

M. J. Fores, "No More General Theories," Economic Journal 79 11-22

22: There is obviously a place for the rigorous mathematical analysis of the measurable factors in economics and in the other social sciences. But the immeasurability of so many of the determinants in the social sciences which is the most startling phenomenon to someone from the applied physical sciences. Especially startling is the immeasurability of so many of the determinants of economic growth, that area on which we should surely be concentrating our attention today.

Richard M. Cyert & Kenneth D. George

"Competition, Growth, and Efficiency," Economic Journal 79 23-41

40: Summary and Conclusions

1. Western capitalist societies have relied upon a competitive economic system to achieve the objectives of efficiency, innovation, and the passing on of the resulting gains to the society.
2. There is evidence that ~~the~~ the structure of large sections of the United Kingdom economy is oligopolistic. In these markets we cannot assume that competition will provide an effective control mechanism.
3. Many studies have shown that internal efficiency is not at the level generally assumed in economic theory. In addition, there is evidence that much innovation is subject to managerial discretion rather than forced by the market.
4. From our knowledge of the decision-making process in firms it is evident that the efficiency of firms is improved through a search process which is invoked when firms fail to attain their goals or when it is anticipated that goals will not be attained.
5. Firms can be forced to search more frequently than usual by a policy that induces them to set higher goals.
6. In these circumstances it is highly likely that firms can be induced to utilise research and development activities in an attempt to grow more rapidly, and particularly in an attempt to grow by diversification.

40 Footnote: E. A. G. Robinson, The Structure of Competitive Industry (CUP 1958, p. 105-6)... defines the "pessimum" size of a firm as that size which combines the technical disadvantages of smallness with the managerial disadvantages of being too large for individual control."

I. Adelman & C. Taft Morris

Society, Politics and Economic Development. A Quantitative Approach
Baltimore MD: Johns Hopkins Press, 1967. ix 306. London OUP.

Review by David Newbery, Economic Journal 79 1969 160-163

161: The method used in this study is a factor analysis of some forty-one indicators of social, political and economic organisation and development for seventy-one underdeveloped countries, and although factor analysis has been used quite extensively in psychological research, this seems to be the first time that it has been used in the study of the development process in economics.

161: Countries are then grouped into three categories, each corresponding to a broad "stage of development" and characterised by certain common features. This typology of development is certainly one of the most important results obtained from the analysis and it should have fairly wide applicability.

In this long-run analysis an association was derived between per capita G. N. P. and two aspects of sociopolitical change: the socio-cultural concomitants of the industrialization-urbanisation process (the first factor) and the evolution of participant political institutions (the second factor). Factor analysis is sensitive to the choice of the original variables and to the number of factors extracted, and to provide a check against spurious results the authors repeated the analysis for regional groupings of countries and confirmed the results obtained using the whole sample.

162: The subsequent analysis is thorough, and considers the economic, social and political forces in turn to assess the factors at work which are associated with the growth of per capita income.....

The countries are grouped into the three levels of development indicated in the earlier study, and it is interesting to see how the relative importance of the different factors changes from one level of development to the next. The conclusion the authors draw is that the correct policy mix will differ depending on the stage of development reached, and they illustrate this by looking at the implications for foreign assistance. Since they conclude that at low levels of development it is the growth of the market sector and the increasing dualism

of the economy that are the most significant factors at work, they suggest that the first priority at this level is to aid the production and marketing of cash crops. As development proceeds social tensions increase and the social structure becomes seriously unbalanced, and unless this is corrected, further development will be hindered. Thus at intermediate levels the main aim should be to adopt policies which lead to more effective government, greater political stability and a greater sense of national unity. On the other hand, there does not seem to be any relationship between economic performance and the style of government, authoritarian or democratic.

(BL freedom relevant to original innovation)

A. Leijonhufvud

On Keynesian Economics and the Economics of Keynes: A Study in Monetary Theory

New York and London: OUP, 1968. xiv 431.

Joan Robinson, Economic Journal 79 1969 581-583.

582: This book comes at a time when for many reasons the neo-neoclassicals are losing their self-confidence, and it is to be hoped that it will give them a salutary shock which will release their energies to tackle the many the many urgent problems, of theory and of policy, which the Keynesian revolution opened up but which are still unsolved.

Professor Leijonhufvud treats the "British Keynesians" as some kind of quaint sect of Old Believers, who, however, preserved valuable tradition that the orthodox have lost. He suggests that we who worked with Keynes were saved from the misunderstandings rife in America because we had the benefit of oral tradition which was not made clear in the book. No doubt there is something in that, but I think that there are more important explanations. First, Kalecki brought to England his own version of the General Theory, which tightened up some loose threads in Keynes' version and brought it into relation with imperfect competition, supplying a missing link in Keynes' theory of prices. To judge by this survey, Kalecki had very little influence on American Doctrines. Secondly, we started from the concept of the Marshallian short-period situation, in which fixed ~~px~~ plant, business organization, and the training of labour are all given, and can be more or less fully utilised according to the level of effective demand. A short-period supply curve relating the level of money prices to the level activity (at given money-wage rates) led straight from Marshall to the General Theory. We had no need to make a detour through the Walrasian market where all transactions are conducted in kind. Thirdly, there are political and social implications of the General Theory a good deal more //583// radical than those set out in the last chapter. Professor Leijonhufvud does not touch upon this aspect of the matter, but his survey incidentally supports the impression that the neo-neoclassical scheme was constructed to provide a shelter from dangerous thoughts, of which we did not particularly feel the need.

S. Bober

The Economics of Cycles and Growth

New York & London: John Wiley, 1968. x 305.

Economic Journal 79 1969 586-588 by J. C. Odling-Smee (Oriol)

587: Generally speaking, the relationships of theoretical economics are contained within those of applied economics, so that it can be argued that theoretical economics is ~~the~~ more basic than applied economics. But there are cases, ~~like~~ such as the rate of interest in the investment function, when a central part of a theoretical construct fails to feature in the applied context.

So what does the student make of it all? First, he gets the impression that economists are much more interested in their theoretical models, although they often admit that they are completely unrealistic, than in what actually happens. Second, when faced with the real world the economist defends his defaulting on his responsibility to study how it operates by citing the inadequacy of data. So the student often concludes that economists have in some sense given up with the real world economic system, and that they hope that their pronouncements about the real world based on their theoretical models will approximate to the truth. But when these models depend on assumptions, such as that factors are paid their marginal products, that there are not increasing returns to scale, that aggregate saving is a constant linear function of G. N. P., etc., it is not surprising that economists cannot predict at all accurately.....

The book is an excellent example of the dichotomy that exists between the complex multi-variable applied economics and the simple theoretical relationship.

The first quarter ~~xxxxx~~ discusses the nature of the real world cycle, drawing heavily on the National Bureau's analytical methods. Thus the reader is introduced to reference cycles and specific cycles, to leading and lagging indicators, to the cycle as a consensus ("an economic system is composed of a multitude of ~~xxx~~ time series, which give information about the direction of economic activity"), and to the diffusion index...

.. two ~~ex~~ chapters on consumption and investment. Although the publishers' blurb says that in~~x~~ these two chapters "the basis of theory in empirical data is always clearly demonstrated," it is not obvious to the reviewer that this is so.

(presentation of a variety of models: three different types)

588: Who will benefit from this book? Any student who has done an elementary macroeconomics course and wants to follow up with models of cycles and growth would find the relevant two chapters a useful starting point, although possibly not much more useful than going back to the original articles would be. Alternatively, someone interested in National Bureau techniques could quickly get an idea as to what they are about by reading the first quarter of the book. But anyone interested in the economics of cycles and growth in the sense of understanding the cyclical changes that actually take place will be frustrated by the lack of interplay between the applied and the theoretical sections. As the author pessimistically says: "We must continue to be aware that the cycle is too complex a phenomenon to permit us to see 'into' the change by using a model that squeezes the many and diverse forces into few ~~like~~ select variables." The sad thing is that economists, including many much more eminent than Bober, continue to be defeatist in this way about the possibility of understanding the real world, and gladly retreat into their warm, theoretical wombs, where they are not threatened by facts. What is needed is a reallocation of economic brain-power towards the analysis and interpretation of the real world. Econometrics attempts to bridge the gap and as Bober says in his brief final chapter on econometrics, the restructuring of models that may be necessary when they are confronted with the facts "reflects our increasing knowledge both in terms of theoretical and empirical formulation." One wishes that he had undertaken some restructuring ~~himself~~ instead of wasting time on churning out well-known and useless theoretical tricks. (end)

Economic Journal 80 1970 336 - 339
Joan Robinson on Neoclassical Theory

Review of

C. E. Ferguson, The Neoclassical Theory of Production and Distribution, London: Cambridge U. P., 1969. xviii 384. 90/-

This follows immediately on quote from 337 on next sheet.

337: The full neoclassical parable (as distinct from Samuelson's surrogate production function) is as follows. There is a mysterious substance, let us call it leets, measured in tons, which is used in conjunction with labour to produce output. There is a well-behaved production function in leets and labour for every kind of output, including leets. There is no distinction between the past and the future. An investment of leets, once made, can be squeezed up or spread out into a new form, instantaneously and without cost, if it becomes profitable to do so.

What is still more remarkable, leets can absorb technical progress without changing its identity, ~~xx~~ again instantaneously and without cost, so that new inventions raise the output from a ton of leets, without any investment being required.

All ~~xx~~ this has been very candidly spelt out by Professor Meade. (In the first edition of A Neoclassical Theory of Economic Growth he refers to what I have called leets as "steel"). It is the essence of Professor Ferguson's concept of "capital."

The most important feature of this system is that a given quantity of "capital" will always provide full employment for the available labour force. If there ^{were} unemployment, competition for jobs would drive down wages; when there is excess demand, competition for hands drives them up. "Capital" is spread out or squeezed up accordingly so that full employment is always guaranteed.

Perhaps it is unfair to describe this system as neoclassical; Walras, Marshall and Wicksell, each ~~h~~ according to his lights, was trying to grapple with the problem of capital, not running away from it. The system might be called pre-Keynesian theory after Keynes. It expresses the dogma that was orthodox at the time of the great slump of the thirties, that unemployment can be due only to wages being too high. This doctrine was not then clearly stated. Keynes had to formulate it in order to attack it. Only now, long after it was demolished, latter-day neoclassicals have set out the assumptions on which it must have been based.

The origins of these notions is to be found in the manner in which // 338 // orthodoxy was reconstituted after the Keynesian

J Robinson on Neoclassical theory.

[338] revolution. The latter-day neoclassicals evidently failed to notice that there were two quite different strands of thought in the old doctrines. In the Walrasian system the "factors of production" are a set of specific physical inputs whose prices are derived ~~xxx~~ from the prices, determined by supply and demand, for the goods they can be combined to produce. In Marshall's long-run theory there is ^a normal rate of profit; the normal prices of all goods, outputs and inputs, are determined by cost of production, including profit at the normal rate on the value of capital directly and indirectly required to produce them.

The first part of Professor Ferguson's book is purely Walrasian. It sets out a number of propositions in terms of physical inputs and outputs. He does not notice that the pseudo-production function (whether well or ill behaved) belongs to another line of thought. His faith is that labour and capital can be treated as two inputs, each homogeneous ~~with itself~~ within itself, whose relative prices are determined by demand and supply of their services, like any Walrasian factors.

However, he is quite prepared to admit that capital equipment is not really composed of a homogeneous physical substance, and he brings the vintage model into the argument to deal with technical progress which requires new kinds of equipment to be constructed. We can then see that, without leets, his system does not stick together.

337: .. Suppose that for any one technique, the capital-labour ratio is uniform throughout all the process of production, so that labour-value prices prevail. The value of a stock of capital equipment is then proportional to the "labour embodied in it," and so is independent of the rate of profit. If all techniques are of this nature, then a higher value of capital, at every point in the pseudo-production function, is associated with a higher output per man. This was the case that Samuelson chose for his surrogate production function.

The mistake was to suppose that labour-value prices are sufficient to provide the "neoclassical parable." The neoclassics cannot be satisfied with a pseudo-production function in terms of value of capital. They need a production function for which "capital" is a physical input.

[Hence the point to leets: ie capital that does not have to be /produced

H A Turner and D A S Jackson

On the Determination of the General Wage Level....

839

Our data would apparently fit a simple "wage-leadership/cost-inflation" model for the world as a whole. This would ~~x~~ derive from three well-annotated phenomena. First, that where productivity is rising, firms find it easier (for a variety of reasons which have been too well canvassed in other places to go into here) to concede demands for wage increases than to reduce prices. Second, that wage increases in one trade or industry tend to stimulate pressures for similar increases in other branches. Third, that where wage increases exceed productivity growth, the difference is usually passed on by employers to prices.

845

In sum, our analysis and comparison of wage and price movements in the industrial "market" economies and int the "modern sector" of the less developed countries suggest that three trends are common to both groups of economies. Average money wages tend to rise at a rate corresponding approximately to the normal pace of prductivity growth in those industrial branches where this pace is naturally fastest. Average retail prices tend to increase, of course, at a rate roughly equal to the difference between the rates of money wage increase and of average productivity growth. And average real wages tend to rise at a pace equal tothat of average productivity growth (in the economy as a whole for the advanced countries, and in the modern industrial sector for the underdeveloped economies) itself. Since productivity growth factors are largely influenced by universal technological factors, these three rates tend, again, to be identical for economies of different types.

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In the model that best fits the data of this study, the major immediate determinant(of wages) is institutional behaviour -- the behaviour of ~~employers~~ employing and workers' organizations, and to some degree that of governments.

It would seem that... Hicks was right... in suggesting that the world was now on a Labour Standard... But it equally appears that the Labour standard is not a Minimum but an Escalator...

848

In the poor countries however these mechanisms generally involve a continuing widening of.. the gap between living standards in the urban modern sector and in the traditional mainly rural society. // will swell the labour surplus itself.

849

So far from being absorbed, the increase in the labour force produced by the less developed world's fast population growth //

846 Qualifying 839

But if the degree of wage-push were particularly strong (as it might well be, in terms of our model, if productivity growth in the "leading branches" were unusually fast), but the restraints on price increases arising from world competition were also pretty effective, then it could happen that real wages would gain at the expense of other incomes from wage-and-price inflation. Such an event would be consistent with our data, as far as that goes -- and with our model, since again all this suggests is that resistance to such redistributive wage pressure will be weaker if that pressure does not reduce the share of profits in branches of faster productivity growth.

BL ie all the model suggests is that redistributive wage pressure is effective as long as it does not lessen the share of profits among the set of faster but unequally faster growing enterprises productivity-wise.

847 n 2: In Britain and Holland, biasing pay movements ~~xxx~~ towards industries with faster productivity growth did not break the pattern of uniform or similar wage increases but brought about an actual acceleration in the rate of wage inflation (reworded by BL)

848 Average percentage increase ^{per annum} in recorded unemployment in less developed countries

8½% from late 1950's in 14 countries

19% in 1965 in 20 countries

20% in 1966 in 24 countries

16% in 1967 in 10 countries (recast and reworded by BL)

848 In such countries, however, open unemployment is largely an urban phenomenon, the growth of which is a function of several pressures. These include low marginal productivity in traditional agriculture -- from which earnings thus contrast unfavourably with even an odds-against chance of an urban job; the attractive power of an increasing urban "relative real wage"; the effects of extending (if still often selective) primary education, which makes its possessors reluctant to return to a rural environment; the growing cultural and ~~xx~~ social service advantage of town over country in poor economies; and so on.

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Nicholas KALDOR (King's College, Cambridge, June 1972)

"The Irrelevance of Equilibrium Economics"

(The Goodricke Lecture delivered in the University of York, May 10, '72)

Economic Journal 82 (1972) 1237 - 1255

1237: I should therefore make it clear that the notion of equilibrium to which I refer is that of the general economic equilibrium originally formulated by Walras, and developed, with ever increasing elegance, exactness, and logical precision by the mathematical economists of our own generation, of whom perhaps the French economist, Gerard Debreu is now regarded as the most prominent exponent.

Reference to his Theory of Value, An Axiomatic Analysis of Economic Equilibrium, Cowles Foundation Monograph, No. 17, New York 1959.

.. in the strict sense, as Debreu says, the theory is "logically entirely disconnected from its interpretation." It is not put forward as an explanation of how the actual prices of commodities are determined in particular economies or in the world economy as a whole. By the term "explanation" Debreu means a set of theorems that are logically deducible from precisely formulated assumptions; and the purpose of this exercise is to find the minimum "basic assumptions" necessary for establishing the existence of an "equilibrium" set of prices (and output/input matrices) that is (a) unique, (b) stable, (c) satisfies the conditions of Pareto optimality.** The whole progress of mathematical economics

** [Samuelson 460n: Named after Vilfredo Pareto, an equilibrium is said to be "Pareto-optimal" if (and only if) there is no possible movement from it that could make everyone better off.]

in the last thirty to fifty years / 1238 / lay in clarifying the minimum requirements in terms of "basic assumptions" more precisely: without any attempt at verifying the realism of those assumptions, and without any investigation of whether the resulting theory of "equilibrium prices" has any explanatory power or relevance in relation to actual prices.

1240: In fact, equilibrium theory has reached the stage where the ~~pure~~ pure theorist has successfully (though perhaps inadvertently) demonstrated that the main implications of his theory cannot possibly hold in reality, but has not yet managed to pass his message down the line to the textbook writer and to the classroom.

Yet without a major act of demolition -- without destroying the basic conceptual framework -- it is impossible to make any real progress. There is, I am sure, a vague sense of dissatisfaction, open or suppressed, with the current state of economics among members of the economic profession -- as is evidenced, for example, by recent Presidential addresses to the Royal Economic Society and to section F of the British Association.**

** E H Phelps Brown & G. D. N. Worswick Econ Journ 1972 9-20 73-86

On the one hand it is increasingly recognised that abstract mathematical models lead nowhere. On the other hand, it is also recognised that "econometrics" leads nowhere -- the careful accumulation and sifting of statistics and the development of refined methods of statistical ~~inference~~ inference cannot make up for the lack of any basic understanding of how the actual economy works. Each year new fashions sweep the "politico--economic complex" only to disappear again with equal suddenness....

1240 Where Economic Theory Went Wrong

The difficulty with a new start is to pinpoint the critical area where economic theory went astray. In my own view, it happened when the theory of value took over the centre of the stage -- which meant focusing attention on the allocative functions of markets to the ~~ex~~clusion of their creative functions -- as an instrument for transmitting impulses to economic change.

To locate the source of errors with more precision, I would put it in the middle of the fourth chapter of Vol. I of the Wealth of Nations

1241: But in the following (fourth) chapter, after discussing the need for money in a social economy, Smith suddenly gets fascinated by the distinction between money price, real price, and ~~ex~~change value and from then on, hey presto, his interest gets bogged down in the question of how values and prices for products and factors are determined. One can trace a more or less

less continuous development of price theory from the subsequent chapters of Smith through Ricardo, Walras, Marshall, right up to Debreu and the most sophisticated present-day Americans.

** Piero Sraffa, "The Law of Returns under Competitive Conditions," Economic Journal 36 1926 535 argued that Marshall was mistaken in attempting to accomodate within the same analytical framework both increasing and decreasing returns to scale.

1241: T .. the general equilibrium school (as distinct from Marshall) has always fully // 1242 // recognised the absence of increasing returns as one of the basic "axioms" of the system. As a result, the existence of increasing returns and its consequences for the whole framework of economic theory have been completely neglected.

III. The Dominating Role of Increasing Returns (1242-1244)

Allyn Young, "Increasing Returns and Economic Progress," Economic Journal, December 1928, pp. 527-542.

Originally Presidential Address to Section F of the British Association in 1928.

Samuelson 773: In dynamic economic development, however, the phenomenon of increasing returns is to be expected. Smith's The Wealth of Nations was in its day a manual of economic development. Smith stressed the advantage of large-scale division of labor. It is a case of the whole being bigger than its parts: If all factors together can be increased in size, product will grow more than proportionally.

Samuelson 25: .. x the law of diminishing returns refers to the dimishing amount of extra output that we get when we successivly add equal extra units of varying input to a fixed amount of some other input.

Compare: emergent probability, McShane on Randomness..., Bertalanffy, etc.

1243: The consequences of abandoning the axiom of "linearity" and assuming that, in general, the production of any one commodity, or any one group of // 1244 // commodities, is subject to increasing returns to scale, are very far-reaching. The first and most important casualty is the notion of "general equilibrium" as such.... .. in other words that whatever the initial situation, the system will converge on a unique point the exact nature of which, both as regards the $\frac{1}{2}$ price system and the output system, can be deduced from the $\frac{1}{2}$ "data." Continuous economic change on these assumptions can only be conceived as some kind of "moving equilibrium" through the postulate of an autonomous (and unexplained) time-rate of change in the exogenous variables of a kind that is consistent with "continuous equilibrium" through time....

See James Mill as reported by Leslie Stephen, The English Utilitarians, III, 103 (NY: Peter Smith, 1950). Econ Journ Notes 16
The model is Newtonian deduction!

IV. The Theorem of Endogenous and Cumulative Change (1244-46)

1244: As Young put it, with increasing returns "change becomes progressive and propagates itself in a cumulative way." Further, "no analysis of the forces working for economic equilibrium... will serve to illumine the field, for movements away from equilibrium, departures from previous trends, are characteristic of it."

1245: The whole issue, as Young said, is whether an "equilibrium of costs and advantages" is a meaningful notion in the presence of increasing returns. When every change in the use of resources -- every reorganisation of productive activities -- creates the opportunity for further change which would not have existed otherwise, the notion of an "optimum" allocation of resources -- when every particular resource makes as great or greater contribution to actual output in its actual use as in any alternative use -- becomes a meaningless and contradictory notion: the pattern of the use of resources at any one time can be no more than a link in the chain of an unending sequence and the very distinction, vital to equilibrium economics, between resource-creation and resource-allocation loses its validity. The whole view of the economic process as a medium for the "allocation of scarce means between alternative uses" falls apart -- except perhaps for the

consideration of short-run problems, where the framework of social organization and the distribution of the major part of available "resources," such as durable equipment and trained or educated labour, can be treated as given, as a heritage of the past, and the effects of current decisions on future development are ignored.

//1247-1250

V. The Role of Demand and the Two Kinds of "Induced Investment"

1250: And it requires above all a monetary and banking system that enables capital investment to increase in response to inducements, so as to generate the savings required to finance additional investment out of the addition to production and incomes. This is the real significance of the invention of paper money and of credit creation through the banking system.

1250: resumé

induced by excess supply: futures, stocking up on products of farm and mines, in anticipation of better prices later on

induced by excess demand: manufacturer responding to reduced stocks, growing order book

To appreciate Mill's position, it is necessary briefly to notice the prejudices which he had to encounter and the sympathies with which he could reckon. Political economy had been exultant in the days of James Mill. He and his allies were entering the promised land. They took the science to be in the same stage as astronomy just after the publication of Newton's Principia. The main truths were established, though prejudice and sentiment still blinded the outside world to the clearest demonstration. The Utilitarians were, and knew themselves to be, bitterly hated; though they took the hatred to be an unconscious tribute to their real authority -- the homage of the stupid to irresistible logic.

Leslie Stephen, The English Utilitarians, III, 163.

New York: Peter Smith, 1950.

Bapst B / 1571 / S85 / 1950

Cf. Paul Hazard, The European Mind, London 1953.

B. L., A Second Collection, p. 57.

Samuelson 747

Trends 4 and 5, however, warn us that neoclassical theory cannot hold in static form! A steady profit rate (trend 4) and a steady capital-output ratio (trend 5) are incompatible with the more basic law of diminishing returns under deepening of capital. We are forced, therefore, to introduce technical innovations into our static neoclassical analysis to explain these dynamic facts. And a good thing it is that we are told to introduce technical change, since we have much independent evidence of the importance of science and engineering in the modern era.

542 $\frac{1}{2}$ of 2nd last #

Luigi L. Pasinetti (King's College, Cambridge)

L. L. P., "Rate of Profit and Income distribution in Relation to the Rate of Economic Growth, Review of Economic Studies, 29 (4) ~~29 (4)~~ 1962 267-279

L. L. P., "Changes in the Rate of Profit and 'Degree of Mechanization': A Controversial Issue in Capital Theory," presented at the First World Congress of the Economic Society in Rome, September 1965.

L. L. P., "Switches ~~in~~ of Technique and the 'Rate of Return' in Capital Theory," Economic Journal, September 1969, pp. 508-531.

L. L. P., "Reply to Mr. J. Dougherty," Economic Journal 82 1972 1351 f.

C. R. S. Dougherty, "On the Rate of Return and the Rate of Profit," Economic Journal 82 1972 1324-1350. (D is King's College, Cambridge)

Ian Steedman (Un of Manchester), "The State and the Outcome of the Pasinetti Process," Economic Journal 82 1972 1387-95.

J. E. Meade, "The Outcome of the Pasinetti Process: A Note," Economic Journal 76 1966 161-5.
Steedman generalizes Meade.

Samuelson, P. A., and Modigliani, F., "The Pasinetti Paradox in Neoclassical and more General Models," Review of Economic Studies 1966 269-301.

J. V. Robinson, "Comment on Samuelson and Modigliani," Review of Economic Studies, 1966 307-8,

Samuelson and Modigliani, "Reply to Pasinetti and Robinson," Review of Economic Studies 1966 321-30.

D M G Newbery's review of Mirrlees & Stern (eds)
Economic Journal 84 1974 404 f.

E. H. Phelps Brown, "The Underdevelopment of Economics," 1-10
Presidential Address, Royal Economic Society, July 8, 1971.

G. D. N. Worswick, "Is Progress in Economic Science Possible?"
Presidential Address, Section F, British Association, Sept 2 1971,
Econ Journ 82 1972 73-86

Michal Kalecki, Selected Essays in the Dynamics of the Capitalist
Economy, Cambridge University Press 1971, viii 198, 2.40.

Reviewed by Maurice Dobb, EJ 82, 215-217.

215: Thus "capitalists as a class gain exactly as much as they
invest or consume, and if -- in a closed system -- they ceased to
construct or consume they could not make any money at all";
hence "capitalists, as a whole, determine their own profits by
the extent of their investment and personal consumption."

BL Kalecki quoted by reviewer.

Jan Pen, Income Distribution, London: Allen Lane the Penguin
Press, 1971. Pp. 424. 3.50.

EJ review 82, 242-4, praises treatment of Norms and Policies.

→ Simon Kuznets, Economic Growth of Nations, ^rHavard University
and Oxford University Presses, 1971

EJ review 82, 774-6

Economic Journal 83 1973

318-320: review of

by David T. Llewellyn

G. D. N. Worswick (ed.)

Uses of Economics. Papers presented to Section F...

Oxford: Basil Blackwell, 1972.

319: A few common themes can be discerned: (i) the irrelevance of much economics and econometrics judged by their contribution to understanding of the workings of real economic phenomena and better policy decisions, (ii) the dangers of increased specialization and the requirements for more integration with other social science disciplines and (iii) the view that more progress would be made if there were greater contact between theorists and researchers on the one hand and practical decision makers on the other. Overall, economic theory and econometrics have become more sophisticated than useful. As for the future, Worswick concludes that progress will be slow: "We must reconcile ourselves to remaining inexact scientists."

905-907: review of

Roy Harrod

Economic Dynamics, London: Macmillan, 1973. Pp. vii 195. 2.95

by J. A. Kregel

906: It is in treating these problems of the real world (all undergraduates as well as so-called Keynesians should be required to read the chapters on Interest, Inflation, Foreign Trade and International Capital Movements) that Harrod shows how much can be done with the original // 907 // Keynes theory. Here his wisdom is magnificent, but here he finds himself continually running up against what he calls "sociological problems" and it is hard to see where the "basic axioms" come into it all.

922: D. Jackson, H. A. Turner, F. Wilkinson

Do Trade Unions Cause Inflation? Two Studies with a Theoretical Introduction and Policy Conclusion.

University of Cambridge Department of Applied Economics Occasional Paper 36.

Cambridge University Press, 1972. viii 128. 1.20.

Review by J. R. Crossley, EJ 922-924.

923: Trade unions do contribute to inflation, but so does almost everybody else, in modern economies where inflation has become institutionalised as the expression of conflicts over the distribution of income between organised socio-economic groups. Inflation is inevitable in modern economies and since we cannot therefore easily imagine what the world would be like without inflation, it is almost impossible either to refute this theory, or to derive policy recommendations from it, except perhaps to warn all parties including especially governments that the consequences of breaking the rules of the institutionalised inflation game are not predictable. Meanwhile we can hope to gain some understanding of the socio-economic dynamics of inflation by a methodology which combines broad sweep comparison with concrete historical case studies.

That is the approach and it works best in the first study, of "Inflation, strato-inflation and social conflict" by Jackson and Turner. "Strato-inflation" (of the Latin-American kind) is one order of magnitude below hyper-inflation and... is also quite definitely one order of magnitude higher than the "equilibrium-inflation" of Western industrialised economies. It appears therefore that a qualitatively different theory is needed to explain ~~inflation~~ the experience in each group of countries, with a comparison of the two then giving some clues as to the change in conditions which might shift a country from one group to the other.

In the equilibrium inflation countries, the mechanism which reconciles conflict over the distribution of income is wage leadership by oligopolistic industries with higher productivity growth rates than industries which conventionally follow their percentage wage increases. While it would be difficult for overall price stability to be achieved under such a régime, unless unions

in the leading sectors negotiated price (and perhaps wage) reductions, the rate of inflation is in practice shown to be moderated substantially by international competition, when exchange rates are fixed. In the strato-inflationary countries by contrast social conflict about income distribution is an overt and dominant political issue, and one which has been aggravated by repeated devaluation.

924: .. the authors find that the upper bound of exceptional experience in the first group of countries, at which destabilising adjustments begin to be made (for example by the price indexation of contracts) coincides with the lower bound of experience in the strato-inflationary group, at an annual rate of wage increase of about 10%. That being so the fundamental policy question for the Western industrialised countries is whether they have sufficient political maturity to be able to face up to that overt political confrontation on the distribution of the whole income -- as distinct from the distribution of the marginal increments to it each year -- to which the various experiments with prices and incomes policies are inevitably leading them.

The study by Wilkinson and Turner of ~~the~~ "The wage-tax spiral and labour militancy"...

The authors... are far from establishing their claim to have found a common cause among countries of the conjuncture which several of them experienced since about 1967 both of high rates of inflation and of strikes, in the face of the high unemployment levels of that period.

Richard R. Nelson and Sidney G. Winter

NEOCLASSICAL vs. EVOLUTIONARY THEORIES OF ECONOMIC GROWTH:
CRITIQUE AND PROSPECTUS

Economic Journal 84 1974 886 - 905

444.56
886: In economics (as in physics) what we refer to as a theory is more a set of basic premises -- a point of view that delineates the phenomena to be explained and modes of acceptable explanation -- than a set of testable propositions. The theory points to certain phenomena and key explanatory variables and mechanisms, but generally is quite flexible about the expected conclusions of empirical research, and a wide class of models is consistent with it. Inadequate or incomplete explanations or even contradictions with the data, generally are interpreted as puzzles and problems to be worked out within the broad framework of the theory, & rather than grounds for its rejection.

888: ... available in the body of research on technological change done by economic historians, researchers within the industrial organization tradition, and & scholars interested in invention and innovation per se.... However, while some of these are in harmony with neoclassical themes, others are quite discordant. We have, for example, much evidence of the role of insight in the major invention process, and of significant differences in ability of inventors to "see things" that are not obvious to all who are looking. The same pattern apparently obtains in innovation. Relatedly, there are considerable differences among ~~XXXXXXXXXX~~ firms at any time in terms of the technology used, productivity and profitability. While these studies show clearly that purpose and calculation play an important role, the observed differences among persons and firms are hard to reconcile with simple notions of maximisation, unless some explicit account is ~~is~~ taken of differences in knowledge, maximising capabilities, or luck. The role of competition seems better characterised in the Schumpeterian terms of competitive advantages gained through innovation, or early adoption of a new product or process, than in the equilibrium language of neoclassical theory.

890: It seems obvious that research on economic growth within the neoclassical theory is creating new intellectual problems more rapidly than it is solving them. One can continue to search for solutions to these problems guided by the assumptions of neoclassical theory. Or one can try a new tack.

As the Nordhaus-Tobin quote remarks, it is apparent that many economists studying growth are much attracted to the perspective sketched out by Schumpeter 60 years ago in Chapter 2 of his Theory of Economic Development (1934, original publication 1911).

The core ideas of Schumpeterian theory are of course quite different from those of neoclassical theory. For Schumpeter the most important firms are those that serve as ^{the} vehicles for action of the real drivers of the system -- the innovating entrepreneurs. Firms (and entrepreneurs) may seek profit, and may innovate or imitate to achieve higher profit. However, the emphasis of careful calculation over well-defined choice sets is absent. The competitive environment within which firms operate is one of struggle and motion. It is a dynamic selection environment, not an equilibrium one. The essential forces of growth are innovation and selection, with augmentation of capital stocks more or less tied to these processes.

What accounts for the fact that this highly plausible interpretation has been relatively neglected in theoretical discussion? As Nordhaus and Tobin suggest, the likely explanation is that the ~~neoclassical~~ neoclassical approach has held sway because of its greater susceptibility to formal modelling. Fuller assimilation of the Schumpeterian contribution may be achieved if an appropriate formal framework for it can be developed.

Nordhaus W and Tobin J (1972). "Is Growth Obsolete?" in R. Gordon (ed.), Economic Research: Retrospect and Prospect, Economic Growth, National Bureau of Economic Research, New York.

BL: the appropriate theoretical framework for creativity is open system and so basically transcendental method

888: Studies by historians like Usher, Landes, Habakkuk, David, Temin, Rosenberg, and by students of industrial organization and technical change like Schmookler, Jewkes, Sawers and Stillerman, MacLaurin, Peck, Giliches, Mansfield, and Freeman have revealed extremely interesting facts about the technological change process.

Reference is to bibliographies in:

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R. Nelson, M. Peck, Kalachek, Technology, Economic Growth and Public Policy, Brookings Institution, Washington DC, 1967.

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K. Pavitt, "Conditions of Success in Technological Innovation," Paris: O. E. C. D., 1971.

E. Mansfield, "Contribution of R and D to Economic Growth in the United States," Science 175 1972 (February).

C. Kennedy & A. P. Thirlwall, "Surveys in Applied Economics," Technical Progress," Economic Journal 82 1972 (March). pp. 11-63 with bibliography of 294 items, pp. 63-72.

Economic Journal 84 1974 447-450

Book review by John G. Gurley (Stanford) of

An Introduction to Modern Economics by

Joan Robinson and John Eatwell

London: McGraw-Hill, 1973. Pp. xvii 349. 3.90 2.95 paper.

447: The book is divided into three parts. It first traces the development of economic thought from the mercantilists to Keynes and present-day theory. The authors frequently note how changes in the real economy gave rise to new economic theories and to defences of newly emerging classes. (Mercantilists, the overseas trader; Physiocrats, the landlords' interest; Smith Ricardo, entrepreneur profit reinvestment; Marx the workers; Marshall, the rentier).

In the second part of the book, on economic analysis... the authors present micro- and macro-theory within the context of explicit models. The first is an agricultural model featuring land and labour; the second is an industrial one, focusing on labour and capital (produced means of production)....

In this part of the book the authors are especially careful to relate what Marx called the forces of production to the social relations of production (the class structure of society) and these to the superstructure (the values and institutions that support the class structure). As the authors express it: "The most essential element to include in any piece of analysis is an indication of the nature of the social system to which it is applied. [This in itself sets the book apart from almost all others.] Economic relationships are relations between people. Technical relationships -- between mankind and the physical universe -- set the conditions within which economic life is carried on, and while the level of technical development of a human society (or an animal society, for that matter) has an important influence on relationships within, technical conditions do not determine them completely... At the same time, relations between people in an economy have an important influence on the kind of technology it develops... The characteristics of a society which are relevant to its economic structure are reflected in legal rules and habits and in accepted notions of proper behavior." The authors are particularly concerned to show how the class structure of a society influences the kind of technology that it develops -- technology that is designed to maintain the hegemony of the ruling class as much as to contribute to technical efficiency.

The third part of the book ... is on modern problems of capitalist, socialist and third-world countries. The authors' general viewpoint here is well-expressed as follows: "Once the veil of laissez-faire itself ~~xxxxxxxxxxxx~~ itself is seen to have been torn aside, every economic problem is seen to have a political aspect; now is the time for every good man to come veiled of laissez-faire doctrine has been torn aside, every economic problem is seen to have a political aspect, and laissez-faire itself is seen to have been one kind of political programme. Economic reasoning alone cannot offer a solution for any economic problem, for all involve political, social, and human considerations that cannot be // 449 // reduced to the lore of nicely calculated less and more." With regard to capitalist societies, Robinson and Eatwell concentrate on the problems of inflation ("It was obvious from the first that continuous near-full employment, without other change in institutions and attitudes, would lead to a continuously rising price-level"), growth and equity ("There does not seem to be much prospect that more growth would be a better remedy [for poverty] than the growth we have already had"), and environmental decay....

The authors assume that capitalism is a class society, that this mode of production needs growth to remain viable, that inflation is endemic in modern capitalism, and that technical change has been partly fashioned by the limits imposed by the class structure of capitalist societies. Throughout there is a strong attack on neo-classical economic theory with its concepts of efficiency, equilibrium, abstinence, marginal product of capital, Pareto-optimum, and the rest. Furthermore the authors do have something with which to replace neoclassical theory -- a neo-Ricardian, post-Keynesian framework of analysis which stresses the difference between income from work and income from property, focuses on processes through time rather than on static equilibrium positions, plays down substitutability among factors, emphasises investment decisions of entrepreneurs as key decisions in distribution and macro-theory, stresses the importance of money wages to the general price level, thereby demoting the role of the money supply, and assumes class conflicts within nations and hierarchical relations among nations.

449 ... Aside from important ideological ~~and~~ differences that will hamper its use, the trouble is that it would be tough going for beginners. Robinson and Eatwell do not use many words to explain difficult ideas.... Further, while the book is strong on theory (but particularly British theory), on comparative economic systems, and on the development of economic thought, it is ~~a~~ weak on contemporary institutions -- on trade unions, the banking system, the I. M. F., welfare agencies, tax structures and the like.... All of ~~that~~ that is too bad, because this type of economics can much // 450 // better prepare the coming ~~a~~ generation of students for understanding and solving the real problems of the world than neo-neoclassical economics ever can, and it could further serve to stimulate students' curiosity about Marx and thus lead them to an ~~an~~ even more powerful framework for understanding concrete movements ~~x~~ of history.

The Reconstruction of Political Economy: An Introduction to Post-Keynsian Economics

By J. A. Kregel (London: Macmillan, 1973. Pp. xviii 218. 4.95

Book review by A. Asimakopulos.

702: There is a useful introductory section on some the terminological problems that confront a student, brought up on neoclassical economics, in understanding the post-Keynsian criticisms.

703: ... Part Two... "attempts to put the basic method, mechanisms and propositions [of the post-Keynsian approach] in their barest and simplest form... (p. xvi).

Various reservations.

704: Joan Robinson has written an interesting foreword to this book in which she briefly describes some of the influences of her writings in economic theory. She notes that, starting with the theory of imperfect competition, her "aim was to attack the internal logic of the theory of static equilibrium and to refute, by means of its own arguments, the doctrine that wages are determined by the marginal productivity of labour (p. x)." It should be gratifying for her to realise that her writings over the years provide, for all who are prepared to learn, convincing demonstration of the sterility of static equilibrium theory and the emptiness of the marginal productivity doctrine.

J. A. Mirrlees and N. H. Stern (eds.)

Models of Economic Growth. Proceedings of a Conference held by the International Economic Association at Jerusalem.

London: Macmillan, 1973. Pp. xxii 372. 7.00

review Economic Journal 84 1974 404 f. by D. M. G. Newbery.

"As Mirrlees remarks in the introduction, and as other participants point out in the discussions, neoclassical theory rests on profit maximisation and rational consumer behaviour, which are meaningful even when reswitching ~~is~~ is possible. The equation "rate of profit equals rate of return" is not an essential part of that theory, nor does reswitching weaken in any way the proposition that wage rates and rental rates are equal to the marginal products of labour and other services."

Don Patenkin (Hebrew University of Jerusalem)

The Collected Writings of John Maynard Keynes: from the Tract to the General Theory, pp. 249-269

264: In so far as analytical style is concerned, let me start by noting Keynes's failure to make use in his writings of graphical techniques....

265: .. I should also note his oft-cited criticism in the General Theory of "symbolic pseudo-mathematical methods of formalising a system of economic analysis... which allow the author to lose sight of the complexities and interdependencies of the real world in a maze of pretentious and unhelpful symbols" (G. T. pp. 297-98).

266: Thus when all is said and done, I strongly suspect that a comparison of the General Theory (and a fortiori the Treatise) with other works on economic theory that were written during this period would actually show Keynes's works to be among the mathematical of them.

... whatever may have been Keynes's attitude toward the proper role of mathematical methods in economic analysis, his strength did not lie in the use of such methods.

Nor in general did Keynes's analytical strength lie in rigour and precision. Thus in both the Treatise and the General Theory Keynes frequently failed to specify the exact nature of the assumptions that underlay his argument... forty years later disagreements continue to go on in the literature...

Instead, Keynes's analytical strength lay in his creative insights about fundamental problems that led him to make major "breakthroughs" -- leaving for those that followed him to formalise and complete his initial achievements. In the Treatise, Keynes thought (erroneously, as it turned out) that his fundamental equations constituted a breakthrough. In the General Theory he saw his breakthrough as lying in his theory of effective demand -- and this time he was undeniably right.

such/

- la J. Johnson, "A Model of Wage Determination under Bilateral Monopoly," Economic Journal 82 1972 837-852.
- 1b Reprint of la: D. Laidler and D. Purdzy, (eds), Inflation and Labour Markets Manchester University Press 1974.
- 2 J. Johnston and M. Timbrell, "Empirical Tests of a Bargaining Theory of Wage Rate Determination," The Manchester School of Economic and Social Studies, June 1973, pp. 141-167.
- 1b Reprint of 2 in Laidler and Purdy, as above, 1b
- 3 J. Johnston, "A Macro-model of Inflation," Economic Journal 85 1975 288-308.

288 From 1: bilateral monopoly, caeteris paribus, permits a wage increase beyond increased productivity; there would result a reduction in employment and output, a rise in the price of the monopolistic product, and a rise in the real wage of those still employed in the industry.

From 2: a significant positive association was found for the United Kingdom between increases in taxation of wage incomes and subsequent rates of wage increase. This is distinct from the general correlation between price increases leading to wage increases. It reveals that wage bargainers are concerned with the purchasing power of disposable or net wages as distinct from gross wages.

In 3: there are investigated relationships between manufacturing, households, and governing; under competition and under monopoly. Seven conclusions and three qualifications appear on pp. 305-308.

305 Conclusion 4: ... These conditions provide an incentive for the union in each sector (manufacturing, government) to operate on the money wage or salary rate in an attempt to ~~maximize~~ secure an improvement in the real rate. They also mean that, in the absence of outward shifts in the production function, each hard-won advantage is short-lived and the spiral is self-defeating.

Conclusion 5: The framework of the model is also one in which "stagflation" might easily come about. All that is required to produce it is an attempt by workers in either sector to secure an increase in the real rate of pay beyond what productivity shifts and the bargaining success of the other group allow.

List of Quotes from Economic Journal

- 1 EJ 79 11-22: M J Feres, No More General Theories (Q 8 lines)
- 1 EJ 79 40 f.: R M Cyert & K D George, "Competition, Growth, and efficiency," (Q Summary and Conclusions, 18 lines)
- 1 EJ 79 41: Footnote defining pessimum size of a firm
- 2 EJ 79 160-63: Review by David Newbery of I Adelman & C T. Morris, Society, Politics, and Economic Development (Baltimore, Johns Hopkins 1967; London OUP) (Q 1½ pages)
- 4 EJ 79 581-83: Review by Joan Robinson of A. Leijonhufvud, ON Keynesian Economics and the Economics of Keynes A Study in Monetary Theory (New York & London: OUP, 1968) Q 1 p.
- 5f EJ 79 586-88: Review by J C Odling-Smee (Oriol) of S Bober, The Economics of Cycles and Growth (NY & L, John Wiley, 1968) Q 2 pp.
- 7f EJ 80 336-39: Review by Joan Robinson of C E Ferguson, The Neoclassical Theory of Production and Distribution (London CUP 1968) Q 2 pp.
- 9 EJ 80 827-49: H A Turner and D A S Jackson, "On the Determination of the General Wage Level," (Q 2 pp.)
- 11 EJ 82 1237-55: Nicholas Kaldor, "The Irrelevance of W Equilibrium Economics," (Q5 pp.)
- 16 Leslie Stephen on James Mill in The English Utilitarians III 163
- 17 Samuelson 747 on necessity of acknowledging dynamic facts
- 18 Bibliographical on Luigi Pasinetti
- 19 EJ 82 1-10: E H Phelps Brown, "The Underdevelopment of Economics" presidential address Royal Econ Soc JULY 8 1971
- 19 EJ 82 73-86: G D N Worswick, "Is Progress in Economic Science Possible?", Presidential Address, British Assn sect. F, Sept 2 1971
- 19 EJ 82 215-17: Maurice Dobb reviews Michal Kalecki, Selected Essays on the Dynamics of the Capitalist Economy, CUP 1971. Q 6 lines.
- 19 EJ 82 242-4: review praises treatment of norms and policies in Jan Pen, Income Distribution, London Allen Lane the Penguin Press 1971
- 19 EJ 82 774-6 reviews Simon Kuznets, Economic Growth of Nations, Harvard and Oxford UPN 1971

- 20 EJ 83 318-20: David T. Llewellyn reviews
G D N Worswick (ed.), Uses of Economics (cf 19) Oxford Blackwell 1972
Q 11 lines from p 319.
- 20 EJ 83 905-7: J A Kregel reviews
Roy Harrod, Economic Dynamics, London Macmillan 1975 (Q 8½ lines)
- 21f EJ 83 922-24: J R Crossley reviews
D Jackson, H A K M Turner, F. Wilkinson, Do Trade Unions Cause
Inflation: Two Studies with a Theoretical Introduction and
Policy Conclusion. Univ of Cambr Dept of Applied Econ, Occasional
Paper 36. CUP 1972 viii 128 pp. (Q2 pp.)
- 23ff EJ 84 886-905: R R Nelson & S G Winter, "Neoclassical vs. Evolut-
ionary Theories of Economic Growth: Critique and Prospectus,"
Q 2½ pp. Bibliography. Strongly for evolutionary theories.
- 26ff EJ 84 447-50: J. G. Gurley (Stanford) reviews
Joan Robinson and John Eatwell, An Introduction to Modern Economics
London: McGraw-Hill 1975. Q 2½ pp.
- 29 EJ 84 702-4: A. Asimakopoulou reviews
J A Kregel, The Reconstruction of ~~Political Economy~~
Political Economy: An Introduction to Post-Keynsian Economics,
London Macmillan 1975. (Q 17 lines)
Note p 704 Joan Robinson's Foreword and reviewers praise of her "...
convincing demonstration of the sterility of static equilibrium
theory and the emptiness of the marginal productivity doctrine."
- 30 EJ 84 404 f: D M G Newbery reviews
J A Mirrlees and N H Stern (eds) Models of Economic Growth
Proceedings of Conference held by Internat Econ Assn at Jerusalem
London Macmillan 1973.
(Q 9 lines)
- 31 EJ 85 249-69: Don Patenkin reviews:
The Collected Writings of John Maynard Keynes: from the Tract
to the General Theory (Q 1 p.)
- 32 EJ 85 288-308: J. Johnson "A Macro-model of Inflation"
Two of Johnston's earlier papers in D. Laidler & J Purdy (eds)
Inflation and Labour Markets Manchester U P1974. (Q 1 p.)

- 33 EJ 85 309-328:
M Morishima and G Catephores, "Is there an 'Historical Transformation Problem', "
On Marxist surplus value and the alleged obscurantism that hides it.
- 34f EJ 85 397-9: Joan Robinson reviews
L L Pasinetti, Growth and Income Distribution. Essays in Economic Theory. London CUP 1974. x 151. (Q 2 pages)
Keynes' theory of effective demand has remained impervious to reconciliation with marginal economic theory
It raises no problems when directly inserted into the earlier discussions of the classical economists
K's departure from the Ricardian tradition was to remedy a defect in it -- a lack of recognition of the uncertainty of the future to account for the nature of money and the instability of effective demand
Hicks makes the mistake of turning Keynes back into a system of simultaneous equations; Profs Clower and Leijonhufvud have made useful criticisms of bastard Keynesians but try to reconcile K with Walrasian general equilibrium
- 36 EJ 85 630-32: Francis Cripps reviews
J E Meade, The Intelligent Radical's Guide to Economic Policy. The Mixed Economy. London Allen & Unwin 1975 Pp 160.
Defends neoclassical, thinks it can be maintained, provided gov't empowered to step in and remedy defects. Regarded as utopian.
- 37 EJ 85 643 f.: A. Nove reviews
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- 38f EJ 81 1-16: Nicholas Kaldor, "Conflicts in National Economic Objectives," Presidential Address to Section F, British Assn at Durham 1970. (Q 2 pp.)
Since Keynes gov'ts not merely provide a framework of laws and institutions but also aim at policy objectives, targets in LSD.
- 40 EJ 81 61-90: Peter Albin, "Uncertainty, Information Exchange, and the Theory of Indicative Planning" (Q 20 lines)
- 40 EJ 81 91-112: Harold Lydall, "A Theory of Distribution and Growth with Economies of Scale" (Q 10 lines)
Critique of Kaldor's theory and neoclassical theory, (91-95) proposes alternative theory. (96-99). One starts from limited knowledge and limited good will (customers financiers) and only step by step develops towards larger turnovers.
- 41 EJ 81 2225-241, J F Pickering, "The Prices and Incomes Board and Private Sector Prices: A Survey" (Q 3 lines)
- 41 EJ 81 294-305, Eprime Eshag, "The Relative Efficacy of Monetary Policy in Selected Industrial and Less-developed Countries," Irrelevance of monetary measures in many problems; less efficacy in UK US where firms less dependent on bank loans
- 41 EJ 81 306-326; Maxwell J Fry "Turkey's First Five-year Development Plan: An Assessment"
- 41 EJ 81 327-340: P D Groenewegen, "A Re-interpretation of Turgot's Theory of Capital and Interest"
- 41 EJ 81 341-51: Joong-Koon Lee, "Exports and the Propensity to save in LDC'S"
Favors correlation of increasing exports and increasing saving
- 41 EJ 81 413-416: Domenico Mario Nuti reviews two books on French capitalist planning.
- 42 EJ 81 418 f: Michael Ellman reviews distinguished USSR economist's book on improving socialist planning
- 42 EJ 81 597-602: Joan Robinson, "The Measure of Capital: The End of a Controversy" once more concludes that 'the marginal productivity of capital' is a meaningless expression
- 42 EJ 81 800-811, Stephen Enke, "Economic Consequences of Rapid Population Growth" a product of ongoing cooperation at TEMPO

EJ 81 847-862:

- 42f George Lee, "Rosa Luxemburg and the Impact of Imperialism"
Quoted are final statements on what is considered valuable in
rL's views.

44-55 EJ 81 863-865: Brian J Loasby, "Hypothesis and Paradigm in the
Theory of the Firm"

56 EJ 81 886-903: Lauchlin Currie, "The Exchange Constraint on Devel-
opement -- A Partial Solution to the Problem"

56 EJ 81 904-13: Jaroslav Vanek, "Tariffs, Economic Welfare, and
Development Potential"

56 EJ 81 916-22: Earl F Beach, "Hicks on Ricardo and Machinery"
J R Hicks, "A Reply to Professor Beach"

56 EJ 81 943 f: D E W Laidler reviews
B Hansen, A Survey of General Equilibrium Systems, NY & L
McGraw-Hill 1970

Economic Journal 85 1975

M Morishima and G Catephores

"Is there an 'Historical Transformation Problem,'" pp. 309-328.

323: .. we would like to stress our view that for Marx value and abstract labour were indeed logical abstractions. He only insisted that they were not arbitrary abstractions in the following two senses: first, that the human mind produced them only in a historically given context of material conditions of social production (at a certain stage of social evolution) and, secondly, that they could be applied fully in this context only -- not in just any historical epoch.

325: Thus, by comparing the actual capitalist economy with the hypothetical simple commodity production we are enabled to discover the fact of exploitation which is hidden under the surface of ~~xxx~~ bourgeois price accounting. The first transformation problem reveals the secret of profit, and we find that the equilibrium rate of profit is positive if and only if the rate of exploitation is positive (the Fundamental Marxian Theorem); while the second problem deals with how exploitation is obscured in the capitalist economy by prices deviating from values. Furthermore, the simple commodity production simulations enable us to find that the capitalist regime can reproduce and expand itself because capitalists exploit workers.

It follows ~~it~~ from the above that the transformation problem consists in developing, choosing, and relating between themselves analytical ~~xxxx~~ tools for the analysis of capitalism. This choice certainly is conditioned by historical evolution but does not provide a theory of historical evolution at all. (ie there is no historical transformation problem BL)

327 f.: bibliography on surplus value topics

Economic Journal 85 1975 397-399

Review by Joan Robinson of

L. L. Pasinetti, Growth and Income Distribution. Essays in Economic Theory. London: Cambridge University Press, 1974.

x 151. 4.00

397: The main theme is that:

"Keynes' theory of effective demand, which has remained so impervious to reconciliation with marginal economic theory, raises no problems when directly inserted into the earlier discussions of the Classical economists" (p. ix).

Keynes, like the classics, was genuinely trying to understand how the economy functions; he was discussing an actual national economy, developing through actual history, not dwelling in timeless equilibrium, and he treated accumulation as taking place mainly through the investment decisions of profit-seeking firms, not through the intentions to save of thrifty householders. His departure from the Ricardian tradition was to remedy a defect in it -- the lack of recognition of the uncertainty of the future, to account for the nature of money and the instability of effective demand.

"Coming down to a more specific comparison.... .. it is basically the Ricardian method of analysis that Keynes has revived. The most typical indication of this is to be found in the directness with which Keynes proceeds to state his assumptions. Like Ricardo, he is always looking for fundamentals. He singles out for consideration the variables he believes to be the most important. All the others, giving rise to unimportant complications -- though as he says, are always kept at the back of his head for the necessary qualifications -- are, for immediate purposes, frozen out by simple assumptions.

The characteristic consequence of this methodological procedure is the emergence in Keynes, as in Ricardo, of a system of n equations of the 'causal type,' or, as we may also say, of the 'decomposable type,' as opposed to a completely independent system of simultaneous equations. (pp. 43, 44).

Since the word 'causal' always raises philosophic blood pressure, the point may be put more concretely: the Keynesian system is designed to show //398// the consequences, over the

Review of Pasinetti by Joan Robinson, con'd

398] immediate and further future, of ~~XXXXXXXXXX~~ a change taking place as an event at a moment of time, while the equilibrium system can only compare the differences between two positions or two paths conceived as coexisting in time, or rather outside time.

It is for this reason that even the most dyed-in-the-wool neoclassical professor, when called upon to advise a government about policy, necessarily begins to think in Keynesian terms.

....

Pasinetti points out that the popular exposition of Keynes, for instance by Sir John Hicks, seeks to turn the analysis back into a system of simultaneous equations, and that while Professor Clower and Professor Leijonhufvud have made very useful criticisms of the bastard Keynesians, they themselves undertake the extravagant task of trying to reconcile Keynes with Walrasian general equilibrium.

The main theme of post-Keynsian theory also is Ricardian -- the relation between accumulation and the distribution of the net product of industry between wages and profits. Pasinetti repeats and elaborates the argument that, on a steady path of accumulation, where everything has settled down to proportional growth, the rate of profit is equal to the rate of growth divided by the proportion of saving in incomes derived only from profits, whether or not there is any saving out of wages.

The analysis of a "golden age" of fully proportionate growth at the "natural rate" given by the growth of the labour force and of output per head is not, of course, of direct application to any real problem. The point of the argument belongs to the sphere of doctrine -- it shows that there is no room for a theory of profits based on "marginal productivity of capital" or the "rate of ~~xx~~ return" on saving, nor indeed is any meaning to be attached to these concepts. (Professor Solow, as Pasinetti points out, now contents himself with devising definitions of the "rate of return" that make it identical with the ruling rate of profit, whatever that may happen to be.)

.....

399: When the "natural" growth rate is given only by growing employment, investment takes the form of pure widening of the stock of capital with an unchanged technique, and when it is ~~XXXXXXXXXX~~ due to growing productivity, each round of investment is in equipment for a new technique.

Pasinetti's exposition is lucid, elegant and entertaining.

Review by Francis Cripps of:

630

J. E. Meade, The Intelligent Radical's Guide to Economic Policy.

The Mixed Economy. London: Allen & Unwin, 1975. Pp. 160. Pb 2.00

.. The intelligent radical is asked to support the restoration and development of the free market mechanism wherever it is possible to ensure workable competitive conditions. But on this foundation there must be built a superstructure of governmental intervention and controls to create conditions in which free competition can work effectively, and to modify the market price mechanism to redistribute income and wealth.

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But it is in the application of his analysis to micro-economic policy that the reality of Meade's vision is most disputable. He constantly reiterates the neoclassical proposition that the market mechanism can actually be made efficient provided well-known defects are remedied. In this he ignores the exploitation, conflict and restrictive practices ~~in~~ inherent in the capitalist control of production, he assumes that information is freely provided, that all the frictions in the network of transactions can be wished or legislated ~~away~~ away, and that the costs of redeployment are minimal

All this runs counter to what we know of the powerful tendencies of cumulative causation to geographical concentration, to large-scale organization and concentration of power, to conflict and inefficiency engendered in the presence of economies of growth and large scale in circumstances of imperfect knowledge and unequal bargaining power....

This failure to see the defects of the market alongside its virtues and the static analysis on which the propositions of efficiency and pareto-optimality rest should condemn neoclassical analysis, of which Meade has been one // 632 // of the most honest and attractive exponents, to a very minor place as a guide to economic policy, even for the intelligent radical.

Economic Review 85 1975 642

Review by A. Nove (Glasgow) of :

J. Wilczynski, Technology in Comecon: Acceleration of technological progress through economic planning and the market.

London: Macmillan, 1974. xvii 379. 10.00.

....

643: The author demonstrates by many quotations the urgency with which Brezhev and his comrades are seeking greater efficiency. They know that their growth plans can only be fulfilled if factor productivity is substantially increased. A basic problem, in my view, stems from the fact that the Soviet incentive system is still based upon plan fulfilment, i. e., on the principle that the planners know what needs to be done. However, the mass of micro-innovations occur as a result of local innovations. The central planners are usually unaware of what needs doing, unless they are made aware of it by proposals from below. Consequently the centre's desire for efficiency and technical progress, and for higher // 644 // quality is seldom operationally definable in terms of an administrative instruction. It is true as the author points out that profit is becoming a more significant criterion of enterprise performance, but in the absence of price flexibility and competition it can surely be a very misleading criterion. He asserts that a capital charge reduces demand for capital, but this does not happen if the price-fixing agencies include a capital charge in their computations. Indeed experience shows that, for as long as the cash value of turnover remains a ~~xx~~ significant success indicator (as is the case in the U. S. S. R.), the higher the costs that can be incorporated in the official prices the better for management, since this increases the value of turnover. In such circumstances, an increase in prices or charges can have the paradoxical effect of increasing demand.

644: Central planners do indeed have some solid advantages, best seen at a time of inflation and confusion in the Western economies. They are making great efforts to adapt their system to the need to encourage innovation and to achieve greater efficiency in a modern industrial society. Despite all the analytical inadequacies ~~xx~~ of this book will help the reader to appreciate many of the issues involved.

Nicholas Kaldor, "Conflicts in National Economic Objectives," 1-16
 Presidential Address to Section F of British Association at Durham
 September 1970.

- 1 "Economics at least since Adam Smith has been concerned with understanding how the economic system works in order to discover by what kind of policies it could be made to work better. More wealth, and a more even distribution of wealth, have always been regarded without question or argument as the main objectives of national economic policy. But up to fairly recently -- up to the Second World War in fact -- the tasks of economic policy were mainly thought of as the creation of a framework of laws and institutions which provided the best environment for the operation of market forces, and not as any direct manipulation of those forces.

Since that time the notion of 'economic policy objectives' has acquired a new precision -- one could almost say a new meaning -- and governments have come to be judged by performance criteria which they would have strongly disclaimed in earlier days. The best evidence for this is that policy objectives have come to be expressed in quantitative terms -- as 'targets.' Successive post-war chancellors have announced a full-employment target... [97%]... a balance of payments target [£300 million surplus]... a growth target [4%]... and a wage-increase or incomes policy target....

- 2 ... It has come to be taken for granted -- by the leaders of both of the major political parties, as well as by the public -- // that governments can and should assume responsibility for the management of the economy and that successful management comprises the simultaneous attainment of at least four major objectives."

This fact "...was the most important political result of the intellectual revolution engendered by the publication of Keynes' General Theory of Employment. The important message of that work was the idea that in a market economy the total amount of goods and services produced is not (or not normally) determined by the amount of scarce resources at its disposal and the efficiency with which they are utilised, but on certain features of the process of income generation which tend to

establish an equilibrium level of effective demand that will limit the amount produced, irrespective of potential supply."

- 3 "In the language of present-day econometrics, the failure of post-war governments... (was due to)... not having enough separate policy instruments at hand to secure the simultaneous attainment of various objectives. It is a well-known principle of the modern theory of economic policy, first put forward by
- ** Professor Tinbergen, that in order to secure a stated number of policy objectives the Government needs to operate at least an equal number of different policy instruments. If demand management (through fiscal policy) is used to secure a target level of employment, another instrument -- which can only be thought of in terms of an incomes policy -- is needed to secure the target rate of wage increases; and yet another instrument -- a flexible exchange rate -- to secure the target balance of payments. If in addition the government wishes to secure a target rate of productivity growth it needs yet further instruments to secure a more effective utilisation of resources."

** J. Tinbergen, On the Theory of Economic Policy, Amsterdam 1952

- 5 "My main criticism of the philosophy underlying the White Paper (1944), and of the economic policies of economic management that were built on it, is that it treated the problem of full employment and (implicitly) of growth as one of internal demand management, and not one of exports and of international competitiveness."

Peter Albin, "Uncertainty, information exchange, and the theory of indicative planning" pp. 61-90

- 61 "This paper is concerned with problems of information exchange in the relationship of autonomous or semi-autonomous firms (and/or industries) to a planning authority that also controls the conventional selective and general instruments of economic policy. This situation can be termed "indicative planning and control," and the paper develops a theoretical model in which the characteristic information exchange of indicative planning -- the solicitation and coordination of forecasts -- can be analysed formally. Uncertainty is treated explicitly in the analysis, and the paper shows what general sorts of policies and controls are necessary if the planning procedure is to lead to correct evaluation of uncertain data and direction of the economic system consistent with social attitudes toward risk. The theoretical analysis is followed by a sketch of protocols and routines which are capable of eliciting the desired planning results.... The paper concentrates on the forecasting-accuracy aspect of planning. We will, however, in the course of the analysis return repeatedly to consideration of other conventional attributes of planning performance: consistency, convergence, efficiency, and computability."

Harold Lydall, "A Theory of Distribution and Growth with economies of scale," pp. 91-112.

Critique of Kaldor's theory (91 f.) and of neoclassical theory (92-95)
Proposal for an alternative Theory (96-99)

is so the effect that entrepreneurs "... start (96/97) with limited knowledge, and limited good will amongst customers and financiers, and that greater knowledge and good will come only from experience. Then new entrepreneurs, with no previous experience, cannot efficiently enter an industry at a large scale...."(More generally) there are series of steps and if one is at a first level one may be able to move up to a second level but not to a third, etc.

J. F. Pickering, "The Prices and Incomes Board and Private Sector Prices: A Survey" pp. 225-241.

presents the implementation of a prices and incomes policy by the Prices and Incomes Board
adds an appended list of reports cited

Eprime Eshag, "The Relative Efficacy of Monetary Policy in Selected Industrial and Less-developed Countries," 294-305
Distinguishes efficacy from certainty of impact, bluntness (as opposed to selectivity of other controls), and irrelevance of monetary measures in many problems.

Works out clear notion of liquidity and its significance and makes the point that monetary measures have less leverage in countries like the US and the UK where firms and industries are less dependent on bank loans (tables on pp. 301 and 303)

Maxwell J. Fry, "Turkey's First Five-year Development Plan: An Assessment," 306-326

An account and evaluation of a five-year plan.

P. D. Groenewegen, "A Re-interpretation of Turgot's Theory of Capital and Interest," 327-340

It is presented as the best of 18th century analysts on the nature of capital and interest.

Note however individualist notion of saving. G concludes:

"S^Aving can therefore be defined as the excess of income after consumption needs have been satisfied." p. 336. This omits K^A Kalecki's point that workers spend what they get but capitalists get what they spend.

Joong-Koon Lee, "Exports and the Propensity to Save in Less Developed Countries (L.D.C.s)" pp 341-351.

Favors a correlation of increasing exports and increasing saving

Domenico Mario Nuti, pp. 413-416, reviews

(1) S. S. Cohen, Modern Capitalist Planning: The French Model, London: Weidenfeld and Nicholson, ~~XXXX~~ 1969, and

(2) V. Lutz Central Planning for the Market Economy. An Analysis of the French Theory and Experience. London: Longmans, 1969

Michael Ellman reviews (418 f)

V. V. Novozhilof, Problems in Cost-benefit analysis in Optimal Planning, New York 1970.

One of the most distinguished economists in the USSR desires and plans better methods for socialist planning

Joan Robinson, "The Measure of Capital: The End of the Controversy," pp 597-602, once more concludes that 'the marginal productivity of capital' is a meaningless expression.

Stephen Enke, "Economic Consequences of Rapid Population Growth," 800-811

A product of ongoing cooperation: General Electric Company TEMPO, at Santa Barbara, CA.

George Lee, "Rosa Luxemburg and the Impact of Imperialism," 847-862, concludes with four sets of statements indicating what he considers most valuable in Rosa Luxemburg towards the construction of a theory of the impact of imperialism.

1. Articulation in Space

The articulation in space of the industrial capitalist nations and the countries of the Third World makes a theory of their relation central to the analysis of underdevelopment. This must be a theory of conflict but not (861/862) one of plunder since the satellite constitutes for the metropolis both a market for its output and a source of supply for its means of production. Thus the process is one of assimilation and transformation. Within the set of commodity flows, the sub-set between the satellite and the metropolis predominate over the sub-set within the satellite. The metropolis thus mediates the growth of the satellite. The satellite's internal sectoral relations have a marked symmetry with the imperialist relation.

2. Articulation in Time

The spatial articulation of capitalism and underdevelopment has continued for decades, in some cases centuries, and has shaped the satellites as they are today. All analysis must be firmly grounded in the history of these relations. We must constantly try to reveal how one set of events generates those that succeed it.

3. Articulation in Discipline

The theory of imperialism must attempt to embrace the categories of economics, politics, sociology, and social anthropology. This

includes: the conflict between traditional social relationships, for example in property ownership, and the needs of the metropolitan economy; the character of the satellite state as client to the metropolis; the direct links between the military of the satellite and the metropolis; the manner in which the imperial relation creates new classes in the satellite and how they affect its subsequent development; the role played by the academic servants of imperialism -- within political economy this can be discussed under the rubric: "the economics of poverty and the poverty of economics."

4. The Luxemburg Effect

That is, the causal relationship between the flow of money capital from the metropolis to the satellite and the flow of capital goods. Luxemburg suggested this could take the form of state-state loans, portfolio investment in new independent enterprises overseas, and direct investment by establishing overseas subsidiaries or by purchasing control in already existing satellite enterprises. The money capital flow generates increased sales of the metropolitan capital goods industry. This may establish new industries or the social overhead capital necessary for foreign economic penetration. Loan ~~repayment~~ repayment may force the satellite into a severe foreign debt situation, thereby surrendering still further in sovereignty to the metropolis.

Quote from Rosa's Accumulation of Capital pp. 295 f. (EJ 848)

"... capitalist production is by nature production on a universal scale... it is producing for a world market already from the word go. The various pioneering branches of capitalist production in England, such as the textile trade, iron and coal industries, cast about for markets in all countries and continents, long before the process of destroying peasants' property, the decline of handicraft and of the old domestic industries within the country had come to an end."

cf p. 23 supra

Brian J. Loasby EJ 863-885

"Hypothesis and Paradigm in the Theory of the Firm"

863 Logically as well as historically the development of economics as an important and distinctive discipline derives from the increasing extent and complexity of the division of labour. It is true that an allocation problem exists whenever an individual's resources are not sufficient for the satisfaction of all his wants; but though the economic problems of a Robinson Crusoe are very convenient for elucidating some features of the elementary analysis of choice, they are scarcely adequate material for a major field of study. That material is to be found in the interdependent choices which result ~~from~~ from an elaborate division of labour -- between individuals, between firms, between regions, and between countries.

Because interdependence is its basis, economics is necessarily a study of systems; because it is concerned with the allocation of resources by human beings, it is a study of decision-making systems. (As we shall see, this does not necessarily imply a study of the process of decision-making; microeconomics have generally been concerned with consequences rather than processes.) Economists have therefore to cope with two intrinsic difficulties of system analysis -- the definition of system boundaries and the specification of system structure. On the one hand, all economic systems are sub-systems -- sub-systems both of larger economic systems (unless one is explicitly dealing with the world economy) and also of more broadly defined human and ecological systems; thus interdependencies transcend the bounds of the system being studied. On the other hand, some abstraction from detail is essential, and this involves not only the omission of variables, but also distortion of the relations that are included. Thus the economist has no option but to construct models which fall short -- usually far short -- of A COMPLETE SPECIFICATION of ~~the~~ the system which he wishes to analyse; he must choose where to make his approximations, some of which must normally be very drastic. It follows first that no economic ~~model~~ model can be finally judged by the resemblance between its specification and the real-life system which it claims to represent; and second that the choice of different specifications by different economists for their models of the same system carries no presumption that one of them must be in error. For these reasons, it is safer to talk of the sufficiency of models than of their realism.

864

Though approximations in both directions are necessary, economists tend either to jettison detail in order to concentrate on major interactions, or to ignore interdependencies in order to concentrate on relative detail. This, of course, is the basis of the distinction between macro-economics and micro-economics. Macro-economics explores the system known as the national economy, defined by such sectors as consumption, investment, government expenditure, and exports, each of which is a highly complex sub-system. The export sector necessarily implies interdependence with other national economies; this interdependence may be handled very crudely -- even ignored -- or analysis may concentrate, in international trade theory, on the intersections of these national economy sets. Sometimes the components of the national economy will be defined, for the purposes of output-input analysis, as industry groups -- which are not proper sub-sets of the major sectors normally used in macro-economic analysis. Whatever the form of the macro-level analysis, the sub-systems of which it is composed are treated very simply by the use of assumptions which may be rejected in the analysis of the sub-systems themselves. (For example, theoretical international trade usually appears to be carried on under conditions of universal perfect competition, while the industries analysed in input-output analysis may operate with both constant marginal costs and constant returns to scale.) But, because of the fundamental difficulties of system analysis, such a conflict of assumptions at different levels cannot invalidate the arguments which rest on them.

Micro-economics, on the other hand, simply assumes away some of the interdependencies which form the subject-matter of macro-system analysis. But this obvious contrast with macro-economics should not be allowed to obscure the fact that micro-economics makes its sacrifices of detail too; and they can be very large. For although it claims to include within its scope the allocation of a firm's internal resources, it regards the firm itself as the basic decision making unit. Since however the greater part of resource allocation within industry is determined nowadays by firms which are themselves decision-making systems, a third level of analysis is possible, which is //865//

- 865 likely to require further sacrifice of interdependencies in order to explore the details of sub-system behavior. The economics of organizational behaviour not only illuminates the affinities between economics and organisation theory; it is a natural extension of the scope of the subject, being characteristically concerned with the relationship between structure and performance -- the x^w ways in which the system being studied responds to and regulates choice.

3

Theory and Experiment

This emphasis on a systems study necessarily implies some qualifications to the view sometimes expressed that economists should seek to emulate as closely as possible the methodology of the experimental sciences. Since this methodology has

E. g., R. G. Lipsey, An Introduction to Positive Economics, London: Weidenfeld and Nicholson, 1966, Chapter 1

traditionally rested on the isolation and manipulation of closely-specified relationships, it presents difficulties for the economist, whose manipulation must usually be statistical (possibly with a number of trials outside his control)), and who frequently cannot isolate the phenomena which he wishes to study. But not only is narrow isolation difficult; it is often inappropriate. For it is ~~the~~ characteristic of system behaviour that it may not be explicable as a simple -- or even a weighted -- sum of separate effects. From this point of view, it is the contrast, not the comparison, between economics and experimental science which is illuminating.

There are greater similarities between economics and applied science, especially science directed towards the development and operation of industrial processes. For these are systems too, and systems normally too large to be modelled in full. So the scientist is here faced with a problem akin to that of the economist: to choose a degree of abstraction in his experimentation which is drastic enough to simplify his analysis and yet robust enough to give value to his conclusions. For such choices his academic training in experimental method does not prepare him very well. "The transition from laboratory to plant implies a change of scale from what can, in most cases, be handled and controlled manually by one scientist, to a system

which is far outside the capacity of one man, unaided by automation and instrumentation, to control. Many scientists we find have a very hazy notion of the sort of problems that arise on transferring operations from laboratory to plant.

Cf AB~~A~~lines, F R Bradbury and C W Suckling, Research in Chemical Industry (London: Elsevier, 1969) p. 165

But awareness of such problems is necessary if the laboratory ~~ex~~ experiments performed are to be those which are most relevant.

866 However, although the unrealistic assumptions of the economist may be fairly compared with the artificial environment of the laboratory as a means of abstracting from complex systems, yet it should not be overlooked that the // 866 // character of the abstraction is different. The scientist abstracts from complexities towards the detail of real phenomena; the economist tends to abstract from detail into terms that have only economic meaning.

Cf R M Cyert and E Grunberg, "Assumption, Prediction and Explanation in Economics," in R M Cyert and J G March, A Behavioural Theory of the Firm (Englewood Cliffs, N J: Prentice-Hall, 1963) pp. 301-2.

Paradigm

There is a further difficulty in the way of general reliance on experimental or statistical-experimental method in economics. Not only may hypotheses be difficult to test, or relate to system behaviour to which closely restricted analysis is not appropriate; some economic hypotheses turn out to be, not hypotheses at all, but paradigms.

A ~~h~~ paradigm in the natural sciences as well as in economics defines the type of relationships to be investigated and the ~~x~~ methods and abstractions to be regarded as ~~h~~ legitimate within a particular problem area (Kuhn pp 10 f). Once such terms of reference are accepted ~~x~~ by practitioners generally within that area, research becomes a "strenuous and devoted effort to force nature into the conceptual boxes supplied by professional education" (Kuhn p 5). (All boxes are empty until the work of filling them begins.) A paradigm must therefore be both comprehensive and open-ended; it leaves many problems to be solved and holds out the prospect of successful solutions to those who formulate and test with skill and ~~h~~ care particular hypotheses consistent with the

paradigm. For the natural scientist at least therefore, it offers "a criterion for choosing problems that, while the paradigm is taken for granted, can be assumed to have solutions" (Kuhn p 37). That such criteria are indispensable for the natural scientist is emphasised by P B Medawar, ~~xxxx~~ explaining "why scientists seem ~~to~~ so often to shirk the study of really fundamental ~~xxxxxx~~ or challenging problems... No scientist is admired for failing in the attempt to solve problems beyond his competence. The most he can hope for is the kindly contempt earned by the Utopian politician. If politics is the art of the possible, research is surely the art of the soluble. Both are immensely practical-minded affairs."

P B Medawar, The Art of the Soluble (London: Methuen, 1967) pp 86 f

H. A. Simon applies a similar ~~xxxx~~ argument more widely. "People (and rats) find the most interest in situations that are neither completely strange nor entirely known -- where there is novelty to be explored, but where similarities and programs remembered from past experience help guide the exploration. Nor does creativity flourish in completely unstructured situations. The almost unanimous testimony of creative artists and scientists is that the first task is to impose limits on the situation if
867 the limits are not already // 867 // given." It is the

H. A. Simon, The Shape of Automation for Man and Management, (New York: Harper and Row, 1965) pp. 97 f.

role of the paradigm to provide such limitations to the agenda for inquiry.

Because a paradigm provides a set -- often a very large set -- of possible hypotheses, but makes no claims for the validity of any particular members of that set (some of which indeed will be mutually exclusive alternatives), it follows that paradigms, unlike the hypotheses to which they give rise, cannot be validated by experimental or statistical methods. Failure to recognise this distinction has led to much unnecessary argument, of which the disputes over profit-maximization provide a notorious example. For profit-maximisation is not a hypothesis but a paradigm; and whereas a specific hypothesis embodying some version of profit-maximisation can, in principle, be tested, the paradigm of profit-maximisation cannot. Only in long-term static equilibrium with perfect knowledge is its formulation

unique; and no such experimental conditions ~~x~~ can be found. One common form of criticism is, in fact, a tribute to its virtue. With a little ingenuity, it is possible to explain almost any kind of business behaviour as profit-maximisation. The retort that, "if it can explain everything, ~~xxx~~ it explains nothing" would be conclusive against a loosely formulated hypothesis; ~~it~~ but it is precisely this ability to generate hypotheses to explain, if not everything, yet a large body of important ~~it~~ phenomena, which is the essential virtue of a paradigm. Lipsey's attempt to emphasise the testing of economic predictions suffers from a similar confusion: ~~T~~ the theory expounded in his text-book is necessarily a paradigm, to which his proposed tests, being designed for hypotheses, cannot properly be applied. (Op cit chapter 29)

The obverse of a paradigm's ~~f~~ continued fertility is the continued existence of unsolved problems. A paradigm which left no issues unresolved would be useless as a guide to ~~for~~ further work. Thus "a thousand difficulties do not make one doubt" concerning the acceptability of a paradigm; on the contrary they provide ~~a~~ a thousand opportunities for the deployment of professional skill. For example, attempts to explain the path of the moon by the application of Newtonian theory failed consistently for sixty years; yet there were no serious proposals for the ~~r~~ rejection of Newtonian theory. What was in question was not the paradigm but the professional skill of the scientists who had failed to derive an appropriate hypothesis ~~it~~ from it; and, in the event, confidence in Newtonian theory was justified. (Kuhn 39, 81)

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Paradigm Change

It is not, therefore, surprising that a paradigm, once established, should prove difficult to overthrow. Since its usefulness depends on the double condition of unresolved problems and good prospects of their eventual solution by the application of the paradigm, there can be no unequivocal standard by which a paradigm can be judged to have failed. Those who attack a paradigm may simply be confessing their inability to use the tools of their trade as effectively as their fellows. Even if this is not an effective deterrent, to discard a ~~well-established~~ well-established paradigm is to discard an important part

of one's apparatus for recognising and solving problems. Furthermore, like a management control system, provides the basis for selecting both problems and the relevant variables to be investigated, it may condition its users against even the perception of some of the more fundamental threats. An experiment in which subjects readily identified as normal wrongly colored playing cards inserted in an^y otherwise ~~■~~ normal pack provides some formal confirmation of the common experience in all manner of contexts that observations are "fitted to one of the conceptual categories prepared by past experience." (Kuhn 62-64) A paradigm produces intellectual tunnel vision.

Thus, something quite exceptional in the way of difficulties must become apparent before an established paradigm can be seriously challenged. As Shackle says, "Theoretical advance can spring only from theoretical crisis".

G L S Shackle, The Years of High Theory, (Cambridge Univ Press 1967) p. 288.

In the natural sciences at least the existence of a rival paradigm is a necessary condition for a challenge -- no paradigm which offers some answers is going to be abandoned unless alternative answers are on offer. But it is certainly not sufficient. The clearest evidence for this statement is provided by the anticipations of later major developments to be found, not in the underworld of economics, but in the intendedly definitive edition of Marshall's Principles. Until the definitiveness of Marshall was challenged, these anticipations lay not only undeveloped but often unnoticed.

Shackle's own explanation of the persistence of paradigms can be summarised in his own words. "The chief service of a theory" by which he clearly means a paradigm, not a hypothesis -- "is the setting of minds at rest. So long as we have a satisfying conceptual structure, a model or a taxonomy which provides for the filling of all facts in a scheme or order, we are absolved from the tiresome labor of thought, and the uneasy consciousness of mystery and a threatening unknown." (op cit 288) This explanation is 869 //in part misleading. To see why, it is necessary to distinguish

between unease and hard thought. Paradigms, far from ^oaviding the labour of thought, may call for both intense and protracted effort if they are to be expressed in viable hypotheses (Kuhn 26 30). Their virtue in this respect lies in permitting that effort to be deployed within a well-defined structure instead of having to be applied to the definition of that structure; they permit a concentration on short-run questions. But in academic work, as in business, long-run questions, even if no more intellectually taxing, are much less comfortable, because they tend to open up an unpalatable range of options. They require the managing director to consider what business he should be in, or the academic the proper scope of his subject. An acceptable paradigm affords protection from such disturbing speculations.

"Theory... imposes a beautiful simplicity on the unbearable multiplicity of fact, gives comfort in the face of the unknown and unexperienced, stops the teasing of mystery and doubt, which, though salutary and life-preserving, is uncomfortable, so that we seek by theory to sort out the justified from the unjustified fear. Theories by their nature and purpose, their role of administering to a good state of mind, are things to be held and cherished. Theories are altered or discarded only when they fail us." Shackle op cit pp 288-89.

Intellectual retooling is uncomfortable as well as expensive.

This argument needs to be taken just one stage further, in order to explain the tenacity with which people cling to old paradigms even in crisis, and even when alternatives are available. Often the new contender is not a perfect substitute for the old: while offering solutions to some difficulties that appear insoluble within the established paradigm, it may offer inferior solutions to others; and indeed to some questions hitherto satisfactorily handled it may offer no solution at all. For example, Lavoisier, in offering solutions to the critical ^uissues which the phlogiston theory seemed unable to resolve, could provide no explanation whatever for the similarities between metals, which phlogiston theory had readily accounted for (Kuhn p 147).

Thus the competition between paradigms turns not simply of their relative merits in explaining certain important phenomena, but on judgments about which are the important phenomena to explain. For these judgments there are no generally acceptable criteria; indeed they cannot be made without excursions into those regions of mystery and doubt from which paradigms, once accepted, serve to protect us. A change of paradigm redefines the the set of relevant problems and the criteria for selecting problems and evaluating solutions; it changes to some degree -- occasionally to a large degree -- the accepted definition of the scope of a subject. With its combination of the threatened
 870 obsolescence of some established methodology // 870 // and the posing of awkward, sometimes fundamental, questions about the nature of a subject, a time of paradigm change ~~mayxxxxxxx~~ is a time of upheaval that for many may be more disturbing than exhilarating. A subject in which paradigms are often not firmly established, like economics, offers much less security to its practitioners than one, like chemistry, in which they are relatively secure. (Graduate chemists coming to economics are liable to be disconcerted by this loss of security.) But even apparently-assured security can prove illusory, as atomic physicists have painfully realised in recent years.

Whether economics (or any other social science) has yet succeeded in establishing any paradigms as widely accepted, even for a short time, as those associated with the names of Copernicus, Newton or Lavoisier, may be doubted. Nevertheless, the concept of paradigm change seems capable of extension to illuminate some major innovations in economic theory. It has indeed already been effectively used by Axel Leijonhufvud

Axel Lei., On Keynesian Economics and the Economics of Change
 (London and New York: OUP, 1968).

in his examination of the Keynesian revolution. Leijonhufvud argues that the neo-classical synthesis ~~has~~ has been achieved by forcing Keynes' ideas within the traditional general equilibrium paradigm of a static system of simultaneous equations; and that Keynes' attempt to construct a new paradigm, emphasising processes and information flows within the system, has been rejected, or even unrecognised. This argument will not be considered further~~d~~ in this paper... attention will be concentrated on micro-economics, beginning with the emergence of the theory of the firm.

870 The Paradigm of Perfect Competition

872 Imperfect Competition or General Equilibrium

874 The Illusory Crisis and its Consequences

... was there a real theoretical crisis? If one accepts the earlier argument about the significance of paradigms, and, particularly, the argument about the degree of abstraction -- in structure as well as in choice of variables -- required to create a usable paradigm in a study of such complex systems, the answer must surely be no. The Theoretical crisis arose out of a misconception of the subject, and therefore of the way it should develop. Any usable model must be a mis-specification of the reality to which it refers; in economics this mis-specification must often be so great as to show little apparent resemblance to the reality. To refine the abstractions in a workable paradigm is often to refine away the reality that remains; consistency must often be sacrificed in order to retain adequate sufficiency. When the conditions requisite for static partial equilibrium are carefully spelt out, as they were by Kaldor in 1934, it should become obvious that long-period static equilibrium is formally incompatible not merely with perfect competition, but with any real-world phenomena which we habitually use it to explain. Not even the simplest curve shifting is logically permissible; as Mrs Robinson has sardonically observed, equilibrium is not a position at which one can arrive; one must be in it already.

Thus "a more rigorous formulation of the conditions under which it is possible to make generalizations about the factors determining economic equilibrium" must be no more than a subsidiary concern, since it is obvious that the conditions will never be met. What matters is how extensively they can be violated without seriously impugning the result to which they lead. A strict regard for internal consistency in economic theory is as likely to be a vice as a virtue.

ou/ght:

875 ... Mrs Robinson ought first to have enquired a little more carefully whether any turning was needed at all.

→ N Kaldor, "The Determinateness of Static Equilibrium", Review of Economic Studies, February 1934, reprinted in Essays on Value and Distribution, pp. 13-33.

→ J. Robinson, Collected Economic Papers, vol. I (Oxford Blackwell 1951; vol. II (Oxford: Blackwell, 1966

875 Imperfect and Monopolistic Competition: One Theory or Two?

879 The Defence of the Revolution

881 Organisational Behaviour

882 A Comparison of Paradigms

But the characteristics of one paradigm should not be used as the criteria by which a rival is judged. It is more helpful to compare the abstractions and the method ~~x~~ of analysis which are legitimised by each, the kinds of answer which each can ~~h~~ give, and the questions which each permits to be asked. The critical distinction, which is a condition of all the others, is that between the definition of positions of rest and the specification of an ongoing process. (This is very like the distinction which Leijonhufvud regards as critical to an understanding of Keynes' thought.) As a consequence, instead of a defined goal, we have a defined origin.

883 ... A process with no definable end does not lend itself to optimisation techniques of analysis, and so there is no pressure to build only optimising models. Instead~~xx~~, therefore, of being confined to studying the response of a system to changes in its parameters, one can develop a model in which these parameters become variables, and which therefore initiate the changes to which it later responds. There is no need for the system to be dominated by negative feedback, as must necessarily be assumed -- albeit unconsciously -- in equilibrium models: the "cobweb theorem" for instance, so anomalous in micro-theory, fits easily into this type of analysis.

Another gain of freedom is in the handling of uncertainty. It is now possible to admit that in our world uncertainty is often a euphemism for ignorance, which cannot often be adequately represented by the use of certainty equivalents~~st~~. It is the unknown, rather than the uncertain, ~~x~~ which leads to the behaviour that Cyert and March categorise as uncertainty--avoidance and to the emphasis on flexibility as an objective in corporate strategy....

Where there is neither finality nor optimality, there can hardly be general determinate solutions. It is the abandonment of the
884 search for such solutions // 884 // that permits the use of behavioural variables in the way which gives behavioural theory its name. A fully determinate solution requires the behaviour,

at least of relevant aggregates, to be fully constrained by the system. But if constraints are obligatory, objectives are optional, and the dilemma of micro-equilibrium theory is to ~~X~~ reconcile the element of choice in the assumptions with the absence of choice in the results. This dilemma is brilliantly resolved in the theory of perfect competition, which combines ~~xxxx~~ completely independent decisions into a fully-determined system... The theory of imperfect competition with normal profits shares this highly desirable attribute....

The introduction of elements of monopoly destroys this happy conjunction, for, in the absence of a perfect capital market and effective shareholder control of management, monopoly profits represent an area of discretion.

885 Conclusion

The purpose of the preceding section has been to demonstrate how different is the behavioural paradigm from any of the micro-equilibrium paradigms discussed earlier. It was not intended to demonstrate its ~~x~~ superiority... Indeed, observant readers will have noticed that, like Kuhn's view of scientific progress, the development of the theory of the firm, as presented in this article, falls entirely within the behavioural paradigm: problemistic search is evoked by a disparity between aspiration and the apparent performance of existing theories, and neither equilibrium nor optimality have any part to play in explaining the course of events.

Lauchlin Currie 886-903

"The Exchange Constraint on Development -- a Partial Solution
to the Problem"

Jaroslav Vanek 904-913

"Tariffs, Economic Welfare, and Development Potential"

Earl F. Beach 916-922

Hicks on Ricardo and Machinery

J. R. Hicks

A Reply to Professor Beach

D E W Laidler 943 f.

A Survey of General Equilibrium Systems. By B. Hansen. (new York
and London: McGraw-Hill, 1970)

The Economic Journal, December 1970, 703-714, vol. 80

"Inflation and Recession in the World Economy"

Presidential Address to Royal Economic Society, July 22, 1970

by Nicholas Kaldor

From 1945 to 1970: an exceptional period of economic growth and prosperity in the leading industrial countries: fast-rising living standards, very low levels of unemployment, and except for the Korean war period the absence of pre-war instabilities of production or prices.

There was inflation but it was moderate (2% per annum) with no tendency to acceleration in 11 leading industrial countries from 1953 to 1967.

In 1968 things began to change.

In all the main industrial countries though at differing rates labor costs per unit of output began to accelerate

There followed an increasing strain ~~in the international payments system~~ on the international payments system and in 1971 fixed exchange rates were abandoned

In 1972 and 1973 commodity prices began to rise rapidly and, after the Arab-Israeli war, there was a fourfold increase in oil prices

There followed an inflation of wage settlements and further an unprecedented inflation in consumer prices in all countries

It averaged 26% in 1970-75 for all OECD countries from 44% in UK, 39% for Japan, 17% for Switzerland, 13% for Germany.

World industrial production rose steadily at about 6% or 7% through the sixties, by 8% a year in 1971-75, was stagnant in 1974, and fell by 10% in 1975.

The combination of recession and inflation presented economists ~~with~~ with a new problem

Kaldor does not believe it can be explained by any one cause

THE PRIMARY SECTOR AND THE INDUSTRIAL SECTOR

Primary: indispensable supplies for industrial activities; eg food fuel basic materials

Secondary: processes materials into finished ~~x~~products for investment or consumption

Tertiary: the service industries: transportation, distribution, professional ^texercise, entertainment

In primary changes in price signal changes in future consumption, production; they clear the market

In industrial prices are administered; they result from cost plus; when demand drops, inventories increase, production is curtailed; when demand increases, inventories shrink, production is increased.

Hence any maladjustment between growth of primary and growth of secondary is thrown almost entirely on commodity markets.

But these markets are erratic because (1) speculative expectations influence the holding of stocks, (2) demand does not readily lower the prices it offers, (3) supply lags in adjusting to price changes.

Eg 1925-29 production exceeded consumption; expectations were favorable regarding future demand; stocks kept accumulating with only a moderate fall of prices; when the boom broke prices fell catastrophically, by more than 50% in three years.

This drop in ~~pr~~ price did not stimulate industry to absorb the excess stocks: primary ~~was~~ dropped its demand for secondary products; secondary did not open up new fields of primary ~~pr~~ production. There resulted ~~the~~ ^the greatest industrial depression in history.

Rise in commodity prices means increased costs to secondary producers and so a cumulative price rise in secondary products since final prices are cost-plus. There follows a demand for higher wages, since commodity prices have risen and industrial prices are rising.

The inflation in turn has a deflationary effect~~on~~ on effective demand for industrial products (1) because increased income of primary producers is not matched by increased expenditure for secondary products and (2) because banks and govt intervene to control the inflation and thereby reduce consumer demand and industrial investment.

Kaldor advocates a "system of buffer stocks.. as a substitute that would substitute the mechanisms of income-stabilising variations in stock accumulation for the crude mechanism of rising and falling commodity prices (which operate slowly and wastefully and tend to set up perverse and unnecessary cycles in world industrial activity).