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ECONOMIC ANALYSIS IN MERGER INVESTIGATIONS – Contribution from Norway

- Session III -

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This contribution is submitted by Norway under Session III of the Global Forum on Competition to be held on 7-10 December 2020.

More documentation related to this discussion can be found at: oe.cd/mergerinv.

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Economic Analysis in Merger Investigations

- Contribution from Norway –

1. Introduction

1. An important task for the Norwegian Competition Authority (NCA) is to assess mergers and acquisitions and to intervene against transactions that will significantly impede effective competition.
2. Economists are an integral part of all case teams for all merger cases. A specialist economist from the chief economist's team will be assigned as a resource person for all prioritized cases, and follow the case to its final conclusion. The chief economist and the resource persons from the chief economist team will be instrumental in securing the quality, and the use of the proper analytical and empirical approach in each case
3. The NCA has systematically built competence and capacity related to various quantitative economic techniques through an internal *Network for quantitative analysis*, spearheaded by the chief economist's team. Consequently, the NCA uses a range of analytical tools in its enforcement work, not only in mergers.
4. This contribution gives an overview over the NCA's responsibilities related to merger control, its organization structure, the role of economists in the case teams, as well as the various quantitative economic techniques used. In addition the role and importance of internal and external network and the use of guidelines for submitting economic analyses will be described.

2. NCA Responsibilities

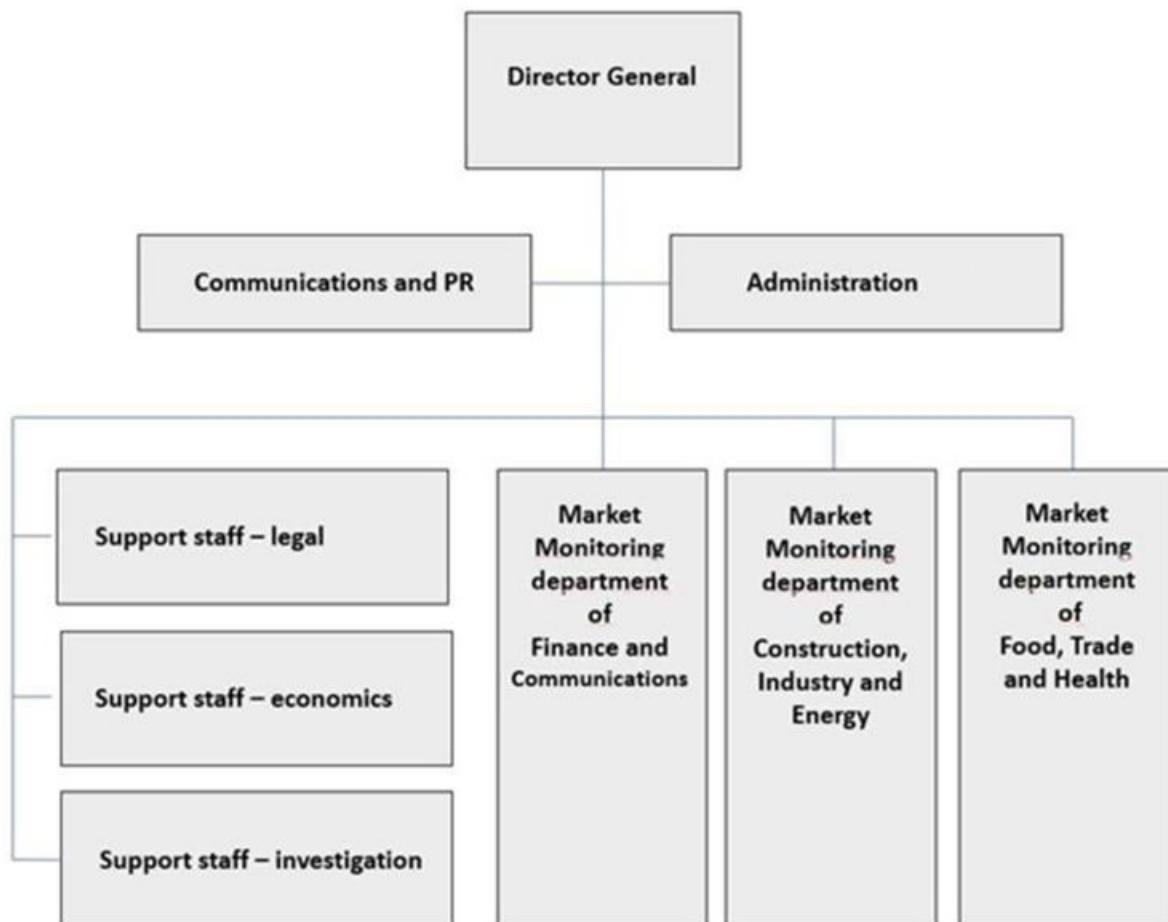
5. The main responsibility for enforcing Norwegian competition regulations, including investigating and responding to offences, is placed with the Norwegian Competition Authority. According to the Competition Act, the primary responsibilities of the NCA are as follows:
 - Monitor adherence by businesses and industry to the Competition Act's prohibitions against competition-restricting cooperation and abuse of a dominant market position.
 - Ensure that mergers, acquisitions and other forms of concentrations do not significantly restrict competition.
 - Implement measures to increase the transparency of markets.
 - Enforce Articles 53 and 54 of the EEA Agreement.
 - Call attention to any restrictive effects on competition of public measures and, where appropriate, submit proposals aimed at furthering competition and facilitating market access by new competitors.
6. **The NCA can impose administrative fines for violations of the Competition Act.** NCA decisions can be appealed to the independent Competition Appeals Board. Thus, the Competition Appeals Board is the first instance to review the NCA's decisions in mergers as well as cartels and abuse of dominance cases. Decisions by the Norwegian

Competition Tribunal may be appealed to the Gulating Appeals Court (Court of 2nd instance) and ultimately to the Supreme Court.

3. Organizational Structure

The Norwegian Competition Authority is an independent regulatory agency led by a Director General and organized by market monitoring departments, with support staffs relating to economics, legal issues and investigations in addition to a communications and administrative department, as depicted by the organigram below.

Figure 1. Organizational structure



7. The NCA's case handling is primarily organized by sector. Thus, the case handlers are working in one of the market departments with responsibilities towards specific markets. The case handlers in the market departments work with all types of competition cases, ie. related to the prohibition regulations (cartels and abuse of dominance) as well as structural control (mergers) within the markets allocated to the department.

8. In addition, the NCA has an investigation unit dedicated to investigations in cartel and abuse of dominance cases. The investigations staff also includes specialists in forensic IT. The investigation department supports the market sections in cartel cases and other investigative measures.

9. Specialized legal and economic support and quality assurance is provided by the legal director's team and the chief economist's team, respectively. The market departments "own" the cases and are responsible for case handling from assessing and providing the background for the decision to prioritize the case until final decision.

10. The final decision (statement of objection and final decision under the prohibitions and merger control rules) is taken by the Director General in council with the director for the market department, the case team, the legal director and the chief economist. The director of investigations will not be part of the council in merger cases.

11. By the end of 2019, the NCA had a staff of 91 persons working on enforcement. Among these, 43 were lawyers, 44 economists and 4 worked in the capacity of investigators.

12. Competence building has been an important priority, both for new and experienced employees, and on all levels. The NCA has a staff of highly qualified and experienced case handlers. Among the NCA employees, 13 have a Ph.D.

13. Moreover, the NCA operates with overall and individual plans for competence and career development, and has executed a program for further development of strategic management, and assembled efficient and multidisciplinary teams.

4. The Legal Basis for Merger Review

14. A significant part of the NCA resources are devoted to merger control. The substantive rules of the Competition Act are to a large extent harmonised with the EU competition rules. This also applies to the merger regulations.

15. According to Section 16 of the Competition Act, the NCA shall prohibit concentrations that will significantly impede effective competition, in particular as a result of the strengthening of a dominant position (the SIEC-test; Significant Impediment to Effective Competition).¹

16. According to Section 18 of the Competition Act, undertakings are obliged to notify to the NCA any mergers or acquisitions by which they acquire control of other undertakings (concentrations). Transactions for which the turnover of the undertakings concerned fall below specified turnover thresholds are, however, exempted from mandatory notification.² Hence, concentrations must be notified to the NCA if the combined annual turnover of the undertakings concerned exceeds NOK 1 billion in Norway and at least two of the undertakings concerned have an annual turnover exceeding NOK 100 million in Norway.³

17. Concentrations that are exempt from mandatory notification, as well as acquisition of minority shareholdings, may be notified voluntarily with a view to clarifying whether the NCA will intervene against the transaction or not.

¹ This test, which is the same as in the EU Merger Regulation, was introduced in 2016 and replaced the previous significant lessening of competition test (SLC-test).

² Section 18 of the Norwegian Competition Act.

³ This amounted to approximately EUR 100 million and 10 million respectively in 2019.

18. A standstill obligation applies to mergers and acquisitions which are subject to mandatory notification. Implementation of such transactions are thus prohibited until they have been notified to and reviewed by the NCA.⁴ Significant fines can be imposed if the standstill obligation is not respected.

19. Provided specified criteria are met, concentrations unlikely to affect competition may be notified by way of a simplified notification.

20. The obligation to notify mergers has been in place since May 2004. Initially, the turnover thresholds were quite low and the number of notifications correspondingly high. While the NCA received almost 90 notifications per month, experience showed that mainly transactions involving undertakings with considerable annual turnover were subject to Phase II investigations. The turnover thresholds were increased in 2007 with a view to reducing the administrative burden on businesses and to some extent the NCA. With effect from 2014, following an in-depth review, the turnover thresholds were significantly increased to the current level.⁵

21. Under the current notification thresholds the NCA receives a little less than 10 notifications on average each month, resulting in around 100 notifications of mergers and acquisitions each year. Among the 107 merger notifications received in 2019, 96 per cent were cleared within the legal limit of 25 working days.

22. After the transaction has been notified, the NCA has in total 100 working days to review the transaction (25 in phase I and 75 in phase II).

23. The parties can propose remedies in order to remove the competition concerns identified by the NCA following which the NCA may conditionally approve the transaction at issue. If remedies are proposed deadlines are extended with 10 working days in phase I and up to 45 working days in phase II. The number of working days deadlines are extended in phase II investigations depends on at what moment and how many times during the process new or amended remedies are proposed.

24. Since 2004, the NCA has on average intervened in three merger cases per year.

5. Merger Review

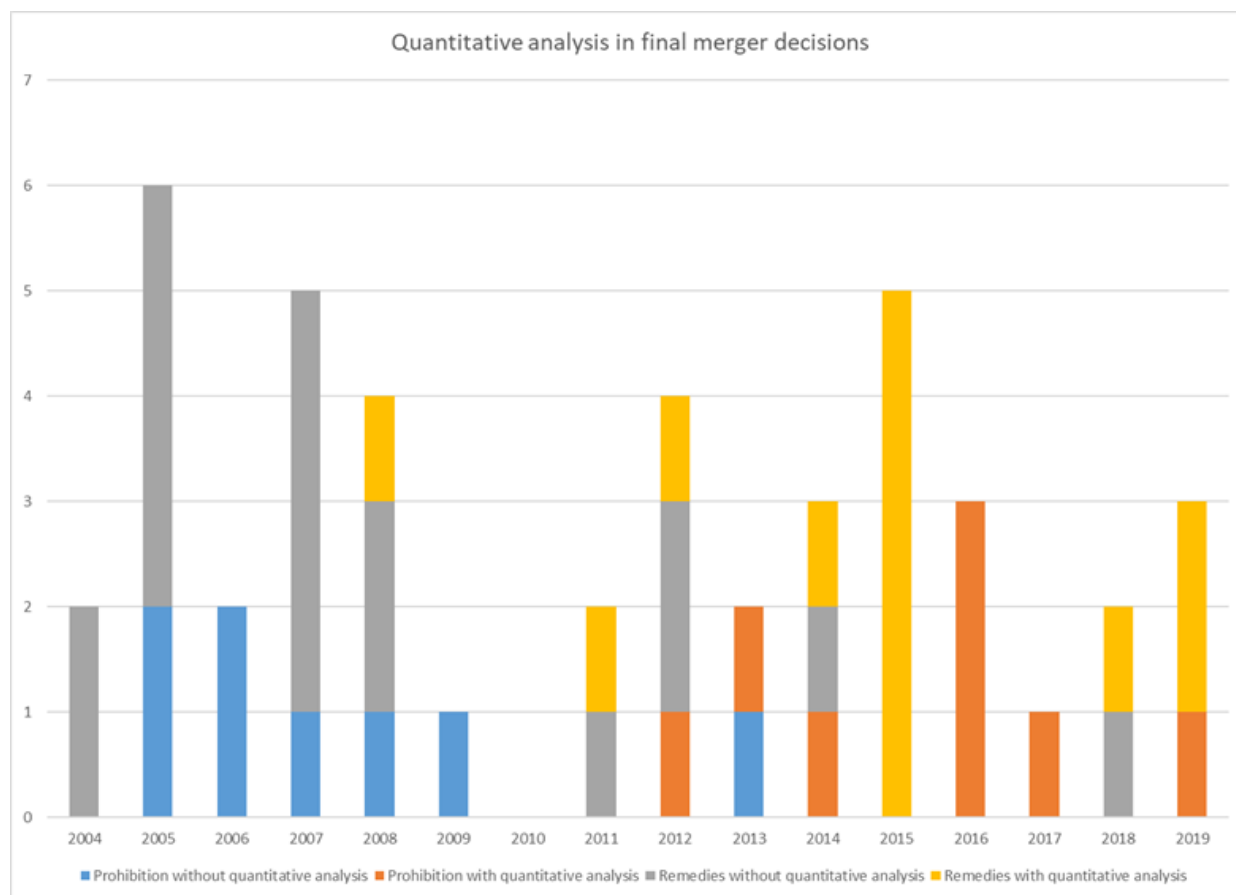
25. The NCA has over the last decade been actively focusing on incorporating economic thinking and analysis into investigations and the decision process. Notably, NCA economist are involved in all types of cases, both mergers & antitrust cases. This is important in order to incorporate economic thinking in all cases from the early phases of the case, to give a targeted direction for the work on the case, and not the least to assess whether or not to prioritize the case. Also in cartel and abuse of dominance cases, it is in the light of prioritizing the right cases important to assess the potential harm to consumers of the alleged infringement early.

26. Quantitative analysis in merger review are now an integral part of merger review, as illustrated by the figure below.

⁴ The Norwegian Competition Act can be found in an English here (unofficial translation): <https://app.uio.no/ub/ujur/oversatte-lover/data/lov-20040305-012-eng.pdf>. Please note that some of the recent amendments to the Competition Act are not reflected in this text.

⁵ More information on Norwegian merger policy can be found on our website: <https://konkurransetilsynet.no/currently-reviewed/mergers-and-acquisitions/?lang=en>.

Figure 2. Quantitative analysis in merger review, for mergers prohibited or allowed with remedies



Note:
Source:

27. An experienced staff of economists, and the internal *Network for quantitative analysis* and a chief economist staff with specialists in quantitative analysis have been instrumental in that regard. Remarkably, over the same period, the NCA has had a high success rate against appeals.

5.1. Economists Role – Organization of Case Team and Process

28. A typical case team consists of 50-50 economists and lawyers, and is led by an experienced staff member, which can be an economist or a lawyer.

29. The economists have a particularly important role in the case regarding "theory of harm"; important because it is imperative not to try to fit the case into some legal context without assessing the economic side of the case.

30. In merger cases focus will typically be on closeness of competition. This implies that economists in many cases will have an important role in forming the theory of harm, deciding the analytical approach and the consequential need for quantitative data.

31. A resource person will be assigned to the case team from the chief economist's team and the legal department. Both have an advisory role for the case team, and will have close interaction with the team especially during the early and concluding phases of the case. The

resource person from the chief economist's team will in particular have an active and important role relating to the empirical analysis (surveys, econometrics, etc.). The case team and the case manager have the responsibility for the progress of the case.

32. To have a good structure on the progress of the case, and a clear division of responsibilities, the NCA has developed process description (guidelines). For merger cases, this is mainly a description of the process from notification to phase 1 analysis and phase 2 analysis, the information needed in the notification, when to have meetings with the parties, in addition to a general description of the material assessment (market definition and economic assessment) to make case handlers to plan for this as early as possible in the case assessment, for instance: what kind of empirical analysis is needed, are local markets affected, does relevant data sources exist, and can a survey to estimate diversion ratios be carried out?

33. The result of formalizing the process through process descriptions has made the case teams more aware of the importance of involving expert economists early on in their case assessment, in addition to involving resource persons from the internal *Network for quantitative analysis* (which will be described in more detail below).

5.2. Analytical Approaches in Merger Review

34. Traditionally, the market definition is central to most antitrust cases, as determining market power typically requires the definition of a relevant market. However, the market definition is often problematic, particularly when products are differentiated or/and in two sided-markets.

35. As a consequence, alternative approaches measuring unilateral effects directly have been developed, making the need to define a relevant market less important. An example of an alternative approach is to estimate the Upward Pricing Pressure (UPP). As such methods are founded on diversion ratios and gross profit margins, the NCA have focused on developing expertise in estimating diversion ratios through the use of customer surveys. An important part of this work has revolved around making valid questionnaires, as well as obtaining an overview of circumstances when these methods are useful and not.

36. The NCA's experience so far is that customer surveys and diversion ratios gives useful information relating to the market definition and to assess competitive pressure, especially cases involving differentiated products and two sided-markets.

37. Consequently, the economic analysis becomes more empirically based, rather than resting on qualitative arguments alone.

5.3. Measuring Competition Closeness

38. Market definition is about systematically identify the competitive constraints the firms face. The market definition has a product and a geographical dimension, and provides a framework for assessing market power in the competitive assessment. And the number of firms and market shares can be a good proxy for market power in markets with homogenous products. The more concentrated the market become, the more harmful the merger becomes for the consumers.

39. However, this analytical framework often build on the wrong competition model. Firms usually do not compete on volume, but compete on price. The products they sell are normally not homogenous, but differentiated.

40. Thus, the effect of the merger on price is determined by how close competitors the two firms are, which in turn is determined by how close substitute the products are. Consequently, a problem with the traditional approach is that market shares do not directly

measure substitution. Market shares may therefore give a wrong picture when it comes to the effect of the merger. To identify how close the competitors are, it is crucial to measure the degree of substitution.

41. The NCA has the last decade gained substantial experience using alternatives to the traditional approach. In several cases diversion ratios has been used to measure closeness of competition. In others, price pressure indicators like UPP, or GUPPI absent efficiency gains, have been used to measure the merging parties incentives to increase prices (as competition between them is eliminated). When using price pressure indicators to analyse whether there is a competition problem, it is quite common to consider upward pricing pressure given no efficiency gains (GUPPI). If the merging parties are close competitors, a positive price pressure will be indicated.

42. Various approaches can be used to measure diversion ratios.

- Econometric study (revealed preferences)
- Demand estimation
- Shock analysis
- Effect of eg. sales campaigns
- Surveys among customers (stated preferences)
- Internal documents, eg. counting how often rivals are mentioned
- Churn data, allowing analysis of where and frequency of consumer diversion

43. Depending on the case, it is also important to analyse other aspects not captured by the price pressure indicators, for instance barriers to entry, how rivals will respond, buyer power, and repositioning of products ex post merger. In considering such aspects, economists have a crucial role.

5.3.1. Some Examples

44. The first example is the merger between Coop and ICA; two of the major groceries chains in Norway. The merger was notified to the Norwegian Competition Authority in November 2014, and was a merger between the number 3 and 4 player. The rationale for the merger was that ICA had experienced heavily losses and had been losing market shares for some time. The market has a national and a local dimension, where maximum prices are mainly set at national level, whereas prices vary between different areas. It is possible to change prices quickly in local areas. The non-price-parameters of competition service, range and quality. Non-price factors could also be adjusted to local markets. Thus, demand-side substitution can only take place locally, and it was possible to change elements of the retail offer locally. In the analysis, the NCA conducted a quantitative and qualitative screening of local markets. In the first stage, a quantitative screening with two filters:

- Filter 1: Count numbers of chains in the isochrones and identify isochrones with three or less chains after the transaction
- Filter 2: based on filter 1, identify the isochrones where the parties has a market share higher than 40 % or where the increment is more than 5 %

45. In the second stage, a qualitative screening based on:

- The use of a Geographic Information Systems (GIS) with information on all stores (location, revenue, etc.), road network and population center
- Internal documents from Coop

- Location of the stores' customers

46. Moreover, a customer survey was conducted in 24 of the 125 local markets. The survey was conducted outside 60 stores with 200 respondents. The customers was asked about their second choice: "*Suppose you knew before departure to the store that [name of the store] were closed, where would you then have shopped?*"

47. Information from the parties was used to estimate margins in each (of the parties) store, based on accounting data and other information. In addition, the NCA obtained accounts for all Coop and Ica stores and information on entry for the last 3 years as well as planned entry.

48. The survey data was used to estimate diversion ratios and GUPPI in the markets of concern. The data was subsequently applied to estimate diversion ratios in other local markets, ie. those where no survey conducted. In order to do so, a simple OLS-models was used to detect factors that will influence how close rivals they are. The regression results was used when considering closeness of substitution in areas with no surveys.

49. The analysis documented that geographical proximity and the size of the store are important competitive factors in the market.

50. The merger was approved with remedies in March 2015 as Coop offered to sell 93 stores.⁶

51. The second case presented here to illuminate the use of quantitative analysis is a proposed merger in the pizza restaurant market in Norway: Umoe/Peppes – Dolly Dimple's. The merging parties were the two only nationwide premium pizza with restaurants. They offered also take-away and home delivery services.

52. Here, the NCA did, inter alia, interview customers in several of the merging parties' restaurants, as well as perform a web-based survey among a selection of the parties' customers.

53. Based on the data collected, the NCA conducted a GUPPI analysis to elicit the possible price effects resulting from the merger. Lower service quality was a concern for the NCA in the assessment. This was assessed in a qualitative way by referring to economic theory. In the decision, the NCA interpreted the results from the GUPPI analysis as quality-adjusted price increases, implicitly assuming that the GUPPI measure captured the change in prices relative to service quality. However, service quality was not explicitly measured or quantified in the analysis.

54. The NCA concluded that the acquisition would lead to reduced competition both nationally and in 20 local markets, and that Peppes Pizza would gain increased market power that could lead to harm to consumer.

55. Peppes Pizza proposed remedial measures to limit the acquisition's harm to competition. However, the proposed measures were in NCA's view insufficient to satisfy the concerns. The NCA concluded that the acquisition would have led to significant restriction of competition in the markets of restaurants and take-aways. Consequently, the merger was eventually prohibited by the NCA in 2016.⁷

⁶ See <https://konkurransetilsynet.no/decisions/1229-v2015-24/> (in Norwegian)

⁷ See press release in English here: <https://konkurransetilsynet.no/peppes-pizza-cannot-buy-dolly-dimples/?lang=en>

5.4. Analysis of Tender Data

56. Bidding processes are frequently used both in the private and the public sector to allocate various contracts. As a result, analysis of tender data are gaining greater prominence in the analysis of competition.

57. Arguments have been advanced to suggest that competition in markets where bidding processes feature needs to be analyzed differently by competition authorities.

58. In particular, it has sometimes been argued that high levels of concentration are not indicative of market power and even that competition between only two firms can be sufficient where bidding processes are used. There are mainly three misconceptions behind the argument that the "usual" competition concerns do not apply:

- In tender markets, market shares are a poor indicator of market power
- Tender markets require only two or very few players to submit tenders
- Competition is always aggressive (high degree of price discrimination, not possible with $p > MC$)

59. Only in some exceptional cases will a tender market possess properties that make some of the aforementioned arguments applicable. Thus, the "usual" rules for competition analysis apply.

60. In a merger between two firms frequently meeting in tenders, the competition between the parties will be internalized; all tenders where the parties meet will be effected. The price effects can be based on standard UPP-logic.

61. Tender analysis is based on how often the merging parties meet in the market, and is mainly used to assess the extent to which mergers / acquisitions affect competition in the market. The analysis can be used to assess how close competitors the companies are, and thus provide information about the expected price increase that follows from the merger / acquisition.

62. In tender analysis, tender data provides information about which companies are active in the market, who is bidding against another, and how many are bidding in each tender competition. This type of information does not relate directly to the SSNIP methodology (market definition), but can be used to assess whether there will be effective competition in the market after the merger / acquisition

63. Examples of empirical analyzes (non-exhaustive list):

- How often do the companies meet?
- How many bidders are enough? Are there enough providers in the market after the merger to ensure effective competition?
- Competitive relevance. This approach attempts to estimate the effect of presence a company has on the outcome of the tender competition
- Competitive proximity (Nos. 1 and 2). If the two merging companies are close competitors, a merger can imply a great loss of competition even if the companies have relatively low market shares

5.4.1. An Example

64. A case from 2016, illuminating NCA's use of tender analysis in the transport sector, and where the NCA decided to block the merger, was Torghatten's acquisition of Fjord1.

65. In Norway, ferries are an essential part of the national transport infrastructure. Three of four main shipping companies in the Norwegian ferry market are considered as close competitors. Torghatten's acquisition of 50 % of the shares in F1 Holding, which again controlled Fjord1, involved two of these.

66. The NCA analysed data from 72 tenders conducted between 2004 and 2015, retrieved from the Norwegian Public Roads Administration and the county administrations. The NCA analysed success rates and how often the merging parties med in tenders.

67. In conclusion, the acquisition would in NCAs view have limited the competition and could have meant higher prices and a reduction of services for ferry passengers.

68. The case was not appealed, and 26% of the shares in F1 Holding were bought by another actor which already owned a part of Fjord 1: Havilafjord.

69. In a tender for ferry services held after the acquisition was blocked, the competitors showed a difference in pricing which revealed that Norwegian ferry passengers were much better off with healthy competition in this market.

70. From the NCA's perspective, empirical analyses of tender data implies on the one hand extensive data collection. On the other hand, the analysis are often relatively simple but informative.

5.5. Price Correlation

71. An example relating to the use of price correlation analysis is the assessment of a merger in the market for gasoline. In 2015, the NCA received a notification on the acquisition of Smart Fuel AS by St1 Nordic AS. St1 had 39 unmanned petrol stations in Eastern and Southern Norway, while Smart Fuel (merged with Norske Shell in 2014) owned 415 (mainly manned) petrol stations.

72.

73. In the process of assessing the merger, the NCA collected a significant amount of information including all prices and associated volumes from all chains in the Norwegian fuel market. In addition, internal documents were obtained which, among other things, dealt with the chains' pricing strategies.

74. The relevant product marked was defined as sales of petrol and diesel excluding sales at truck stations. The geographic market concluded that price competition was local, with national competition on "quality". However, national list prices was important to price formation, also locally. The head quarter set national list process, and recommends prices to each station based on list price, transport costs and local competition. Company owned stations set price equal to recommended prices, whereas dealer owned stations are free to set their own prices. Thus, the price correlation analyses was conducted on prices of petrol at the petrol stations within a geographic range in local markets.

75. For the analysis, the NCA obtained information on all prices charged at all stations in Norway for three years, including price, time, time of price change, duration, and sales of petrol and diesel. The information on the petrol stations included "marginal" costs, location, manning, opening hours, number of pumps, car wash-facilities, identity of competition cluster (i.e. id of defined competitors), and prices offered by competitors.

Information on local demand was based on population in statistical 1x1 km tile in which the station were located.

76. For the price correlation analysis, each station within 30 minute drive was included. Prices was regressed on common costs and demand.

77. The NCA found that St1, through its presence as an unattended petrol station chain, usually has the lowest pump prices in the market, and contributes to tougher competition and lower prices in the areas where the company is present.

78. In conclusion, the NCA found that the concentration would increase the likelihood that the companies are able to coordinate their behavior, as it would have led to a more stable and efficient collusive equilibrium between Statoil, Esso, St1 Nordic and Uno-X, and hence that the concentration would strengthen a significant restriction of competition.

79. The parties proposed to divest the (unmanned) petrol stations originally owned by St1 as a remedy for the acquisition of Smart Fuel's (manned) petrol stations. In July 2015, the NCA approved the acquisition of Smart Fuel by St1 conditional upon the divestiture of St1's (39 unmanned) petrol stations. In the NCA's view, these remedies implied that the market situation and number of players would remain as they were before the transaction. Thus, the NCA approved the acquisition on the terms offered, provided an independent buyer not part of the current price coordination was found.

5.6. Catchment Area

80. The NCA has used customer data and catchment areas in several recent cases to define the geographic market. It is a relatively simple methodology to define markets, which has proven crucial in some cases. An example will be presented below, after briefly describing the methodology.

81. The goal of the market definition is to identify the competitive constraints the relevant products and the companies are facing, thus, a mean for assessing market power. Among the relevant assessment criteria for defining the relevant geographic market is the current geographical purchase pattern. The question is: Is there a maximum distance customers will travel when taking into account transportation and time costs. This is the geographical catchment area.

82. A common approach to defining the geographic catchment area of an outlet is to identify the smallest area where 80% of the outlet's turnover has been generated. Customers are ranked according to how far they have traveled to the point of sale (starting with the smallest), counting up to 80% of customers have been included ("80th percentile").

83. A prerequisite for the analysis is that customer data with addresses are available. Then the address of the customers are connected with the address of the point of sale as a basis for calculating distance and driving time. A corresponding analysis is conducted for products and services that are delivered.

84. The information provided by plotting the customers based on addresses in maps are:

- The distance traveled by 80 per cent of the customers
- The areas the customers come from
- The location of the (merging) parties and their competitors relative to the customers

85. Such information is a useful starting point for assessing unilateral effects in merger cases, but has also proven useful in cartel and dominance cases. There are some caveats, however. It is important to run sensitivity analysis. Also, the geographical catchment area is based on current prices, and does not indicate customer responses to an SSNIP. Moreover, the catchment area or impact field is a pragmatic approximation for a candidate market where the SSNIP test can be done; not a conceptual alternative to the SSNIP test. Typically, the relevant geographical area will be larger than the catchment area (based on the 80th percentile).

86. A case where the NCA used catchment area in the analysis is the merger between training and fitness chains SATS and ELIXIA, which was notified in 2013. The merger involved the combination of the two largest players in the fitness center industry in Norway. The parties were subsequently informed that the NCA considered to intervene against the merger between the two companies.

87. In this market, competition takes place locally and the centers' locations are important for customers.

88. In the case, the parties claimed with regard to geography ia. that many are willing to travel far to train and that many customers train at work or on the way home. Also, the existence of chain substitution was a relevant factor, making the geographical market the city.

89. As part of the assessment, the NCA conducted a survey among members of SATS and ELIXIA. The survey showed that over 80 per cent left home at the last training, and that the declared driving time was approximately 9 minutes for SATS / ELIXIA customers. Based on customer lists from SATS and ELIXIA with postal codes, the NCA calculated an average driving time 10.5 minutes. This was the starting point for assessment of the competition. The NCA did, however, not take a final position regarding the geographic market.

90. In its assessment of market conditions, the Competition Authority also looked at quality and services offered. The NCA concluded that the merger would result in a significant restriction of competition in five geographic areas:

- Oslo
- Bærum
- Northern area of greater Oslo
- Bergen area
- Stavanger/Sandnes area

91. In the NCA's view, the merger would lead to higher prices and poorer service for customers in these areas. The Authority communicated these concerns to the parties during the process of assessing the merger. The parties proposed remedial measures according to which they are obliged to sell a total of 11 training centers in the affected areas.

92. In conclusion, the NCA decided to allow the merger provided the companies sold the proposed training centers located in areas of concern. The sales of the training centers had to be completed before SATS and ELIXIA were allowed to complete the merger in the five areas.

6. Internal and External Networks

93. In order to use quantitative methods correctly and verifiably and to enhance the internal capacity for the use of such methods in ia. merger analysis, the NCA established an internal quantitative network group. When the decision to establish the group was taken in 2012, an additional goal was to be better placed to critically evaluate external work presented to the Authority.

94. Another important aspect in building competence is external networks. The NCA's internal *Network for quantitative analysis* in addition to some important external networks will be described below.

6.1. Internal Network for Quantitative Analysis

95. In order to build capacity, ensure a consistent and correct approach to the use of quantitative methods and to be better positioned to critically evaluate and use external analysis in competition cases, the NCA decided to establish an internal quantitative network group in 2012.

96. After the network was initiated, it has proven to be highly valuable in enhancing the quality and the capacity for the use of quantitative methods in ia. merger analysis. It can be added that participation in the group is also popular among the NCA economists.

97. In the first instance, the internal network group focused on how diversion rates can be used and be derived through surveys for the use in market definition and the competition analysis. In addition, the group has focused on the use of other methods, including price correlation, price concentration and tender analysis. . The network group is also responsible for the use of NCA's Geographic Information Systems (GIS).

98. The building of competence and capacity through the internal network group has taken place at three levels in the organization:

- Among case handlers in market monitoring departments:
- Among members of the quantitative group:
- Chief economist's staff: able to carry out advanced analysis

99. The network works to improve the level of competence in general among case handlers in the Authority, for instance to enhance knowledge of different analytical methods, so that the individual employee knows simple quantitative methods, when and how to make use of these. The capacity building takes place in the form of learning through the use of quantitative methods in general case processing, participation in courses given by the quantitative network group, participation in economics seminars and assistance from and training together with other members of the quantitative group.

100. The goal is that each case handler participating in the network should be able to use various simple quantitative methods, using the GIS software, and be able to participate in the design of surveys (design of questionnaire, etc.) and the following data analysis (including UPP, GUPPI and IPR)

101. The goal of establishing a network among selected economists in the whole organization is to have a group of economists with specialist knowledge that more generalist case handlers can turn to, thus to enhance capacity to perform different types of analysis. Training of network members takes place through general case processing, participation in economics seminars, internal training of network group members by members of the chief economist's staff as well as external courses. The aim is that network

members can carry out and take a lead responsibility when using quantitative methods such as surveys.

102. The core of the network is members from the chief economist's staff. These have specialist knowledge in the use of advanced methods. In addition they are a resource that everyone in the NCA can turn to for questions of a more general nature principle. Their role is to take responsibility for and perform advanced quantitative methods, and assess the quality of external surveys.

103. In building capacity and knowledge, the group had a two-step strategy. As the first step, the group focused on building competence on how to design surveys, issues related to representative samples, and practical implementation (in connection with competition cases), for instance how to derive diversion rates through surveys, and how this in the second step can be used in a critical loss analysis, UPP, GUPPI and IPR. These are relatively simple methods to relate to and use in market definition and competition analysis contexts.

104. In the second round, the goal was to build expertise in other simple quantitative techniques that can be used in competition cases, for example price correlation and price concentration analysis as well as margin squeeze tests, how to carry out this type of analysis and advantages and disadvantages of the methods.

105. The overall goal was to build competence at the three levels described above related to the quantitative methods outlined above. In addition, it was NCA aimed to build competence on more advanced econometric methods, such as shock analysis, demand studies and merger simulations. However, these methods require good knowledge of advanced econometrics. For that reason, such training was basically reserved for members of the chief economist's staff.

106. In order to build capacity and competence, the network group has arranged seminars in topics like:

- Surveys and diversion ratios – design, sample size and analyzing data
- Empirical analysis in bidding markets
- Consumer data and geographic market definition
- Empirical analysis – market chocks
- Price concentration analysis
- Entry-exit analysis

107. In addition to network seminars, the group is also responsible for internal seminars open for all NCA employees. These seminars will typically present the analytical approach in concrete cases.

6.2. Nordic network: Merger Network and Chief Economists Network

108. International cooperation in the field of competition is a necessity for efficient enforcement. The Nordic countries have been cooperating close on competition issues for more than sixty years.

109. Since 2001, the cooperation with the Nordic competition authorities has been institutionalised in a cooperation agreement. A 2nd generation agreement was ratified in 2019 for Norway. This agreement updates and extends the previous agreement that had been in place for almost 20 years, and makes the fight against competition crime more

effective across the Nordic borders. Thus, the updated cooperation agreement implies a better basis for effective cooperation on enforcement across the Nordic borders.

110. A part of the Nordic cooperation, facilitated by the 1st generation cooperation agreement, are various network groups. A Nordic Cartel group was formed in 2000, later came a Legal director's team group, a Chief economist's team group. The last network additions were a Communications group and a Mergers network group.

111. Some of the network groups meet annually, some biennially whereas the Cartel network group meets twice a year.⁸ The responsibility to host the meeting rotates between the countries.

112. To illuminate the work of the Nordic chief economist teams', it can be mentioned that the last meeting in 2018 was organized by the Finnish competition authority and the chief economist and his team. The meeting was attended by participants from Denmark, Greenland, Iceland, Norway and Sweden.

113. The program for the meeting was split into a merger session and an antitrust session with presentations from all Nordic countries, covering a wide set of topics. In addition, there was an invited academic presentation on anti-competitive effects of cross-ownership in energy markets.

114. The presentations gave the participants insight into the economic analysis conducted in recent competition cases and on-going projects by the different Nordic competition authorities.

7. Guidance for External Parties

115. In connection with the processing of cases pursuant to the Competition Act, the NCA receives a significant and increasing number of external economic analysis based on empirical studies and economics modeling.

116. Such analysis are received both directly from parties in a case or from consulting companies and academic experts on behalf of parties, and from other actors with an interest in a case. The NCA's experience is that the use of such external studies based on empirical and quantitative methods can be helpful in making better and more informed decisions.

117. It is important that the NCA has the expertise to replicate and assess the analysis that come from the parties. This is one of the objectives of the quantitative group, in addition to building internal competence to be able to make empirical analyzes even internally in our cases.

118. To facilitate the NCA's use of such external economic analysis, the Authority has issued guidance with recommendations for how external parties can prepare economic analysis as a basis for the Authority's case processing.⁹ By following the principles recommended in the guidance, it will be easier for the NCA to utilize and emphasize the analysis in the case handling. The guidance will be briefly described below.

⁸ Apart from the Cartel group which meets twice a year, one physical meeting and one virtual.

⁹ See <https://konkurransetilsynet.no/wp-content/uploads/2019/07/Veiledning-%C3%B8konomiske-analyser.pdf> (in Norwegian)

7.1. Guidance for economic analysis submitted to the authority

119. Among the recommendations in the guidance is that the analysis should be reported as clearly as possible and should, in addition to results and conclusions, also contain information about which method has been used, the assumptions that has been taken and the robustness of the results in relation to the assumptions made. The guidelines also recommend that the analysis should be understandable to non-economists, and it should be possible for the NCA's economists to understand how the external economic experts have come to their conclusions.

120. Furthermore, the guidance also underline the importance of verification. Thus, it must be possible for the NCA to verify the results of the analysis, implying that the parties at the request of the NCA in a short time must be able to obtain relevant program codes and data files that enable Authority to verify the results. This includes both the raw data and the processed data and the software used to process the data. Finally, the guidance recommends that the analyses should be presented in such a way that they can be published so that also other parties can verify the results.

7.2. Guidance for Internal Documents Submitted to the NCA

121. In competition cases, information gathering (qualitative evidence) is just as important as data and empirical analyzes. As a final note, it can be mentioned that the NCA also involves economists in the qualitative analyzes, for instance assessment of internal documents, e-mails, market analyzes made by the companies or consultants, and so forth.

122. Moreover, economists are involved in the various stages of information gathering, ie. are involved in the design of Section 24 letters to external parties ia. to ensure that the correct relevant information according to damage hypothesis is obtained.¹⁰

123. Economists are also involved with regard to the review of the information obtained with regard to assessing what is relevant evidence in the case, and that the evidence is interpreted in the right context or not taken out of context.

124. To enhance the quality of internal documents submitted, the NCA have a separate guide for submitting internal documents to create predictability for parties and ensure that we get the right information in the format wanted.¹¹

8. Concluding Remarks

125. The NCA has in the recent years worked actively to incorporate economic thinking and analysis into the investigation and decision process. Economists have an important role in all case teams in all phases of the case to final decision. As a result, economic thinking, and especially economic empirical analysis have a much larger impact/use in our cases/decision nowadays compared to earlier. This has improved the quality of all decisions, not only related to mergers. The good track record of NCA decisions against appeals the last decade can be considered in light of this.

¹⁰ Section 24 in the Norwegian Competition Law relates to the duty to provide information, and basically states that "anyone must provide the competition authorities with the information these authorities require to perform their responsibilities under the Act or to meet Norway's obligations under agreements with foreign states or international organizations."

¹¹ See <https://konkurransetilsynet.no/wp-content/uploads/2020/04/Veileder-for-innlevering-av-interne-elektroniske-dokumenter-til-Konkurransetilsynet.pdf> (in Norwegian).