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# ROUNDTABLE ON MARKET DEFINITION

**-- Note by the Delegation of Sweden --**

*This note is submitted by the delegation of Sweden to the Competition Committee FOR DISCUSSION at its forthcoming meeting to be held on 13-14 June 2012.*

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**ROUNDTABLE ON MARKET DEFINITION**

**-- Note by Sweden --**

1. In this contribution, the Swedish Competition Authority (SCA) focuses on issues pertaining to market definition and effects analysis that arose in a recent merger case, *Eniro/Teleinfo*. In particular, the note will discuss alternative methods based on the UPP-methodology to analyse the effects of horizontal mergers in markets where market boundaries are difficult to draw.

2. In several recent merger investigations, the SCA has found UPP-style analysis to be an efficient method for assessing mergers.[1] The analyses have required less information than full merger simulations, and they offered a useful guide to the likely price effects of the mergers. Moreover, the analyses were more transparent compared to both simulation and market delineation.

3. The SCA concludes that a thorough understanding of consumer behaviour is required to draw accurate inferences from the results obtained by these methods. The assessment of claimed efficiencies also plays an important role. Furthermore, market delineation serves a useful, complementary, role in the analysis.

## 1. The merging parties

4. Eniro 118 118 AB (Eniro) is Sweden's largest directory enquiry service provider, providing directories with telephone numbers and addresses in several European countries. Its information is collected in a database which is made available through an internet- and mobile service (the so-called online segment), a printed telephone directory, and a paid enquiry service via telephone and sms (the voice segment). The global turnover for the entire group was 560 million Euros in 2010, of which about half pertains to Sweden.

5. Teleinfo Brahegatan AB (Teleinfo) started in 2006 and operates only in Sweden. The company also provides the directory enquiry service via telephone and sms. The parties' business overlaps horizontally with respect to their operations within the voice segment. The total turnover of Teleinfo was about 8 million Euros in 2010.

## 2. Market definition

6. With a relevant product market defined as voice, Eniro had a market share about [60-75] per cent in 2010, while Teleinfo's market share was about [5-20] per cent. There was only one more provider of voice of significance. Defining the market as voice, the merger would therefore result in a marked increase in market concentration.

7. The demand for voice products has continually decreased in recent years due to the increase in online search via computers or smartphones. The increase in the use of mobile internet via smartphones

1 Recent merger cases where the SCA has applied these methods are *Office Depot/Svanströms* (2011), *Arla/Milko* (2011), *Cloetta/Leaf* (2012), and *Eniro/Teleinfo* (2012).

and tablets has increased the reach of alternative channels for searching for information.[2] If sufficiently many users of voice were willing to substitute to online search following a price rise on voice, then the relevant market could be defined as voice and online together, in which case Eniro's and Teleinfo's market shares would be quite low.

## 3. Key inputs to UPP-analysis

8. Due to the distinctive features of the voice product the SCA assessed the likelihood of unilateral effects for the concerned market using the method of UPP-analysis. The UPP-approach focuses the analysis on the variables that matter the most: diversion ratios (i.e. how close competitors the merging parties are), gross margins, and efficiencies. The UPP is a relatively simple method which requires less information compared to a merger simulation. One of the shortcomings of the UPP-analysis, however, is that it is not able to predict the magnitude of competitive effects. Hence, the SCA complemented its analysis by calculating an IPR (Indicative Price Rise) index.

### *3.1 Diversion ratios*

9. The first key input, the diversion ratio, measures the fraction of lost customers who turn to the rival (merging partner) if the price rises. In *Eniro/Teleinfo*, the SCA obtained diversion ratios by carrying out a survey. The SCA measured the share of customers who chose another product (or another channel through which they look for information) if the voice service they had used were to have become unavailable. In general, this so-called second choice answer reflects substitutability (cross-price elasticity over own-price elasticity) and is suitable for revealing which products are close competitors in a market.

10. The survey showed a high diversion from voice to online, which was defined as internet searches using computers, smartphones, or tablets. It also showed significant diversion between the voice operators, especially from the smaller of the merging parties, Teleinfo, to the bigger party, Eniro.

### *3.2 Margins (Gross profit margins)*

11. A firm's profit margin reflects the firm's own-price elasticity (through the Lerner equation). If a firm can uphold a high gross margin prior to a merger, the firm evidently believes that demand for its product is not very sensitive to price. The SCA's calculated the pre-merger margin based on data provided by one of the merging parties.

### *3.3 Efficiencies*

12. To the extent that the merger can lead to a lower marginal cost of producing a product, efficiencies provide an incentive for the merged firm to lower the price of that product. The parties argued that the merger would give rise to efficiencies for Teleinfo's products. Efficiencies need to be claimed and specified in good time so that authorities are able to assess them thoroughly. Given their importance to quantitative analysis such as UPP it is important to develop a systematic method for assessment. In addition, the results from the IPR test relied upon assumptions concerning elasticity of demand and symmetry between the merging firms. If these tests are to be used as more than a screening device, a rigorous analysis on buyers' behaviour as well as the firms' price setting behaviour should be done to obtain more accurate inferences from this method.

2 The smartphone penetration in Sweden was 52 per cent in 2011.

## 4. The hypothetical monopolist-test

13. To define the relevant market the SCA calculated whether a hypothetical monopolist could impose a small but significant, non-transitory increase in price ("SSNIP") on at least one product in the market.

14. The SCA started the hypothetical monopolist test with the type of products that both Eniro and Teleinfo sell, voice products, as the candidate market. The parties argued however that the test should be started from Teleinfo's voice product only, and that the substitute with the highest diversion, online searches, should be added prior to adding other voice products. The SCA rejected this argument. Online search is an amalgamation of many different products, the more products that are grouped together, the higher diversion this group will naturally show. In addition, the initial candidate market must include the types of products that the parties sell.

15. The SCA concluded that the hypothetical monopolist test, based on diversion ratios from a survey, tends to underestimate the size of a profitable SSNIP if only the price of one of the products in the candidate market was assumed to increase (unilateral price increase), while the test tends to overestimate the size of a profitable SSNIP if prices of all products in the candidate market were assumed to increase (uniform price increase). Hence, the SCA estimated both types of increases and considered them as the lower and upper bounds of the SSNIP.[3] These bounds exceeded the threshold 5 -10 per cent indicating that voice itself can be a relevant product market.

## 5. Signing the effect of the merger: UPP

16. The SCA applied UPP-methodology to evaluate the unilateral effects of Eniro's merger for Teleinfo. The UPP-analysis is specified as the measures, GUPPI (*Gross Upward Price Pressure Index*) and UPP *(Upward Pricing Pressure).* The UPP index evaluates net effects of two opposite forces of a horizontal merger. [4] In one hand the merger gives an incentive to increase the price due to the elimination of competition between the merging parties. On the other hand, a merger-specific reduction in marginal cost such as merger-specific synergies or economics of scale can drive the price downward. If the former exceeds the latter, the UPP index is positive and exceeds the certain threshold, the merger is likely to be problematic. This test should be performed to both parties in order to evaluate potential incentives to increase the prices. The UPP index shows, however, little about the actual magnitude of competitive effects.

17. Similarly, the GUPPI, which evaluates the gross effect of the loss of competition, is an indicative measure of the size of efficiencies that is required in order for the merging firms not to raise the price after the merger. [5] GUPPI is mainly used as an indication of whether the required efficiencies seem plausible.

18. The SCA's analysis showed a significant gross upward pressure effect on the pricing on the smaller party's, Teleinfo's, product.

3 The SSNIP for unilateral price increase of a hypothetical monopolist under the assumptions of linear demand function and identical margin is $SSNIP = MA,$ where $M$ and $A$ denote a margin respective an aggregate diversion ratio. The equivalent for uniform price increase is $= \frac{MA}{1-A}$ .

4 The UPP is calculated as UPP = (diversion ratio)*(margin)-(efficiencies).

5 GUPPI is calculated as GUPPI = (diversion ratio)*(margin).

## 6. Quantifying the effect of the merger: IPR

19. The measures of unilateral effects, the UPP and the GUPPI, showed whether the merger was likely to have anticompetitive effects or not, but they did not give information about the magnitude of these effects. To quantify the likely price rise following the merger of Eniro, the SCA calculated an Indicative Price Rise (IPR).

20. The IPR is a simple tool to estimate a potential price and requires a limited amount of information, namely diversion ratios and margins of the respective. However, the IPR relies upon assumptions about the curvature of demand and that third-parties do not change their pricing.

21. In order to obtain inferences about the likely price effect the SCA performed the IPR test under various assumptions about the curvature of demand and symmetry between Eniro and Teleinfo. Linear demand gives smaller price rises than constant elasticity demand and they are often taken as lower and upper bounds. [6] What realistic assumptions on the demand form depends on the characteristics of demand that each merging firm faces. In the case of Eniro/Teleinfo, separately obtained price and quantity data indicated to the SCA that even constant elasticity of demand was unlikely to overestimate the price rise. Based on the IPR indicators the SCA then concluded that the price of Teleinfo's product would increase by a substantial amount. Other evidence pointed to very high entry barriers, as well as limited price substitution between voice and online services.

22. Based on the experience in Eniro/Teleinfo, as well as other merger cases where similar analysis has been carried out, the SCA found that the results from the UPP and IPR test, when combined with other analyses that point in the same direction, provides informative evidence concerning competitive harm.

23. When the SCA announced its intention to issue a summons of application to the Stockholm City Court requesting that the transaction be prohibited, the parties decided to abandon the merger.

6 The IPR under assumptions of linear demand and symmetry in diversion ratios and margins is $\frac{\Delta p}{p} = \frac{md}{2(1-d)}$. If information about efficiencies is available, the IPR is calculated as $\frac{\Delta p}{p} = \frac{1}{2}\left(\frac{md}{1-d} - E\right)$, where E denotes efficiencies. Under the assumption of the constant elasticity demand and symmetry in in diversion ratios and margins, the IPR is calculated as $\frac{\Delta p}{p} = \frac{md}{1-m-d}$.