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ON HISTORICAL COMPARISONS IN THE STUDY OF ECONOMIC GROWTH

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It has been said that in order to attain better insights into the process of economic growth, the experience of already developed countries might be of considerable usefulness, and that the economic history of these countries might provide a source of data for building models of economic growth and a body of empirical material by means of which such models could be tested. The chief difficulty in using historical materials, apart from the scarcity of precisely those data that would be most useful in the construction or testing of theories of growth, is the way in which social and economic history has been presented. Historians, even many economic historians, were and are interested in explaining a more or less unique situation and in describing a particular sequence of events, and they have paid relatively little attention to presenting their materials so as to achieve generalizations, even of a limited range of validity. At the same time, the economic history of different developed countries has shown a great variety: the process of growth in Britain, for example, was doubtless influenced by the fact that Britain was the first country to industrialize; the process of growth in the United States, for another, was influenced by its vast land area and its relatively sparse population; and the process of growth in Denmark, for a third, was influenced by its small size and the need to fit its economy into the pattern developed by the countries around it with which it maintained commercial relations.

In this paper, the attempt will be made to present some views on how comparative studies in economic growth could be developed on the basis of historical materials. It goes without saying that, in view of the as yet imperfect findings in this area, some of these suggestions for research might in the end not prove practicable, and it should be stressed especially that in many instances the applicability of findings from historical studies to the problems of currently underdeveloped countries may be ill-advised, because of the great social and cultural differences between Western and non-Western societies. And since it has been widely acknowledged that economic growth must be interpreted as a "total" social process, the

social, political, and cultural forces must receive increased emphasis in the study of economic development.

In an attempt to outline suggestions for comparative studies based on the historical experience of developed countries, several strategies might be used. Clearly some abstraction must be made from the unique economic history of each country, i.e. some of the variables that seem to have a crucial impact must be singled out and compared with identical or analogous variables in another society. This means that instead of using descriptive sequences of events in the development of a country and comparing them with parallel events in another, we must make certain abstractions that will do a certain amount of violence to strict realism, but that will, at the same time, permit a greater degree of comparability than if historical sequences as such were compared with one another.

Three approaches to the use of comparative historical materials are possible. First, we may compare patterns of growth in different societies. Secondly, we may compare the impact of specific institutions that seem to have played an important role in the past economic growth of advanced countries. Thirdly, we may attempt to compare typical sequences of events that characterize the economic development of societies. These procedures are, of course, not strictly separable in practice. In comparing different patterns of growth, one invariably arrives at a comparison of institutions and sequences of developmental events, and the division proposed here has the chief value of separating the different problems which arise for purposes of discussion, rather than stating genuine differences in research practices.

Patterns of Growth

If we turn to a discussion of developmental patterns of growth, we observe that the societies which have experienced economic advancement have been of very different size, and that apparently size has had an important influence on the way in which they developed. This problem has been discussed recently by Kuznets.¹ The problem of the size of a nation comes up in two forms. On the one hand, a society may be large because it is populous and, on the other, because it covers a large territory which is likely to possess many varied nonhuman resources. But the two do not necessarily go together. We know of very populous countries, e.g. Japan or Java, with relatively poor resources, and we know of countries with large nonhuman resources and relatively sparse populations, e.g. Canada or Australia.

One way of combining population size with the amount of resources available to a society would be to classify countries by some index of the ratio between population and nonhuman resources. The man-land ratio is one relatively simple index of this kind. But it may be deceptive, since it

¹See Simon Kuznets, "Economic Growth of Small Nations," in *The Challenge of Development*, A. Bonne, editor, Jerusalem, 1958, pp. 9-25.

leaves out all resources other than land surface and, moreover, does not distinguish qualities of the land. A ratio of agricultural population to agriculturally usable land may be a better index, but some index that relates population (or population of working age) to all available resources might be still better. However, the difficulties of clearly defining a measure of this kind are considerable, and for this reason some simpler ratio between human and nonhuman resources may be preferable. Fortunately, the actual cases we may study present such wide contrasts that the sensitivity of the measure is of only limited concern.

In an earlier paper, I have already proposed that important contrasts in the process of economic development could be found if we compare expansionist to intrinsic cases of development.² Expansionist and intrinsic development patterns are distinguished mainly by the very different problems that they pose for economic advancement and that the society must solve. In the first case, the society must develop a production technique in which a relatively small labor force is combined with large nonhuman resources in the form of land or minerals. This affects not only the kind of technology that is used, but also the types of business organization that predominate and the role of the government providing (or helping to provide) social overhead capital. In the case of the intrinsic pattern of development, the scarcity of labor is much reduced, and the chief problem lies in developing human skills of a high grade, so that economic performance can be improved through higher labor productivity, even though it is combined with relatively scant nonhuman resources. The highly developed educational system of Denmark, for example, may be considered to have been instrumental in supporting the developmental requirements of that country. The same is true of Switzerland, where the exploitation of highly skilled human labor seems to have been one of the prerequisites of economic growth.

It is not possible to go into further detail here on the differential patterns of development in large and small countries, and it is not necessary to do so, since these points are developed at greater length in the papers cited. But two further points should be mentioned. The first relates to countries that do not seem to exhibit clearly either the expansionist or the intrinsic pattern; the second has to do with the differential involvement in the world economy of large and small societies and the influence of this on their chances of economic growth.

There have been in the past, and there exist in the present, countries that seem to fall into neither the expansionist nor the intrinsic pattern of growth. This is true of the major countries of Western Europe and of Japan. In these countries, however, we might find temporary episodes that resemble either the expansionist or the intrinsic pattern. For example, in the eighteenth century, certain portions of Britain, which were quite

²Cf. Bert F. Hoselitz, "Patterns of Economic Growth," *Canadian Journal of Economics and Political Science*, November 1955, pp. 417-420.

backward compared with the region around London and the Southeast, underwent rapid development. The growth of the Welsh, Northumbrian, and Scottish iron industry in the course of the eighteenth and nineteenth centuries and the development of the Lancashire cotton industry represent expansionist phases. The same is true of many aspects of British overseas colonial development in the nineteenth century. Similarly, the imperialist expansion of Japan into Formosa, Manchuria, and Korea are episodes of expansionist development, whereas the early phases of Japanese economic development, after the establishment of the Meiji emperor, were phases of essentially intrinsic development in which the building up of human resources played a major part.

In his description of the process of economic growth, W. W. Rostow has pointed to alternative waves of foreign investment, counterbalanced by periods of retrenchment and intrinsic development.³ It is possible that the over-all process of economic development as experienced in Western countries during the nineteenth century may be analyzed in terms of such periods of expansion, i.e. widening of the capital basis, which alternate with periods of deepening of that basis, the former corresponding to the expansionist and the latter to the intrinsic pattern of economic growth.

Finally, we come to examine the degree to which the development of any one country is dependent upon its international economic relations. Kuznets⁴ has shown that the importance of foreign trade increases as the size of a country (measured by population) decreases. This pattern is especially pronounced in the more highly advanced countries. In the countries with the highest average population, per capita foreign trade amounted to only 21.8 per cent of average income, whereas in the countries with the lowest population, this ratio stood at 83.6 per cent. (These figures relate to imports plus exports, but it is obvious that in a reasonably balanced economy there is a close correspondence between the two.) Now, the greater dependence upon foreign trade in small countries is not surprising. They can find fewer of the resources needed for development within their own territory and hence must import a greater share of them than large countries. But this means that, within limits, the capacity of a small country to grow at a certain rate depends upon what happens around it. Since a small country must gear its process of economic development to that of the larger countries with which it maintains economic relations, the speed of development in these other countries will affect the capacity of the smaller country to develop. This pattern of development has been designated sometimes as "satellitic." What must be stressed is not the impact of foreign trade on economic development, in general, but the analysis of how, in the past, certain small countries that depended heavily

³W. W. Rostow, *The Process of Economic Growth*, Norton, 1952, pp. 116 ff. See also the note by Hans Singer, "A Footnote to Professor Kuznets' 'Quantitative Aspects of the Economic Growth of Nations,'" *Economic Development and Cultural Change*, October 1958, pp. 73-74.

⁴*Op. cit.*, Tables 1 & 2, pp. 14 f.

upon foreign trade (again, Denmark and Switzerland, but also Norway, Belgium, and Holland come to mind) geared their own development to that of the larger countries around them. This situation, as it developed in Western Europe in the nineteenth century, may be unique, but it would be interesting to explore in what way the potentialities of many small countries today (e.g. the Central American Republics, or countries like Ceylon or Malaya) depend in their rate and form of development on the world market. Clearly the over-all developmental patterns that may emerge in countries like India or China today differ substantially from those in Uganda or Burma, simply because the factor of size, both of population and resources, plays an important role, and because the smaller countries depend upon their ability to integrate their economies more closely with the needs of the world at large. This means, however, that in the smaller countries investment will have a natural tendency to flow into actual or potential export industries, and in view of capital scarcities in underdeveloped countries in general, this will impart a certain peculiar pattern of development to these countries which probably differs significantly from developmental patterns in large countries.

Role of Government in Economic Growth

Another feature that clearly differentiates the developmental history of various countries is the role government has played in the development process. It has been acknowledged that even in countries that developed allegedly under a full-fledged system of free enterprise, the role of government was, on the whole, considerable. For example, economic historians have pointed in the past few years to the role government exerted on American economic growth, either by providing protection for American industry through the tariff, by land grants, or by other means. But the over-all impact of government upon economic growth in different countries has varied a great deal, and this difference is of no mean significance. Now, if we are to investigate the impact of government upon economic growth in the past, we may differentiate several cases.

The first and most extreme case is that in which, ideally, all developmental decisions are made by the government or one of its agencies. This is theoretically the case in communist countries, but even there reality departs from theory. The second case is that in which government supplies what is usually referred to as social overhead, but in which capital formation in the productive sector is left to private individuals. Even in this second case, numerous variations of governmental influence, e.g. licensing of trades and other "regulatory" acts, through tax or tariff legislation are possible. But it seems reasonable to assume that a fully planned economy will show a different developmental pattern from one in which a large share of initiative rests with private individuals. There is still an in-between pattern possible which appears to be popular in a number of underdeveloped countries today (e.g. India), but which also

has its historical antecedents. That is the case where the government, in addition to providing social overhead investment, also enters into some crucial spheres of production, either by declaring that these crucial industries are of national concern or by exercising what might be called a pump-priming function. For example, in Japan the government invested in industrial plants in the early years after the Meiji restoration and turned the plants (except those producing war materials) over to private industry in the subsequent decades. In other countries, development corporations (some of which are wholly or partly financed by public funds) collaborate in providing capital for private investment.

From these different patterns of governmental action in the field of development, it is difficult to derive reasonably valid generalizations. Since in all countries the government takes a leading role in the creation of human capital (i.e. education and public health), and since it normally provides all social overhead capital in transport, communications, and other public works, these governmental activities may be taken as a minimum. Comparative studies might then be undertaken to see whether an extension of governmental activity in industrial or agricultural development has a systematic effect. Alexander Eckstein⁵ recently proposed the hypothesis that influence on government on the growth process will be wider:

- a. the greater the range of ends and the higher the level of attainment sought;
- b. the shorter the time horizon within which the ends are to be attained, that is, the more rapid the rate of economic growth desired;
- c. the more unfavorable the factor and resource endowments;
- d. the greater the institutional barriers to economic change and industrialization; and
- e. the more backward the economy in relative terms.

This appears to explain why in the more recent instances of economic development, governmental activity has played a greater role than in earlier ones. But this hypothesis—though it combines five “independent” variables—lends itself to testing on a historical basis. For example, as far back as the eighteenth century, state interference in the process of economic growth varied greatly in different European societies. Could constellations of the variables listed by Eckstein be found which would throw light on why governmental action was more widespread in some countries than in others? And if more definite patterns or constellations of variables making for governmental influences in the development process could be found, would we learn from these studies what to expect in countries presently undergoing development? Is the intensity of public effort in the industrialization process in China relative to India an outflow of the

⁵In his article, “Individualism and the Role of the State in Economic Growth,” in *Economic Development and Cultural Change*, January 1958, p. 83.

higher goals established in one country compared to the other, or is it an outflow of the differences in the desired rate, or is it perhaps a consequence of different social and political ideologies? Similarly, can differences in mercantilist policies in various European countries in the eighteenth century be explained by applying Eckstein's hypothesis to them?

Again a word of caution is necessary. The centuries-long process of economic development of a given society may be regarded as a uniform episode in the history of that country and may be evaluated as a whole. If we do this, we must determine some "average" role that the government may have played in this process throughout a long period of time. On the other hand, and this seems more fruitful, if we study the process of growth historically, we may subdivide it into periods in which the impact of the various variables may differ widely. For example, the role which the Prussian and later the German government played before 1871 and between 1871 and 1914 differed greatly, and it would be instructive to determine whether and to what extent this difference in the role of government can be explained by changes in the variables listed by Eckstein.

Role of Other Institutions in Economic Growth

Let us now examine a few of the more important institutions other than government that appear to exert a crucial influence on the growth process. These institutions are too numerous to discuss in detail, and it must suffice to present a few hints of how a comparative study of some of these institutions may yield insights into the process of economic development. The following three institutions will be selected for closer scrutiny:

1. Markets and their role.
2. Institutions designed to mobilize savings and to channel them into productive investments.
3. Entrepreneurship.

Markets. The process of economic development is commonly associated with the growth of monetary transactions and the extension of markets. But the relationship between the development of markets and economic growth is, as yet, far from clear. Polanyi and his associates have pointed to market and trade situations in nonmodern societies in which forces for economic development were greatly circumscribed, and it appears that only when a society is thoroughly permeated by market transactions, i.e. when the market has become a common and indeed ubiquitous institution for all sorts of transactions, does economic growth proceed at a relatively fast pace. Some studies have been made, e.g. by P. T. Bauer for West Africa and by Daniel Neumark for South Africa, in which the gradual growth and extension of markets and market transactions has

been designated as one of the chief variables making for economic growth.⁶ Since commodity markets tend to present buyers and sellers with a wider range of alternatives than is possible within a framework of "traditional" exchange, the mere existence of markets is likely to foster economic rationality and a greater efficiency in the allocation of resources. In other words, the prices offered on markets tend to guide production into lines in which it is most profitable and likely to bring the highest returns.

Now the impact of the development of markets of all kinds in the presently developed countries upon the nature and pace of economic growth has been, as yet, studied very little. In fact, economic historians of the Western countries have, on the whole, taken the existence of markets for granted and have not tried to correlate the growth of markets with the rate of economic development in these countries. What matters is not the determination of some correlation between the growth of an institution (such as the market) and the pace of economic growth of a society, but rather the functional relation between markets of certain kinds (e.g. luxury commodity markets, mass consumption goods markets, labor markets, etc.) and the over-all level of economic development of a society. Secondly, it is important to show how the institution of various types of markets, above all of labor markets and of markets for agricultural staples, interacts with the developmental process. In what historical instances have markets played a crucial role, and why? How were these markets organized and in what way did they evolve out of, or become superimposed upon, earlier similar institutions? Abundant historical materials are available, and all that is required is to organize this material in such a way as to throw some light on how the development of various markets and the gradual "marketability" of certain commodities interacted first with the spread of a money economy and ultimately with various stages of the growth process.

Institutions to channel savings into investments. If markets are important as intermediaries, institutions through which savings are mobilized and channeled into investment are of even greater importance for economic growth. Since the growth process requires the mobilization of capital and its application to investment projects which often use up large sums, the institutions through which savings are accumulated and later channeled into investment are of great significance. In many societies, especially in those in which governments are responsible for a large portion of investment, the savings and investment mechanism is part and parcel of monetary and fiscal measures. But in other societies, numerous savings institutions have been developed, from post-office savings banks to rural moneylenders and usurers, from country bankers to agencies dealing in corporate stock. We are as yet little informed as to the connections between the forms of savings institutions and the rate of voluntary savings

⁶Cf. P. T. Bauer, *West African Trade*, Cambridge, 1954; and S. Daniel Neumark, *Economic Influences on the South African Frontier*, Stanford, 1957.

that are made in a society. The hypothesis has been stated, for example, that the presence of rural moneylenders in parts of India and Pakistan led to a higher rate of production and potential savings, *ceteris paribus*, than their replacement by cooperative savings institutions, since the peasants were forced to pay a higher rate of interest to the moneylender, and that gave them an additional incentive to produce more. I am not sure whether this hypothesis can be confirmed, but it indicates that the rate of savings in a given society, or a given segment of a society, may depend on the kind of institution through which savings are drawn off. It has also been shown that, at various times and in various countries, stock market speculation has led to relatively high rates of saving, whereas in other instances or at different time periods, the availability of corporate shares has had little effect on the rate of savings. From the history of the more highly developed countries, ample historical evidence can be adduced on the role that different savings institutions have played in the past, why some have been successful, and why others have had little impact. In Japan, postal savings have played an important role; in the United States, they have never been significant. Can we correlate the appropriate savings institutions with levels of income or perhaps with national character or any other features of the different societies, and if so, why? Can we suggest that at different stages of the growth process, different savings institutions will perform most efficiently, and that as development goes on, the types of savings institutions change? Some evidence on this point might perhaps even be obtained from a comparative study of the efficiency of savings institutions in different states of the United States.

Of course, the over-all level of savings—voluntary plus forced—matters more than the institutions through which the savings are made. According to the well-known theory of Rostow, a society can initiate its “take-off” into self-sustained growth only when it has achieved a certain minimum rate of savings.⁷ But this rate may surely be affected by the kinds of institutions through which the savings of a society are accumulated. And if it becomes a matter of policy in some countries to raise the level of savings in order to bring them to a point at which they are sufficient for a take-off, it is important to ascertain the institutions most suited for as high a level of voluntary savings as possible.

Of equal importance are the institutions designed to guide savings into productive investment. Gerschenkron has suggested that, in France and subsequently in other countries of the European continent, the development of investment banks on the model of the *Credit Mobilier* were important institutions of this kind.⁸ In Britain the development of the joint stock company and its gradual penetration into industrial enterprise was of

⁷ W. W. Rostow, “The Take-Off into Self-Sustained Growth,” *Economic Journal*, March 1956, pp. 25-48.

⁸ Alexander Gerschenkron, “Economic Backwardness in Historical Perspective,” in *The Progress of Underdeveloped Areas*, B. F. Hoselitz, editor, Chicago, 1952, pp. 3-29.

great importance for mobilizing sums of capital of a magnitude which a single individual or even a partnership were normally not capable of raising. In a number of underdeveloped countries, development banks or development corporations have been established which have a similar purpose. These large accumulations of capital have frequently led to the establishment of monopolistic and quasi-monopolistic organizations, and some writers, e.g. Schumpeter, have attributed considerable significance to this fact. The main point, however, is not whether an enterprise is monopolistic or not, but what role have large enterprises played in the process of economic advancement. In other words, is the growth process one in which the number of small and medium-sized plants increases, or is it a process that is pushed along by the appearance now and then of large firms which require large amounts of capital?

If we subscribe to the Schumpeterian theory of "bunched" innovations and look at the process of growth as one in which at various times entirely new technological solutions become possible, we find empirically that each new step in this process has been associated also with the formation of enterprises on a larger scale than customary in the older established branches of production. For example, cotton spinning and weaving became a highly capitalized industry soon after its establishment in Britain; similarly, the transition of iron and steel production from the charcoal stage to the new technology developed in the eighteenth century required large capital investments. Later came such innovations as canal building, railroads, the chemical and electric industries, the exploitation of petroleum, and the automobile industry. Each of these industries developed, within a short period of its first establishment, enterprises of large size, requiring amounts of capital that were, on the whole, larger than those employed in the older and more established industries.

This raises the question of whether and to what extent the process of industrial growth seems to be tied to sizable concentrations of capital in a given firm or a given industry. It is, of course, true that in the course of time firms in the older industries attained sizes commensurate with those in the newer ones, and that in collecting the required amounts of capital they made use of existing institutional devices. But a comparative historical study may reveal whether, at different stages in the process of growth, the new industries not only absorbed a relatively large share of existing investment funds, but also absorbed them in relatively large compact parcels. In a wider context, this problem leads to the question of "balanced" growth and the empirical verification of this concept by means of historical analysis. In more concrete terms, it would require a comparative study of investment patterns, as they appeared in growing economies, to determine whether the growth process consisted in capital formation in a variety of more or less complementary industries or in the pushing ahead of one or another industry until bottlenecks in the supply of complementary products were created, which in turn necessitated (or made unusually attractive) the allocation of relatively large amounts of invest-

ment in industries designed to overcome these bottlenecks. The comparative study of industrial development in the more highly advanced countries is likely to show sudden spurts, now in one industry, now in another, rather than a "balanced" pattern of investment.

Entrepreneurship. Only brief comments need to be made about the next institution which appears to play a crucial role in economic growth, entrepreneurship. The importance of the entrepreneur is so commonly acknowledged, and entrepreneurship has been so widely studied, that no justification for its inclusion need be made. However, there are two points which have not received enough attention and on which further comparative historical research could contribute to our understanding of the process of economic growth.

The first problem arises from the fact that entrepreneurship is often assumed to be a homogeneous variable. What is in question is the risk-bearing, innovating activity as such, rather than the particular fields of economic activity in which it is exercised. In other words, students of entrepreneurship and its role in economic growth have paid more attention to the exercise of business leadership rather than to the concrete skills that were required in different fields for the exercise of it. It seems, however, that at certain crucial stages of economic growth, i.e. at an initial stage of industrialization, entrepreneurship in manufacturing is scarce, even in societies where there appears to be an ample supply of entrepreneurs in commerce and/or finance. This means that the traditional view that merchants turn into manufacturers when they find a steady demand for the products they trade is not necessarily accurate. Merchants may, of course, invest funds in manufacturing firms producing the commodities which they trade, but in order for manufacturing or industrial enterprises to be set up, persons with technical qualifications must be enabled to move into entrepreneurial positions. In other words, for an industrial enterprise to be set up, a combination of persons with entrepreneurial skills along commercial and/or financial lines and persons with technical know-how in production is necessary. In many societies there exist, especially at the early stages of industrialization, deep social cleavages between merchants and financiers, on the one hand, and technically skilled persons (craftsmen or artisans), on the other. The successful inauguration of industrialization requires, therefore, some new form of social mobility or a sufficiently open social order in which persons with these varied skills and capacities can cooperate in the setting up of manufacturing or industrial establishments.

In some nonindustrialized societies, commercial and financial entrepreneurial functions are in the hands of foreigners. This was true at certain periods and in certain places in medieval Europe; it is true in parts of Asia today; and even in India, where these functions are performed by Indians, relatively rigid caste barriers separate traders and financiers from the technical production personnel. The argument has often been raised that what is necessary in these societies is to elevate the dignity and

social value of manual labor. This proposal comes close to the proposition that a more open social order is needed in which persons with financial and commercial entrepreneurial talents could collaborate with technicians on a more equal level.

It has been said that in European societies the impact of the Protestant system of values, which made a virtue out of labor as such in any form, has made possible the breakdown of these barriers. It is perhaps significant that in Britain, for example, many early manufacturers were members of nonconformist religious groups and that they were enabled to start these enterprises by attracting capital from traders belonging to the same nonconformist groups or sects. In these instances, common membership in a religious body and partnership in an industrial enterprise were often further supported by intermarriage, and in this way the ideological and economic ties were strengthened by bonds of family. In Asian countries in which merchants and financiers, on the one hand, and craftsmen, on the other, are separated by ethnic or caste lines, common religious or even kinship ties are normally impossible, and hence powerful factors supporting mutual trust and confidence are lacking. This is an additional obstacle to industrialization by private initiative in the new countries.

In view of the much greater predominance of governmental initiative in recent industrialization programs in the new countries, the role of private enterprise in industrialization may appear somewhat academic. But, on the other hand, it should not be forgotten that in many underdeveloped countries outside the communist bloc, considerable emphasis is still placed on private initiative, and it appears that precisely in these countries the barriers against industrial investment, as against investment in trade or finance (e.g. moneylending), seem to be greatest. Some of the resistance to industrial investment may be quite rational, i.e. the risks involved may be greater than in commerce or in financial enterprises, and various uncertainties stemming from contradictory and capricious governmental regulations may also provide a bar to greater initiative in industrial investment. But the hypothesis that the "openness" of the social structure plays an important role in a country at an early stage of industrialization deserves further investigation, and the historical experience of various countries that have industrialized may throw some light on the validity of this hypothesis. Even as relatively simple a study as the comparison of the social structure and the possibility of upward social mobility in northern and southern Italy in the second half of the nineteenth century might be a fruitful exercise along this line.

If the validity of this hypothesis can be confirmed, the problem of the foreigner performing entrepreneurial functions in many underdeveloped countries is put into a new light. For the social barriers between foreigners and natives are, on the whole, even less surmountable than those between members of different social classes of the same nation, and a more or less autonomous transfer of entrepreneurial talent or capital from private trade and financial enterprise into industrial investment cannot be as-

sumed. This situation would then call for policies that take due account of this social cleavage, and then either the task of industrialization may fall entirely upon the state, or a native commercial and financial entrepreneurial class would have to be nursed up alongside the already existing foreign merchants and bankers. Here again the comparative historical study of European societies may provide some useful insights.

Sequences in Economic Growth

Let us now turn to a brief discussion of a comparison of some sequences that have been associated with the process of economic development. There are, above all, four such sequences which may be investigated.

1. Does an agricultural revolution precede an industrial revolution, or is the latter possible without the former?

2. Is there any well-defined sequence leading to the point at which the savings of a society are high enough to enable it to reach the take-off point toward self-sustained growth?

3. Can we ascertain an invariant sequence according to which economic development is associated with a relative decline of primary industry and growth at first of secondary and later of tertiary industry?

4. Can we ascertain a sequence in the process of industrialization itself, in that at an early stage of industrialization, the ratio of persons employed (or output) in consumer goods industries is the quintuple or more of that in capital goods industries, whereas at a late stage of industrialization, the two branches of production have an approximately equal share in industrial manpower employed (or output produced)?

Rather than discuss each of these points in detail, it may suffice to point out that the pattern of distribution of the working force and of output among primary, secondary, and tertiary industry, which was first raised by Colin Clark, has recently been subjected to extensive comparative study by Kuznets. He has proposed a number of generalizations that are summarized in a table listing eighteen countries for which data of sufficiently long range were available.⁹ These findings may be regarded as a first approximation of determining the sequences in the relationship between shifts in the labor force and in sectoral output associated with economic development.

The hypothesis stated in the fourth point on shifts in the components of industrial output was first elaborated by Walter Hoffmann, who also has presented considerable empirical evidence for this generalization.¹⁰

⁹Colin Clark, *The Conditions of Economic Progress*, 3rd ed., Macmillan, 1957, Chs. V, VI, VII, and IX; and Simon Kuznets, "Industrial Distribution of National Product and Labor Force," *Economic Development and Cultural Change*, July 1957 (Part II), p. 53.

¹⁰Walter Hoffmann, *Stadien und Typen der Industrialisierung*, Jena, G. Fischer, 1931 *passim*, especially pp. 124-128.

He worked with rather poor data, and a restudy of the cases he discusses would certainly yield better and more conclusive results. Moreover, it is likely that data for more countries than those included in Hoffmann's original study are now available, and that finer breakdowns than those used by him might lead to greater insights into the process of industrialization.

But the regularity of the pattern discovered by Hoffmann might not be confirmed in countries with planned economic development, especially those in which emphasis is laid, at the early stages of industrialization, upon heavy industry. In part, this may be a consequence of the way in which "industry" is defined, i.e. whether home and cottage industries are included or not. In sum, it appears to be a fruitful exercise to investigate the sequences of industrialization processes, but wherever differences in the patterns are found, they must be correlated with the various "extraneous" factors (e.g. raw material supplies, organization of secondary production, government plans, etc.) in order to be built into an industrialization model of wider applicability.

Whereas in the work of Colin Clark, Simon Kuznets, and Walter Hoffmann, some evidence of sequences characteristic of development processes have been indicated and, in part, empirically confirmed, the question of whether a substantial increase in agricultural production is a prerequisite of industrialization is, as yet, not fully explored. The classical instance of an agricultural revolution preceding the industrial one is, of course, Britain. But Clapham also reports substantial improvement in French and German agriculture in the period before the onset of the railway age.¹¹ Moreover, the United States and other overseas offshoots of the Western European countries had a well-developed agriculture long before they started on industrialization. The rationale for an increase in agricultural productivity before an industrial revolution appears to lie in the fact that the onset of industrialization and the concomitant growth of urbanization are associated with rapid growth of population, and the improved agricultural production is an assurance of adequate food supplies from domestic sources for the swelling population. It is not easy to see why improvement in agricultural production should precede industrialization unless it is maintained that the industrialization process requires such large amounts of investment that the investment funds available for agricultural improvements would not be sufficient.

Another argument for the need of increasing agricultural productivity before the onset of industrialization is the possibility of converting agricultural surpluses into industrial capital. For example, it has been maintained that a portion of early Japanese industrialization was financed out of the land tax, and it is frequently said that in currently underdeveloped countries a similar process could be inaugurated. However, there is as

¹¹ J. H. Clapham, *The Economic Development of France and Germany, 1815-1914*, Cambridge, 1928, pp. 24-28, 44-52.

yet not very much evidence available of the extent to which European landlords' rents were invested in early industrial enterprises. The Research Center in Entrepreneurial History has studied at one time the role of aristocrats (and large landholders) in industrial development. In these comparative studies, data were assembled from several European countries, but no conclusive evidence was produced as to the relative importance of the role played by surpluses derived from agricultural production in early industrial investment. In the later stages of industrialization, on the other hand, many European aristocrats and other rent receivers did invest considerable amounts of their savings in industry.

In the preceding paragraphs, this problem was stated in terms in which it is usually discussed by economic historians. However, from the point of view of the analysis of economic growth, the question might be put in a different form. Let it be granted that a process of self-sustained growth is possible only if a society is capable of saving (and investing) a portion of its income roughly commensurate with the magnitudes indicated by Rostow. Then the question may be asked: what are the antecedents in the economic history of a society that will lead it to a level where savings of such magnitude can actually be made? In other words, can we assume correctly that no matter how low the pre-industrial economic performance of a country, once it can mobilize a sufficient proportion of savings, it can start a process of growth? Or does the capacity to reach a given savings potential in itself depend on the level of economic performance before the take-off? Now it may be argued that the overall level of average income in Western countries that have successfully started a process of industrialization has been substantially higher than appears to be the case in many countries of Asia today. For example, there is substantial evidence that the amount of agricultural land available to the average farm household in European countries at the time they began to industrialize was at least three times as much as is the case in most countries of Asia today. But it is also probable that productivity in manufacturing and services was, on the whole, higher than it is in many underdeveloped countries today, and that, in general, the average level of incomes in Europe before the industrial revolution was higher than in most Asian and African countries today.

This low level of average income may be explained in two ways. On the one hand, it may be regarded as the consequence of higher population pressure in present-day underdeveloped countries, compared with the Western countries at the time they began to industrialize. On the other hand, we may say that, apart from population pressure, productive technology in all branches of production was more advanced in Europe than in present-day underdeveloped countries. (Reference is made, of course, not to the technology imported from the West, but to traditional native technologies.) This means that among the prerequisites for a take-off is a minimum level of economic performance and the presence of social institutions supporting a flexible, productive technology which can adapt

itself to expansion. In other words, unless a country has already reached a satisfactory absolute level of average income, industrialization is exceedingly difficult (or, in the limiting case, even impossible), even if a substantial relative portion of national income is saved.

But the case of Japan and the current experience of China throw some doubt on this proposition. Evidence for China is as yet very sparse, and its efforts to industrialize are too new to allow any hard and fast conclusions. But in Japan we have witnessed a well-defined process of economic growth over the last 80 years, and according to all available records, the initial position of the Japanese economy was not much higher than that of India or China today. Moreover, the role of foreign capital in the development of Japan was rather limited. For this reason, Japan presents a special case, i.e. it is the only country which experienced a take-off from a very low level of economic performance. This makes its experience rather unique, and it is likely that the problems faced by many relatively densely populated underdeveloped countries in Asia will turn out to be more similar to those of Japan than of the European countries or the overseas offshoots of these countries.

This brings us back to the role of government in economic development. If the process of growth is largely determined by autonomous private decisions, the initial conditions for a take-off apparently must be more favorable than if the government takes on the major burden of guiding the process of growth. It may well be that the Japanese and Chinese cases lend some support to the proposition that the more backward the economy in relative terms, the greater must be the role of the government. This should not be interpreted in the sense of backwardness relative to highly advanced countries, but rather to other countries at a roughly similar stage of industrial development. In other words, the comparative study of the Japanese, and to a lesser extent the Chinese, Indian, and other Asian, cases and the more highly advanced countries of Western Europe may throw considerable light on the needs and functions of government in the development process, depending upon the over-all average level of economic performance which a country exhibits at the take-off stage.

This study would also require an examination of the significant factors which led to the take-off stage in the economy. It makes a considerable difference whether these factors have been chiefly economic (such as an improvement in agricultural productivity), technological (such as the access to new technological knowledge imported from abroad), or ideological (such as a revulsion against social values, as exhibited by the Meiji restoration in Japan or the communist upheaval in China). In investigating these differential impacts, account must be taken of the prevailing social structures and systems of social values which, in turn, place differential stress upon the emergence of these factors. But remnants of these social structures and social values tend to persist throughout the period of economic advancement and may, in combination with new features introduced

by industrialization and urbanization, sometimes enhance and sometimes impede the process of growth. The case of Japan may again prove to be a very special one, precisely because the parts of its earlier social structure and social values that have persisted throughout the period of industrialization have, on the whole, strongly supported the forces of development.

One important contrast in the social structures of present-day underdeveloped countries (especially in Asia and Africa) and Western countries has been stressed by Talcott Parsons,¹² who finds that this divergence of social structures in the West and in Asia has deep historical roots. European social structures are characterized by the presence of a strong middle class, which has taken on an important role in economic development. The countries of Asia are characterized by a bipolar social structure, in which a small but powerful elite, who control wealth, political power, and often have ceremonial rights of deference, are confronted with an abjectly poor lower class. The middle class is often weak and made up chiefly of government workers and intellectuals, who usually control the nationalistic or radical political movements. At the same time, these groups are most interested in economic development and often occupy the crucial positions in the bureaucracies controlling development plans. Thus, the differences in social structures in present-day underdeveloped countries, as contrasted with those in Western Europe at the initiation of its industrialization process, tend to enhance the centrally planned aspect of economic growth in Asia. But the wide gap between the elite and the masses also influences the process of economic growth, and depending upon the more precise nature of this relationship, it may be either an impediment or a supporting factor for economic growth. This is another area in which comparative study is of importance. But what is called for here is a historical comparison of the forms and processes of nativistic, anticolonial, and anti-imperialist movements, on the one hand, and the socio-political structures that emerged in excolonial countries, on the other.¹³ This is another field in which the policies in developing countries can be affected by the comparative study of experiences in recently developed nations, and in which comparisons in the historical dimension merge with those in current socio-political analysis.

¹² In his article, "Some Reflections on the Institutional Framework of Economic Development," in *The Challenge of Development*, as cited, pp. 107-126.

¹³ A beginning along this line has already been made by S. N. Eisenstadt in "Sociological Aspects of Political Development in Underdeveloped Countries," *Economic Development and Cultural Change*, July 1957, pp. 289-307.