

Fuel for thought — StatoilHydro/ConocoPhillips (Jet)

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Introduction

When faced with a proposed merger, antitrust authorities have to assess the likelihood and the magnitude of anticompetitive effects that may occur following the removal of one of the merging parties as an independent force in the various markets affected by the transaction. These possible anticompetitive effects must then be weighed against potential efficiency gains. To enable it to complete this task in the limited amount of time provided by the legislators, the Commission collects and contrasts information from different sources. The notifying party's compulsory notification (Form CO) is the initial source of such information and contains a description of the industry along with more specific details regarding the affected markets. In addition, to ensure that it has a complete understanding of the competitive landscape in each of the affected markets, the Commission supplements this information with the views of other market participants such as the merging parties' suppliers, competitors and customers. ⁽²⁾

Competitors are usually well informed about the market conditions in the affected markets and the competitive pressure that each merging party exerts on its counterpart in the transaction. However, competitors' views may be biased by their own interests. For example, a competitor can welcome a transaction that removes a very competitive market player. In such cases, competitors' replies to the Commission's market investigation may support their strategic views of the deal rather than provide an objective assessment of the transaction. Customers, on the other hand, are less likely to have strategic interests in the transaction and are therefore less likely to provide biased responses. This is particularly the case when there are numerous customers of modest size. Unfortunately, as a result, such customers are also less likely to have the necessary resources or access to the requisite information to respond meaningfully to the Commission's questionnaires. An extreme case occurs when customers are indi-

viduals, as it is virtually impossible to access such customers with standard questionnaires, although each individual may have a private (and sometimes informed and documented) view of the likely effects of a merger.

This was the case for the Norwegian oil company StatoilHydro's acquisition of Jet petrol stations in Scandinavia (67 in Denmark, 40 in Norway and 163 in Sweden), owned by ConocoPhillips of the US (case COMP/M.4919 — *StatoilHydro/ConocoPhillips*), which was subject to an in-depth investigation by the Commission. ⁽³⁾ Therefore, in addition to the standard market investigation that also included gathering evidence from *internal documents*, the Commission structured its market investigation around two pillars. First, several *econometric studies* that were based on an extensive request for data relating to the daily running of the fuel retail businesses were carried out to gauge the extent to which the two merging parties exerted competitive constraint on each other. Second, a *customer survey* was conducted in selected countries to obtain insights into customers' views regarding the main questions posed during the assessment of the transaction. ⁽⁴⁾

This article is divided into six sections. The next two sections describe the Swedish and Norwegian retail fuel markets and discuss the role that Jet played in those markets. ⁽⁵⁾ The econometric and customer survey analyses are described in the fourth and fifth sections. The last section offers some general conclusions and, in addition, makes some important points as to the data demands that are associated with analysing mergers where the merging firms' customers are widely dispersed.

Sweden

StatoilHydro was the largest retail supplier of motor fuels in Sweden, with a total of more than 1 000 fuel stations at the end of 2007 and accounting for more

⁽¹⁾ The content of this article does not necessarily reflect the official position of the European Commission. Responsibility for the information and views expressed lies entirely with the authors.

⁽²⁾ From time to time, experts are directly appointed by the Commission to examine certain (usually technical or economic) aspects of a transaction. The Directorate-General for Competition also often benefits from the technical expertise of other Directorates-General.

⁽³⁾ Relevant documents issued by the European Commission regarding this case, including the non-confidential version of the final decision, can be downloaded at http://ec.europa.eu/competition/mergers/cases/index/m98.html#m_4919

⁽⁴⁾ The opinions of some customers' associations were also solicited.

⁽⁵⁾ The Commission's final decision found that the transaction would not lead to competition concerns in Denmark.

than 30% of total sales.⁽⁶⁾ Jet was the country's sixth largest supplier of retail motor fuels: it accounted for more than 10% of total sales in 2007 and had by far the highest average throughput of all fuel station networks in Sweden. Following the transaction, the merged firm's largest competitor, OK-Q8, would have had a market share less than half that of the combined entity. The second and third largest competitors, Shell and Preem respectively, would be even smaller with market shares of [10-20]% each.⁽⁷⁾ By acquiring Jet, StatoilHydro would thus further consolidate its position as the leading service-station chain in the Swedish market, in which substantial "green-field" entry of a new competitor is unlikely due to considerable entry barriers.⁽⁸⁾

The Jet business model is specific. First, it exclusively operates company-owned and company-operated stations only in densely populated areas under the unique Jet brand.⁽⁹⁾ Second, Jet stations are all unmanned, with a limited range of services compared to traditional manned (or full-service) stations. Third, contrary to most of its competitors, which offer a wide range of fidelity and corporate cards that allow customers to obtain price reductions such as volume rebates, Jet has built a strong brand position based on a transparent net pricing policy that advertises net prices directly on the pump. The company furthermore applied a price differential with respect to competing full-service station networks of SEK 0.25 per litre. The combination of these elements resulted in Jet becoming the most efficient retail fuel supplier in Sweden, which allowed Jet to defend the SEK 0.25

per litre differential if challenged by competitors.⁽¹⁰⁾ Jet's strategy has been highly successful: while it operates only 4.5% of all fuel stations in Sweden, its market share amounts to [10-20]%.

The success of Jet's strategy has also been recognised by its competitors. In particular, the Swedish retail motor fuel market has witnessed an expansion of the number of automated stations that today represent more than half of all fuel stations, and certain market players have shifted their pricing strategy from high fuel prices at full-service stations and volume-based rebate schemes towards "net pricing" schemes without rebates.⁽¹¹⁾ Related to such strategic repositioning, Shell initiated a nation-wide price war in April 2005 in order to establish its Shell Express brand of automated stations by applying the same price differential for *petrol* in relation to full-service stations and other automated stations that Jet (and some other smaller automated networks) applied. While this price war ended in August 2006 when all automated chains started to apply the same SEK 0.25 differential to full-service stations as Jet, it was soon followed by a second price war that started in April 2007 for *both petrol and diesel*.⁽¹²⁾ The second price war was initiated by StatoilHydro, which sought to reduce the differential between full-service stations and unmanned stations from SEK 0.25 per litre to SEK 0.15 per litre. Jet (and other competitors) however resisted StatoilHydro's initiative and sought to maintain the SEK 0.25 per litre differential.

The important role of Jet as an independent competitor was also confirmed by the respondents to the market investigation and StatoilHydro's internal documents. Several respondents to the market investigation emphasised the fact that fierce competition between the Statoil network, Jet and Shell had decreased the margins and eroded the profitability of smaller and weaker networks that were viewed as too small to influence price levels in a manner similar to Jet. StatoilHydro's internal documents suggested that (i) Jet has a very strong brand image, and consumers perceive Jet as the cheapest supplier, and (ii) StatoilHydro views Jet as its most efficient competitor.

⁽⁶⁾ StatoilHydro operated full-service fuel stations under the Statoil and Hydro brands and automated fuel stations under the 1-2-3, Hydro and Uno-X brands. Statoil's own network consists of 562 fuel stations: 478 full-service stations and 84 automated fuel stations branded "Statoil" or "1-2-3". StatoilHydro also owns Hydro's fuel station network, which comprised 426 stations at the end of 2007: 376 automated fuel stations branded "Hydro" or "Uno-X", 45 full-service stations under the Hydro brand and 5 unbranded stations ("white pumps").

⁽⁷⁾ In addition, there are a number of smaller competitors operating brands such as Tanka, Din-X, Pump, Gulf, Q-star, St1 and ICA-Tapp.

⁽⁸⁾ The availability of suitable sites that can be used for building fuel stations as well as the need to obtain permits are crucial factors for assessing barriers to entry (as well as barriers to expansion) in the fuel retail markets. In addition, green-field entry involves building forecourts, installing pumps and tanks, negotiating fuel supplies and establishing a brand by investing in promotion and advertising. The costs and the time required for such a strategy are substantial.

⁽⁹⁾ For example, as stated in footnote 6, StatoilHydro operated full-service fuel stations under the Statoil and Hydro brands and automated fuel stations under the 1-2-3, Hydro and Uno-X brands. In addition, stations may be operated by a third party for a given company, or even be only associated with a company through a marketing venture (essentially using the company's name along with its supply of fuel).

⁽¹⁰⁾ It is, however, important to note that Jet was not a mere "price follower", as Jet's chosen differential varied over time, and competing networks had to consider the possibility that Jet might seek to change this differential over time.

⁽¹¹⁾ In addition, operators are also restructuring their networks to improve efficiency, for example by closing stations with low throughputs.

⁽¹²⁾ Diesel sales have been rapidly gaining ground at the expense of petrol in Sweden. Although there were relatively few diesel cars in Sweden, they accounted for 35% of new cars sold in Sweden in 2007 (compared to 20% in 2006). Following the introduction of a more favourable tax regime for diesel cars in 2007, diesel sales are expected to grow further.

This evidence thus indicated that Jet is an important competitive force in the Swedish retail fuel market and that the transaction would remove an important and well-established low-cost operator.

Norway

The Norwegian market is highly concentrated. The four main players account for more than 90% of the total sales. StatoilHydro is the largest competitor, with a [30-40]% market share. Jet is the fifth largest fuel station network present in Norway, with a market share of [0-5]%. Jet's retail outlets are located only in the south-east of Norway, where the company's market share is higher, at [5-10]%.⁽¹³⁾ The confinement to the south-eastern region of Norway is related to logistics hurdles that Jet faces.⁽¹⁴⁾ Unlike the other four competitors, Jet has no storage depots or terminals in Norway and instead operates a depot in Strömstad, Sweden, situated close to the Norwegian border. It is noteworthy that while the four main market participants have granted mutual access to each other's depots to limit fuel logistics costs throughout the country, Jet has been unable to conclude similar agreements.

Despite these logistics constraints, Jet's purely automated fuel network enabled the company to compete aggressively on price, in particular compared to the full-service fuel stations of its competitors. Jet promoted a net pricing policy that was associated with a price differential in relation to rivals' manned stations and was the most efficient competitor in terms of average throughput, with an average fuel volume per site twice as high as the national average. Jet was therefore an important competitive force in the Norwegian market, as was also confirmed by the market investigation and in particular by internal StatoilHydro documents. These internal documents (i) confirmed that Jet was viewed by consumers as the cheapest of the automated networks and (ii) showed Jet's capability to react to price changes introduced by competitors. The other Norwegian competitors to the merging parties also confirmed that Jet exerted a strong competitive constraint in the Norwegian market and in particular in the south-east of Norway. Jet's role in the Norwegian market was also confirmed by PFC Energy's report for Norway (October 2007, page 50): "*Jet is still the main driver of gasoline price wars, due to its 'low-cost' strategy, and has been marketing diesel at its Norwegian outlets, which rapidly brought down prices in the diesel segment. Jet's*

presence being limited to the southeast of Norway confines much of the fierce competition to this area."

These elements indicated that the other market players had different incentives from those of Jet, potentially even including a joint interest to prevent Jet from expanding, and that Jet was an important competitive constraint, in particular in south-east Norway. Therefore, the transaction would remove an independent and well-established low-cost operator competing in Norway.

Econometric analysis

An interesting feature of the retail fuel market in this case was the way Statoil fuel station managers⁽¹⁵⁾ set pump prices. On the one hand, Statoil's headquarters would set national recommended prices, issue payment cards and undertake advertising and promotional campaigns at national level in each country (Denmark, Norway and Sweden). On the other hand, individual fuel station managers could deviate from these national recommended prices after monitoring the prices of their local competitors located in each station's primary catchment area (the so-called cluster). There is therefore a tension between national and local aspects of the geographic market definition.⁽¹⁶⁾ Accordingly, as in its previous decisions, the Commission defined the geographic market as at most national although it left open the possibility of having smaller local markets.⁽¹⁷⁾

The local characteristics of the market were, however, fully taken into account in the competitive assessment of the merger, as they lend themselves particularly well to examining the extent of the competitive constraint that Jet placed on StatoilHydro's fuel stations. If Jet's fuel stations put competitive pressure on StatoilHydro, one would expect to find that

⁽¹⁵⁾ At the time the transaction was notified, Statoil and Hydro had just themselves merged (see case COMP/M.4545 — *Statoil/Hydro*, documents available at http://ec.europa.eu/competition/mergers/cases/index/m90.html#m_4545) and their networks were still run separately to some extent.

⁽¹⁶⁾ It is often argued that with each station having a different catchment area, eventually the overlapping of these catchment areas would result in a chain of substitution that would spread change of price in one place to another that is indirectly connected through a chain of overlapping catchment areas.

⁽¹⁷⁾ The definition of the relevant product markets for motor fuel retail has also attracted some attention in recent years. However, this transaction does not allow these issues to be meaningfully discussed. For example, it was not assessed whether on-motorway and off-motorway stations belong to the same relevant market, as Jet hardly operates any on-motorway stations. Neither does this transaction make it possible to assess whether products such as LPG should be considered as belonging to the same product market as petrol and diesel for reasons related to supply-side common distribution, as Jet does not distribute LPG.

⁽¹³⁾ There are some counties in south-east Norway in which Jet's market share is as high as [10-20]%.

⁽¹⁴⁾ Jet's logistical constraints, in particular access to depots, indicate that barriers to entry are high in Norway. No fuel retailer entered the Norwegian market after Jet's entry in 1992.

StatoilHydro's prices would be systematically lower whenever Jet is in the vicinity of StatoilHydro's fuel stations. Alternatively, if StatoilHydro's prices do not systematically differ with Jet's presence, this would imply that Jet does not pose a significant competitive constraint on StatoilHydro.

To test this empirically, it was thus necessary to *at least* collect data on pump prices at StatoilHydro's fuel stations and information on the location of Jet's fuel stations relative to StatoilHydro's fuel stations. However, other factors may influence pump prices. For example, full-service stations may charge higher prices than unmanned stations to cover labour costs. On the other hand, fuel stations located in densely populated urban areas may face more competition due to the presence of other fuel providers than fuel stations in isolated urban areas and thus are more likely to charge lower prices. If all of these factors are not correctly accounted for, it is impossible to correctly model the way that the managers at StatoilHydro's fuel stations set the pump prices and thus to capture the "Jet effect" on StatoilHydro's pricing.

The Commission therefore undertook an extensive data gathering exercise. Daily prices of diesel and 95 octane petrol at StatoilHydro stations were collected for the period from 1 June 2005 to the end of May 2008. In addition, it was possible to collect information on the total number of fuel stations and to identify each competitor situated in the vicinity of each StatoilHydro station.⁽¹⁸⁾ StatoilHydro also submitted an extensive data set with station characteristics (e.g. whether the stations were manned or unmanned or whether they had a convenience store or a car wash on their premises).

The Commission used pooled cross-sectional multiple regression analysis to model the relationship between pump prices at StatoilHydro's fuel stations, Jet's presence and any other factors that could have had an effect on the pump prices.⁽¹⁹⁾ In particular, the log of monthly pump prices at each StatoilHydro fuel station (i.e. the so-called dependent variable) was modelled as being dependent on (i) the presence of Jet, (ii) the presence of other competitors such as OK-Q8, Preem and Shell in Sweden or Shell, Esso and YX in Norway, (iii) transport costs from StatoilHydro fuel depots to StatoilHydro fuel

stations to correct for differences in operating costs across the different clusters, (iv) an indicator variable that captured whether the station is manned or unmanned, (v) the total number of stations in the cluster to account for the general level of competition, and (vi) the Rotterdam price index for diesel and 95 octane petrol to account for the general movement of fuel prices over time.⁽²⁰⁾

The regression models were estimated for both Norway and Sweden for diesel and 95 octane petrol separately, as both products were subject to different market dynamics. For example in Sweden, the 95 octane petrol market was the subject of two price wars, while the diesel market was only subject to a single price war. On average, the results suggested that both StatoilHydro's petrol and diesel prices in Sweden were systematically lower by [0-5]% whenever a Jet fuel station was located in the vicinity of a StatoilHydro fuel station. The same was true for Norway. It is important to note that, in total, three different regression specifications were estimated for each country and each product to ensure that the regression results were sufficiently robust. The econometric analysis therefore indicated that Jet appeared to place an important competitive constraint on StatoilHydro's pricing in both Sweden and Norway.

Customer survey

Another method of gauging the role that Jet played in the Norwegian and Swedish retail fuel markets was a survey, which is particularly useful when customers are individuals such as in cases of retail and service markets. A customer survey takes into account the views of individual customers by carefully choosing a sample of customers that is representative of the whole population and asking them questions regarding a specific issue. The replies of the respondents can then be aggregated to approximate the views of the whole population of customers. The use of customer surveys in merger analysis started only recently: *Ryanair/Aer Lingus* was the first merger case where a customer survey of this type was conducted.⁽²¹⁾ In this case, the resulting answers from the survey helped to assess the degree of substitutability between the two airlines.

⁽¹⁸⁾ To aid fuel station managers' monitoring of local competitive conditions, StatoilHydro defined clusters, which contained a list of stations in the surrounding area of each StatoilHydro station.

⁽¹⁹⁾ Ordinary cross-sectional regression analysis compares prices at Statoil's stations that faced Jet as a competitor with prices at Statoil's stations that did not face Jet as a competitor at a given point in time. Pooled cross-sectional regression analysis pools across different points in time. In this instance, as the daily price data was aggregated to monthly levels, the regressions were pooled across the different months.

⁽²⁰⁾ The presence of Jet was captured by a dummy variable that equalled one whenever Jet was present in a cluster and zero otherwise. The same technique was also used for the other competitors such as Shell. Similarly, the indicator variable that captured the manned status of the fuel station equalled one when the station was manned and zero otherwise.

⁽²¹⁾ See case COMP/M.4439 — *Ryanair/Aer Lingus*, documents available at http://ec.europa.eu/competition/mergers/cases/index/m88.html#m_4439, and in particular Annex I to the final decision, which describes the survey, provides an analysis of the answers and addresses methodological issues.

Two key issues need to be addressed when designing a customer survey.⁽²²⁾ First, it is important to carefully select the pool of respondents to ensure that the sample of respondents is representative of the whole population in order to be able to substitute the views of the respondents from the sample for the views of the population. This is usually accomplished by surveying a sufficiently large group of *random* respondents, as the larger the surveyed group the more likely it is that it will contain all the different views that are present in the population. For example, for the purposes of this case, 1 250 Swedish and 1 001 Norwegian motor fuels consumers were interviewed by telephone or over the internet in June and July 2008.

The second key issue are the actual questions to be asked in the survey. One of the main difficulties was to identify a limited number of core issues to be tested in a single one-shot survey. Thus, after drafting an initial set of questions, the Commission discussed them with the notifying party to ensure that the questions were sufficiently clear and effective in assessing the effects of this merger. The questions focused on key issues raised during the assessment of the case, including the reasons why consumers fill up their cars at a particular fuel station, customers' specific brand preferences and their perceptions of Jet *vis-à-vis* its competitors. For example, to understand consumers' fuel purchasing behaviour, respondents were asked to rank the following three factors in deciding whether to fill up at a particular fuel station: (i) price of fuel, (ii) distance from home or work, and (iii) the availability of convenience shopping for food, tobacco and other products. They were also asked what price differential per litre would prompt them to change stations and were given six choices. To gauge the effect of Jet as well as the effect of the merger, respondents were asked (i) how they rated Jet's fuel prices compared to competitors' prices, and (ii) what impact the acquisition of Jet by StatoilHydro would have on competition between the remaining fuel station chains in Norway and Sweden.

Given that different consumer groups can be expected to behave differently, it is important to ask an additional set of control questions to identify possible customer segmentation. While all respondents were members of households with a car at their disposal, the control questions allowed the Commission to differentiate between those driving a lot and those driving little, between different types of fuel

used (petrol, diesel, ethanol, other) or the type of fuel card used, if any. For Norway, given that Jet was only located in the south-eastern region of the country, it was also important to differentiate the respondents depending on the area that they live in. Of the 1 001 customers in the sample, 506 (or 50.5%) were from south-east Norway, which roughly corresponds to the proportion of the total Norwegian population living in that part of the country.

The customer survey showed that in both countries Jet was perceived as a low-price supplier of motor fuel. In Sweden, 40% of respondents who expressed an opinion stated that Jet always charged lower prices and 29% indicated that Jet sometimes charged lower prices.⁽²³⁾ The survey also revealed that consumers were price-sensitive: 54% in Sweden and 78% in Norway ranked price as the most important factor when deciding where to fill up.⁽²⁴⁾ It confirmed that customers found it easier to compare prices when net pricing schemes instead of rebate cards were applied by fuel selling stations: 61% of Norwegian respondents found that net pricing schemes facilitated comparison of prices "to a very large extent" or "to a relatively large extent".⁽²⁵⁾ Finally, as many as 54% of Norwegian customers and 50% of Swedish customers believed that the proposed merger, along with the disappearance of the Jet brand, was likely to reduce competition in the retail fuels market, while only 10% of Norwegian customers and 14% of Swedish customers thought that that merger would have a positive impact on competition.⁽²⁶⁾ This is consistent with customers' view that Jet played a specific role in driving price competition.

It should be noted that the answers differed between the total population in Norway and the population in south-east Norway. For example regarding Jet's prices compared to competitors' pump prices, while 40% of the overall sample considered that Jet was always or sometimes offering lower prices and 46% had no opinion, the perception of Jet being always or sometimes cheaper increased to 64% and the number of respondents without an opinion decreased to 22% when only respondents located in south-east Norway were considered. This divergence in views provides further evidence that regional aspects of retail fuel markets must be taken into account in addition to national market considerations.

⁽²²⁾ It is also important to note that the survey must be outsourced to professional research companies that have the know-how and experience to access a representative group of respondents in a timely manner to ensure that the survey is completed within the short time span of merger proceedings.

⁽²³⁾ 32% of the respondents did not know how Jet's fuel prices compared with competitors' pump prices. Unless otherwise specified, the remainder of this section displays percentages of respondents among those who expressed an opinion.

⁽²⁴⁾ 1% of the Norwegian respondents and 8% of the Swedish respondents had no opinion.

⁽²⁵⁾ 11% of the Norwegian respondents had no opinion.

⁽²⁶⁾ 16% of the Norwegian respondents and 10% of the Swedish respondents had no opinion.

Conclusion

The acquisition by StatoilHydro of ConocoPhillips' Scandinavian retail fuel businesses (Jet) required the Commission to assess the effects of the transaction without having access to the customers of the merging parties. This is because the customers in this instance are individuals, and it is thus virtually impossible to reach them using standard questionnaires. In addition to the standard market investigation that also included gathering evidence from internal documents, the Commission therefore based its market investigation on econometric studies and customer surveys. By doing so, the Commission was in a position to assess the relevance and likelihood of alternative possible theories of harm, as well as their likely effects, and came to the conclusion that, in the Swedish and Norwegian markets for retail sales of motor fuels, the transaction would raise serious doubts as to its compatibility with the common market and the EEA agreement.

To alleviate the Commission's concerns in Sweden, StatoilHydro proposed to divest a network consisting of 158 unmanned stations, including 118 of the most efficient stations currently operated by Norsk Hydro and 40 Jet stations. This "remedy fuel station network" would have the third highest average throughput among all competitors in Sweden. The remedy network would have a geographic coverage throughout Sweden, with a strong presence in the south. This network also covered the vast majority

of the clusters affected by the transaction. In addition, StatoilHydro offered to divest the entire Jet network in Norway to remove the Commission's concerns in that country.

The investigation of this transaction nicely demonstrates that the absence of sizeable customers does not prevent the Commission from collecting relevant information necessary to reach an appropriate and carefully balanced outcome. Customer surveys and econometric studies are useful tools that can effectively supplement the Commission's standard market investigation. Performing customer surveys in the course of merger proceedings is inherently constrained, among other things by (i) the limited number of questions that can be addressed by a survey, (ii) the methodological hurdle related to avoiding insidious questions or questions subject to broad interpretation, and (iii) the procedural time constraints. The econometric analysis usually requires highly reliable data and proper care must be taken when modelling the competitive interactions between the merging parties and their competitors to ensure that the resulting econometric results are sufficiently robust. To ensure that the results from both the survey as well as the econometric analysis can be considered meaningful, it is thus important that the Commission and the notifying party engage in a dialogue as early as possible in the notification process (preferably at the pre-notification stage), to discuss data and timing issues as well as the analyses that can be undertaken.