



Bundeskartellamt

Best practices for expert economic opinions¹

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¹ In case of contest only the German version is valid.

Purpose

The number of expert economic opinions submitted to the Bundeskartellamt has risen steadily in recent years. The Bundeskartellamt expects that common and transparent procedures for evaluating expert economic opinions will allow for a fair and efficient application of this type of evidence to the specific competition law proceedings. However, it should be noted that the evidence from an expert economic opinion is never the sole deciding factor but merely one aspect of several in the overall competitive assessment of a specific case.

Economic evidence – methodological and empirical – can help reach more informed decisions. However, for that to be the case it is necessary that the economic evidence complies with minimum quality requirements. This was often not the case in the past.

In this notice the Bundeskartellamt outlines general standards for expert economic opinions in its competition proceedings. The arguments, results and conclusions of economic opinions which do not comply with these standards can only be considered to a lesser extent, if at all. This notice also discusses practical and legal questions arising in the process of preparing, submitting and assessing an opinion and issues recommendations in this regard. The principles expounded in the following are not exhaustive and can be further developed and adapted on the basis of further experience.

I. Principles for expert economic opinions

1. General principles

1.1. Basic requirements

Any expert opinion should satisfy the following basic requirements:

1. **Relevance:** It must be clear from the opinion which competition issues are dealt with, which methods are used and what the conclusions and their implications are. These must be relevant to the case.
2. **Completeness:** An expert opinion must be written to be comprehensible within a reasonable period of time. Opinions which do not contain the information necessary to understand and to replicate results are incomplete. Results of economic analyses which are not comprehensible cannot be considered as evidence by the Bundeskartellamt.

3. Transparency: Economic analysis is generally based on simplifying assumptions. Assumptions are to be disclosed and assessed for their compatibility with the relevant facts of the case under competition law.
4. Consistency: If the opinion contains several analyses of the same or different circumstances, the assumptions and results of the individual analyses should not contradict each other. Any inconsistencies in the assumptions or results must be acknowledged and explained.

1.2. Language:

The official language of the Bundeskartellamt is German.² Expert opinions should therefore be submitted in German. After consultation with the Decision Division in charge the Bundeskartellamt will also accept opinions in English. In such cases the opinion should include a German translation of the non-technical summary (p. 1.3). In the case of appeal proceedings, it is the responsibility of the parties to submit a German translation at short notice at their own cost.

1.3. Non-technical summary

A final evaluation of the results of the expert economic opinion combined with other investigation results will be carried out by the competent Decision Division. The Decision Divisions consist of economists and non-economists. Expert opinions must therefore be comprehensible to a non-economist audience. An expert opinion should always include a non-technical summary addressing the following points:

1. Purpose: Which issues does the expert opinion aim to address? How relevant are these issues for assessing the competition case under competition law?
2. Methodology: Which method is used and why? Why is the method preferred over other available methods?
3. Specification: Which aspects of the case are covered by the economic model used in the analysis, and which are not? What are the underlying behavioural assumptions of a theoretical model? What are the assumptions underlying an empirical method?
4. Result: What is the result of the analysis? What are the implications for the assessment of the case under competition law?
5. Robustness: How robust are the results to changes in the underlying assumptions and methodology? Can the results be replicated using a different framework of analysis or a different data set?

1.4 Non-confidential version

In administrative proceedings third parties often have access to files. In such cases a confidential version of the expert opinion and a version in which business secrets have been deleted must be submitted. The non-confidential version must include all information necessary to evaluate the methods and results of the expert opinion. Figures representing business secrets are to be replaced by the usual intervals.

1.5. Bibliography and reference list

It is desirable for an economic analysis to be placed within the context of the relevant literature. A discussion of the relevant literature should adhere to standards used in scientific journals.

References for the models that are used need to be included in the expert opinion. If a model is described in various sources, basic and general descriptions from textbooks or renowned scientific journals are to be given preference over other sources. If models discussed in specialist literature are modified, these modifications must be made explicit and explained in detail.

Facts which are taken for granted in the analysis and which cannot be assumed to be generally known must be substantiated by a reference to the relevant source. In particular, this applies to assumptions needed to apply a model to the particular case or assumptions made for simulations.

Unpublished bibliographical references or sources which are not publicly available must be submitted with the expert opinion.

1.6. Preference for established theories and methods

It is generally possible to apply new theories and methods to evaluate economic issues in competition law proceedings, or theories and methods which are disputed in the literature, as long as this remains practical. However, the standards of proof and illustration are higher for theories or methods which are less well-established. Theories or methods which have not yet been published in a journal and thus have not undergone any peer review must be justified and explained in depth. Reasons for the insufficiency of established methodologies need to be given when using a new method. In general, the use of theories and methods which are widely recognized in science and also in competition practice makes it more likely for the authority to take an expert opinion into consideration

² Section 23 (1) VwVfG (Administrative Procedure Act)

Typically, empirical analyses, like purely theoretical analyses, face a trade-off between accuracy and simplicity. As a general rule, the more accurate an analysis is, the more time and effort it will require. Due to statutory deadlines in some competition law proceedings, refined empirical analyses might not always be practical or might require a disproportionate amount of time and effort.

2. Standards for theoretical/conceptual analyses

Theoretical analysis, if adapted to the circumstances of the relevant case, can help to explain the behaviour of the market and its participants.

2.1. Choice of model

Theoretical models explain a set of facts by abstracting from reality and representing it in a simplified way. An economic model does not aim to represent reality in full detail. Instead, simplifying assumptions are used to focus attention on those details which are relevant to the case. The application of theoretically grounded and internally consistent models allows conclusions to be applied to more complex situations.

Economic models can be represented verbally, graphically or mathematically. These representations are complementary to each other. However, a verbal interpretation of any graphical or mathematical argument must be provided. Ease of understanding should be prioritised when deciding how to represent an argument.

2.2. Relation between the model and the competition issue in question

The implications of an economic model can only influence the assessment of a competition issue if the economic model is relevant to it. Therefore the choice of model should always be carefully explained and justified in detail.

Models are simplifications of reality and include assumptions, leaving out many aspects of reality. This procedure is not only legitimate, but also necessary. However, assumptions must be explicitly stated and, if necessary, explained. Assumptions which appear unrealistic need to be particularly well justified.

2.3. Robustness

The results of economic models differ in their robustness. While some models are highly sensitive to small changes in the underlying assumptions, others can be modified in a substantial way without affecting the results. In many cases some specific assumptions

made in a model are decisive for its result, whereas the modification of other assumptions only leads to a more complicated representation, leaving the result unchanged. For this reason a theoretical analysis should always include an explanation of the individual assumptions used, stating whether and to what extent results are sensitive to them. Furthermore the general robustness of each model should be discussed, for example by referring to the results of empirical tests carried out on a model or the results of laboratory experiments. The more robust a result, the greater is its influence on the competitive assessment of the case.

3. Standards for empirical analyses

Expert economic opinions often include empirical analyses, which are based on either existing data or data collected for the purpose of a competition case. Empirical analyses either aim to identify a particular situation or to show that a theoretical model is suitable to describe the situation in the affected market.

3.1. Methodology

There are a vast number of methods available for empirical analysis, ranging from simple descriptive statistics to complex econometric methods.

Descriptive statistics are used to represent data in a structured way. Useful descriptive statistics are the mean, variance or pivot tables. In most cases, descriptive statistics are calculated using spreadsheet programmes. Due to the fact that companies record transactions electronically, it is easy to find relevant data. Simple descriptive statistics can contribute to clarifying the facts of a case and prepare for more complex econometric analysis.

In contrast, inferential statistics and econometrics use random sampling methods in order to derive parameters for the underlying population. We use econometrics in order to test economic hypotheses or to establish the quantitative significance of economic relations. Having estimated the parameters of the underlying economic model it is possible to deduce economically meaningful relationships from the data. Given the inherent uncertainty involved in the use of econometrics, confidence intervals for the relevant parameters should be given. In general, estimated parameters have a higher variance if the data set used to estimate them is small. Diagnostic statistics to assess the extent to which the chosen model explains the data need to be given and discussed. Assumptions underlying each estimation framework need to be tested, if possible.

The underlying model should be estimated using a variety of estimation strategies. Diverging results need to be explained. Reasons for preferring one specification need to be given.

3.2. Selection and processing of data

Data are an important factor for the quality of empirical analyses. The validity of an analysis largely depends on the quality of the data used. In many cases, the decision in favour of a particular method depends on the availability of data. For this reason, it has to be explained in detail which data sets are available for the examination of a particular question and what advantages and disadvantages these data sets have. Reasons must be given why a specific data set was chosen.

In principle, it is possible for the author to collect his own data by conducting surveys or laboratory experiments. This allows for the collection of exactly the kind of information that is required for a specific analysis. However, the benefits of higher quality data need to be balanced against their high cost of collection. Furthermore, the data collection process is motivated by the author's interest in obtaining certain results. As a consequence, the collected data may be biased. For this reason, the use of existing data is preferable over the collection of new data. In the case of newly collected data, it is imperative that verifiability, objectivity and representativeness be considered and the technique used to collect the data be comprehensively documented.

In most cases the raw data on which an analysis is based cannot be used directly but must be cleaned first, for example by removing outliers or adding missing values. When data from different sources are used in a single database, these must be meaningfully merged. Data cleaning is perfectly legitimate, even necessary. Yet, the Bundeskartellamt will want to see for itself how this process has been performed in any given case. Thus, parties should provide a precise description of the data cleaning process, listing the criteria that have been used for cleaning the data. In addition, an appendix must be attached to each expert opinion containing the original data, the data used for the estimations and, where applicable, the programme codes used for the data adjustment process.

The data used should be described briefly in the expert opinion, e.g. by way of a table indicating the names and definitions of all variables used in the analysis as well as appropriate descriptive statistics (number of observations, means) or by way of graphical illustrations.

3.3. Presentation of results

The presentation of the results of an empirical study comprises three stages:

1. Presentation in tabular form,
2. Verbal explanation of the results, and

3. Comment on the conclusions drawn for the competition issue in question.

Depending on the number of calculations and estimates, the tabular presentation of the results may be simplified. In any case, appropriate diagnostic tests have to be reported. If the results are presented in a simplified form, the complete estimates (output sheets) must be included as an attachment to the expert opinion. Calculations and estimates must also be transmitted electronically, where necessary complemented by explanations that enable the Bundeskartellamt to understand the calculations and estimates with reasonable effort. Verbal explanations of the results facilitate understanding and help to avoid misinterpretations.

In addition, a report should include an interpretation of the diagnostic tests and their implications.

The significance of the empirical analysis for the individual proceeding depends on whether the results of the analysis improve the understanding of the relevant competition issue. An empirical analysis only makes sense if the results help to clarify and interpret the facts of the case for the purposes of competition law. When different estimates suggest different results, a carefully argued judgment as to which of the estimates are superior is required.

3.4. Robustness

Different economic analyses often produce differing, sometimes conflicting results. For this reason, one isolated analysis can only have marginal probative value.

The impact of an analysis for the competitive assessment of the relevant case can be significantly enhanced by confirming the result of the analysis. This can take the form of various specifications of the equations to be estimated, the use of different estimation methods, the use of different data (sub)sets or a comparison of the result with conclusions reached in the scientific literature. The more analyses arrive at the same result, the more significance is attached to the economic evidence in the overall assessment of all criteria that have to be taken into account in the decision-making process.

II. Procedural steps

Economic expert opinions are subject to the same procedural principles as are other documents submitted during the proceedings by the parties. The following paragraphs therefore only serve as additional information to the existing principles. There are two specific characteristics of economic expert opinions that should be kept in mind. First, unlike other documents, economic expert opinions are generally written neither by the companies involved, nor by the law firm they have entrusted with the proceedings, but instead by a third party, often an economics consultancy firm. Second, the examination of economic expert

opinions by the Bundeskartellamt requires substantial additional effort, for which sufficient time should be allowed.

1. Contacts before submitting an expert opinion

During the planning and drafting phase, a party wishing to submit an economic expert opinion may contact the Bundeskartellamt. Such contact should be made in good time and can serve to discuss the question of whether and to what extent a specific analysis can be of particular importance for the assessment of the specific case.

Such advice, however, is not binding. In particular, the Bundeskartellamt cannot guarantee that a particular result will automatically lead to a definite assessment of the competition issue at stake.

2. Submitting an expert opinion

An expert opinion must be submitted within the scope and time necessary for it to be understood and assessed in detail by the Bundeskartellamt before taking a decision. In particular, this applies to proceedings with statutory deadlines. In proceedings which are not tied to a statutory deadline, the amount of time required by the Bundeskartellamt to assess the expert opinion needs to be considered, taking account of the public and private interest in a speedy conclusion of the administrative proceedings. Where an expert opinion has to be submitted within a certain period of time, this time limit is not deemed as met if the expert opinion has not been submitted in full to the Bundeskartellamt by the deadline for submission.

To be complete, the submitted documents should contain data, programme codes and explanations that are necessary to follow the conclusions of the expert opinion. References that have not been published or are not easily available but are quoted in the expert opinion have to be submitted as well. This also applies to publicly available data and data that have been purchased by a company. Where these details are missing, an expert opinion is regarded as incomplete and will, depending on the level of incompleteness, not be considered at all or only to a lesser degree.

If possible, expert opinions should be submitted in both paper and electronic format. Data and programme codes are to be submitted in electronic format.

The process of assessing empirical analyses, in particular, can easily raise clarifying questions. To enable it to clarify these questions without delay, the Bundeskartellamt must be provided with the name of a contact person who was involved in drafting the expert opinion and who can clarify the relevant questions informally and at short notice on a bilateral level.

3. Procedure in individual cases

It rests with the competent Decision Division of the Bundeskartellamt to decide on the procedure to be adopted in a specific case.