

▲ *The dispersal of knowledge.*

▲ *The importance of 'the problem of knowledge'.*

▲ *The useful fiction of dynamic equilibrium.*

▲ *The incompatibility of plans.*

▲ *Widely dispersed knowledge is co-ordinated through the market.*

▲ *Spontaneous order.*

hayek's economics

The dispersal of information in the economy is the key to Hayek's analysis of economic planning, the trade cycle and entrepreneurship. Gerald Steele, a lecturer at Lancaster University, explores Hayek's analysis. The function of the market is to coordinate this dispersed information.

Over more than 60 years Hayek's writings have presented a distinctive statement of the nature of economics as a scientific discipline. It is a perspective from which the micro-economics and macro-economics, as currently taught in schools and universities, stands indicted. Clearly, Hayek's economics is important; it offers a profound understanding of human affairs.

Hayek's economics explains the role of theory in shaping lessons to be drawn from human experience. The limited applications of neoclassical economics is explained, and a sophisticated concept of dynamic equilibrium provides a benchmark for judging the course of human behaviour.

Hayek's concern, with the efficient use and dissemination of knowledge, is central to empirical propositions about the state of economic affairs. The extensive degree to which knowledge is dispersed is the effective constraint upon centralised economic planning, the justification for the market process, and the reason for scepticism about the alleged benefits from a rational approach to institutional reform.

From the moment of conception, human experience is an interactive sequence of action, experience and reaction. As skills of language and communication are acquired, a smaller proportion of new information is derived from first-hand experience. Cultural conditioning begins as institutional norms and patterns of human relationships are impressed upon the mind.

At some stage an individual begins to test the strength of this received wisdom. He begins to think for himself, but his intellectual development is constrained always by information previously absorbed.

A relentless flow of 'indirect' information – much given only scant attention – is categorised against a (subjective) scale of belief, which ranges from the incredible to the obviously true. Information is intelligible only where it can be compared with that which is already familiar, and because it is possible to:

understand only what is similar to our own mind, it necessarily follows that we must be able to find all that we can understand in our own mind.²

The inescapable conclusion is that discovery consists of identifying latent processes within an existing conceptual whole.

Economics provides an interpretation of an important part of human affairs. It is the study of acts of choice made necessary by scarce means. Theory comes first. Although economics is concerned with the way in which men behave towards other men and material objects, it cannot explain human action. It can attempt only to set human action into a schematic framework. Economics cannot establish laws of behaviour for individuals, but behaviour can be categorised to form elements from which theoretical models can be constructed.

Theory enables selection – from the mass of available information – of that subset which forms 'economic facts'. An economic fact is necessarily subjective: it is a mental sketch of a recurrent process or of a set of persistent relationships. The task of economics is to extend the theoretical scheme by which economic facts are coherently ordered. A consistent theory is judged for relevance and for adequacy. Hayek's economics judges a theory to be relevant if the mental patterns it evokes are repeated; it is adequate to the extent that it can encompass sensory information.

‘Although Hayek's position has changed over the years...one of the most enduring qualities of his statements has been their consistency. There can be few economists alive today who writing in The Times in the 1980s can say ‘...as I said in 1931...’¹



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Scarcity defines an economic resource. Such resources are continuously and simultaneously in the process of being discovered and exhausted. The economic problem is to achieve the efficient use of those resources, but decisions are taken upon the basis of a mix of incomplete and inaccurate information.

In making the heroic assumptions that information is both correct and complete, the 'problem of knowledge' can be avoided and the economic problem reduced to that of achieving an efficient allocation of given resources between *known* competing ends. This defines the methodology which was made fashionable by the neo-classical revolution of the late 19th century, and which still predominates.

Where a resource has a life-span of very short duration, it may not be possible to defer its use until some future period. This kind of resource is 'given' to the present, and presents a situation in keeping with that of the neo-classical paradigm. So, to this limited extent (and begging the questions raised by the problem of knowledge), there is some justification for neo-classical analysis; but that analysis is compromised to the extent that other, more typical, resources are also involved. The use of most resources can be deferred.

Within the neo-classical framework, formal analysis involves the manipulation of tautologies, to arrive at:

a series of propositions which are necessarily true because they are merely transformations of the assumptions from which we start.³

Logical deductions drawn from tightly specified assumptions relating to resources, techniques and goals, reveal conditions which define an economically efficient outcome. Important insights may be achieved, but these can relate only to the intentions of a single mind. It is quite hopeless to attempt to extend that logic to a social process where:

the decisions of many individuals influence one another and necessarily succeed one another in time.⁴

Propositions about *causal* relationships can be achieved only with the identification of *empirical* processes whereby knowledge is acquired and disseminated.

Empirical propositions are essential if the formal apparatus of economic analysis is to serve as a basis for understanding the real world. An empirical proposition is one which says that:

if we find such and such conditions, such and such consequences will follow.⁵

The empirical content of economic analysis consists of propositions relating to foresight, to anticipations and to the acquisition of knowledge.

To summarise: economic analysis may be categorised alternatively as:

- the manipulation of tautologies;
 - the investigation of causal processes;
- but, in each case, the concept of equilibrium is used as a fictional reference point against which all other situations are compared.

To assess the likely consequences of any action, initial conditions must be taken fully into account. The reaction to change in any one period is more readily clarified when the economy is in an initial state of equilibrium; in the most general terms:

An economy is in equilibrium when it permeates messages which do not cause agents to change the thesis which they hold or the policies which they pursue.⁶

The concept of equilibrium is indispensable to economic analysis:

its field of application is identical with that of economic theory, since only with its assistance is it possible to give a summary depiction of the very great number of different tendencies of movement which are operative in every economic system at every point of time.⁷

Equilibrium is a theoretical artifact which is synonymous with economic analysis; but economics is possible as a scientific study only if the economy has a prevailing tendency to move toward equilibrium. It is only by the presumption:

that such a tendency exists that economics ceases to be an exercise in pure logic and becomes an empirical science.⁸

But, in Hayek's economics, the concept of equilibrium is quite different from that of the neo-classical methodology. The framework of perfect knowledge and of fixed resource constraints has no place. Instead, it is recognised that the acquisition, the extent and the relevance of knowledge greatly influence human action and, inescapably, the very notion of equilibrium.

In this dynamic context, the propositions of equilibrium analysis concern

relationships between actions taken at successive points of time; and cause and effect can be investigated:

The passage of time is essential to give the concept of equilibrium any meaning.⁹

So, the concept of equilibrium is distinct from the concept of the stationary state. Although this was implicit in Alfred Marshall's separation of short-run and long-run equilibrium, a more refined clarification was crucial for the development of Hayek's economics, particularly in regard to the theory of investment, to capital theory and to the analysis of business fluctuations.

Equilibrium has a *clear* meaning only when applied to a single individual. The actions of an individual are derived from a plan of action which, in equilibrium, is both *coherent* and *consistent* with the information available to him and which he believes to be true. If the information turns out to be false, the plan must alter. In general, any new information can disrupt these relationships and necessitate the formation of a new plan. Actions consistent with that new plan would constitute a new equilibrium.

In reaching beyond consideration of the single individual, the application of equilibrium analysis to relationships within a competitive society, pose particular problems. Despite initial doubts, Hayek accepted the usefulness of the idea of some kind of balance between the actions of different individuals. Although each individual might be in equilibrium, in the sense described above, it did not follow that separate plans would be mutually consistent. For collective equilibrium to exist, the many separate plans must be:

- based upon common expectations of external circumstances; and
- fully adjusted to one another.

Only then might it be possible for all planned action:

to be carried out because the plans of any one member are based on the expectations of such actions on the part of the other members as are contained in the plans which those others are making at the same time.¹⁰

In this dynamic counterpart to Walrasian general equilibrium, emphasis is placed upon situations of continuous change, but where every event is correctly anticipated.

Of course, this is fanciful, but it is no more far-fetched than the neo-classical model:

since in order to arrive at a stationary equilibrium it would be

Hayek: 'Policy cannot be purposefully directed by the application of specific intellectual design'



necessary to pass through a phase in which the changes required to bring about a stationary state were still going on but their results were correctly foreseen.¹¹

Dynamic equilibrium provides the theoretical structure for the analysis of economic systems, where the task is to understand the existing state of affairs in order to reach:

a prognosis of what is likely to happen in the future.¹²

Do plans tally, or is disappointment inevitable? Only the fiction of dynamic equilibrium provides a coherent basis for making that judgement, and it allows explanation in terms of causal sequences by revealing how and why an individual might feel compelled to alter any chosen course of action.

In sharp contrast to the neo-classical model, perfect knowledge (or, in the dynamic context, correct foresight) is *not* a precondition for obtaining equilibrium. Rather, it is the defining characteristic of equilibrium, but there is no supposition that correct foresight must extend indefinitely into the future. Equilibrium lasts only for, 'so long as anticipations prove correct'.¹³ Furthermore, it relates only to the information obtained by *each* individual in making his own particular decisions.

An individual's plan can be upset *either* because it was, from the first, mutually inconsistent with other persons' plans, or because of some change in external circumstances. Again, this contrasts strongly with the neo-classical

by reference to reality. Whereas theory is designed to address real world problems, it can be judged only by its consistency with accepted axioms and by the generality of its application.

The objective of economics is not the efficient allocation of known resources, but the best use of knowledge not given to anyone in its totality:

How can the combination of fragments of knowledge in different minds bring about results which, if they were to be brought about deliberately, would require a knowledge on the part of the directing mind which no single person can possess?¹⁵

How is it that subjective information in the minds of independent individuals is brought into correspondence with the objective facts? It is axiomatic to neo-classical analysis that this is so. In the framework of dynamic equilibrium, the processes by which this is achieved is for economics to explain.

Hayek sought to discover the necessary and sufficient conditions for dynamic equilibrium to exist and to achieve empirical verification of the tendency to equilibrium, as the outcome of, 'the spontaneous interaction' of a multitude of individuals. The issue of the division of knowledge was central to this objective.

The tendency to equilibrium is supported by the empirical evidence that prices correspond to costs; but the knowledge of current prices and expectations of future prices are but a small part of

timely efficient outcome of the neo-classical tautologies.

Equilibrium is relative only to the knowledge which an individual is bound to acquire in the course of following through his initial plan. For this to be a possibility, it is necessary for there to be:

some regularity in the world which makes it possible to predict events correctly.¹⁶

An individual sets his economic objectives in the context of coherent decisions formulated as part of a unique plan of action. Decisions are guided by experience and knowledge; by information which may be directly acquired, or which may be conveyed to him: the...

various ways in which the knowledge on which people base their plans is communicated to them is the crucial problem for any theory explaining the economic process.¹⁷

The guiding principle for policy is to find the most effective way of utilising widely dispersed knowledge. This is the principle of effective planning. Is it to be achieved by centralised decision making, or by allowing decisions to be dispersed across individuals by the processes of competition? Which information can be accessed only by individuals? Which can be accessed more readily by a body of suitable experts? (And is there likely to be any problem regarding the choice of experts?)

A presumption in favour of experts may be justified for scientific knowledge, but scientific knowledge falls far short of comprising all knowledge.

There is also the body of unorganised knowledge; knowledge of rules

governing particular circumstances and special processes, at different times and in diverse locations. Here:

practically every individual has some advantage over all others because he possesses unique information of which beneficial use might be made.¹⁸

Such information is no less vital than the scientific knowledge of technical experts; but, because it lends itself less readily to identification and documentation, it tends to be grossly underrated.

It is ironic that rapid technical advance inventiveness should have encouraged this tendency, for the latter has raised the requirement for rapid entrepreneurial response. New techniques bring both opportunities and problems of business organisation and economic cohesion:

It is perhaps worth stressing that economic problems arise always and only in consequence of change.¹⁹

And responses to change are unlikely to be handled effectively by a centralised body, however well-intentioned, experienced and educated its members might be. Com-

‘Economics is the best use of knowledge not given to anyone in totality’

world, where the situation (perceived by participants) is either one of equilibrium or disequilibrium, as shown by the relationships within the tautological structure. In Hayek's equilibrium, causal sequences can proceed for some time before mutual inconsistencies become revealed to the extent that (at least) some of the participants are forced into altering their individual plans.

In addition to the mutual compatibility of the many separate plans, equilibrium requires correspondence between those subjective plans and the objective facts. While the former may, or may not, be brought about by the (perceived) constraints imposed by the latter, equilibrium relationships:

cannot be deduced from the objective facts, since the analysis of what people will do can start only from what is known to them.¹⁴

It is implicit in the above that Hayek accepts the existence of an objective reality, but its perception is necessarily subjective. So theory cannot be appraised

the problem of knowledge. Wider aspects relate to how, and under what conditions, different commodities can be obtained and used.

The axioms of economic theory (from which tautological propositions are derived) postulate conscious, or rational, human action as against an instinctive response. Empirical propositions are conceptually different; they are based upon assumptions about:

- how people acquire knowledge and learn from experience;
- the possession of the knowledge necessary for equilibrium to prevail; that is, 'relevant knowledge'.

'Relevant knowledge' accrues to an individual in consequence of an original plan and the action which subsequently follows. For an individual in possession of relevant knowledge there are no surprises; but relevant knowledge falls far short of all that knowledge which, if made known by some accident, would cause an individual to alter his plan. So, equilibrium is not an absolute, and it is quite unlike the op-

munications to the centre are neither sufficiently rapid, nor sufficiently detailed; and, even if they were, the ability to digest, to assess and to react promptly is unlikely to be present.

The minutiae of interactive changes, during only a brief interval of time, are beyond the compass of a single mind. In attempting to gain insights into such complex procedures, the use of statistical aggregates by economists is methodologically unsound. The kinds of knowledge upon which economic success depends are rarely quantifiable, and statistics are a crude amalgam of items whose important differences are unrecorded.

Where centralised planning is conducted upon the basis of naively plausible statistical artifacts, no account can be taken of the special circumstances of time and place which would be of critical importance to decisions taken at the local level. Yet, while decentralisation ensures access to local information, might not wider aspects be likely to be overlooked? The answer is simply 'no'. Comprehensive information is, generally speaking, not required for a local decision.

That adverse weather conditions, labour unrest, civil war, or increased demand has exacerbated the relative scarcity of raw materials, is only incidental to the requirement for a local planner to make adjustments. Reasons for increased prices are of no consequence. Whereas an immediate accommodation may give way to more radical adjustments as more information becomes available, the essential point is that there need be no concern with events beyond their impact upon the local environment.

Authority and responsibility for economic decisions are for those with local knowledge, for the man on the spot, where the:

continuous flow of goods and services is maintained by constant deliberate adjustments, by new dispositions made in the light of circumstances not known the day before.²⁰

With such decentralised planning, there is no uniformity in the types of decision which are taken, for there are wide differences in managerial and business competence. Even where techniques of production are identical, differences in the acquisition of (and response to) new information, and in making the necessary adjustments to retain a competitive advantage, produce wide variations in profitability, which reflect the degree to which consumers' needs are met:

The function of competition...is precisely to teach us who will serve us well.²¹

The entrepreneurial instinct, the pursuit of profit and the communicative network of relative prices are encapsulated by 'competition', and equilibrium is the 'effect of the competitive process'.²²

Neo-classical economics upholds perfect competition as the ideal market order which, in equilibrium, gives the

‘the function of competition...is precisely to teach us who will serve us well’

efficient allocation of given resources; but it is derived from the manipulation of tautological propositions alone. It is an illegitimate extension of analysis – appropriate at the level of a single individual – to the empirical relationships between individuals. The latter require an understanding of the causal processes within a network of competitive markets.

The market process is the mechanism by which the effects of many continuously changing determinants are communicated. Price signals allow a planner to harmonise the separate parts of his own local plan; and price signals bring compatibility to the diverse intentions of a multitude of local planners: no single person oversees the whole field, but:

limited individual fields of vision sufficiently overlap so that through many intermediaries the relevant information is communicated to all.²³

Under the neo-classical ideal of perfect competition, it is 'as if' knowledge of important changes spreads so rapidly and adaptation takes place so quickly, that processes in the period between any two

states of static equilibrium can be disregarded; but it is precisely the processes, during this neglected interval, which must be understood if economics has any claim to be scientific.

The assumption of perfect knowledge ignores the important role of the price system as a mechanism for communicating

information, and misleading standards have been set in judging its efficiency. 'Super-normal' profits are earned because change occurs, reaction takes time, and because each entrepreneur (local planner) is uniquely different in assessing the new situation. Constant experimentation creates improvements and subsequent emulation creates the tendency to equilibrium which drives the economy ever forward to new horizons of achievement.

Hayek's economics is the basis of his own seminal contributions, most especially in the areas of capital theory, monetary economics, and business cycle analysis. He concludes that policy cannot be purposefully directed by the application of specific intellectual design. Instead, a spontaneous order must be allowed to develop, such that an extended order of dynamic economic interdependencies rests upon, 'a great framework of institutions and traditions',²⁴ the strength of which derives from their slow evolution, and the continuous adaptation to the checks and constraints imposed from many different and changing directions.

¹ R. McCloughry (Ed.), *Money, Capital and Fluctuations: Early Essays of F.A. Hayek*, Routledge and Kegan Paul, 1984, p.viii.

² F.A. Hayek, 'The Facts of the Social Sciences', *Ethics*, Vol. LIV, No. 1, p.68.

³ F.A. Hayek, 'Economics and Knowledge', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, pp.33–56.

⁴ F.A. Hayek, 'The Meaning of Competition', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, pp.92–106.

⁵ F.A. Hayek, *ibid*, p.94.

⁶ F.H. Hahn, *On the Notion of Equilibrium in Economics*, An Inaugural Lecture, Cambridge University Press, 1973, p.25.

⁷ F.A. Hayek, 'Intertemporal Price Equilibrium and Movements in the Value of Money', 1928, in R. McCloughry (Ed.), *Money, Capital and Fluctuations: Early Essays of F.A. Hayek*, Routledge and Kegan Paul, 1984, p.75.

⁸ F.A. Hayek, 'Economics and Knowledge', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, p.44.

⁹ F.A. Hayek, *ibid*, p.37.

¹⁰ F.A. Hayek, *The Pure Theory of Capital*, Routledge and Kegan Paul, 1941, p.18.

¹¹ F.A. Hayek, *ibid*, p.16fn.

¹² F.A. Hayek, *ibid*, p.22.

¹³ F.A. Hayek, 'Economics and Knowledge', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, p.42.

¹⁴ F.A. Hayek, *ibid*, p.44.

¹⁵ F.A. Hayek, *ibid*, p.54.

¹⁶ F.A. Hayek, *ibid*, p.49.

¹⁷ F.A. Hayek, 'The Use of Knowledge in Society', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, p.78.

¹⁸ F.A. Hayek, *ibid*, p.80.

¹⁹ F.A. Hayek, *ibid*, p.82.

²⁰ F.A. Hayek, *ibid*, p.83.

²¹ F.A. Hayek, 'The Meaning of Competition', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, p.97.

²² F.A. Hayek, *ibid*, p.94.

²³ F.A. Hayek, 'The Use of Knowledge in Society', *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, p.86.

²⁴ F.A. Hayek, *The Fatal Conceit, The Errors of Socialism*, Routledge, 1988, p.14.