power may lead to a tendency to formulate projects on the basis not in terms of their net contribution as part of an integrated plan but on the basis of the ease or difficulty of securing foreign exchange for them separately. Thus there develops a general tendency towards intensification of the microview in assessing the profitability of enterprise, and consequently of restrictive measures designed to contrive a certain financial return to the detriment of efficiency based on dyamic competition.

The foregoing analysis is particularly relevant to Ghana where the majority of recent external loans are allocated for investment in industrial plant and equipment for domestic oriented manufacturing. The economic implications of this development will be analysed in the following chapter, but we may note here that the imposition of import controls in 1961 has been justified by the often repeated but rarely examined objective of conserving foreign exchange. Although at that time the policy of import control was dictated by a genuine short-term problem of balance of payments crisis, it may be suggested that the maintenance of a system of import controls on a continuing basis in order to protect investments financed by external loan capital is a possibility that cannot be lightly dismissed.

The method of financing the Volta River Project deserves a brief analysis. From the point of view of financing the project is characterized by the fact that it depends on domestic capital, external private direct investment, and external loan capital. As presently conceived and being executed, the project falls into four parts: (1) the

building of a dam and hydroelectric power house at Akosombo; (ii) the construction of an aluminium smelter at Tema; (iii) the provision of a 400-mile transmission network; (iv) the resettlement of about 77,000 people.

According to the principles of agreement established in 1959 the Ghana government has sole responsibility for the power aspect of the scheme, while the aluminium companies undertook to finance wholly bauxite mining and the aluminium smelting operations. The power and other social overhead costs of the scheme have been estimated as follows:[52]

General features (compensation, resettlement, health measures and the Volta River Authority)	£6.2 million
Akosombo dam, power plant, township, access roads, including allowance for engineering, supervision and contigencies	£4.3 million
Transmission system, Akosombo-Tema-Smelter-Accra	£5.8 million
Interest payable on loans during construction, and working capital for initial operation	£6.3 million
Transmission system beyond Accra, including additional interest during construction, and working capital	£9.5 million
Total cost directly chargeable to project	£70.6 million

The Ghana government is responsible for financing half of this cost at a rate of seven million pounds per year while the other half is being financed by loans from the International Bank of Reconstruction and Development, the United States of America, and the United Kingdom in the amounts of £17 million, £13 million and £5 million respectively. Direct investment in aluminium processing will amount to some £50 million which is to be provided by the Kaiser Company of America. Government investment outlay is being met from internal sources largely by drawing on external reserves.

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52. A. B.Futa, "The Volta River Project", Economic Bulletin, Vol. 5, No. 1, (1961) p. 34.

With the beginning of power production which is expected in the last quarter of 1965 the power aspect of the project is expected to meet the following annual charges (i) cost of securing loans, (ii) operating cost of dam, power plant, and transmission supplies, and (iii) expenses of the Volta River Authority. The latter cost which includes annual replacement cost is estimated at three-fourths of one per cent of direct construction of a power house and equipment plus appropriate percentages to cover administration and general expenses. Table 3¼ shows a schedule of the estimated annual charges beginning from the last quarter of 1965 to 1977 when principal and interest on external loan capital would have been paid.

As the power project is expected to pay for itself, the principles of agreement ensure a minimum revenue from the sale of power by providing that the aluminium smelter which will be the largest consumer of electricity shall pay specified amounts for power whether used or not at a rate of .225d. per killowatt as shown in Table 3¾. Other domestic demand, both industrial and household, is estimated to increase at the rate of 12½ per cent per annum in the Tema-Accra region between 1965 and 1970 falling off to 10 per cent through 1976; outside Accra, the rate of growth is estimated at 15 per cent per annum and falling to 8 per cent per annum. On the basis of these expectations it is estimated that sales of power will yield £2.5 million in 1966 reaching £8.5 in 1977.

Thus during the twelve-year period from 1966 to 1977 the estimated average annual expenditure amounts to £4,656,333, and although it is difficult to estimate accurately incomes from sale of power during the same period, a minimum yearly average of five million pounds does not seem to be an excessive estimate. It is possible, however, that

TABLE 34

ESTIMATED ANNUAL PAYMENTS ON THE
Volta River Project, 1965-77

£ 000

Year	Loan Servicing	Cost of Additional Plants	Operating Costs	Total
Last Quarter 1965	831	---	200	1,031
1966	3,328	---	800	4,128
1967	3,328	---	800	4,128
1968	3,328	---	800	4,128
1969	3,328	---	800	4,128
1970	3,328	1,000	800	5,128
1971	3,328	2,000	800	6,128
1972	3,328	---	800	4,128
1972	3,328	---	800	4,128
1973	3,328	---	800	4,128
1974	3,328	1,500	800	5,628
1975	3,328	1,500	800	5,628
1976	3,328	---	960	4,288
1977	3,328	---	960	4,288
	44,095	6,000	10,920	61,015

Source: A. B. Futa, "The Volta River Project", Economic Bulletin Vol. 5, No. 1 (May, 1961) p. 8.

TABLE 35

REVENUE FROM SALE OF POWER TO VOLTA ALUMINIUM COMPANY

Year	Amount of Power KW (Millions)	Value £ 000 (Rate - .225d. per KW)
1967	578.2	542
1968	1,462.9	1,451
1969	1,752.0	1,643
1970	1,752.0	1,643
1971	1,752.0	1,643
1972 and Subsequent Years	2,628.9	2,463

Source: A. B. Futa, "The Volta River Project" Economic Bulletin Vol. 5 No. 1 (May, 1961)pp. 9-10.

costs of electricity distribution which are not included in the estimates,[53] and of annual maintenance may increase at a rate higher than the rate of growth of annual revenue, and therefore tend to cause a persistent shortfall of annual revenue with respect to contracted annual outlays. Nevertheless, in 1977 the dam and power house will still have thirty-eight years of functional life, and therefore of yielding revenue, and during this time capital and current annual costs may be expected to show a decline, and if, in addition, there occurs a reorganization of machinery for efficient revenue collection, the project cannot fail to yield returns in excess of the sum of original cost plus interest, and replacement charges.

From 1966 to 1977 the servicing of the external loan for the Volta Project amounts to an annual average of £3.3 million. Loan servicing for the three financial years 1959-60 to 1961-62 amounted to £1.45 million, £2.82 million, and £2.59 million each year forming 2.7 per cent, 2.5 per cent, and 2.2 per cent of annual government expenditure respectively. If we include the other loans, as shown in Table 33, which were contracted for industrial production and most of which are to be repaid by 1970, there will be a tremendous rise in annual debt charges from 1966 to between £10 million to £15 million per annum. Assuming that government expenditure increases at a constant rate of 10 per cent per annum expenditure in 1970 will reach £209 million of which a minimum of £10 million will be for servicing external loans. It should be noted that

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53. It may be argued that the expansion of distribution, being in response to demand, will be financed by the revenue backing that demand. But it does not necessarily follow that the actual revenue collected will match the assessed revenue which normally will be calculated to exceed cost of production, but may, as invariably happens in practice, fall short of costs. See Budget Statement 1963, Supplement with Ghana Today (October 23, 1963) p. 6: "The shortfall in revenue was also due in some measure to the fact that government departments collected less revenue than they should have....Generally, revenue collection in these departments has not been satisfactory."

even if we calculated increase in government revenue at the rate of 10 per cent per annum and not at its actual average rate of increase during the past three years of 2.4 per cent per annum, revenue in 1970 will be only £135 million, with the balance to be met one way or the other by deficit financing, drawing on reserves, or borrowing. The first method has been used in 1961-62 and 1962-63 as an innovation; the second method has been employed in the past, but with the full commitment of present reserves, to other purposes, there does not seem any prospect of resort to it unless there is an unexpected reversal of the balance of trade accounts in favour of the country, in which event, the budgetary balance is also likely to be favourable. While it is unlikely that external loans will be made to cover budgetary deficits, it is not improbable that they will be contracted to achieve balance of payments equilibrium on a short-term basis. But this is another problem altogether.

The financing of capital development with external loans creates balance of trade problems for both the lending and borrowing countries when repayment takes place; the transfer of interest and principal by a borrowing country entails the creation of a favourable balance of trade in the borrowing country and an unfavourable one for the lending country. Besides, while the favourable balance of trade provides an opportunity for a capital-short economy to undertake domestic expansion, the necessity to repay previous loans, however, results in an export of capital and this is likely to impose a severe limit on its ability to carry out a programme of further domestic expansion.

The facility with which the borrowing country can transfer its contractual payments depends on the acquiescence of the lending country and/or third countries in accepting an adverse balance of trade vis-a-vis the borrowing country. But the reluctance of the former to accept this

position for a considerable period may compel it to make fresh loans at the rate at which old ones are being repaid. This possibility, while motivated by the lender's self-interest, may be rationalized by the principle of equalizing marginal efficiencies of capital between the developed and the developing economies. Nevertheless, the notion of perpetual loans between one country and another, however elegant and invulnerable it may be on theoretical grounds, possesses no aura of political feasibility; for the practical affairs of nations are conducted on a basis little different from that which relates individuals within a country.[54] On this reasoning, while the repayment of loans creates problems for the lending countries, it also perpetrates a perversity in transferring capital from economies which need it more and where it is more productive to economies which need it less and where it tends to be relatively less productive. Against this difficulty of financing with external loans, we must place its supreme advantage over reliance on foreign private direct investment: that is, the advantage of avoiding direct foreign allocation of investment capital among sectors in the economy.

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54. For a parallel and more detailed treatment of the same subject see R. F. Harrod, "Desirable International Movements of Capital in Relation to Growth of Borrowers and Lenders and Growth of Markets", Trade Theory in a Developing World, Proceedings of the International Economic Association, eds. R.F. Harrod and D. C. Hague, (McMillan, London, 1963) p. 116: "After the initial period of stepped-up borrowing, during which the balance of payments of course benefits, we should not suppose the increase in borrowing from abroad each year to be more than in proportion to the country's increase in income and capital stock. For if we did suppose a greater increase, foreigners would in due course approach the point of owning the whole capital stock of the borrowing country. Furthermore, what will happen after that?"

CHAPTER EIGHT

CRITIQUE OF ECONOMIC DEVELOPMENT POLICY

8.1 Introduction

The three Chapters immediately preceeding this one contain some critique of government economic policy during the period under study. In this concluding Chapter, we draw together the main strands of our critical observations into an organized critique of economic development policy since 1951.

This critique consists of the examination of specific economic policies implemented by the government which have affected decisively the pattern of investment and the general direction of the economy's development. The first policy is the cocoa price policy considered in terms of its domestic repercussions; the second major policy has to do with the relations between foreign investment, African business and government economic activity; and the third policy is in the sphere of the country's external economic relations, especially the change from a policy of relatively free trade to one of rigid trade control.

8.2 General Objectives of Economic Policy

A critique of policy must be undertaken within a framework of clearly defined objectives. As stated in Chapter Six, the national government, since coming to power, regards industrialisation of the country as its major economic task. It conceives industrialization as the means by which to ensure "a higher standard of living" for the people of Ghana. While by industrialization, the government implies establishment of manufacturing processes based on mechanical

transformation of raw and semi-raw materials into final goods, the concept of a "a higher standard of living" has not been formulated precisely. It is however possible to distill some meaning from this concept from two official passages. The first passage appears in the published statement of the Second Development Plan, 1959-64, and reads as follows. "What is the objective of our plan? It is simply this... to give us a standard of living which will abolish disease, poverty, and illiteracy, give our people ample food, and good housing, and let us advance confidently as a nation."[1] The second passage, echoing the first, may be found in the Draft Programme of the Convention People's Party for Work and Happiness, an undated publication which appeared in 1962, reading as follows, "our party's policy can be summed up in a single sentence: it is to provide work and conditions of happiness for every member of our society."[2] Although evidence in this publication suggests that in the government's view a rising money income is a sufficient indicator of a rising standard of living,[3] we must however interpret an improvement in living standards to mean an increase in real income per head of the population, that is, an increasing command by the individual of material goods and services.

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1. Ghana, Second Development Plan, (Government Printer, Accra, 1959), p. 111.

2. Draft Programme of the Convention People's Party for Work and Happiness, (no date but released in Accra, 1962) p. 3.

3. "When the Party came into power wages were as low as ninepence per day. The Party intervened at once to correct this position as regards wages.... Today it can be said with some pride and satisfaction that there has been a general rise in the living standards of the workers whose national minimum wage is now 62. 6d. a day." Draft Programme of the Convention People's Party for Work and Happiness, p. 11.

A rising income per head requires that the rate of growth of output be higher than the rate of population growth. While there is little doubt that this was an obvious goal of policy, nevertheless, the objective of raising living standards was not expressed in terms of the desirable rate at which income per head and, per force, aggregate income must grow, either annually, or over a period. Nor has there been a definite formulation of this welfare objective in terms of concrete goals of employment; and while official attitude appeared to be in the direction of maintaining stability, there was little indication of the specific economic variables that required stabilization.

That being the case, we consider it appropriate to conduct our critique in terms of variables most relevant to the process of economic development, that is, whether, and the extent to which, economic policy has facilitated saving, investment and technical improvements in production. This approach is justified by the consideration that in a developing economy these three variables determine the rate at which output expands, and hence maximizing their rates leads to the maximization of the rate of growth of output. The justification for our emphasis on output lies in the fact that it is the only means whereby, given a growing - and even constant - population, a rising per capita income can be achieved. Indeed, in the long run, the growth of output is the relevant economic variable with which policy must be preoccupied. Variables like employment, external and internal balance, while properly important in the short run as immediate goals of policy, must be considered to adjust to long-run changes in output.

This priority of output does not prevent us, however, from examining the short-run effects of policy designed to cope with fundamental problems of long-run development. In doing so we must remain conscious of the vital, though not always clear, distinction not only between short-run and long-run objectives of specific policies but also between the effects of these policies in the short and long run.

8.3 Cocoa Producer Price Policy

We argued in Chapter Six that producer price policy as pursued by the Cocoa Marketing Board between 1947 and 1954 may be defended as a policy of intra-seasonal price stabilization. But since producer prices fluctuated from one season to another, and did so even more than world prices fluctuated, the Board could not claim to have stablilized producer prices during this period. On the other hand, between 1955 and 1962, with direct government intervention, producer prices showed some element of inter-seasonal stability changing downwards in two-year intervals, in 1957, 1959, and 1961 from £149 per ton to £112 per ton, and to £100 per ton. It may therefore be stated that not only intra-seasonal but also inter-seasonal price stability was pursued, and the downward bias of this stability must not be overlooked.

While intra-seasonal price fixing assures the producer a known and stable price for his produce, it does not indicate what differential should exist between producer price and world market price, nor does it provide reasons for any given differential. From the point of view of economic incentives and efficient allocation of resources it is necessary to relate producer price to market selling

price so that the conditions of the market are reflected in the economic behaviour of producers. In this context price stabilization within a particular season unrelated to subsequent or past seasons is of limited economic significance. Besides, it does not appear to be the central objective of the price policy pursued by the Board.

In an economy where the money of cocoa producers constitutes the bulk of private demand, a policy of price stabilization must take into account its impact on aggregate income of cocoa farmers. In spite of the achievement of producer price stability for most part of the period, fluctuation in the volume of cocoa sold to the Board resulted in significant inter-seasonal fluctuations in aggregate money receipts of cocoa farmers. Money income of cocoa farmers, estimated on the basis of calendar, fluctuated between a low of £37.1 million in 1954 to a maximum of £74.7 million in 1956. It must be stated, in addition that in spite of increasing volume during the second half of the twelve-year period, the downward bias of producer prices had the effect of reducing the average aggregate earnings during that period below the level of average annual earnings between 1951 and 195.. Furthermore the magnitude of the fluctuation in aggregate earnings was less during the latter half of the period than during the first.

Two effects of the price policy must be examined separately. First, there is the effect on the behaviour of the producer in a given season dariving from the fact that the price he receives for his produce is below world market price or the price that can be obtained elsewhere; secondly, there is the effect on production of the prospect, based on experience, of a falling trend of producer prices.

As a tree-crop, the effect of intra-seasonal price

differential on current production is nil, but it may affect significantly the quantity offered for sale, Given the monopsonistic organization of marketing, the reaction of the farmer may be (i) to speculate on the possibility of a higher price in the following season and therefore delay harvesting the crop, or hold up stocks of produce already harvested, as actually happened in 1955; (ii) to seek avenues of disposing of his produce at a higher price than paid by the Cocoa Marketing Board. Indeed, this latter alternative has already been effectively exploited by cocoa producers whose farms lie close to the eastern and western borders of the country. When prices in Togoland and Ivory Coast are higher than producer prices in Ghana it was not unusual for these producers to smuggle large quantities of cocoa across the borders in search of the higher prices. The magnitude of this smuggling is reflected in the fact that Togoland and Ivory Coast have often exported greater quantities of cocoa than they actually produced or even have the natural resources to produce. Although lack of adequate transportation to the selling centres in Ghana was a factor in some of the extra-territorial movement of cocoa, there is little doubt that the prospect of a higher price provides the chief motive for smuggling which invariably occurs on an organized basis.

In the absence of these alternatives the behaviour of the producer will depend on the margin between the cost of harvesting and preparing the crop for sale and the price he receives. The level of farm wages may be so high as to make harvesting of the crop an unprofitable proposition. Indeed, it has been estimated that at the producer price of £135 per ton which prevailed until 1959 new cocoa farms in Western Ashanti yielded only between eleven and twelve per cent of invested capital, and that at £112 per ton the return on these farms were negative;[4] at the current price of £100 per ton, these farms would be on the verge of being abandoned.

It is difficult to be definite on the effect of a particular trend of producer prices on output, for while it can be stated generally that expectation of lower prices with increasing costs will tend to result in a fall in output, it can be argued that if farmers desire to maintain a given level of income, a lower price may have the effect of increasing output, and a higher price reducing it. Furthermore with the special characteristics of cocoa cultivation a simple and direct relationship between price must take into account the extra-market influences of weather, disease, and other factors.

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4. R. H. Green, "The Cocoa Industry: An Examination of Some Current Problems", Economic Bulletin of Ghana, Vol. 5, No. 1, (May, 1961) p. 19.

Nevertheless, since producers have responded to price increases in the past by expanding productive capacity, it must follow that the prospect of a long-run trend falling prices must adversely affect capacity creation and ultimately output. Thus it is important to emphasize that the parallelism in time between a trend of falling producer prices and an upward movement of volume of cocoa produced does not indicate a clearly defined tendency of farmers to maintain a certain level of money income by increasing output in the face of falling prices. For the increased outputs, especially since 1960, have been brought about by factors which are independent of this tendency. In the first place, as a result of the large-scale government attack on the swollen-shoot disease, there has occurred a reduction in the menace of the disease in the Cocoa crop.[5] Between 1951 and 1960 nearly £25 million were spent on fighting the disease and rehabilitating areas hitherto destroyed by the pest. Secondly, the areas which were previously devastated but later replanted mostly between 1950 and 1953 in the Eastern Region have began to yield output by 1959.

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5. The increasing tend towards the mechanization of the means of preserving the sound health of cocoa trees must be related to the fact that the purchase of the equipment is heavily subsidized by the government; and it is doubtful whether, in the face of persistent price falls without compensatory decline of operating costs, farmers would be disposed to undertake this investment on a voluntary basis. Furthermore, it is not manifest that they would have done so even if they received the subsidy for disease controls and equipment directly as part of the price paid to them.

Thirdly, the virgin areas which were opened up for cocoa production immediately after the Second World War in Brong-Ahafo, the Central and Volta Regions have become substantial contributors to total output in recent years. Fourthly, improved weather conditions have been a significant factor in the large volume of output between 1960 and 1962. Indeed, under present conditions there is growing evidence of lack of proper care of cocoa trees by farmers. Thus, from the point of view of incentive, the price policy could not have failed to frustrate the enterprise of farmers. It must be emphasized, however, that this conclusion loses much of its force during the latter part of the period, when the world price of cocoa has also shown a trend of rapid decline.

If the producer price policy cannot be sustained on the grounds of production incentives, it is not self-evident that it can be justified, without much qualification, by its anti-inflationary effect as well as by its role in mobilizing saving. Since the effect of price policy during the period has been to depress not only the price but also the income of the producer, while the income from non-cocoa activities grew steadily, the claim cannot be made that the government through the medium of the Board concerned itself with preserving any special interests of the cocoa farmer. It is evident that the Board, acting on pressure from the government, became preoccupied with the economic impact of its action on the economy as a whole especially as the mechanism of the Board was eminently suited for the effective implementation of anti-inflationary policy as well as a policy of taxation. One cannot disagree with the view that during the first few years of the period especially from 1951 to 1953, restriction of domestic demand was necessary to curb the inflationary pressures in the economy, and that since cocoa incomes constitute the bulk of private demand, a policy of demand restraint must be directed at that constituent of demand. One must, however,

maintain that from the point of view of political propriety and responsibility it is objectionable that an organization which was expressly set up to act as a trustee of farmers' interests should assume the direct responsibility of government in levying what turns out to be direct taxation. It would have been most desirable to integrate the price policy of the Board into the fiscal instruments of the Treasury. In so doing, it is necessary to draw a clear line of demarcation between using the price policy as an anti-inflationary measure and using it as an instrument of socialized saving, for while one is a short-term objective, the other refers to the long-run.

In the long run, the justification for undertaking compulsory saving especially in the form it took is that the saving would not have taken place in the absence of compulsion, and that even if private voluntary saving occurs, it will not be invested in what are considered to be desirable activities from the point of view of growth inducement. Thus the transfer to the government of the accumulated earnings may be regarded to represent the diversion of resources from where they will be misused to where they will be productively invested. As has been argued in Chapter Six, the pattern of public investment which emerged from government utilization of the accumulated balances could hardly be regarded as the most productive pattern that couldhave emerged. Undoubtedly, it is difficult to assume a definite pattern of investment that would have emerged had producers been recipients of the full world price of cocoa net of selling costs. The propensity to consume would likely rise giving rise to an increasing propensity to import. To the extent that, in a developing economy, consumer imports, especially of manufactured goods reflect the level

of domestic demand, a rising demand for imports will tend to induce domestic investment for the production of goods demanded which are hitherto imported. Until final goods flow from the pipe-line of new investment thus induced, there will however continue to occur a leakage of the full accelerator effects of rising domestic demand; but it is difficult to controvert the proposition that the inducement to undertake domestic investment in low-income countries derives from the level of demand as indicated in the level of imports.

However, the effect of the relative reduction of cocoa income on the private inducement to invest must not be exaggerated, for demand for consumer imports rose steadily during the period owing to the growth of non-cocoa income. In effect, the price policy involved the transfer of income from cocoa to the non-cocoa sector of the economy through the medium of government capital expenditure. Since the new recipients of government financial outlays being largely urban dwellers, are likely to be more dependent on wages and salaries than cocoa farmers are on cocoa cash incomes we may presume that their marginal propensity to consume, and a fortiori, the marginal propensity to import is higher than the farmers and, therefore that, in the short run, their expenditure tends to produce a greater leakage of accelerator effects than those produced by expenditure of farmers. For the investment activities of cocoa farmers in the past in transport and residential construction, testifies that they have a higher propensity to save, and to invest, than the new recipients of re-distributed cocoa income. To what extent this would have developed into a dynamic growth-inducing force had there been no cocoa price policy must however remain an open question. The fact remains that taking into consideration the attention given to the industry by the

government in terms of money expenditure and manpower allocation, the cocoa industry emerges as a "capital deficit"[6] sector of the economy, a development which can hardly be dissociated from the price policy.

8.4. Investment Policy, 1951 - 1962

During the period before independence, the principal agency of industrialization was private enterprise, largely of external origin; and the government preoccupied itself with investment in public utilities from which private enterprise has been historically, and as matter of principle, excluded. The government however reserved to itself the right to participate in any industrial enterprise which "would be calculated to serve the national interest"[7]. In 1957 the Economic Survey expressed concern about the lag of private investment behind public capital outlays: "while public investment has reached a satisfactory level, investment in the country's basic industries - agriculture, manufacturing and mining - is still much lower than the government would like to see".[8] In 1958, in order to draw the attention of private enterprise to the inbalance and to remove doubts about its intentions, the government undertook to demarcate three fields of investment; first, those industries reserved entirely to the government; secondly, those in which government participation is mandatory and third, those open freely to private enterprise.

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6. R. H. Green, "Multi-purpose Economic Institutions in Africa", Journal of Modern African Studies, Vol. 1 No. 2 p. 174

7. Handbook of Trade and Commerce, Gold Coast, 1955 (Government Printer, 1956) p. 21

8. Economic Survey, 1957 (Central Bureau of Statistics, Accra, 1958) p. 1

The demaracation was based on the nature of participant and by type of product, and although the products requiring government participation were minimal - alcohol, narcotics and beverages - the principle of government participation with private enterprise was firmly established.

While up to 1959 the government regarded private enterprise as the principal agent of industrialization, in 1960, it decided to bring about industrialization by means of a socialist form of organization: "owing to the absence of facilities for capital formation it was clear from the very beginning that this prodigious task could only be accomplished successfully by the institution of socialism".[9] It is not clear whether socialism as used by the party in power means an apparatus whereby the ultimate objective of the maximum welfare of the individual Ghanaian is attained or a form of social organization which exemplifies this ultimate objective and the establishment of which therefore must be pursued as a goal in itself. While the first interpretation occurs in the party's draft programme, the second is explicitly stated in the seven-year development plan: "with this ....Plan Ghana enters upon a period of economic reconstruction and development aimed at creating a socialist society in which the individual Ghanaian will be able to enjoy a modern standard of living in his home supplemented by an advanced level of public services outside."[10] Whatever interpretation of socialism is adopted it is clear that the government has departed from its original policy of development through the limitation of agencies of investment to specific fields and now adopts a policy of pervading government activity in all

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9. Draft Programme of the Convention People's Party, p. 9

10. Ghana Seven-Year Development Plan, 1964-1970, (Government Printer, Accra) p. 1

spheres of the economy. The government bases its reversal of policy on what it claims to be the laggardness of private enterprise. An examination of government policy with regard to private enterprise suggests a far more probable answer: ambivalence of policy reflecting a fundamental lack of purpose on the part of government with regard to the role of private enterprise.

8.4 (i) Government Policy Towards African Private Business. The Demand for Finance

Outside the cocoa industry, African private demand for finance is composed of trade finance which is invariably short-term, extending for not more than six months, and production finance, which is both medium-term and long-term in nature covering from two to ten years. As the demand for trade finance tends to be fairly, though by no means adequately, satisfied partly by the commercial banks, and largely by the foreign trading firms, the real complaint of Africans has been about the shortage and difficulty of obtaining medium and long-term finance. The main fields of economic activity in which this type of demand originates are agriculture, lorry transport, residential construction and manufacturing.

Looking at the structure of demand from the point of view of sectoral allocation, African demand for finance may be described as agricultural, commercial and industrial, and the type of credit demanded in each sector varies from that in another though they may be both labelled short term. For example, agricultural short-term credit covers a longer period of time, probably one to two years, than commercial short-term credit; and long-term industrial credit for investment in fixed capital has a life span considerably greater than long-term commercial credit to finance stocks of goods. In the development of an adequate credit policy, it is vital to take into account these differences in the

substantial improvement of agriculture. With the entry of government into the field of direct production in 1961, non-cocoa agriculture remained throughout the period outside the scope of serious government encouragement; and while it is unquestionable that despite its "technological primitiveness,"[11] the agricultural system has operated efficiently, it is also palpably evident that after a long period of neglect, it now constitutes a serious bottleneck to further development.

Government policy for the encouragement of African private enterprise in commerce and industry has been half-hearted. The main instrument of encouraging domestic private enterprise has been the now defunct Industrial Development Corporation. As noted in Chapter Six, it was part of the duty of the Corporation to assist small incorporated and unincorporated businesses with finance. The loans to unincorporated businesses were to be made in amounts not exceeding one thousand pounds for a period of three to six months, and renewable on this short-term basis for not more than a cumulative period of five years.

The basic defect of the Corporation's loan's policy is twofold: its neglect to meet the demand for medium and long-term finance, and the low ceiling placed on the size of the loans. It is true that the first type of defect is repaired by the possibility of renewal of loans, but the process of renegotiation and the uncertainty surrounding the outcome imposes an unnecessary burden on the borrower as well as on the Corporation, especially as the amount involved is often inadequate for the finance needs of an enterprise. Indeed, it

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11. T. T. Poleman, The Food Economies of Urban Middle Africa: The Case of Ghana, (Stanford University Press, Stanford, 1961) p. 172.

may be surmised that the high incidence of loan arrears which was characteristic of the lending activity of the Corporation was not so much evidence of debtor bankruptcy but rather an indication of the borrower's attempt to prolong the working life of the finance especially since the gestation period of the enterprises involved is usually much longer than the repayment period of the loans. This is not however to imply that intentional bankruptcies and fraud in the operation of enterprises financed by the Corporation were uncommon.

As it operated on the principle of revolving fund, the Corporation would be limited in its ability to widen the scope of its credit activity by the non-payment of loans when due. In the financial year of 1957 and 1958 however, while the repayment of loan and capital amounted to £29,398, new loans granted by the Corporation stood at £26,138 suggesting a slackening in the demand for finance, which was probable but doubtful, or that the Corporation pursued a restrictive credit policy. Quite apart from the restriction imposed on the Corporation by the limited sum of money placed at its disposal to encourage industrial investment, the Corporation itself showed a remarkable disinclination towards exercising its credit functions with imagination and effectiveness and despite its self-confessed awareness that credit is of "particular importance in providing assistance to small Ghanaian businesses"[12] it was hesitant to provide dynamic leadership in the development of credit, and as a result its activities had only little effect on the development of African enterprise. From its establishment in 1947 to its abolition in 1961 the Corporation spent four million pounds with little result. Of this amount the Industrial

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12. Industrial Development Corporation Report of Accounts 1957-1958 p. 25.

Corporation lent £634,000 to 456 private businesses, an average of less than £1,500 per investor in a period of ten years.

Another credit institution, the Guarantee Corporation, was established in 1954 with the objective of facilitating the supply of short-term credit to African business in the form of either loans or guarantees to be issued by the Bank of the Gold Coast against the security of the Corporation's paid-up capital which is lodged with and held as security by the Bank. In order to overcome the problem of arrears, credit was to be granted by local committees of shareholders in the Corporation on the understanding that the shares paid up by the group of shareholders would be drawn upon to settle the debts of a defaulting member. The activities of the Corporation were limited to supplying short-term trade capital in transport and retail enterprises. By the end of 1955, the paid up capital of the Corporation amounted to £374,775 out of an authorized capital of one-half million pounds which was ultimately raised to £840,000 in 1959. This amount was divided equally between ordinary and preference shares of fifty pounds each; the ordinary shares were available to African traders, while the preference shares were held by the government. By the end of 1955, loans made by the Corporation were valued at £581,000, out of which £222,000 was repaid.[13]

In principle this loan scheme had the potential of being developed into a credit institution providing acceptable security for borrowers of trade capital, but in practice, it began its operations with three drawbacks. First, the scheme was marked by confusion in the minds of those for whom it was designed, that is, African traders.

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13. Ghana Economic Survey, 1955, p. 37

The scheme operated on the principle that a borrower has access to a loan not exceeding an amount three times the value of his shares which, as noted, are held as security at the Commercial Bank of Ghana. The loan carries an interest at six per cent per annum. The question arose in the minds of African borrowers whether interest should be paid on the loan as a whole or on that amount which is not covered by the value of the borrower's shares, that is, two thirds of the loan. In practice the Corporation charged interest on the loan as a whole. To the African borrower this seemed quite unjustified, for he did not understand his payment of interest on the one-third portion of the loan which he regarded as the use of his own money as it was covered by his share capital in the Corporation, and he regarded this as contrary to the principle of the loan scheme.

It is an established principle and practice of financial transactions that interest is charged on the full value of a loan without reference to the value of security even though this latter influences the determination of the level of interest. When the security is in the form of a share, or equity investment from which the shareholder expects periodic income, the shareholder who becomes a borrower finds himself paying interest on his loan, part of which interest may return to him, as dividends. From the African trader's point of view, the primary function of the Corporation was to secure loans which he would otherwise not obtain, and the prospect of dividend income was not a significant factor in his conception of the role of the Corporation. He therefore tended to regard his share not as an independent income yielding investment but as a security deposit on the basis of which they demand enlarged loans.

Undoubtedly, the scheme had the advantage of not only expanding the traders' potential borrowing potential, but also of fostering, by the use of the principle of shareholding, cooperative financing. But the incentive of the prospect of dividends which would have rallied African support was crippled from the start by imprecision in the rules governing the distribution of dividends. The Ghana Commercial Bank which acted as the administrative agency of the Guarantee Corporation was given the power to charge 25 per cent of profits made by the Corporation as a reward for its services to the Corporation. In addition, at least, another 25 per cent of profits was to be committed by the Corporation to reserve accounts with discretion to raise the percentage of profits thus committed until the reserves amounted to the total share capital. Taking into consideration, the preferential share holdings of the government in the Corporation, the prospect of dividends to ordinary shareholders was certainly too dim for a considerable period to be an attractive influence on the African shareholder.

Indeed, the small African trader or investor has little knowledge about the precise meaning of a share as an investment which entitles the investor to participate in the fluctuating value of a business, and tends to regard it at face value. Given this disposition of the African traders outlook, the failure of credit policy to take account of this factor and remove it is, indeed, remarkable.

The second major drawback of the scheme was the length of duration of loans which was fixed at six months. Since in the foreign trade import orders may take at least six months before they are received, the shortness of the repayment period led to a high

incidence of arrears; in 1954, for example, it was estimated that fifty per cent of the loans overdue remained unpaid. Although in 1959 the repayment period was extended to one year, it still fell short of African requirements. Abstracting from the demand for long term capital, we cannot consider unreasonable a one-year duration of short term loan for trading activities for it is only in rare cases that import deliveries take beyond nine months, and in such cases it would be possible to arrange special repayment periods with the Corporation provided the trader is in good credit standing, and of proven business ability.

The third drawback of the Corporation lay in the irregularities which surrounded its operation. Loans were made to people who owned no shops but who were able to buy some shares; some of these have no known addresses at which they could be traced for the recovery of the loans, and the tight secrecy in which the operations of the Corporation were shrouded by the government deepens one's suspicions about the genuine role of the institution as a vanguard of financial intermediation. In the approximate words of a member of Parliament, "when one casts a retrospective and critical glance at the Guarantee Corporation set-up, one begins to realize that it is rather a set-back than a help to Ghanaian traders." [14]

The most notorious example of half-heartedness which marked the credit policy of the government was in connection with the Cocoa Purchasing Company. This Company was set up in June, 1952 as a subsidiary of the Cocoa Marketing Board with a capital of two million pounds to lend money to cocoa farmers.

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14. Ghana National Assembly. Official Record of Debates, Series I, pp. 12-15, (1958-59).

. Before the loans scheme was officially approved by the government, the Company had already issued £95,695 in loans by September, 1952, and by 1955, the Company had received £4.8 million from the Cocoa Marketing Board which was to be lent ostensibly to cocoa farmers. While the Company was originally supposed to be under the direct control of the Cocoa Marketing Board, by 1954 it became tied to the Board only by the receipt of loans.

The Company kept little record of its lending operation and operated according to rules not officially approved by the Cocoa Marketing Board or by the government, with the result that loans were made to people who hadlittle to do with cocoa farming. By 1955 of the £2.8 million of loans outstanding only eleven per cent had been repaid and there was little chance of recovering the outstanding amount. As a result of public indignation, a commission of inquiry was appointed in May 1956. The commission reported its findings in the same year with the judgement that the government could not "escape the charge of conniving at the condoning irregularities...in the Cocoa Purchasing Company..."[15] The Company was abolished in 1957. Thus government policy for encouraging African enterprise in agriculture was not only half-hearted in principle but also completely bankrupt in practice.

8.4(ii) Government Policy Towards Private Foreign Enterprise

The main devices adopted by government to attract foreign private enterprise are (i) exemptions from import duty,

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15. O. Jibowu, Report of the Commission of Inquiry into the Affairs of the Cocoa Purchasing Company Ltd., (Government Printer, Accra, 1956) p. 46.

(ii) liberal capital expenditure allowances, (iii) temporary company income tax reliefs, (iv) low-cost rental of industrial estates furnished with public utilities, and (v) tariff protection. In return for these concessions, foreign private businesses are expected to (i) develop the use of local resource inputs, (ii) recognize trade unions, train Ghanaians for managerial posts, and (iii) employ Ghanaians in senior executive positions wherever feasible. These measures have a fourfold objective; (i) to raise the level of investment, (ii) ease the balance of payments constraint on domestic investment, (iii) provide technical and managerial training to Africans, and (iv) increase the volume of employment.

In the short-run the exemption of large classes of goods from import duty tends to reduce the scope of government revenue from duty on imports, and this aggravates the problem of government revenue lagging behind government expenditure especially in Ghana where imports have recently become the prime source of government revenue. It may be argued that the increased employment to which foreign investment gives rise provides a potentially beneficial alternative in the form of income taxes, it does not necessarily follow that the potential tax yields from this latter source will more than compensate for the loss of revenue sustained by exempting some import goods from duty. For, apart from the tax rates and efficiency of collection, the determining influences are the wage rate and the factor proportions of the production function of the investment induced by import duty exemption. A highly capital intensive technique will employ skilled labour at relatively high wages, but depending on the tax rates, provide less taxable wage

income than a less capital intensive technique employing a greater quantity of labour at relatively lower wages. Nevertheless, the inflow of the investment capital is likely to have a salutary effect on the trade balance in the short run.

In the long run, the volume of employment still depends on factor proportions, and the level of profits; as income rises, the government can recoup its past losses of revenue by taking the profits of investors and the wages of employees. But there will arise the problem of the transfer of profits and dividends. Furthermore, given the guarantee of foreign exchange transactions , foreign investment can in the long run be of net liability to government revenue, if there are competitive inducements by several capital - short economies. For the irresistible tendency to offer increasingly large financial consessions tends to deny the government large sources of much needed revenue.[16] Where the investments are in the export sector the rate of their expansion will be determined by external conditions of demand and alternative sources of supply, thus removing the investment out of the influence of domestic economic policy.

Of particular importance in the relation between government and foreign private enterprise has been the experience of some mining companies between 1959 and 1961. Modern mining in Ghana has been entirely the achievement of external private capital. There are seven companies mining gold, four mining diamond, one company mining manganese, and another mining bauxite in order of historical development. The chief characteristic of the mining

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16. N. Kaldor, "Taxation for Economic Development", The Journal of Modern African Studies, Vol. I, No. I, (March, 1963) p. 12.

industry, with the exception of alluvial diamond digging which is carried out by Africans using primitive methods, is its high degree of mechanisation. From the end of the Second World War, extensive modernization of machinery and equipment has been undertaken especially in the gold mining industry. The value of gross fixed capital in the industry has been estimated at £20 million;[17] between 1949 and 1955 about £9 million has been invested in the gold mining industry alone. The Ashanti Goldfields Corporation, the largest gold producing company in the country, invested £5.5 million since the end of the war, representing a reinvestment of over 64 per cent of profits.

The mining industry experienced certain economic difficulties during the decade 1951-60. The premium on gold resulting from the resumption of private trading in that mineral in 1954 was offset by increasing African labour costs. Furthermore, the duty on minerals penalized efficiency and cost-reduction as well as discovery of rich deposits. While cost of production per ton of one company increased from £3 9s. 5d. in 1953 to £5 -s. 2d. in 1956 excluding development charges, African labour wages rose from £8 17s. 9d. per month in 1955 to £9 18s. 3d. per month in 1957.

Thus the high degree of mechanization, besides being required by the physical processes of modern mining, was partly

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17. The development of modern mining in Ghana has been accompanied by the necessity for the mining companies to bear the cost of housing African labourers and providing essential social services such as hospitals, schools, and recreation facilities. Indeed, the growth of urban communities in the mining centres has been financed largely by the mining companies. See S. A. Darko, "The Effect of Modern Mining on Settlements in the Mining Areas of Ghana," Bulletin of the Ghana Geographical Association, Vol. 8, No. 1, 1963.

determined by rising African wages particularly labour shortages which occurred in 1950-51. This intensive mechanisation has been accompanied by a decrease in the number of Africans employed while a greater number of skilled external labour was being recruited with the result that "the decline in the number of total labour force engaged has been accompanied by a rise in the proportion of Europeans."[18] In 1950 the gold mines employed 33,200 people, 22,007 in 1956 out of 32,293 for the whole mining industry with the latter falling to 28,187 in 1960; while non-African employment increased from 770 in 1958 to 827 in 1960.[19]

In addition to these adverse developments, the mining industry was struck by a labour strike in November, 1954 which lasted fourteen weeks and which affected the gold mines very severely; there was a loss in the output of gold by 75,000 ounces, and this was reflected in a drop in the average earnings of Africans from £90 per annum in 1954 to £86.4 in 1955.

In order to alleviate the difficulties of the mines especially following the strike, the government set up a commission in 1956 to enquire into the economic position of the mines. The commission reached the following conclusions: (i) the gold mining companies could not afford to increase wages without an equivalent increase in productivity; (ii) if wages are increased in the absence of increase in productivity, there is justification for government aid; (iii) there was no accurate information to form the basis of

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18. United Nations, Economic Survey of Africa Since 1950, (New York, 1960), p. 116.

19. Ghana, Statistical Yearbook, (Accra, 1961), p. 81.

a minimum wage policy; and (iv) of the seven gold mines, only two have an assured future.[20]

The government did not accept the conclusions of the commission, but agreed to help mines in extreme difficulty[21] with a subsidy of £100,000 a year for two years so that they could remain in production. The total amount of £200,000 covering two years was paid in July, 1956, and the scheme was to be reviewed after two years. But in 1958 when further wage increases were granted, the scheme was not renewed, and for the following two years the marginal mines faced the prospect of capital retrenchment. However, in 1960 the government granted a loan of £150,000 per year free of interest for three years to Amalgamated Banket Areas Ltd., the largest employer in gold mining and the second largest producer of gold, and also the main source of livelihood for the inhabitants of Tarkwa district. The loan was granted on the condition that if the company should desire to pay dividends at three per cent or more, it must also repay twelve and one-half per cent of the loan. Another loan was made to Bremang Gold Dredging Company in the same amount but interest free for two years after which repayment must be made within five years at two and one-half per cent per annum.

The advantage conferred on the mines by this agreement was however immediately nullified in 1960 by wage increases granted by

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20. Mining Journal, Annual Review 1957, (London, 1957) p. 169.

21. Amalgamated Banket Areas, Ltd.
Ariston Gold Mines, Ltd.
Bibiani, Ltd.
Bremang Gold Dredging Company, Ltd.
Ghana Main Reef, Ltd.

the government to workers in all sectors, and a minimum wage-rate of 6s. 6d. per day was set for daily rated workers. For the mines this meant an increase of ls. ld. per day for daily rated labour and ls. per day for other categories of labour. The immediate effect was decisive; it rendered uneconomic operations of Amalgamated Banket Areas and Bibiani Company, and as the government refused further aid the companies decided to go on a reclamation basis. This would certainly have led to direct unemployment of about 15,000 miners and economic depression in the Tarkwa district which depends solely on the mining industry.

The reaction of the government to this dismal prospect was equally dismal in its effect; a bill, Mines (Abandonment) Bill, was introduced which would compel in 1961 a richer mining company to subsidize a poorer one, and if the latter should be compelled to shut down, the former would lose its concession rights. However, fierce opposition to the bill led by the Ashanti Goldfields Corporation, at whose profits the bill was actually directed, resulted in its withdrawal and the forced purchase by the government of five of the gold mines at a cost of five and one-half million pounds. These are now run as state enterprise at heavy annual losses.

The experience of the mining industry typifies the conflict between short-run problem of unemployment and the long-run problem of efficient and increasing production, and on the other hand, the suspicion that lurks in the mind of the government about the role private enterprise should play in the economy.

Between 1960 and 1962 the scope of government economic activity has expanded to include agriculture, manufacturing, mining and retail distribution. This policy of government intervention is

defended on the grounds that it brings about, where foreign control of the economy is dominant, dealienization of economic activity which enables formulation of investment policy to achieve desirable national economic and social objectives. Dealienization does not require direct government participation in economic activities for it may only require the development of indigenous entrepreneurship and in this case would be a cardinal objective of government policy to establish the conditions and the rules of conduct required for the efficient operation of the market mechanism. The government has however been reluctant to commit itself to the market mechanism, and, for political more than economic reasons, to the development of strong African entrepreneurial class of private business men.

The concentration of power in the government may be necessary to stimulate a rapid process of investment, but the proliferation of government activity in the economy tends to restrict the field of operation of private enterprise especially from more advanced economies on which depends a developing economy for advanced technical knowledge and efficient methods of business management. Thus the government's recent entry into the field of directly productive activities while not diminishing this dependence on external enterprise, certainly affects the conditions of its supply and the degree of its effectiveness as a trail-blazer in methods of selling, buying, and manufacturing, in cost-consciousness, and therefore in contributing to the expansion of the economy.

8.5 Trade Policy

During the ten-year period between 1951 and 1960 Ghana pursued a liberal international trade policy. The balance of

payments crisis of 1961 precipitated the imposition of trade and foreign exchange control not only as short-term instrument but also as an instrument to pursue long-term development.

Direct controls as an instrument of international economic policy designed to restore external balance must be distinguished from the broad acts of policy, such as general deflation and financial policy, which are directed at altering the general relationship between one economy and another. As J. E. Meade points out, "the former is direct intervention in one small section of the balance of payments, the latter exerts its influence on the general economic situation."[22] While direct controls operate independently of the price mechanism, financial policy depends for its effectiveness on the operation of the price system. Direct controls embrace on the one hand financial control consisting of the monetary instruments of exchange control and multiple exchange rates, and the fiscal instruments of import duties and export subsidies, on the other hand, commercial control which is composed of instruments of quantitative import restrictions and state trading. By the end of 1961 Ghana has adopted all types of control with the exception of multiple exchange rate system.

In the context of the huge trade deficit in 1961, the basic objective of instituting direct controls was to restrict domestic demand for imports so as to prevent further deterioration of the trade balance. This short-run objective of a deficit country must be distinguished from the use of direct controls as an instrument to promote economic development.

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22. J. Meade, The Theory of International Economic Policy, Vol. 1, The Balance of Payments, (Oxford University Press, London, 1951) p. 263.

Indeed, it is desirable even in the short run not to confuse the objective of import restriction with other objectives like the collection of revenues. In the specific cases of demand restriction and revenue collection, it must be noted that while there is no contradiction in pursuing both objectives simultaneously, by the fiscal instruments of financial control, that is import duties, the effective achievement of either depends on opposite assumptions about the elasticities of domestic demand for imports; to be effective the revenue objective must be based on an ssumption of a high degree of price inelasticity of demand as well as a high elasticity of demand with respect to an increase in income; on the other hand the restrictive effect tends to be effectively achieved with an elasticity of demand greater than unity with respect to a change in price. It appears that in imposing higher rates of duty on imported goods, official policy gave prominence to the revenue objective and grudgingly acknowledged the possibility of the restrictive effect being achieved to the detriment of expected revenue.

The mechanism of direct controls is however often justified by a developing economy in terms of changing the structure of import demand from consumer goods to imports of investment goods. This argument derives from the fact that the economy has to rely on imports of investment goods for domestic capital formation and from the lack of sufficient foreign exchange to finance the unrestricted level of consumer imports together with the required import investment goods. While it would seem that the restriction of consumer imports demand not only affords some element of protection to domestic consumer industry against foreign competition but also assures

domestic demand for the home industry, yet in the short run there is likely to result an inflationary tendency if the restriction of imports is not matched by fiscal measures to remove the excess demand consequent upon the restriction of imports. For it is not likely that during the transitional period of initial capital formation the supply of domestic output will be sufficient to satisfy domestic demand at a given level of domestic prices. But the policy of restraining domestic demand may result in a deflationary tendency with a consequent adverse effect on private inducement to invest.

The imposition of direct controls since 1961 as a major instrument of trade policy took three specific forms: (i) the extension of the principle of export control, which underlies the Cocoa Marketing Board, to the export trade in timber; (ii) direct entry of the government in merchandise trading; (iii) licensing of imports. In 1960, there was established a Timber Marketing Board which was to "exercise control over the export trade and to assist in the development of the industry."[23] The Board undertook to fix the price to be paid to the producer for all logs and sawn timber; and unlike cocoa marketing, the producer was to make his own arrangements for external marketing of the product. The Board was, however, to be the sole seller to local sawmills of all species of logs not suitable for export.

There are several differences between the timber and cocoa, two of which may be noted from the point of view of marketing. The first, and the most important, is the large variety of species of timber which exist and which, therefore, gives rise to formidable problems of grading

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23. "More Marketing Board Details", West Africa, (June 8, 1963) p. 651

and price-fixing. The imposition of uniform prices, as the Board tended to do, does not take account of differences in the costs of extracting various kinds of timber as well as differences in their world prices. Since the Board tended to set prices which are not only considerably below world prices, but also relatively lower than prices prevailing in other producing areas, the industry was immediately rendered unprofitable.

The second factor which reinforces this adverse effect of the Board's practice is the fact that the timber industry, unlike cocoa, is capital intensive and requires large overhead costs. Since the industry is partly in the hands of foreign companies which almost invariably have branches operating in other producing areas, the effect of the Board's action has been to shift operation from Ghana and expand production in the other areas, particularly, Ivory Coast and Nigeria. The competitive nature of the timber trade and high transport costs combined with the relatively unattractive margins possible under the Board's operation, forced African business out of the trade. The combined result of the Board's operation has been a marked depression in the timber industry since 1960. The export of logs fell from 28.9 million cubic feet in 1960 to 21.5 million cubic feet in 1961, and further down to 15.9 million cubic feet in 1962. In value the drop was respectively from £10.4 million to £9 million, and to £5.8 million. Although the volume of exports of sawn timber did not appear to be adversely affected by the Board's policy, the export value did not show an appreciable increase.

Thus, the policy of controlling the export trade of timber has brought "untold losses both to the producer and to the government". [24]

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24. West Africa, op. cit. p. 651

These losses include not only the losses actually sustained in terms of revenue and profits foregone, but also the cost of regaining markets lost to competing sources of supply. Awareness of these losses led to the dissolution of the Board and the reversion of the timber trade to private enterprise with a government loan of two million pounds to aid rebuilding of the industry by private enterprise.

The second instrument of trade policy, direct entry of government into merchandise trade, may be regarded as an effective method of influencing consumer imports in the short run. In the long run, it can serve as a mechanism of developing the domestic market for the goods of domestic industries established under protection. The cost of achieving these objectives are however, considerable, especially as it involves tying up large amounts of capital in trading activity which could be more productively invested in other sectors. This is particularly relevant where, as in Ghana, African private enterprise in trading is well established and provides an economically appropriate alternative to direct government participation in trading. The third aspect of trade policy has been import licensing. Import licences are issued (i) for bulk goods for one year with different clauses concerning the percentage of value or quantity to be imported during the year, or the percentage to be imported from the trade pact areas of Eastern Europe, (ii) on a six month basis, (iii) for that portion of consumption goods which cannot be met by local production. For some commodities, licences are not available.

The purpose of timing the licences is to spread imports over the year in order to avoid seasonal concentration which imposes

severe strains on payments. While quantitative import restriction has the advantage of immediate effectiveness, its successful administration presuppesses the availability of honest and highly competent personnel, but this presumption is more easily established in principle than in fact. Even if such qualified personnel were available, the policy of direct controls may only be justified as a temporary measure, as it is a very dubious instrument of effective development policy in the long run because of unfavourable internal consequences.

One significant development since 1961, with long-run objective in the forefront has been the formation of a Cocoa Producer's Alliance. This Alliance is composed of Ghana, Nigeria, Cameroons, Ivory Coast, and Brazil, and has the primary objective of securing an agreement to stabilize the world price of cocoa. The objective of stabilizing the world price of cocoa as pursued by the Alliance tends to be confused, however, with the far different desire to alter the prevailing trend of world market conditions. Since world consumption, and absorption (stock-piling) appear to be quite sluggish in comparison with world production, stabilization of the world price can only be conceived in terms of reducing the magnitude of fluctuations around a declining trend of world prices. Monopolistic measures on the paft of the governments of producing countries like deliberate holding of output from the market in order to influence the world price in an upward trend direction must be considered a

distinct policy instrument separate from stabilization. Indeed, preoccupation with a policy of valorization is likely to induce the tendency to ignore the need to increase the flexibility of the economy so as to adjust resource allocation to the changing structure of world demand.[25]

Since the removal of manufacturers' representatives from the Cocoa Marketing Board in 1952, there has persisted the charge of cocoa valorisation.[26] With the formation of the Alliance, there is the possibility that, given continued downward trend in cocoa prices and balance of payments difficulties, the government may be compelled to undertake deliberate restriction of supply in an effort to raise the world price. Although Ghana produces one-third of the world output of cocoa, the extent to which this policy will succeed, however, depends as much on the elasticity of substitution between Ghana's grade of cocoa and grades from other producing areas as well as on the degree of cooperation among other members of the Alliance to enforce such a policy in concert.

The actual effect of direct controls in Ghana has so far shown that the immediate result is a curtailment in both consumer and investment imports, an outcome which stresses the close relationship between the level of consumer demand and the propensity to invest. The immediate effect of domestic inflation induced by the shortage of import goods is to encourage speculation in existing stocks of limited commodities, the persistence of which depends on the elasticity of supply of home-produced output. The restoration of internal balance

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25. G. P. O. Chikelu, "A Cure for Cocoa Ills?", West Africa, January, (January 5, 1963) p. 97

26. Even the suspicion of valorisation was widespread when the establishment of the Cocoa Marketing Board coincided with unusually high prices between 1949 and 1951. See G. Erwin, "Is Cocoa Being Valorised," Review of Economics and Statistics, Vol. 32, No. 3, (August, 1950) pp. 258-263.

is a painful process which requires drastic measures of internal financial readjustment. This combination of short-term balance of payments crisis with long-term objectives of economic development, a situation in which Ghana currently finds herself constitutes a serious challenge to the judgement of her present leaders. Whatever view of development prevails there can be little doubt that the growth of income and the rise of the general standard of living are interwoven with the kind of trade policies adopted. In order to derive the greatest benefit from trade, three lines of investment activity must be closely related in a balanced manner, first, the export of raw and semi-processed primary goods; secondly, the domestic production of major food items for which the country has relative abundance of natural resources; and thirdly, the export of simple types of consumer goods for which there is a growing demand in developing regions of West Africa. The successful pursuit of these three lines of development calls for some form of regional West African economic cooperation at least at the consultative level in order to enable the gradual integration of development programmes and encourage specialization of functions on the basis of regional comparative advantage.[27]

8.5 GENERAL CONCLUSION

From the point of view of stages of development the economy passed through two phases;first there was the phase of windfall earnings which resulted in a lag of the development of financial institutions. This phase was marked by open trade policy and lopsided investment in social capital with the conspicuous neglect of

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27. I am grateful to Mr. N. Pleisz of the Economic Commission for Europe, United Nations, Geneva, for drawing my attention to the high degree of specialization in food production among West African Countries. Dr. Pleisz gave the Keith Callard Lectures on West African economic problems at the Centre of Developing-Area Studies, McGill University during the fall of 1964.

investment in the production of directly tradeable output. The second phase emerges with adverse trade conditions brought about by the effects of the imbalance in the structure of domestic investment. This phase is characterized by the imposition of trade control and trade restriction, and we have shown that it does not necessarily reflect an inevitable outcome of a general pattern of capital formation, but that it was contingent on the particular structure of investment pursued by the government.

A problem must be clearly stated before it can be solved. While we have considered as accomplished our primary task of analysing and stating the problems of capital formation in Ghana between 1951 and 1962, we indicate briefly in general outline the lesson we must draw from the Ghanaian experience.

The general lesson which emerges from Ghana's experience of capital formation between 1951 and 1962 is therefore that the basic goal of a country depending on windfall earnings of its export product for development must be a balanced programme of investment comprising directly tradeable output and social capital formation. As an agricultural country, the first priority of development should naturally be the task of putting agriculture on an efficient basis. This requirement, however, does not need the participation of government in direct production for the history of the cocoa industry shows how private producers can respond, to use the phrase of Barbara Ward, to the "simple incentive of cash"[28] to engage in an economically rewarding activity. Nor does it entail a policy of domestic self-sufficiency in food production, but

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28. Ward, op. cit., p. 51.

of selective development in harmony with the resource potentialities of neighbouring economies.

The paradox of this phase is that while the expansion of trade remains essential to the improvement in the external position of the economy as well as its further development, the effect of policies adopted has been to curtail the role of trade in the economy and, accordingly in the expansion of domestic investment. This second stage of the Ghanaian experience, therefore, typifies the convergence of the fundamental problems of capital formation, the shortage of saving, the inadequacy of African entrepreneurship, and the technological backwardness of its methods of production, the complex triad of problems underlined by Adam Smith and his predecessors as the fundamental obstacles in the political economy of development.

While we acknowledge significant variations in detail in the economies of the different West African countries, we expect the general conclusion of this study to apply to the condition of underdevelopment in these economies. It is part of the modest purpose of this study to draw attention to the relevance of the wisdom of Adam Smith to the problem of bringing about the possibility of, at least, the political economy of semi-opulence. Today, the countries of Africa are afflicted not only with poverty but also with false starts in the drive for national development; most of them have unquestioned faith in the ideologies of nationalism, and socialism, or national socialism, as the panacea for their ills. It may be timely to emphasize the alternative, at least in the economic sphere, of the central proposition of classical economics: "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard of their own interest. We address ourselves not to their

humanity, but to their self-love, and never talk to them of our own necessities, but of their advantage".[29]

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29. Adam Smith, op. cit., Vol. 1, p. 13

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