



Geographic Market Definition in European Commission Merger Control

A Study for DG Competition by
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Executive Summary

This report was commissioned by DG Competition with a view to evaluating the Commission's recent practice of geographic market definition in merger cases. We were asked to do this through reviewing a sample of ten recent merger cases in which geographic market definition had been a key issue.

Specifically, for these cases, we were asked to comment on:

- (a) The Commission's geographic market analysis in terms of the methodology used and the conclusions reached on the basis of the available evidence;
- (b) How the Commission incorporated constraints from outside the geographic market in its competitive assessment; and
- (c) Whether a more flexible approach to supply-side substitution could have been considered, and whether such an approach might have changed the outcome of the case.

It is important to note that the ten cases chosen for review constitute a severely, but deliberately, biased sample of the Commission's merger cases. Nine involved remedies (either at Phase I or Phase II), and in eight of these the parties argued for wider geographic market definition than the Commission in fact adopted. Perhaps unsurprisingly, given the adverse findings in these selected cases, the Commission also rejected arguments relating to constraints from outside the geographic market within its competitive assessment in the majority of the cases. The deliberate element of bias was to focus on contentious cases which might better reveal any weaknesses in the Commission's practice.

In order to gain a more rounded view of the Commission's practice, we therefore considered – across these ten cases – not only those markets for which remedies were required but also those markets in which no merger concerns were found. In some of these unproblematic markets, we found examples where the Commission did accept arguments for wider geographic markets or alternatively accepted that constraints from outside the geographic market were sufficient to eliminate any merger concerns.

The detailed results of our analysis of these ten case studies are set out in Section 5 of this Report. Although we make a number of detailed, mostly technical, recommendations for improvement in geographic market definition (see below for a summary), these proposals should be seen in the context of a broadly positive set of findings in relation to Commission practice. In particular:

- We find no evidence that the Commission's approach to geographical market definition is leading to poor merger decisions. We did not attempt to reach our own overall assessment of the various cases reviewed, but we believe the Commission's definition of geographic markets, taken together with its analysis of external competitive constraints, has broadly set an appropriate framework within which to analyse mergers.
- We find that the Commission's practice in respect of geographic market definition is generally well-evidenced and broadly in line with its own 1997 Notice on market definition. Where geographic markets are drawn relatively narrowly, we find that the Commission typically gives careful consideration to evidence of competitive constraints from outside the market.

- We find that the Commission typically draws on a wide range of evidence for its findings, rarely relying on one single piece of evidence or analysis. For several of the cases, responses to the Commission’s market investigation appear to provide the bulk of the evidence base for its decision. While such responses have the potential to be biased, due to the interests of responding parties in the success (or not) of the merger, we found no examples where the Commission seems to have been persuaded by obviously self-serving opinions.
- We find that the statistical and quantitative evidence, while valuable in several of the basic industrial goods mergers, was not the sole decisive evidence for the Commission’s decision in any case. We fully support this rounded and holistic approach to merger assessment. In those cases where we observe relatively less quantitative evidence and analysis presented, this can reasonably be explained by the Commission and parties choosing to focus their limited resources and attention on those areas of evidence and analysis that are most likely to be decisive in the competitive assessment of the merger.
- In response to the third of the questions set out above, we do not find that the Commission should take a more flexible approach to supply-side substitution in market definition. There will always be caveats around the weight that can be placed in market shares as an indicator of competitive harm. However, we believe that market shares within geographic markets that are defined on the basis of the Commission’s current Notice on market definition are likely to be more meaningful than would be shares within geographic markets which are widened – in contravention of the Commission’s Notice - on the basis of supply substitution by imports.

We do, however, find a number of areas in which we believe improvements could be made.

- i. *Greater clarity that market definition provides a useful framework for competitive analysis, but is not an end in itself*

In our view, geographic market definition should not be seen as an end in itself, but rather as providing a useful framework for the competitive analysis of the merger. It should be used to identify a geographically coherent group of customers whose purchases are competed for by suppliers located in the same geographic area (and possibly also by suppliers located at a greater distance). Where market definition is relatively clear-cut and can be drawn to include those competitors, and only those competitors, that genuinely impose a significant competitive constraint on one another, then market shares and concentration indicators can be useful indicators of the likely competitive effects of a merger. This is especially likely to be the case in homogeneous goods markets.

We would be concerned, however, if the Commission’s decision on a particular geographic market definition automatically determined a particular competitive assessment. In practice, it should not be of substantial concern if geographic markets are drawn relatively narrowly, so long as the competitive assessment fully considers the competitive discipline provided by firms located outside the geographic market. Likewise, parties that successfully argue for a wider geographic market should not expect a guaranteed merger clearance, especially if they are close competitors within this wider market.

The evidence from some of the unproblematic markets in the decisions reviewed here suggests that the Commission fully recognises this intermediate and non-decisive role of market definition. Nevertheless, parties still put substantial effort into arguing for wider

geographic markets. The apparent expectation is that a merger is less likely to give rise to concerns in a wider geographic market in which the merging parties' shares are lower. This suggests that there is at least a perception that market shares are disproportionately important in the competitive assessment, irrespective of the wider competitive context. In fact, we do find that the combined market shares of the merging parties are relatively high across all of those markets found to give rise to merger concerns in our reviewed cases. In such a context, it is perhaps hardly surprising that parties perceive that market shares, and by implication market definitions, matter disproportionately.

We conclude that greater clarity about the intermediate and non-decisive role of market definition within the merger assessment process would reduce the attention paid to this issue, allowing for a greater focus by both parties and the Commission on what really matters: the competitive assessment.

ii. Greater clarity that supply substitution by imports will not typically be accepted as an argument for widening the relevant geographic market

Under the Commission's Notice on market definition, supply substitution should be used to widen geographic markets only where most suppliers are active across geographical areas and are able to switch production across them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices.

This is consistent with the US and UK merger guidelines, which are if anything even firmer that markets should be aggregated on the basis of supply substitution only as 'a matter of convenience' and where to do so will not affect the competitive assessment of the merger.

In our view, the Notice does not envisage a situation in which the potential for imports to come into a geographic area and constrain competition would result in the geographic market being widened to include the source of such imports. Nor should it. A wider geographic market would include within it sales to foreign customers located in the same region as where the foreign suppliers are located, even though the conditions of competition facing those customers may be very different. The competitive conditions in a market are better understood by adopting a narrower market definition whilst giving fully appropriate weight to imports as a competitive constraint.

Nevertheless, we note that imports are used to argue for a wider market by the parties in several of the mergers reviewed. In none of these cases does the Commission in fact accept the argument, but the decisions do devote considerable space to assessing the evidence on this point in some detail. We also identify some wording within the cases that appears to indicate the Commission might be willing to accept the argument if the evidence was strong enough. Moreover, the Notice identifies certain evidence associated with imports as being relevant to geographic market definition.

Greater clarity about its approach would allow the Commission more easily to reassign the arguments and evidence received in this area and place them alongside other relevant evidence in the competitive assessment. This would also reduce some duplication between the market definition and competitive assessment sections of the written decisions.

iii. *Consideration to the approach of calculating capacity shares to include 'swing capacity' and 'rapid entrants' including from outside the geographic market*

While we believe the Commission is right not to widen geographic markets on the basis of supply substitution by imports, we note that the US merger guidelines propose the inclusion of both rapid (potential) entrants and more general swing capacity within the calculation of capacity market shares. This does not appear to be the practice of the Commission, at least on the basis of the cases reviewed. The Commission should give further consideration to the way it can incorporate capacity shares from outside the geographic market in its competitive assessment.

iv. *Greater willingness to define geographic markets on the basis of isochrones or isodistance frontiers*

On the basis of the cases reviewed, we observe that the Commission's geographic market definition is nearly always a Member State, or a group of Member States or wider. It is very rarely smaller than a Member State and we have not seen (and are not aware of) any examples of a cross-border but sub-Member State region. On the other hand, where transport costs are a significant determinant in constraining the size of the geographic market, we should naturally consider that markets might be defined on the basis of isochrones or isodistance frontiers.

We note that it is common practice for a National Competition Authority investigating a retail merger to draw a boundary around a merging firm's location which encloses, say, 80% of its customers, and then consider competition between firms within this boundary.

The Commission's approach may be pragmatic from a legal or process perspective, not least because firms may not hold their data in a format that would allow market shares to be calculated on an isochrone or isodistance basis. However we have concerns about it from an economic perspective, at least in those cases where isochrones more properly represent the true geographic market. We would urge the Commission to give further consideration to employing isochrones for geographic market definition, where justified.

v. *A more formal methodology for the treatment of transport costs*

Transport costs are clearly relevant in a number of the cases reviewed, and indeed are found to be important in limiting geographic market definition in several. However, the way in which transport costs are discussed and analysed differs significantly across cases. They are compared variously with average selling price, gross margin, total cost or the difference in costs between domestic suppliers and potential imports.

To a large extent these varying approaches to assessing transport costs may reflect the evidence available. However, it also seems evident that there is no agreed economic framework being used for this analysis. For example, transport costs are not compared with the 5-10% increase in price that might be used in respect of a hypothetical monopolist test. Further thinking around a suitable methodological framework may be merited in this area.

vi. *Greater care in defining separate upstream manufacturing and downstream distribution markets, and greater clarity about the role of vertical integration in geographic market definition*

Distribution systems are often national, rather than multinational, and cater for local demand idiosyncrasies and customer requirements for reliability, frequency and flexibility of delivery and payment terms. They can also be subject to economies of scale and scope and are not easily replicated. The importance of such local distribution systems is a key factor in defining geographic markets in a number of the mergers reviewed. We found two issues worth highlighting in this context.

First, the potential for substitution between upstream suppliers – and even the understanding of who these suppliers are – may be very different between end customers and distributors. We recommend that the Commission is careful, wherever possible, to consider competition at the various different levels of the supply chain separately when assessing mergers. It often does this, but not in every case. Second, the Commission could usefully be more explicit in how the extent of vertical integration fits into its assessment of geographic market definition.

Based on specific issues arising in some of the individual cases examined, we also make a small number of further recommendations in our concluding section.

1. Introduction

Market definition has long been a core element of competition policy. Market shares and concentration are the two most commonly used indicators in competition policy enforcement to establish the likelihood of anticompetitive concerns, and market definition is an essential first step before these indicators can be calculated. It is illustrative of the primary importance of market definition that the first substantive guidance on merger regulation provided by the European Commission was on market definition in its 1997 Notice.¹ The Notice remains unchanged after nearly two decades that have seen very major changes in the European and global economies and in other aspects of competition enforcement.

Since 1997, there has been considerable debate and academic research on *product* market definition, or more correctly on ways to conduct a competition analysis without having to go through the process of product market definition. This reflects a general concern, which is especially pronounced in differentiated goods markets, about drawing a strict binary (1,0) line between products that are in the market and those that are out, and then placing weight on market shares based on where this line is located. New analytical methods, which overcome the need for market definition include merger simulation and the assessment of upwards pricing pressure (UPP).

By contrast, there has been little academic focus on *geographic* market definition in recent decades. However, we should expect the spirit of the discussion around differentiated products to flow over to products which are differentiated geographically.

Despite these developments, market definition – along both the product and geographic dimensions - remains an important part of antitrust analysis, including for mergers. As is stated in the Commission's 2004 Horizontal Merger Guidelines:

“The larger the market share, the more likely a firm is to possess market power. And the larger the addition of market share, the more likely it is that a merger will lead to a significant increase in market power... Although market shares and additions of market shares only provide first indications of market power and increases in market power, they are normally important factors in the assessment” (Para 27)²

In recent years, the business community and some Member States have questioned the Commission's current geographic market definition practice from a different perspective. Rather than questioning the rationale for market definition per se, they instead criticise the Commission for defining geographic markets too narrowly and failing to take due account of increasing globalisation. In particular, they stress that in a business environment where companies operate on a global scale and compete with various rivals in different corners of the world, competition should be defined on a global level.

¹ 'Commission Notice on the definition of relevant market for the purposes of Community competition law' Official Journal C 372, 09.12.1997, p. 5.

² The US 2010 Horizontal Merger Guidelines make a similar point, although they are more circumspect about the weight that can be placed on market share figures: *“Market concentration is often one useful indicator of likely competitive effects of a merger. In evaluating market concentration, the Agencies consider both the post-merger level of market concentration and the change in concentration resulting from a merger. Market shares may not fully reflect the competitive significance of firms in the market or the impact of a merger. They are used in conjunction with other evidence of competitive effects.”* (Section 5.3)

It is partly in the light of such criticisms that DG Competition has asked us to evaluate its approach to geographic market definition, through reviewing a sample of ten recent merger cases. The sample covers a broad range of cases in the sense that it includes decisions where the Commission delineated markets globally, at the EEA level, regionally or nationally. The sample also includes both Phase I and Phase II decisions, as well as a range of different types of product. It particularly includes some basic industrial sectors for which the Commission has received most criticism regarding geographic market definition. As will be seen, some of the cases involved relatively sophisticated economic analysis as regards definition of the relevant geographic market, while in others the Commission relied mostly on qualitative evidence.

In this report, we set the scene by summarising the guidance provided by the 1997 Commission Notice (section 2). We then set out some general issues in geographic market definition which we have identified in the process of our review (section 3). Section 4 introduces the ten case studies before section 5 provides our core analytical review of geographic market definition as practiced by the European Commission. This section also examines the extent to which competitive constraints that lie outside the defined geographic market are taken into account by the Commission within its competitive assessment. Our conclusions and recommendations are contained in the above Summary and Conclusions section.

2. Guidance on Market Definition

As useful background for our analysis in this report, we summarise the key guidance around the concepts, process and evidence employed for geographic market definition provided in the 1997 “Notice on the definition of relevant market for the purposes of Community competition law” (henceforth, the Notice). We also provide a more detailed review of the guidance on the role of supply substitution in market definition and make comparisons with the US and UK guidance on this issue.

a. Concepts

The relevant geographic market is defined in the Notice by quoting from the Court of Justice in Hoffmann-La Roche:³

“The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.”
(Notice #8)

This focus on the ‘conditions of competition’ implies that market definition is about identifying various alternative sources of supply that could be chosen by customers of the merging firms if the latter tried to raise price. This is closely linked to two other concepts in market definition:

- ‘demand substitution’ relates to the position of customers to switch easily to available substitute products or to suppliers located elsewhere in response to a change in the ‘prevailing conditions of sale, such as prices’

³ ECJ judgment of 13 February 1979 in Case 85 /76, Hoffmann-La Roche [1979] ECR 461

- ‘supply substitution’ relates to the ability (and incentive⁴) of suppliers located elsewhere to switch production or supply into the relevant geographic in the short term without incurring significant additional costs or risks, in response to small and permanent changes in relative prices.

If such substitution possibilities are credible, the market can potentially be widened to include the demand or supply substitutes. The latter possibility is discussed further below.⁵

b. Process

The Notice #28 summarises how the Commission goes about geographic market definition:

“it will take a preliminary view of the scope of the geographic market on the basis of broad indications as to the distribution of market shares between the parties and their competitors, as well as a preliminary analysis of pricing and price differences at national and Community or EEA level. This initial view is used basically as a working hypothesis to focus the Commission's enquiries for the purposes of arriving at a precise geographic market definition.”

Thus, prima facie evidence of different geographic markets could be where a proposed rival has a much larger market share in its own locality while the merging parties have a larger share near their own production facilities. Similarly, if prices are set independently in different territories or if they are substantially different, this would indicate that each territory is a separate market. However, “The reasons behind any particular configuration of prices and market shares need to be explored” (Notice #28). This is because there can be alternative explanations for either similar shares or prices, or differences, other than geographic market definition. The prima facie case must be checked against demand characteristics which might impede substitutability for customers; for example, national or local preferences, current patterns of purchases by customers, product differentiation, brands, etc. The focus is on ‘whether the customers of the parties would switch their orders to companies located elsewhere in the short term and at a negligible cost.’ (Notice #29).

The Commission may also check on supply factors, including the importance of a local presence in order to access distribution channels, costs of establishing a distribution system and any barriers to trade, including regulations and other non-tariff barriers. The Notice states that transport costs and the pattern and evolution of trade flows will also be considered where appropriate.

The ‘continuing process of market integration’ is given its own paragraph (Notice #32). In particular, a “*process of market integration that would, in the short term, lead to wider geographic markets may therefore be taken into consideration when defining the geographic market*”. In the context of 1997, this is clearly a reference to the high ambitions of creating a single European market, but with the realistic proviso of ‘in the short term’.

⁴ In fact, the Notice focuses primarily on ability, not incentive. Indeed the word ‘incentive’ does not appear once within the Notice. However in our view incentives are highly relevant to a firm’s decision to switch production, and thus we include them here.

⁵ See footnote 11 below for the hypothetical monopolist test, which provides a precise economic test for what we call ‘credible’ substitution.

c. Evidence

Evidence is gathered from the parties through the notification Form CO, and - where appropriate - customers and competitors are then approached in the form of a market investigation.⁶ The questionnaires that go to customers and competitors are designed to elicit their qualitative perceptions about the relevant market. They are also typically asked a question about their likely reactions to a hypothetical price increase of say 5-10%.⁷ This latter question is designed to provide subjective insight into the hypothetical monopolist test, a standard test for market definition.⁸

The Notice (#45-50) identifies six types of evidence which provide a natural framework for our analysis in section 5 below (though we do not follow this order of presentation).

- (a) *Past evidence of diversion of orders to other areas.* This is particularly helpful if there have been changes in prices between areas that can be shown to result in customer reactions. Econometric techniques can be used for demand estimation (to estimate elasticities and cross-elasticities of demand), price correlations, statistical causality tests and tests for the similarity of price levels and/or their convergence.
- (b) *Basic demand characteristics.* These include national preferences, such as for national brands, language, culture and life style, and the need for a local presence.
- (c) *Views of customers and competitors.* They may also provide factual evidence.
- (d) *Current geographic pattern of purchases.* Similarly, there is a consideration of the location of companies that are effective in tender processes.
- (e) *Trade flows/patterns of shipments.* The Notice #49 indicates that this is less helpful than direct evidence from customers because it is open to interpretation. Data on trade may also not be available at the appropriate product level.
- (f) *Barriers and switching costs associated with the diversion of orders to companies located in other areas.* These most obviously include transport costs and transport restrictions but may also include tariffs, quotas and regulations. Transport costs are particularly important for bulky, low-value products. Switching costs may depend on product characteristics.

Finally, in markets where transport costs are substantial, the Notice (#57) highlights that there may be chains of substitution between products or areas that are not directly substitutable, in that there are products or areas between them with overlapping 'conditions of competition'. In this case a broader geographic market may be defined. This argument requires evidence if it is to be taken into account. For example, prices at the extremes of a chain of substitution should be shown to be of a similar magnitude and to be inter-dependent.

⁶ Professional associations and upstream firms may also be approached.

⁷ This is often referred to as a small but significant, non-transitory increase in price, or 'SSNIP'.

⁸ As is set out #17 of the Notice "The question to be answered is whether the parties' customers would switch to readily available substitutes or to suppliers located elsewhere in response to a hypothetical small (in the range 5 % to 10 %) but permanent relative price increase in the products and areas being considered. If substitution were enough to make the price increase unprofitable because of the resulting loss of sales, additional substitutes and areas are included in the relevant market."

d. Detailed guidance on supply substitution

The guidance on supply substitution within the Notice is of particular interest for this report, and as such is worth considering in further detail. The Notice states that:

“supply-side substitutability may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices.” (#20)

The ‘short term’ is defined as ‘a period that does not entail a significant adjustment of existing tangible and intangible assets’. The guidance goes on to state that:

“These situations typically arise when companies market a wide range of qualities or grades of one product; even if, for a given final customer or group of consumers, the different qualities are not substitutable, the different qualities will be grouped into one product market, provided that most of the Potential competition suppliers are able to offer and sell the various qualities immediately and without significant increases in costs. In such cases, the relevant product market will encompass all products that are substitutable in demand and supply, and the current sales of those products will be aggregated so as to give the total value or volume of the market. The same reasoning may lead to group different geographic areas.” (#21)

Supply substitutability is not considered if this would require additional investments, time delays or strategic decisions (Notice #23). Examples of the latter include establishing a brand, product testing or a new distribution system.

The US Guidelines are very similar in substantive terms, but the emphasis is arguably rather different. Instead of allowing for supply substitution as an element in market definition, the US guidelines in fact state explicitly that:

“Market definition focuses solely on demand substitution factors, i.e., on customers’ ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service.” (US 2010 Horizontal Merger Guidelines, Section 4, page 7)

While the US guidelines recognise that ‘the responsive actions of suppliers are also important in competitive analysis’, such responses are to be considered within the competitive assessment of the merger, not within market definition. The guidelines then go on, however, to provide for an exception to this rule:

“If this type of supply side substitution is nearly universal among the firms selling one or more of a group of products, the Agencies may use an aggregate description of markets for those products as a matter of convenience.” (US 2010 Horizontal Merger Guidelines, footnote 8, page 17)

This exception is in practice very similar to the Commission’s approach as set out in the Notice. However, it is made very clear in the US guidance that any such aggregation of markets on the basis of supply side considerations will be done only ‘as a matter of convenience’. The corollary of this is presumably that it will only be done where it makes no substantive difference to the competitive analysis.

The UK Merger Assessment Guidelines take a very similar approach to the US, but make this latter point more explicit:

“The boundaries of the relevant product market are generally determined by reference to demand-side substitution alone. However, there are circumstances where the Authorities may aggregate several narrow relevant markets into one broader one on the basis of considerations about the response of suppliers to changes in prices. They may do so when:

- *production assets can be used by firms to supply a range of different products that are not demand-side substitutes, and the firms have the ability and incentive quickly (generally within a year) to shift capacity between these different products depending on demand for each; and*
- *the same firms compete to supply these different products and the conditions of competition between the firms are the same for each product; in this case aggregating the supply of these products and analysing them as one market does not affect the Authorities’ decision on the competitive effect of the merger.*⁹ [Emphasis added]

The UK Merger Assessment Guidelines then go on to mention bidding markets as an example in which such supply substitution may be appropriate: *“Aggregating a range of contracts where the same set of firms would have been credible bidders can provide more useful information about the competitive constraints on each firm than is available from focusing on just one bespoke product.”*¹⁰

Overall, then, there is substantial consistency across the European, US and UK guidance on the use of supply substitution in market definition, but the US and UK guidelines arguably provide a slightly different emphasis and tighter conditions around its relevance for market definition.

3. General Observations on the Commission’s Approach to Geographic Market Definition

In this section, we highlight some general observations on the Commission’s approach to geographic market that we have identified through our Review.

a. Geographic market definition appears to matter more than is appropriate

Geographic market definition serves two functions. First, it facilitates an initial screen by allowing the construction of market shares. Second, and ultimately more importantly, it should reflect the economic model of competition by identifying the core players within the market, who may reasonably be expected to constrain the competitive behaviour of the merging parties.

It is inherent within the process of market definition that it draws a distinction between those producers who exert a more direct competitive constraint on merging firms (i.e. those located within the defined geographic market) and those exerting a lesser constraint (i.e. those located outside the defined market). As highlighted in the Notice (#8), the separation reflects differences in strategic response and the idea that ‘the conditions of competition are sufficiently homogeneous’ within the market, and are ‘appreciably different’ with respect to firms located outside the defined market.

⁹ UK Merger Assessment Guidelines, Para 5.2.17.

¹⁰ UK Merger Assessment Guidelines, Para 5.2.18.

As is increasingly well recognised, requiring a clear dichotomy to be drawn in this way between firms which are inside and outside of the market can be misleading. In particular, the precise geographic market definition adopted should not necessarily affect the final merger decision:

- If markets are defined relatively broadly, to include a wide set of types of supplier, then the competitive assessment should consider the merger on the basis not only of simple market shares but also how closely the merging parties compete, such that the right assessment is made in respect of the merger overall.
- Likewise, where markets might appear to be defined relatively narrowly, with strong competitive constraints from outside the market apparently given limited weight, then these constraints should be considered within the competitive assessment, such that the right assessment is again made in respect of the merger overall.

This latter point is not just a theoretical possibility. In a number of individual markets affected by the mergers we have reviewed, the Commission does draw the geographic market relatively narrowly, but then considers that competitive constraints from outside the market will be sufficient to overcome any potential merger concerns.

Nevertheless, it is clear from the mergers we have reviewed that the merging parties still put substantial effort into the market definition process. This is typically to argue for wider markets, presumably on the basis of an expectation that a merger is less likely to be found to give rise to merger concerns in a wider geographic market in which the merging parties' shares are lower. This suggests that there is at least a perception that market shares can be determinative in the competitive assessment, irrespective of the wider competitive context and Commission practice.¹¹

It is beyond the scope of this report to comment on the Commission's approach to competitive assessment in detail. We agree that, holding other conditions of competition, including external constraints, constant, market shares are highly relevant for the competitive assessment. We also note that the combined market shares of the merging parties are relatively high across all of those markets found to give rise to merger concerns in the cases reviewed.¹² These are exactly the markets that attract most attention. In such a context, it is perhaps hardly surprising that parties may not notice the high market share markets that do not raise concerns, and perceive that the Commission gives determinative weight to market shares and thus that market definition is paramount.

b. The role of imports in geographic market definition is unclear

In several of the cases reviewed, there is some discussion as to whether the relevant geographic market should be widened on the basis of supply substitution. There are two core sets of arguments for this.

- The first is where it is clear that competition occurs on a wide geographical basis, such that the same suppliers compete on a broadly similar basis in every narrower sub-area, with no evidence of price discrimination across these sub-areas.

¹¹ See #27 of the Commission's Guidelines on the Assessment of Horizontal Mergers quoted in the Introduction to this report.

¹² At least [30-40]% (in the case of external HDDs in Western Digital/Hitachi), and significantly higher in most of the other SIEC markets/cases.

- The second is where it is clear that competition effectively occurs within a particular geographic area, but where there is potential for suppliers outside of that area to sell into that area, in the form of imports, and so constrain prices.

The first of these is relatively well accepted and fits with the Commission's Notice on market definition described in Section 2 above. In this situation it seems reasonable to say that the 'conditions of competition' are broadly the same across the different areas and therefore to draw the market widely. In the mergers we have reviewed, this is the Commission's rationale for drawing wide market definitions in respect of HDDs (Western Digital/Hitachi), zinc concentrate (Glencore/Xstrata) and across the markets assessed in Alstom/Areva.

It is the second approach that is more controversial. As set out in Section 2, supply substitution of this sort is not envisaged to play a role in widening market definition across any of our reviewed guidelines. Yet the parties argue for wider markets on this basis across several of our sample mergers, and the Commission appears to consider these arguments seriously.¹³ This has the potential to be a serious concern if the geographic source of imports is brought into the market definition despite having different conditions of competition.

It is not totally clear what Commission policy is in respect of this second form of supply substitution. In our view, there is significant merit in the approach of excluding the option of widening geographic markets on grounds of supply substitution by imports, at least to the extent that weight is placed on market shares within the competitive assessment. To see why, consider the following example.

Suppose that there are two large EEA firms and one major Chinese competitor, all selling to European customers on an equal footing. Suppose also that the Chinese firm sells to Chinese customers, where it faces a different set of local rival producers and different competitive conditions. If a geographic market were defined widely to include China alongside Europe, then this would substantially reduce the market shares of the two EEA firms. However, in our view these market shares would not provide a true view of the competitive situation faced by EEA customers, because it would combine customers who purchase from largely different firms, and firms, most of which do not compete with each other. It would give a more meaningful frame for competitive analysis to define a European market, but then to include supply from the major Chinese firm into the European market when it comes to constructing market shares.¹⁴

¹³ If valid as a form of argument, it is this second form of supply substitution that we would expect parties to push for most strongly, since it is in this situation that widening the geographic market - on the basis of imports - will potentially have the greatest impact in reducing market shares.

¹⁴ There is a subtle distinction to be made between *demand substitution* by domestic customers to foreign suppliers and *supply substitution* to domestic customers by foreign suppliers. The former occurs where customers actively and successfully seek out new supplies from outside their core area. If they can easily and cost-efficiently source product from suppliers in an alternative geographic area in the face of a local price, and thus defeat such a price rise, then the geographic market might reasonably be widened. But this is on a *demand substitution* basis. Supply substitution occurs where customers effectively stay put but imports are sold into the domestic market by foreign suppliers which take a strategic decision to export into that market. While these two alternative forms of argument may appear very similar, there is a subtle difference, which the example in this paragraph can help illuminate. In the case of *demand substitution*, where customers take the lead in widening the market, we would not expect to see any difference between the various Chinese suppliers in terms of the competitive constraint they play within the EEA. As such, market shares in the wider market

In practice, the Commission rejected the second form of supply substitution argument in all of the cases reviewed here.¹⁵ That is, it did not accept any of the parties' arguments for widening geographic markets on the basis of imports to include the area which is the source of those imports (typically China or Asia).

However, it is not as clear as one might expect that this is the Commission's established policy on the issue. While the Notice is fairly straightforward on the issue and broadly consistent with the US and UK guidelines, it is clear from a variety of the cases reviewed that the Commission does consider supply substitution arguments on the basis of imports seriously within its analysis of relevant geographic markets. Moreover, in the case of Arsenal/DSP, it states explicitly:

"While it is accepted large international trade flows of benzoic acid are consistent with a hypothesis that there may be a global market for benzoic acid, the key question is whether these trade flows can discipline the EEA producers in the event of price increases." (Para 49)

Likewise, in both INEOS/Solvay and Glencore/Xstrata, the Commission considers empirical evidence on the relationship between imports and the relative prices in different geographic areas within its analysis of geographic market definition.¹⁶

This sort of wording and use of evidence suggests that, if imports were sufficient to keep EEA prices down, the Commission would be open to defining a global market. This would in turn mean that all global suppliers would be included as competitors, even if most of these global suppliers were in fact unwilling to supply EEA customers.

We were unable to conclude – on the basis of the mergers reviewed – whether the Commission has in fact ever agreed to the widening a geographic market on the basis of imports in this way. However, the available evidence suggests that it has not necessarily ruled out doing so, even though this is inconsistent with the Notice (and US and UK merger guidelines) and, as we have argued, potentially misleading.

would indeed be meaningful indicators of competition. In the case of *supply substitution*, however, it is immediately obvious that, if the other Chinese suppliers do not have the same export strategy, the market shares in the wider market will be misleading as a measure of competition. In this context, it is noteworthy that the discussion of the evidential role of 'past evidence of diversion of orders to other areas' in the Notice focuses specifically on customers' reactions to relative price differences, not those of suppliers.

¹⁵ The only exception is the case of sodium benzoate (Arsenal/DSP), for which the Commission in fact leaves market definition open, and in doing so accepts that there are relatively high levels of imports.

¹⁶ For example, in the geographic market definition section of Glencore/Xstrata, the Commission draws on evidence that *"only a minority of customers considered that imports of zinc metal would be able to mitigate or eliminate a hypothetical 5-10% increase in the EEA total zinc metal price, or that competitors outside the EEA would be able to effectively constrain an attempt by the Merged Entity to increase price post-merger"* (Para 124). Note the contrast with Outokumpu/Inoxum, in which the same type of evidence is considered primarily within the competitive assessment (albeit it is also mentioned briefly within the geographic market section).

c. *There is insufficient assessment of ‘rapid entrants’, swing capacity and capacity shares*

While neither the US nor UK guidelines allow for the widening of geographic markets on the basis of imports, both do allow for the additional inclusion within the market of ‘rapid entrants’ who would supply into the market if there was a small price incentive.¹⁷ The US is careful then to restrict the use of this concept:

“In markets for relatively homogeneous goods where a supplier’s ability to compete depends predominantly on its costs and its capacity, and not on other factors such as experience or reputation in the relevant market, a supplier with efficient idle capacity, or readily available “swing” capacity currently used in adjacent markets that can easily and profitably be shifted to serve the relevant market, may be a rapid entrant. However, idle capacity may be inefficient, and capacity used in adjacent markets may not be available, so a firm’s possession of idle or swing capacity alone does not make that firm a rapid entrant.”

This discussion indicates that the analysis of rapid entrants, and more generally the analysis of swing capacity, is more relevant for the competitive assessment of the merger than for widening the geographic market definition itself.

The US approach is to include both rapid entrants and more general swing capacity within its calculation of capacity market shares. As part of our review, we examined the ten case studies to see whether and how capacity shares were used. We found that capacity shares were presented in three cases: Outokumpu/Inoxum, INEOS/Solvay and SSAB/Rautaruukki. However, in none of these cases was potential swing capacity from imports included. Indeed, even the capacity lying outside the relevant geographic market that was *currently* being used to supply imports was not included.

In the first of the cases listed above, the Commission did carry out an econometric analysis of the supply response by imports into the relevant market. This arguably allows for greater analytical precision in the competitive assessment than a simple inclusion of swing capacity within capacity shares, although elasticities are likely to depend on capacity utilisation which can change over time. More generally, though, and especially where such econometric analysis of import supply response is not available, we consider that the Commission could usefully consider the possibility of presenting capacity shares on this basis. The best way to do this requires further work and may depend on, for example, production technology, whether imports are independent or controlled by local distributors or producers, whether independent importers are few or fragmented, and whether their European sales are considered marginal or central to their core interests. While capacity shares excluding imports may tell us something about the competitive position of the merging parties vis-à-vis other local suppliers within the narrowly defined geographic market, they do not tell us anything about the extent of competitive constraint arising from potential (or actual) imports.

¹⁷ “Firms that are not current producers in a relevant market, but that would very likely provide rapid supply responses with direct competitive impact in the event of a SSNIP, without incurring significant sunk costs, are also considered market participants.” (US Merger Guidelines, Section 5.1). The UK Merger Assessment Guidelines refer to ‘rapid entrants’ at Para 5.3.6.

d. There is duplication of evidence between market definition and competitive assessment

As will be clear from the above, we believe there is substantial merit to the approach of considering the effectiveness of imports as a competitive constraint only at the competitive assessment stage, rather than through applying the rather loose concept of supply substitution at the market definition stage.

A further argument for this approach relates to the process of analysing evidence for merger assessment. Within the current EU process, which at least appears to allow for supply substitution arguments on the basis of imports to influence geographic market definition, there is potential for duplication between the analysis of geographic market definition and the competitive assessment. In several of the cases reviewed, supply substitution arguments are considered, but rejected, at the geographic market definition stage. Whilst we do then observe new evidence being presented within the competitive assessment sections of the decision, we also observe some repetition of evidence between the market definition and competitive assessment sections, and cross-referencing between the two.¹⁸

We recognise that the Commission is required to respond to all arguments put to it by the merging parties. As such, if it receives representations in respect of supply substitution and market definition, it does need to address them. However, if the Commission were to exclude clearly the option of widening geographic market definition on the basis of import evidence, we believe it would be in a better position to dismiss any such arguments more easily, and then consider the related evidence fully within the competitive assessment.

e. Member States seem to be treated as the smallest unit of geographic market definition

European Member States vary enormously in their size, and their borders are sometimes not a good guide to economic boundaries (e.g. Maastricht is geographically closer to Bonn and Brussels than it is to Amsterdam or Rotterdam). However, we note that the Commission's geographic market definition is nearly always a Member State, or a group of Member States or wider. It is very rarely smaller than a Member State and we have not seen (and are not aware of) any examples of a cross-border but sub-Member State region.

On the other hand, it is common practice for a National Competition Authority (NCA) investigating a retail merger to use isochrones (i.e. measures of distance or travel time) to draw a boundary around a firm's location which encloses, say, 80% of its customers, and then consider competition between firms with overlapping markets. Where there is potential for firms to price discriminate across large

¹⁸ For example, in the Arsenal/DSP decision, the geographic market definition section contains 44 paragraphs (##41-84) on why US and Chinese imports do not provide a sufficient competitive constraint to justify a geographic market definition wider than EEA. Reasons given are that transport costs and tariffs are high while at the same time EEA customers have concerns over the quality of (in particular Chinese) imports. The competitive assessment section of the decision later includes 11 paragraphs (##222-232) on why Chinese imports do not provide a sufficient competitive constraint to overcome a post-merger price rise in the EEA. These refer back to the reasons given in the market definition section before going on to provide evidence that Chinese production does not have a significant cost advantage over EEA producers that might outweigh these other barriers to imports. In passing, we note that it is far from clear why this latter point is considered relevant only to the competitive assessment section if the former points are considered relevant for market definition. Our key point, however, is all of this evidence would be better presented in the competitive assessment section.

customers, isochrones can potentially also be drawn around those customers to define the set of realistic competitors for that customer's business.

We recognise that isochrones are going to be of more natural relevance in the local sub-national markets that are often the focus of NCAs. We also note that the international companies that are more usually investigated by the Commission may not hold their data in way that would allow isochrones to be calculated or market shares to be calculated within them. Member States may then provide the best available approximation in order to progress to the competitive assessment. As is discussed below, however, the Commission appears to reject the use of isochrones in the case of INEOS/Solvay, despite consistent evidence from both competitors and customers about the extent to which both S-PVC and bleach might reasonably be transported. Instead, the Commission adopted geographic boundaries which very roughly approximated the isochrones but in fact followed national boundaries.

While this may be pragmatic from a legal or process perspective, we have concerns about it from an economic perspective if isochrones more properly represent the true geographic market. That said, we understand that Commission practice in this area may already be changing, and that it has recently employed isochrones for its geographic market definition in a number of recent mergers in the cement industry.¹⁹

f. Access to local distribution can be crucial for geographic market definition

In a number of the mergers reviewed, a key factor in defining geographical markets relates to the importance of local distribution for providing customers with the reliability, frequency and flexibility of supply and payment terms that they require. This can act as a major impediment to imports acting as a substantial competitive constraint, unless they have access to local distribution themselves. In the cases of SAAB/Rautaruukki and Inoxum/Outokumpu, the Commission addressed this issue directly and carefully defined an upstream market for steel production and a downstream market for steel distribution.²⁰ Indeed, in the former case, the upstream steel production merger was cleared subject to a remedy which focussed on freeing up access to the downstream distribution network for suppliers located outside the relevant market (the Nordic cluster).

The sometimes crucial role of distribution networks raises two issues for Commission practice in geographic market definition. First, it would be useful for the Commission to be clearer about its approach to how geographic market definition can potentially be affected by barriers created by vertical integration.²¹ Second, we were not clear that every case we reviewed was so precise on distinguishing separate manufacturing and distribution markets. In particular, weight was put by the Commission on customer's responses which emphasised the need to gain their supplies locally, yet in some cases customers might not even know if product was sourced locally, only that they received

¹⁹ See Case No COMP/M.7009 *Holcim/Cemex West*, Case No COMP/ M.7054 *Cemex/Holcim Spain*, Case No COMP/M.7252 *Holcim/Lafarge* and Case No COMP/ M.7408 *Cargill/ADM*.

²⁰ The Commission has in fact been consistent in approaching steel markets in this way, distinguishing between steel distribution and steel production and defining the former markets as national. (See ECSC 1351; COMP/M. 2382 *Usinor/Aceralia/Arbed*.)

²¹ For example, while not stated explicitly by the Commission, we presume that the SAAB/Rautaruukki vertical remedy would result in the Commission defining a wider upstream geographic market, because it would enable non-Nordic producers to compete on a broadly even basis with the merged upstream firm. See Section 5.IV for further development of this point.

it from a local distributor. We would recommend that the Commission is careful, wherever possible, to consider competition at the various different levels of the supply chain separately when assessing mergers.

g. There is clear evidence of parties and the Commission prioritising their resources in respect of quantitative analysis

We have reviewed the quantitative analysis carried out in the ten case studies in terms of geographical market definition and the assessment of competitive constraints from outside the market. We observe substantial variation in terms of both the extent of quantitative analysis carried out and the statistical sophistication of that analysis. This ranges from saying nothing on prices at all (e.g. Alstom/Areva), through reliance on qualitative price evidence from the market investigation (e.g. Western Digital/Hitachi and Refresco/Pride), to more detailed and sophisticated data analysis such as correlation coefficients, stationarity tests on relative prices, and regressions of imports on relative prices.

In respect of the ten cases reviewed, we find that the more detailed data analysis is exclusively carried out for the basic industrial goods mergers. This may be partly because the data is more readily available and analysable for these broadly homogeneous products. However, we believe it is more likely to reflect the extent to which such analysis might be expected to change the Commission's decision.²² In the context of a merger inquiry, both the parties and Commission will necessarily be constrained in terms of both time and resources. As such, they should rightly allocate these scarce resources to those forms of analysis which might be expected to illuminate understanding of either the relevant market or more generally the competitive impact of the merger.²³

On this basis, we do not consider that the observed variation demonstrates any inconsistency of approach or inadequate analysis on the Commission's part.

h. We found no evidence that the Commission's approach to geographical market definition is leading to poor merger decisions.

We have not sought to try and reach our own overall assessment of the various cases reviewed. However, we have found no evidence that the Commission's approach to geographic market definition is leading to poor overall merger assessments. In fact, despite our general observations above, and a number of other more detailed comments that follow in Section 5, we believe the Commission's definition of geographic markets, taken together with its analysis of external competitive constraints, has broadly set an appropriate framework within which to analyse mergers.

²²We are aware that the Commission has also carried out detailed data analysis in a number of consumer goods markets, albeit these are out of scope for this review.

²³ We also note that the cases reviewed were decided during 2008-2014, and the data used was mostly from the few years previous to the merger proposal. The extreme macroeconomic conditions of the last ten years, with exceptional boom and bust, mean that particular care is needed to extract the truth from data from this period, given the potential for these macroeconomic conditions to be driving results. This was indeed a significant concern in the Commission's analysis of the impact of the INEOS/Kerling merger, and the Commission eventually chose not to place reliance on evidence on the effects of that merger in its competitive assessment of the INEOS/Solvay merger.

4. The Case Studies

For the purposes of this project, the Commission asked us to review ten recent merger decisions from the period 2008-2014. These are set out in Table 1 below. The ‘SIEC product markets’ are those in which the Commission found a likely ‘Significant Impediment to Effective Competition’ and therefore required remedies in order for the merger to proceed.

For each of the ten cases, we were asked to provide the minimum necessary background and then assessments of:

(a) The Commission’s geographic market analysis in terms of the methodology used and the conclusions reached on the basis of the available evidence;

(b) How the Commission incorporated constraints from outside the geographic market in its competitive assessment; and

(c) Whether a more flexible approach to supply-side substitution could have been considered, and whether such an approach might have changed the outcome of the case.²⁴

In order to best achieve the aims of this project, we adopt the approach of discussing the cases together, for the most part, rather than sequentially. At some points below, we have found it useful to divide cases into three groupings relating to the type of industrial sector, as set out in Table 2.

Table 1: Ten merger decisions selected for review: summary details

Case	Year	Case no.	Decision	SIEC product market
Alstom/Areva	2010	M5751	Phase I Clearance	N/A (Parties active in power systems and components)
Friesland/Campina	2008	M5046	Phase II – Art 8(2) Divestments	Several (all dairy products)
Arsenal/DSP	2009	M5153		Solid benzoic acid ²⁵
Western Digital/Hitachi	2011	M6203		Hard Disc Drives
Outokumpu/Inoxum	2012	M6471		Cold-rolled stainless steel
INEOS/Solvay	2014	M6905		S-PVC and bleach
Glencore/Xstrata	2012	M6541	Phase I – Art 6(2) Commitments	Zinc metal
Refresco/Pride Foods	2013	M6924		Bottling of Non-Carbonated Soft Drinks (NCSDs) in Aseptic PET
SSAB/Rautaruukki	2014	M7155		Flat carbon steel, and its distribution
Chiquita/Fyffes	2014	M7220		Bananas

²⁴ The Commission asked us to note that in some of the cases in the sample imports and potential entry might have been considered in the definition of the relevant geographic market, instead of only at the stage of the competitive assessment, which is what the Notice suggests.

²⁵ For simplicity, we refer hereafter to solid benzoic acid simply as benzoic acid. Benzoic acid also comes in liquid form, but no SIEC was found for liquid benzoic acid, as the parties did not overlap for this product.

Table 2: Ten case studies: grouped by type of industrial sector

Grocery-related products	Technological products	Basic industrial goods
Friesland/Campina (2008) - Dairy products	Alstom/Areva (2010) - Power systems and components	Arsenal/DSP (2009) - Benzoic acid and sodium benzoate
Refresco/Pride Foods (2013) - Bottling of non-carbonated soft drinks	Western Digital/ Hitachi (2011) - Hard disc drives (HDDs) and external HDDs	Glencore/Xstrata (2012) - Zinc metal and zinc concentrate
Chiquita/Fyffes (2014) - Bananas		Outokumpu/Inoxum (2012) - Cold-rolled stainless steel
		SSAB/Rautaruukki (2014) - Flat carbon steel (and its distribution)
		INEOS/Solvay (2014) - S-PVC and bleach

We adopt these groupings because it turns out that the analytical approach taken differs significantly across them. Without carrying out a wider project, however, we are not in a position to conclude whether this will always be the case, or whether it just happens to be the case for these ten case studies.

We provide general comments on the selection of case studies, before turning to the analytical approach adopted in these decisions.

a. General comment on the selection of case studies

In selecting these case studies, we understand that the Commission thought carefully about which recent cases had attracted particular attention in respect of geographic market definition or the extent of competitive constraints from outside the geographic market. The Commission also sought to provide a set of cases in which a variety of different geographic market definitions were adopted and across a range of different types of industry.

As such, in considering these cases, we have been alert to the fact that this is in no way a random sample of the Commission’s merger decisions. Indeed, in nine out of the ten cases, clearance was subject to significant remedies, with only one of the cases an unconditional clearance.

This point is important. As discussed above, a key concern highlighted by external parties is that the Commission fails to consider markets as sufficiently wide, and then fails to give sufficient weight to competitive constraints from outside the market. This self-selected sample of cases inherently fails to include many examples of non-SIEC cases in which the Commission might have drawn the market widely or, if not, might have accepted constraints from outside the relevant market as sufficient. As

such, it effectively provides a particularly strong and severe test of the Commission's decision-making, at least in relation to whether markets are defined too narrowly.

b. Preliminary review of findings in the ten case studies

Table 3 below shows the market definition adopted by the Commission for those markets in which remedies were required, as well as what the parties argued, and also the findings on the extent of constraints from outside the geographic market. The focus is on those products for which SIECs were found. Alstom/Areva (which was an unconditional Phase I clearance) is included in Table 4 instead.

The first key point to note from Table 3 is that, for the vast majority of the SIEC findings, the parties argued for a wider geographic market than the Commission adopted. There are only two noteworthy exceptions.

- In the case of the procurement and collection of conventional raw milk in Friesland/Campina, the parties in fact argued for narrower geographic market definitions, on the basis that the parties had non-overlapping regional networks of milk suppliers and thus did not compete head to head. The Commission rejected this narrower regional market definition in favour of a national market definition, primarily on the basis that other competitors were active, and priced identically, across the purported geographic market boundaries.
- In Outokumpu/Inoxum, the parties seem to have appreciated that there might be more to be gained by accepting an EEA-wide market definition and focussing their arguments around whether competitive constraints from outside the market were sufficient to avoid an SIEC.

It should also be highlighted that, while parties typically argued for a wider market definition, they didn't always put substantial work into trying to demonstrate this. As such, in at least some of these cases, it can be presumed that the parties didn't really expect to win on the point but felt there was nothing to be lost by arguing it.

A second key point to note from Table 3 is that, for the vast majority of SIEC findings, the Commission also concluded that competitive constraints from outside its chosen geographic markets were insufficient, despite the parties arguing otherwise.

The only noteworthy exception here is Chiquita/Fyffes, where the Commission did accept that buyers of bananas would be able to foster entry from outside their national territory. The Commission's residual SIEC concern in this case related to the possibility that the parties' 'accrued market influence' due to merger might enable them to place exclusivity restrictions upon upstream banana shippers, thus limiting such national entry. The Commission cleared the merger subject to a remedy that addressed this point.

Table 3: Findings on geographic market definition and competitive constraints from outside²⁶

Case	Key products	Commission decision	Parties argued	Constraints from outside as decided by Commission
Friesland/Campina	Several dairy products ²⁷	National	Wider ²⁸	Insufficient
Refresco/Pride Foods	Bottling of NCSDs in Aseptic PET	National	Wider	Insufficient
Chiquita/Fyffes	Bananas	National	Wider	Sufficient (SIEC related to specific issue of buyer power with shippers)
Western Digital/Hitachi	Hard Disc Drives	Global	N/A	N/A (SIEC found on global basis)
	External Hard Disk Drives	EEA	Wider	Not discussed (potential SIEC solved by remedies for global HDD market)
Arsenal/DSP	Benzoic acid	EEA	Wider	Insufficient
Glencore/Xstrata	Zinc metal	EEA	Wider	Insufficient
Outokumpu/Inoxum	Cold-rolled stainless steel	EEA	Same	Insufficient
SSAB/Rautaruukki	Flat carbon steel	Nordic cluster	Wider	Insufficient
	Distribution of FCS	National	Wider	Insufficient
INEOS/Solvay	S-PVC	NW Europe	Wider	Insufficient
	Bleach	Benelux	Wider	Insufficient

²⁶ It should be noted that, for those cases resolved in Phase I, the Commission does not always reach a final view on geographic market definition, but rather frames its conclusions in terms of there being “at least a serious possibility that the market is [...]”. However, it is not fully consistent in this respect, since in Chiquita/Fyffes and Refresco/Pride Foods it does appear to reach a firm conclusion (on a national market definition).

²⁷ Specifically, in respect of the Netherlands market: basic dairy products (fresh milk, fresh buttermilk, and plain yoghurt), Dutch-type nature cheese, value-added yogurt and quark in the Netherlands supplied to the Out Of Home (OOH) segment, fresh custard and porridge. Since much of the evidence adduced in respect of these different markets is similar, we analyse them together below, but highlight where specific markets involved specific pieces of evidence. In addition, but not analysed further here, SIECs are found for branded non-health fresh flavoured dairy drinks in the Netherlands and in various national long-life flavoured dairy drinks markets.

²⁸ An interesting exception is the market for the procurement and collection of conventional raw milk, discussed in the text. We do not analyse this element of the case further below, but instead focus on those markets for which the parties argued for wider markets. Note also that the parties do accept that that the market for porridge may be national.

As discussed above, these findings should be viewed through a lens that recognises how these cases were selected, and in particular the focus on choosing cases that gave rise to SIEC findings. In order to consider this point further, we also reviewed a selection²⁹ of the product markets in those cases in which competitive constraints across geographical areas were at issue, but SIECs were *not* found. These are set out in Table 4 below.

Combined with the findings in Chiquita-Fyffes, described above, these potentially provide evidence in support of the view that the Commission will accept the parties' arguments for wider geographic markets, and/or for sufficient competitive constraints from outside the market, where this is empirically justified.

It is also worth highlighting some differences between our three industrial sector groupings, bearing in mind of course that this is a highly selective set of cases and thus all such differences may or not be significant:

- The Commission draws markets narrowly – at the national level - in the case of the grocery-related products decisions. This finding broadly reflects the fact that consumers have localised demand preferences as well as the fact that most grocery retailers purchase on a national basis. (The exceptions here are long-life milk and butter, for which wider geographic markets are accepted. This is on the basis that these products are relatively homogeneous and easily transportable.)
- The Commission appears relatively more willing to accept wider market definitions in those technological products markets where negotiations with suppliers occur on a global level (such as for Hard Disk Drives) or where products are sold through large, lumpy tenders, for which potential bidders are geographically dispersed (such as for the markets analysed in Alstom-Areva).
- For the basic industrial goods analysed in the last five cases in Table 3, the parties' arguments around geographic market definition are primarily framed in terms of the role of trade/imports across boundaries.³⁰ Where the Commission considers these to be no better than an imperfect constraint on firms located in the EEA, or on firms in a region within the EEA, it defines a relatively narrow market and finds a SIEC. By contrast, where sales are truly arranged on a global level, such as for zinc concentrate, the Commission accepts a worldwide (or close to worldwide) market definition.

²⁹ A number of these cases in fact involved a wide range of non-SIEC markets. We have focussed on a selection that seemed to us to provide helpful additional evidence.

³⁰ In the case of INEOS/Solvay, the parties also make a 'chain of substitution' argument in favour of a wider geographic market. This is the only example of such an argument being made across the ten case studies.

Table 4: Geographic market definition and finding on competitive constraints in a selection of non-SIEC product markets

Case	Key products	Commission decision	Parties argued	Constraints from outside as decided by EC
Friesland/Campina	Organic milk	National	Same	Sufficient
	Long-life milk and packet butter	Netherlands, Belgium and Germany	Same	N/A. No concerns on wider geographic market
	Bulk butter	EEA-wide	Same	N/A. No concerns on wider geographic market
Refresco/Pride Foods	Bottling of NCSDs in cartons	National	Wider	Sufficient
Alstom/Areva <i>(NB No SIEC found for this merger)</i>	Various power systems and components	Left open, but at least EEA	Broadly same (EEA or Global)	<i>If markets drawn narrowly, then yes, constraints from outside found sufficient</i>
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	Wider	<i>If market EEA-wide then constraints from outside EEA found sufficient</i>
Glencore/Xstrata	Zinc concentrate	Either worldwide or WW excluding intra-China sales	Same	N/A. No concerns on wider geographic market

5. Analysis of the Case Studies

In this section, we examine the analysis of geographic market definition carried out by the Commission in these various cases, with a particular focus on those key products for which SIEC findings were reached, but also drawing on the selection of non-SIEC markets listed in Table 4 above. We also consider the Commission's assessment of competitive constraints from outside the relevant geographic market.

We start by looking in turn at each of the six core types of potential evidence set out as relevant in the Notice on Market Definition (see Section 2 above).³¹

a. Current geographic pattern of purchases

There is a clear link between the concept of 'current geographic pattern of purchases' and that of 'conditions of competition', as referred to in Hoffman/La Roche. Where shares of supply are similar across geographical areas, or (for lumpy bids) where the same players are typically engaged in competing for business, then we might expect conditions of competition to be sufficiently similar to justify including the areas in the same geographic market.

Evidence on this point was examined in all of the cases we reviewed, and is presented in Table 5 (SIEC markets) and Table 6 (non-SIEC markets) below. These tables suggest that geographic pattern of purchases plays a fundamental role in geographic market definition, given that in almost all cases the evidence on this point is congruent with the Commission's final conclusions.

The only exceptions to this pattern relate to three non-SIEC markets:

- For packet butter, in Friesland/Campina, the Commission accepts a market definition that is wider than national, despite the fact that sales are predominantly made on a national level. This appears to be on the basis of the response to the market investigation, in which almost all customers stated that they *would* source from neighbouring Member States, should the price increase by 5-10% in their home market.³²
- For sodium benzoate, in Arsenal/DSP, the Commission leaves the market definition open despite the finding that the EEA market is primarily served by EEA producers. This suggests that the Commission believes a relatively high level of Chinese imports *could* be evidence for a wider market in this case. (See further below).
- For zinc concentrate in Glencore/Xstrata, the Commission also leaves the market open despite the finding that most Chinese production is used within China and not exported. This again suggests that the Commission believes the high level of Chinese exports *could* justify including China within the market, despite the distinct pattern of purchases within China.

³¹ We have, however, reordered these, to enable us to set out our key findings more effectively.

³² It is noteworthy that the Commission incorporates this evidence within market definition for packet butter when it uses similar evidence within Chiquita/Fyffes only within the competitive assessment section, having previously concluded that markets are national. It is not entirely clear that these two approaches are consistent, although it is possible that they could be if there are clear differences between the two cases in terms of the speed and cost involved in sourcing from outside the home market.

Table 5: Evidence on geographic pattern of purchases: SIEC markets

Case	Key products	Commission decision	Evidence on geographic pattern of purchases
Friesland/ Campina	Several dairy products	National	Substantial variation in market shares across Member States
Refresco/ Pride Foods	Bottling of NCSs in Aseptic PET	National	Substantial variation in market shares across Member States. Most supply is within 500km of plant. Tenders usually following national boundaries, with most retailers active in max. 1-2 countries. Little systematic cross-border bidding and local bottler usually wins
Chiquita/ Fyffes	Bananas	National	Substantial variation in market shares across Member States. Several smaller suppliers are present primarily in their own country
Western Digital/ Hitachi	Hard Disc Drives	Global	Sales prices negotiated on a worldwide basis and do not differ by shipment destination
	External HDDs	EEA	Significant differences in market shares across different regions of world
Arsenal/DSP	Benzoic acid	EEA	EEA customers primarily buy from EEA suppliers
Glencore/ Xstrata	Zinc metal	EEA	Clear majority of EEA customers purchase at EEA, or even national, level, close to their own facilities
Outokumpu/ Inoxum	Cold-rolled stainless steel	EEA	EEA customers primarily buy from EEA suppliers. Even where they do buy from non-EEA suppliers, they do this via EEA distributors
SSAB/ Rautaruukki	Flat carbon steel	Nordic cluster	Parties have very heavy focus on Nordic cluster, with supplier shares very different in rest of EEA
	Distribution of FCS	National	Distribution centres locally focussed and each country has different pattern of supply
INEOS/Solvay	S-PVC	NW Europe	NWE customers primarily buy from NWE suppliers. Suppliers located outside NW Europe have very little presence. ³³
	Bleach	Benelux	Customers buy very locally, typically within 300km

³³ In fact, shares also vary significantly across national boundaries. For example, the merging parties have an [80-90]% market share in the UK, but just [40-50]% in Germany. However, the Commission does not appear to give serious consideration to the possibility of national relevant geographic markets for S-PVC.

Table 6: Evidence on geographic pattern of purchases: non-SIEC product markets

Case	Key products	Commission decision	Evidence on geographic pattern of purchases
Friesland/ Campina	Organic milk	National	National markets mostly supplied by local producers
	Long-life milk and packet butter	Netherlands, Belgium and Germany	For long-life milk: Significant penetration of the Netherlands market by Belgian and German suppliers For packet butter: Currently national markets mostly supplied by local producers
	Bulk butter	EEA-wide	Sourcing patterns do not differ across EEA
Refresco/ Pride Foods	Bottling of NCSDs in cartons	National	Evidence as for aseptic PET (see above)
Alstom/Areva	Various power systems and components	Left open, but at least EEA	While market shares differ significantly across Member States, this is due to lumpy projects. Competing bidders lie across EEA and potentially worldwide
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	EEA market primarily served by EEA producers <i>but</i> , relative to benzoic acid, import levels from China higher (30-35%).
Glencore/ Xstrata	Zinc concentrate	Worldwide or WW excl. intra-China	Purchases and sales typically organised at worldwide level. However, most Chinese production used within China and not exported.

b. Basic demand characteristics

A second important form of evidence for geographic market definition identified in the Notice is basic demand characteristics. These can include national preferences, such as for national brands, language, culture and life style, and the need for a local presence. It is immediately obvious that there are some similarities here to product market definition.

Evidence on this point within the cases reviewed is presented in Table 7 (SIEC markets) and Table 8 (non-SIEC markets) below.

Table 7: Evidence on basic demand characteristics: SIEC markets

Case	Key products	Commission decision	Evidence on basic demand characteristics
Friesland/ Campina	Several dairy products	National	Strong consumer preference for Dutch origin products. For some products, freshness is important, which is hard for imports. For value-added yoghurt and quark, OOH customers also value timely, flexible delivery of local suppliers.
Refresco/ Pride Foods	Bottling of NCSs in Aseptic PET	National	Consumer preferences differ across Member States in regard to preference for aseptic PET versus carton (but not within each)
Chiquita/ Fyffes	Bananas	National	Differences in preferences, e.g. in terms of size, quality, origin, brand, package size and certification
Western Digital/ Hitachi	Hard Disc Drives	Global	Global standards and specifications. No regional differences.
	External HDDs	EEA	End-customer preferences and consumer habits differ significantly across regions. Also differences in the marketing and sales channels used.
Arsenal/DSP	Benzoic acid	EEA	Quality is a major concern, and Chinese imports seen as poor. Frequency and reliability of supply also a concern in respect of Chinese imports.
Glencore/ Xstrata	Zinc metal	EEA	For imports, customers highlighted importance of flexible supply, including costs involved in adjusting product to required specifications and quality standards. These favour local supply, as do concerns on security of supply and shipment times.
Outokumpu/ Inoxum	Cold-rolled stainless steel	EEA	Majority of customers do not consider imports a satisfactory alternative due to lead time, quality, payment conditions and product range
SSAB/ Rautaruukki	Flat carbon steel	Nordic cluster	Local supply network crucial for reliable, timely, and flexible supply.
	Distribution of FCS	National	Customers value reliable, timely and flexible supply that their local (national) distributors can provide
INEOS/Solvay	S-PVC	NW Europe	Limited focus, but mention of need for reliable, timely and flexible supply, plus technical support, for which local operations helps. Also concerns about lower quality, payment options, and weak financial position of some non-NWE suppliers.
	Bleach	Benelux	Complexity of logistics and product degradation exponentially increase if shipped above 300 km

Table 8: Evidence on basic demand characteristics, non-SIEC product markets.

Case	Key products	Commission decision	Evidence on basic demand characteristics
Friesland/ Campina	Organic milk	National	No national preferences with regard to origin.
	Long-life milk and packet butter	Netherlands, Belgium and Germany	Long-life milk is a largely homogeneous product, and there are no national preferences with regard to origin. [No discussion for packet butter].
	Bulk butter	EEA-wide	No national preferences with regard to origin.
Refresco/ Pride Foods	Bottling of NCSs in cartons	National	See above – as for aseptic PET.
Alstom/Areva	Various power systems and components	Left open, but at least EEA	Reputation and track record of suppliers more important than geographic location. Various EU packages of legislation and initiatives that have encouraged interoperability of rail networks.
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	Quality of Chinese imports is seen as a concern, but less so than for benzoic acid. Frequency and reliability of supply also a concern.
Glencore/ Xstrata	Zinc concentrate	Worldwide or WW excl. intra-China	Not discussed explicitly, but zinc concentrate appears to be a totally homogeneous product.

A number of points are worth drawing out from these tables:

- It would appear that *horizontal* differentiation in preferences tends to be more important in the grocery-related products cases reviewed here and can have a geographical dimension, either because consumers simply have differing preferences (as for bananas in Chiquita/Fyffes) or because they prefer a product that is local in origin (as in Friesland/Campina). That said, there are also a number of grocery-related products over which there is no significant differentiation and/or no material differences across national preferences. Vertical quality concerns (for example around freshness) can also be relevant.
- For the basic industrial goods, *vertical* quality concerns (especially around quality of imports) are more relevant. These concerns relate both to a product's innate quality, and to various service aspects of supply such as flexibility, timeliness, reliability and payment conditions. Local production and/or distribution can be important for these latter aspects, and this can play a key role in limiting long-distance imports to playing a fringe role in the market rather than acting as a core source of supply.
- In Western Digital/Hitachi, the evidence on end-customer preferences and purchasing habits seems to underpin the difference in market definitions adopted for HDDs and external

HDDs. The former are essentially homogeneous, but the latter vary significantly. There are also different marketing and sales channels used in different regions.

- While the products at stake in the Alstom/Areva merger are highly bespoke to specific tender requirements, there is little geographical differentiation in terms of the suppliers that can potentially provide these products. Reputation and track record are considered to matter far more than location.

c. Trade flows/patterns of shipments

There is a clear link between ‘trade flows/patterns of shipments’ and the ‘geographic pattern of purchases’ discussed above. Indeed the Notice itself frames them as alternatives: *“When the number of customers is so large that it is not possible to obtain through them a clear picture of geographic purchasing patterns, information on trade flows might be used alternatively, provided that the trade statistics are available with a sufficient degree of detail for the relevant products.”* (Notice #49)

Given the importance of the discussion around the role of imports in some of these cases, however, we have chosen to set out the evidence on imports separately and in addition. This is done in Table 9 (SIEC markets) and Table 10 (non-SIEC markets) below. We see immediately that trade flows appear to be given limited consideration in the grocery-related products cases reviewed, other than noting that such trade flows are limited,³⁴ but are given substantially more attention in the basic industrial goods mergers.

That said, and despite the attention that imports are given within these cases, we note that the Commission does not, in any of the markets reviewed here, reach a wider market definition on the basis of imports. This raises an interesting question. Would high levels of imports ever be sufficient to widen the geographic market? The non-SIEC case of sodium benzoate (Arsenal/DSP) is interesting in this context. The Commission notes that Chinese imports into the EEA are relatively high at [30-35]% and have been growing. Given its competitive assessment, the Commission does not need to reach a firm conclusion on geographic market definition, but it does make the following statement in respect of the relatively high level of Chinese imports:

“While this is consistent with the hypothesis that the market for sodium benzoate may be wider than the EEA, it does not rule out that the Chinese competitors are only pricing to the market (that is to say, that the Chinese competitors follow the price increases of the EEA competitors rather than put downward price pressures on the EEA competitors). Thus, the evidence of the increased market share over time must be interpreted in combination with the pricing evidence.” (Arsenal/DSP, #111)

In terms of the overall merger assessment, this is in our view a sensible approach. The strategic behaviour of EEA firms may be qualitatively different to that of Chinese firms selling into the EEA, with the latter acting passively, for example as a ‘competitive fringe’ with an upward sloping supply curve, leaving EEA firms with potential market power. It is the elasticity of imports that matters for the analysis of competition, not the level.

³⁴ In Chiquita/Fyffes, the Commission did examine the trade flows of bananas into Northern Europe, and indeed these were relevant for its SIEC finding in respect of the risk of the merged party engaging in exclusive arrangements with banana shippers. However, in terms of geographic market definition, it found limited potential for arbitrage between Member States, following the initial shipping process, from which it concluded that markets for the supply of bananas were national.

However, the quote does suggest that, if imports were genuinely sufficient to constrain prices, then the Commission would consider it appropriate to widen the geographic market to include China. Drawing on the discussion in Section 3, we would argue, against this approach, that any such arguments are best considered within the competitive assessment of the merger, rather than when defining geographic markets.

Finally, we note that, even where imports are relatively high, the merging parties may themselves have substantial control over these imports, as for zinc metal in Glencore/Xstrata, for example.

Table 9: Evidence on trade flows: SIEC markets

Case	Key products	Commission decision	Evidence on trade flows
Friesland/ Campina	Several dairy products	National	Imports very low and primarily to hard discounters.
Refresco/ Pride Foods	Bottling of NCSs in Aseptic PET	National	Rarely more than 500km from supplier to customer
Chiquita/ Fyffes	Bananas	National	All bananas imported, but no significant trade between states after import.
Western Digital/ Hitachi	Hard Disc Drives	Global	All HDDs imported from Asia
	External HDDs	EEA	---
Arsenal/DSP	Benzoic acid	EEA	Low and steady imports from China (1%). Low and decreasing imports from US.
Glencore/ Xstrata	Zinc metal	EEA	Majority of customers do not import from outside EEA at all. Imports consistent at 14-20% (and around half of these due to Glencore itself).
Outokumpu/ Inoxum	Cold-rolled stainless steel	EEA	Not mentioned in market definition section, but imports into EEA are quite high: [20-30]% of market.
SSAB/ Rautaruukki	Flat carbon steel	Nordic cluster	Imports from rest of EEA into Nordic cluster low: [10-20]% for Hot Rolled (HR) steel and [20-30]% for Cold Rolled (CR) steel and Organic Coated (OC). Imports falling for HR/CR. Rising for OC but mainly due to integrated within-firm imports into Sweden.
	Distribution of FCS	National	---
INEOS/Solvay	S-PVC	NW Europe	Flows from NW Europe into rest of Europe, but not vice versa
	Bleach	Benelux	Very little product transported further than 300km.

Table 10: Evidence on trade flows: non-SIEC product markets.

Case	Key products	Commission decision	Evidence on trade flows
Friesland/ Campina	Organic milk	National	No current imports
	Long-life milk and packet butter	Netherlands, Belgium and Germany	Long-life milk: Several Belgian and German producers already supply Netherlands, and even the merging parties supply Dutch customers from their production facilities in Belgium or Germany. Packet butter: No current imports
	Bulk butter	EEA-wide	Approximately half of the customers participating in the market investigation source from EEA Member States other than Belgium, the Netherlands and Germany, or have indicated that they consider the market to be EEA.
Refresco/ Pride Foods	Bottling of NCSs in cartons	National	Rarely more than 500km from supplier to customer
Alstom/Areva	Various power systems and components	Left open, but at least EEA	---
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	Chinese imports account for [30-35]% of EEA sales, and this share has been growing over time
Glencore/ Xstrata	Zinc concentrate	Worldwide or WW excl. intra-China	No info given on imports (but recall that purchases and sales of zinc concentrate are organized at the worldwide level – see above).

d. Barriers and switching costs associated with the diversion of orders to companies located in other areas

The Notice highlights that a lack (or low level) of trade across geographic boundaries does not necessarily mean that a market should be defined narrowly if there are no barriers to prevent such trade occurring if prices were to rise. As such, it is useful to consider the extent of any such barriers. Evidence in respect of the cases reviewed is presented in Table 11 (SIEC markets) and Table 12 (non-SIEC markets) below.

Table 11: Evidence on barriers and switching costs for importing: SIEC markets

Case	Key products	Commission decision	Evidence on barriers and switching costs for importing
Friesland/ Campina	Several dairy products	National	Shipments over longer distances would impact freshness. Supply-substitution also limited by need for a local logistics network and specific local retailer requirements. Transport costs mentioned as barrier to imports for value added yoghurt and quark to OOH customers.
Refresco/ Pride Foods	Bottling of NCSs in Aseptic PET	National	Transport costs are an important barrier to intra-EEA exports and provide a significant competitive advantage for local suppliers. Competitors confirmed that they supply within the country of production or within 500km from the plant. There is a benefit to be gained from having more than one plant within a single Member State.
Chiquita/ Fyffes	Bananas	National	The perishable nature of bananas, which cannot be stored for long periods, greatly limits scope for cross-border arbitrage, as do need for local logistics network and access to ripening facilities.
Western Digital/ Hitachi	Hard Disc Drives	Global	Transport costs do not play a significant role and there are no significant barriers to trade.
	External HDDs	EEA	---
Arsenal/DSP	Benzoic acid	EEA	The parties have a competitive advantage within the EEA, in relation to transportation and tariffs, of around 10-15% of average selling price, relative to their Chinese and US competitors. This exceeds any cost advantage these competitors may have.
Glencore/ Xstrata	Zinc metal	EEA	Total transport costs (including import duties of 2.5%) represent a significant portion of gross refining margin realised by zinc metal smelters.
Outokumpu/ Inoxum	Cold-rolled stainless steel	EEA	Transport costs from Asia to EEA are lower than price differences frequently observed between EEA and Asia, so do <i>not</i> explain lack price convergence.
SSAB/ Rautaruukki	Flat carbon steel	Nordic cluster	Transport costs from continental Europe account for approx. 10% of final prices and constrain imports from EEA. Most important barrier, though, is access to local distribution networks.
	Distribution of FCS	National	Local distributors have lower transport costs.

INEOS/Solvay	S-PVC	NW Europe	Transport costs are important, and strongly favour local supply where available. Also important are issues around logistics, security and flexibility of supply and technical service, which are difficult to deliver from a long distance.
	Bleach	Benelux	The limited stability, high water content and corrosiveness of the product limit the distance it can be transported to around 300km. There are no relevant trade barriers across Member States.

Table 12: Evidence on barriers and switching costs for importing: non-SIEC product markets.

Case	Key products	Commission decision	Evidence on barriers and switching costs for importing
Friesland/ Campina	Organic milk	National	---
	Long-life milk and packet butter	Netherlands, Belgium and Germany	Long-life milk is not a perishable product and can be shipped in an ambient environment, which facilitates transport across Member States.
	Bulk butter	EEA-wide	Transport costs not considered to be a significant issue by suppliers.
Refresco/ Pride Foods	Bottling of NCSs in cartons	National	See above – as for aseptic PET
Alstom/Areva <i>(NB No SIEC found for this merger)</i>	Various power systems and components	Left open, but at least EEA	No significant barriers. Many of the downstream markets are characterised by infrequent large orders, with major EEA players (and in some cases global players) participating in tenders. For the upstream markets, there are few trade barriers, technical standards or customer certification issues. Transport costs are low relative to products' overall value.
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	As for benzoic acid, the parties have a competitive advantage within the EEA, in relation to transportation and tariffs, of around 10-15% of average selling price, relative to their Chinese and US competitors. In this case, however, the parties argue that this is less than the cost advantage of Chinese competitors.
Glencore/ Xstrata	Zinc concentrate	Worldwide or WW excl. intra-China	Transport costs do not represent a significant proportion of the total cost of zinc concentrate.

Transport costs are clearly relevant in a number of the cases reviewed, and indeed are found to be important in limiting geographic market definition in several. It is noteworthy, however, that the way in which transport costs are discussed and analysed appears to vary across cases. In some, transport costs are not quantified at all, but rather highlighted within the market investigation as important barriers to imports or as generating an important competitive advantage for local suppliers. In others, transport costs are quantified, but then might be set against average selling³⁵ price, gross margin, total cost or the difference in costs between domestic suppliers and potential imports.

These varying approaches to assessing transport costs primarily appear to reflect the evidence available. However, it also seems evident that there is no agreed economic framework being used for this analysis. For example, transport costs are not compared with the 5-10% increase in price that might be used in respect of a hypothetical monopolist test. Further thinking around a suitable methodological framework may be merited in this area.

A particular form of transport costs that arises in some of these cases relates to product degradation with travel over longer distances. This is true for fresh dairy products in Friesland/Campina, bananas in Chiquita/Fyffes and bleach in INEOS/Solvay.

The tables below highlight the importance of local distribution systems, particularly for the basic industrial goods mergers. To some extent this is the corollary of the demand-side preferences discussed above: customers who want timely, reliable, and flexible supply typically value local distribution. This in turn means that suppliers without access to such local distribution systems will not be able to compete effectively. The case of SSAB/Rautaruukki is illuminating here. In this case, the Commission defined distinct national markets for the distribution of flat carbon steel. In the Nordic countries, these were vertically integrated with the merging parties' steel production. The Commission concluded that that access to distribution was so important for entry into the Nordic cluster that the remedy required for clearance was that the merged party should divest a self-standing distribution network, which could in turn foster entry into the Nordic cluster by alternative upstream steel producers.

In a previous carbon steel merger (Mittal/Arcelor; M.4137) the Commission had found that the market was EEA-wide and the idea of a Nordic cluster did not arise. In SSAB/Rautaruukki, these two Nordic suppliers were also vertically integrated across the Nordic countries (and were the major Nordic producers). As a Phase I clearance with commitments, no formal market definition needed to be adopted, but the Commission argued that there is at least a serious possibility that the geographic scope of carbon steel flat product markets is not wider than the Nordic countries (i.e. Finland, Sweden and Norway). This raises an interesting issue. The spirit of the Commission's findings seems to be that distribution is national, carbon steel is EEA-wide, and vertical integration by the parties was across the Nordic countries. If the agreed remedy works by introducing competition by non-Nordic suppliers, what is the post-remedy market for carbon steel? Presumably it is EEA-wide, with the Nordic cluster market for carbon steel having resulted entirely from the specific pattern of vertical integration that was in place pre-merger. This raises the question of whether upstream market definition should depend on vertical integration in this way, which also makes it dependent on the identity of the merging parties. The real competition problem was in the

³⁵ The exception is Outokumpu/Inoxum, for which transport costs are found to be lower than the price differences typically observed between EEA and Asia and are thus viewed as insufficient to explain the continued existence of such price divergence.

distribution market, which would have been monopolised by the merger. The Commission understood the competition issues and agreed the appropriate remedy. Arguably, it did not have to (temporarily) redefine the geographic dimension of the carbon steel market to get there.

A final point to highlight is that geographic markets defined on the basis of transport costs do not necessarily lend themselves to Member State national boundaries. An interesting case in this context is the bleach market analysed in INEOS/Solvay. The Commission makes the following statement:

“[...] the Commission considers that a supply radius of 300 km is an appropriate dimension to assess the market for sodium hypochlorite. This distance therefore covers a Benelux region which includes Belgium, the Netherlands and Luxembourg.”

The Commission concludes that the relevant market is Benelux, but this seems to us to involve a slight leap of logic. We note that the bleach market was not the core focus in the INEOS/Solvay merger, and that the precise geographic market chosen may not have affected the Commission’s competitive assessment.³⁶ Nevertheless, it is not clear why the Commission switches from a 300km radius market to a Benelux market, given that there appear to be no relevant cross-border trade barriers. One possible rationale is that, notably due to data availability, the Commission has a preference for defining geographic markets as Member States or sets of Member States rather than on the basis of isodistance or isochrone analysis.³⁷

e. Price-related evidence: qualitative, statistical and economic³⁸

The Notice states that where there have been changes in prices between areas that can be shown to result in customer reactions, econometric techniques can be used for demand estimation (to estimate elasticities and cross-elasticities of demand), price correlations, statistical causality tests and tests for the similarity of price levels and/or their convergence.

In this section, we look slightly more widely at all qualitative, statistical and economic evidence in respect of prices or margins. In general, we would only expect to observe detailed analysis being carried out and submitted for the more finely balanced decisions, on which it has the potential to have a significant effect. For this reason, we have focussed in this section on the SIEC markets only. We have, however, included relevant evidence on both geographic market definition and the assessment of competitive constraints from outside the geographic market. The relevant evidence presented is summarised in Table 13.

We note that the extent of evidence and analysis varies hugely across the cases reviewed. This largely seems to reflect of the need of both Commission and parties to prioritise their resources and

³⁶ The parties themselves argued that suppliers based in neighbouring areas of Germany and France should also be included. The Commission did in fact consider carefully the responses of these specific suppliers, before concluding that they were not realistic competitors for the merging parties for Benelux customers.

³⁷ See the discussion in Section 3. We note that the Commission has more recently adopted an isochrones approach in respect of a number of recent cement mergers, see footnote 19.

³⁸ In the Notice, the heading which covers statistical and economic pricing evidence is in fact titled ‘Past evidence of diversion of orders to other areas’. However, the types of evidence covered are wider than this heading suggests.

attention on what is really likely to matter for the final decision. Thus we observe the most detailed quantitative analysis where this is considered most likely to be decisive on the case outcome:

- At one end of the spectrum are the technological product mergers reviewed here. For these, the pricing evidence is either essentially qualitative, in that it comprises purely the views of respondents to the market investigation, as for HDDs in Western Digital/Hitachi, or non-existent, as for external HDDs in Western Digital/Hitachi and for Alstom/Areva.

In the case of Alstom-Areva, pricing evidence would arguably be of limited value due to the large and lumpy bespoke nature of the business. In Western Digital/Hitachi, there was very little dispute across both customers and consumers that the HDD market was global, and thus the lack of any basic pricing evidence seems reasonable. Moreover, while there was more dispute about the regional market definition adopted by the Commission for external HDDs, it is again unsurprising that only limited resources went into assessing this issue, given that any possible concerns in this market were addressed through the remedies required in the HDD market.

- For the grocery-related product mergers reviewed here, there is usually some pricing evidence, but it is typically very limited, focusing on just a few price points. The (slight) exceptions are Chiquita/Fyffes in which a chart showing national prices over time was included, and demonstrated clear differences in pricing levels and patterns across countries, and the case of Dutch-type cheese in Friesland/Campina, for which a cross-country price correlation coefficient was presented.
- At the other end of the spectrum, are the basic industrial goods mergers reviewed here. In all of these, there is extensive data analysis carried out (for the SIEC markets at least) and detailed debate between the Commission and parties about this analysis.

The remainder of this section focusses on these basic industrial goods cases only, and examines the various types of analysis carried out. We note that price correlations and stationarity tests are used solely in the assessment of geographic markets, while the other techniques identified are referenced within both the geographic market definition and competitive assessment sections.

Price correlations and stationarity tests

Price correlations and/or stationarity tests, of one form or another, were carried out as part of the assessment of geographic market definition in all of the basic industrial goods cases reviewed. Price correlations show the extent to which prices move together, while stationarity tests examine the extent to which they diverge over a prolonged period. The rationale for using such measures is effectively that they test for the existence of some sort of arbitrage mechanism across EEA countries or across different geographic areas which tends to lead to equalisation or co-movement of price levels.

Despite the prevalence of their use, it is worth noting that in SSAB/Rautaruukki, the Commission correctly states that *“in general evidence on price correlation can only provide indirect evidence of market definition, given that it is not directly informative about the outcome of the demand substitution test as set out in paragraphs 15 to 18 of the Notice on Market Definition”* (para 95). The Commission makes a very similar point in Glencore/XStrata (para 145). The same could be said of stationarity tests.

Such tests are more compelling and direct in the negative, as evidence against wider markets if price are found to be poorly correlated or diverge over time. The findings in these cases fit with this. In Arsenal/DSP (and also Chiquita/Fyffes), the Commission draws upon evidence of poor correlation to justify its conclusion that geographical areas comprise different markets, but it appears less likely to accept evidence of strong correlation as compelling evidence for different candidate geographic areas being the same relevant geographic market.

The Commission's scepticism around price correlation analysis is reasonable, in at least some of these cases, because such correlation can be driven by common costs and demand factors. A significant element of the discussion in several of the cases where correlation analysis is done is thus how to deal with common costs. For example:

- In the case of Glencore/Xstrata, the Commission found that, while the notifying party was correct to state that total zinc metal prices have moved closely across regions in the recent past, this correlation has been largely driven by the impact of the common element in these prices (i.e. the London Metals Exchange price). If this common element is accounted for, the correlation across regional prices becomes substantially lower.
- In the case of SSAP/Rautaruukki, the removal of certain common cost elements, i.e. iron ore, scrap metal and coking coal, reduced the correlation between EEA and Nordic prices. Moreover, the Commission carried out a further analysis, which removed monthly time fixed effects from the price series and repeated the conditional correlation exercise on the resulting residuals. As the Commission states *"The advantage of this method is that it controls for both common cost and demand trends. It will, however, also remove on average the price movements due to substitution. Therefore, this method works as a one sided test for geographic clustering: for common markets it produces low or even negative correlations and generates positive correlations only for clusters that are more correlated with each other than the average."* The results shows a clear Nordic cluster, a clear EEA cluster, and very little correlation between the two areas. Overall, the Commission considers that the correlation analysis carried out for this merger is inconclusive but if anything supports the existence of a separate Nordic cluster.

Another issue that arises in respect of the stationarity analysis carried out in at least one of the cases reviewed (Arsenal/DSP) is that the parties do their calculations of stationarity based on the existence of 'structural breaks' in the data, which are identified using the Max Chow³⁹ test. The commission clearly finds this problematic: *"stationarity tests of relative prices with a number of structural breaks may result in misleading findings"* (Arsenal/DSP para 80). We agree with this concern, since such an approach can bury true evidence of non-stationarity. Indeed, since the key aim of a stationarity test is to identify whether prices have diverged systematically over time, we would argue that finding a structural break in the relative price data effectively involves accepting that there has been a systematic divergence. In some cases there may be a very good explanation for a structural break which might be acceptable, but this was not the case here; it was simply identified statistically and no rationale was provided.

³⁹ See Footnote 8 of the US Merger Guidelines.

The relationship between imports and relative prices

As mentioned above, the shape of the import supply curve is important in assessing the likely overall impact of a merger. If enough imports would be supplied at a cheap enough price in response to an attempted price increase by the merging firms, then such a price increase will be defeated and no SIEC should be found.

As such, examining the relationship between imports and relative prices is potentially one of the most powerful pieces of evidence that can be developed for overall merger assessment provided the parties are able to supply the relevant data. In fact, it is done, in some form at least, in three of these cases (INEOS/Solvay, Glencore/Xstrata, and Outokumpu/Inoxum).

- In the case of INEOS/Solvay, the Commission does not carry out econometric analysis in respect of this relationship, but simply observes, drawing on a Figure that represents the relevant data, that “during a period of increasing prices in NWE [North-West Europe] relative to the RoE [Rest of Europe], the sales of EEA S-PVC suppliers located outside NWE overall remained stable.” (para 300) The Commission also highlights that this was true despite the non-NWE suppliers having spare capacity available over this period.
- In Glencore/XStrata, the notifying party provided two examples to illustrate the response of the absolute level of imports into the EEA to relative price differences (measured in terms of differences in the full zinc metal price). In response, the Commission used econometric analysis to develop a more systematic assessment of the statistical relationship between total imports into the EEA and the absolute price differences between the US and the EEA (accounting for differences in delivery terms), from 2002-2011. On the basis of its preliminary work (recall this case was concluded at Phase I), the Commission does find a statistically significant relationship between the level of imports and EEA-US price differentials, but this is of insufficient magnitude as to make a 5-10% price increase by EEA suppliers unprofitable.
- In Outokumpu/Inoxum, the notifying party carried out the econometric regression of imports and relative prices, with a view to using this to demonstrate that imports would constrain the merging parties from raising prices post-merger. In fact, however, the Commission finds that the party’s approach to this latter analysis is flawed (correctly, in our view). When the Commission applies the appropriate analysis, it finds that the estimated elasticity of imports is insufficient to prevent a hypothetical monopolist of the EEA from raising prices post-merger.

It is, however, noteworthy that the analysis described above was carried out within the analysis of geographic market definition in the first two cases, but primarily within the competitive assessment in the third case.⁴⁰ This is linked to the apparent confusion in the Commission’s practice as to whether constraints from imports should be used to (i) consider whether geographic markets should be widened or (ii) examine the impact of competitive constraints from outside the market.

As will be clear from our discussion in Section 3, we advocate the latter - that is employing this powerful form of evidence only within the competitive assessment.

⁴⁰ Albeit there is, within the geographic market definition section in Outokumpu/Inoxum, a reference forward to the implications of this analysis for the competitive assessment.

Ex post analysis of past mergers

A novel aspect of the INEOS-Solvay merger was the use of *ex post* analysis of the price impact of previous mergers in the sector, within the context of an ongoing merger investigation. The Commission considered two previous mergers, INEOS/Kerling (2008) and INEOS/Tessenderlo (2011), and analysed them using difference-in-difference analysis and a more novel triple-differences approach.⁴¹

In the case of INEOS/Kerling, the Commission was unable to establish a sufficiently robust price effect due to the proximity of this merger to the 2008 Global Financial Crisis, which created a substantial demand shock in the market. For INEOS/Tessenderlo, however, the Commission found that the merger resulted in significant price rises in NWE.⁴² This analysis was primarily focussed on assessing the competitive effects of the merger. However, the Commission also highlights (in #312) that the findings are consistent with a NWE market definition.

Where this sort of evidence is available, it can be powerful if properly analysed. However, it does rely on there having been past mergers within the sector that are both relevant and possible to analyse within the available time frame. If the results are to be used to justify a narrower market definition, or an adverse finding on competitive effects, this technique also relies on those mergers having been wrongly allowed by the Commission in the past (which is not a great recommendation for the Commission's approach to merger control!).

⁴¹ The 'Diff-in-Diff' analysis relies on a common trend in cost and demand movements in two geographic areas (e.g. NWE and RoE) and an event (e.g. merger) that disproportionately affects one area. The analysis compares the difference in Ineos prices in the two areas before and after the merger. If the difference in price difference is significant, this suggests a causal effect between the merger and the higher prices (unless there were other events at the same time that might have had a differential effect on the two areas). This Diff-in-Diff approach underestimates the price effects of the merger inasmuch as this merger also enhanced market power in RoE. The 'Triple Diff' approach substitutes the difference in prices between Ineos and Solvay for the level of Ineos prices in the 'Diff-in-Diff' analysis. This is likely to underestimate any price effects of the merger inasmuch as Solvay also benefitted from market power created by the Ineos/Tessenderlo merger. However, great care is needed to identify an appropriate 'control' area (e.g. RoE) for both types of analysis to be valid. These techniques are described in Sections 4.2 and 4.3 of the INEOS/Solvay decision.

⁴² We note that the parties, while not disputing that prices in NWE did rise (relatively) following the INEOS/Tessenderlo merger, argued that this was not informative about causality, in terms of what, if any, effect the merger had on these prices. They challenged the validity of the control area and argued that the results are reliant on the price offered to a specific Greek customer, with these prices reflecting the very specific circumstances of the Greek market. (Note that it is beyond the scope of this paper to assess the overall robustness of the Commission's analysis in this (or any) particular merger.)

Table 13: Price-related evidence on geographic market definition and the assessment of competitive constraints from outside the geographic market

Case	Evidence on prices/ margins	Visual review of price levels/co-movement	Correlation coefficients for prices /margins	Stationarity test on prices /margins	Regression of imports on relative prices	Ex post analysis of past mergers
Friesland/ Campina	Some price data & views from market investigation		✓ (Dutch-type cheese)			
Refresco/ Pride	Views of customers & competitors only. No data.					
Chiquita/ Fyffes	Price data & views of customers & competitor ⁴³	✓				
Alstom/ Areva	No evidence presented on prices/margins					
Western Digital/ Hitachi	Only views of customers & competitors ⁴⁴					
Arsenal/DSP	Price & margin data	✓ (Not in decision)	✓	✓		
Glencore/ Xstrata	Price, margin & imports data	✓ (Not in decision)	✓	✓ (Not in decision)	✓	
Outokumpu/ Inoxum	Price data & evidence of different pricing systems	✓	✓ (But only across MS within EEA)		✓	

⁴³ The majority of both customers and competitors agreed that prices differed across Member States. Competitors active in more than one country adopted differing pricing strategies in each country.

⁴⁴ The only qualification here is that the parties did present some analysis of tender data. This was primarily targeted as assessing the closeness of competition between the merging parties, and the Commission anyway had some concerns with its robustness and coverage. As such, it does not seem to have been drawn on to examine the extent of tendering by suppliers outside national boundaries.

SSAB/ Rautaruukki	Price data, including controlled for common costs	✓	✓	✓		
INEOS/ Solvay	Price, margin & imports data	✓ (In Annex)	✓ ⁴⁵	✓ ⁴⁵	✓ ⁴⁶	✓

f. Views of customers and competitors

In all of the cases reviewed, evidence from third parties – primarily competitors and customers, but in some cases also upstream suppliers⁴⁷ - was gathered through the market investigation and considered as part of the Commission’s decision. In several of the cases, and in particular those in the grocery-related products markets and in the technological products markets, responses to the Commission’s market investigation appear to have provided the bulk of the evidence base for its decision.

The evidence presented in the mergers reviewed is summarised in Table 14 (SIEC markets) and Table 15 (non-SIEC markets) below. The tables focus on the relative weight placed by the Commission on more qualitative evidence from the market investigation (and from different types of respondents) as distinct from quantitative evidence.

It is well understood by competition authorities that such evidence should be treated carefully. The various parties responding may have a private interest in the success or otherwise of the merger, or at least in the analysis carried out by the Commission in respect of the merger. This in turn may lead them to provide biased evidence or views in response to the market investigation. These concerns are typically strongest in respect of the views of competitors. That said, the direction of any such biases is not always obvious. For example:

- We might expect competitors to argue for *wider* markets, if these are more likely to allow the merger to be permitted, given that competitors might expect to benefit from softened competition post-merger, or indeed may have their own merger ambitions for which the precedent would be useful.
- On the other hand, we might expect competitors to argue for *narrower* markets, if they believe this will result in divestments that they may be in a position to acquire.

⁴⁵ In INEOS/Solvay, while not a standard stationarity test or correlation, the regression used was effectively testing for the same thing – that is, any significant change in the divergence of prices over time. In practice, increased divergence in prices was found between NWE and each of the other three regions.

⁴⁶ Likewise, in INEOS/Solvay, while the Commission does not estimate the relationship between relative prices and imports, it does examine visually the sales levels of non-NWE suppliers within NWE during the period while relative NWE prices were increasing.

⁴⁷ For example, in Chiquita/Fyffes, the shipping companies involved in transporting bananas to Northern Europe also took part in the market investigation.

In practice, we found that much of the evidence provided through the market investigation, from both customers and competitors, is essentially factual. Such evidence, despite being largely qualitative, appears valuable for strengthening the evidence base. However, some of the evidence collected involves opinion, to a greater or lesser extent. For example, across the cases reviewed, parties – both customers and competitors – may be asked:

- explicit questions as to what they think the relevant geographic market is,
- questions around likely reactions to a permanent 5-10% price rise in a specific geographic area⁴⁸, and
- questions which may appear factual but implicitly involve opinion, such as how important it is to have local distribution in a particular market, or what barriers there may be to imports.

In many cases, such opinions can still be highly valuable. Indeed, views on such questions seem to have been decisive in at least some of these cases:

- For example, in the market for packet butter (Friesland/Campina), customers' response to the SSNIP question seems to have been decisive in the Commission's decision to widen the geographic market beyond the Netherlands. This is despite the fact that almost all packet butter is currently sourced within the Netherlands.

However, caution is certainly needed. In practice, in many of the cases reviewed, the views of customers and competitors were relatively well aligned, which will reasonably have given the Commission confidence in relying on this evidence.

- For example, in the case of SAAB/Rautaruukki, the economic evidence was inconclusive but customers and competitors provided a broadly consistent view, which supported the Commission's conclusion that the market was relatively narrow (Nordic cluster). Customers indicated that the Nordic region was not a priority for continental EEA suppliers but rather an export market, and that the competitiveness of their offers deteriorated whenever demand conditions improve in continental Europe. EEA competitors confirmed this and – most importantly – confirmed that access to the Nordic market was very difficult without access to a local distribution network.

In general, across the cases reviewed here, we found no evidence of the Commission explicitly demonstrating a sensitivity to the potential for market participants to provide biased views. However, we also found no examples where the Commission seems to have been persuaded by biased representations. There are however a few examples where competitors and customers seem to have had a different views, or where there were inconsistencies between different forms of qualitative evidence:

- In Western Digital/Hitachi, the vast majority of XHDD suppliers argued that market was global, despite indicating significant supply and demand-side differences between regions. The Commission adopted an EEA market definition.

⁴⁸ It is noteworthy that, while customers are usually asked about their own likely reactions to a such a price rise, competitors may be asked either about their own reactions or (more usually) about their view on the likely reaction of customers.

- In the market for zinc metal (Glencore/Xstrata), around half of customers and the vast majority of competitors considered that the market is wider than EEA. Yet almost all agreed that imports would not be able to mitigate or eliminate a hypothetical 5% rise in EEA prices. Again, the Commission adopted an EEA market definition.

Table 14: Evidence on views of customers and competitors: SIEC markets

Case	Key products	Commission decision	Views of customers and competitors
Friesland/ Campina	Several dairy products	National	Almost all evidence qualitative and drawn from responses to market investigation. Very limited additional data/analysis. Fairly similar views on geographic market definition between customers and competitors, including (where asked) around potential for supply-substitution in response to a 5-10% price rise.
Refresco/ Pride Foods	Bottling of NCSs in Aseptic PET	National	Almost all evidence qualitative and drawn from responses to market investigation. No additional data/analysis, other than parties did carry out some analysis of tender data.
Chiquita/ Fyffes	Bananas	National	Almost all evidence qualitative and drawn from responses to market investigation. Very limited additional data/analysis. Fairly similar views on geographic market. Majority of competitors would not expect to change their geographic scope of supply quickly in response to 5-10% price rise in one Member State. [NB Views of customers also very important under competitive assessment – see below].
Western Digital/Hitachi	Hard Disc Drives	Global	All evidence qualitative and drawn from responses to market investigation. No additional data/analysis.
	External HDDs	EEA	All evidence qualitative and drawn from responses to market investigation. No additional data/analysis. Vast majority of XHDD suppliers argued that market was global, despite indicating significant supply and demand-side differences between regions.
Arsenal/DSP	Benzoic acid	EEA	Market investigation responses play an important role in finding. Non-EEA competitors confirmed that transport costs were a significant barrier to supplying EEA. EEA customers stated that they would not be willing to switch to Chinese suppliers in response to a 5-10% price rise by EEA-based suppliers.

Glencore/ Xstrata	Zinc metal	EEA	Market investigation responses play limited role in finding. Responses somewhat confused. Half of customers and vast majority of competitors consider market is wider than EEA. Yet almost all agree that imports would not be able to mitigate or eliminate a hypothetical 5% rise in EEA prices.
Outokumpu/ Inoxum	Cold-rolled stainless steel	EEA	Market investigation responses from customers important in providing evidence on pattern of purchases and demand characteristics. However, pricing data and econometric/economic analysis plays a key role in this case.
SSAB/ Rautaruukki	Flat carbon steel	Nordic cluster	Qualitative market investigation responses important in this case, given that economic evidence is inconclusive. Customers and competitors provided a broadly consistent view of the Nordic region being hard to access without a local distribution network, and not a priority for continental EEA suppliers.
	Distribution of FCS	National	Market investigation responses important. Customers confirmed that they source steel only or predominantly at national level.
INEOS/Solvay	S-PVC	NW Europe	Responses to market investigation important for providing qualitative evidence for NWE market. Most NWE customers clear that, even in the event of a 5-10% price rise, they would still consider players located outside NWE as unsuitable sources of supply. Major NWE competitors also support this view. ⁴⁹
	Bleach	Benelux	Qualitative market investigation responses very consistent and decisive in respect of a 300km maximum supply radius. Responses from suppliers in neighbouring areas important for decision not to widen market beyond Benelux.

⁴⁹ INEOS/Solvay was the only merger reviewed here in which the parties made a ‘chain of substitution’ argument for a wider geographic market (EEA) on the basis of considerable overlaps between the shipment areas of the principal S-PVC suppliers. This argument was summarily dismissed on the basis of the market investigation responses.

Table 15: Evidence on views of customers and competitors: non-SIEC product markets.

Case	Key products	Commission decision	Views of customers and competitors
Friesland/ Campina	Organic milk	National	Almost all evidence qualitative and drawn from responses to market investigation. Very limited additional data/analysis.
	Long-life milk and packet butter	Netherlands, Belgium and Germany	Almost all evidence qualitative and drawn from responses to market investigation. Very limited additional data/analysis. Packet butter: Almost all respondents have noted that they would source from neighbouring Member States, should the price increase by 5-10% in their home market. Seems to be the key decisive evidence in market definition.
	Bulk butter	EEA-wide	Almost all evidence qualitative and drawn from responses to market investigation, with views broadly consistent across competitors and customers. Very limited additional data/analysis.
Refresco/ Pride Foods	Bottling of NCSs in cartons	National	All evidence qualitative and drawn from responses to market investigation. No additional data/analysis, other than parties did carry out some analysis of tender data.
Alstom/Areva	Various power systems and components	Left open, but at least EEA	Almost all evidence qualitative and drawn from responses to market investigation. Very limited additional data/analysis.
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	Market investigation responses are overall very similar, if slightly less emphatic, to those for benzoic acid. In particular, competitors highlight constraint of transport costs and customers highlight quality concerns.
Glencore/ Xstrata	Zinc concentrate	Worldwide or WW excl. intra-China	Almost all evidence qualitative and drawn from responses to market investigation. No apparent additional data/analysis. Market participants confirmed that sales are generally organized at the worldwide level. Customers highlighted flexibility to redirect purchases to suppliers located in other regions in response to a potential price increase in EEA. Views mixed on competitive impact of intra-China sales.

g. The analysis of competitive constraints from outside the market

As discussed in Section 3 above, there is some overlap between the type of evidence that is examined in analysing whether a narrow candidate geographic market should be widened and that evidence which is examined to see whether there may be competitive constraints from outside the defined geographic market which would limit the possibility of detriment arising from a merger.

In this section, therefore, we focus not on what is repeated by way of the evidence in the competitive assessment section, but what additional evidence or argumentation is considered. The relevant evidence presented in the mergers reviewed is summarised in Table 16 (SIEC markets) and Table 17 (non-SIEC markets) below.

The first point to note is the number of cases in which, despite defining geographic markets relatively narrow, the Commission nevertheless considers that competitive constraints from outside the market are sufficient to prevent the merger giving rise to an SIEC:

- For several of the grocery-related product markets – organic milk (Friesland/Campina), bottling of NCSDs in carton (Refresco/Pride), and for bananas (Chiquita/Fyffes) – the Commission accepted that customers would have sufficient supply options outside the narrow national market to overcome any risk of SIEC. This is true despite the merging parties having some very high market shares in these markets.

As such, a key conclusion in this section is that it is clearly not the case that a narrow geographic market is decisive in terms of the merger assessment. There are, however, a number of other interesting aspects that come out of examining the evidence base for the competitive assessment sections of these decisions.

The potential for reduced exports to overcome any risk of SIEC

There is an interesting discussion in Friesland/Campina about the potential for exports of ‘Dutch-type’ cheese from the Netherlands to be reduced to defeat a 5-10% post-merger price rise, as opposed to imports coming in to the Netherlands. This would seem a reasonable argument in theory. However, it has to be remembered that the merging parties will typically have control over their own exports, and thus these cannot be counted on to constrain a 5-10% price rise. As such, this sort of story would only really be compelling if there were other significant exporters within the relevant geographic market who could reduce exports and expand sales in response to a SSNIP. This was not in fact the case in Friesland/Campina. The merging parties were both the two main national suppliers and the two main exporters. Given this, the Commission did not accept the parties’ reduced exports argument in this case.

Is there a critical level of exports to overcome any risk of SIEC?

In Arsenal/DSP, the Commission reaches different conclusions in respect of benzoic acid (SIEC) and sodium benzoate (no SIEC) despite there being a number of notable similarities between these two markets. In the case of sodium benzoate, market definition is left open but ‘at least EEA’. Within the EEA, the merging parties have a [60-70]% share of sales. The competitive assessment is then crucial, and we highlight two aspects of the Commission’s assessment.

- First, it makes very clear what it sees as the differences between sodium benzoate and benzoic acid, specifically that the concerns about quality are lesser for sodium benzoate, the Chinese comparative advantage in terms of production costs is greater for sodium benzoate,

and thus the margins that can be earned by Chinese exporters of sodium benzoate are higher. This seems a sensible analysis.

- Second, it makes the following noteworthy statement (at para 257). *“The [25-45]% market share held by Chinese producers of sodium benzoate constitutes a constraint that would discipline the merged entity post-transaction should it intend to increase or increased prices above a competitive level. In previous merger cases, it has been considered that import market shares lower than 25% would already constitute a constraint on the entity resulting from the transaction.”* This is much more questionable.

Should we really take the second point to mean that, irrespective of geographic market definition, a competitive assessment will always reach a no SIEC finding if imports are at least 25% of the market? We would strongly argue that any such rule would be inappropriate. Just because imports are capable of serving a certain share of the market currently does not imply that they are necessarily capable of expanding further to overcome a post-merger SIEC. It is the elasticity of imports, not the level, which should matter.

Fortunately, the Commission itself does not appear to abide by such a rule. In the case of SSAB/Rautaruukki, the levels of imports of cold-rolled (CR) and organic-coated (OC) steel seemed to above 25%, albeit only slightly, yet an SIEC is found. This would seem to us to be an area where further thinking – and then public clarification – may be valuable.

The ‘windows of time’ argument

A novel piece of thinking occurs in the competitive assessment section of Outokumpu/ Innoxum. The Commission finds that the attractiveness of importing from Asia into the EEA depends on a variety of economic factors such as the nickel price and the currency exchange rate. As these fluctuate, there will be ‘windows of time’ within which imports cannot exercise a competitive constraint on European producers. This is interesting because the thinking seems powerful, but is presumably true of other markets too. Indeed all international trade is typically affected by currency fluctuations. Will the “windows of time” idea therefore become used more frequently, and if so will this mark a significantly more interventionist approach to merger analysis? More generally, it is far from clear how frequent such windows of time need to be, and how long they need to last, in order to be considered relevant.

SIEC arising from access to core input

Finally, it is noteworthy that, in a number of these cases, the identified SIEC relates to concerns about access to a key input.

- In Western Digital/Hitachi, the SIEC in external HDDs relates to concerns about access to 3.5” HDDs post-merger.
- In SAAB/Rautaruukki, the SIEC relates to concerns about access to local steel distribution networks post-merger.
- In Chiquita/Fyffes, the SIEC relates to concerns that the merged party might employ its ‘accrued market influence’ to impose exclusivity clauses within contracts with shipping

companies, thus limiting the ability of competitors to ship their bananas into Northern European markets, at least without incurring additional costs.⁵⁰

Table 16: Additional evidence on constraints from outside the market: SIEC markets

Case	Key products	Commission decision	Additional evidence on competitive constraints
Friesland/ Campina	Several dairy products	National	Argumentation and evidence largely same, but some emphasis on lack of spare capacity amongst nearby neighbouring suppliers. For “Dutch-type” cheese, the parties raise an interesting form of argument around exports to outside the Netherlands – see main text.
Refresco/ Pride Foods	Bottling of NCSs in Aseptic PET	National	For France, Germany and Belgium, the market investigation confirmed that suppliers in neighbouring countries were not realistic competitors, and SIECs were found. [For the specific case of the Netherlands, the Commission found that all substantial market participants, including the Parties, import their aseptic PET for the Dutch market from neighbouring countries. Thus, the Commission concluded that the competitive importance of imports is sufficiently strong in Netherlands that no SIEC was found.]
Chiquita/ Fyffes	Bananas	National	Retailers across all relevant Member States confirmed that they would be able to find alternative sources of bananas, including from outside the set of suppliers currently active in that Member State. As such, no SIEC was found in respect of the standard concerns. The Commission did, however, have SIEC concerns in respect of the potential ability of the merged firm to extract exclusivity conditions from shipping lines. See main text.

⁵⁰ This issue was sufficient for the Commission to find the Transaction to give rise to ‘serious doubts’ in both Finland (which is at the end of a particular shipping line) and Ireland (where Fyffes already had such exclusivity conditions in place). In addition, the Commission states that its findings of no concerns in Denmark, Sweden, Estonia, Latvia and Lithuania are contingent on the accepted commitments relating to shipping. While no explicit issues arise in respect of shipping in UK, Germany, Belgium or Netherlands, the Commission notes that ports in these countries serve as intermediary steps, for instance where bananas are unloaded from big containers and put onto feeder vessels to continue their journey towards Member States with ports located at more peripheral routes. As a result, the commitment extracted by the Commission as a condition of clearance therefore both terminates the agreement in Ireland and prohibits the merged party from putting in place any such clause for 10 years across Northern Europe.

Western Digital/Hitachi	Hard Disc Drives	Global	Not relevant
	External HDDs	EEA	No specific discussion about extent of constraint from outside EEA and worldwide market shares are never presented. However, competitive assessment does address potential for the parties to limit entry/expansion within EEA through its control over HDDs, a key input to XHDDs.
Arsenal/DSP	Benzoic acid	EEA	Argumentation mostly the same as in market definition section. However, there is additional interesting internal documentation presented about the response of main Chinese competitor, Wuhan, to tight EEA market conditions in April 2007 due to two plants being out of action. Far from imports flooding in to restore low prices, Wuhan increased its prices in EEA by 8%.
Glencore/Xstrata	Zinc metal	EEA	No significant extra evidence in relation to competitive constraint from outside EEA. The parties present a pricing incentive analysis that assumes substantial diversion to non-EEA suppliers. However, as Commission highlights, there is no evidential basis for this assumed diversion ratio, and if it were valid it would be inconsistent with the Commission's decision on relevant geographic market.
Outokumpu/Inoxum	Cold-rolled stainless steel	EEA	The analysis of import elasticity estimates is discussed above under economic evidence for market definition. In addition to the various points made under market definition, the Commission highlights that the potential constraint of imports will be limited by the fact that the EEA is a net exporter of CR steel, and that importers are not a single competitor, but rather a fringe of suppliers, each with relatively small sales in the EEA. Also, as the nickel price and currency exchange rate fluctuate, there will be "windows of time" within which imports cannot exercise a competitive constraint on European producers.
SSAB/Rautaruukki	Flat carbon steel	Nordic cluster	Parties' control over local distribution constitutes a barrier to imports by depriving European suppliers of a route to market to reach small and mid-size ex-mill customers in the Nordic countries.

INEOS/Solvay	S-PVC	NW Europe	Much of the same sorts of arguments made, but more detail provided, for example in respect of the potential for each of the non-NWE suppliers located elsewhere in EEA to supply into NWE.
	Bleach	Benelux	---

Table 17: Additional evidence on constraints from outside the market: non-SIEC product markets

Case	Key products	Commission decision	Additional evidence on competitive constraints
Friesland/Campina	Organic milk	National	Customers felt able to switch to other sources. Dutch customers less concerned about the Dutch origin of organic milk, and the product is relatively high margin and can thus be transported over longer distances than basic milk. There is spare capacity available and more coming on stream.
Refresco/Pride Foods	Bottling of NCSs in cartons	National	For Belgium and Netherlands, by contrast with aseptic PET, German-based suppliers are already seen as alternatives to the merging parties by retailers, and have significant spare capacity, which is likely to be sustained over time. For the UK, retailers already source from the continent, and entry/expansion into the UK from (in particular) Spain was expected. As such, no SIEC found.
Alstom/Areva	Various power systems and components	Left open, but at least EEA	Limited discussion of constraints from outside EEA, given no concerns arise even on EEA basis. ⁵¹
Arsenal/DSP	Sodium benzoate	Left open, but at least EEA-wide	See main text.

⁵¹ That said, we note that one part of this case for which the Commission's competitive assessment does not appear entirely compelling. This relates to the upstream market for traction transformers and the downstream market for high speed trains. In the downstream EEA market for high speed trains, Alstom has [40-50]% and Siemens has [20-30]%. In the upstream market, Areva only has [10-20]% in the upstream market, but ABB has [45-55]% and Siemens has [15-25]%, leaving 15% of the market served by smaller players. Given that Siemens is vertically integrated and effectively only supplies itself, the concern raised by other downstream competitors was that the merger would reduce the number of independent suppliers of traction transformers, leaving ABB in a very strong supply position, thus leading to price rises.

As part of its response to this concern, the Commission does highlight the potential competitive constraint from outside the EEA market: "according to the Parties, a number of non-EEA traction transformers manufacturers could enter the EEA market". It is not, however, clear how much weight the Commission gives this information, or whether it carries out any independent verification of it.

h. Evidential role of internal documents

One further potential form of evidence is that which is included within the parties’ own internal documents. This is not mentioned in the Notice, and indeed in many of the cases reviewed internal documents do not appear to play a significant role, at least in terms of the geographic market definition question, or the question of competitive constraints from outside the defined geographic market.

This may be because the Commission recognises that internal documents need to be read with a sceptical eye, given that parties are often loose with their wording, and sometimes make grand – but also unrealistic – claims within their internal documents. There is a useful discussion of the appropriate treatment of internal evidence in the INEOS/Solvay decision (paras 55-60).

Nevertheless, there are some cases in which internal documents are at least mentioned in respect of geographic market, or competitive constraints from outside the relevant geographic market, and in some cases these are fairly significant. The evidence presented for these is set out in the Table 18 below. It appears that internal documents are given the most weight in the basic industrial goods mergers reviewed.

Table 18: Evidence on relevant geographic market from internal documents, where mentioned

Case	Key products	Commission decision	Internal documents
Friesland/ Campina	Several dairy products	National	Some reference to internal documents, for example mentioning that Dutch customer preferences are rather specific. But limited weight placed on this type of evidence.
Refresco/ Pride Foods	Bottling of NCSDs in Aseptic PET	National	For France, weight placed on internal documents of parties which did not identify players outside of France as serious potential competitors.
Western Digital/ Hitachi	External HDDs	EEA	Some weight placed on internal documents of the Parties, which differentiate between regions.
Arsenal/DSP	Benzoic acid	EEA	Some weight placed on parties’ internal documents, which do appear to paint a consistent picture of Chinese and US imports having limited impact on the EEA market, and the importance of transport costs and tariffs as a barrier to imports.
Glencore/ Xstrata	Zinc metal	EEA	In the competitive assessment section, reference is made to an internal document on the potential revenue synergies associated with the transaction in EEA. The so-called “Zinc Synergy Paper” describes how the merged firm’s “enhanced negotiating power” will allow it to charge higher prices and push for improved contractual terms.
Outokumpu/ Inoxum	Cold-rolled stainless steel	EEA	Internal documents seem to have been important for the Commission in developing its “windows of time” idea. Specifically, the documents show that when the nickel price is lower than a certain

			threshold, any possible appreciable advantage in production costs enjoyed by Asian suppliers disappears. As a result, Chinese producers lose their competitiveness vis-à-vis European players.
SSAB/ Rautaruukki	Flat carbon steel	Nordic cluster	Significant weight placed on parties' internal documents, which do appear to paint a consistent picture of the parties viewing the Nordic cluster as a separate geographic market. (e.g. Strategy documents clearly distinguish Nordic "home" market, price benchmarking is carried out relative other Nordic suppliers. SSAB describes carbon steel shipped to Nordic countries from continental European mills as "imports". The internal papers relating to the merger describe a key rationale as being to protect and further strengthen a "Nordic fortress".)
	Distribution of FCS	National	Internal documents show that the parties have separate strategies for the different countries, and that their analysis of the competitive dynamics is carried out at national level
INEOS/Solvay	S-PVC	NW Europe	Significant weight given to a variety of internal documents, which tend to refer to a West European market, highlight the strong position of the parties in that market and even mention the high barriers to entry into that market. S-PVC pricing documents also refer to differing pricing strategies for West and East Europe. Internal pricing strategy documents following the INEOS/Tessenderlo merger also given weight in competitive assessment.

6. Conclusions and Recommendations

In carrying out this work, the Commission asked us to comment on:

- (a) The Commission's geographic market analysis in terms of the methodology used and the conclusions reached on the basis of the available evidence;
- (b) How the Commission incorporated constraints from outside the geographic market in its competitive assessment; and
- (c) Whether a more flexible approach to supply-side substitution could have been considered, and whether such an approach might have changed the outcome of the case.

Having reviewed the ten case studies in detail, we conclude that the Commission's practice in respect of geographic market definition is generally well-evidenced and broadly in line with its own 1997 Notice on market definition. Where geographic markets are drawn relatively narrowly, we find that the Commission typically gives careful consideration to evidence of competitive constraints from outside the market.

We also find that the Commission typically draws on a wide range of evidence for its findings, rarely relying on one single piece of evidence or analysis. For several of the cases, responses to the Commission's market investigation appear to provide the bulk of the evidence base for its decision. While such responses have the potential to be biased, due to the interests of responding parties in the success (or not) of the merger, we found no examples where the Commission seems to have been persuaded by obviously self-serving opinions.

We find that the statistical and economic evidence, while valuable in several of the basic industrial goods mergers, was not the sole decisive evidence for the Commission's decision in any case. We fully support this rounded and holistic approach to merger assessment. In those cases where we observe relatively less quantitative evidence and analysis presented, this can reasonably be explained by the Commission and parties choosing to focus their limited resources and attention on those areas of evidence and analysis that are most likely to be decisive in the competitive assessment of the merger.

We do not consider that the Commission should take a more flexible approach to supply-side substitution in market definition. There will always be caveats around the weight that can be placed on market shares as an indicator of competitive harm. However, we believe that market shares within geographic markets that are defined on the basis of the Commission's current Notice on market definition are likely to be more meaningful than would be shares within geographic markets which are widened – in contravention of the Commission's Notice - on the basis of supply substitution by imports.

We do, however, find a number of areas in which we believe improvements could be made.

i. Greater clarity that market definition provides a useful framework for competitive analysis, but is not an end in itself

In our view, geographic market definition should not be seen as an end in itself, but rather as providing a useful framework for the competitive analysis of the merger. It should be used to identify a geographically coherent group of customers whose purchases are competed for by suppliers located in the same geographic area (and possibly also by suppliers located at a greater distance). Where market definition is relatively clear-cut and can be drawn to include those competitors, and only those competitors, that genuinely impose a significant competitive constraint on one another, then market shares and concentration indicators can potentially be useful indicators of the likely competitive effects of a merger, at least in homogeneous goods markets.

However, as is increasingly well recognised, requiring a clear dichotomy to be drawn in this way between firms which are inside and outside of the market can be misleading. Moreover, the precise geographic market definition adopted should not necessarily affect the final merger decision:

- If geographic markets are drawn too narrowly, then this should not be a problem so long as the competitive assessment fully considers the competitive discipline provided by firms located outside the geographic market. This latter point is not just a theoretical possibility. In a number of individual markets affected by the mergers we have reviewed, the Commission does draw the geographic market relatively narrowly, but then considers that competitive constraints from outside the market will be sufficient to overcome any potential merger concerns.

- Likewise, parties that successfully argue for a wider geographic market should not expect a guaranteed merger clearance, especially if they are close competitors within this wider market.

The evidence from some of the unproblematic markets in the decisions reviewed here suggests that the Commission recognises this intermediate and non-decisive role of market definition. Nevertheless, it is clear from the mergers we have reviewed that the merging parties still put substantial effort into the market definition process. This is typically to argue for wider markets, presumably on the basis of an expectation that a merger is in fact less likely to be found to give rise to merger concerns in a wider geographic market in which the merging parties' shares are lower.

We also note that the combined market shares of the merging parties are relatively high across all of those markets found to give rise to merger concerns in the cases reviewed.⁵² In such a context, it is perhaps hardly surprising that parties may not notice the high market share markets that do not raise concerns, and perceive that market shares, and by implication market definitions, matter disproportionately.

We conclude that greater clarity about the intermediate and non-decisive role of market definition within the merger assessment process would reduce the attention paid to this issue, allowing for a greater focus by both parties and the Commission on what really matters: the competitive assessment.

ii. Greater clarity that supply substitution by imports will not be accepted as an argument for widening the relevant geographic market

Under the Commission's Notice on market definition, supply substitution should be used to widen geographic markets only where most suppliers are active across geographical areas and are able to switch production across them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices. In the mergers we have reviewed, this is the Commission's rationale for drawing wide market definitions in respect of HDDs (Western Digital/Hitachi), zinc concentrate (Glencore/Xstrata) and across the markets assessed in Alstom/Areva.

This EU approach is consistent with the US and UK merger guidelines, which are if anything even firmer that markets should be aggregated on the basis of supply substitution only as 'a matter of convenience' and where to do so will not affect the competitive assessment of the merger.

In our view, the Notice does not envisage a situation in which the potential for imports to come into a geographic area and constrain competition would result in the geographic market being widened to include the source of such imports. Nor should it. A wider geographic market would include within it sales to foreign customers located in the same region as where the foreign suppliers are located, even though the conditions of competition facing those customers may be very different. The competitive conditions in a

⁵² At least [30-40]% (in the case of external HDDs in Western Digital/Hitachi), and substantially higher in most of the other SIEC markets/cases.

market are better understood by adopting a narrower market definition whilst giving fully appropriate weight to imports as a competitive constraint.

Nevertheless, we note that evidence on imports is employed by parties to argue for a wider market in several of the mergers reviewed. This is hardly surprising given that, in these cases, the shares of the merging parties would be substantially lower in a wider geographic market that included the source of the imports.

In none of these cases does the Commission in fact accept the argument, but the decisions do devote considerable space to assessing the evidence on this point in some detail. Moreover, we also identify some wording within the cases reviewed that appears to indicate the Commission might be willing to accept the argument if the evidence was strong enough. For example, in Arsenal/DSP, the Commission states explicitly:

“While it is accepted large international trade flows of benzoic acid are consistent with a hypothesis that there may be a global market for benzoic acid, the key question is whether these trade flows can discipline the EEA producers in the event of price increases.” (Para 49)

Likewise, in both INEOS/Solvay and Glencore/Xstrata, the Commission considers empirical evidence on the relationship between imports and relative prices in different geographic areas within its analysis of geographic market definition.

This sort of wording and use of evidence suggests that, if imports were sufficient to keep EEA prices down, the Commission would be open to defining a global market. This would in turn mean that all global suppliers would be included as competitors, even if most of these global suppliers were in fact unwilling to supply EEA customers.

We were unable to conclude – on the basis of the mergers reviewed – whether the Commission has in fact ever agreed to the widening a geographic market on the basis of imports in this way. However, the available evidence suggests that it has not necessarily ruled out doing so. We also note that the Notice identifies certain evidence associated with imports as being relevant to geographic market definition, such as “past evidence of diversion of orders to other areas”. This potentially further reduces clarity on this issue.

In our view, greater clarity in the Commission’s approach would allow the Commission more easily to reassign the arguments and evidence received in this area and place it alongside other relevant evidence in the competitive assessment. This would also reduce the incentives of parties to make these sorts of arguments and in doing so reduce some of the existing duplication between the geographic market definition and competitive assessment sections of the written decisions.

iii. Consideration to the approach of calculating capacity shares to include ‘swing capacity’ and ‘rapid entrants’ including from outside the geographic market

While we believe the Commission is right not to widen geographic markets on the basis of supply substitution by imports, we note that the US merger guidelines propose the inclusion of both rapid (potential) entrants and more general swing capacity within the calculation of capacity market shares. These are suppliers, or supply capacity, that would quickly come into the market if there was a small price incentive.

As part of our review, we examined the ten case studies to see whether and how capacity shares were used. We found that capacity shares were presented in three cases:

Outokumpu/Inoxum, INEOS/Solvay and SSAB/Rautaruukki. However, in none of these cases was potential swing capacity from imports included. Indeed, even the capacity lying outside the relevant geographic market that was *currently* being used to supply imports was not included. While capacity shares excluding imports may tell us something about the competitive position of the merging parties vis-à-vis other local suppliers within the narrowly defined geographic market, they do not tell us anything about the extent of competitive constraint arising from potential (or actual) imports.

We believe the Commission should give further consideration to the possibility of incorporating capacity shares from outside the geographic market, in the form of rapid entrants or swing capacity, within its competitive assessment. We recognise, however, that this is not necessarily a straightforward empirical exercise. It requires further thought and may depend on, *inter alia*, production technology, whether imports are independent or controlled by local distributors or producers, whether independent importers are few or fragmented, and whether their European sales are considered marginal or central to their core interests. In order to develop its thinking in this area, the Commission may be able to learn from existing practice in the US.

iv. *Greater willingness to define geographic markets on the basis of isochrones or isodistance frontiers*

On the basis of the cases reviewed, we observe that the Commission's geographic market definition is nearly always a Member State, or a group of Member States or wider. It is very rarely smaller than a Member State and we have not seen (and are not aware of) any examples of a cross-border but sub-Member State region. On the other hand, where transport costs are a significant determinant in constraining the size of the geographic market, we should naturally consider that markets might be defined on the basis of isochrones or isodistance frontiers.

We note that it is common practice for a National Competition Authority investigating a retail merger to draw a boundary around a merging firm's location such that it encloses, say, 80% of its customers, and then consider competition between firms within this boundary. Where there is potential for firms to price discriminate across large customers, isochrones can potentially also be drawn around those customers to define the set of realistic competitors for that customer's business.

We recognise that isochrones are going to be of more natural relevance in the local sub-national markets that are often the focus of NCAs. We also note that the international companies that are more usually investigated by the Commission may not hold their data in way that would allow isochrones to be calculated or market shares to be calculated within them. Member States may then provide the best available approximation in order to progress to the competitive assessment. As is discussed above, however, the Commission appears to reject the use of isochrones in the case of INEOS/Solvay, despite consistent evidence from both competitors and customers about the extent to which both S-PVC and bleach might reasonably be transported. Instead, the Commission adopted geographic boundaries which followed national boundaries.

The Commission's approach may be pragmatic from a legal or process perspective. However we have concerns about it from an economic perspective, at least in those cases where isochrones more properly represent the true geographic market. We would urge the

Commission to give further consideration to employing isochrones for geographic market definition, where justified. That said, we understand that Commission practice in this area may already be changing, and that it has recently employed isochrones for its geographic market definition in a number of recent mergers in the cement industry.

v. *A more formal methodology for the treatment of transport costs*

Transport costs are clearly relevant in a number of the cases reviewed, and indeed are found to be important in limiting geographic market definition in several. However, the way in which transport costs are discussed and analysed differs significantly across cases. They are compared variously with average selling price, gross margin, total cost or the difference in costs between domestic suppliers and potential imports.

To a large extent these varying approaches to assessing transport costs may reflect the evidence available. However, it also seems evident that there is no agreed economic framework being used for this analysis. For example, transport costs are not compared with the 5-10% increase in price that might be used in respect of a hypothetical monopolist test. Further thinking around a suitable methodological framework may be merited in this area.

vi. *Greater care in appropriately defining separate upstream manufacturing and downstream distribution markets, and greater clarity about the role of vertical integration in geographic market definition*

Distribution systems are often national, rather than multinational, and cater for local demand idiosyncrasies and customer requirements for reliability, frequency and flexibility of delivery and payment terms. They can also be subject to economies of scale and scope and are not easily replicated. The importance of such local distribution systems is a key factor in defining geographic markets in a number of the mergers reviewed. We found two issues worth highlighting in this context.

First, the potential for substitution between upstream suppliers – and even the understanding of who these suppliers are – may be very different between end customers and distributors. In the cases reviewed, the Commission places weight on customer responses which emphasise the need to source their supplies locally. Yet in some cases, it is not obvious whether customers would even know if a product was sourced locally, only that they received it from a local distributor. We would recommend that the Commission is careful, wherever possible, to consider competition at the various different levels of the supply chain separately when assessing mergers. In the cases of SSAB/Rautaruukki and Inoxum/Outokumpu, the Commission did address this issue directly and carefully defined an upstream market for steel production and downstream markets for steel distribution. However, this was not done in Arsenal/DSP despite distributors apparently playing a significant role in the relevant market.

Second, the Commission could usefully be more explicit in how the extent of vertical integration fits into its assessment of geographic market definition. In the case of SSAB/Rautaruukki, the Commission found the upstream geographic market to be the Nordic Cluster, effectively on the basis that this was the set of Member States where both merging parties were vertically integrated into downstream distribution, and into which non-Nordic producers were unable to compete due to lack of access to national distribution. This approach means that the geographic market depends on the vertical structure of the

merging firms and can change with merger remedies (e.g. divestment of a distribution system). An alternative approach would have been to accept a wider upstream market and focus the competitive assessment directly on the potential monopolisation of the distribution system.

Based on specific issues arising in some of the individual cases examined, we also make a small number of further recommendations for improvement should these issues arise in future cases.

vii. Greater clarity that there is no ‘magic number’ for existing import levels within a market to overcome merger concerns

In one of the cases reviewed (Arsenal/DSP), we were surprised to find the Commission making the following statement within its decision.

“The [25-45]% market share held by Chinese producers of sodium benzoate constitutes a constraint that would discipline the merged entity post-transaction should it intend to increase or increased prices above a competitive level. In previous merger cases, it has been considered that import market shares lower than 25% would already constitute a constraint on the entity resulting from the transaction.”

While we have no reason to believe that the Commission has an established policy position on this, we are concerned that statements of this sort could be read as suggesting that the competitive assessment will always find that the merger raises no concerns if imports comprise at least 25% of the market.

We would strongly argue against any such rule. Just because imports are capable of serving a certain share of the market currently does not imply that they are necessarily capable of expanding further, at limited cost, to overcome any merger concerns. Greater clarity from the Commission that there is no such ‘magic number’ would be helpful.

viii. Greater clarity around the ‘windows of time’ concept

In another of the cases reviewed (Outokumpu/Inoxum), the Commission finds that the attractiveness of importing from Asia into the EEA depends on a variety of economic factors such as the nickel price and the currency exchange rate. As these fluctuate, there will be ‘windows of time’ within which imports cannot exercise a competitive constraint on European producers, and thus within which the merger raises concerns.

This is an interesting concept because the thinking seems powerful, but this sort of argument could presumably hold in other markets too. Indeed all international trade is typically affected by currency fluctuations. However, the approach raises a number of questions. For example, how frequent do such windows of time need to be, and how long do they need to last, in order to be considered relevant? The Commission could usefully develop its thinking around this concept and provide greater clarity about when and how it might be expected to apply.