

**EX-ANTE ASSESSMENT OF THE WELFARE GAINS ACHIEVED BY THE GVH
(EX-ANTE IMPACT ASSESSMENT)**

Cases involving anticompetitive practices and mergers, 2008-2012

HUNGARIAN COMPETITION AUTHORITY

10.05.2013

1 By protecting competition, the Hungarian Competition Authority (Gazdasági Versenyhivatal, GVH) creates financial benefits for consumers, which can be at least partially quantified. This quantification is carried out via a so-called *ex-ante* impact assessment, which relies on easy-to-use but comprehensive methods to arrive at approximate results which are, in aggregate, not exaggerated. This document and its annexes describe the *ex-ante* impact assessment performed by the GVH as well as the results of the exercise.

2 The GVH partially quantified the direct benefits derived from its competition cases closed in the 2008–2012 period related to anticompetitive practices and mergers. The exercise revealed that **in the aforementioned period, consumers saved at least 58 billion Forints^a as a result of the work of the GVH.**

3 This figure is a conservative estimate relying on the assumption that in the absence of the intervention of the GVH, that is, if the infringements had continued or the mergers substantially lessening competition had gone ahead, the goods and services affected would have been ‘only’ 10% more expensive for ‘only’ two years compared to the baseline. Furthermore, due to methodological constraints, this figure only covers some of the GVH’s activities and only some of the resulting benefits: it excludes, inter alia, benefits arising from consumer protection activities, deterrence, or more general gains such as the competitiveness-enhancing effects of competition. Consequently, the **actual gain** is likely to be **in excess of the level quantified**; indeed, it may be several times higher.

4 **The quantified gain is more than four times the total budget of the GVH** (in the same period).^b In other words, social expenditure on the GVH in this time period was recovered several times over through such proceedings alone. This corresponds to an annual rate of return of 103%. Considering that the quantified gain is smaller than the gain actually obtained, the ‘rate of return’ of the GVH that benefited consumers is even higher.

5 The GVH used the framework devised and employed by other leading competition authorities for the quantification. The quantification is based on the premise that more vigorous competition generally results in lower equilibrium prices, therefore any practice unduly restricting competition or any merger leading to a substantial lessening of competition would mean higher prices for consumers, which would cause them a loss. If, on the other hand, the GVH’s intervention frustrates such practices

^{*} The original document: A GVH működéséből származó jóléti haszon mértékéről (*ex-ante impact assessment*) – Versenykorlátozó megállapodásokkal, erőfölényes visszaélésekkel, valamint fúziókkal foglalkozó eljárások, 2008-2012, GVH, 2013.05.10.

This translation was commissioned and reviewed by the GVH. Only the Hungarian text is authentic.

^a HUF 58,598 million at 2013 prices (EUR 197 million, USD 262 million), rounded to the nearest million.

As of 10.05.2013 (Paragraph A.58 of Annex (A)).

^b HUF 14,235 million, 2008-2014 in aggregate, at 2013 prices, rounded to the nearest HUF million (based on the reports of the GVH to Parliament). The exact ratio is 4.12.

and mergers, the aforementioned harm will no longer be present. Thus the value of the gain achieved as a result of the activities of the GVH is identical to the value of the harm prevented had the intervention of the GVH not taken place.^c The method of quantification is explained in detail in Annex (A) while the list of procedures relevant for the calculation can be found in Annex (B).

6 The GVH is under no statutory obligation to quantify the financial gain resulting from its activities. Nevertheless, the GVH strives to adopt the best practices of the leading competition authorities of the world. One example of the GVH adopting international best practices can be seen in its endeavour to supplement the traditional, so-called output-type indicators typically used by competition authorities, with an outcome-type indicator through the *ex-ante* impact assessment. The former category, such as the number of proceedings or the size of fines, indicates what the competition authority *did* to protect competition. In contrast, the latter attempts to capture, even if imperfectly, what the competition authority *achieved* in terms of the protection of competition and consumer welfare, which is the ultimate objectives of its operation.

7 When interpreting the results, the fact that they originate from an *ex-ante* impact assessment must be taken into account. Consequently, the mere **purpose of the quantification is to indicate the existence, and conservatively estimate, the (minimum) financial gain benefiting consumers due to the work of the GVH** relative to a situation without the GVH. **The applied methodology has been devised accordingly. For methodological reasons, the results are not suitable for use for any other purpose.** For instance, they are not appropriate for demonstrating the absence, existence or magnitude of any competitive effect or civil law damage in an individual case, for assessing the effectiveness and efficiency of the GVH or the professional quality of its work, its priorities or the analytical methods and remedy toolkit applied, and they cannot be used for comparisons over time or between institutions.^d

^c Just as the gain from the work of the fire brigade can be equated to the value of (additional) losses that would occur in a world devoid of a fire service.

^d Cf. Annex (A) paragraphs A.60-62.

ANNEX (A)

METHOD OF QUANTIFICATION

10.05.2013

1. Introduction

A.1 By protecting competition, the Hungarian Competition Authority (GVH) creates financial benefits for consumers. The purpose of the quantification of the welfare gains arising from the activities of the GVH (*ex-ante* impact assessment) is to provide visibility to that financial benefit. This paper/annex explains the methodology of the partial quantification used by the GVH as well as the way its results are presented.

A.2. The method described captures the direct financial gain arising from proceedings relating to mergers, restrictive agreements and abuse of dominance cases closed in the 2008-2012 period.¹ The methodology of quantification was designed with a view to (i) ease of use, (ii) comprehensive coverage, (iii) the resulting necessity of simplification and (iv) a conservative approach²; furthermore, (v) the GVH relied heavily on the methods applied by the competition authorities of other countries.³ The purpose of the detailed presentation of the calculation method and the underlying considerations is to assure the transparency of the *ex-ante* impact assessment performed by the GVH and to thereby reinforce its credibility.

A.3. The next chapter discusses the broader framework, including the foundations and the key principles of the method as well as the basic formula of the calculation. The third chapter describes the assumptions and rules of thumb that transform the framework into specifics, while the fourth chapter summarises the fundamental characteristics of the method.

2. Methodological framework

A.4. The restriction of competition, including any market practice or merger unduly restricting competition, causes a loss to consumers. If such actions are frustrated through the intervention of the GVH, the resulting loss will not materialise. The loss thus prevented is the consumers' gain from the activities of the GVH, which would not exist without the work of the GVH. This is the foundation of the methodology.

A.5. The calculation takes into account those procedures in which the GVH prevented or interrupted the restriction of competition. These are the cases where the GVH intervened and where it can be assumed that in the absence of this intervention, consumers would have suffered (further) financial losses due to the higher prices resulting from reduced competition.

¹ These are proceedings conducted pursuant to Chapters IV to VI of the Competition Act (Act LVII of 1996 on the Prohibition of Unfair and Restrictive Market Practices).

² To put it simply: the result is conservative if it is smaller, rather than greater, than the gain actually achieved. With conservative estimates, the quantified gain is unlikely to be unreasonably high. The conservativeness of the method lies in the fact that where several equally sound calculation methodologies are available, the option leading to a smaller gain is chosen (cf. footnote 48).

³ More information on this subject is available in Chapter 4. *Fundamental characteristics*.

A.6. The formula for the quantification of the gains arising from interventions:

$$\begin{aligned} \text{Direct benefit} &= \\ &= \text{Prevented harm} = \\ &= \text{Relevant turnover} \times \text{Price difference} \times \text{Expected duration} \end{aligned}$$

Where:

‘Relevant turnover’ is the turnover affected by the infringement, i.e., the turnover which would be affected by the restriction of competition (in the absence of the intervention of the GVH). In the case of mergers, it means the turnover relating to the competitive concern leading to the intervention.

‘Price difference’ is the price increase resulting from the infringement or merger (that would occur in the absence of the intervention of the GVH).

‘Expected duration’ is the expected length of the (continuation of the) infringement, that is, the time for which the higher price would have (presumably) prevailed (in the absence of the intervention of the GVH). Experience shows that such conduct would not continue indefinitely (for instance, a cartel may break down). In the case of mergers, ‘expected duration’ is the time elapsed before the market is expected to self-correct the competitive anomaly (for instance through new market entry).

A.7. Accordingly, the direct benefit from a proceeding depends on the amount of the price increase, the duration of this increase, and the volume of the turnover affected that the amount of the turnover that would have resulted from the competitive restriction had the intervention of the GVH not taken place. The benefit is expressed in monetary terms.

A.8. Thus the results represent the direct financial gain arising from the proceedings of the GVH relating to mergers, restrictive agreements and abuse of dominance cases.⁴

3. Assumptions and rules of thumb

A.9. The calculation method contains a number of simplifications and rules of thumb that must be taken into account when applying the above-mentioned considerations to specific cases.

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The GVH deals with other types of cases (such as consumer protection proceedings) and engages in other activities (including competition advocacy) as well. At present, the GVH has no appropriate method for quantifying the welfare gains resulting from such proceedings.

The direct benefit arises as firms involved in a particular proceeding alter the practice found to be in violation of competition rules in the proceeding. Indirect benefits may occur in the context of market participants or practices *not* involved in the proceeding. For instance, if other market participants abandon their comparable practices, or refrain from inappropriate practices altogether, or if the market participants subject to the proceeding abandon additional anticompetitive practices. At present, the GVH has no appropriate method for quantifying such indirect gains.

Also, at present the GVH has no appropriate method for quantifying more general benefits such as the broader positive economic impacts (such as concerning efficiency and competitiveness, economic growth and employment), or legal certainty (which is reinforced by all proceedings, not only by the ones resulting in intervention).

At present, no competition authority in the world has the ability to quantify all effects. As their *ex-ante* impact assessment methods have evolved, some competition authorities have made – partly successful – attempts to quantify the gains arising from consumer protection proceedings or indirect benefits.

3.1. Definition of the elements in the formula

3.1.1. Relevant turnover

A.10. Relevant turnover means the net sales figures. It can be argued that gross sales figures, inclusive of value added tax, would more accurately reflect the actual expenditures incurred by consumers. The methodology disregards this, which is a conservative feature.

A.11. In the case of proceedings addressing restrictive agreements and abuses of dominance, the combined (relevant) turnover of the firms exhibiting the infringing conduct is taken into consideration by default because their consumers would have been certain to encounter higher prices. It can be argued that the conduct may have a broader impact – a cartel, for instance, holds a ‘price umbrella’ over non-participant firms as well, who may also set higher prices. The methodology does not take this into consideration (except where an expressly opposite conclusion is derived from the information available), which is a conservative feature.

A.12. In the case of mergers, the combined (relevant) turnover of all the market participants is considered.⁵ Every merger eliminates competition between the merging parties; however, the GVH only intervenes if this results in a substantial lessening of competition in the relevant market itself.

A.13. In cases involving anticompetitive practices, the average turnover from the total duration of the infringement (average annual turnover) is used by default. If the average annual turnover cannot be established (for instance due to lack of data) or if it is inappropriate for analysing subsequent periods, the most appropriate alternative is used (for instance, the turnover from the last year of the infringement).

A.14. In contrast to cases involving anticompetitive practices, in the case of mergers it would not be sensible to use the average turnover from an extended period of infringement preceding the proceeding; and so in these cases, the turnover from the last year is used by default.

A.15. If an infringement or merger affects more than one level of the value chain (vertical cases) and turnover data are available for more than one level of the chain, the turnover from the level where the competitive restriction is present or where its impact is first felt is used. If this cannot be determined, the smallest turnover from the different levels is used (which is a conservative feature).

A.16. If the information available does not contain the required turnover data, an estimation of the relevant turnover from the information available is made using simple methods. If even such a simple estimation is impossible to perform with reasonable confidence, the proceeding in question is excluded from the calculation (which is a conservative feature).

A.17. In the case of more than one participant, the availability of information may vary from party to party, and so will our ability to determine the relevant turnover. Consequently, the relevant turnover used in the calculation for a certain proceeding may be incomplete.

3.1.2. Price difference and expected duration

A.18. The price difference and the expected duration are determined based on the information available. If sufficient case-specific information is not available, default values are used. In this case it is assumed that the price difference and expected duration are identical with the default values.

⁵ The Nederlandse Mededingingsautoriteit (NMa) and the Office of Fair Trading (OFT) employ the same method (ICN (2011) p. 53, OFT (2010) pp. 16, 19 (3.7, 4.3)).

A.19. The default value of the price difference is 10% for cases involving anticompetitive practices and 5% for mergers. The default value for expected duration is 2 years for all types of cases. These are conservative values based on international examples and empirical research.⁶

A.20. Uniform default values are applied to all types of restrictive agreements and abuse of dominance cases (10%, 2 years).⁷ Uniform default values are used for all merger-related competitive concerns as well (5%, 2 years).⁸ This is helpful when dealing with proceedings where several types of practices/competitive concerns are involved.

A.21. In contrast, there is no default price difference value for exploitative abuses of dominant positions. We have found no foreign examples or empirical research relating to such values; furthermore, due to the nature of exploitation, the level of harm caused to consumers will vary considerably from case to case. Consequently, exploitative abuses may be integrated in the calculation only if there is case-specific information available on the level of the price difference.⁹

A.22. There can be two different scenarios depending on whether the price was observed before or after the price increase. In the former case, the observed price would be increased by the price difference, while in the latter case, the price increase would have already occurred, and the observed price would include the price difference.¹⁰ It is easy to see that if the price difference is identical in terms of the *percentage of the pre-increase price*, the ratio of the price difference *to the observed price* will be lower in the former case. In our calculations we treat every case as if the price were observed after the price increase, which is a conservative feature.¹¹

A.23. In complex cases the elements of the formula may vary. For instance, if a practice affects more than one product, price differences may vary from product to product. In such cases the relevant turnover is broken down (in this example by product). If such a breakdown is not feasible for some

⁶ Empirical research puts the average cartel surcharge in the 8-49% range and the typical cartel surcharge in the 8-44% range (Connor (2005), pp. 2, 23-26). For the purposes of *ex-ante* impact assessments, foreign competition authorities typically use a 10% or higher price difference for cases involving anticompetitive practices (Davies (2010), pp. 25-28, 52-54. (5.23-32, B2-3, B5, B8, B12)).

The US Department of Justice (DOJ) used simple methods to analyse mergers and found that the expected price increase was around 10%. The US Federal Trade Commission (FTC) reckons with a 1% default price difference from mergers, which is a highly conservative figure (Nelson, Sun (2002), pp. 930, 943-944). In those merger cases where the OFT used simulation methods, the average price increase was found to be 8%, while its typical value was 7% (Davies (2010), pp. 17-18, (5.3-5.4)).

Competition authorities performing *ex-ante* impact assessments typically reckon with an expected duration or correction time of two years, or sometimes one year, which they consider to be a conservative estimate (Davies (2010), pp. 20, 22-23, 52-53 (5.8, 5.15-16, B2-B6), ICN (2011), p. 56).

⁷ These can be different types of cartels, other horizontal agreements, vertical restraints or exclusionary abuses of dominant positions.

⁸ Competitive concerns in merger cases may involve horizontal non-coordinative effects, horizontal coordinative effects, vertical effects or portfolio effects.

⁹ Consider an excessive pricing case where the 'right price' is determined together with a range within which the price is still not regarded as unfair. In this case, the difference between the top of that range and the actual price could be considered to be a conservative estimate of the price difference.

¹⁰ Mergers typically fall into the former category because the price may be observed either before the merger or after the intervention. Agreements and abuse of dominance cases may fall into either category depending on whether the practice had any actual effect and whether that effect had already been felt, or whether the effect was prevented in its entirety.

¹¹ If the observed price and turnover is from before the price increase, not only would the price increase relative to the observed price but (*ceteris paribus*) the volume of demand would also decrease relative to the observed values (due to the increased price). The calculation does not necessarily reckon with that phenomenon (depending on the turnover figures used). If we only have turnover figures available from the period before the price increase, then in order to determine the level of decrease in demand we would also need to know the price sensitivity of demand, that is, the own price elasticity of the demand curve. Failing that, the calculation cannot reflect the degree of the demand decrease. This is not a conservative feature, which can, however, be compensated by a number of other, conservative elements of the method and by the fact that the calculation regards every case as if the observed price were from after the price increase.

reason, a conservative simplification is employed (in the above example the smallest price difference for each product would be used).

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A.24. The results are obtained in HUF at the prices relevant for the year of calculation (in this case, at 2013 prices).¹² Consequently, figures originally expressed in different currencies are converted into HUF using the annual average exchange rate of the National Bank of Hungary (Magyar Nemzeti Bank, MNB) for the year concerned. The figures expressed in prices from years prior to the year of calculation are adjusted for inflation using the annual average consumer price index published by the MNB. Figures expressed in prices of years following the year of calculation are discounted. The discount rates are obtained from the zero coupon yield curve relating to the beginning (first week) of the year of calculation as published by the Government Debt Management Agency (Államadósság Kezelő Központ).¹³

3.2. Applicability of the formula

3.2.1. Purely *ex-post* intervention¹⁴

A.25. If a practice has ended, there is no longer any harm that can be prevented by the intervention of the GVH.¹⁵ Such cases of purely *ex-post* intervention result in no direct welfare benefit and are therefore excluded from the calculation of such benefit.¹⁶ (Naturally, such cases may still yield indirect benefits).

A.26. As a starting point, it is assumed that the practice has not ended yet; however, this assumption can be refuted in light of the information available.

A.27. A conduct of a non-discrete nature is considered to have ended if we have reliable information that the conduct was terminated before the GVH started to take action. The initiation of the GVH's action typically indicates the start of the proceeding, but it may be an earlier point in time (for instance, the date of request for information from the party complained against in the course of the investigation of a complaint). A conduct is also considered to have ended if it is terminated during the proceeding, but there must be reliable information that this occurred for reasons unrelated to the proceeding.

A.28. In the case of discrete practices it is not always clear whether the practice has ended and if so, when. For instance, in the case of a cartel not manifested in a formal contract, meetings and actions of coordination do not happen every minute or even every day; also, bid rigging may be sustained for a length of time even if bids are invited and related acts of coordination occur only periodically. Months or even years may pass in between such events without the practice being interrupted or terminated.¹⁷ For this reason, a discrete practice is considered to have ended if (i) there is definitive information that the practice has been terminated (for instance, the parties have explicitly decided not to operate the cartel anymore), or (ii) in the three years preceding the initiation of the intervention of the GVH there was no event (e.g., cartel meeting) in connection with the practice in question.

¹² Because of this, it does not matter in which year the gain is first realised.

¹³ This is the yield curve that is the best approximation of the future expected change in the yield of risk-free investment.

¹⁴ This alternative is unlikely in merger cases due to the *ex-ante* nature of merger control.

¹⁵ In other words, these cases do not satisfy the criteria set out in paragraph A.5.

¹⁶ In this case, the formula would also yield a zero result as the value of the expected duration would be zero.

¹⁷ In other words, a discrete practice may nevertheless constitute conduct performed continuously within the meaning of Section 67(4) of the Competition Act.

3.2.2. Practices with no effect

A.29. If a practice has no effect whatsoever (even without the GVH's intervention), it will not lead to a price increase and there will be no harm from the continuation of the practice that could be prevented.¹⁸ Such cases involving practices with no effect result in no direct welfare benefit and are therefore excluded from the calculation of such benefit.¹⁹ (Naturally, such cases may still yield indirect benefits).

A.30. As a starting point, it is assumed that we are not dealing with a practice with no effect; however, this assumption can be refuted in light of the information available.

A.31. For the purposes of the calculation, a practice is considered to have no effect if, based on the information available, any effect on prices can be ruled out. The mere absence of information on the existence of effects is not sufficient (in such cases the default values would be used); instead, explicit information on the absence of an effect is required.

A.32. This may only occur in exceptional cases as it is a precondition for the intervention of the GVH that a practice results in some sort of effect.²⁰ In theory, however, we can envisage a case where the GVH intervenes but the existence of effects relevant for the calculation can still be ruled out based on the information available – this is possible because the calculation reckons only with price effects²¹ and the time of the calculation may be later than the date of the proceeding or the exhibition of the conduct.²²

3.2.3. Practices not started / purely anticipatory intervention²³

A.33. If the intervention of the GVH preceded the practice, which did not occur at all as a result, it could not have had any actual harmful effect (yet). However, no real/actual effect is required for the prevention of harm to occur, as without the intervention of the GVH the practice could have been commenced and it could have exerted an effect. Such cases are included in the calculation (unless they are excluded for other reasons).²⁴

3.2.4. Ineffective intervention by the GVH

A.34. If the practice continues after the intervention of the GVH as if no intervention had occurred, no harm will have been prevented.²⁵ Proceedings with ineffective GVH intervention result in no direct

¹⁸ In other words, these cases do not satisfy the criteria set out in paragraph A.5.

¹⁹ In this case, the formula would also yield a zero result as the value of the price difference would be zero.

²⁰ In the case of mergers, the existence of an expected effect on competition is a precondition of intervention, and an actual or potential effect is also a requirement of the GVH's action in the case of 'soft' agreements and abuse of dominance cases. In the case of cartels the intervention may be based on the anticompetitive object of the agreement; however, the term 'object' does not refer to the intention of the parties to the agreement but rather to the fact that the agreement is by its very nature capable of having restrictive effects (and therefore it is unnecessary to specifically demonstrate its actual or potential effects).

²¹ Cf. paragraph A.42.

²² Consider a case where a certain market has regulated prices, and the lifting of price regulation is being under consideration of the regulator. If market participants were to agree on prices to be employed after the end of the price regulation but the regulation would still remain in place for a length of time, the absence of an actual effect would not prevent the GVH from intervening (even ex post). However, for the purposes of the quantification of the price effect, it would be problematic to identify a price effect as it cannot possibly have occurred (as known in retrospect) because the agreement could not become operative (independent of the will of the parties or the intervention of the GVH).

²³ This is the typical scenario in merger cases.

²⁴ One such reason may be the case of 'practice with no effect', or where the GVH intervenes ineffectively (Parts 3.2.2. *Practices with no effect* and 3.2.4. *Ineffective intervention by the GVH*).

²⁵ In other words, these cases do not satisfy the criteria set out in paragraph A.5.

welfare benefit and are therefore excluded from the calculation of such benefit.^{26 27} (Such cases may lead to indirect benefits, though even deterrence is questionable in these cases.)

A.35. As a starting point, it is assumed that the intervention has been effective; however, this assumption can be refuted light of the information available.

A.36. A GVH intervention is deemed ineffective²⁸ if

- i. the GVH established (generally in the course of a post-investigation or when handling either formal or informal complaints) that the obligations imposed by the GVH had not been fulfilled or alternatively, if the GVH officials handling the case came to this conclusion on the basis of the information available, or
- ii. the GVH established (generally in the course of a post-investigation or when handling either formal or informal complaints) that the practice continued unabated or alternatively, if the GVH officials handling the case came to this conclusion on the basis of the information available, except if there is reason to believe that without the GVH's intervention the practice would have intensified, or
- iii. the court reviewing the decision of the GVH suspended the implementation of the part of the GVH's decision that imposes an obligation to perform a particular act, exhibit or refrain from a certain practice, and the suspension is still in force at the time of the calculation, or
- iv. such suspension is no longer in force at the time of the calculation, but for some other specific reasons known to the GVH the concept of the prevention of harm is no longer applicable after the suspension (for instance, the service the obligation concerns is no longer offered for other reasons).

3.2.5. Commitment decisions

A.37. The acceptance of commitments by the GVH is one of the possible forms of intervention. In merger control, commitments are accepted if the merger would not otherwise be eligible for authorisation. This means that the facts of the case are investigated and analysed in full before the commitment decision is made, and the GVH concludes that the merger would lead to a substantial lessening of competition (without offsetting efficiency gains from the merger), that is, the merger would have harmful effects. Thus, the idea that harm is prevented through the intervention of the GVH is a valid one concerning merger remedies. Accordingly, such cases are included in the calculation (unless they are excluded for other reasons).

A.38. In the case of non-merger cases, if the GVH accepts a commitment it terminates the case without concluding whether or not the original conduct was unlawful. More importantly, in these cases the facts of the case are not investigated and analysed in full by the GVH. By accepting the commitment the GVH intervenes; however, as explained above, it remains open as to whether the investigated practice was restrictive and had any harmful effects. Therefore, in such cases one cannot talk about harmful effects or effects arising from the infringement, or about their prevention.²⁹ Consequently, one cannot reach the conclusion, with reasonable confidence, that such proceedings

²⁶ The Autoridade da Concorrência adopts a similar approach (Mateus, Gonçalves, Rodrigues (2008) p. 43, para 21).

²⁷ This case is not related to any special value of some of the parameters in the formula. Rather, for the purposes of calculation, ineffective intervention should be treated as if no intervention had occurred, thus the formula cannot be applied.

²⁸ Naturally, this type of ineffectiveness in itself does not mean that the proceeding in question would have been unnecessary, pointless or incorrect.

²⁹ In other words, these cases do not necessarily satisfy the criteria set out in paragraph A.5.

yield any direct welfare benefit and as a result they are excluded from the calculation of such benefit.³⁰ (Naturally, such cases may still yield indirect benefits and potentially even direct gains, but this is uncertain. Thus, excluding them entirely is a conservative feature.)

A.39. The same applies to (i) cases where the GVH has terminated the proceeding because the practice has been discontinued, (ii) merger cases where the parties withdrew their application for authorisation, (iii) cases where the intervention of the GVH is not based on its competitive analysis but on other public policy objectives,³¹ and (iv) cases where the merger was later dropped by the merging parties for reasons unrelated to the intervention of the GVH.³²

3.2.6. Partial applicability of the above scenarios

A.40. In complex cases the above scenarios may only be partially applicable. For instance, in a case involving several market practices, one practice may have ended while others may still be ongoing.³³ In such cases we break down the relevant turnover (in this example by market practice). If such a breakdown is not feasible for some reason, we employ a conservative simplification; consequently, such cases are generally excluded from the calculation.

A.41. Some of the above scenarios may be partially applicable even in non-complex practices. For instance, the intervention of the GVH may be partially effective in respect of a certain activity (and the related turnover) if the obligations imposed are complied with only in part. In such cases the quantified gain is reduced proportionately.

3.3. The design of the formula

A.42. The design of the formula also relies on simplifications and assumptions. The formula does not reckon with the fact that the competitive restraints may have a negative effect not only on prices but also on quality, the range of choice available to consumers, and innovation. The formula also disregards the dead-weight loss caused by the higher prices.³⁴

A.43. The formula is based on the turnover affected by the practice as well as the related price difference and expected duration that direct buyers face. However, what is relevant for the identification of consumer welfare gains is the harm to final consumers, and the final consumer is not necessarily the direct consumer, as it may be located lower in the value chain. The formula assumes that the entire (measured) effect of the practice on the direct consumer would be passed on to the final consumer in some form.³⁵

³⁰ This case is not related to any special value of some of the parameters in the formula. Rather, the situation does not lend itself to the application of the formula.

³¹ One such case is where the GVH must not authorise a merger if the National Media and Telecommunications Authority (Nemzeti Média- és Hírközlési Hatóság) refuses its approval to the proposed merger for reasons related to the plurality of the media.

³² The NMa uses a similar approach: they only consider infringement decisions in respect of restrictive practices while prohibitions and commitment decisions are also included in respect of mergers (ICN (2011), p. 52).

³³ In certain cases this can be interpreted as an example of the variation of certain parameters of the formula, as some scenarios can also be understood as if those parameters were equal with certain values (cf. paragraphs A.23. and footnotes 16. and 19.).

³⁴ Dead-weight loss occurs because higher prices also result in a decline in the demand for the product or service concerned. Thus its consumption and production will be lower than they would have otherwise been (some consumers who would have bought the product or service at the original price will now be unable to obtain it), that is, the allocation of the resources at the level of society will be suboptimal.

³⁵ The NMa and the OFT has adopted the same approach (ICN (2011), p. 55, OFT (2010), p. 10, (2.10)).

3.4. Application of the formula

A.44. The formula is applied separately for the different cases and the results are then added together. The calculation for a particular period covers the cases closed in that period. This is because the gain captured by the calculation relates to the interventions of the GVH, and the interventions are tied to the closure of the proceedings, that is, to the decisions of the GVH.

A.45. The distribution of the proceedings affecting the value of the results over time is necessarily uneven, their numbers varying year from year, which is magnified by the small size of the Hungarian economy. Thus, if the aggregation were to be done annually, the results for different years would fluctuate significantly. To mitigate this fluctuation, the calculation relies on proceedings closed in a five-year period (2008-2012) rather than in a single year.³⁶

A.46. Only the aggregated results are published.³⁷ Firstly, the publication of the results obtained for individual proceedings is prevented for reasons related to the protection of individual data, or rather the requirement that the published results should not make it possible to trace back individual data, in particular trade secrets. Secondly, the results obtained for individual proceedings are significantly less accurate than the aggregated data as, due to the simplifications applied, the values calculated for individual cases may be significantly different from the real figures, whereas if a large enough number of cases is covered, some of the divergences are 'averaged out'. Thirdly, only the aggregated results are relevant for the question we seek to answer. (The list of proceedings included in the calculation is published but not the individual values belonging to them.)³⁸

A.47. When using the formula, the decisions of the GVH are relied upon unless a different final court decision has subsequently been adopted in the course of the judicial review of one of the decisions (in which case the final court decision is taken as the starting point).³⁹

A.48. In the course of judicial review, the court may amend decisions of the GVH or annul them, requiring the GVH to reopen and reinvestigate a case. If a final court decision changes a decision of the GVH, the changed version is relevant for the calculation.⁴⁰

A.49. If the final court decision annulled the GVH's decision and required the case to be reopened, the GVH must start a new proceeding. The new proceeding may cover the period investigated in the original proceeding (proceeding with retrospective coverage) or the time up to the repeated proceeding (proceeding with current coverage).⁴¹ Due to their nature, reopened proceedings relating to restrictive agreements or abuse of dominance are typically retrospective while merger cases tend to have current coverage.⁴² Decisions adopted in reopened proceedings (or final court decisions on them) affect the quantification of the direct benefit relating to the period to which the reopened proceedings pertain.

³⁶ The NMa adopts the same approach (ICN (2011), p. 55.).

³⁷ The OFT adopts a similar approach (OFT (2005), p. 18. (3.3), OFT (2010), p. 10, (2.13)). Neither the DOJ nor the FTC facilitates the replication of the entire calculation, for reasons related to the protection of trade secrets (Nelson, Sun (2002), p. 935.).

³⁸ Annex (B).

³⁹ The OFT adopts the same approach (OFT (2010), p. 10, (2.11)).

⁴⁰ As the final court decisions, whether overturning the GVH's decisions or requiring the cases to be reopened, may alter the size of the direct benefit calculated for the period concerned, the result for a particular period may change over time, and it may be necessary to update these figures (Cf. paragraph A.58.).

⁴¹ In the case of forward-looking analyses, such as in merger cases, this time period also includes the period directly following the reopening of the cases.

⁴² However, the main consideration is not the type of case but the actual period covered by the proceeding: it is possible that both scenarios apply in a complex case if for instance the proceeding covers more than one practice and/or period.

A.50. In the case of proceedings with retrospective coverage, if the original cases were included in the calculation, they are removed (at least temporarily) if the decisions are annulled. In retrospective cases, the decisions adopted in the reopened proceedings replace the original GVH decisions for the purposes of the calculation, which may affect the result obtained for the original period.^{43 44}

A.51. In the case of proceedings with current coverage, if the original cases were included in the calculation, the proceedings are definitively removed from the calculation pertaining to the original time period. In current cases, the GVH's decisions adopted in the reopened proceedings exert their impact in the period of the new proceedings, and direct benefits may be derived in that period, therefore they may have an effect on the results for that period.^{45 46}

A.52. Bid rigging is treated analogously with other types of cartels and collusion. In the case of bid rigging, the relevant turnover is the value of the tender subject to the collusion (generally only the value of successful bids, or their sum in the case of multiple bids). For the purposes of the calculation, bid rigging is not automatically considered to be a one off practice (that has necessarily ended); instead, it is treated as part of a process, which may be shorter or longer, or which may have already ended.

A.53. Collusion in a single tender is by default treated as a special case of longer-term collusion: the tender in question is considered to be the 'last year', while in other respects we proceed as we generally would.

⁴³ Whether a case is eventually included in the calculation (and if so, how) also depends on other considerations. For instance, if the practice remained unchanged after the original proceeding, then the result of the subsequent proceeding is not necessarily relevant for the calculation.

⁴⁴ For instance, in the E.ON TITÁSZ case involving street lighting (vj-175/2001) in 2002, the practice under investigation was found to be unlawful by the GVH. Thus the proceeding would have been included in a calculation for the year 2002.

A judicial review followed, ending in the decision being overturned and in the GVH being required to reopen the case because the court found the reasoning of the decision and the investigation to be insufficiently sound. As a result, the proceeding would have been removed from the calculation during an update of the calculation relating to 2002 because, after the court decision, it would no longer have satisfied the requirement that the GVH intervened because of an unreasonable restriction of competition.

In the reopened proceeding (vj-074/2008), in line with the court decision, the GVH investigated again whether the conduct examined in the original proceeding was legitimate in the period covered in the original proceeding. At the end of the investigation, the GVH found the same infringement as in the original proceeding. At this point, after the repeated investigation, the year 2002 intervention of the GVH could again be regarded as an intervention that prevented the continuation of an undue restriction of competition. Therefore, in another update of the calculation for 2002, the case would have been re-incorporated in the calculation in accordance with the findings of the new proceeding (which, in this case, were identical with the findings of the original proceeding). Even though the new proceeding was closed in 2011, its result would have affected the calculation relating to 2002 rather than to 2011.

⁴⁵ Whether a case is eventually included in the calculation (and if so, how) also depends on other considerations.

⁴⁶ For instance, the GVH disallowed the Ringier/Népszabadság merger (vj-059/2003) in 2003, thus the proceeding would have been included in a calculation for the year 2003.

A judicial review followed, ending in the decision being overturned and in the GVH being required to reopen the case because the court found the reasoning of the decision and the investigation to be insufficiently sound in some respects. As a result, the proceeding would have been removed from the calculation during an update of the calculation relating to 2003 because, after the court decision, it would no longer have satisfied the requirement that the GVH prevented a merger that would have led to a substantial lessening of competition without any offsetting positive effects).

Considering that the merger did not go through as a result of the GVH's intervention in 2003, in the reopened proceeding (vj-169/2004) the GVH decided whether to allow the merger at that time. Thus the result of the reopened proceeding would have had no effect on the year 2003 calculation. It would have, however, affected the calculation for 2004 because the reopened case ended in 2004 with the GVH authorising the merger with remedies.

4. Fundamental characteristics

A.54. This chapter gives an overview of the fundamental characteristics of the method of calculation. These characteristics are interrelated with one another as well as with the purpose, context and the methodological framework of the calculation.

A.55. The calculation method described only captures part of the total gain from the activities of the GVH. It disregards gains which are not primarily financial in nature, such as legal certainty, as well as economic benefits in the broader sense such as the increased competitiveness of firms as a result of competition. As regards financial gain in the narrow sense, it does not reckon with indirect benefits, direct non-price effects or the dead-weight loss; furthermore, it does not encompass the GVH's activities other than the ones relating to mergers and anticompetitive practices.⁴⁷ In addition, cases may be left out of the calculation or their calculation may be incomplete, because of lack of data, and the fact that the overwhelming majority of simplifications used in the calculation are conservative also must be taken into account.⁴⁸ All this means that the actual benefit from the work of the GVH is almost certainly (perhaps significantly) greater than the quantified gain.

A.56. The calculation relies on information that is either readily available to the GVH,⁴⁹ or that can be obtained with a reasonable amount of research, as well as on simple estimations based on this information. It also relies on a number of simplifications as described above. As the calculations only require a limited amount of data and are not complex, the method is relatively easy to apply.

A.57. The method is *ex-ante* in nature as the calculation relies fundamentally (though not exclusively) on pre-existing or contemporaneous information rather than on information reflecting the development of the market in the years since the events that would lend themselves to in-depth *ex-post* evaluation. This is true even though the effects are quantified *ex-post* in the sense that the various cases are added to the calculation in the period following their closure.

A.58. The results obtained for a particular period may change over time, as, for instance, certain problems associated with acquiring data may be eliminated or as a result of the judicial review of the decisions of the GVH. Thus the results also depend on the timing of the calculation, and due to its dynamic nature, the calculation may need to be updated over time.

A.59. The calculation methodology was designed using international examples, in particular the publicly available information on the practices and experiences of the Office of Fair Trading (OFT) in the United Kingdom, the Dutch Nederlandse Mededingingsautoriteit (NMa),⁵⁰ the Portuguese Autoridade da Concorrência, the US Department of Justice (DOJ), as well as the US Federal Trade Commission (FTC). The purpose, general framework and fundamental characteristics of the calculation are in line with international practices. The details of the methodology overlap with foreign

⁴⁷ Cf. footnote 4 and paragraph A.42.

Indirect benefits may arise from proceedings that yield no direct benefits. Examples include proceedings addressing practices that have been discontinued or practices with no effect (Sections 3.2.1. Purely *ex-post* intervention and 3.2.2. Practices with no effect).

Indirect benefits are greater (sometimes several times greater) than direct ones. In a piece of research conducted for the OFT, the indirect benefits were found to be 4 to 7 times higher than the direct benefits, depending on the type of case (Deloitte (2007) pp. 6, 8). A piece of research undertaken for the NMa found that the indirect benefits were 5 times the direct benefits in the case of restrictive practices and they were also greater than the direct benefits in the case of mergers (Van der Noll, Baarsma, Rosenboom and Weda (2011), p. i).

⁴⁸ Cf. paragraphs A.10-11, A.15-16, A.19, A.22-23, A.38-40. and footnote 2.

⁴⁹ This means mostly information obtained in the proceeding concerned and in subsequent related proceedings (e.g., post-investigations) or through the judicial review process, as well as the knowledge of GVH officials handling the cases.

⁵⁰ As of 1 April 2013, Autoriteit Consument & Markt (ACM).

examples on a number of points. Accordingly, this method is in compliance with international practice.^{51 52}

A.60. The purpose of the calculation is to visibly demonstrate the existence of the financial benefit resulting from the work of the GVH and to estimate its (minimum) value. In this context it does not matter that the method only produces a rough-and-ready picture: it is only the aggregated results that matter and the actual gain is almost certain to be greater. The existence of the numerous assumptions and simplifications can be seen as an advantage, as no results could be obtained without them.

A.61. However, these results are not suitable for use for any other purpose. For instance, they are inappropriate for demonstrating the absence, existence or magnitude of any competitive effect or civil law damage in an individual case. For example, just because a practice has 'no effect' under the methodology, it does not necessarily lack an effect in the sense of competition law by the standards applied in proceedings conducted by the GVH or the courts. Similarly, the absence of a 'no effect' in this calculation cannot be taken as proof of any effect for the purposes of competition law. Furthermore, the argumentation and conclusions presented in this paper/annex are not necessarily valid outside the context of the methodology.

A.62. The results are also inappropriate for assessing the effectiveness and efficiency of the GVH or the professional quality of its work, its priorities or the analytical methods and remedy toolkit applied. The reasons for this include, in addition to those explained above, the fact that in the course of the calculation we assume that the decisions of the GVH, or the respective final court decisions correcting the decisions of the GVH, are correct (paragraph A.47), and that the results pertain to the benefits achieved and do not seek to determine whether a greater benefit would have been possible or if it could have been achieved at lower costs and if so, how. In this respect it is relevant that the calculation methodology interprets the benefit achieved relative to a 'no GVH' scenario, rather than comparing situations in which the GVH exists but operates differently.⁵³ Also importantly, as the

⁵¹ The gradual approach of the *ex-ante* impact assessment programme of the GVH also follows international examples. Other competition authorities also adopt a gradual approach to the inclusion of types of cases, activities and types of benefits in the calculation as well as to the methods applied. Cf. footnote 4, in particular the last paragraph.

⁵² This paper/annex refers to specific foreign examples in connection with some important issues (but not all the potential areas). These references rely primarily on the following sources:

[Connor 2005] John M. Connor: Price-Fixing Overcharges: Legal and Economic Evidence, Purdue University Staff Paper No. 04-17.

[Davies (2010)] Stephen Davies: A Review of OFT's Impact Estimation Methods, OFT, January, (OFT1164).

[Deloitte (2007)] The deterrent effect of competition enforcement by the OFT: A report prepared for the OFT by Deloitte, OFT, November (OFT962).

[ICN (2011)] Competition Enforcement and Consumer Welfare: Setting the Agenda, International Competition Network.

[Nelson, Sun (2002)] Philip Nelson and Su Sun: Consumer Savings from Merger Enforcement: A Review of the Antitrust Agencies' Estimates, Antitrust Law Journal, Vol. 69, pp. 921-960.

[Mateus, Gonçalves, Rodrigues (2008)] Abel Mateus, Paulo Gonçalves, Jorge Rodrigues: Performance of national competition authorities: A method for assessment (Concurrences, No 3, pp. 40-54).

[OFT (2005)] Positive impact: An initial evaluation of the effect of the competition enforcement work conducted by the OFT, December, (OFT827).

[OFT (2010)] A guide to OFT's Impact Estimation methods, July (OFT1250).

[Van der Noll, Baarsma, Rosenboom and Weda (2011)] Rob van der Noll, Barbara Baarsma, Nicole Rosenboom and Jarst Weda: Anticipating cartel and merger control, SEO Economisch Onderzoek, Amsterdam (SEO-Report Nr. 2010-076a).

⁵³ Thus the method is blind to considerations as to whether the GVH is fast or slow (or faster or slower than necessary) in authorising mergers not resulting in a substantial lessening of competition even though this may also have effects on welfare: with faster authorisation, the potential welfare gains arising from the mergers may materialise sooner, while decisions adopted 'too fast' may be wrong. Still, the results are suitable for their original purpose – raising awareness of the usefulness of the GVH and of competition law and enhancing their acceptance – but their use for evaluation purposes is significantly compromised.

method does not quantify each and every type of benefit, it is not only those activities and proceedings the benefits of which are quantified that have a value or yield benefits. Consequently, the results can be compared over time or between institutions for purposes of assessment only with severe limitations.

ANNEX (B)

PROCEEDINGS RELEVANT FOR QUANTIFICATION¹

Proceeding	Year of Competition Council decision
vj-152/2006 Budapest Stock Exchange cartel	2008
vj-028/2007 Borsodi Brewery distribution	2008
vj-031/2007 E.On DÉDÁSZ street lighting	2008
vj-141/2007 OFFI prices	2008
vj-157/2007 N&P Kegyelet – access to the deceased	2008
vj-001/2008 Hungarian Real Estate Association self-regulation	2008
vj-036/2008 Association of Hungarian Journalists self-regulation	2008
vj-040/2008 MédiaLog merger	2008
vj-057/2008 Hungaropharma agreement	2008
vj-061/2008 Chello Média / Spektrum merger (UPC/Spektrum)	2008
vj-130/2006 Heves county road construction cartel (HE-DO)	2009
vj-166/2006 LCP Systems, Mitac agreement	2009
vj-057/2009 Association of Bakers cartel	2009
vj-084/2007 Békés County Bar Association	2009
vj-007/2008 Castrol distribution	2009
vj-018/2008 MIF (multilateral interchange fee)	2009
vj-051/2008 Craftsmen's trade association – dental technicians self-regulation	2009
vj-063/2008 Raiffeisen Bank unilateral amendment of contracts	2009
vj-146/2008 Strabag/Cemex merger	2009
vj-155/2008 Ringier / Híd Rádió merger (Blikk/Bors)	2009
vj-158/2008 Magyar Telekom / Vidanet merger	2009
vj-174/2007 Railway construction cartel	2010
vj-181/2007 CIB Bank unilateral amendment of contracts	2010
vj-195/2007 Newspaper distribution agreement	2010
vj-016/2008 K&H Bank unilateral amendment of contracts	2010
vj-022/2008 OTP Jelzálogbank unilateral amendment of contracts	2010

¹ The proceedings to which the calculation method was applied. In line with the method of quantification and due to the limited availability of data, there are some proceedings for which no quantified benefits could be calculated.

The values pertaining to the individual proceedings are not disclosed for methodological reasons and for reasons relating to the protection of trade secrets (Annex (A) paragraphs A.44-46).

Proceeding	Year of Competition Council decision
vj-069/2008 Mill cartel	2010
vj-143/2008 Chamber of Phytochemicals Professionals self-regulation	2010
vj-061/2009 Gekko franchise	2010
vj-146/2009 Primagáz/Intergas merger	2010
vj-153/2009 Holcim/VSH merger	2010
vj-117/2010 Invitel/Fibernet merger	2010
vj-029/2008 Taxi cartel	2011
vj-074/2008 E.On TITÁSZ street lighting	2011
vj-134/2008 Mill cartel 2	2011
vj-212/2009 Invitel tariff packages	2011
vj-136/2009 Mosonmagyaróvár funeral services	2011
vj-042/2010 Axel Springer / Ringier merger	2011
vj-003/2008 GYSEV / MÁV Cargo cartel	2012