

"SUMMARY"
(DOCTORAL DISSERTATION)

Ongeprijsde schaarste:
een onderzoek naar de plaats van expretiale of ongecompenseerde effecten
in de theoretische economie en de leer der economische politiek
Den Haag. Van Stockum 1970 pp. 163-169
(slightly amended and corrected)

In recent years there has been among economists a growing preoccupation with the question **of** how to deal theoretically with expretial effects. Expretial effects are all those side-effects of economic activity which are not registered by **the** market but which nevertheless do imply certain mutations in the area of allocation and distribution of scarce resources. These non-priced, external effects include a wide variety of phenomena, both of a negative character (for example, water and air pollution, external damage resulting from the exploitation of common property resources, costs of noise and other **impacts**) and a positive character (for example, social benefits resulting from many government activities).

What accounts for this growing interest in expretial effects? In *Chapter I* of this study we have pointed out that this interest is directly connected with the "weak link between expanding choice and welfare" (Mishan). This is in the first place apparent from the qualitative change of view that has been brought about in part, at least, by the quantitative growth of these effects in our western world. There is an increasing tendency among individuals and governments to **sacrifice** scarce factors in order to prevent or neutralize harmful encroachments on the environment. This tendency is not and cannot be fully registered **by** the market.

In the second place: as personal disposable income increases, the personal value attached to non-market commodities increases in proportion to the value attached to market commodities.

Under certain conditions, therefore, a point is reached where an increase in personal buying power brings about harmful side-effects in the sphere of general well-being which altogether outweigh the original advantages gained by such increased buying power.

Such a development on the one hand challenges Welfare Economics to re-examine the hypothesis that the growth of national product is a reliable indicator of the growth of national welfare, because this hypothesis is now more questionable than ever. Theoretical positive economics is on the other hand challenged to give heed to the urgent call, issued by this development, to re-examine the limits of its field of inquiry. When, however, the call is heeded a dilemma presents itself. If theoretical positive economics is restricted to the traditional field of study, namely: to give a so-called objective, universally valid analysis of only market phenomena, it will gradually **lose** its relevance by disregarding a host of effects significant for economics; but if its field of inquiry is extended to include all these effects,

the possibility of giving an objective, universally valid analysis evaporates and economic theory is exposed to the danger of hypertrophy and loss of coherence.

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Chapter II deals with expretial effects as a problem of theoretical economics. Traditionally this branch of economic has been very reluctant to admit expretial effects to its field of study. This unwillingness stems in part from the influence of the philosophy of natural law on classical economics. Expretial effects disturb the natural harmony which is supposed to exist in the mechanism of the economic system. However, there are also other reasons. Expretial effects pose a special problem for economics because they are not registered by **the** market and, therefore, an objective measurement of their economic significance is lacking. Expretial effects are not valued but sustained. There is not any revealed preference. Also for this reason has the entry of expretial effects into the field of economic theory been stringently restricted: only those are admitted which have the passport of objectivity and technical controlability, and which have indubitable relations with concrete market entities. The concept of technological external economies and diseconomies can serve here as an example.

This restrictive attitude towards expretial effects comes to forceful expression in the doctrine of the circle of data (Eucken). The classical data for economic study, such as natural environment, consumer preferences etc., according to this doctrine encircle the market and restrict economic theory to a study of only market processes. Because everyone of these effects implies a change in one or more of these economic data, it is very important to confront this doctrine - which has its roots in Neo-Kantianism - in any study of expretial effects.

Finally the problem discussed in this chapter has been illustrated by Marshall's view of economics as a science of wealth and its relation to his concept of "external economies and diseconomies". The common denominator of these two is his orientation to man's dealing with those individual goods which are "directly capable of a money measure."

In *Chapter III* special attention has been given to Pigou's *The Economics of Economic Welfare*. Pigou realized the immensity of the problem of dealing satisfactorily with expretial effects. Disregard of these effects would render his theoretical conclusions totally irrelevant. A broader interpretation of relevant expretial effects was needed than Marhsall's concept of "technological external (dis)economies" permitted. He paved the way for such an interpretation by means of a rather flexible definition of "national dividend" and by circumscribing economic welfare as that part **of** welfare, which can also be related to the money measure in an *indirect* way. Pigou, however, fails to give a scientific account of the meaning of the term "indirect".

The **subsequent** part of *Chapter III* was devoted to the approaches of Knight (*Some Fallacies in the Interpretation of Social Cost* 1923) and Coase (1960).

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Whereas the latter is correct in his criticism of Pigou, he is not sufficiently critical of the consequences that flow from a social order in which the party juridically responsible for the existence of expretial effects may also be the party who can claim compensation.

This chapter ends with an evaluation of the contribution of the Cost-Benefit Analysis. In this analysis the concepts "national dividend" or "national product" also often serve as a criterion in the analysis of expretial effects.

Chapter IV deals with the role that expretial effects play in modern welfare economics, especially in the New Welfare Economics. The expretial effects which play a major part in the latter are those which act as an "economic cause", that is, which influence individual satisfaction derived from vendible commodities. In the context of this interpretation "external (dis-)economies of consumption" are intensively studied. However, what frustrates this study and becomes problematic for it is the interpersonal incomparability of individual utilities. So that it could deal more adequately with expretial effects, New Welfare Economics was obliged to create fictions as a solution to this problem. The fiction of compensation is particularly well-known.

It is our contention that the so-called compensation methods can give only a very inadequate impression of the economic significance of expretial effects. Not only can the "costs of decision" obstruct compensation, but also the real level of the agreed compensation is determined by the bargaining power of two parties and therefore in its results it tends to be similar to the outcome of a situation of bilateral oligopoly.

Included in this chapter is also a discussion of the important contribution of Meade in the study of expretial effects, namely: the distinction he makes between the expretial effects which act as a creation of atmosphere and those which act as an unpaid factor. Also Mishan's study *The Cost of Economic Growth*, is treated, especially in its relation to the foundations of the New Welfare Economics. Mishan's idea of the creation of separate facilities is interesting, but only directly applicable to the study of expretial effects when these effects are valued in different ways or have an inter-subjective character, that is, when the subjects who create the effects are also in the main the subjects who are affected.

The adherents of the idea of a Social Welfare Function hold a very interesting view of the phenomenon of expretial effects. The effects which disturb the environment are primarily measured by them not by analysing the disturbances themselves but by the public demand which arises as a result of the need for restoring the disturbed environment. The public demand, however, only becomes real and significant insofar as it is related to government preferences.

Chapter V is devoted to those economists who have chosen as the primary goal [p.166] for all their economic theorizing the extensive analysis and evaluation of expretial phenomena. They want to adapt the structure of

economic theory because, according to most of them, this theory has been dominated too much by an individualistic and positivistic spirit. However, they are confronted with the problem of keeping the study of the whole scale of expretial effects within the limits of one discipline. How can a multiplicity of such effects be grasped in one single coherent theory?

Kapp, Fritsch and Uhlig have attempted to solve this problem by adopting a variety of standards, that is by establishing a range of social minimum or maximum rates allowable for water and air pollution, depletion of natural resources, etc. This solution is little more than a recasting of the same problem into another form: how are these various standards to be related to each other?

Therefore, many advocates of Social Economics, as this school of thought is sometimes called, prefer a different approach. They introduce only one standard of Social Value, whose content is either determined by the author himself (Hobson, R T Bye) or by "opinion polls". J M Clark, in his book *Preface to Social Economics* chooses his own position on the basis of what he feels to be the prevailing sentiments. Supposedly the tension between inner theoretical consistency and relevancy of economic theory has now been dissolved but the theory as a whole lacks, because of this necessarily vague standard, any real content.

In *Chapter VI*, we have presented our own attempt at incorporating expretial effects **into** economic theory.

Beginning with a further examination of the accusation that theoretical economics has been much too individualistic and positivistic, we have concluded that this accusation is meaningless unless it is demonstrated that the individualism and positivism is already present in the choice of the task to which economic theory has been traditionally restricted. Once the economist chooses as his task to give objective, universally valid explanations of only the operation of economic markets, he cannot in any way avoid doing what he is accused of doing. The question arises then: is another choice for a more comprehensive task possible, and if possible, is it also desirable?

We maintained that the possibility of a more comprehensive task for theoretical economics does exist. Economic theorizing insofar as it is economic must restrict itself to the study of the allocation and distribution of scarce goods. However, to theorize only about market processes for the purpose of safeguarding the purely objective character of economic theory is an unnecessary limitation. Economic theory deals with the aspect of scarcity as such, and the economist is, therefore, also entitled to investigate even changes in the circle of economic data so long as he restricts himself to the economic aspect of these changes. On the basis of this comprehensive task a theoretical economic study of expretial effects [p. 167] is possible, provided that a) these effects are only studied with respect to their consequences for the area of allocation and administration of scarce resources, so that these consequences can be expressed in terms of money and b) these effects are linked to their economic causes by using the method of the inversion of data

(Tinbergen) and by applying standards of imputation which are oriented (gravitated) towards a criterion, normatively understood, of relative scarcity.

When, for example, it is proven that there is an inevitable link between a household inflicted with extra economic burdens and the existence of expretial effects, then that burden is in this study regarded as **an** economic consequence which flows from this expretial effect, and which is significant for economic theory. The term "inevitable" should not be taken in a strict technical sense, but must rather be seen from the viewpoint of a frugal administration of scarce resources in a household. Of course, value judgments are unavoidable in the formulation and adoption of such standards, but value-judgments of this kind are legitimate in theoretical economics; not only because an absolute separation between facts and values is a chimera in economic theory, but also because the value-judgments proposed here serve to advance the real theoretical *analysis*.

We were now in a position to attempt to build on the foundation of this broader approach to theoretical economics a system of possible economic consequences of expretial effects. First, a distinction was made between consequences for the flow of income and the flow of capital of a household. Secondly, gross and new economic consequences were distinguished. Net consequences presuppose the actually performed economic efforts of inflicted (or favoured) households to minimize the burden (or maximize the benefits) of the total sustained effect. In the case of aircraft-noise, for example, the gross sustained burden is often lowered by using sound-deadening devices; the costs of those devices form part of the sustained *net* economic burden.

In the last section of this chapter we have stressed the desirability and urgency of an economic theory that satisfactorily accounts for expretial effects. Such a theory is on the one hand desirable, because the price theory, the theory of the trade cycle and the theory of economic growth can only be enriched by the study of these effects. We have mentioned some possibilities in these areas. On the other hand, such a theory is desirable because the traditional economic problem has in our age expanded into the problem of attaining a frugal administration of *all* scarce resources, including those whose use is not directly registered on the market or in market terms. A persistent adherence to the outdated notion that positive economics should restrict itself to the analysis of only market phenomena is no longer a live option in the light of what has become an irrefutable charge, namely that such an economic theory will be lopsidedly oriented to the survival of economic systems that reduce the problem of economic efficiency to one of efficient allocation of marketable goods. Throughout this [p. 168] whole study we have not hidden our presuppositions which favour a broader basis for economic study. It is our conviction that theoretical economics cannot be arbitrarily restricted to some field of enquiry that the economist chooses for himself, but that it must reflect the reality that all human economic activity is, in one way or another, a response to the Divine mandate to act frugally with all the scarce goods of God's creation.

In the last chapter of this study (*Chapter VII*) we made an attempt at

integrating the study of expretial effects into the theory of economic policy. As our starting point we took the existing preferences of the Dutch government, including the aims to diminish water and air pollution and all other expretial phenomena which are harmful to the environment.

From the outset it became apparent that the economist is here confronted with the problem that these aims are not entirely comparable with other aims of public policy, such as price stability, level of employment, etc. The latter, because they are by nature economic (process) variables, are directly related to the ordinary instruments of economic policy. The former, however, need a certain transformation or transfiguration in order to become capable of theoretical economic analysis.

A reasonably adequate transformation can be obtained by a tripartite approach. In the *first* place the expretial effects involved should be expressed in terms of income and capital flows according to the system proposed in *Chapter VI*. The resulting figures can be used to correct the index of the national income or product in such a way that a more accurate rendering is reached of the real government preferences for the growth and division of national welfare. In the *second* place the depletion of common property resources should be brought into relation with the long run aims of full employment and production possibilities in different industries. In the *third* place the non-economic aspects of these aims should be expressed in terms of certain boundary conditions in the economic-political model. These conditions must clearly reflect the ultimate levels of water and air pollution, etc., which the government is willing to tolerate. Of course, these boundary-conditions ought to be expressed as functions of normal economic variables: that is of quantities of production and consumption (which bring about harmful expretial side-effects) and of expenditures, necessary for driving these harmful phenomena back to within the limits of the boundary-conditions.

The *instruments* used in realizing the government policy may be grouped into four types: instruments of elimination, compensation, neutralization and contra-realization. The first are for combating and eliminating harmful effects in their total physical structure. They are most important when the boundary-conditions leave only little room for the extension of production or have already been crossed. Instruments of compensation are advisable when there is still a reasonably [p. 169] large margin between the actual economic process and the set limits. Instruments of neutralization serve to assist injured households in evading certain damages. These are the least effective. Instruments of contra-realization are very important in the long run. They include all the government investments which counteract the harmful effects by enlarging the margin between the damage they actually cause and the ultimate limits that the government is willing to tolerate. An example of this type is the planting of new forests as a counterbalance against erosion and air pollution.

Finally we examined the relation between the aims and instruments in the new Dutch law against air pollution. In this last section we also advanced a scheme of analysis for investigating the economic consequences of

establishing a new air polluting industry in a thickly populated area.