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PUBLIC BUREAUCRACY, 
RESOURCE STRUCTURE, AND ECONOMIC 
DEVELOPMENT: A NOTE

"The truth is, that a skilled bureaucracy—a bureaucracy 
trained from early life to its special avocation—is...quite incon-
sistent with the true principles of the art of business. That art has 
not yet been condensed into precepts."

WALTER BAGEHOT, The English Constitution, Chap. 7.

This essay has to do only with mixed economies, not with predomi-
nantly laissez-faire or with completely state-dominated economies. 
Roles the state may play in fomenting economic development are 
touched upon in preliminary Section 1. In the principal Section II, 
the argument is advanced that economic development, together with 
the multiplication of entrepreneurs, tends to be retarded when a state 
attempts to expand the public economic sector greatly and at the 
same time to require of entrepreneurs administering this sector that 
they be subject to the rules and requirements governing membership 
in its public bureaucracy, together with the behavior of this bureau-
cracy. The argument advanced is based upon a ceteris paribus assump-
tion; moreover, it recognizes that a state situated in a backward 
region can stimulate and maintain its economic development only 
in so far as the quantity and the quality of its employees permit. 
In Section III account is taken of a very important aspect of this 
ceteris paribus condition. It is there contended that the public sector is 
not per se more adaptable, in the aggregate, to the functional 
requirements of economic development than is the private sector. 
Unless this contention can be supported, the argument advanced in 
Section II loses significance. For, if the public sector is sufficiently 
superior to the private sector, disadvantages (of the sort discussed in 
Section II) attendant upon underallocation of entrepreneurial and 
related managerial skills to the public sector would be more than

1. I am indebted to Professors R.Braibanti and C.B.Hoover for helpful 
comments, to Mr. David E. Sweet for assistance in reviewing literature relating to 
bureaucracy, and to the Ford Foundation for financial aid.
counterbalanced by the greater efficiency with which these skills were utilized in that sector. In Section IV data relating to the bureaucracies of underdeveloped countries are presented. The quantitative and the qualitative shortcomings of these data suggest the need for a great deal of research. Within limits, however, they lend support to the theoretical and inferential arguments advanced in Sections II and III.

I

It is generally accepted that actualization of that "strong dynamic urge for growth" now "manifest everywhere" is being held in check in underdeveloped countries by shortages of capital, of managerial skill, and of entrepreneurs with a capacity for recognizing and exploiting opportunities and for introducing needed innovations and adaptations. It also is accepted by many students of the developmental process (though not by all, nor perhaps by as many as formerly) that the state can contribute significantly both to the over-


3. C.H. Danhof classifies entrepreneurs into innovators, imitators ready to adopt successful innovations, "Fabians" who are very slow to adopt improved methods, and "drones" who manifest little if any tendency to introduce improvements. See R.R. Wohl, ed., Change and the Entrepreneur, Cambridge (Mass.) 1949, p. 20-24. Most useful in underdeveloped countries presumably are entrepreneurs who can adapt to the needs of such countries methods found effective in other regions. Regarding the shortage of technical skills, entrepreneurial services, and capital, together with organizational defects and misallocation of scarce resources, see United Nations (ECAFE), Economic Survey of Asia and the Far East 1955, Bangkok 1956, p. 50; and United Nations, Processes and Problems of Industrialization in Under-Developed Countries, New York 1955, passim.


5. Commenting on the discussion of economic development that took place at the Congress for Cultural Freedom in Tokyo (April 1957), W. A. Lewis observed that the prevailing view favored leaving the use of private resources to private decision and confining planning largely to the use of government resources. See his "Consensus and Discussions on Economic Growth: Concluding Remarks to a Conference", Economic Development and Cultural Change, vi, 1957, p. 77/78. While this interpretation leaves undefined the relative magnitude of the public sector,
coming of these shortages and to the carrying out of various growth-catalyzing measures\(^6\). The role assigned to the state by these students thus appreciably exceeds the role formerly assigned thereto by economists when they listed governmental functions and set elastic bounds to the public sector\(^7\); yet they neglect the issue raised in Section II below.

While economists remain in disagreement respecting what economic functions the state should perform and what scope should be allowed specific functions assigned to the state\(^8\), they have long been it is inferable from Professor Lewis's comments that less stress was placed upon the public sector in 1957 than in the 1940's. Even so it is easy to exaggerate the role that has been played by government. Thus, the United Nations (ECAFE), in its Economic Survey of Asia and the Far East 1953 (Bangkok 1954), p. 23/24, reports that governments of the region “adhere to the traditional view that the public authorities should be responsible for the basic economic facilities...and should provide assistance and incentives to private business” but should not step directly into the industrial field unless private enterprise proves itself lacking in capability. Data presented by A.M. Martin and W.A. Lewis suggest that the role played by government remains relatively small in many underdeveloped countries. See “Patterns of Public Revenue and Expenditure”, The Manchester School of Economic and Social Studies, xxiv, 1956, p. 203–244.

6. This view permeates many of the so-called development plans as well as much of the literature on development. It is of interest to contrast some of Marx's views with those currently regnant. For him underdeveloped countries were not so much countries in which per capita income was low as “underdeveloped societies” in “precapitalist stages” of development and marked by “precapitalist conditions”. When conditions had become suitable these societies would become capitalist and would in consequence undergo social transformation. There is not much about resources other than labor. E.g., see Capital (Kerr edition), ii, Chicago 1909, p. 389, 697 ff.; also a collection of Marx's opinions respecting India, issued as a pamphlet, Articles on India, by the Peoples Publishing House, Bombay 1945.


8. E.g., Lewis, Theory of Economic Growth (p. 376/377), lists nine such functions: “Maintaining public services, influencing attitudes, shaping economic institutions, influencing the use of resources, influencing the distribution of income, controlling the quantity of money, controlling fluctuations, ensuring full employment, and influencing the level of investment.” Bauer and Yamey (op. cit., Chaps. 11/12) indicate that the state at a minimum must maintain law and order, establish and keep up-to-date those institutions whereupon depends the efficient operation of the economic system, provide aid to victims of catastrophe, and undertake ex-
in agreement regarding a related taxonomic question. They assume that activities which are economic in character (or otherwise oriented to economic development) may be divided roughly into two categories: (a) those which are amenable to unassisted private enterprise, and (b) those which can be carried on effectively only by agencies of the state, or by private enterprisers who have the support of the state. The boundaries assignable to these categories vary with place and time both because the power of entrepreneurs9 varies greatly and because the social environment (e.g., degree of law and order prevailing) may differ from time to time and place to place. For example, a developmental undertaking that is beyond the capacity of domestic private enterprise (or even of government) in a country at some given time may readily be carried out by foreign private enterprise (e.g., the developmental activities of the United Fruit Company, or of the great oil corporations or consortia); or it may prove accomplishable at a later date after private enterprise has become sufficiently powerful (e.g., relatively recent developmental activities of great American corporations which initially were small and of quite limited capability). In general, grounds for governmental intervention or undertaking are said to exist when, in the absence of such intervention or undertaking, a given set of activities is not carried on to the point where social marginal cost and social marginal benefit coincide.

The argument relating to governmental intervention for the purpose of making marginal social cost and marginal social benefit coincide rests upon at least two assumptions which will only be mentioned. It assumes that marginal social cost and marginal social

penditures whose beneficial effects are indiscriminatory (i.e., are experienced both by those who pay for these benefits and by those who do not). They indicate in addition a variety of tasks which the state may properly perform under certain circumstances and within certain limits, but always with care lest the accompanying costs outweigh the benefits realized. See ibid., Chaps. 12-15, on measures affecting agriculture, industry, capital formation, distribution of wealth and income, extent of monopoly, reform of land tenure, and consolidation of agricultural holdings.

9. It is here assumed that the entrepreneur is typically the business firm. See J. H. Stauss, "The Entrepreneur: The Firm", Journal of Political Economy, 11, 1944, p. 112-127. The firm may be a single-person firm; in fact this type predominates in some underdeveloped countries.
benefit are sufficiently determinable and sufficiently stable to serve as guides to policy. It also assumes that a governmental agency is actually capable of bringing about an approximate coincidence. These assumptions may or may not be empirically valid; and even if they are valid, the manner in which costs and benefits are defined may not be generally acceptable 10.

The capacity of an agency of the state to achieve a given purpose is conditioned, as is that of a private entrepreneur, by the stock of resources at its disposal and by the efficiency with which these resources are transformed into objectives. This capacity is also conditioned, as is the capacity of a public agency or a private enterpriser to adjust through time to actual and/or suppositious changes in purpose, by the disposition of the agency or enterpriser in question to respond, as an organization, in the social environment in which it must operate. We may, therefore, conceive of a firm's responsibility and effectiveness as being conditioned by its internal environment and structure, and of its goal-achieving potential as being conditioned by its relevant external socio-politico-economic environment 11. In general, whether a particular function should be performed by a public or by a private agency may be affected by any one of three conditions: (a) which type of agency has freer access to the necessary resources; (b) which type of agency is freer to modify its methods and/or to respond to changes in objectives; (c) which type of agency typically operates in the more favorable external environment. Con-


11. The concept of "environment of decision" is used in a somewhat different sense by C. I. Barnard, The Functions of the Executive, Cambridge (Mass.) 1945, Chap. 13; see also H. A. Simon, Administrative Behavior, New York 1951, p. 242/243. While it is essential to distinguish analytically between a firm's external environment and its internal environment and structure, it is necessary to take into account the extent to which a firm may modify its external environment (e.g., by manoeuvring within a context of imperfect competition; by modifying relevant conditions of demand or supply; etc.).
ditions (b) and (c), although likely to be intermixed and interrelated in the world of reality, may be analytically distinguished. My concern is principally with (a).

II

It is incumbent on those who manage personnel-allocating mechanisms in underdeveloped countries to economize in the use both of individuals with entrepreneurial capacity and of individuals competent to fill positions within the public administrative structure. For, as has been noted, it is taken for granted that the stock of persons with entrepreneurial ability is relatively small in underdeveloped countries; and, as will be indicated in Section IV, the number of persons with attributes supposedly requisite in bureaucrats of various sorts may be even smaller.

My purpose is to show that a transfer of activities from the private to the public sector may tend to reduce the effective supply of entrepreneurs, a supply presumably limited even in the absence of such transfer, and to suggest that it may intensify the relative shortage of bureaucrats in non-economic branches of the public service.

For expository convenience my argument may be put simply. Let $L$ represent a country's labor force, $G$ that part of the labor force which is engaged in the governmental or public administrative sector, and $P$ that part of $G$ which is attached to the public economic sector. Let $E$ comprise those members of $L$ who possess attributes $abcdef$ which are essential to entrepreneurial success; this category may be subdivided into $E_a$ made up of actual and practicing entrepreneurs and $E_p$ made up of potential entrepreneurs who, although not currently engaged in this capacity, are competent to become so engaged. Let the attributes for membership in category $P$ range between $1-4$ and $1-8$, and let those members of $P$ with attributes

12. This proposition needs to be stated with more than customary precision before it can be validated. There may be a shortage of entrepreneurs, or entrepreneurs of particular types, and yet, as is suggested below, there may exist in a society many persons with the attributes of potential entrepreneurs. If this be true, the longer-run supply curve of enterprise is much more elastic than is suggested by the simple argument that the existing stock of entrepreneurs is relatively small. As Lewis, The Theory of Economic Growth (p. 196), points out, the shortage of entrepreneurial services arises not out of a shortage of businessmen and a lack of passion for money; it arises rather out of a lack of suitable training and experience.
1-6 to 1-8 constitute a sub-category $P'$ of $P$. Suppose further that in the public sector responsibility for the assumption of entrepreneurial duties may be assigned only to members of $P'$ whether or not they also possess attributes $abcdef$. Under the circumstances only a minor fraction of the members of $E$, some of whom will be members of $G$ but not also of $P'$, will be eligible to perform entrepreneurial functions in the public sector. In consequence there may be too few individuals who, being members of $E$ and $P'$, are both able and eligible to perform entrepreneurial functions in the public sector. In part because of the resultant shortage of suitable personnel attached to $P'$ some personnel may be diverted from other branches of $G$ into $P'$ thereby intensifying shortages in these branches. Such shortages would not develop were members of $E$ freely enough admitted into $P'$, or were the number of entrepreneurs required in the public sector kept commensurate with the number of individuals who were members of both $P'$ and $E$.

What has been said is illustrated graphically in Figure 1. Let the rectangle $L$ be a universal set representing all elements in the labor force. The circle $G$ is a subset of $L$ comprising all members of the labor force who are civil servants. The small portion of circle $G$ cut off by the chord and labeled $P$ is a subset of $G$ made up of those civil servants with attributes 1-4 to 1-8. The pie-shaped segment common to $G$ and $P$ and labeled $P'$ comprises those members of $P$ with attributes 1-6 to 1-8; only these individuals are eligible to perform entrepreneurial functions in the public sector. The ellipse $E$ is a subset of $L$ which includes all members with attributes $abcdef$; only individuals with these attributes are able to perform entrepreneurial functions effectively. The cross-hatched area situated in the intersection of $E$
and $G$ and common to $E$ and $P'$ thus constitutes that subset of $G$ which is made up of individuals *both eligible and able* to serve as entrepreneurs in the public sector. This subset is much smaller than the intersection of $E$ with $G$ in which are included all civil servants with the attributes of entrepreneurs; it is smaller also than the intersection of $E$ with $P$, since according to the rules members of $P$ with attributes 1–4 and 1–5 are not eligible to serve as public entrepreneurs. It does not necessarily follow, however, that all public entrepreneurs will be drawn from among those both *eligible and able*. Under the rules relevant to the assignment of bureaucrats included in $P$ individuals need only be members of $P'$ in order to be eligible for appointment to entrepreneurial posts in the public economic sector; they need not be qualified in the sense of possessing attributes $abcdef$.

*Figure 1*

Figure 1 may be used to illustrate the possibly restrictive effects of (1) transferring economic activities from the private to the public sector and (2) conjoining with attributes (i.e., $abcdef$) essential to entrepreneurial success various legal or artificial attributes (i.e., 1–6 to 1–8) possession of which is made requisite to assignability to entrepreneurial posts in the public economic sector. Let us begin with situation 1 in which: (a) the public economic sector is relatively small whereas the private is relatively large; (b) the number of
persons in the cross-hatched portion of $P'$ is easily commensurate with the number of entrepreneurs required in the public sector; and (c) the number of entrepreneurs readily available to the private sector (i.e., that part of $E$ not intersecting with $G$) is roughly commensurate with current requirements in that sector. Now suppose that the activities carried on in the public sector are greatly increased at the expense of those carried on in the private sector. There will be some increase in the number of individuals included in $G$ and in its subsets $P$ and $P'$, but the number with both attributes $abcdef$ and at least attributes 1–6 (i.e., the number falling within the cross-hatched portion of $P'$) will hardly increase commensurately with the increase in the activities pursued in the public sector. For, while the supply of individuals with attributes $abcdef$ may be sufficient, the requirement that public entrepreneurs possess at least attributes 1–6 will greatly restrict the extent to which the membership of subset $P'$ can be increased, and it will not insure that this increment be composed of members of $E$. As a result members of $P'$ who are not also members of $E$ may assume entrepreneurial responsibilities and there will ensue in the public economic sector a decline in the amount of competent entrepreneurial service which is combined with a given amount of factors of production that are complementary to enterprise. Meanwhile the ratio of entrepreneurial services to complementary factors will rise in the private sector. In general, there will be relatively too little technically competent entrepreneurial service available in the public sector and relatively too much in the private sector, and aggregate output will be smaller than it would have been, given a better distribution of entrepreneurial services between the public and the private sector.

14. For the present the distinction made earlier between actual and potential entrepreneurs (i.e., between $E_a$ and $E_p$) is disregarded, it being supposed that, within the private sector, entrepreneurs flow very freely from the potential into the actual category.

15. It is assumed that all agents of production are employed in situation 2. Unemployment and underemployment might, of course, be consequent upon the replacement of situation 1 by situation 2, given only limited variability in the extent to which the entrepreneur/factor ratio may be modified. This tendency would be reduced in the private sector in so far as unemployed or underemployed entrepreneurs gave up the entrepreneurial role and became employees. It is also
part for developed countries; if, in times of crisis, civil-service criteria are rigidly adhered to, the state is denied the services of countless able individuals.

The argument set forth in the three preceding paragraphs rests upon essentially static assumptions. Of greater importance, however, is the longer-run response of the supply of persons in category $E_a$ to the transfer of economic functions from the private to the public sector. This longer-run response depends upon the extent to which individuals with attributes $abcdef$ are produced and upon the degree to which these attributes are given expression, that is, upon the extent to which individuals move from $E_p$ to $E_a$. Regarding this long-run response we have little empirical information.

Information respecting the origins of entrepreneurs in underdeveloped countries is sparse; that assembled regarding entrepreneurial origins in developed countries is of limited generalizability, having to do principally with the business elite. Representatives of this elite have long come, the data reveal, from essentially business backgrounds. From this finding it may be inferred, however, that in underdeveloped countries the rate of growth of the entrepreneurial class will depend significantly upon the extent to which business backgrounds are established here and there. Before much general-assumed in the discussion above that factors complementary to enterprise are moved, presumably through state intervention, from the private to the public sector as replacement of situation 1 by situation 2 requires.


17. This is to be expected since, as M. Hallwachs observed, an individual’s motives, behavior, etc., are largely determined by his social category. See G. Fried-
ization is possible, nevertheless, we must have considerable information regarding the origins of entrepreneurs in underdeveloped countries, the acquisition of entrepreneurial attributes (i.e., abcd ef), and the entry of individuals with such attributes into trade, industry, commercial farming, etc.

Bauer's and other studies indicate that there exist in underdeveloped countries, even among individuals of relatively lowly origin, many potential entrepreneurs, and that some of these finally become quite successful 15; but they fail to reveal a strong tendency on the part of traders to enter less traditional lines of activity until the economy has become sufficiently developed 16. That the educational attainments of these indigenous entrepreneurs cannot be very high, as a rule, is suggested by the fact that illiteracy is still so prevalent.

MANN, "Maurice Halbwachs, 1877-1945", American Journal of Sociology, LXI, 1951, p. 514. See also B. F. Hoselitz, "Entrepreneurship and Economic Growth", The American Journal of Economics and Sociology, XII, 1952, p. 97-110. The profession of business is less sharply defined than are most professions. For this reason, therefore, its capacity to draw recruits from other professional backgrounds may be less strong than that of some of the more sharply defined professions. Cp. F. X. Sutton et al., The American Business Creed, Cambridge (Mass.) 1956, p. 351/352.


in most underdeveloped countries. Data relating to the educational attainments of American businessmen suggest, however, that, prior to the present century, these men did not set much store by education, and that many who achieved great success had little formal education. This finding suggests that, in underdeveloped countries, con-

20. Of adults 15 or more years old 80-85 per cent are illiterate in Northern Africa and 85-90 in Tropical and Southern Africa. Corresponding percentages for other underdeveloped regions are: Southwest Asia, 75-80; South Central Asia, 80-85; Southeast Asia, 65-70; East Asia, 45-50; Middle America, 40-42; South America, 42-44. See UNESCO, *World Illiteracy at Mid-Century*, Monograph on Fundamental Education, No. 11, Paris 1957, p. 15. In many underdeveloped countries less than half the children 5-14 years old were enrolled in primary schools around 1950 (ibid., p. 166). Illiteracy is somewhat correlated with the relative number engaged in agriculture and living in non-urban environments (ibid., p. 177 ff.). Literacy is highly correlated with industrial development, Hilda Hertz Golden finds. See her "Literacy and Social Change in Underdeveloped Countries", *Rural Sociology*, xx, 1955, p. 1-7, reprinted in J. J. Spengler and O. D. Duncan (eds.), *Demographic Analysis: Selected Readings*, Glencoe 1956, p. 532-536. For data on higher education see United Nations, *Preliminary Report on the World Social Situation*, New York 1952, Chaps. 6, 10-12 (to be issued again in revised form), and UNESCO, *World Survey of Education: Organizations and Statistics*, Paris 1955; also Wood Gray, "Higher Education in the Nations of the World: Numbers of Institutions, Faculty, and Students", *Bulletin of American Association of University Professors*, xluiii, 1957, p. 594-597. Gray's compilations, based upon the UNESCO study, include nearly complete returns for most countries. These returns, when contrasted with population, indicate that the ratio of students in institutions of higher learning to the population at large is much lower in underdeveloped regions than elsewhere. Around 1950 of the approximately 6.6 million students reportedly enrolled in institutions of higher learning, about 14 per cent were situated in Asia (exclusive of Japan), about 4 in Latin America, and slightly over one in all of Africa. Of the world's population around 1950 roughly the following percentages were found in these regions: Asia (exclusive of Japan), 50; Latin America, 7; Africa, slightly over 8.

21. According to Sorokin (op. cit., p. 637), of the American millionaires 27.5 per cent reported no more than an elementary education and 18.5 per cent reported no more than a high school education. Of the business men listed in *Who's Who in America* in 1900, 84 per cent had only a high school education or less. See I. G. Wyllie, *The Self-Made Man in America*, New Brunswick 1954, p. 95; the whole of Chapter 6 is devoted to the business man's attitude toward education. "Until the last decade of the nineteenth century the educational ideal of the business community embraced nothing more than a common school training, a business apprenticeship, and a program of self-culture." See ibid., p. 95; also p. 101, 107/108, where it is suggested that the replacement of the individual entrepreneur
considerable formal education, though of use to some entrepreneurs, is not, as a rule, essential to entrepreneurial success. What is essential is access to administrative experience, both with typical small-scale and with less common larger-scale enterprise\(^2\). Within limits, presumably, both the number of active entrepreneurs and the growth of this number will be greater when restrictions of the sort discussed (i.e., requiring membership in \(P'\) and \(E\)) are very few than when they are many; then the comparative multiplicity of business backgrounds, together with the force of example, prompts men to become entrepreneurs. Furthermore, children of private entrepreneurs, maturing in business environments and generally free of the pull of bureaucratic environments, tend to engage in business whereas children of public entrepreneurs probably tend to seek positions in the bureaucracy. In consequence, when the private sector is relatively large there is a lesser leakage of individuals out of the private entrepreneurial class into the public bureaucracy\(^2\). It is evident in general by the corporate entrepreneur was accompanied by a great increase in emphasis upon the usefulness of a college education. See also Mills, \textit{op. cit.}, p. 34–36.


\(^2\) Such a leakage apparently may have served to retard economic development in China. In Japan, by contrast, because it was much more difficult for individuals to move from the entrepreneurial class into the nobility, Japan became better equipped with entrepreneurs than did China and eventually progressed accordingly. See M. J. Levy’s paper in Kuznets, \textit{op. cit.}, p. 496–536; but cf. Lockwood, \textit{op. cit.}, p. 10. H. Pirenne advanced the thesis that the capitalist class had repeatedly to be developed anew because its successful members, fearing to struggle for profits under new conditions and attracted by the supposed advantages of membership in the aristocracy, abandoned trade and industry. See “The Stages in the Social History of Capitalism”, \textit{American Historical Review}, XIX, 1914, p. 494–515. Pirenne’s emphasis is upon the need for “new men”, at various stages of an economy’s development, to generate new thrusts forward. Within this category fall the marginal men, men with weak ties to existing social cadres, men who are dissatisfied with the \textit{status quo} and see new opportunities in economic change. See Lewis, \textit{The Theory of Economic Growth}, p. 148–150, 236–238; but cf. F. L. K. Hsu’s paper in H. F. Williamson and J. A. Buttrick (eds.), \textit{Economic Development},
that, unless enterprise in the public sector is more efficient than that in the private sector, great expansion of the public sector at the expense of the private is likely to slow down the rate of growth of the aggregate number of entrepreneurs.

III

It has been argued in Section II that the transfer of economic activities from the private to the public sector tends, if carried beyond a certain variable point, to intensify the effective scarcity of the entrepreneurial factor. The range of conditions under which this argument might be deemed valid would be narrowed if entrepreneurs, on being drawn into the public sector, acquired greater administrative "know-how" than they otherwise would have attained and in consequence became able to supply more effectively and in greater measure the specific services embraced under the head of entrepreneurship. It is true that enterprises which the state finds it necessary to undertake or to support may, by introducing foreign managerial skill and practice and by engaging in large-scale and capital-intensive ventures, augment the knowledge and broaden the horizon of many individuals associated with such enterprises. But it is also true that the public entrepreneur often operates under one or both of two handicaps from which the private entrepreneur is more free, namely, unfavorableness of extra-firm environment and conditions making for inflexibility and for slowness of response to change in circumstances.

The external social environment of the public enterprise is likely to include a larger, a more varied, and possibly a more recalcitrant set of elements than does that of a private enterprise engaged in similar undertakings. The private enterprise may be thought of as being confronted principally by its customers, its suppliers, its competitors, and the stable ethico-legal framework within which its operations are carried on24. The public enterprise is confronted by


24. This statement is valid only for countries in which continuation of private enterprise is intended. If the climate of opinion is hostile to private enterprise, the ethico-legal framework is likely to become increasingly unfavorable.
these elements and by periodic pressures, threats, or attacks, at the hands of hostile private interests or of politically powerful individuals and groups bent upon obtaining more favorable terms of sale or purchase, etc. Furthermore, whereas private enterprise is carried on under the guidance of the price system and continually subject to the tests of the market, public enterprise, as a rule, undergoes similar reassessment irregularly and intermittently when at all. For this and other reasons the public enterprise may have to pay relatively high prices for some of its inputs, sell some of its output at unwarrantedly low prices, and refrain from utilizing input and output combinations which, under relevant technological and market conditions, are optimal. Resulting tendencies to inefficiency and relatively high costs are re-enforced by the fact, noted below, that the tendency to economize is less strong within public than within private organizations.  

Even if the environments confronting similarly engaged private and public entrepreneurs differed little, the latter would be less likely than the former to respond expeditiously and appropriately to changes in the external environment or in the purposes avowedly pursued. Public organizations tend to be less instrumental than private and to involve their participants in greater measure. Among the lesser defects held to be more characteristic of public than of private enterprise one may include "internal red tape, 'passing the buck' or reluctance of individuals in the bureaucracy to make decisions, rigidity and inflexibility, impersonality, and overcentralization.  

25. When the national government is the customer and private enterprise is the supplier, it may confront an environment as unfavorable as any faced by a public entrepreneur. Thus, as HANSON W. BALDWIN reports in the New York Times, 7 February 1958, p. 6, "the Government's procurement policies have stressed the closest possible sort of direction, supervision and centralization". They have failed to utilize competition and private industrial initiative, to give incentive, and to reward success. In consequence the cost of doing military work has been high, loss of time has been excessive, and delay has been great. See also J. S. LIVINGSTON, "Decision Making in Weapons Development", Harvard Business Review, xxxvi, 1958, p. 127–136.  

26. Firm theory appears to be less adapted to the analysis of public than of private enterprise. See SIMON, Models of Man, p. 166–168, 170 ff.  

27. See DAHL and LINDBLOM, op. cit., p. 247–253. The search for servomechanistic methods of coping with economic fluctuations has been prompted
of public enterprises are less likely to enjoy requisite managerial and related autonomy, together with sufficient freedom to modify traditions, rules, regulations, methods of production, conditions of employment, etc. As a result, the employees of such enterprises, especially when protected by seniority and other employment-guarding provisions and when animated by traditional values and standards, have inadequate incentive to economize on inputs, to improve and more effectively sell output, and to keep methods and procedures up to date. The regnant and effective system of rewards and deprivations, of intra-firm incentives, is not well suited to stimulate improvements in performance, nor are the operating heads of public enterprise free to introduce a system that does provide adequate stimulus. In consequence, there is not present in public enterprise nearly so strong a tendency as in private enterprise to introduce improved methods, economize on inputs, and generally to cut costs. The wasteful proclivities of public enterprise are accentuated, as is the indisposition of the public entrepreneur to take corrective measures when expectations are not realized, if the operations of such enterprise are not subjected to assessment in the light of the external price system.

In view of the argument presented in Sections II and III, it may be asked how the rate of development could then be so high in countries in which public enterprise was completely dominant. In part (a) by inability on the part of legislators to act appropriately and with sufficient expedition and (b) by their unwillingness to empower a branch of the bureaucracy to take compensatory action when and as it deems such action to be indicated.

28. In Egypt where (as in the Near East generally) members of the civil service enjoy prestige and come from the upper classes, the civil servant puts his own interests and security above public policy. See Morroe Berger, Bureaucracy and Society in Modern Egypt, Princeton 1957, p. 5, 15, 43, 45, 83. See Dahl and Lindblom, op. cit., p. 253-260, 456-464; also pieces by P. Selznick, S. M. Lipset, M. E. Dimock, H. K. Hyde, H. A. Simon, W. R. Sharp, and A. W. Gouldner, in R. K. Merton et al. (eds.), Reader in Bureaucracy, Glencoe 1952, p. 194-202, 221-232, 319-333, 397-418. Recently the tendency to increase the payroll of public agencies even in the face of a decline in the amount of "work" to be done has been denominated "Parkinson's Law". See C. N. Parkinson, Parkinson's Law, and Other Studies in Administration, Boston 1957; also Arthur F. Burn's account of various ways in which the federal government tends to pay relatively high prices for that which it buys, in Prosperity Without Inflation, New York 1957, p. 74 ff.
and speaking words, and reserveres... y SO eved The rest of the economy already were relatively well-advanced at the time development programs were initiated. Second, it is possible, under state socialism as in a mixed economy, to avoid requiring public entrepreneurs to possess attributes of little relevance to the performance of stipulated entrepreneurial functions. Third, eventually the fruits of an unusually high rate of investment in technological education and in industry, and above all in heavy industry, hide or swamp many of the ill effects of misallocation of factors, particularly when consumer sovereignty and freedom of choice are allowed little scope and therefore marketing and related problems hardly exist. Fourth, in at least some of the countries under consideration many social barriers to economic growth (e.g., shortness and narrowness of entrepreneurial horizons, class structure, traditional values and orientations, dearth of technological information) have been dissipated.

These circumstances bear upon the rate of growth attainable in underdeveloped countries. Most of such countries, even though they have made notable progress, still remain in early stages of economic development and under the necessity of dissipating social barriers to economic growth. These countries may avoid the problem discussed in Section 11 by refusing to require irrelevant qualifications in public entrepreneurs. Many of them seem to be avoiding the problem at present by restricting the magnitude of the role of government in economic development and by confining this role largely to the provision of economic and social overhead capital.

29. As Simon (Models of Man, p.198-201) suggests, any entrepreneur or decision-maker is capable of behaving “rationally” only within a bounded social context. Whether this context is larger or smaller depends upon technological conditions, the kind of organization at his disposal, his socio-economic milieu and background, and what he conceives to be included in the set of choices confronting him. These bounds are extended as social barriers are reduced, entrepreneurial horizons are enlarged, and technological and organizational instruments are improved. Presumably, even when other conditions are given, the bounds need not be similarly situated by private and public entrepreneurs.

this practice entails a low rate of investment, however, the stock of overhead capital may be growing at a low rate and the dissipation of social barriers to economic development may be proceeding slowly. The governments of underdeveloped countries may of course rely, as did mercantilist government, upon private enterprise to carry out state purposes, or look forward, as did the Japanese state, to the increasing autonomy of private enterprise.

IV

In Section II it was argued that, because the supply of entrepreneurs is so small in underdeveloped countries, their development is bound to be retarded if (a) the state assumes a relatively wide range of entrepreneurial responsibilities and (b) the state stands ready to employ only persons with particular attributes, few or any of which are necessarily associated with entrepreneurial ability. This argument becomes even stronger if, given that entrepreneurs vary widely in ability and experience, the restrictions imposed by the state exclude from its service especially able entrepreneurs with the kinds of experience required in the public enterprises being undertaken. It may be argued additionally that when a country’s civil service is small in relation to the aggregate of tasks imposed upon it, whatever serves to increase this aggregate or to decelerate the growth of the civil

31. MARTIN and LEWIS infer that governmental expenditures in an underdeveloped country should approximate 17-19 per cent of its Gross National Product and, if it is making a special effort at development, aggregate close to 22 per cent. Capital expenditures, it is suggested, might then range between 4.5 and 8.25 per cent of Gross National Product. See op. cit., p. 216-221. While currently underdeveloped countries derive considerably less than half their revenue from income taxes, MARTIN and LEWIS believe that as much as two-fifths may be raised in this form (ibid., p. 229, 235). It may be assumed that, so long as the fraction raised through income tax is small, capital formation in the private sector is not likely to be greatly checked by relatively heavy taxation, particularly when rebates are allowed for capital investment. E.g., see United Nations (ECLA), Economic Survey of Latin America 1955, p. 141, 149 ff.

service retards the development of capacity on the part of the state to deal effectively with the tasks and functions for which it is made responsible. It follows from what has been said that only minor entrepreneurial roles can be assumed by states in respect of whose civil services these arguments are valid. This inference becomes more compelling in so far as validity attaches to the argument advanced in Section III, that public enterprise tends to be subject to more disabilities than does private enterprise. In this Section I shall touch upon information bearing upon the validity of the arguments advanced in Sections II and III.

It is not possible at present to assemble and assess in detail information of the sort required. Not much more can be said than that the public bureaucracy in underdeveloped countries is lacking in quantity and in qualities requisite for economic development; and that little information has been assembled and assessed regarding the comparative efficiency of public and private enterprise, or the manner in which each type actually recruits its personnel. What is required is a series of monographs dealing, by country, with: (a) the actual operation of representative public enterprises, conditions for employability and employment in public enterprise, and the contrasts between comparable public and private enterprises in respect of economic efficiency and "profitability"; and (b) actions of the public bureaucracy relating to the development and the administration of the ethico-legal framework and other relevant conditions (e.g., maintenance of law and order, administrative rulings, diffusion of information and education, etc.) by which the performance and the functional capacity of both public and private enterprise are greatly affected. Superficial, descriptive studies relating to (a) and/or (b) reveal very little; studies must be detailed and analytical, and they must center upon the business and economic aspects and implications of public enterprise and public bureaucracy. Particularly useful would be monographs upon the actual operations of representative forms of public enterprise in underdeveloped countries (e.g., departmental-branch type organizations, mixed-ownership or public-private corporations, multiple-purpose public developmental corporations, specific-purpose public corporations, specific-purpose...
public corporations operated under contract by private corporations). Of concern, besides comparative efficiency and/or profitability of performance, are effects associated with differences in the personnel-recruiting methods available to private and to various types of public enterprise\(^{34}\).

It is generally agreed that the rate of economic development in a country is conditioned by the quality of its civil service, and above all when the role of public enterprise is great, or when the state is determined to bias private enterprise against some lines of activity and in favor of others\(^{35}\). Even so, the capacity of the civil service to affect the course of economic development is limited; in fact, it is likely to be commensurate with the capacities of many other of the growth-affecting forces found in a country, since so many of a country's conditions and societal attributes are reflected in "the nature and capacities of... (its) public bureaucracy"\(^{36}\). Accordingly, except in those rare instances in which members of a state's economy-

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oriented bureaucracy are decidedly superior to members of other branches of its bureaucracy and to leading private entrepreneurs, the growth-fomenting capacity of the civil service will tend to be in line with that of other public and private agencies of development. It follows that, even though the state aspires to a large economic role in many underdeveloped countries, realization of this aspiration usually is prevented by limitational factors, among them the magnitude and the quality of the bureaucracy. Historically the economic role of the state has varied, even though a technically competent and morally qualified bureaucracy was present and capable of extension. In some post-1800 Western countries this role consisted in providing not a great deal more than the minimal political, governmental, and legal requirements of economic growth; in post-1850 Germany and Japan, on the contrary, economic growth was great in part because the German and Japanese public bureaucracies were of superior quality. Today, given the minimal non-economic requirements of economic growth, the role of the state in economic development is susceptible of wide variation, provided that there exists a suitable bureaucracy to carry out this role; but even then (see Sections II and III) the assumption of a large role may make for misallocation of factors and other effects which retard economic growth.

The relative number of public administration employees is lower in many underdeveloped countries than in advanced countries, sometimes even when the ratio of current governmental expenditures to Gross National Product is about as high in underdeveloped as in developed countries. Thus, in most Latin American countries public administration employees constitute only 1–2 per cent of the population; the comparable figure for Egypt is 2.2 per cent; that for the United Kingdom 6 per cent. In Nigeria in 1957 there were but
46,000 men and women in the Federal Public Service to serve about 32 million inhabitants, and hardly one per cent of these was from Northern Nigeria\(^\text{39}\). This shortage, though unusually acute, is somewhat typical of that encountered in countries which have recently acquired political independence or a large amount of autonomy, with the result that many foreign officials have left\(^\text{40}\). Both because the units (i.e., public or civil service employees) are not very comparable at the international level, and because the effective demand for public service varies greatly from country to country, only limited inferences may be drawn from figures of the sort just presented.

In most underdeveloped countries, as is indicated in the references cited in this paragraph and elsewhere in this section, the public bureaucracy is qualitatively deficient in two respects of significance for economic development. First, many of the disabilities described in Section \(\text{iii}\) are encountered in these bureaucracies and must therefore be present in some degree in public enterprises\(^\text{41}\). Second, for with low civil service ratings is much greater in advanced countries. See \textit{ibid.}, p. 208; also \textsc{Berger, op. cit.}, p. 82. W. P. Tucker reports the ratio of federal government employees to population as being two-fifths as high in Mexico as in the United States. See \textit{The Mexican Government Today}, Minneapolis 1957, p. 130. It is paradoxical that, because of local cultural conditions, one may find some branches of an underdeveloped country's public administration overmanned by Western standards and others non-existent—prodigality in the use of manpower alongside poverty in its use.

\(^{39}\) I owe this figure to W. B. Hamilton; it is from a statement made by the premier of Nigeria in a debate in the course of which it was noted that the government could not fill all the jobs it had open. See Federation of Nigeria, House of Representatives, \textit{Debates}, Session 1957/1958, ii, Chaps. 1424–1429.

\(^{40}\) E.g., see Roy Jumper, "Problems of Public Administration in South Viet Nam", \textit{Far Eastern Survey}, xxvi, 1957, p. 186–189. Jumper reports the number of civil servants as approximating 25,000; the population approximates 12 million. The government's economic role is relatively large. See also Hugh Tinker, \textit{The Union of Burma: A Study of the First Years of Independence}, London 1957, Chap. 5, esp. p. 132, where the weakness of the Burmese secretariat is attributed to excessive centralization of authority, to internal friction, and to departmentalism.

\(^{41}\) Rigos (\textit{op. cit.}) mentions various manifestations of these disabilities (e.g., avoidance of responsibility, ineffective planning, administrative incompetence, inflexibility and weakness of drive, lack of loyalty, action-preventing controls, over-centralization, poor coordination, corruption, subordination of public to personal interests), some of which reflect technical or moral incompetence whereas others reflect regnant value patterns or tendencies inherent in existing bureau-
various reasons (e.g., shortage of educational facilities and of opportunity for suitable occupational experience; too great emphasis on legal or literary rather than on engineering, business, and administrative training; insufficient depersonalization of relationships among bureaucratic and other members of the government), public bureaucrats lack technical or administrative competence. Conditions vary with country. In some the bureaucracy remains unsuited to do effectively what needs to be done in a country seeking to develop its economic potential. In others the civil service enjoys great prestige, but the number of highly qualified bureaucrats remains small, and their effectiveness is reduced by the persistence of attitudes acquired in pre-independence times. The shortage of qualified personnel, cratic organizations. When economic development is one of the two or three most important objectives of a government, it is essential that it orient its organizational and bureaucratic structure, its coordinative processes, its budgetary practices, and its role vis-à-vis those of state and local governments to the requirements of economic development.


43. E.g., see Rafiq M. Khan and H.S. Stark, Young Pakistan, London 1951, p.175/176; also Pakistan, 1955/56 (Pakistan Publications), Karachi 1956, p.20/21; W.W. Grouch, “Civil Service in India”, Public Personnel Review, xvii, 1956, p.91; Ministry of Information and Broadcasting (Government of India), India, Delhi 1955, p.88–92. See also S.D. Bailey, Parliamentary Government in Southern Asia,
some of it entrepreneurial in character, is reflected in the annual reports of the Consultative Committee of the Colombo Plan and in most of the reports and recommendations of general survey missions of the International Bank for Reconstruction and Development. While these shortages tend to weaken the enforced requirements for admission into the civil service, they do not result in the elimination of irrelevant requirements in respect of entrepreneurs interested in serving in the public sector. In consequence, the shortage of qualified public entrepreneurs must be more acute than that of competent civil servants in general.

There is not much published information available respecting the direct impact of service with the government upon the aggregate supply of entrepreneurial service. A reduction of the latter might be brought about directly in two ways: (a) by drawing into the public bureaucracy—especially into its non-economic branches—individuals who would otherwise have been entrepreneurs; (b) by drawing into the public bureaucracy individuals with entrepreneurial ability and then dissipating this ability. Respecting (a) it may be observed that in India top management in public enterprise must be sought in the private sector and among foreigners since but few of the Government officials (from among whom, however, most of the top executives are chosen) have had the necessary training and experi-


44. See the reports for Colombia (p. 590 ff.); Guatemala (p. 262–264); Cuba (p. 453–455); Turkey (p. 49/50, 198–200); Iraq (p. 77–80); Nicaragua (p. 85–87); British Guiana (p. 84–86); Ceylon (Chaps. 3/4, 18); Syria (p. 193–199); Jordan (p. 430/431). On Guatemala see also K. A. Silvert, A Study in Government: Guatemala (Middle American Research Institute, Tulane University), New Orleans 1954, p. 32–34. On shortcomings in the civil service of Argentina, Brazil, and Chile, see A. F. MacDonald, Latin American Politics and Government, New York 1954, p. 106, 188, 333; on Honduras, W. S. Stokes, Honduras: An Area Study in Government, Madison 1950, p. 204/205; and on Uruguay, James D. Kitchen, "National Personnel Administration in Uruguay", Inter-American Economic Affairs, iv, 1950, p. 45–58. On defects in the Turkish civil service see also W. J. Siffin (ed.), Toward the Comparative Study of Public Administration, Bloomington 1957, p. 135, 176/177. See also E. O. Steene, Public Administration in the Phillipines (Institute of Public Administration, University of the Philippines), Manila 1955, p. 13–15, 31–34.
ence; and that this experience is encountered also in other countries. Hence, should the public sector be greatly expanded, this sector would suffer from a shortage of competent entrepreneurs at the same time that expansion of the public bureaucracy (membership in which carries prestige in India as in Pakistan and Ceylon) was diverting persons with entrepreneurial ability from private business careers but not necessarily into public entrepreneurial careers. In Egypt, where (as in much of the Near East) governmental employment still appears to carry more prestige than a career in private business, such employment is absorbing a large fraction of those among whom higher-level private entrepreneurs might eventually issue, and yet not necessarily recruiting these individuals for eventual service with public enterprise. Respecting (b) it may be said that in India far more than in Egypt efforts are being made, especially through

45. See BALDWIN, op. cit., p. 18/19; United Nations, Processes and Problems of Industrialization in Under-Developed Countries, p. 24/25, 30-33. Inasmuch as government still generates only about one-tenth of India's national product, the overall entrepreneurial requirement of the Government remains small. The demand for highly competent management is relatively great, however, because the size of a representative public enterprise usually is far above the average found in India. The importance of entrepreneurial and managerial problems is recognized, however. See Government of India, Second Five Year Plan, Delhi 1956, Chaps. 6, 23. Attention is being given also to ascertaining "to what extent possession of degrees can be dispensed with for the purposes of recruitment to public services" and to reorienting Indian education to the needs of economic development. See ibid., p. 512, and Chap. 23.

46. In Ceylon recently more than half of the college and secondary students declared that they wished to become civil servants. See THEODORE MORGAN, "The Economic Development of Ceylon", Annals of the American Academy of Political and Social Science, cccv, 1956, p. 96/97.

47. Although only around 2.2 per cent of the Egyptian population was in government service and government expenditure (less debt service and price subsidies) approximated only about one-sixth of national income, government employment in 1947 engaged about one-third of the population with a primary, secondary, or higher education, and in 1948-1950 absorbed about two-fifths of all secondary school graduates and about four-fifths of all college graduates. See BERGER, op. cit., p. 80-83, 91-93, 15. A sample study revealed about three-quarters of the respondents to be of urban origin and 8.7 per cent to be of small-merchant parentage (with most of the others sons of government employees, landlords, and peasants). Only about one-eighth of the respondents indicated that they would consider engaging in business or an independent profession. See ibid., p. 42, 45, 71, 86.
education, to increase the number of individuals from among whom many public and private entrepreneurs might be expected to emerge. At the same time, the internal and external environments in which public entrepreneurs now work, in India and (in greater measure) in Egypt, do not seem suited to make entrepreneurial abilities flower, and they may even dissipate such abilities.

From what has been said it may be inferred that in underdeveloped countries expansion of a public bureaucracy tends to be partly at the expense of the actual and potential supply of entrepreneurs available to the private sector, and that entrepreneurial ability is more likely *ceteris paribus* to undergo dissipation in the public than in the private sector.

**V**

**Conclusion.** It has been argued: (1) that underdeveloped countries are short both of individuals with entrepreneurial ability and of competent public bureaucrats; (2) that the public sector is not generally better suited than the private sector to transform inputs into outputs; and (3) that therefore economic growth tends to be retarded when (a) the public sector is expanded at the expense of the private sector and (b) it is required of public entrepreneurs that they possess attributes prescribed for membership in the public bureaucracy whether or not they also possess qualities requisite for entrepreneurial success. The argument has been related only to mixed economies though, if suitably qualified, it may also be related to state-dominated collectivist economies.


49. This qualification is important because a government, by stimulating the inflow of foreign entrepreneurs or by undertaking large-scale ventures, may provide some of its employees with experience and horizons not currently realizable in the private sector and thereby more than offset the effects of adverse elements present in the environment of public enterprise.
Underdeveloped economies may overcome the difficulty described in Section II in one of two ways. First, persons charged with the performance of entrepreneurial functions in the public sector may be exempted completely from the usual qualifications for membership in the public bureaucracy, or they may be enrolled in a special branch of the civil service, membership in which is made contingent on the supposed possession of entrepreneurial ability but not on that of governmentally specified bureaucratic attributes. This solution in either form is open to two objections: (1) it would tend to dilute civil service requirements in administrative sectors where their maintenance is essential and it would operate generally to reduce the overall quality of a public bureaucracy already qualitatively inadequate; (2) it fails to distinguish carefully between performance of entrepreneurial function and performance of what below is called the polity function.

The second solution consists in distinguishing carefully between entrepreneurial and polity functions and then (usually) in assigning the former to the private economic sector and the latter to the public administrative sector. The entrepreneurial function consists principally in efficiently and economically transforming inputs into desired outputs and sometimes also in suitably extending the range of desire. The polity function consists, in so far as economic development is concerned, in the careful formulation and in the pre-production planning and implementation of legislatively sought and approved programs designed to augment the rate at which types of economic and/or social overhead capital are formed and possibly also that at which various kinds of quasi-overhead wealth are accumulated. Performance of the polity function usually entails the adoption of much longer time-horizons than does execution of the entrepreneurial function; it therefore often has to do with situations in which the marginal social benefit supposedly exceeds both the marginal social cost and the realizable marginal private benefit. Performance of the polity function thus calls for different types of mind, different criteria, and different attitudes than does that of the entrepreneurial function. At the same time, the polity function having been performed and

an objective having been specified, the task of realizing this objective may usually be turned over to a native or to a foreign private entrepreneur whose function is then limited to transforming inputs into specified outputs until the objective sought is actualized. Under these circumstances presumably qualified public bureaucrats effectively carry out the polity function and presumably efficient private entrepreneurs exempt from all necessarily restrictive bureaucratic qualifications transform inputs into the objective sought by the public bureaucrats. Only in some instances (e.g., operation of educational, public health, public utility, etc., facilities) would transformation be carried out by public entrepreneurs, and in these instances care might be taken to prevent the introduction of unnecessarily restrictive bureaucratic qualifications. Ultimately then the second solution consists in minimizing (maximizing), in so far as the requirements of efficiency indicate, the extent to which the actual transformation of inputs into specified outputs is carried on in the public (private) economic sector. At the same time, the second solution permits the public sector to expand in so far as the augmentation of the supply of suitably qualified public entrepreneurs permit.

Regarding the difficulties described in Section III and partially illustrated in Section IV it may only be said that these are reducible, at least within limits. The manner of their reduction lies outside the purview of the present paper; only after considerable research, however, will it become fully enough known.

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SUMMARY

This paper has to do with mixed economies. Because of the essentiality of managerial and entrepreneurial skill to the economic development of relatively backward countries, economy in the allocation and use of this skill is of the greatest importance. Expansion of the public sector of an underdeveloped economy at the expense of its private sector may intensify the effective scarcity of utilizable entrepreneurial and managerial skill. Usually only individuals possessing qualifications of the sort stipulated in legislation relating to the public bureaucracy (or civil service) are eligible to undertake entrepreneurial functions in the public sector. Yet there are to be found in any representative country many individuals
with marked actual or potential entrepreneurial ability who lack some of the legally ordained prerequisites to membership in the public bureaucracy; these cannot serve in the public sector and are denied opportunity in the private sector in so far as activities are transferred to the public sector. Accordingly, as more and more economic activities are absorbed into the public sector, the amount of entrepreneurial and managerial skill available to direct these activities becomes smaller in relation to the volume of public entrepreneurial work to be done. Moreover, the rate at which persons are drawn into the entrepreneurial class tends to be reduced in the economy as a whole. The resulting scarcity of entrepreneurial skill in the public sector is not offset by greater efficiency in the use of this skill; at times in fact this skill is less efficiently used in the public than in the private sector. In general, therefore, misuse of scarce entrepreneurial skill through excessive expansion of the public sector tends to aggravate the extent to which a shortage of qualified public bureaucrats always operates to slow down the rate of economic development. Evidence is presented to support the view that this shortage is very pronounced, in terms of both numbers and quality.

A solution is not to be sought in exempting from civil-service requirements individuals selected to administer economic activities in the public sector. Such exemption might retard the development of a highly qualified and morally responsible public bureaucracy. At the same time private entrepreneurs cannot be counted upon to initiate some of the undertakings essential to a country's economic development. An appropriate division of functions between the state, on the one hand, and private enterprise, on the other, must be made. A strong case may be made for reserving largely to private enterprise responsibility for the actual transformation of inputs into specified outputs. The state remains free to specify many of these outputs, particularly those deemed essential to economic development, and to provide financial and other support requisite to the realization of these specified outputs.

ZUSAMMENFASSUNG

können nicht im öffentlichen Sektor tätig sein, und auch im privaten Sektor fehlt die Möglichkeit, soweit Tätigkeitsbereiche dem öffentlichen Sektor übertragen werden. Wenn mehr und mehr wirtschaftliche Tätigkeiten vom öffentlichen Sektor absorbiert werden, vermindert sich, im Verhältnis zum Umfang der öffentlichen Unternehmensaktivität, die Zahl der für die Leitung dieser Tätigkeiten verfügbaren Unternehmer und Manager. Zudem entsteht dann die Tendenz, dass Übertritte in die Unternehmerklasse in verlangsamtem Rhythmus erfolgen.

Die daraus resultierende Knappheit an unternehmerischen Fähigkeiten im öffentlichen Sektor wird nicht etwa aufgewogen durch größere Leistungsfähigkeit in der Verwendung dieser Fähigkeiten; manchmal werden sogar diese Fähigkeiten im öffentlichen Sektor weniger wirksam verwendet als im privaten. Deshalb führt im allgemeinen die falsche Verwendung von unternehmerischen Fähigkeiten als Folge einer übermäßigen Expansion des öffentlichen Sektors dazu, dass das Tempo der wirtschaftlichen Entwicklung, das durch eine Knappheit an qualifizierten öffentlichen Beamten ohnehin gememmt wird, sich noch weiter reduziert. Es wird gezeigt, dass diese Knappheit sehr beträchtlich ist, sowohl zahlenmäßig wie in bezug auf Qualität.


**RESUMÉ**

Administration publique, structure des ressources et développement économique. Cet article concerne les économies mixtes. Etant donné que les qualités des directeurs et chefs d’entreprises sont essentielles pour l’évolution économique des pays relativement arriérés, la répartition et l’utilisation appropriées de ces qualités sont de la plus haute importance. L’expansion du secteur public d’une économie sous-développée aux dépens de son secteur privé peut accentuer la rareté existante de capacités aux fonctions d’entrepreneur et de directeur. Habituellement, seules les personnes possédant les qualifications de la nature de celles qui sont stipulées par la législation concernant l’administration publique (ou service de l’État) sont éligibles aux fonctions d’entrepreneur dans le service public. Cependant, il
PUBLIC BUREAUCRACY

Il existe dans chaque pays de nombreuses personnes ayant des qualités d'entrepreneur effectives ou potentielles, mais auxquelles il manque quelques-unes des conditions préalables fixées légalement pour faire partie de l'administration publique; celles-ci ne peuvent servir dans le secteur public et se voient refuser toute possibilité dans le secteur privé dans la mesure où des activités économiques sont transférées au secteur public. Par conséquent, si les activités économiques sont absorbées de plus en plus par le secteur public, le nombre des entrepreneurs et administrateurs qualifiés susceptibles de diriger ces activités diminuera par rapport au volume des tâches à accomplir par l'Etat. De plus, le taux des personnes attirées dans la catégorie des entrepreneurs tend à être réduit dans l'économie considérée comme un tout. Il en résulte une rareté de capacités aux fonctions d'entrepreneur qui n'est pas compensée par une «efficience» plus grande dans l'utilisation de ces capacités; parfois, ces capacités sont en fait utilisées moins efficacement dans le secteur public que dans le secteur privé. C'est pourquoi, en général, la mauvaise utilisation des personnes aptes aux fonctions d'entrepreneur, par suite d'une expansion excessive du secteur public, tend à aggraver la mesure dans laquelle une pénurie de fonctionnaires qualifiés ralentit de toute façon le rythme du développement économique. Il est démontré que cette pénurie est très forte, tant en quantité qu'en qualité.

La solution de ce problème ne doit pas être cherchée en exemptant des prescriptions légales les gens choisis pour diriger des activités économiques dans le secteur public. Une telle exemption pourrait retarder le développement d'un corps de fonctionnaires hautement qualifiés et moralement responsables. D'autre part, on ne saurait escompter que les entrepreneurs privés prennent l'initiative de quelques-uns des programmes essentiels au développement économique d'un pays. Une division judicieuse des fonctions doit être faite entre l'Etat d'une part et les entreprises privées d'autre part. Il y a de fortes raisons pour que la production de biens et la prestation de services soient en principe réservées à la responsabilité de l'entreprise privée. L'Etat demeure libre de déterminer lui-même nombre de ces produits finis, en particulier ceux qui sont jugés essentiels au développement économique, et de fournir l'aide financière ou autres appuis nécessaires à leur fabrication.
WAGES AND AGGREGATE EMPLOYMENT

I. INTRODUCTION: RECENT DISCUSSIONS

Despite some recent contributions, the relation of wages to aggregate employment has, since Keynes' *General Theory*, remained an unsettled issue in the economic literature. Keynes showed that one must consider the roundabout effects of wage changes on the investment and consumption components of final demand, before coming to any conclusion on whether a particular wage variation would cause employment to increase or decrease. He concluded that administered wage variations in general would do injustice to some income groups, and could do little that a flexible monetary policy could not do. Wage reductions, in particular, would increase the burden of indebtedness and might lead to unfavorable price and wage expectations. A stable general money-wage level was to be preferred over other alternatives.

Two recent discussions, by Weintraub and Bronfenbrenner, have reexamined the question with the help of Keynesian tools, and have come to conclusions not far from those of the classical economists. Their arguments deserve some discussion here before we proceed with the main purpose of this paper: to reduce the indeterminateness of the wage-employment relation in a situation where underemployed resources are available.

(1) Weintraub develops aggregate demand and supply functions which relate total final expenditure and total required supply proceeds to the quantity of employment. These are constructed on the basis of constant money wages and other factor prices, and assume a constant stock of equipment. With employment on the horizontal axis, and total proceeds on the vertical axis, the supply function

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ultimately turns upward because of diminishing returns. The demand function is above the supply function at low employment but turns downward with higher employment, because consumption diminishes as a share of rising disposable income, because taxes take an increasing share of factor income, and because fixed outlays and dividends vary proportionately less than profits. Investment demand as a function of employment is added to consumption, but in Weintraub's model does not greatly alter the shape of the total demand function. The two functions thus cross in the standard way to give a stable level of employment.

The important question Weintraub wishes to answer is then how the aggregate supply and demand curves shift as a result of changes in the wage rate. Corresponding to each wage level is a new demand and a new supply function, and the path of their intersections shows the equilibrium levels of employment and aggregate proceeds (or national income in money terms with a varying price level). Corresponding to this locus is a "demand curve" for labor, which plots the wage-employment points taken from the other diagram. Is this curve likely to be downward or upward-sloping, i.e., "classical" or "underconsumptionist" in shape (as Weintraub terms them)? Weintraub finds good reason to believe that the curve is of moderately classical form.

We may summarize his argument as follows: Assume at first that when money wages are increased required money profits tend to rise proportionately, because employers seek to protect their real profits against encroachment. Thus the price-level rise approximately matches the wage increase, and there is little transfer of income between entrepreneurs and wage earners. There is only some loss of income from rentiers to the other two groups, as prices rise. Required supply proceeds shift upward by the amount that the wages bill and required profits increase. Consumption expenditures, on the other hand, shift by the sum of the entire wage-bill increase plus a fraction of the profit increase. This fraction is rather small, because part of profits is retained as corporate saving and part goes for corporate taxes. In addition, he argues, a higher personal tax rate is paid by shareholders than previously, so that less disposable income accrues per dollar of dividends than before. As a result mainly of the leakages from corporate profits, the upward shift of aggregate demand in
money terms tends to be less than the shift of aggregate supply pro-
ceeds. Oversupply develops and employment falls until a new equi-
librium is reached; thus we come out with a demand function which is
classical in shape.

Accepting for the moment the assumption of prices moving almost
proportionately with wages, can we find anything defective in this
argument? There is no denying that the corporate-profits leakage
exists, but this does not signify any increase of real corporate saving
or tax payments. All that has occurred is a change in money units
with constant real saving. Nor does Weintraub give any reason to
expect real investment to fall. In fact, he gives reasons for expecting
it to remain approximately the same, so that money investment will
rise in the same proportion as prices. Consumption has risen ab-
солutely less in money terms than required supply proceeds, but it
too has risen by the same proportion; and this rise is sufficient to
preserve the equality between the sum of desired consumption and
investment and aggregate supply. If aggregate supply were given an
initial value of 4, consumption of 3, and investment of 1, a rise of
wages and prices each by 25% would give a new equilibrium equa-
tion. This would read: $4 + 1 = (3 + \frac{3}{4}) + (1 + \frac{1}{4})$. Clearly there has
been no disturbance of equilibrium and no reason for employment
to fall. Weintraub appears to have compared the supply only with
the consumption change and not with the sum of consumption and
investment.

What happens if we admit the possibility of prices rising by a
smaller proportion than wages? Here Weintraub agrees that there
would be a redistribution of income, with a probable increase of
consumption demand, and rise of employment. However, he regards
the likelihood of significant redistribution to be weak, because wages
are the predominant share of marginal cost and because entre-
preneurs will resist a whittling away of their real income by labor.
We shall postpone our comment on this point until Part 2, where
reasons are given for believing that real wages will in fact generally
move in the same direction as money wages.

3. Weintraub, op. cit., p. 846. However, he admits that expectations of rising
prices due to the wage increase can reverse this outcome by causing an investment
bulge. Another exception may occur through “an unlikely and fairly extreme
income transfer to wage earners”.
(2) Bronfenbrenner's argument bears some similarity to that of Weintraub. He too considers the change of demand in money terms by wage earners and entrepreneurs, in response to a money-wage increase, and compares this demand change with the change in price level. However, his spending propensities include both consumption and investment responses. In the case of wage earners the purchase of housing is included in investment demand, while investment by entrepreneurs is defined in the usual way. He concludes that, when thus defined, the spending propensities of wage earners are not likely to exceed by much those of entrepreneurs.

Part of a money-wage increase (the fraction $k$) is absorbed in reduced money profits and part (the fraction $(1-k)$) is passed on in higher prices. If $m$ is the marginal propensity to spend of wage earners, and $m'$ that of employers, the change of money demand per unit of money-wage increase will be $m-km'$, i.e., the increase of workers' spending less the reduction of entrepreneurs' spending due to the loss of money profits. On the other hand, the price level has risen by $(1-k)$ times the wage increase. Thus for real output and employment to increase, it is necessary that $(m-km') > 1-k$, i.e., spending for consumption and investment per dollar of wage increase must exceed the corresponding increase of prices. On the face of it, a strong likelihood of employment falling through an increase of wages exists, and this is stronger the greater the response of the price level to wage changes.

Despite the attractive simplicity of Bronfenbrenner's formulation, a bias can be pointed out in his use of spending propensities defined in real terms to relate quantities in money units of changing purchasing power. When the price level rises, wage earners' expenditure increases will consist of two parts: That given by $m$, which assumes no price change, and an additional part to compensate for the rise in prices by $(1-k)$. Entrepreneurs' money expenditures tend to fall by less than $m'$ for an analogous reason: They adjust their spending upward to compensate for the rise in prices. Thus $m'$ overstates their

4. He then proceeds to add complications to this basic condition, by considering the impact elasticity of demand for labor, and by dividing the capitalist group into rentiers and entrepreneurs. The impact demand change for labor will be dealt with below, where we argue that it can be ignored in practice. See Bronfenbrenner, op. cit., p. 461/462.
expenditure reduction. But deflating \( m' \) by the fraction \( k \) tends to counter-balance this overstatement. We can therefore say that \( (m - km') \) together understates the increase of money expenditure (since the first term remains understated) and that Bronfenbrenner gives an inaccurate statement of the condition for an increase of employment\(^5\).

The simplest correction for this bias is to restate the proposition in real terms. Then the gain of real income to wage earners would be equal to the loss suffered by entrepreneurs, and Bronfenbrenner’s critical condition would reduce to \( m - m' \geq 0 \). The outcome then depends simply on the relative magnitudes of the two spending propensities.

If it is desired to show how the degree of price response to wage changes will dampen the redistribution effect, we can reformulate the condition to read:

\[
(1 - epw)(m - m') \geq 0,
\]

where \( epw \) is the elasticity of price-level response to a money-wage change. If \( epw = 1 \), entrepreneurs will have succeeded in retaining the initial real-profit rate by raising prices proportionately with wages. If \( epw > 1 \), which seems very unlikely in a situation with free resources, the money-wage increase causes a shift of real income from workers to employers. With \( epw < 1 \), the most likely case, the price increase merely dampens the effect of the wage increase; and the direction of employment response still depends on whether wage-earners’ spending propensities exceed those of employers.

5. K. W. ROTHSCHILD comments on the Bronfenbrenner condition that it assumes “complete money illusion”. That is, all recipients of changed income alter their spending by the same money amount as if the price level had not changed. He then develops an alternative formula for absence of money illusion (Bronfenbrenner’s own assumption), which is formally different from but accords with our own. He finds the critical condition for a wage rise to increase employment to be: \( K > -C_o/W_o \) where \( C_o \) and \( W_o \) are initial total incomes of entrepreneurs and employers respectively. \( K = 0 \) means that entrepreneurs demand only the same money profits as before. If entrepreneurs demand the same real profits as before, then \( K \) is negative and equal to \( -C_o/W_o \). See K. W. ROTHSCHILD, “Aggregative Wage Theory and Money Illusion”, *Journal of Political Economy*, lxv (1957), October, p. 442-445; also BRONFENBRENNER, “Reply”, p. 445-447; ROTHSCHILD, “Rejoinder”, p. 447/448.
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II. AN ALTERNATIVE FORMULATION

In the present writer's view much of the difficulty encountered by the two writers above lies in their formulation of the problem partly in real and partly in money terms. This approach also characterizes several other discussions of the question, with equally unsatisfactory results. For this reason we propose here to reformulate the issue in real terms throughout. It also seems preferable, in contrast to Bronfenbrenner, to deal with consumption and investment responses separately, as the latter are determined by a set of forces different from those operating on the former. In addition we shall deal with the short-run responses of employers to factor-price changes. These were included by Bronfenbrenner among the forces determining the direction of employment change, while Keynes argued that they had no effect on the final outcome.

The Relation of Real to Money Wages

The first contention to be made is that real wages generally move in the same direction as money wages. Since this is important to the further argument, and since other writers have not made use of such an assumption, we shall examine whether it is realistic.

Table 1 compares wage movements in United States manufacturing with the cost of living. It shows that wages and prices have risen together in every year since 1947, but that prices have lagged behind. But over the two decades 1919 to 1929 and 1929 to 1939, money wages rose while the cost of living fell. Thus it would appear that in the postwar years unions have been successful in obtaining real-wage increases with their money-wage advances. Moreover, the data for the interwar period support the view that wages may increase continuously by moderate amounts without raising prices if productivity rises at the same time.

It is not difficult to find explanations for the relative stability of prices in the face of wage changes. First, entrepreneurs have little basis for estimating changes of demand in their particular industries, as a roundabout consequence of wage-level changes. They, therefore, are likely to assume that whatever estimate they have of industry demand still holds. Second, with differentiated products, consumer resistance to price increases must be overcome. This obstacle may diminish in time, but it reduces the attractiveness of an immediate price increase. Third, a firm may be uncertain about the behavior of rival firms in the same industry. If the firm gives heavy weight to the possibility that rivals will stick to their old prices, it will prefer to follow the same course rather than lose trade. Fourth, given less-than-full employment, the firm may well be operating at falling average cost; and a price increase may therefore have less appeal than a possible output increase.

Over a longer period (a year or more) these resistances weaken, but other forces then also operate. Technological change will shift cost curves downward by varying degrees for different industries; and

Table 1
Average Hourly Earnings in Manufacturing and Cost of Living in the United States, 1919–1954

<table>
<thead>
<tr>
<th>Year</th>
<th>Hourly Earnings</th>
<th>Cost of Living</th>
<th>&quot;Real&quot; Hourly Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>0.477</td>
<td>74.0</td>
<td>0.645</td>
</tr>
<tr>
<td>1929</td>
<td>0.566</td>
<td>73.3</td>
<td>0.772</td>
</tr>
<tr>
<td>1939</td>
<td>0.633</td>
<td>59.4</td>
<td>1.07</td>
</tr>
<tr>
<td>1947</td>
<td>1.237</td>
<td>95.5</td>
<td>1.30</td>
</tr>
<tr>
<td>1948</td>
<td>1.350</td>
<td>102.8</td>
<td>1.33</td>
</tr>
<tr>
<td>1949</td>
<td>1.401</td>
<td>101.8</td>
<td>1.38</td>
</tr>
<tr>
<td>1950</td>
<td>1.465</td>
<td>102.8</td>
<td>1.42</td>
</tr>
<tr>
<td>1951</td>
<td>1.59</td>
<td>111.0</td>
<td>1.43</td>
</tr>
<tr>
<td>1952</td>
<td>1.67</td>
<td>113.5</td>
<td>1.47</td>
</tr>
<tr>
<td>1953</td>
<td>1.77</td>
<td>114.4</td>
<td>1.55</td>
</tr>
<tr>
<td>1954</td>
<td>1.81</td>
<td>114.8</td>
<td>1.58</td>
</tr>
</tbody>
</table>

3. Col. 1/Col. 2.
the accumulation of capital has the same effect with respect to labor cost since it raises labor's marginal product. Thus the weakening pressure from the cost side tends to balance the diminishing institutional resistances to price increases, as the period lengthens.

**The Consumption Effect**

While the foregoing makes it seem safe to assume that money-wage increases result in redistribution of real income to wage earners, is the redistribution certain to raise the share of consumption out of income?

If we are considering the long-period equilibrium level of consumption which accompanies a permanent redistribution, Duesenberry's interdependence hypothesis is relevant. This states that each household's expenditure is a positive function of its own and other households' incomes. If the upper-income households have stronger influence than the middle- and lower-income households on the consumption of most units, then raising labor's share of total income will lower aggregate consumption. Whether consumption takes this particular emulative form or another is open to debate, but at least this outcome must be included as one of the possibilities.

Another element of doubt is due to the fact that wage increases come largely at the expense of the owners of business, who hold marketable claims to business earnings. A loss in the market values of shares can be expected to follow a decline of profits. Is this an additional force tending to reduce the consumption of the share-owning group? This can be shown to be the case by comparing two persons with equal incomes, A receiving his entirely as salary, B receiving his entirely out of dividend income. B is likely to consume more than A because he has no need to accumulate more capital in order to maintain his present income the rest of his life. A on the other hand must accumulate capital against his retirement. Now let both suffer an equal permanent reduction of income. Both would reduce consumption in proportion to income, but for B this would be a greater absolute reduction than for A. The conclusion therefore is that a permanent reduction of property income leads to a greater

reduction of consumption than would a corresponding reduction of wage or salary income from the same initial level.

A comparison of postwar with prewar personal savings data, if anything, strengthens doubts about the upward effect of redistribution on consumption. The 1935–1939 average share of personal saving in disposable income for the United States was 4.0%; for the period 1950–1954 it was 7.3%. This increase took place despite a very considerable evening out of income distribution between the two periods.

The main reason for expecting real consumption to increase with wages is to be found in the corporate-savings trap. For the period 1948–1955 in the United States the aggregate corporate-savings ratio to profits after tax was 0.52; the ratio of first differences of savings to profits was 0.89. The latter ratio implies that a short-period reduction of profits causes a very small proportionate reduction of dividend payments; the former implies that a permanent reduction would cause a decline of disposable income to stockholders of about one-half the profit loss. It is thus clear that the marginal expenditure reduction of shareholders out of a unit of disposable income could be considerably greater than that of wage-earners, and still permit consumption to rise as a result of the real-wage increase.

It might be argued in addition that the higher marginal tax on corporate income, first through the corporate income tax and then through the personal tax on dividend recipients, is an additional factor supporting an increase of consumption. In effect, this is saying that the government will permit tax receipts to fall, and disposable income to increase, when the distribution of income is shifted. But to the extent that the price level does rise with wages, personal incomes generally move into higher tax categories; and so the reduction in taxes out of income from the first cause tends to be offset by the increase due to the second. Moreover, it seems questionable to argue that the government will permit its real expenditures and receipts to change, except temporarily, as a result of accidental forces.

The Investment Effect

The impact of higher wages on investment can be divided into at least three elements, which do not all work in the same direction.
First is the increased relative profitability of more capitalistic techniques. Second is the reduction of profits, at least temporary, which affects both expectations and the availability of finance for business investment. Third is the effect of higher wages on residential construction.

(1) With a given rate of interest, and assuming that firms generally take actions which increase or maintain profits, while avoiding those which reduce profits, a rise of real wages is an inducement to employ more capital—and less labor—using techniques. We assume that capital goods prices, like prices in general, have risen less than money wages. For the economy as a whole one may think of a continuous array of techniques arranged in order of their capital intensity. For single industries a discontinuous array is a better description. This means that not all parts of the economy will react to moderate wage changes, but that there will always be some firms and industries at the sensitive margin.

For a given expected level of output, a one-time increase of wages stimulates a higher rate of investment, which will continue until the old capital stock has been replaced by capital embodying the new techniques. If the wage increase is great enough, it may lead to premature scrapping of equipment, and a correspondingly higher rate of investment. If the wage increase is small, there will be little premature scrapping because the old equipment still earns quasi-rent. But the rate of gross investment, even with constant expected output, will exceed the rate of depreciation.

(2) The role of profit changes is the more complex question. Profits are associated causally both with expectations and with the availability of finance. It seems unlikely that, in a growing economy with favorable expectations as to demand and technical development, rising wages would have much effect on expectations of future profits. However, the effect would be stronger in the labor-intensive industries than elsewhere. On the other hand, the reduced availability of real finance through reduced profits tends to have a negative effect. This applies at least to small firms with inadequate reserves, and with access to outside funds only on undesirable terms or in

8. See Joan Robinson, The Accumulation of Capital, London 1956, Ch. 10, for a useful discussion of the spectrum of available techniques, and for references to Wicksell.
inadequate magnitude. For the larger firms, who are usually well situated in both respects, a moderate dip in profits is not likely to have a significant restrictive effect on finances, remembering that profits after tax fall by less than the increase of the wages bill.

An indication of the relative importance of larger firms in manufacturing in the United States is given by the following data: In 1954, firms with assets more than $100 million accounted for 55.5% of total manufacturing assets: those with more than $5 million accounted for 82.2% of the total. In profits (before Federal tax) the concentration in medium-size and large firms was even more dramatic: 62.2% of total profits were earned by the large, and 90.8% were earned by the medium and large firms together. The implication is that most of investment would be accounted for by financially strong firms who also have relatively easy access to outside financing when the need arises.

(3) An important additional investment sector is residential construction. Here similar considerations apply as for consumption spending. If the groups receiving property income had the same marginal investment propensity for housing as wage earners, housing demand would increase with real wages (because total disposable income has increased). But there is reason to expect the spending response per dollar of disposable income for dividend recipients to be less than for wage earners. For the recipients of property income are likely to be more nearly satiated with respect to housing than wage earners, so that their marginal investment propensity relative to permanent income will be smaller.

To sum up the investment effect of a wage increase, we may say that the tendency to substitute capital for labor, and the response of housing investment are both likely to operate in a positive direction. But the reduction of profits acts negatively, so that the first and the third effects must outweigh the second in order to give a net positive effect. On balance, this outcome seems probable.

**Short-Run Employer Reactions**

The next question is whether the increase in the price of labor services relative to product prices induces an immediate short-run reduction of employment. If the employer views his market demand
as given, he may initially economize on labor in the process of maximizing profits.

Keynes considered this possibility and concluded that such a reaction by employers could only have a temporary effect on output and employment. For with a given desired rate of investment, and an aggregate marginal propensity to consume less than one, a reduction of output would lead to involuntary disinvestment. Consumption would decline by less than output and the excess of consumption over output would be met through a depletion of stocks. Sooner or later output must return to the equilibrium level.

On the other hand, Bronfenbrenner introduced the impact response of employers as one of the determinants of the direction of the change of employment. Since this response was likely to be negative, if small, he regarded it as an additional force giving a classical form to the labor demand function. It therefore behoves us to discover whether the position taken by Keynes requires qualification.

The Keynesian view is correct when the desired rate of investment is independent of changes in the rate of output. However, when the secondary investment response is great enough to give the economy an inherent instability, the temporary employment impact may conceivably cause a cumulative downward movement of national income. One can therefore not always neglect the short-run effects of employer responses, even when seeking only the final equilibrium outcome.

Investment caused by changes in the rate of expected output is not a determinant of the direction of change in the level of employment. It does however determine the magnitude of the employment response induced by the primary forces above. Here two possibilities at least must be considered: (1) The secondary response of investment, given the magnitude and lags in the marginal propensity to consume, is small enough to give a damped adjustment of employment and output to a new level of equilibrium. (2) The secondary response of investment is so large that an explosive adjustment of employment follows.

(1) If the first possibility applies, then Keynes was correct in saying that the short-run adjustment of output by firms has no effect on the equilibrium outcome. An increase of wages then leads to a new equilibrium level of employment determined by the consumption and primary investment responses. The short-run output change due to changes in costs will only effect the path toward the new equilibrium. If it is correct that income redistribution and primary investment can be expected to operate in a positive direction, the level of employment will rise to a new equilibrium when wages are raised.

(2) If the second possibility applies, then all three factors must be considered in determining the final outcome: (a) The negative short-run employment effect may outweigh the positive effects of redistribution and primary investment and cause an explosive downward movement of income. A very considerable fall of income may occur before a limit to disinvestment set by depreciation, or a favorable change of expectations, stops the decline and reverses it. (b) The two positive forces may outweigh the negative short-run employment effect. In this case there is an upward explosive movement of income. This too may continue some long way before striking a barrier set by the capacity of capital-goods industries or by the supply of labor.

_A priori_, there is little to choose among possibilities (1), (2a) and (2b). It is just as conceivable that an increase of wages would cause an explosive downward movement of income and employment, as that it would cause an upward movement, either damped or explosive. However, there is reason for believing that (2a) is the least likely of the possibilities because the short-run employment effect is probably very small.

See also the discussion by R. G. D. Allen in *Mathematical Economics*, London 1936, Ch. 7. In the simplest form of lagged multiplier-accelerator model, an accelerator coefficient greater than one would give an explosive income response.

12. See in particular the findings of Lester in his well-known empirical study, "Shortcomings of Marginal Analysis for Wage-Employment Problems", *American Economic Review*, xxxvi (1946), p. 63–82. The finding of interest here is that his Southern manufacturers gave very little stress to employment and output reductions in response to wage increases, but a great deal more to "improved methods and efficiency" and to the installation of labor-saving machinery (see his Table 3). The last supports the present writer's argument that substitution of capital for labor will take place in response to higher wages. The first of these findings is also noted approvingly by Bronfenbrenner.
In addition we may bring the discussion closer to reality by saying something about the probable behavior of monetary and fiscal authorities when cumulative movements of income and employment get under way. The monetary authorities can be expected to damp the variations of investment and consumer durable purchases, as they observe fluctuations in overall activity. The fiscal mechanism compensates employment variations to a large extent automatically, reducing the multiplier by damping the variations in disposable income, and reducing the investment response by acting similarly on business profits. Moreover, conscious fiscal measures are likely to be taken when the first two forces do not suffice to prevent cumulative movements.

If we accept this optimistic view of monetary and fiscal policies, we can treat the two explosive cases as unlikely. This leaves us with the damped case (1), for which Keynes' finding applies: Short-run responses of employers are unimportant and we need consider only the effects on consumption and on primary investment. And these led us to expect a positive relation between wages and employment.

Qualifications

We have so far omitted mention of three points which might modify the outcome of the previous discussion. These are the change in real-value of net assets due to price-level changes; the effect of price-level responses on expectations; and the effect of the price level on the balance of trade. There may well be some rise in the price level in response to higher wages, if less than proportionate. To the extent that the purchasing power of net assets of the private sector (measured by the sum of government debt and gold and foreign-exchange reserves) falls, this would have some downward effect on real demand.

On the other hand, if prices rise, investment will tend to be stimulated by the expectation that future prices are more likely to rise than to fall. This force tends to compensate the real-balance effect, although it is more temporary than the latter.

Finally, a rise in the price level tends to stimulate imports and depress exports. However, if this should take place, it is reasonable to assume that the government would take appropriate measures.
(such as exchange-rate adjustment) to restore the balance of trade to its previous equilibrium.

These three modifications together may on balance dampen somewhat the stimulus to employment from the wage increase. However, it seems unlikely that they would in a real situation reverse the previous conclusion.

III. SECULAR WAGE INCREASES

If the foregoing discussion has correctly shown the wage-employment relation, it may be desirable to indicate the role of secular wage increases in maintaining the growth of demand over time. If the wage rate and labor force remained constant, the profit share of national income would grow with advancing technology and a growing capital stock. This shift in distribution would cause consumption to fall as a share of income, for the reasons given above. The share to be taken up by investment would have to increase; but lagging consumption and the decline of wages relative to the prices of capital goods (wages become a smaller share in the prices of all goods) would tend to retard investment.

A secular rise in wages at the same speed as the growth in potential output would act to maintain the relative consumption share; for the wages bill would then increase as fast as output and profits. The gap to be filled by investment would remain a constant proportion of output, and the stimulus to investment from growing output would be greater than in the previous case.

A further question is whether the real-wage rate could be increased continuously at a speed faster than the growth of output (still assuming a constant labor force). In this case the stimulus to investment would come from two sides: the growth of output, and the substitution of capital for labor with the rise in wages relative to capital-goods prices. Is there any reason to expect entrepreneurs to demand a constant share of profits in output, or would they accept a share which grows absolutely over time but declines relatively to that of labor? This question can not be answered definitely, but there is no particular reason to take a constant percentage mark-up of costs as the only possible basis for profit calculations.
If the labor force were growing simultaneously with output, a wage-rate increase less than proportional to output would be called for in order to maintain a constant consumption share. But as long as the labor force grows more slowly than output, a secular rise of wages would be required in order to maintain the consumption part. Whether consumption should take a constant, increasing, or decreasing share of output would depend on a multitude of considerations; but in general our argument has led to conclusions closer in spirit to the underconsumptionist than to the classical view.

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SUMMARY

Post-Keynesian discussions of the wages—aggregate employment problem have generally led to results which were either inconclusive or questionable. Two recent examples are the papers of Weintraub and Bronfenbrenner, which examined the effects of wage changes on aggregate monetary demand and supply and came to conclusions resembling the classical view. Both they and other writers had difficulties as a result of considering supply and demand changes in money, rather than in real, terms.

The present paper examines the same question in real terms after showing that money wage increases are in fact generally accompanied by real wage rises. It shows that a shift of income from stockholders to wage earners can not be counted on to raise consumption demand. However, a wage increase will raise disposable personal income at the expense of corporate profits, and thus cause consumption to increase.

The response of investment to a wage increase is dealt with under the separate headings of manufacturing investment and residential construction. The former will be influenced by changes in profit expectations, by the availability of finance, and by the strength of the factor-substitution effect. Profit expectations are not likely to be affected adversely if a further growth in final demand is anticipated. The real value of funds for investment will diminish with reduced profits; but this force will affect mainly small firms with limited access to funds, and such firms account for only a small part of total investment. The tendency to substitute capital for labor will act as a stimulus to investment. Taking these three forces together leads the writer to conclude that industrial investment will probably increase when wages rise. Finally, housing investment can be expected to react to the increase of disposable income in the same way as consumption.
The short-run response of employers to a rise in their production costs relative to expected demand can only have an effect on the direction of employment change in an inherently unstable economy. In a system where stability can be expected as a result both of government measures and of built-in stabilizers, we can therefore neglect short-run reactions as unimportant to the final outcome. The consumption and investment effects can then be taken as the sole determinants of the direction of employment change. These together make a positive response of employment to wages seem highly probable.

LOTNNIVEAU UND GESAMTBESCHÄFTIGUNG. Die Diskussionen des Verhältnisses zwischen Lohnniveau und Gesamtbeschäftigung haben in der nach-keynsschen Epoche zu Ergebnissen geführt, die entweder ungewiss oder fragwürdig sind. Zwei neuere Beispiele dafür sind die Aufsätze von Weintraub und Bronfenbrenner, die die Auswirkungen einer Lohnänderung auf die Gesamtnachfrage und das Gesamtangebot, gemessen in Geldseinheiten, untersucht haben und zu ähnlichen Ergebnissen gekommen sind wie die Klassiker. Diese und andere Autoren sind in gewisse Schwierigkeiten geraten, eben weil sie die Angebots- und Nachfrageänderungen in monetären anstatt in realen Einheiten dargelegt haben.


Die Reaktion der Investitionen auf eine Lohn erhöhung wird getrennt untersucht nach Industrieinvestitionen und Wohnungsbau. Der Umfang der Industrieinvestitionen wird bestimmt von den Gewinnerwartungen, der Grösse der vorhandenen Finanzierungsmittel und von der Stärke der Tendenz zur Faktoren substitution. Die Gewinnerwartungen würden wahrscheinlich nicht negativ beeinflusst, solange eine weitere Zunahme der Endnachfrage erwartet wird. Dagegen wird sich die Menge der realen Investitionsmittel vermindern; aber dadurch würden hauptsächlich die kleinen Unternehmen, die nur unzulängliche Finanzierungsmittel haben, benachteiligt, und diese spielen für die Gesamtinvestition eine unbedeutende Rolle. Die Substitution zwischen Kapital und Arbeitskraft wird belebend auf die Investition wirken. Auf Grund dieser verschiedenen Momente vertritt der Verfasser die Ansicht, dass die Investition wahrscheinlich zunehmen würde, wenn die Löhne steigen. Schliesslich ist zu erwarten, dass der Wohnungsbau ähnlich auf die Vergrösserung des verfügbaren Einkommens reagiert wie die Konsummehrfrage.

Die kurzfristige Reaktion der Unternehmer auf die ungünstige Änderung des Verhältnisses zwischen Produktionskosten und erwarteter Nachfrage kann nur
im Falle einer unstabilen Wirtschaft eine Rolle spielen. In einer Volkswirtschaft, in der die Stabilität durch staatliche Massnahmen und durch eingebaute Stabilisatoren erhalten bleibt, kann man die kurzfristigen Unternehmerreaktionen als unbedeutend für das Endergebnis vernachlässigen.

Die Konsum- und Investitionseffekte können somit als alleinige Bestimmungsfaktoren der Richtung der Beschäftigungssänderung betrachtet werden. Mit grosser Wahrscheinlichkeit bewirken diese beiden Faktoren zusammen eine positive Reaktion der Beschäftigung auf eine Lohnänderung.

RÉSUMÉ

Niveau des salaires et emploi global. Les discussions sur la relation entre le niveau des salaires et l'emploi global ont conduit, dans la période post-keynésienne, à des résultats qui ont été soit incertains, soit contestables. Deux exemples récents sont fournis par les études de Weintraub et de Bronfenbrenner qui ont examiné les effets d'une modification des salaires sur la demande et l'offre globale, mesurées en unités monétaires, et qui sont arrivés à des conclusions semblables à celles des classiques. Ces deux auteurs, et d'autres encore, ont éprouvé des difficultés parce qu'ils ont considéré les modifications de l'offre et de la demande en unités monétaires et non en grandeurs réelles.

Le présent article examine la même question en grandeurs réelles après avoir montré que les augmentations de salaires, en unités monétaires, sont en fait accompagnées généralement de hausses réelles des salaires. Il est ensuite indiqué qu'une redistribution des revenus, au détriment des actionnaires et en faveur des salariés, ne conduit probablement pas à un accroissement de la demande de biens de consommation. Cependant, une élévation des salaires augmentera le revenu personnel disponible au détriment des bénéfices des sociétés et, de ce fait, accroîtra la demande de biens de consommation.

La réaction des investissements à une augmentation de salaires est examinée séparément, selon qu'il s'agit d'investissements industriels ou de la construction d'habitations. Le volume des investissements industriels sera influencé par les changements dans les expectations de profits, l'importance des moyens financiers disponibles et la plus ou moins forte tendance à la substitution des facteurs de production. Les expectations de profits ne sont probablement pas influencées négativement tant qu'un nouvel accroissement de la demande finale est attendu. La valeur réelle des fonds destinés aux investissements diminuera avec des profits réduits; mais cela affectera surtout les petites entreprises aux moyens limités et celles-ci ne comptent que pour une faible part dans les investissements globaux. La tendance à substituer le capital au travail agira comme un stimulant sur les investissements. En considérant ces trois forces ensemble, l'auteur est amené à conclure que les investissements industriels augmenteront probablement quand les salaires s'élèvent. Enfin, il faut s'attendre à ce que la construction d'habitations réagisse à l'accroissement du revenu disponible de la même façon que la demande de biens de consommation.
La réaction à court terme des employeurs à une augmentation de leurs coûts de production par rapport à la demande escomptée ne peut jouer un rôle que dans le cas d'une économie instable. Dans une économie dans laquelle il y a lieu de s'attendre à la stabilité économique du fait à la fois de mesures gouvernementales et de stabilisateurs établis, on peut par conséquent négliger les réactions à court terme des entrepreneurs comme insignifiantes pour le résultat final.

Les effets de la consommation et des investissements peuvent dès lors être pris comme seuls facteurs déterminants de la direction de la modification de l'emploi. Il y a de fortes probabilités que ces deux facteurs déterminent ensemble une réaction positive de l'emploi à une modification des salaires.
THE MEANS OF COMPETITION
AT VARIOUS STAGES OF PRODUCTION
AND DISTRIBUTION

I

Recently, Erich Schneider stated that Arne Rasmussen has tried to break through already opened doors in attempting to remove the price theory from its dominating position in the theory of market behaviour. Schneider’s remark is hardly justified in such a radical form. True, Rasmussen has had predecessors; but if we compare his grasp of the subject with theirs, we notice how, in contrast to them, he has become independent of the price theory. For Rasmussen the price is really only one of several parameters in marketing policy, one means of competition, and in many cases even one that is not particularly important when compared, for instance, with quality or advertising. Even when compared with the excellent contributions of von Stackelberg, Brems and Abbot, Rasmussen’s work shows more comprehensive understanding.

That Rasmussen is right in asking for the price theory to be enlarged into a general theory of marketing behaviour, a parameter theory, is confirmed by the results of the majority of the empirical investigations undertaken in the field. The same conclusion can be drawn from Wärneryd’s recently published investigation of the marketing policy of Swedish enterprises. In the greater number of the branches investigated by him, the price is obviously of minor importance as a means of competition. In three of the six branches,

1. ERICH SCHNEIDER, “Preistheorie oder Parametertheorie”, Weltwirtschaftliches Archiv, Vol. 76 (1956), No. 1, p. 2* (“Diese These... ist weder neu noch ist sie von der vorhandenen Theorie übersehen worden”); ARNE RASMUSSEN, Preistheorie eller parameterteori (Transl.: Price Theory or Parameter Theory), Copenhagen 1955.


the managements put the price only in the fourth place as a means of competing for the consumer's favour. In competing for the distributors, it was considered that prices and discounts played an even smaller role. Instead, the entrepreneurs considered quality and style, including the packing, as having the greatest significance in the struggle for buyers.

It is difficult to avoid the impression that the economists have been tardy in adjusting their market theories. The price has been invariably placed first, other parameters in marketing policy being introduced only with greater or smaller reservations. Nevertheless, Danish economists have constituted an exception. Within the theory of market behaviour, they appear to be carrying out a revaluation, which has not yet received all the international attention it deserves. The conclusions arrived at by business economists indicate that, if there is to be any dominant at all, it would be more logical to give pride of place to quality in the theory of marketing behaviour and competition. The price theory, which has hitherto been dominant, is no longer satisfactory when one passes on from older conceptions of competition to the conception of active and effective competition sponsored by Clark.

Nevertheless, despite the soundness of his general approach, there is a marked incompleteness and one-sidedness in the work of Rasmussen. This one-sidedness, in which he is far from being alone, needs to be corrected in order to produce a more realistic theory of marketing behaviour. As is the case with, amongst others, Brems and Abbot, Rasmussen is primarily concerned with consumer goods. Even the marketing theories advanced by business economists, such as Wärneryd, are dominated by consumer goods; but there the one-sidedness is not so conspicuous as within the value and marketing theory of pure economics.


The discrepancy between marketing theory in business economics, on the one hand, and the theory of international trade in pure economics, on the other, is striking. In marketing theories consumer goods dominate and sharp criticism has arisen against the dominance of price. In the theory of trade, on the other hand, raw materials play the leading part, and no criticism of the relevance of price has been put forward. The question of the rate of exchange continues to be considered an essential point.

How one-sided the treatment of marketing policy must be, if consumer goods alone are considered, is shown by the example of Finland, where the proportion of consumer goods in the total supply of goods, the gross production, is only about one-third. To deal with competition only from the point of view of consumer goods must lead to a marked one-sidedness, unless we can assume that the forms of competition in selling all other goods are largely the same as in selling consumer goods. But such an assumption would obviously be quite unreal.

Indeed, it is clear that forms of competition vary considerably according to the stage reached in the production and distribution of the goods. And it is therefore of interest to follow the variations in the role of the parameters, the means of competition, arising during the manufacture and distribution of the merchandise, from raw materials to finished product, from producer to retailer and consumer. Rasmussen's parameter theory should be disaggregated and expanded to comprise the roles of the various means of competition at the various stages. An attempt to sketch such an enlargement of the theory of competition is made below.

II

I begin with raw materials. They are producer goods bought by entrepreneurs who make more or less careful calculations of returns and also have a good insight into the quality of the product. The net profit of the purchaser of raw materials on production or resale is often rather small, so that even a minor change in the price of the materials can affect the buyer's profit to a significant extent. The buyer's price-sensitivity is thus great and accordingly there are good prospects for price competition.
The possibilities of profitable price competition are also increased by the fact that the gross profit from the production of raw materials can be very large. The fixed costs, consisting, for example, of the yield on the land value and of the return for the owner's labour, often represent a substantial part of the total costs. In the equilibrium price-elasticity formula, the elasticity figures necessary for making price policy profitable are low because of the gross profit being a large part of the price. When the gross profit, \( p - c \), is large in proportion to the price, \( p \), a price policy is advantageous even when the price elasticity is near to 1. In this respect, raw-material production usually differs from the following stages, with their narrower gross profit margins. The field of raw-material production lacks the large variable cost item which the purchase of raw material and semi-manufactures constitutes at the later stages of production.

Even if the price cross elasticity is significant, the price elasticity of demand in the branch as a whole is generally not great. The manufacturer needs his raw material almost irrespective of its price, if no very similar substitute is on offer. Cyclical fluctuations in price, dependent on the demand for the finished goods and the stock situation, are thus great. Despite the keen price competition, the variations of raw-material prices in the course of the cycle become substantial. This gives prices a mobility which makes price-fixing agreements difficult and increases the possibilities of active price policy.

In appraising the role of price, note must also be taken of the structure of the market. If the sellers are divided, the part played by the price is more prominent, and we then have an adaptation of the pure competition type. With production on a large scale, which is often the case with oligopoly, we have, instead, to a certain degree, an active adaptation of the supply, whereas the price is bound

6. If the variable costs are presumed to be proportional and not diminishing or increasing, the elasticity which makes a price action profitable must be greater than the equilibrium elasticity. The formula for the equilibrium elasticity is: \( e = \frac{p}{p - c} \). Cf. Joan Robinson, *Economics of Imperfect Competition*, London 1933, p. 36 and 54; also Zeuthen, *op. cit.*, p. 233, Andersen, Fog, Windig, *op. cit.*, p. 135, and Rasmussen, *op. cit.*, p. 176 et seq. The term "equilibrium elasticity" is used by Fog in an unpublished paper of May 1957. Joan Robinson's corresponding term is "monopoly price". Her formula is: \( p = c(e/e - 1) \) from which one can derive the formula above.
to a great extent through cartels. Both these forms of market are common at the raw-material stage. Nevertheless, it may be observed that cartel policy is made more difficult by international competition.

The importance of price competition at the raw-material stage is increased by the limited possibilities of using other forms of competition. Producers of raw materials cannot do much to influence the quality of the goods, which are largely determined by natural conditions. Quality competition is further limited in that the manufacturers often desire a previously fixed quality of raw material and in such cases are not sensitive to minor improvements in quality. Because of the standard nature of the goods, and the buyer's technical knowledge, the possibilities of advertising are similarly restricted. At the raw-material stage, advertising has little chance of giving results, even though the possibilities of promoting sales by directly influencing the customers should not be underestimated. Service through warranty of delivery and through long contracts may be important and useful as a means of competition in some cases.

Generally, however, price is the most important means of competition at the raw-material stage. Within certain limits of quality and service, price becomes decisive.

Semi-manufactures are also producer goods, and their purchasers should, in principle, be sensitive to price. But the possibilities of actively varying the quality are in many cases greater for semi-manufactured goods than where raw materials are concerned. Further, the quality of semi-manufactured goods can affect the quality of the final products to a greater extent, because of greater proximity in the manufacturing process. Competition in terms of quality is thus an important factor to be taken into consideration. Wärneryd's investigation showed that the Swedish cotton weaving mills put quality and design as their first parameters, while price came only after sales promotion and range of assortment.

On the other hand, a large part of the producer's purchases of semi-manufactures demand conformity to specification. In this case, quality competition becomes impossible between those suppliers capable of fulfilling the specification, and other suppliers are excluded.

In the semi-manufactured goods market oligopoly plays an extremely important part. It certainly makes the price less profitable
as a weapon in competition, in that competitors can be expected to follow suit swiftly in any reduction in price. But, especially in the international markets, the possibilities of open price competition are good, even though the competition may take the form of price adaptation.

In the semi-manufactured goods market the possibilities of a profitable price policy are diminished by the shrinkage of the gross profit margin. The margin is reduced through the increase in variable costs caused by the purchase of the raw materials. If the buyer's sensitivity to price is not very great, the seller not only has to reduce his gross profit margin in order to stimulate demand through a lower price, but he must also seek to reduce the costs and price of his raw materials. Otherwise his profit will diminish. But it may be difficult to obtain a reduction of the raw material prices at the same time as he reduces his own prices: co-ordination is not easy.

In the semi-manufactures market sales promotion assumes greater importance than it had at the earlier stages. Personal influencing and direct advertising are common, but the fact that the buyers are entrepreneurs limits the possibilities of profitable advertising. Manipulative advertising is not very useful.

In the field of finished manufactures, the majority of the items are consumer goods and this changes the forms of competition in many respects from those of the earlier stages of production. The final buyers, the consumers, are appreciably less sensitive to small price differences. In addition, their possibilities of judging the quality of the product are markedly smaller than those of the producer. Their purchases, when concerned with products other than everyday items, are less regular, and when everyday articles are bought in small quantities for the sake of less outlay on each occasion, the consumers are more subject to chance impulses than industrial buyers. The consumers are therefore more easily influenced by manipulative advertising.

In the sphere of consumer goods, advertising increases greatly in significance and becomes an important means of competition. But as advertising gains considerably in effect, if it has some positive facts to build on, the producers must stake a good deal on quality competition, whether it be a question of actual quality or quasi-quality. This is also confirmed by Wärneryd’s material. In fact, his
figures demonstrate that quality, including modernity and design, is the producers' most prominent means of competing for the custom of the consumers, being more important than price and advertising.

It is considered that, in general, price competition becomes really significant at the wholesale stage. Both Salonen in Finland and Winding Pedersen in Denmark support this view. Against this background Wärneryd's results appear somewhat surprising. The Swedish producers stated that they were not using price to any great extent in competition for distributors. An exception was, however, found in the automobile branch, in which the resale margin played the leading role. In the chocolate industry, the resale margin was placed third among the industry's means of competition, but in none of these fields did the consumer price play any noteworthy role.

Now Wärneryd's investigation is not of a kind to throw any special light upon the present problem. Nevertheless, it does give a warning signal which should be heeded. In principle, one would certainly expect wholesalers to make careful price calculations, as their net profits are strongly influenced by margin changes. On the other hand, one must take into account the degree of price-sensitiveness of their customers, the retailers. If the retailers do not use the price to any great extent as a parameter, and if the consumers are not price-sensitive, then the wholesaler's interest in price competition is naturally rather slight. If the wholesalers follow the full-cost principle, with conventional, fixed percentages of profit, there is even a certain advantage in favouring high-price merchandise.

Much of what applies to the producers' sales to the wholesalers is also true of the wholesalers' sales to the retail trade. Here again, enterprises are the buyers and their profits depend largely upon the margins they think they can extract.

The wholesalers have, of course, opportunities of using price as a means of competition in the struggle for retailers, whether they do so in the form of a resale discount or in the shape of low wholesale prices. According to current reports, these opportunities are exploited. There are, however, conditions which make one sceptical

7. A.M. SALONEN, Tutkimus taloudellisesta kilpailusta Suomen nykyisessä yhteiskunnan taloudessa (Summary in English: A Study of Competition in Finland's Social Life Today), Helsinki 1955, p. 220. WINDING PEDERSEN, op. cit., p. 166, states that price competition in wholesale trade is stronger than in retail trade.
of this view. In the first place, price should, by analogy, be a good competitive medium for producers also, in their sales to the wholesalers; this has already been shown not to be the case. Further, there is, at least in the Scandinavian countries, a trend against increased concentration within the wholesale trade and towards a firm relationship between the retailer and the wholesaler. This would be difficult to explain if active price competition does exist, but it is readily understandable if the producers dictate prices and do not use price as a means of competition.

That the wholesalers’ margins are small, because the wholesale trade functions mainly as agents, also makes a price policy difficult. According to Scandinavian investigations, the gross wholesale profit in the Scandinavian countries should be between 9 and 10 per cent. According to the formula of equilibrium elasticity, this would require a price elasticity of at least 10 in order to make price policy worthwhile if the wholesaler’s purchasing price is unchanged. The wholesalers are thus compelled to base their price policy on a fight for lower purchasing prices. This is, however, more difficult than forcing down their own margins. But, as far as imports are concerned, the possibilities of successful purchasing competition are comparatively good by reason of the free choice of sources for purchases. The possibility that the great importing wholesalers might implement a price policy is consequently not to be neglected.

Nevertheless, there is reason to presume that another means of competition is the most important in the wholesaler’s sales policy, namely, range of assortment. If the retailer is to be successful in his sales to consumers, the assortment is a very important matter. If the wholesaler has a large assortment of goods, the purchasing activity of the retailer is greatly facilitated. Wärneryd’s investigation shows that quality was considered to be the most important parameter in cultivating resales, even in those fields in which wholesale channels

8. Salonen, op.cit., p.54; Distributionsekonomiska problem (Transl.: Marketing Problems), ed. by Kristansson, Stockholm 1953, p.47; R. Artle, Svenskt distributionsväsende (English Summary: Swedish Distributive Trade), Stockholm 1952, p.28, 76, 158 and 166.
are rejected and the producer sells direct to the retailer. But, for the wholesale trade, it is just not possible to influence the quality directly —with the possible exception of the package. The wholesaler’s parameter is, accordingly, the assortment, its quality and scope.

As far as market conditions in the retail trade are concerned, the empirical material is somewhat more plentiful than was the case at the other stages. A large number of investigations into elasticity have been carried out in relation to the price-sensitivity of consumers. It is apparent that the price elasticity of demand is really low for the majority of foodstuffs, and of other everyday items in the nature of necessities. Warneryd’s investigation shows that the entrepreneurs themselves consider that the total elasticity even of other consumer goods is generally low. Arne Rasmussen’s analysis of the retail margins of the Danish provision market also shows that a price policy can hardly be profitable if it is pursued with the help of a reduction of the marginal percentages. With a gross profit margin of 25 per cent, the increase in quantity has to be more than four times as great as the price reduction for this to be advantageous, should the retailer’s purchasing price, the variable costs, remain unchanged. So high an elasticity is hardly usual as far as consumer goods with an established market are concerned.

The entrepreneurs in the retail trade are not, in general, compelled to reduce their margins in order to stimulate sales. They have other means at their disposal, the foremost being assortment, location, advertising and service. The price-sensitivity of the consumers is normally relatively small when it is a question of choice of shop, even if, where differences are greater and systematic, it can have a certain influence. Price competition thus occurs largely between various sections of the assortment of the seller, the retailer. And there differences in quality and goodwill can often obtain a stronger reaction than differences in price, provided these are moderate.

There is still another class of goods to be dealt with, investment goods. In the case of producer goods, the means of production, price-sensitivity may be rather significant. The buyers are entrepreneurs with the ability to make price calculations. If qualities are similar, the price can be decisive. But the profitability of an investment depends largely upon the durability of the means of production and

their capacity. Quality is thus a decisive factor which cannot be neglected. A break in production can be an extremely expensive business, and if the investment does not lead to the production of merchandise of a sufficiently high quality to be sold, the whole of the investment will prove a failure. The quality-sensitivity of the buyers is thus strong, and can only be surmounted by big differences of price, unless a high degree of goodwill can be developed—a form, so to speak, of quasi-quality.

The position of consumer capital goods is something apart. The ability of the purchasers to judge the quality through other circumstances than price is often very limited. Advertising is thus a profitable and much used means of competition. High prices may even be regarded as advantageous in giving the appearance of high quality. Nevertheless, the consumer capital goods market is not infrequently characterised by a very active price policy. As the income elasticity of consumer capital goods is considerable, growing national income gives rise to a potential corps of buyers, who can be activated by means of radical price reductions. Large price reductions may make the price elasticity of demand appear to be very great. The goods come down into a new price class and a substantial demand may then arise in new strata of the community. Technical developments in the field of consumer capital goods also provide, in many cases, good grounds for radical and profitable price reductions in conjunction with new and cheaper constructions or methods of production. In these instances, price elasticity as usually understood, with an indefinitely small change of price as its point of departure, is irrelevant and divorced from reality. There are good opportunities here for a price policy, provided it works with large and sensational price reductions.

III

To summarise, it can be stated that the different methods of competition play greatly varying roles at different stages of production and distribution. At the raw-material stage, and also to some extent at the semi-manufacture level, price competition plays a dominating role. At these stages, there are difficulties in utilising means of competition other than the price. Certain other possibilities do, however, exist, particularly with regard to fairly large alterations and inno-
In the succeeding stages, quality takes over the leading position. With the sales of final products assortment, advertising and location also appear as important means of competition.

A realistic theory of market behaviour must involve a disaggregation of the whole. The aggregate must not be judged as arising from only a part of the whole, i.e. from price competition in the sphere of consumer goods, as has previously been the case.

With respect to the possibilities for price to play a role as a means of competition, it may be pointed out that this possibility becomes smaller with the decrease in the gross profit margin. The possibility also becomes smaller, the more stages there are preceding it in the chain of production and distribution, and the smaller the margins in these earlier stages. It is difficult for a distributor to exert influence from link to link backwards in the chain, quickly enough to be able to ensure that a price squeeze on all channels synchronises with his own action. If he is not successful in achieving this coordination, the price reduction will be too much of a burden on his own or the preceding channel. The price policy in such a case will not be profitable, at least in the short run. Accordingly, there is reason to expect a declining role for price policy the further one comes from the raw-material stage.

But, of course, in appraising the role of a means of competition, one should remember that entrepreneurs seldom work with only one parameter, but in fact combine several. Routine marketing policy, if one can here use the term “policy”, is based in the main on the adaptation of the price to a given cost, combined with a given quality. However, one does find a more active quality policy arising from the adaptation of the quality to a given price. Although the price is the point of departure for this policy, it is the quality which is the variable in this case. In addition, the advertising is often adapted to the price and the location. The most advantageous combination of parameters, however, varies at different stages. In the field of parameter combinations, economic theory has much to work ahead of it in continuing the impulses which have been given by, amongst others, Brems and Rasmussen.

One can now ask if the so-called “decline” in price competition leads to a point at which the final products will be given very high

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prices, and will make monopoly profits for the producers in the later stages of production and in trade. If one starts from the full-cost principle and assumes that the producers and distributors keep strictly to their own cost calculations, and have their fixed profit percentages, the prices at the raw-material stage will also influence the prices of finished products. The greater the share of the stages dominated by price competition in the total cost of the goods, the greater will be the influence of the price competition of the earlier stages on the final retail prices. The more strictly the entrepreneurs follow their own cost calculations, the greater their influence will be on the final retail prices.

Opinions on the real significance of the full-cost principle vary. But that cost calculations do in reality play a significant role and that the fixed margin method is common in trade is fairly obvious. This must then lead to the assumption that price competition at the primary stages has a greater significance than one would have believed, taking into account the information on the slight extent to which price is used as a means of competition in the later stages. The indirect price competition via raw materials must then conduce to price reduction. It outweighs, at least to a certain extent, the cost- and price-raising effect of competition by quality and advertising.

The greater the weight one allots to the full-cost principle, the more important it is, in analysing competition and market behaviour, to separate the various stages of production and distribution. In those stages in which price competition dominates, a downward price pressure makes its appearance and is passed on. In the stages, on the contrary, where price competition has been replaced by other forms of competition, the price squeeze is not intensified, but is counterbalanced, at least in part, by an upward cost pressure, arising from the use of other means of competition which involve additional costs.

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The market theory dominant right up to recent times has been limited in its application not only in that it is concerned solely with price as a means of competition and omits the other parameters from the analysis; it has been an incomplete theory also because, in the main, it applies merely to consumer goods.

An analysis of the forms of competition at different stages of production and distribution shows that their importance varies at the different stages. The analysis also confirms that the choice of consumer goods as the object of price theory is illogical. In actual fact price plays a subordinate role in the sale of finished products to consumers. The influence of price is greatest at the raw-material stage. In finished commodities quality, advertising and other means of competition are usually of greater significance, as has long been pointed out in marketing theory.

The breakdown of production and distribution into successive stages contributes to reducing the importance of price as a means of competition. The price elasticity of demand must be very high for a price cut to be worth while if the price margin is narrow. If the elasticity is not high, the price reduction will not be worth while unless the seller is able to reduce his costs also. But the greater the number of stages “behind” the seller the more difficult will he find it to affect the prices of the earlier stages in order to reduce his costs. Hence it cannot be expected that price policy will play a dominant role at the retail level.

However, if it is assumed that full-cost pricing is the habitual policy at the later stages, price competition at the earlier stages will nevertheless affect the consumer prices. A pronounced drop in raw-material prices will reduce production costs and thereby lower the final prices if the margins are fixed. Price competition may thus be of significance even though its direct role at the later stages is not a dominant one.
sind in der Regel Qualität, Reklame und andere Konkurrenzmittel von grösserer Bedeutung – wie die betriebswirtschaftliche Absatztheorie seit langem hervorhebt.

Die Aufgliederung von Produktion und Verteilung in die einzelnen Stufen des Erzeugungsprozesses trägt dazu bei, die Bedeutung des Preises als Konkurrenzmittel zu vermindern. Die Preiselastizität der Nachfrage muss bei kleiner Gewinnspanne sehr gross sein, damit eine Preisreduktion lohnt. Ist die Preiselastizität gering, so lohnt die Preisreduktion so lange nicht, als der Anbieter nicht in der Lage ist, seine Kosten ebenfalls zu senken. Aber je grösser die Zahl der Erzeugungsstufen ist, die dem Verkäufer vorgelagert sind, desto schwieriger wird es für ihn sein, über die Beeinflussung der Preise der früheren Stufen seine Kosten zu senken. Infolgedessen kann nicht erwartet werden, dass die Preiskonkurrenz im Detailhandel eine dominierende Rolle spielt.

Wenn man indessen annimmt, dass auf den letzten Stufen des Erzeugungsprozesses die Festlegung der Preise nach dem Vollkostenprinzip das übliche Verfahren ist, so wird die Preiskonkurrenz auf den früheren Stufen gleichwohl die Konsumgüterpreise beeinflussen. Denn bei einem ausgeprägten Rückgang der Rohstoffpreise vermindern sich die Produktionskosten und dadurch auch die Preise der Endprodukte, wenn die Gewinnspannen fixiert sind. Obschon die Preiskonkurrenz auf den späteren Stufen keine dominierende Rolle spielt, kann sie somit gleichwohl indirekt von Bedeutung sein.

**RESUME**

*Les moyens de concurrence aux différents stades de la production et de la distribution.* La théorie du marché dominante jusqu’à ces derniers temps n’a pas seulement été limitée en ceci qu’elle ne considérait que le prix comme moyen de concurrence et qu’elle excluait de l’analyse les autres «paramètres»; elle a aussi été une théorie incomplète parce qu’en général elle ne s’appliquait qu’aux biens de consommation.

Une analyse des formes de la concurrence aux différentes étapes de la production et de la distribution montre que leur importance varie à chaque stade. L’analyse se confirme en outre que le choix des biens de consommation comme objet central de la théorie des prix est illogique, car en fait le prix ne joue qu’un rôle secondaire dans la vente de biens de consommation. L’influence du prix est plus grande au stade des matières premières. Pour les biens de consommation, par contre, la qualité, la réclame et d’autres procédés de la concurrence ont en général une plus grande importance, ainsi que la théorie de la vente industrielle l’a souligné depuis longtemps.

La division de la production et de la distribution en étapes successives contribue à réduire l’importance du prix comme moyen de concurrence. L’élasticité de la demande quant aux prix doit être très grande, lorsque la marge de bénéfice est petite, pour qu’une réduction vaille la peine. Si l’élasticité est faible, la réduction de prix ne vaudra pas la peine, à moins que le vendeur ne soit en mesure d’abaisser également ses frais de production. Mais plus le nombre des stades de production est élevé, jusqu’à ce que le produit parvienne au vendeur, plus celui-ci aura de
difficultés à influencer les prix des premiers échelons pour abaisser ses coûts de revient. Par conséquent, on ne peut s'attendre à ce que la politique des prix joue un rôle prépondérant dans le commerce de détail.

Cependant, si l'on admet qu'aux derniers stades du processus de production, la fixation des prix selon le principe des coûts pleins est la politique habituelle, la concurrence des prix aux premiers degrés affectera néanmoins les prix à la consommation. Car un recul prononcé des prix des matières premières réduira les coûts de production et, partant, aussi les prix des produits finis, si les marges bénéficiaires sont fixées. Ainsi, bien que la concurrence des prix ne joue pas directement un rôle prépondérant aux derniers stades de production, elle peut cependant revêtir de l'importance.
There are books to which it may be possible to do sufficient justice in a sentence of admiration or dispraise. This one is in its topic too important, in its authorship too substantial, in its provenance too austere, and in its quality too uneven, for that. It commands a careful reading. Its theme is "an old problem", the elimination of war. Not the problem, be it noted, of Nato—of defence, that is, against outside attack. Its concern on the contrary is with what happens within—within, in this case, a rather arbitrary area, comprising countries, 19 in all, alike in being washed by the waters of the North Atlantic and the North Sea.

The idea is not altogether novel. Over large areas, the elimination of war has already occurred. Such areas the authors designate "security-communities", and the process of their establishment "integration".

The book is an interim report on a two-year collective study, conducted at the Princeton Centre for Research on World Political Institutions. It is to the framing of a "strategy of integration" for the North Atlantic area that it seeks to contribute. How, and in what conditions, did certain groups permanently stop warring in the past? How might the resulting state of things be extended over larger and larger areas of the globe?

When, then, can it be said of an area that within it war has been eliminated? Enough, the authors here consider, if war have become so unlikely that leaders are neither preparing for it nor taking its possibility into account. What is par excellence the type of such a state of affairs? It is the condition obtaining within the single sovereign state. War (civil in this instance) is here in principle ruled out. Another such situation is where sovereign states are so mutually disposed as are Canada and the U.S.A. Here too, war (in this case international) is seen as out of the question.

Even were this its only merit, the book could be applauded for its advertising of a fact—that it is not by a merging of their sovereignties only that countries have ceased to be a danger to each other. Almost one is led to conclude: Where, for the avoidance of war, amalgamation (e.g. integration-by-federation) is desirable, amalgamation is in practice an impossibility; where it is not an impossibility, it is not needed for the avoidance of war.

With federation sought for other reasons the authors are not concerned. Promoters of integration merely as such might as well, they feel, be indifferent as to which form the desired integration shall be given. On their rather curious reading of the evidence, history even suggests a superior viability in the pluralistic

form, and a greater effectiveness in the exclusion of war. Why, then, demand a surgical operation, if a diet, say, of better communications will effect a cure? And this, they evidently feel, is a fortunate conclusion, since their patient area shows so little present sign of a willingness to submit to the knife.

They do not however overelaborate their convenient point. It may of course be that many friendships between independent countries have been longer-lasting than many federations. But what does not strictly follow—though the authors apparently think it should—is that, had they stayed independent, the component units of their shortlived federations would presumably have avoided warring with one another for just as long as any other pair of states. Conceivably they might: but about this there surely can have been no "must". What breaks a federation is the development within it of tensions too strong for constitutionality to control. What breaks an international friendship is likewise a situation of strain. But the strains in the respective instances are of different kinds, occurring in different contexts (domestic in the one, diplomatic in the other), and breakdown in the one kind of case teaches little as to viability in the other. The authors' phrasing in this matter seems calculated rather to confuse than to illuminate anyone not initially clear on the radical difference between the two planes of social coexistence.

However, it is specifically of pluralistic integration that, for North Atlantic purposes, the authors invite us to think. And their strategy for such integration is to be grounded on the lessons of the past.

II

An analogy may here suggest itself with the method of men's struggle against death-on-the-roads. Much as members of a borough council, out to ban accidents in their locality, may seek knowledge of the conditions in which the name of safety-areas has been earned by other towns, so do these authors, for application to their chosen area of the North Atlantic, begin by seeking certain particulars on security-communities of the past—to give them their formula for the creation of further such communities in the future.

Of one point of unreal difficulty it should be easy to dispose. The occasions for war, some may argue, are so manifold that no amount of foresight can cover them all. But accidents too may happen in a host of ways. Neither for wars nor for accidents do we require any generalised explanation. What in effect we ask is not, How death-on-the-roads? but, In what conditions fewest deaths? Where the sages were formerly wont to ask, Why war?, these authors, more pertinently, ask, In what conditions has war become unthinkable? And then—by what process? But are they equally pertinent here?

It is no doubt a premise of the social sciences that their subject-matter, while differing from the world of physics, is perhaps not so different as it seems. In the material cosmos men are accustomed to the detection of verifiable process. From the acorn to the tree. From the caterpillar to the butterfly. From the button-pressing to the mushroom cloud. And so, some historians have thought to find
patterns of development in the past. How does feudalism give place to capitalism, and that in turn to what comes next? How do civilisations arise and thrive, decline and die? Such questions have at least been posed, and answers offered. So the question, How do security-communities come about? is something one at least may ask.

If political fusion were known, like its nuclear cousin, to be the pre-determined end-result of a specifiable process, then the listing of the conditions for its coming would have palpable point. But is this in fact known, even with respect to what is here called amalgamation? The authors appear to accept this as given. Never do they seem seriously to have asked themselves whether the notion of a process was more in the first place than a heuristic tool; and whether, after testing, it might not have itself to be discarded as inappropriate to the matter in hand.

Yet surely, even in the familiar case of human courtship, it is always this particular boy (not boy-of-this-type) that meets this particular girl (not girl-of-this-type)—and in these particular conditions. How countries agree in effect to bury the past, and accept and respect each others' existence and needs, is not to be accounted for simply as one more example of something repeatedly seen. If courtship could be assumed to follow a fixed pattern, the preparation of a handbook for the match-maker might be hopefully essayed. As it is, match-making remains a delicate and uncertain enterprise. Is the "process" by which independent communities come to have with one another the "we-feeling" necessarily more adherent to a single pattern than that of becoming engaged? Less so, surely, rather than more. By all means let uniformities be looked for, but let there be no amazement if they are not found.

Incidentally it is not in essence so strictly a process, as a procedure, that the authors seem rather to have in mind. Their question is not so much, What are the stages by which this thing develops? as, What are the steps by which it is brought about? In what conditions? Yes: but what, in such conditions, did men do? In short, it is for a programme, a plan of campaign, a strategy of integration, that they seek.

Which men? In which positions? What gives this question point is the difference between a traffic which is indeed "controlled" and a world-political process which after all is not. Who in the case of the postulated integrationist "strategy" is to be deemed the commander-in-chief? And whom has he to face as his opponent?

The point is more important than the authors—since they so largely ignore it—may possibly have noticed. And more embarrassing, since, as they certainly appreciate, there is for the integration of their North Atlantic area neither a big popular movement nor a plank in the programme of the authorised decision-makers in any of the prospective member states. Promoters of integration do—it is assumed—exist, but in so far as they are the leaders of merely non-official movements, not ministers of propaganda or of foreign affairs, the strategies within their competence may have little immediate impact on the course of events.

It would for instance be easier to conceive of the giving of "specific promises to respect the independence and sovereignty of the political units concerned"
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(p. 187) if such giving were to be done by decision-makers, who have, as distinct from the mere movement-leaders, who have not, as a rule, some footing for the making of promises to the peoples of other states, or even their own.

III

To some proponents of federation in particular this book should bring useful light—since, besides exposing the error of divers popular beliefs, it provides some firm, if unsensational, findings on when and how the achievement of their objective may hopefully be tried. Useful too is the stress here on flexibility and boldness in the development of new solutions. For the most obvious next step is not always the most opportune. "Imaginative experimentation with hybrid political institutions": that is what they recommend—provided presumably again that some at least of the decision-makers are found in the integrationist camp.

"More responsiveness" the authors ask for—to the needs and the "messages" of other countries—on the part of governments, elites and electorates. The illustration they offer is apt and revealing. Let France's fellow-Atlantics take to supporting her on the colonialism issue at the United Nations. So would they manifest their improved "ability" to respond.

They mention too as a further desideratum more "skill" in making compromises at home with opposing political groups. But are we to allow that the making of political compromises is indeed a matter essentially of skill rather than of will? Given the will, the skill to compromise should seldom be wanting. There may however be ground enough for the absence of a will.

Likewise seemingly a little simple are the "findings" they so soberly report on how objectors to past amalgamations have been compensated, or won over; how younger men tend in time to get more influence in affairs; and how in their attitudes they may differ from the old.

The problem, it would seem, is not that of arriving at any confident generalisations at all. Rather it is that of carrying the business beyond the level of what the book itself somewhere describes as "documenting the obvious".

One rather pivotal finding, on the other hand, the authors make little attempt to document. Given that the Atlantic area is not expected to amalgamate, we are offered surprisingly little on the way in which a distinctively pluralistic integration may come about. For a single historical example of how to such a plurality of states as those of the North Atlantic the aspect of a security-community may be given, one looks here in vain. Instead, what is understood as resulting from a study of one sort of integration is permitted rather casually to do duty also partly for the other. The process whereby sovereignties are merged, and that whereby between independent sovereignties war becomes to all intents unthinkable—these two processes, having been given a single name, integration, are treated here as possessing, in effect, a single nature. Tell us, the authors seem to say, how England and Scotland became united and we should then understand how Canada and the U.S.A. stopped seeing one another as foes, and how, therefore, France and
Germany, not to mention the U.S.A. and the U.S.S.R., might likewise in their turn come so to do.

Again and similarly, they seem rather to suppose that, since it is around "strong core areas" that amalgamated security-communities have, they find, typically tended to form, so it is through the one-by-one accretion of further member countries that a pluralistic community composed originally of Canada and the U.S.A. might presumably be expected by-and-by to include many, or all, of the seventeen other states named in their North Atlantic list. A puzzling inference, surely.

The field of study is one in which metaphor may be a hindrance as much as a help. Is there in reality a "process" of integration at all? Does one usefully speak of "pathways" thereto? Is war something one may hope to "eliminate", or is it not rather that conditions may perhaps be brought about in which wars are unlikely to occur? Is there, awaiting discovery, a solution to the contemporary problem of integration; and, to that solution, may one expect to find "clues". Does one fruitfully borrow from the economists the notion of "take-off" or—is it from the Freudians—that of "the threshold"? Such metaphors may all have their value; but they want to be used with circumspection.

A greater precision in the use of verbal symbols might also have improved the discussion here of that sense, of community, which is seen as a requirement for integration in whichever form. For this evidently important factor is described in no too consistent a manner. Now it is one belief; now another; next a feeling; and finally a matter of "dynamic process". The reader may see well enough what the authors are after, but may doubt if they have put it very well. And, in any case, he may wonder, why call it a sense of "community" at all? Is this only because it is to a security-"community" that this element is considered essential? If so, the ambiguity in a word may have led men astray. What indeed would common sense suggest as requisite in this connection? Surely not merely a we-feeling. Is it not rather the absence of a sense of insecurity, determined by peoples' ways of conceiving one another, and the future which they are destined to share? Surely it is for a sense rather of security than of community that in a security-community one should look. "Concrete steps" to increase the sense of community might be of little avail if concrete sources of a sense of insecurity were left unattended to.

IV

There are those in academic circles whose views on the nature of history and of sociology would require a rejection of the main methodological assumptions of this book. In economic studies, and the like, analysis may have plenty of place. In an exercise so distinctively historical as the deriving of broad lessons from an imaginative self-immersion in the recreated experiences of the past—less, if any at all. "Much may be gained", the authors maintain, "by using analytical concepts to guide our historical inquiry..." (p. 14), and their book stands as in some sense an advertisement for their view. For all their punctilious concessions to a reputable scepticism, it is pretty plain that to themselves at least they are
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pioneers of a development which may presently be accepted as vital in the progress of their science.

By all means, one feels, let them apply to their "cases" their latest of analytical tools—if only those tools be sharp. Otherwise, by their uncertain performance, they may discredit their reliance on analytical tools as such. Where others have so notoriously overdone it in the use of categories more congenial to their outlook than to their subject-matter, they should at all costs keep the balance, in their historical sociology, between the nomothetic and the ideographic orientations of the inquiring mind. If only international politics were more like chemistry, or even callisthenics, and less like croquet played with hedgehogs and flamingoes, predictabilities in the social process at the international level might be more readily detectable, and collectable, than they are.

True, these authors would say. And yet they have their answer, and a good one too. The basis for men's resting of their policies for the morrow on their generalising interpretations of the past is not at all that they have mistaken the social cosmos for a kingdom of necessity—where everything that happens is determined by discoverable "social laws". The fact merely is that, debatable though the practice may be, it is what in their personal responses to the challenge of their private predicament men are doing every day. Analogies are, it is true, suggestive not conclusive. But since for the most part they are about all that anyone has to live by, it would be "prodigal" to reject them out of hand.

Use has already been made in this review, and without a blush, of a crude analogy—that between traffic control and the avoidance of war. But the analogy soon breaks down. For, whereas in the case of traffic troubles, it is in the normal course of affairs that danger is endemic, in diplomacy it is rather in the occasional situations that the perils inhere. And these situations are each distinct. It is by an individualising judgment, not by the use of a formula, that in such situations events may—fortune willing—be switched away from war. There is little in this book on the handling, internationally, of particular pressures for change. Is it that, given the we-feeling, such pressures need supposedly not be foreseen?

V

The existence of a security-community is not a means, but only, after all, a witness, to the so-called elimination of war. It is not by playing on the peoples' minds, but by dealing with the facts on which the peoples' minds are playing, that a mood of mutual acceptance is to be ensured. Proposing to eliminate war by establishing a security-community would be like thinking to lessen the rainfall by multiplying the hours of sun.

Two men, yesterday friends, but enamoured today of the selfsame lady, are rivals now in spite of themselves. Their conflict-situation is no mere matter of mutual distaste. Its basis is an incompatibility of objectives on which neither party feels able to give ground.

Analogies, as the authors insist, are at best suggestive. Yet they themselves do rather perceptibly lean upon the idea that to have noted in what conditions
a thing has happened in the past should be to know, more or less, how to have it happen again in the future. This assumes, however, that no important question regarding the past occasions has not been asked; that no crucial condition—either positive or negative—has gone unnoticed. In a manual on the building of houses of cards, all the constructional stages might be exactly described: yet what if it were silent on the absence of a breeze?

Even in their proposed programme of further research there is nothing on concrete issues, obstacles to that North Atlantic integration which is the end in view. Though Britain and Ireland are instanced as possible parts of a sub-area, within the North Atlantic area, which is relatively ripe for early integration—in advance of the area as a whole—there is nothing about the Boundary. Is it really by improving the communications between North and South that the wound of “partition” will be healed? Could Germany so be led to forget the Oder-Neisse line?

“The record”, declare the authors, “of what happened in history is richer and deeper than any single scheme of deduction or analysis, and we would ignore it at our peril” (p. 11). So they are to eschew a purely “analytical or deductive approach”. The question is—Do they, enough?

The product of so high-powered a working-party, the book has many points of value. But on international tensions and their treatment it will scarcely tell the tough old historians very much. One might almost suppose that the authors were not interested in relations of tension between states, but only in relations of trust. As if doctors were only interested in health.

VI

But this, after all, is only their interim report. No criticism of its essential method could well be more deflationary than that implied in their own prefiguring of what they next propose to do. There are, they say, “gaps” in their knowledge. And of these the first they mention relates to the “current images” concerning Atlantic unity “held in peoples’ minds”. This, on page 196, is their only use of this expression. As a motif in the composition of the book, it comes in thus belatedly as something dramatically new. At what stage, one wonders, did these investigators first come to conceive their problem in terms of “current images” held in peoples’ minds?

The study on which they are here reporting is described as “interdisciplinary”. What that, in this case, is shown to mean is that both historians and political scientists have had a hand in the undertaking. But why, one is compelled to ask, these only? How about the philosophers, with their closely-reasoned caution in the uses of language; or the social-psychologists (“psychology”, as a word, occurs neither in the index nor in the text); or the seasoned practitioners, whose lifetimes in diplomacy may have left them with a “feel” for what cannot and can come about in the dealings of states? How, if one may but dare to suggest it, about those, the academic students of international relations, whose readings and reflections on the character of the social cosmos should have furnished them, even
in default of official experience, with the fundamentals of a specialised awareness of what the world, of world politics, is like?

Reinforced by the participation of some of these, the thinking here reported might, one suspects, have been more realistic, more rigorous, and more to the point.

To all but the veriest beginners (from whom it should remain out of reach) the book may even so be a boon, for it gives them at least a challenging new perspective from which to re-value their own positions on points of prime and perennial concern.

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SUMMARY

In what “conditions”, by what “process”, and aided by what “integrationist strategy”, might the 19 North Atlantic countries come collectively to constitute a “security-community”—an area, that is, as between whose parts the possibility of war is in political calculations excluded? The interim report of an “interdisciplinary” syndicate, the book is appreciated with respect as well to the methodological premises as to the logical cogency, the semantic rigour and the sociological sensibility with which the author’s task has so far been performed. With their acceptance, in scientific principle, of analogies drawn from historical case-studies—as pointers, suggestive but not conclusive, to what may apply to a current problem—the reviewer has no quarrel. Nor does he deprecate the use, if it be with skill and insight, of analytical concepts as tools in the interrogation of man’s experiences in the past. But whether the problem of war’s “elimination” has here been aptly conceptualised, whether the ideographic, not to say the eiconic, perspectives have been emphasised enough, whether the differences between what is open to properly empowered decision-makers and to leaders merely of movements respectively, and between the domestic and diplomatic levels of social co-existence, have not been underplayed, and whether the emotional component crucial in the case considered has been correctly designated—on these points at least his reservations appear. In conclusion, and as possibly accountable for something, he notes the apparent absence in this inquiry of the philosophers, the diplomats, the social-psychologists, and particularly of those “the academic students of international relations, whose readings and reflections on the character of the social cosmos should have furnished them, even in default of official experience, with the fundamentals of a specialised awareness of what the world, of world politics, is like”.

ZUSAMMENFASSUNG

Die Ausschaltung des Krieges – Princeton’s neue Methode zur Problemlösung. Unter welchen «Bedingungen», durch welchen «Prozeß» und mit Hilfe welcher «Integrationsstrategie» könnten die 19 nortatlantischen Staaten zu einer Ge-
meinschaft werden, in der weder gegenseitige Furcht noch Argwohn bestehen — zu einem Gebiet, in welchem die Möglichkeit eines Krieges zwischen den einzelnen Teilen nicht in das politische Kalkül einbezogen wird? Das Buch, ein Interimsbericht einer Arbeitsgruppe, der Vertreter verschiedener Disziplinen angehören, wird gewürdigt sowohl unter dem Blickpunkt der methodologischen Prämisse wie der logischen Zwangsläufigkeit, der semantischen Genauigkeit wie der soziologischen Sensibilität, mit welcher die Verfasser ihre Aufgabe bisher gelöst haben. Mit ihrer Akzeptierung historischer Analogien als einem wissenschaftlichen Prinzip, um mögliche (aber nicht schließliche) Hinweise darüber zu erhalten, was auf ein heutiges Problem anwendbar ist, geht der Rezensent einig. Noch wendet er sich gegen den Gebrauch analytischer Begriffe als Mittel, um Fragen an die historische Erfahrung zu stellen, sofern dies mit Geschick und Einsicht geschieht. Aber ob hier das Problem der Ausschaltung des Krieges in passende Begriffe gefasst worden ist; ob die ideographischen oder gar die ikonischen («eiconic») Perspektiven genügend betont worden sind; ob die Unterschiede ausreichend hervorgehoben worden sind zwischen dem, was einem mit tatsächlicher Macht und Entscheidungs befugnis ausgestatteten Politiker und was dem Führer blosser Bewegungen möglich ist, und zwischen sozialer Koexistenz auf innenpolitischer und auf diplomatischer Ebene; und ob die emotionale Komponente, die im vorliegenden Fall entscheidend ist, richtig gesehen und bezeichnet ist — mindestens zu diesen Punkten macht der Rezensent Vorbehalte. Abschließend vermerkt er, dass — vielleicht nicht ohne Auswirkung auf die Ergebnisse — an dieser Untersuchung anscheinend weder Philosophen noch Diplomaten oder Sozialpsychologen teilgenommen haben und er vermisst insbesondere «die wissenschaftlichen Spezialisten auf dem Gebiet der internationalen Beziehungen (academic students of international relations), deren Belesenheit und Reflexionen über die Natur des sozialen Kosmos, unbeachtet ihrer allenfalls mangelnden praktischen Erfahrung, die Grundwahrheiten eines spezialisierten Wissens darüber hätten vermitteln können, was für eine Welt die Welt der Weltpolitik ist».

RÉSUMÉ

L'élimination de la guerre — Nouvelle «approche» du problème proposée par Princeton. A quelles conditions, par quel processus et à l'aide de quelle «stratégie intégrationniste» les 19 États de l'Atlantique-Nord pourraient-ils arriver à constituer une communauté dans laquelle régnerait la sécurité réciproque, c'est-à-dire une zone dans laquelle les possibilités de guerre entre les différentes parties constitutives seraient exclues des calculs politiques? Ce livre, rapport intérimaire d'un groupe composé de représentants de différentes disciplines, est apprécié sous l'angle aussi bien des prémisses méthodologiques que de la puissance des arguments logiques, la rigueur sémantique et la sensibilité sociologique avec lesquelles les auteurs ont rempli jusqu'ici leur tâche. En ce qui concerne leur acceptation des analogies historiques, en tant que principe scientifique, pour obtenir des
indications suggestive, mais non concluantes, sur ce qui peut être appliqué à un problème actuel, le chroniqueur ne soulève pas d'objections. Il ne s'oppose pas non plus à l'emploi de concepts analytiques comme moyens d'interroger les expériences humaines dans le passé, à condition que cela soit fait avec habileté et discernement. Mais en l'occurrence, le chroniqueur exprime des réserves tout au moins sur la question de savoir si le problème de l'élimination de la guerre a été conceptualisé de façon appropriée; si les perspectives «idéographiques» pour ne pas dire «iconiques» ont été suffisamment soulignées; si les différences entre ce qui est respectivement possible aux chefs politiques ayant en fait les pouvoirs de décision et les chefs de simples mouvements, ainsi qu'entre la coexistence sociale sur le plan de la politique intérieure et sur le plan diplomatique n'ont pas été sous-estimées; si les composantes émotionnelles déterminantes dans le cas particulier ont été correctement spécifiées. En conclusion — et cela serait une explication plausible de ces lacunes — le chroniqueur soulève l'absence apparente, dans cette enquête, de philosophes, de diplomates, d'experts en psychologie sociale et en particulier d'universitaires spécialisés dans l'étude des relations internationales, dont les études et les réflexions sur le caractère du cosmos social auraient pu apporter, même en l'absence d'expérience pratique, les fondements d'une connaissance spécialisée, à savoir en quoi consiste le caractère tout particulier de ce monde, qui est celui de la politique internationale.
These essays are Professor Koopmans' declaration of faith in economic theory and, specifically, in economic theory grounded in rigorous reasoning of a mathematical or near-mathematical kind. The growing use of mathematics in economics has recently turned up the fire under the simmering disagreement over whether it is legitimate to describe economic behavior in terms of mathematical formulas. Professor Koopmans can hardly claim to be a disinterested party in this debate. But, as he points out, there are no disinterested parties: "It is true that it is already difficult, at best, to be objective about what are valid answers to a given social or economic problem. Society is all around us, and we are involved in it in many ways other than as observers and students. But it is even harder to be objective about what are promising tools for unsolved problems; the usefulness of our own individual minds and of the investments of personal effort sunk in our training and direction of interest are involved" (p. 170).

What lends vitality to Koopmans' contribution to the vexatious and basically arid dispute over proper method is its ring of honest self-examination. He is not writing to confute the anti-mathematicians or even to persuade the uncommitted, but primarily to clarify for himself the relevance and role of his own school of economics. When a man of Koopmans' stature and maturity scrutinizes his deep beliefs, the conclusions command attention.

This self-examination is presented in the form of three essays. The first, which comprises more than half of the entire volume, is an exposition and review of the major achievement of the rigorous-mathematical school and Koopmans' own principal contribution to economic theory: activity analysis. The roots of activity analysis lie in Walras' description of static equilibrium by a system of simultaneous equations and Pareto's use of these equations to establish the allocative efficiency of competitive pricing. It is now notorious that both of these demonstrations were fallacious at worst and loose at best. They did not succeed in proving that an economy possesses an equilibrium state with non-negative prices and outputs, that such an equilibrium, if it exists, is unique, or that such an equilibrium is stable.

About twenty-five years ago Abraham Wald made considerable progress in clearing up these outstanding issues, but his major contribution was to show that Walras, Pareto, and their followers had been balked by using inappropriate mathematical tools. Wald's own mathematics were opaque in the extreme—a frequent characteristic of pioneer endeavors—but his work originated the modern mathematical school which by now has cut the keys that unlock all the static aspects of the problem. The dynamic aspects—including the question of stability—still present formidable difficulties.

Koopmans' essay is designed to make the results of all this work accessible to economists with only weak mathematical backgrounds. It begins with a lucid
introduction to the underlying mathematical concepts and from them develops
the leading theorems thus far achieved: theorems that describe the conditions
under which a competitive price structure is compatible with productive efficiency.
These conditions are too elaborate to permit a concise, comprehensible para-
phrase, and none will be attempted. Their discovery exemplifies, as Koopmans
intends, the achievements of mathematical economics at its best. They also
illustrate one of the characteristic objectives of modern mathematical economics:
to place economic theory on a logical footing comparable in rigor to that of pure
mathematics. If you are looking for a definitive introduction to activity analysis
and a comprehensive survey of its major conclusions, here it is.

The remaining two essays are more explicitly methodological. In the second
eay Koopmans faces up to the worthwhileness of the rigorous approach, which
entails such an unwieldy mathematical apparatus. Before discussing Koopmans'
positive position let us record the concessions that he is prepared to make. First,
the rigorous or mathematical approach has been of little practical utility: "... in
the present period economics as a practical art is ahead of economics as a science.
At this stage most of us prefer to see the advising of government economic policies
entrusted to the experienced intuitive economist" (p. ix). And again: "We
must face the fact that models using elaborate theoretical and statistical tools
and concepts have not done decisively better, in the majority of available tests,
than the most simple-minded and mechanical extrapolation formulae" (p. 212).
And finally, he pays eloquent homage to the work of the great economists in the
literary tradition from Smith to Keynes and Schumpeter:

This last quotation is Koopmans' endorsement of the significance of traditional
economic theorizing as practised in preceding generations. But, as Koopmans
sees it, this older tradition has taken us as far as it can; further progress will require
more powerful logical tools. This is why the Walras-Pareto analysis had to be
reformulated into activity analysis and why economic theory appears so impotent
at present. The following passage summarizes Koopmans' concept of the progress
of economic theory and of the reasons for the use of increasingly elaborate analytic
tools as the price of progress:

Considerations of this order suggest that we look upon economic theory as a sequence of conceptual
models that seek to express in simplified form different aspects of an always more complicated reality. At
first these aspects are formalized as much as feasible in isolation, then in combinations of increasing realism.
Each model is defined by a set of postulates, of which the implications are developed to the extent deemed
worthwhile in relation to the aspects of reality expressed by the postulates. The study of the simpler models
is protected from the reproach of unreality by the consideration that these models may be prototypes of more
realistic, but also more complicated subsequent models. The card file of successfully completed pieces of
reasoning represented by these models can then be looked upon as the logical core of economics, as the
depository of available economic theory. (p. 142/143.)
The problems that the traditional tools could handle are now for the most part solved and have therefore become uninteresting. The problems that still confront us and make us doubt the adequacy of economic theory arise from trying to incorporate new complications of economic life into our conceptual models. Two complications in particular require advanced tools. First is the complex of problems relating to indivisibilities, increasing returns to scale, and location of economic activities. Neither the traditional literary analysis nor any newer tools now at our disposal deals effectively with this group of complications. The assumption that these complications do not exist, or at least that they can be neglected, is essential to the Walras-Pareto analysis and all its relatives and descendents. Nonlinear programming and discrete programming appear to be the most promising avenues for advance in this region, although Koopmans does not go into them.

The second group of difficulties relates to decision-making under uncertainty, both uncertainty as to what the future will bring and uncertainty as to other people's decisions. Progress in incorporating these considerations into economic models depends on the new—and intricate—studies of game theory and decision theory.

The requirements for advance into new and difficult territory is one of the two main justifications Koopmans gives for the mathematical approach in economics. The second reason has a ring of paradox: it is clarity. An argument conducted by formal means will make clear, as informal argument will not, just what the assumptions are that underlie the argument. Furthermore it will enable us to discover the minimum assumptions that can be used to attain a conclusion, i.e., just what features reality must be assumed to possess in order to justify an assertion. For instance, activity analysis has established that non-increasing returns to scale is essential to most of our usual conclusions about economic efficiency, while the assumption that production functions are continuous and smooth (which is implicit or explicit whenever a marginal analysis is used) is not. The power of mathematical argument, and also its persuasiveness, derives from its clarity. To be sure it is clear only to the initiate, but to him, since it consists invariably in the application of unambiguous rules to given assumptions, it is blessedly free of the danger of hoodwinking him by an unvoiced assumption or a subtle logical fallacy. Mistakes and unwitting assumptions do sometimes occur in mathematical argument, but they are far more detectable than in informal modes of discourse. Clarity in this sense is always a virtue, and in difficult problems a necessity. Hence the mathematical or postulational method of argument is becoming increasingly necessary in economics.

The final essay deals with the implications of four relatively new tools of economic research: new branches of mathematics, electronic computing facilities, new methods of statistical inference, and sample surveys. Together, Professor Koopmans hopes, these tools will make it possible to meet the greatest current need in empirical economic research: the construction and utilization of economic models more detailed and more flexible than any available up till now. One difficulty with all currently available economic models is that for practical reasons
they must be either very summary and aggregative (e.g., Klein's models) or else they must be very simple and rigid (e.g., input-output models). Any attempt to disaggregate a model with behavioral equations or to introduce more flexible relationships into an input-output model soon runs up against the bounds set by our ability to gather and process data, to compute statistical estimates, and to work through the calculations of the models. All of these limiting bounds are being pushed back by recent progress. This may permit the econometrician to achieve his long-awaited success.

As a vision of the growth and importance of economic theorizing, and of its relation to practical economics these essays are important and I am in substantial agreement with them. We must be reconciled to the fact that the progress of our science, as of any other, brings in its train an increasingly elaborate technical apparatus. Furthermore it brings the need for more precise and careful modes of deduction as the science moves beyond the realm where commonsense is a safe guide and check.

But as an answer to the detractors of the mathematical method in economics I almost wish it had never been written. For it does not contain an adequate answer to their essential charge—that of sterility. What is the purpose of building a refined mathematical structure on premises that are a crude first approximation to the reality we seek to understand? The efforts of some of the best brains of a whole generation of economists have extirpated Walras' old slips in logic—but how little have they added to his insights! To doubts such as these Koopmans provides only the inadequate answer that the new methods will show their power and value in the future. And I doubt that there is any adequate answer except performance which, as Koopmans concedes, has not been commensurate up till now with the enormous effort and talent expended.

I think that there is good reason to expect the new approach to pay off. The inadequacy of traditional methods in dealing with the problems of oligopoly, of large-scale production, and of economic dynamics is one reason, which Koopmans emphasizes. Another is the demands of empirical verification: we must conduct our economic thinking in a vocabulary that can be translated into statistical terms. Still a third reason, which Koopmans eschews, is that the new approach is intellectually satisfying, at least it is so to a large proportion of young recruits to the profession; they can hardly be prevented from adopting it. Now something is to be said, even though Koopmans refrains from saying it, in favor of intellectual tidiness and tightness for their own sake. Their appeal is more than aesthetic. They amount to a search for the irreducible essentials of a phenomenon—in this sense for its ultimate reality—and for as much certainty as human beings can hope for. In the end this search produces a simpler science, free of obscuring inessentials, and one that is easier to apply and extend than does a more immediate and pragmatic approach.

But clearly not all these considerations together counter-avail the fact that the rigorous pudding has provided only meagre eating, and the argument over its value will not be concluded, if ever, until some decisive results are attained.
I must not leave the impression, though, that these essays are a controversial tract. They are a carefully reasoned statement of convictions and hopes for one direction of advance of the science. The first essay is a classic, to be called to the attention of anyone interested in activity analysis or, indeed, in the efficiency properties of a general equilibrium system. The whole book must be reckoned with by anyone concerned with the methodology of economic theory. I hope that all doubters of the mathematical approach will take it into account before they resume their detractions. It would be still better, of course, if all the debaters would let the matter rest and pursue economics by the methods they prefer.

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ROBERT DORFMAN
A SURVEY OF RECENT CONTRIBUTIONS TO THE ECONOMICS OF DEVELOPMENT

It would seem that with the ever-increasing flow of new books dealing with the conditions and problems of economic growth in underdeveloped countries, the student of this literature will soon be able to choose from it what is closest to his particular interest. Today this wide field may be roughly divided into four categories according to where the main emphasis is laid by the individual authors.

In the first category of books, the authors pose the problems of underdevelopment primarily in terms of economic logic and apply in the main the principles and dicta of classical economic thought. In the second, the weight of the political and sociological factors colours or determines the conclusions of the author on the trends, possibilities, and urgency of development. The third category comprises those books which aim at surveying the existing approaches and theses, historically and analytically, without necessarily omitting a critical appraisal of the new theories and ideas. In the fourth category, specialised issues take pride of place.

The books under review represent all the categories outlined here and we may place them, in accordance with the above classification, as follows:

I. The economist’s approach.

II. Socio-political approach.

III. Theoretical-historical surveys and textbooks.

IV. Special aspects.
The treatise of Messrs. Bauer and Yamey appears in the Cambridge Economic Handbooks Series, which implied from the outset a certain limit in scope. Yet within these limits they have tackled most of the important topics such as problems of economic measurement, natural and human resources, the role of capital and capital formation in economic growth, the role of government in economic development. The authors start with a forceful description of the differences between the economic and social conditions in individual parts of the underdeveloped world; yet, they maintain, the applicability of basic tools and concepts of economics to its problems is not affected by such differences. They admit, at the same time, that "some of the main developments in economics over the last half century or so are of little use for the study of underdeveloped countries" (p. 9); they have here in mind primarily the field of equilibrium analysis and related subjects. Yet we should not be too hasty in expressing our satisfaction about this concession—certainly one welcomed by this reviewer—since Mr. Bauer, in his Economic Analysis and Policy in Underdeveloped Countries, which contains the three lectures delivered by him in October 1956 at Duke University, reaffirms his belief in the "very wide applicability to underdeveloped countries of the basic methods of economics and of the more elementary conclusions stemming from these" (p. 15). Under these circumstances, one would hardly expect to be provided with a new theory or new theses of development. Instead, as a result of their reflections the reader is warned against excessive hopes that rapid changes might be brought about in the present levels of economic performance in underdeveloped countries through imparting to the authorities the role of a "deus ex machina". In this connection the authors discuss at considerable length the role of government in promoting economic development. Though admitting the importance of governmental activities, they deny the crucial significance accorded by some schools to government in spurring economic development in underdeveloped countries. It is, however, more than doubtful whether the reasoning in Chapter XI fully allows for the actual conditions in many important underdeveloped countries. Who would, for instance, not recognize that, in principle, it is not for the state but for the members of society "to choose among the alternative opportunities open to them and develop them with the aid of their personal endowment and the property they own" (p. 149). But is it not unrealistic to apply such a recommendation to the illiterate and destitute majority of contemporary oriental populations at a time when we want to see their economic development speeded up? It is also true that, if a population does not have sufficient entrepreneurial talents, the good intentions of the Government alone are not enough to produce them. Yet here, too, the situation is much more complex.

The available store of such business urges is different in each of these countries. Some of them have a modest supply of local entrepreneurs. In others, local producers, such as the fellahin for instance, have become proverbial for their lack of initiative and ability to improve their lot. In the colonial period great strides in development were achieved by private businessmen in certain segments of the
economy. But it was mostly foreign concerns which performed the entrepreneurial functions, for which they were, as a rule, well compensated by the material and legal benefits accruing to them. In an age of militant nationalism the offering of incentives by government in the form of far-reaching concessions to foreigners is not feasible and new forms of entrepreneurial activity or new agencies fill the vacuum. The authors rightly point out that in some backward economies newly emerging local entrepreneurs have succeeded in launching important projects; yet the problem which underdeveloped countries regard as their problem Number One is macro-economic, one of magnitudes, i.e. their incapacity to cope, by traditional ways and means, with the overall development needs which they regard as vital. The issue is then to change the pace and the scope of economic growth even if this means a new economic policy and different forms of economic organisation.

One of the chief means of this policy is industrialisation as a revolutionary change and acceleration of modes of production. It has become a major goal of national programs in nearly all underdeveloped countries. It is for this type of drastic change that a public entrepreneur, usually the government or a governmental agency, is called in. If local experts and local capital are not available and sufficient for the realisation of such programs, it is the government which secures the services of foreign experts, foremen, and capital through bilateral agreements with more developed countries.

The chapter in Bauer-Yamey on industrialisation maintains the same critical attitude towards artificial stimuli which pervades the book as a whole. The authors' arguments deserve the attention of any official economist who advises his government on projects of industrialisation. Government must know the price the country has to pay for the new ventures and only the economist can tell it. Yet the economist cannot be the decisive factor. Higher returns in terms of the welfare of the community rank before the claims of an individual investor. This is an admittedly difficult problem since for genuine economic growth both returns should in the long run tally. Yet the neglect of the problem is not acceptable to the protagonists of the new economic programs in underdeveloped countries. This dilemma has been answered by the efforts of certain economists who have presented new conceptual views and hypotheses as to the way in which a slow growth or static economy may change over to an advancing economy. Concepts such as "the take-off into economic growth" or the necessity of "implantation" of incentives and new structures of growth, have been developed to define or explain crucial phases and processes in economic development. Such different approaches naturally lead to different appraisals of the role of public development corporations. Those who regard them as a useful means would not necessarily be indifferent to their shortcomings. They see the latter as less important than the complete lack of economic promotion, which frequently is the alternative.

The book by Harvey Leibenstein, *Economic Backwardness and Economic Growth*, is probably the outstanding theoretical contribution so far to the discussion of problems of economic development in the so-called backward economies. Whatever remains of its conclusions, it is a heroic attempt to tackle certain basic
problems in the normative approach, i.e. the endeavour to rectify the imbalance between developed and underdeveloped countries. Leibenstein uses four hypotheses as his point of departure (p. 16):

1. A backward economy is an equilibrium system which in equilibrium state possesses a degree of quasi-stability with respect to per capita income; advanced economies cannot usefully or accurately be described in such terms.

2. If the equilibrium of a backward economy is disturbed, the forces or influences that tend to raise per capita income set in motion, directly or indirectly, forces that have the effect of depressing per capita income.

3. In the backward economy the effects of the income-depressing forces are, for at least the lower incomes above the equilibrium level, greater than the effects of the income-raising forces.

4. During any period there is some absolute maximum to the effects of the income-depressing forces, but the absolute maximum (if any) of the effects of the forces creating per capita income is greater than that.

Leibenstein applies these four hypotheses in order to develop a highly interesting structure of ideas, among which the thesis of the critical minimum effort emerges as his crucial contribution to the theory of economic development, and, what is particularly significant, to a positive appraisal of the possibilities for development. It is therefore not surprising that Leibenstein does not join the camp of Malthusian writers who regard the population factor as the critical obstacle to economic development. For that is one obstacle which can be overcome as other obstacles to economic growth can be overcome. This does not mean that he fails to give close attention to the demographic problem; but he believes, with quite a number of writers on the subject, that fertility is largely the outcome of specific conditions and is subject to manipulation.

One of the lines of attack against traditional and rigid views of the prospects of development is his rejection of the "vicious circle". ("A country is poor because it has little capital, and it cannot raise capital because it is poor.") Leibenstein, in one of the best sections of his book, argues brilliantly that the permanency of the state of economic backwardness must not necessarily be taken for granted under all conditions, and he distinguishes between a "stability in the small economic backwardness" and stability in conditions where the relationships and magnitudes of effort have exceeded a certain minimum level (p. 96). The only reason why vicious circles appear vicious, according to Leibenstein, is because it is so difficult to find and marshal stimuli to development that are of sufficient magnitude. He believes, and this is his central thesis, that as soon as a critical minimum effort has been made, the dynamics of the economy would lead it towards an increase in per capita level. To demonstrate the working of this process he distinguishes between endogenous or induced events, that is events that can be expected to spring from the day-to-day economic processes of the economy, and exogenous or autonomous events that originate outside the economy, in the sense that they could not be expected to arise from the day-to-day economic process. He has particularly in mind that type of exogenous event, the initial impact of which is to raise per capita income above its former level.
If consistent development is to be adequate it is necessary that the initial effort or the initial series of efforts be above a certain minimum magnitude. Not all efforts to raise per capita income lead to economic development. Some are too small to do that. But those which are successful in doing so will, in a way, by their own momentum, force the process to become a continuous process and thus finally overcome the stagnation equilibrium and the vicious circle.

Leibenstein's book is decidedly a corner stone for the establishment of a theoretical foundation in the economics of growth. There remain, however, certain doubts as to how meaningful his reasoning is from the viewpoint of our empirical problems. Yet it would be unfair to blame the author for not seeing these shortcomings. He clearly states that his book is not an empirical book and that adequate factual evidence is mostly not available to prove all the propositions suggested by him or to support all the generalisations that are made. He sees the phenomena with which he dealt as amorphous, ambiguous, and mercurial in the extreme. But he can rightly claim that even with these gaps he has made a significant contribution to our central theme.

II

The most decided attempt to dethrone a central piece of classical thought, the theory of international trade, is made by Gunnar Myrdal in his Economic Theory and Underdeveloped Regions. He sees the situation of the contemporary underdeveloped countries as an irrefutable proof of the inapplicability of that theory: "It is an understatement to say that the theory of international trade does not furnish us with a model or logical mechanism representing a system of rational hypotheses which can be used for explaining why and how the huge economic inequalities between different countries have come to exist and why they tend to grow. This theory has, instead, been given a twist and—mirabile dictu—in very recent years increasingly so, in the direction of suggesting a situation and a development trend quite contrary to the actual ones.

"Under these circumstances it should not surprise us that, on the whole, the literature is curiously devoid of attempts to relate the facts of international inequality and the problems of under-development to the theory of international trade" (p. 149).

Against these shortcomings Mr. Myrdal wants to establish his theory that there is a tendency inherent in the free play of market forces to create regional inequalities and that this tendency becomes the more dominant the poorer a country is. He attributes to the factors operating in a welfare state a healthy countereffect against the "blind market forces which tend to result in regional inequalities", a process which, once initiated, will spur economic development in the country through a process of circular causation (p. 41).

Myrdal's book is a most stimulating treatise on basic problems of underdeveloped countries. He is so imbued with the main hypotheses he establishes that he seems occasionally swept away into generalisations and definitions on which we would like to obtain more evidence.
Though Myrdal claims that his generalisations do not as a "theory" need the usual proofs, we would wish to see more references to actual developments supporting his views. Yet even if we are somewhat uneasy about the broad statements he makes, his acute understanding of the fundamentally socio-political character of the problems of underdevelopment must be admired.

III

The book by Gerald M. Meier and Robert E. Baldwin, Economic Development, and Charles P. Kindleberger's Economic Development are both text-books and reference books which will certainly be of great help to students wishing to get thoroughly acquainted with the new subject.

The volume written by G. M. Meier and R. E. Baldwin has a formidable scope. It covers an amazing multitude of themes in the area of economic development of both poor and rich countries. It also devotes considerable attention to the relevant parts of the history of economic thought: Adam Smith, Ricardo, Marx, Schumpeter and Post-Keynesians. In special sections we find elaborate discussions of the actual course of economic development, and the problems implied in accelerating development in poor countries. An interesting chapter is devoted to the problem of maintaining development in rich countries; an equally interesting section is the rejection by the authors of economic welfare as a measure of growth because of its subjective character. The "economic potential" should serve as criterion.

The book not only provides an abundance of information but is distinguished by its coverage of practically all the problems which turn up in connection with the main theme. The question which this reviewer asked himself was whether the wealth of data and reasoning does not exceed the power of absorption of the reader. He would have preferred a more compressed presentation.

Professor Kindleberger's book appeared in the Harvard Economics Handbook Series, edited by S. H. Harris. As is to be expected from Professor Kindleberger, he is thoroughly familiar with many aspects of the central subject. He gives a comprehensive survey of the economic and social theories concerning economic development and discusses in particular many of the controversial developmental issues imparting to his text an attractive freshness and breadth.

Professor Kindleberger has no intention of submitting a single theory of development. Instead he tries to show how the existing theses and theories explaining and defining the different aspects of the theories are inter-related. Numerous diagrams add to the value of his presentation which will, like Meier-Baldwin's book, contribute to give the new field the status of a textbook discipline.

IV

It is a remarkable proof of the rapidly widening interest of German economic literature that it has turned its attention now to the area of underdeveloped countries. W. Guth's book on capital export to underdeveloped countries is a well-
need and demands of states and political problems related to the main subject. He starts with a theoretical clarification of the main concepts used in the book and then deals with the various aspects of capital export to underdeveloped countries. The role of the international institutions which have become catalysts for capital export is appraised, as well as the changes in the character of the flow of private resources. The effects of capital export on commodity export and employment are discussed and the various problems connected with the alternative uses of the capital flow in the receiving countries analysed, including the issues of industrialisation versus increase in raw material production, inflation and effects of the rate of growth.

In his conclusions, the author expresses his belief that a genuine "auto-harmonious" capital movement will take place only where large unexploited natural resources are to be found and the political and security risks are not prohibitive. Unfortunately, many of the countries particularly in need of capital imports are burdened by such risks and have sparse natural resources. Yet it is these countries which are more in need of help than the others and it is for them that the economists and the statesmen have to work out appropriate solutions.

Some of the conclusions have a ring of over-simplification and even of naiveté. The author refers to a possible competition for the capital market of underdeveloped countries between Western capital export countries and Soviet Russia—a contest which has become real in the meantime—and warns against overdoing this help. It should remain within due limits and not become the instrument of a "capital-export Dirigismus" (state-directed capital export), for that would mean a denial of the "principle of freedom in the economic sphere". Now, where is the underdeveloped country in which such a principle is fully maintained? Where are the populations of underdeveloped countries which rate this principle so high as to forgo financial help if it implies some restriction of economic freedom? Another warning of the author is subject to the same criticism: "It is not feasible to ask for capital participation abroad and to conduct a policy at home with the open or concealed target of autarky and socialisation" (p. 150). Yet this is exactly what is being expected and even done in a number of countries which have founded a new form of home-spun socialism. They do not regard the pursuance of these targets as such a flagrant contradiction as the author apparently does.

V

It is difficult to decide what factor is responsible for the upsurge in books on economic development. Is it the sudden awareness that there exists a considerable vacuum in economic knowledge and thought which has rapidly led to a concentration of academic speculation and reflections on the whole field of economic development? Or is it the political changes which—while producing a new relationship between the old-established, economically advanced nations of the world and the newcomers, usually classed as underdeveloped—have also had the
effect of posing new and far-reaching issues of economic policy on which guidance by the experts is urgently sought?

The books before us are part of the large literature which is already available in the field and testify to the diversity and fertility of the thinking which has taken place over a relatively short period. It is encouraging to observe that this new area of academic thought has been so attractive to writers of very different outlook as to induce liberals like Bauer and Yamey to contribute their spirited admonitions against manipulation in the natural course of the economic process, to stir Gunnar Myrdal to launch his sweeping and forceful criticism of classical theories, and to lead Leibenstein into his fruitful and promising speculations.

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A. Bonné
Common Frontiers of the Social Sciences is a collection of essays by scholars from various disciplines within the "social sciences". The volume is designed, according to its editor, Mirra Komarovsky (sociologist), to explore interrelations between the disciplines of economics, sociology, and history. The method employed in the exploration is that of case studies—studies of specific topics which are thought to involve overlap of the traditional disciplines, in contrast to general essays which might have described the province of the various disciplines and might have sought to define their boundaries in a vacuum, as it were. Seasoned readers of "inter-disciplinary literature" will probably applaud this decision of editor and contributors to center their attention on specific substantive case studies, and will probably find this specificity and particularity of the essays refreshing, however they may estimate their worth in other respects.

The case studies here presented are grouped under two general headings. (1) Under the designation, *History and Social Research*, are essays described by the editor as having "grown out of a systematic effort to relate methods of empirical social research to historiography" (p. 2): "The Debate over Art and Popular Culture in Eighteenth Century England", by Leo Lowenthal (sociologist) and Marjorie Fiske (sociologist); "Research Problems in American Political Historiography", by Lee Benson (historian); "Public Opinion in France after the Liberation, 1944-1949", by Russell E. Planck (historian); "History and Public Opinion Research, A Debate", with short essays by Paul F. Lazarsfeld (sociologist), Joseph R. Strayer (historian), and Henry David (economic historian). (2) The second section of the book carries the heading *Economics and Sociology*, and contains essays on the following topics: "Plant [i.e., Industrial Plant] Sociology"—one joint essay by Clark Kerr (economist) and Lloyd H. Fisher (political scientist), and one joint essay by Conrad M. Arensberg (anthropologist) and Geoffrey Tootell (sociologist); "Keynesian Theory and Empirical Inquiry", with essays by Robert Lekachman (economist) on "The Non-Economic Assumptions of John Maynard Keynes", by George Katona (economist) on "The Function of Survey Research in Economics", by William S. Vickery (economist) on "A Note on Micro- and Macroeconomics", and by L. R. Klein (economist) on "A Note on 'Middle-Range' Formulation"; the final essay of the second section of the book is "Reference Group Theory and Trade Union Wage Policy" by Seymour Martin Lipset (sociologist) and Martin Trow (sociologist).

A basic question concerning a volume with the title *Common Frontiers of the Social Sciences* would seem to be: what are the "common frontiers" in question and what is the state of affairs on these common frontiers? The common frontiers under discussion in this book are areas or cases in which the intellectual concerns...
of the disciplines of economics, sociology, and history seem to converge, and the editor has singled out four types of cases in which the articles in this volume show such convergence of different disciplines. One type includes those cases in which "concepts and hypotheses developed in one field open new problems and stimulate research in another" (p. 23)—illustrated, for example, in the Lowenthal-Fiske article, in which the artistic and literary scene of 18th century England is studied in the light of concepts derived from the present-day study of mass media of communication. A second type of convergence is seen when methods and procedures originally developed in one discipline or field are applied in another discipline or field—as, for example, the essay in which opinion polls are used by the historian Planck in the study of political attitudes in France from 1944 to 1949. A third type of convergence involves cases in which "two disciplines bring their respective theoretical frameworks to the investigation of the same empirical problem" (p. 25), and this is shown in the essays by Kerr-Fisher and by Arensberg-Tootell in which conditions within industrial plants (labor-management relations, worker productivity and morale) are examined from the perspective afforded both by economic theory and by sociological theory. A fourth type of convergence which marks a common frontier includes cases in which "the empirical data being accumulated in one field could be illuminated by concepts existing in another" (p. 22), and one example of this convergence is seen in the essay by Lipset and Trow where data concerning trade union behavior accumulated by labor economists is examined in the light of "reference group theory" formulated by social psychologists and sociologists.

In reply to the question, "What is the state of affairs on the common frontiers?", the reading of the essays in this volume left the reviewer (historian) with two contrasting impressions. One impression which emerges from some of the essays is that the common frontiers are areas of rich opportunities for increasing knowledge and understanding of human behavior through the exchange and combination of ideas and methods from different disciplines. This hopeful and optimistic picture of the common frontiers emerges, either through direct statement or through implication, from the editor's introductory remarks and from the majority of the articles in the volume (the articles by Lowenthal-Fiske, Benson, Planck, Lekachman, Katona, Vickery, Klein, and Lipset-Trow). This reviewer is not competent to pass an informed judgment as to whether these articles represent in themselves contributions substantial enough to justify this optimistic estimate of the possibilities of the common frontiers. He can report, however, that he found many of these articles stimulating and provocative and that they opened several new intellectual vistas for him. The article nearest the scholarly interests of the reviewer is that by Lee Benson, and Benson's analysis of problems involved in describing and interpreting the elections of 1824, 1860, 1884, and 1896 in the United States seems to the reviewer valuable and worthy of the attention of all historians (whatever their special field) because of what is said and what is demonstrated concerning systematic research methods.

A second and different impression of the state of affairs on the common frontiers emerges, however, from the two groups of essays where authors from
different disciplines discuss the same general topic (Lazarsfeld, Strayer, and David on public opinion research, and Kerr-Fisher and Arensberg-Tootell on plant sociology). From these five essays, the common frontiers appear, like some western frontiers of 18th and 19th century America, as "dark and bloody ground" where members of different disciplines dispute over who has cultivated the frontier land most successfully and over whose methods offer the best hope for future success in cultivation. On the common frontiers here revealed we find a sociologist championing the use of opinion polls in the study of public opinion, while two historians express skepticism of the value of opinion polls; we find an economist and a political scientist joining in criticism, while an anthropologist and a sociologist join in praise, of studies by sociologists concerning conditions within industrial plants. The language used in these disputes on the common frontiers is that of confident (and perhaps smug?) assurance of the superiority of one's own discipline, and irritation or sarcasm or anger at the ideas, methods, and claims of disciplines other than one's own. If this sort of conflict has been observed by many individuals who venture into the common frontiers, and this reviewer thinks such is the case, then the editor has made her volume a more realistic picture of the common frontiers by including in it these examples of what she has called "interdisciplinary polemics". For the same reason, it might have been worthwhile to have included in the volume a criticism by some economist, or sociologist, or historian of the very concept of common frontiers—and thus to have subjected to rigorous examination the basic perspective upon which the book rests.

Consideration of the common frontiers as areas of bitter intellectual conflict provides much food for thought, and we may presume that different observers will draw different conclusions from such consideration. One of the conclusions reached by the reviewer is that "interdisciplinary polemics", both those presented in this book and those observable in many other places, should lead to considerable soul-searching on the part of academicians. Some academicians picture themselves as upholders of reasoned tolerance and open-mindedness toward "controversial ideas", in contrast to supposedly less enlightened individuals in the population who wish "conformity" to some ideas and who are concerned with the "loyalty" of their fellows to those ideas. The soul-searching question is whether academicians display reasoned tolerance and open-mindedness when the "controversial ideas" challenge presuppositions of their own discipline, presuppositions which frequently have come to embody much of their own philosophy of life. In university circles in the United States today, few issues in the humanities and social science disciplines are more emotionally charged than questions which concern the common frontiers of interdisciplinary studies. In this situation is the individual who ventures to the common frontiers likely to be intellectually ostracized for his nonconformity by the other members of his discipline? Is he likely to be considered disloyal to the ideas of his discipline? The point is not that "controversial ideas" are to be presumed superior ipso facto to non-controversial ideas; nor is the point that ideas generated on the common frontiers are to be presumed more valid than ideas current in the various disciplines. The point, as academicians have so often maintained in other situations, is whether "contro-
versial ideas" and the holders of "controversial ideas" can be considered and evaluated in an atmosphere of reason and of true open-mindedness. The common frontiers, seen in this light, serve as testing grounds where academicians may see if, in the pungent and non-academic phrase, they can practice what they preach.

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THOMAS J. PRESSLY

G.

excellent, of course, but the problem of the relation of local regulations to those of the federal government is one which must be considered.

The complications of the basic assumption of the statement of the second part of the first paragraph, as herein expressed, are not as relevant to the main theme of the analysis as the statement itself or its implications.

It is clear that the first part of the first paragraph, when related to the second part, does not stand alone but is part of a larger analysis of the second part.

evi...
BESPRECHUNGEN
COMPTES RENDUS – REVIEWS


The study of modern Japanese economic history seems to be in vogue, as the exceptionally high rate of growth of the Japanese economy since the introduction of Western European capitalism has attracted general attention. However, as regards academic literature focussing on the recovery process of the Japanese economy after World War II, Japan’s Economic Recovery by Professor Allen may be regarded as a pioneer achievement.

The book gives a detailed description of Japan’s resurgence from the state of ruin to which this country, previously the leading industrial state in Asia, had been brought in 1945. Particulars are given of the recovery in various fields such as agriculture, industry, finance, trade, etc. Further, a rational view is taken of the results of economic democratization (one aim of the occupation policies of the Allied Powers): the land reform, the dissolution of the “Zaibatsu”, and the encouragement of labour organizations.

Reflecting the profound knowledge gained by Professor Allen in more than thirty years’ study of Japanese modern economic history, the book is exact and reliable. There are clear and academic explanations of certain problems of which before the Japanese people were not yet aware. However, as lack of space does not permit a review of the book in detail, I shall confine myself to general matters.

The book is very descriptive, but rather weak in analysis of causes—an inevitable result of the author’s approach. One feels that something is wanting from a scholarly viewpoint. The book compares the economic recovery after 1945 with the rapid economic development in the 1930s. This line of approach is interesting and has not been frequently adopted in Japan. There is, indeed, a similarity in these two periods, so far as the advance in production is concerned. But the 1930s present a quasi-wartime and militaristic structure of politics and of the economy, whilst the period after 1945 has developed, in appearance at least, a democratized and liberalized political and economic structure. What led to this similarity of rapid economic growth under conditions which were completely dissimilar? No close inquiry is made into the “what”. The rapid economic development in the 1930s can be explained as occurring at a time when the state-capitalistic system of development reached its zenith; but the driving force of the economic recovery after 1945 still remains a mystery even to the Japanese people. There is no doubt that United States economic aid constituted an important factor in the recovery of the Japanese economy from the catastrophic situation which prevailed after the termination of the war. But there are many countries which experienced no marked recovery despite economic aid. Why has United States economic aid
produced such splendid results in Japan? The book gives no sufficient answer to
this question. As the rapid economic growth in the 1930s and after 1945 was
paralleled in Germany, the significance of the book would have been greater if
a comparative study of Japan and Germany had been made.

Another point which must be stressed is that the collection of material used
in the book is one-sided. This is an important factor connected with the method
of study. Certainly there is abundance of material, but, as the bibliography shows,
it is limited to publications written in English. Further, the documents quoted
are mainly of government and capitalistic origin in Japan. They mostly describe
the external appearance of the economic recovery but not the inside facts. This
defect could be remedied by the study of Marxists. As the author well knows,
Japanese capitalism has been most actively investigated in Japan by Marxists,
who have been the authors of many publications. These studies may include
works of slight academic value; but the fact that the book pays little regard to
the Marxist studies is a weak point. According to the preface of the book, the
author visited Japan in 1954 and asked the opinion of many Japanese people;
but they were limited to the higher ranks of central government agencies and
to spokesmen of industrial and financial circles. There are no signs that he sought
the views of leaders of the labour movement, officials of farmers’ organizations,
leaders of women’s organizations and the general public. If Marxian studies and
the opinions of the labour class had been quoted, the inside history of the post-war
economic recovery would have been disclosed and would have presented a
different aspect of the situation. As the post-war Japanese economy has had its
bright and dark sides, its real state cannot be grasped by considering one side
only. It plainly presents the strength and the weakness of competitive capitalism.

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GEN-ICHI ABE

OSKAR ANDERSON. Probleme der statistischen Methodenlehre in den Sozial-

Beschränkten sich noch vor wenigen Jahren die Quellen mathematisch-statisti-
schen Wissens im wesentlichen auf amerikanische, englische und italienische
Lehrbücher, so gibt es jetzt eine wachsende Zahl von deutschsprachigen Original-
werken. Dies ist aus zwei Gründen erfreulich. Einmal haben nun auch jene, die
des Englischen oder Italienischen nicht oder zu wenig mächtig sind, Gelegenheit,
Originalbeiträge in einer ihnen geläufiger Sprache zu lesen. Andrerseits wird
es möglich, statistische Lehrbücher zu lesen, die auf volkswirtschaftliche Probleme
zugeschnitten sind, da im deutschen Sprachgebiet die Statistik von jeher schon
im volkswirtschaftlichen Bereich verankert war, während die anglo-amerikanischen
Lehrbücher in den meisten Fällen im naturwissenschaftlichen Bereich beheimatet sind. Dies gilt in besonderem Masse für das vorliegende Werk, das
nun bereits in dritter Auflage erscheint. Dieser Erfolg ist zweifellos nicht allein dem Inhalt, sondern auch dem Verfasser zuzuschreiben; Oskar Anderson, ein Statistiker von internationalen Ansehen, ist es vor allem zu verdanken, dass sich die modernen mathematischen Methoden der Statistik auch im deutschen Sprachgebiet durchgesetzt haben, namentlich in Deutschland selbst, das vorwiegend die historische Statistik gepflegt hatte.


Das Buch ist in folgende 10 Kapitel gegliedert: statistische Methode, Kollektivmasslehre, Indexzahlen, statistische Fehler, Grundelemente der Wahrscheinlichkeitslehre, homograde und heterograde Statistik, das Problem des Wesentlichen und Zufälligen, das Problem der Zerlegung statistischer Reihen, Korrelation, statistische Kausalforschung. Es schliesst mit einem mathematischen Anhang, einem Literatur-, Namens- und Sachverzeichnis. (Das Literaturverzeichnis umfasst gegen 300 Titel.)

eingehend behandelt. Hierin zeichnet sich dieses Werk vor den meisten statistischen Lehrbüchern in besonderem Masse aus.

Anderson dürfte der Nachweis gelungen sein, dass die Werkzeuge der Statistik in den Sozialwissenschaften wesentlich vorsichtiger zu handhaben sind als in den Naturwissenschaften. Das Buch ist geeignet, dem Sozialwissenschaftler, und insbesondere dem Volkswirt, ein gewisses Mass an Verantwortungsbewusstsein bei der Anwendung statistischer Verfahren einzuflößen.

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ERNST P. BILLETER


Ce beau livre analyse les obstacles qui peuvent se dresser devant les firmes qui veulent pénétrer dans un nouveau secteur et les conséquences que la «barrière» ainsi constituée peut avoir sur le fonctionnement de ce secteur.

Les obstacles sont groupés sous quatre rubriques: 1° Nécessité de produire par grandes quantités, qui peut désavantager le nouveau venu si – le marché étant étroit – il ne trouve pas de débouchés suffisants pour produire dans les meilleures conditions et a dès lors des coûts moyens par unité élevés; l'analyse d'un certain nombre de cas concrets montre que cet obstacle se rencontre dans l'industrie américaine beaucoup moins fréquemment qu'on ne le croyait généralement. 2° La différenciation des produits par différence de qualité, publicité, service après vente, inertie des utilisateurs, etc.; cet obstacle est fréquent et peut avoir beaucoup d'importance. 3° Différence absolue de coût tenant soit à un meilleur approvisionnement en matières premières, soit à des brevets, une expérience plus grande, etc., soit à l'intégration, qui fait que dans certains secteurs les matières premières ou demi-produits ne peuvent être obtenus dans de bonnes conditions que par les firmes du groupe; facteur qui peut donc être particulièrement important. 4° Le montant du capital à rassembler, qui résulte non seulement des conditions techniques mais encore du degré de différenciation des biens et d'intégration des firmes; selon l'auteur, il faut 500000000 de dollars pour une firme d'automobiles ou une aciérie; la chaussure, qui dans les cas rassemblés par l'auteur se trouve en queue, nécessite encore 5000000 dollars.

La barrière peut donc être plus ou moins haute. L'auteur distingue finalement trois degrés. Plus la barrière est faible, plus les prix tendent à être plus du niveau minimum des coûts, plus le taux de profit moyen pour le secteur est bas; plus les frais de vente tendent à être faibles et plus la structure du marché tend à être stable et le comportement des différentes firmes moins coordonné. L'auteur indique que ces résultats ne dépendent pas seulement de la hauteur de la barrière mais aussi de sa nature – obstacles 1, 2, 3 ou 4 – et de la structure de l'industrie, c'est-à-dire du nombre d'offreurs et de leur tendance à agir d'une manière plus ou moins coordonnée.
J. S. Bain nous fournit donc une analyse de la «Workable Competition» réclamée par J. M. Clark. Le très grand mérite de ce livre est de nous fournir un schéma théorique simple et de le confronter avec les faits, 20 secteurs industriels américains. De plus, certains chapitres sont dignes d'être lus pour eux-mêmes; ainsi ceux qui sont relatifs à la mesure de la barrière ou à l'analyse des avantages de la production à grande échelle où l'auteur distingue soigneusement les avantages qui tiennent à la taille d'une usine (plant) de ceux qui proviennent de la multiplicité d'usines plus ou moins homogènes.

Notons en le regrettant le caractère limité de ce travail. L'auteur n'analyse que vingt secteurs industriels américains. Sa conception théorique nous semble étroite. L'arrivée d'un nouveau venu dans un secteur est un phénomène de migration où des individus ou des firmes passent d'un état à un autre. J. S. Bain n'analyse que la barrière qui est constituée à l'entrée du secteur considéré. On aurait pu examiner des firmes en voie de transition; c'était une autre optique certes, mais J. S. Bain n'en souffle mot. De même il ne tient pas compte de la personnalité du nouveau venu: est-ce une firme déjà existante ou qui se crée de toutes pièces? Est-elle de même taille, a-t-elle le même processus de fabrication, le même type d'organisation que celles qui sont déjà établies? Ceci est selon nous très important car si le nouveau venu est d'une espèce différente: 1° Les barrières seront beaucoup moins efficaces. 2° Les possibilités de collusion ou d'action coordonnée avec les anciens seront beaucoup plus faibles; dans le commerce par exemple l'ouverture des Uniprix a eu beaucoup plus d'effet sur le comportement des commerçants que n'en avait eu auparavant l'extension des magasins à succursales multiples. 3° De nouvelles modalités de transition apparaissent; il ne nous est pas possible à nous autres Européens de rejeter dès le début de l'analyse le cas d'une firme externe importante s'associant avec une toute petite firme déjà établie dans le secteur; en France, en Belgique et en Afrique Occidentale Française, pays que nous connaissons le mieux, le phénomène est extrêmement fréquent. Enfin, et ceci est peut-être lié au caractère statistique de l'étude, l'auteur ne fait que peu de références à la littérature préexistante sur ce sujet; le livre de Machlup n'est même pas cité.

Tel quel, le livre n'en constitue pas moins une œuvre fondamentale sur ce qu'il est convenu d'appeler la théorie des prix.

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MARCEL CAPET


The scope of the book is wider than the title indicates; in the process of analysing the impact of population growth on levels of consumption, the author deals with various other problems of development, like investment and its distribution in
different industries. The book thus is an important contribution to the literature on development economics. The author has been associated with various international organizations in different capacities, and his particular connection with the South-East Asia region comes out most vividly in the examples and references he uses in the book.

The author succinctly summarises the population dilemma in the underdeveloped countries: with a rate of population growth of 1.5 to 2 per cent per annum, it is only possible to maintain per capita income by a saving of 4 to 6 per cent of national income, given a capital-output ratio of 3:1 to 4:1. What is more, many modern developments in medicine and hygiene tend to further increase the rate of population growth by reducing the deaths caused by abnormal factors. For example, in Ceylon control of malaria through D.D.T. doubled the rate of growth of population in a few years. The author argues that industrialization or urbanization by itself will not reduce the birth rates, and that such a reduction is dependent upon the acquisition of certain attitudes, which would in any case take long to be developed. The author examines the role of savings, investment and innovation in increasing per capita income. He favours investment in light consumer goods, medium and heavy industries in that sequence. He also makes out a case for international aid to enable underdeveloped countries to break the vicious circle of poverty—inadequate savings to cope with population growth—poverty, which characterises underdeveloped economies. It may be added that his estimate of the capital imports required is much lower than that of the U.N. experts in Measures for the Economic Development of Under-developed Countries.

The author's analysis of the population dilemma is illuminating, particularly his treatment of population growth and economically active population. When, however, he goes beyond this sphere to deal with the problem of under-development and its solution, his analysis falls far short of expectations. This is essentially due to the lack of a theory of growth from which practical measures can be deduced.

The author has had considerable experience of practical work in international organizations, and he suggested various ad hoc measures to solve the problem of under-development. These, one may say, are traditional, referring particularly to the lack of complementary capital goods in an underdeveloped economy, which is to be made good by increased savings or capital imports.

This approaches the problem from the wrong end. What inhibits the process of growth in underdeveloped economies is the lack of sufficient wage-goods to give employment to those unemployed or disguisedly unemployed. What is necessary to increase the pace of development is a sufficient surplus of wage-goods to enable the employment of these persons. In India this has been proved to be so both in a negative way and a positive way. In 1953-54, when food production (which of course, is only one component of wage-goods) suddenly shot up, it was possible to increase substantially the rate of investment in the economy. On the other hand, in 1955-56 and later, when food production went down or remained steady, it was found difficult to maintain the rate of investment without adverse effects on the economy.
This process of reasoning leads to two conclusions which Mr. Belshaw appears to ignore: the rate of development depends upon the growth of a wage-goods surplus in the economy; the creation of a wage-goods surplus would justify investment in latest techniques.

The problem of development of the U.K., the U.S.A. and the U.S.S.R. also illustrates the essentials of the above argument, though none of these countries had a population problem to face as the underdeveloped countries of to-day have. In the U.K. the necessary surplus was created by the enclosure movement, and later by the repeal of corn-laws. In the U.S.A., the opening of the west enabled a constant surplus to be created. In the U.S.S.R. the surplus was forcibly created by the organisation of collectives and compulsory levies on them.

It is essential therefore to look on the problem of under-development as a whole, and not to provide remedies which are intended to patch up particular gaps. The agricultural programmes which the author commends are steps in the right direction; the utility of the other measures suggested by the author is less clear; as Galenson has argued, the use of advanced technique is essential to provide a break through for underdeveloped countries.

The book provides an interesting analysis of the population problem, with a summary and summing-up of the recent literature on population theory. It gives a discussion of the role of savings and investment in underdeveloped economies, and provides some novel thoughts on the role of innovations. The book is well-organised and lucidly written, and should prove useful to population planners.

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"Ricardo", wrote Keynes in the General Theory, "conquered England as completely as the Holy Inquisition conquered Spain"—a dictum which was based on the assumption that Say's Law constituted the essence of Ricardo's system. Other economists, Schumpeter for example, arguing on the assumption that Ricardo's theory of value constituted the essence of his system, have suggested that his "conquest" was in fact a very limited one indeed, and that economics had already begun to move on to a new course by the early 1830's. Dr. Blaug's excellent book, one of the first to attempt a detailed survey of the ideas and development of the Ricardian school, rejects the assumptions of both these groups of antagonists. "The heart of the Ricardian system", he affirms, "consists of the proposition that the yield of wheat per acre of land governs the general rate of return on invested capital as well as the secular changes in the distributive shares" (p. 3). If we judge economic theories according to their acceptance or rejection
of this proposition, then, we will find that "in this sense, the theories of Ricardo did exert an overwhelming influence on British economic thought throughout the period from Waterloo to the Franco-Prussian War" (p. 3).

Those of us who have participated in the controversy over the proper meaning of "Ricardian economics" certainly owe Dr. Blaug a debt of gratitude for the painstaking way in which he has clarified a number of the issues involved. His account is balanced and fully documented, and even those who disagree with his central thesis will rise from a reading of his book with a heightened understanding of why they disagree. Dr. Blaug admits that by 1827 "every leading writer denied the Ricardian maxim that 'profits depend on wages' except as a truism about relative shares" (p. 61); that by 1830 "the avowed partisans of Ricardo had all but disappeared" (p. 62); that by 1835 "the Malthusian theory of population was, if not repudiated, so decisively shorn of its short-run implications that virtually nothing was left of it" (p. 111); that "Ricardo's theory of value was never adequately expounded or defended by any of his followers" (p. 2); that John Stuart Mill "only succeeded in upholding an emasculated version of Ricardo's system while yielding to the anti-Ricardians on a number of crucial analytical questions" (p. 167); and that Cairnes "repudiated much that was central to Ricardo's system" and defended Ricardo only "from a desire to stem the tide of shallow empiricism which was sweeping over contemporary economic thinking" (p. 220). Nevertheless, in spite of all this, it is quite true, as Dr. Blaug puts it, that "the Ricardian emphasis on economic growth and the changes in the distributive shares so permeated economic thinking in the period that even those who revolted against Ricardo's authority in fact accepted its essential outlook" (p. 226). These are indeed the facts, and Dr. Blaug has stated them very fairly: whether they should be regarded as constituting a victory or a defeat for Ricardo seems to be quite largely a matter of taste.

It is also, however, a matter of the proper interpretation of Ricardo's own doctrine. Dr. Blaug's interpretation is subtle and original, but I think that in part it may be open to question. In particular, it seems to me to be going rather too far to argue that Ricardo derived his theorem about profits and wages from his concept of an invariable measure of value. Admittedly it is possible to "rescue" Ricardo, as Dr. Blaug does, from certain apparent inconsistencies if one assumes that he constantly had in mind a yardstick of measurement of a particular type, but I find it hard to believe that the essence of his major propositions on distribution was quite as closely connected with this yardstick as Dr. Blaug maintains. Also I feel that Dr. Blaug underestimates the extent to which Ricardo's theory of value determination was linked with his theory of distribution: in the Principles, after all, the elements of the latter were developed in the context of a critique of Adam Smith's idea that the labour theory of value ought to be relegated to primitive times.

But these are relatively minor criticisms of a very worth-while book, in which both the specialist in this period and the non-specialist will find much of great interest. Particularly welcome is Dr. Blaug's constant reference to the effect of observations of empirical data regarding population growth, corn prices, etc.,
in discrediting some of Ricardo's hypotheses. His remarks on the question of the "general glut", too, seem to me to be especially good, giving prominence as they do to the "Physiocratic" character of Malthus's ideas. And how refreshing it is to see Harriet Martineau coming into her own again, with a chapter all to herself!

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Here indeed is an interesting problem; how to reconcile tail fins with econometrics, how to explain the purchase of these gleaming, multi-coloured monsters, which hurtle along American highways, symbols of status and affluence and incidental purveyors of death and destruction. The author starts with the pure theory of consumer behaviour, straight from the masterly hands of Hicks and Samuelson, adds a dash of Friedman, plus a contribution of his own, and fits a variety of demand functions to empirical data for the automobile era of 1920 to date. He ends up with an almost embarrassing variety of demand functions, most of which seem to perform fairly well, and so, like the car purchaser, he has to make a choice between not too dissimilar products. Indeed it seems only appropriate, with reference to the existing structure of the American automobile industry, that in a chapter entitled "Purchase Models" the author's problem is to select one from three. It seems very doubtful, however, that the straightforward application of conventional statistical methods is a valid discriminatory device in this instance.

The application of existing demand theory to durable goods requires that the arguments in the utility function be interpreted as planned consumption, as distinct from planned purchases. If they were taken as purchases, they would be influenced by variations in the quantities already owned. The author makes two further important assumptions. The first is the Friedman assumption that consumption is a constant fraction of income, where income is defined as the maximum amount an individual can consume during a period without reducing his wealth. The second assumption is designed to give recognition to the fact that durable goods are one form of assets. "Consider three kinds of assets, money, consumer durables, and securities. Our hypothesis is that the consumer desires to keep a constant ratio between the total value of his durable holdings and his stock of money. This hypothesis is expected to be better than the hypothesis of a constant ratio between the total value of the individual's durables and his total wealth, since the latter relationship is not invariant with respect to the rate of interest" (p. 17).

A simple aggregative demand function consistent with the existing theory is
where

\[ X = J p^o I_b \]  

(1)

\( X \) = per capita stock of passenger cars on December 31 in the United States, measured in "new car equivalents" (p. 30/31);

\( J \) = constant;

\( p \) = relative price index of cars;

\( I \) = income.

Experiments with disposable and expected income respectively give coefficients of determination of 0.898 and 0.948, which lead the author to conclude "The existing theory of consumers' demand has been found to be satisfactory when applied to the demand for automobile ownership in the United States, while 'expected income' has turned out to be a better measure of income than the traditional disposable personal income" (p. 39). The latter part of this conclusion is based on the difference between two partial correlations, but though such tests are used repeatedly throughout the volume, the author nowhere faces up to the difficulties involved in applying such tests to aggregative time series analyses nor does he look for any of the danger signals, such as autocorrelated residuals.

Complications set in when the alternative theory (asset ratio hypothesis) is introduced. This is done by adding the stock of money, \( M \), as an additional variable to the demand function (1) above. The difficulty is that when disposable personal income is used in the statistical analyses the alternative theory seems to be "superior" to the existing theory, while when expected income is used the position is reversed, so that we end up in the air. In view of the unsolved statistical difficulties here in judging which hypothesis is superior, the author is probably wise in not paying too much attention to such differences as he finds, and we may go some way with his assertion that "... the conclusion cannot be avoided that both are promising theories of the demand for durables" (p. 40).

A very interesting chapter on "Purchase Models" examines the results of different assumptions about the degree of substitutability between one-year-old cars and the rest of the car stock and also explores assumptions about dynamic adjustment towards equilibrium stocks and about the impact of current savings on new purchases. This is followed by a useful concluding chapter, which gives a comparative survey of studies by Roos and Szeliski and Farrell.

University of Wisconsin, Madison (U.S.A.)  
J. Johnston

ROBERT DORFMAN, PAUL A. SAMUELSON and ROBERT M. SOLOW.  

Linear programming was born with the claim that it opened up an entirely new way of looking at resource allocation which bore little relationship to existing economic theories. Gradually it was discovered that the ties were closer than at
first supposed; that linear programming carried on in effect where the principles of neo-classical marginal analysis had left off—as for instance when choices occurred between producing something or nothing at all of various commodities. The facts, moreover, that the "efficiency prices" of linear programming were glorified scarcity rents and that they permitted new insights into some classical problems, viz. of specialization in international trade, were emphasized as early as 1949 in some RAND reports on "Market Mechanism, and Maximization" by P. A. Samuelson. It was understood that these papers were to be chapters of a forthcoming book bringing to bear the new tool of linear programming on general economic analysis. This book has at length appeared. It is a weighty affair involving three authors, some 520 pages, and selling for no less than 10 dollars.

Needless to say, it is an excellent work. The reputation of each of the authors for pedagogical expertise requires no elaboration. The book being written in the broad style of American textbooks has the advantage in this case of keeping the ratio of figures, equations and tables to English text small for a serious work, and thus to make it much less frightful to the average reader. The organization of the text is straightforward. The introduction begins with a historical sketch and an outline. "Basic Concepts" are introduced by means of two elaborate examples: the diet problem (minimizing expenditure on a bundle of foods which meets all nutritional requirements) and the doctrine of comparative advantage. Next the two principal aspects of the linear programming approach are set forth in detail: the valuation of resources implicit in economic optima and the methods of finding the solution in a finite number of steps which exploit the principles of valuation (including the famous simplex method). These general ideas are elaborated, developed, and tested in a series of examples ranging from transportation, the theory of the firm, Leontief systems, and the theory of games, to general equilibrium and welfare economics. The most original contributions are contained in the chapter on "Efficient Programs of Capital Accumulation" which develops a fresh approach to economic dynamics. In particular it is investigated under what conditions and in what way the best achievement of a future objective assumes the course of a process of balanced growth. As an extra bonus the book contains an exposition of the elements of game theory and an introduction to the algebra of matrices (in an appendix).

This book is without a question a standard work on its subject. While not entirely easy going, it presents the most readable serious introduction to date to the important and growing field of linear programming as applied to economic theory.

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Martin J. Beckmann

There are many requirements a textbook should satisfy in order to gain the mark “excellent”. In the first place, there is the rather subjective requirement that it should be neither too thin nor too fat. In the second place, its language should be clear and its composition should be suited to the group of students for which it is meant. Finally, it should present a harmonious mixture of theory and practice.

Concerning the first requirement, opinions on the optimal length of a book on international trade seem to be divided. When Harrod reviewed Meade’s *Balance of Payments in The Economic Journal*, his complaint was that it was too laborious. However, when Meade contributed to the same journal his review of Harrod’s small book on international trade, he criticized Harrod for having omitted so many important and essential parts of economic theory. Meade wisely suggested that the ideal size of such a book might be about 200 pages.

At first sight Ellsworth’s revised edition of *The International Economy*, in which many paragraphs and chapters of the first issue have been condensed, but which still numbers 500 pages, does not stand the test of briefness. Fat books are the nightmare of any student for whom they are obligatory reading. Furthermore, their bulk often deters the serious reader from even beginning to study them.

However, Ellsworth’s book contains much material on the history of international trade, which, though useful, bears no special relation to the modern theory or practice of international economic relations. The omission of these paragraphs reduces the contents quantitatively by as much as 30%.

Furthermore, this revised issue—like the previous one—devotes several chapters to general economic problems for the benefit of readers who are insufficiently acquainted with modern economic analysis. If we deduct these chapters too, the core of the book concerned with modern international economic problems may be considered to consist of about 250 pages, which is not excessive.

Since any intelligent student will be able to pick out the parts he really needs and leave what may be superfluous, the advantage of this book is that it may be used by a rather large group of students, comprising the advanced as well as the less advanced.

The second requirement we put forward was clarity. In this connection consideration must be given to the entirely new chapter on the impact of factor proportions and factor prices upon international trade. Much has recently been written on this subject in various economic papers, and the problem can hardly be explained without the use of mathematical symbols. The author has nevertheless succeeded in translating the complicated problem into clear textbook language, which is a really great achievement.

Finally, in a textbook economic theory and economic practice should be well balanced. In Professor Ellsworth’s book the proportion is about 2 : 1. The practical parts refer especially to problems of international organisations such as E.P.U.,
the Monetary Fund, the Sterling Area, etc. In these sections some minor errors have crept in. For instance, the European Economic Community does not have a transitional period of 12–14 years, but of 12–15 years (page 9). By 1957 Benelux had already realised the possibilities of free migration of capital and labour. (The book, on page 497, speaks of serious obstacles to this free movement.) There are a few more of such slips, which can hardly be avoided in a book covering so many different subjects.

Personally, I think it an omission that, in textbooks like the one under review, attention is rarely paid to the structural changes which have taken place in world trade, during the last few decades, and which are quite remarkable as regards both the changing pattern of the composition of commodity trade and the geographical distribution of world trade. In this connection, the annual reports of G.A.T.T., E.C.E. and other organisations contain a wealth of interesting analyses.

To sum up, however, Ellsworth’s *International Economy* belongs to the “upper ten” in the field of textbooks. It has gained considerably by its revision and, even more than before, it may be classified as belonging to the small category of “excellent” textbooks.

The Hague (Holland) J. WEMELSFELDER


Professor Friedman addresses himself to a problem that has already attracted much attention since 1945, namely, the discrepancy between the slope of the short-run cyclical consumption function and the slope of the long-run secular consumption function; or, in terms of cross-section data, between the marginal propensity to consume exhibited by different income groups at one time and that exhibited by different samples from the same country at different times. Various hypotheses have been advanced to explain these apparent contradictions, of which the relative income hypothesis of Duesenberry and others is probably the most widely accepted. Professor Friedman, however, has a new hypothesis—according to which the whole difficulty is a purely statistical one. If we follow him we must believe that the “true” marginal propensity to consume is the same as the average propensity to consume and that all the evidence to the contrary is simply an illusion.

His central argument runs as follows. We are to assume that each consumer unit’s current income \( y \) consists of two parts: “permanent” income \( y_p \) and “transitory” income \( y_t \). Similarly current consumption \( c \) consists of \( c_p \) and \( c_t \). Next assume that for a given group of consumer units \( c_p \) is uniquely correlated with \( y_p \), so that \( c_p = k y_p \). On this assumption the correlation coefficient \( \rho_{c_p, y_p} = 1 \);
but the other correlation coefficients, $\rho_{x'y}, \rho_{x'c}, \rho_{y'c}$, are assumed equal to zero. If, further, $\bar{y} = \bar{c} = 0$, it follows that $b = k(\text{var} y)/\text{var} y$. Since $k = \bar{c}/\bar{y}$ we can estimate both $b$ and $k$ from any available sample data and hence arrive at an estimate of $\text{var} y/\text{var} y$, which Friedman calls $P_y$. This is also an estimate of the income-elasticity of consumption at the sample mean.

Friedman devotes some space to arguing the plausibility of the various assumptions made above; but the bulk of his book consists of so-called empirical tests of his hypothesis. In practice, these are not very convincing, despite the extreme ingenuity and persuasiveness of the argument. His argument runs roughly on these lines. Given that the permanent income hypothesis is true, then the data available from various samples can be used to compute estimates of the income elasticities of consumption, or $P_y$. These are then examined to see whether they are of the right sort of size. If $P_y$ for one country is higher than for another it means that transitory components of income are less important in the first country. This in turn suggests that the people in the first country need to save less for reasons of uncertainty. So their value of $k$ should be lower. This sort of test works well in some cases and badly in others. When it works well Friedman claims support for his hypothesis; when it works badly he is inclined to doubt the validity of the data.

There is undoubtedly a small grain of truth in Friedman’s hypothesis. People do have an accepted standard of living ($c_p$) which they try to maintain even when their income falls, and which they do not adjust upwards immediately when income rises. The evidence for this is particularly strong in the case of entrepreneurs, but it is probably true of all consumers to a greater or lesser degree. But there is no justification for making the assumption that $c_p$ is a constant proportion of so-called “permanent income”. Friedman never clearly defines this concept and he admits that it cannot be measured directly. Nor is he justified in believing that “transitory” consumption is completely independent of “transitory” income. Empirical evidence shows conclusively that people who receive windfalls consume more. Friedman’s attempts to get round this awkward fact are not convincing.

Professor Friedman has written a very stimulating and clever book but he has not succeeded in forcing the complexity of real life to fit happily into the structure of his oversimplified hypothesis.

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H. F. Lydall
Il est bien connu (et c'est là un fait très important pour l'histoire de l'humanité) que le mouvement scientifique moderne est né dans le cerveau d'amateurs, c'est-à-dire d'hommes qui, non seulement n'appartaient pas aux cercles des universités et des clercs patentés, mais souvent au contraire étaient en opposition ou au moins en réaction contre eux: ni Descartes, ni Pascal, ni Diderot, ni La-voisier n'étaient des professeurs, et tout ce qu'ils ont apporté est en opposition avec l'enseignement officiel de leur temps.

De même, il est bien connu que la plupart des grandes découvertes du xixᵉ siècle ont été, elles aussi, le résultat d'efforts individuels fort mal reliés à la science universitaire. Par exemple, les deux étapes essentielles de la biologie au xixe siècle, l'analyse des espèces et l'analyse de l'hérédité, furent franchies par deux amateurs, le premier Alexis Jordan cultivant un petit jardin à Villeurbanne, le second Johann Mendel, moine augustinien à Saint-Thomas-en-Brunn. Faraday, Edison, Papin, Ampère, Curie, autant de noms qui n'évoquent en rien les bons élèves de l'enseignement classique, les lauréats des grands concours et les docteurs de l'université. La liste est beaucoup plus longue des hommes du xixe siècle qui ont acquis la gloire par la force de leurs initiatives individuelles, que de ceux qui la tiennent de la poursuite d'une brillante scolarité. Ainsi s'était pratiquement imposée une certaine conception, d'ailleurs obscure, du « génie », selon laquelle les grandes découvertes étaient le fait de dons personnels exceptionnels, se révélant sans liens avec le milieu social environnant, et qui émerge par sa seule puissance intérieure, à la manière d'un volcan sur les plateaux mexicains.

Mais le xxᵉ siècle commença d'accréditer une autre conception de la découverte et du génie, selon laquelle le temps des individualités puissantes était lié à la naissance de la science, et selon laquelle, par suite, notre monde scientifique serait entré dans une seconde phase où le rôle des institutions, des associations, des universités, des entreprises commerciales, des « groupes » en un mot, effacerait celui des individus. On ne manquait pas d'exemples à l'appui de cette thèse, et on ne manquait pas d'invoquer le volume des investissements et plus généralement des travaux qui deviennent nécessaires à la poursuite d'une réalité de plus en plus éloignée de l'homme réduit à son corps nu... Cyclotrons et piles atomiques venaient apporter en ce débat un choc émotionnel qui emportait l'opinion de beaucoup d'esprits...

Cependant, aucune étude tant soit peu approfondie n'avait été faite sur cette importante question. On voit ainsi de grandes nations s'orienter, à grands frais, vers des procédés de recherche collectifs, nécessairement hiérarchisés et animés d'en haut par des directives administratives, ce qui est manifestement la condamnation des « caractères » anarchisants du genre de Karl Marx ou de Pasteur. Ces orientations administratives et budgétaires vers les grands groupes universitaires, étatiques, ou commerciaux, sont-elles légitimes? Nous conduisent-elles à la fécondité ou à la stérilité, ou à quelle mixture des deux? Et ne doit-on pas
protéger dans une large mesure l’initiative du jardinier isolé, contre le dédain a priori certain et toujours redoutable de l’universitaire patenté ?

Telles sont les questions auxquelles le livre de M. Jewkes, professeur d’organisation économique à l’Université d’Oxford, et de ses collègues, apporte de très sérieux éléments de réponse.

Leur enquête révèle avec certitude que l’ère du chercheur isolé est loin d’être close. La seconde partie du livre, notamment, décrit l’histoire d’environ 50 grandes découvertes et inventions récentes (par exemple la bakélite, le DDT, la pénicilline, le radar, la télévision, les transistors, l’éclairage fluorescent). L’initiative du chercheur isolé, de l’amateur de génie à la manière du xixe siècle y apparaît souvent seule victorieuse, et cela d’une manière d’autant plus frappante qu’elle est en compétition avec la puissance a priori irrésistible d’organismes commerciaux ne ménageant ni le temps ni les dollars (voir par exemple les aventures presque merveilleuses de l’invention du procédé kodachrome et des disques microsillons, sans qu’il soit possible de citer ici les nombreuses autres histoires propres à enchanter le lecteur).

Excellent livre donc, dont on doit recommander la lecture à nos chercheurs patentés et diplômés pour qu’ils oublient leurs patentes et leurs diplômes, et à nos jeunes gens pour qu’ils sachent que l’humanité offre toujours carrière en dehors de l’école et des concours, et que les grandes valeurs humaines sont toujours l’initiative et la volonté..., c’est-à-dire le goût et la force de se promener librement en dehors des « sentiers battus ».

Voici, pour terminer, quelques critiques d’importance tout à fait secondaire. J’aurais aimé trouver parmi les « case histories » plusieurs exemples de sciences humaines, y compris l’économie et la sociologie. Une étude systématique de la carrière des récents « prix Nobel » aurait intéressé le lecteur moyen. Enfin, l’enthousiasme des auteurs pour leur propre thèse, et plus généralement pour la conception individualiste de la vie humaine, me paraît devoir inciter quelque peu le lecteur moyen à la défensive, et par conséquent nuire en quelque manière à la force persuasive du livre. En particulier, il semble clair que la solution du problème de la recherche doit être trouvée dans l’emploi simultané des méthodes collectivo-administrativo-planifiées et des méthodes spontanément individuelles. Sans doute les secondes sont-elles aujourd’hui beaucoup trop minimisées par les gouvernements et par l’opinion publique, et les auteurs font une œuvre importante en le prouvant; mais il ne faudrait pas que le plaidoyer pour l’un des deux candidats apparaisse comme un réquisitoire contre l’autre.

Conservatoire National des Arts et Métiers, Paris

JEAN FOURASTIÉ
At the turn of the 18th century a wave of reaction swept over Europe. The Holy Alliance, return to monarchy, Malthusian population theory, historicism and institutionalism, and the romantic movement in literature and philosophy are all different manifestations of what was partly a reaction against the French Revolution. Some aspects of this fascinating and still rather neglected period have continued to exercise powerful influences still felt to-day.

Coleridge was one of the leading figures in the romantic movement in England. Initially an enthusiastic supporter of the French Revolution, he ended up an equally enthusiastic supporter of Burke. Mr. Kennedy attempts to trace Coleridge's influence on economic thought through Malthus, Mill, Marshall and Keynes.

Economics has, almost inevitably, a radical-utilitarian bias, in the sense that its method forces it to separate ends from means, and to concentrate on the most "efficient" promotion of "given" ends. Efficiency, in this sense, obviously does not imply egoism or materialism or neglect of the "higher values". But it does presuppose a sphere of pure means which are entirely neutral, and not themselves affected by valuations. For if means were impregnated by valuations, the whole means-ends model would collapse and nothing could be said about the efficient allocation of resources. Each possible allocation would have to be valued separately.

My impression would have been that this is at the core of the difference between the economists and their humanist and religious critics. But this impression is shaken when Mr. Kennedy writes: "The humanistic approach, therefore, meant for Coleridge exploration of the meaning and values of life that lie beyond the conceptions of the understanding [in Kant's sense, viz. Verstand], and discovery of the ends of life. The healthy intellect, he held, will first establish the ends of reason [Vernunft] and then use the understanding (including, under this heading, economic analysis, for example) as a tool, as a means to the end" (p. 10). On this argument, no conflict between economists and humanists arises.

Mr. Kennedy identifies the utilitarian aspect of economics with Benthamism, and condemns it. The other side, which stresses the way in which the pursuit of ends affects the means—particularly if they are human beings with immortal souls—, he calls Coleridgism or humanism, and he commends it. Coleridge and Bentham, like the leaders of two opposing teams of demons, struggle in the breasts of Mill, Marshall, and Keynes: "Keynes saw that he had in his thinking two sorts of ideas on ultimate things, Benthamism and Coleridgism, which were powerful forces for social good or evil" (p. 70).

Mr. Kennedy deplores the fact that those who criticized capitalist laissez-faire for its destructive effects on aesthetic, moral and human values, for forgetting the conditions of work over its results, for calculating the price of everything and
knowing the value of nothing, tended to become socialists. He believes that
"progress can be made to the extent that the humanist does a constructive job
d of delineating values and establishing their meanings, and the economist remains
receptive to what the humanist is doing" (p. 77).

Mr. Kennedy's stimulating treatment suffers from a lack of precision. A high-
minded tone pervades the essay; a "mechanic, empirical, anti-metaphysical
philosophy" is contrasted with one that is "creative, reflective and metaphysical";
any criticism of exaggerated materialism is "Coleridgian"; but "Coleridgism"
or humanism are nowhere rigorously defined. ("To the humanist the supreme
value is not increases in national wealth and income or even their more just
distribution, but that each person have the opportunity to work out his own
salvation, that is, to know and to attain, so far as he can, the good life" [p. 19].
To whom is an increase in national wealth the supreme value?) The word
"spirit" is used to link Coleridge's "spiritual" theory of the trade cycle, in which
religious spirit is invoked to check commercialism, with Keynes' animal spirits
of the investor.

Mr. Kennedy also fails to distinguish sufficiently clearly between the influence
of what Coleridge wrote and general parallels of thought. All similarities are used
to establish influences. Thus Coleridge is made responsible for too much (and
the use of "Coleridgism" does not improve matters), so that a lurking suspicion
remains with the reader that Mill was not entirely wrong when he said that on
political economy Coleridge wrote "like an arrant driveller" and "that it would
have been well for his reputation, had he never meddled with the subject".

Balliol College, Oxford (United Kingdom)  PAUL STREETEN

FRANCESCO KNESCHAUREK. Die nationale Buchhaltung unter Berücksich-
tigung ihrer Anwendungs möglichkeiten in der Schweiz. Zürich
und St. Gallen 1958. Polygraphischer Verlag. 212 S. sFr. 27.45

Der Verfasser des vorliegenden Werkes hat sich bereits in seinen früheren
Arbeiten über eine bemerkenswerte Begabung ausgewiesen, statistisches Zahlen-
material durch geschickte Verbindung mit theoretischen Erkenntnissen auszu-
werten und zur Durchleuchtung konkreter Wirtschaftsprobleme einzusetzen. Bei
so ausgesprochener Neigung zu praktischer Anwendung von Theorie und Sta-
istik ist es denn auch nicht verwunderlich, dass sich Dr. Kneschaurek im Laufe
seiner weiteren Forschungstätigkeit der nationalen Buchhaltung und insbesonde-
ren den ihr innewohnenden Möglichkeiten zu praktischer Wirtschaftsanalyse zu-
gewandt hat. Tatsächlich geht es denn auch dem Verfasser in dieser Arbeit, mit
der er sich an der Handels-Hochschule St. Gallen habilitiert hat, nicht so sehr
um die Darstellung von Aufbau und Erfassungsmethoden der nationalen Buch-
haltung oder um die in ihr steckenden didaktischen Möglichkeiten, als vielmehr
darum, zu zeigen, in welch vielfältiger Weise sich die von der nationalen Buchhaltung ermittelten Zahlen zur Durchleuchtung von Wirtschaftsstruktur und Wirtschaftsprozess eines Landes verwenden lassen.


über die Notwendigkeit einer Identität der Begriffe Sparen und Investieren ent- 
spann, wobei überzeugend dargelegt wird, dass der Unterschied zwischen der 
Robertson-Jéhrschen Konzeption und jener der Keynesschen Schule lediglich auf 
einer unterschiedlichen Periodenabgrenzung beruht, dass somit logisch beide 
Versionen haltbar sind, sich jedoch die Begriffe, wie sie von Jöhr in Anlehnung 
an Robertson verwendet werden, in der nationalen Buchhaltung leider nicht 
empirisch verifizieren lassen. Mit Recht weist er in diesem Zusammenhange auf 
die grosse Bedeutung der monetären und kreditären Bedingungen für den Kon-
junkturverlauf hin, die von der nationalen Buchhaltung völlig vernachlässigt 
werden, und leitet daraus die Notwendigkeit ab, die nationale Buchhaltung durch 
eine monetäre Rechnung zu ergänzen. Hierzu ist allerdings zu sagen, dass die 
bisherigen Ergebnisse der «Flow-of-Funds»-Statistik des Federal Reserve Board, 
der bisher umfassendsten Geldkreislaufrechnung, im Hinblick auf die Klärung 
konjunkturrelten Probleme eher enttäuscht haben.

Der dritte Teil ist überschrieben: «Die Anwendungsmöglichkeiten der natio-
nalen Buchhaltung als analytisches und wirtschaftspolitisches Instrument». Dieser 
Titel scheint mir etwas irreführend zu sein. Das analytische Instrument, das 
Kneschaurek in diesem Teil behandelt, ist nämlich effektiv nicht die nationale 
Buchhaltung, sondern ein makroökonomisches Modell, welches Tinbergen durch 
Verschmelzung des «Income-approach» Keynesscher Prägung mit dem traditionelleren «Price-approach» entwickelt und zusammen mit anderen Forschern zur Analyse der holländischen Wirtschaft ausgebaut hat. Der theoretische Unter-
bau des Modells verschwindet denn auch in Kneschaureks Darstellung etwas allzu 
so, dass ich mich frage, ob die mit den hier angewandten Methoden nicht 
vertrauten Leser die Grundstruktur dieses analytischen Arbeitsinstrumentes zu 
erfassen vermögen, und ob man nicht wenigstens einige Quellen hätte angeben 
sollen, an Hand derer sich die interessierten Leser selber hätten über den Auf-
bau des Modells orientieren können (etwa Tinbergens Einführung in die Ökonometrie 
or On the Theory of Economic Policy).

Sehr eindrücklich und klar behandelt Kneschaurek die Anwendungsmöglich-
keit des Modells, sei es zum Zwecke der Prognose der künftigen Wirtschafts-
entwicklung auf Grund von geschätzten Datenänderungen, sei es zur Ermittlung 
der Auswirkungen bestimmter wirtschaftspolitischer Massnahmen. Zweifellos 
wird in diesem Zusammenhange von manchen Lesern der Einwand erhoben 
den, die Ausführungen Kneschaureks zeigten, dass die Errichtung einer natio-
nalen Buchhaltung die Tendenz habe, zu zentralistischer staatlicher Wirtschafts-
lenkung überzuleiten. Es wäre vielleicht zweckmässig gewesen, wenn der Ver-
fasser sich hierzu kurz geäußert hätte, zumal die in dieser Hinsicht nicht gerade 
glückliche Analogie, welche er zwischen dem Betriebsbudget und der Anwendung 
der nationalen Buchhaltung zur volkswirtschaftlichen Planung aufstellte, solche 
Leute in ihrem Verdacht bestärken mag.

Kneschaurek kommt am Schluss seiner Untersuchungen zum Ergebnis – etwas 
anderes war ja wohl auch nicht zu erwarten –, dass eine nationale Buchhaltung 
icht nur ein sehr nützliches, sondern im Hinblick auf die Wahl und Vorbereitung 
wirtschaftspolitischer Massnahmen unerlässliches Instrument sei. Vor allem werde


Zürich (Schweiz)  

JOHN R. LADEMANN


Als Leiter der Genossenschaftlichen Zentralbank in Basel und derzeitiger Präsident des Verbandes schweizerischer Konsumvereine hat sich Dr. h.c. Heinrich Küng nicht nur mit den bankgeschäftlichen Aufgaben, sondern auch mit mannigfaltigen wirtschaftlichen und sozialen Fragen auseinanderzusetzen. Aufsätze, Vorträge und Präsidialadressen sind die Frucht dieser Arbeit, von denen eine Auswahl im vorliegenden Band vereinigt ist.


Von besonderem Interesse sind die konjunkturpolitischen Betrachtungen. Auch hier betrachtet der Verfasser die gesamtwirtschaftlichen und politischen Aspekte, wohl wissend, dass einseitige Interessenpolitik das Verständnis für den anderen und für die allgemeinen Zusammenhänge verlieren lässt und dass nur ein alle Seiten berücksichtigendes, massvoll ausgleichend wirkendes Vorgehen die lebensnotwendigen Grundlagen einer Volkswirtschaft zu erhalten vermag.


Basel (Schweiz)                                      Etienne Hér提起er


Der Abschnitt «Vers une science de la méthode» enthält u.a. einige sehr interessante Artikel über die Rolle der Neugier, des Spiels, der Einbildungskraft und der Intuition in der wissenschaftlichen Forschung, über Symmetrie, Trans-
positionen und die Gradientenmethode, über Heuristik, die morphologische Methode und die Mathematisierung der wissenschaftlichen Methode, aber keine grundsätzliche Abhandlung über Wissenschaftslogik, die hier vielleicht am Platze gewesen wäre. Der Vertreter der modernen Wissenschaftslogik, der einen solchen Beitrag hätte liefern können, der bekannte positivistische Philosoph Louis Rougier, steuert einen ausgezeichneten Aufsatz über Scheinprobleme («Les pseudo-problèmes») bei, ein Thema, das er in seinem *Traité de la connaissance* natürlich sehr viel ausführlicher behandeln konnte.


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**Hans Albert**


Perhaps the most significant developments in social science theory that have taken place in America since the war are in the area of "decision making". It is no exaggeration to say that they have altered fundamentally man's thinking on the baffling problems that are forced on him in such primary experiences as uncertainty, risk, and conflicts of interest. The book under review is an important landmark in this development. It is a definitive review of our present state of knowledge on the decision making problem and without a doubt the best available introduction to it. Radical changes in the picture are unlikely to occur since further advances appear to take the direction of implementing the existing body of theory in substantively more specialized areas (e.g., the theory of the firm). Therefore, this book is likely to remain an authoritative source for many years to come. It is unexcelled for balance, completeness and thoroughness. Its presentation is succinct, its criticism reasoned, and its evaluation sound.
The subject of decision making falls naturally into three parts treating respectively the situations of: certainty or risk (known probability distributions of outcomes), uncertainty in a neutral world, and uncertainty vis-à-vis opponents whose interests conflict with those of the decision maker. The last case—game theory—requires the most space in the exposition (Chapters 3-12). But the analysis reaches its climax in the thirteenth chapter (p. 275-326) which is a searching analysis of the ultimate value judgements that underlie all proposed solutions of the decision problem under partial and complete uncertainty.

The authors succeed in dissecting and explaining the essential ideas, some of them very complex indeed. Nothing is withheld from the reader, not even the finest and most subtle points. What is more, the authors do not talk down or oversimplify an issue. All arguments are given and unencumbered by mathematics. This has been achieved partly through an abundant use of simple but pointed examples. The technical apparatus has been relegated entirely to an appendix. This appendix is a compact introduction to the techniques of game theory for readers with some mathematical training. The proofs given, the simplest and most transparent known to date, are in part original with the authors. The appendix covers in effect the whole subject once more, starting with the probabilistic theory of utility—the von Neumann-Morgenstern theory—followed by the fundamental minimax theorem, including some interesting remarks on its history and some geometric interpretations. The relationship between linear programming and game theory, which have a common mathematical core, is examined in detail. Of particular interest to the practical reader is the section presenting the various methods of solving two-person zero-sum games. The last two appendices are more advanced in nature treating respectively of games with infinitely many strategies and of infinite sequences of games.

Work on this book was carried out partly at Columbia University, but much of the actual writing was done at the Center for Advanced Study in the Behavioral Sciences. This publication is, thus, a fine tribute to the inspired munificence of the Ford Foundation which created the Center.

Cowles Foundation for Research in Economics, and Yale University, New Haven, Conn. (U.S.A.)


Professor Meade has taken the occasion of his inaugural lecture in the University of Cambridge to deal with Britain's inflation problem. It is, as he argues, something to worry about, primarily because a steady upward movement of prices must in the end prove unfortunate for a country very dependent on foreign trade. Indeed, the matter can be put more strongly; Britain, Professor Meade
feels, can only hope to stave off recurring balance-of-payments crises and reconcile its role of international banker with a weak reserve position by holding absolutely firm on its domestic price level.

Yet, even while voicing this genuine concern, Professor Meade is most emphatic in his insistence that depression, not inflation, is the greatest economic evil. It is worth something to achieve price stability, but not wide-spread unemployment or even a stagnant real income. And because he is unwilling to concede much by way of unemployment, the trick so far as he is concerned is to avoid inflation without moving far (one or two per cent) off the full-employment mark. This of course, as Professor Meade well recognizes, is considerably more difficult than simply putting a stop to price rises. Nevertheless, he does offer an anti-inflation program in which he does have some confidence.

The view of the inflationary process on which Professor Meade's proposals are based is I think quite orthodox. Aggregate demand is cast as the real villain, although apparently it is not in and of itself sufficient to explain continuous price movements. To do this, one must look to the indirect effect of a high level of aggregate demand on the labor market. It is in just this sort of situation that labor is able—because its incentive and power are increased at the same time that management's resistance is weakened—to secure money wage increases greater than whatever productivity gains there happen to be. The never-ending character of the struggle between the important economic groups, which of course underlies the never-ending upward adjustment of money prices, is to be accounted for, one gathers, in this way.

How does Professor Meade propose to go about breaking up this pattern? Well, for one thing, the government should publicly commit itself to the stabilization of a specially constructed index of "net prices received by home producers". (Prices of domestically produced goods are taken net of indirect taxes and import costs, but inclusive of government subsidies.) The hope, of course, is that by making such a declaration and then publicizing the position of this index the authorities will be able to make price expectations work in their favor. This change would require another, it is true, namely, the freeing of the exchange rate, for it would no longer be possible to fight balance-of-payments crises by a policy of deflation. As Professor Meade sees it, however, such a move is hardly a thing to worry about; or to put it more positively, the combination of a stable domestic price level and a flexible exchange rate is to Professor Meade's mind Britain's only hope on the international front.

Of course, the actual achievement of stability is something else again. Necessarily, therefore, a part of Professor Meade's lecture is given over to a discussion of improving the government's control of aggregate demand. His main concern, I should say, is that the authorities be able to act quickly in response to changing circumstances. The Bank of England can, but, in Professor Meade's opinion, without immediate effect. Tax policy is a better solution, if only some provision is made for more frequent adjustment of either income-tax or national insurance rates. To this end Professor Meade would set up a Stabilization Commission, ultimately responsible to the Chancellor of the Exchequer, but having the power
to vary tax rates within limits set by Parliament at quarterly intervals. And then, to insure a measure of co-ordination of policy and to minimize political obstacles to fast action, he would also establish an expert secretariat to advise the Chancellor of the Exchequer's three arms—the Stabilization Commission, the Bank of England, and the Treasury.

We come finally to meeting the difficulties which arise in the labor market. Here, too, Professor Meade's suggestions are quite modest, or, to put it differently, well within the bounds of present institutional arrangements. For one thing, he would have the government devote some time and energy to increasing labor mobility; this would serve to decrease wage pressures at all levels of employment. And he thinks it would help if the government would (through a special agency) take upon itself the task of telling labor and management how much of a money wage increase the economy can stand in any given period. It might be, for example, that the appropriate figure is two per cent. Hopefully, then, money wage adjustments for particular industries would be set above or below this average according as the outlook is for a labor shortage or surplus. To help make sure of this, Professor Meade would establish arbitration panels covering one or more industries and charged with the responsibility for determining, on appeal from labor, management, or government, whether a wage proposal is warranted by labor market conditions. Again, however, these decisions would not be legally binding, but would apparently serve to marshall public opinion to enforce a reasonable wage adjustment.

This then in essence is Professor Meade's answer to Britain's current difficulties. But now, having outlined his proposals, what more can be added? Very little, I think, though not because all the views expressed are so obviously sound and satisfactory. The point is that this effort was apparently not intended solely for professional eyes and ears; hence, the customary academic quibbles are quite out of place. I do nevertheless have one minor complaint which I think is appropriate—namely, that Professor Meade did not consider the possibility of direct controls. But having relieved myself of this prejudice, I can only say that his little book can easily be recommended, and not least because he is so thoroughly reasonable and lacking in dogmatism.


Dies ist ein ungewöhnlich anregendes, nie trockenes Buch, das mehr einen Bericht über das dem Verfasser bekannte Material der Persönlichkeits- und Charakteräußerung als ein Lehrbuch darstellt. Es ist gleichsam die Zusammenfassung des Lebenswerks, ausgeschmückt mit zahllosen Zitaten der einschlägigen
Literatur, soweit sie in England bekannt zu sein scheint. Es fehlen leider viele Forschungsergebnisse anderer Länder, die sich mit ähnlichen Problemen der Kommunikation sowie der objektiven Stimmanalyse befassen.

Zur Klärung der Frage «Was ist Persönlichkeit, was Charakter?» werden neue Definitionen aufgestellt, aber man fühlt durch das ganze Buch, dass die neue Klassifizierung etwas gequält ist und dauernder Entschuldigung bedarf. Pear braucht den Begriff der Persönlichkeit hauptsächlich mit Bezug auf den sozialen Reizwert, in der Wirkung auf andere durch markante Anzeichen eines Individuums, wie Erscheinung, Verhalten, Aussagen, während Persönlichkeit als verhältnismäßig stabile körperliche und geistige Struktur, als relative Einheit, resultierend aus integrierten Gewohnheiten, Fertigkeiten, Eigenschaften, gefühlsmäßigen Dispositionen, betrachtet wird. Es ist demgemäß der Charakter weniger veränderlich als die Persönlichkeit, die heutzutage durch Radio, Fernsehen, Reisen, Filme unabhängig von Beobachtung der anderen ausgesetzt ist. Im Radio ist es Stimme und Sprache, durch die die Persönlichkeit allein durch Klang in Erscheinung tritt. Um zu beweisen, wie sogar der Besitz die Persönlichkeit ausdrückt, wird erzählt, wie sich der ärztliche Spezialist einen großen Wagen kauft, weil ein kleiner den Hausarzt, der den Kollegen zu einem Konsilium gebeten hat, sonst in Verlegenheit gesetzt haben könnte! Ein Mensch spielt Rollen, und die Persönlichkeit ist die Summe aller Rollen, besonders der erfolgreichen.


Ob wirklich Charaktereigenschaften mit bestimmten Körpermerkmalen verknüpft sind, erscheint Pear höchst zweifelhaft. Typisierung der willensstarken und willensschwachen Persönlichkeit durch schlanken, großen, aufrechten Körper im Gegensatz zum kleinen, fetten, gedrungenen hat für den Kino- und Theaterbereich; Kretschmer, Sheldon und andere Autoren somatischer Typenlehren finden in
diesem Buche keine Erwähnung mehr. Dagegen weist Pear darauf hin, dass soziale und rassenmäßige Unterschiede zu berücksichtigen sind (eine Tatsache, die der Rezensent seit vielen Jahren in seinen Untersuchungen über die Beziehung zwischen Stimme und Persönlichkeit hervorhebt).


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Yugoslavia is now one of the best-documented economies of Europe and its many statistical and research institutions offer in addition rapid service and the highest standard of clear presentation. Enlightened government policy and an enterprising Federal Statistical Office (led by Ante Novak and his deputy, Miloš Macura) have in six years transformed Yugoslavia’s flow of numerous but crude statistics, known only to a few bureaucrats, into a public service using the best refinements of modern methodology. The economy’s first input-output tables appeared last year (as an occasional paper of the Statistical Office—Studije i analize No.8); the Statistički bilen of the National Bank presents, with no more than eight weeks’ delay, monthly national accounting aggregates—including personal and corporate incomes and expenditures by region, industrial outlays and
and capital accounts; and *Indeks* provides prompt monthly production data with typographical perfection.

*Priroda FNRJ*, a narrative of post-war economic progress, is heir both to this statistical wealth and to a network of economic research institutes. The Federal Economic Institute, the book's collective author, prepares annual economic surveys of the country as a whole, leaving specifically regional studies to their Republican Economic Institutes (e.g. the admirable *Proizvodne snage N.R.Srbije* of the Serbian Institute, directed by Kosta Mihailović). The work under review will inevitably be compared with the excellent annual analyses put out by the National Bank (*Godišnji izveštaj*) or by the Foreign Trade Research Institute (*Godišnji prirodnii izveštaj*) but Joco Radaković has set his colleagues the much harder task of comprehensively surveying the Yugoslav economy during an entire decade. One-third of the text is devoted to a review of industry by sector, five of the sixteen papers being written by Jelica Jović-Stepanović, most of the rest by separate hands. Another third covers other economic activities, the longest chapter being on agriculture, by Živko Damnjanović. The remainder of the book treats of investment, employment, trade, public finance, consumption, national income and population in that order (viz., broadly the arrangement used by statistical and planning authorities of the Soviet Union since 1932 and of eastern European countries in the last decade, though no longer by the Yugoslav Statistical Office). The value of the work as a reference source is enhanced by nearly 500 tables and 100 graphs, all bilingual (Serb and French), and, for the foreign student, by a French translation of the introductory paragraphs of the principal chapters.

The sections devoted to production number the book's most worthy pages, but some readers will find fault with the approach underlying the analysis. The authors on occasion interpret measures of contemporary expediency as elements in a continuous and far-sighted public policy. The incidence of Marxist usage varies by chapter and author, reaching its peak with Damnjanović (see, for example, p.138). The other chapters are less satisfactory. There is much to quarrel with in Stevan Stajić's estimates of the national income (notably his use of 1938 prices for his constant-price series); an alternative series being prepared in the Federal Statistical Office is understood to exhibit very different trends. Slobodan Turčinović's essay on public finance reproduces the only aggregate corporation accounts published in the world, but does not match them with any discussion of the methods of macro-economic planning for which these data are in practice used: Professor Rudolf Bičanić of the University of Zagreb used the same statistics to far better effect in his paper to the Berkeley Symposium on Economic Calculation in Eastern Europe (to be published in 1959 by the University of California). Indeed, nowhere in the book is there even a description of the revolutionary changes in economic management during the 'fifties. Mirko Frković does justice to the new foreign-exchange system, but his study on the balance of payments must be faulted for lack of attention to the terms of trade. There are some sensible analyses on pricing (notably on freight-rates in Stavko Suvajdźić's study of transport) but the introduction of a free market, though
frequently noted, is treated as a res ex machina: there is nothing, for example, in
the joint paper "The Standard of Living" by Stojka Milojević and Miroslav Ilić
on the effects of competitive domestic production and consumer-good imports.
The same two authors ignore the impact of profit-sharing under the new system
on wage differentials by sector (e.g., between the trade and the production sector)
although they competently survey the variations among skill remunerations and
among wage-groups. Wage movements are not related to labour-productivity
changes, but Jović-Stepanović makes some good points on productivity trends
when discussing industry.

Unlike the Institute's annual surveys, Privreda FNRJ contains no chapter
drawing together the threads of the sector studies; it is a series of capable staff
papers rather than an analysis upon which government policy might be built.
It seems clear, however, that the attention of its editor was bent rather upon
delineating the recent past than on indicating future trends: planned as a sort of Festschrift, these essays celebrate a remarkably resilient and dynamic economy.

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