CB(1)2420/10-11(03)

For discussion

Bills Committee on
Competition Bill

Guidelines on Market Definition

Purpose

This paper sets out the key topics and contents which could be covered in the guidelines on market definition with a view facilitating Members' scrutiny of Part 2 of the Competition Bill ("the Bill").

Role of regulatory guidelines

2. Under the Competition Bill, it is a statutory requirement for the future Competition Commission (the Commission) to issue guidelines indicating the manner in which the Commission expects to interpret and give effect to the conduct rules. The Bill also requires the Commission to consult any persons the Commission considers appropriate before issuing any such guidelines or amendments to them.

3. As Clause 1 of the Bill allows a phased commencement of different parts of the Ordinance, our plan is to first set up the Commission which will conduct consultation and prepare the guidelines, after the passage of the Bill and before the prohibitions come into force. During this transitional period, stakeholders, particularly the business community, can better understand the new law, put in place compliance and training programmes and make adjustments to their business practice as necessary.

4. The Administration notes Members' request for details on the interpretation and implementation of the proposed conduct rules during the scrutiny of the Bill. In this regard, we have submitted a discussion paper on the guidelines on the first conduct rule. Further to that, we have prepared the document at **Annex** on guidelines on market definition to provide an introduction on how the relevant market should be defined for the purpose of competition analysis.

5. It should be noted that the document is prepared on a provisional basis with reference to guidelines developed in other jurisdictions. It serves merely as an indication of the conceptual framework for market definition. The actual guidelines can only be prepared after consultation with relevant stakeholders. It therefore remains the Commission's duty, which should not be construed as having been affected by the document in any way, to draw up, consult on and issue its guidelines after the passage of the Bill.

Advice sought

6. Members are invited to note the contents of the paper.

Commerce and Economic Development Bureau
June 2011

Annex

1 ROLE OF MARKET DEFINITION

1.1 Competition occurs in a market – identifying the boundaries of that market is the first step towards understanding the dynamics and degree of competition between undertakings. Market definition is important in the process of determining -

- whether agreements, decisions between associations of undertakings or concerted practices have as their object or effect to prevent, restrict or distort competition in a market under the first conduct rule (i.e. the prohibition imposed by Clause 6(1) of the Bill) , or

- whether an undertaking possesses a substantial degree of market power in a market for the purpose of the second conduct rule (i.e. the prohibition imposed by Clause 21(1) of the Bill).

1.2 Market definition is not an end in itself but a key step in identifying the competitive constraints acting on a supplier or a given product or service. Market definition provides a framework for competition analysis.

1.3 In addition to its value in providing a framework for competition analysis, an appropriately defined market may provide information that allows an investigation to be closed at an early stage. For analysis under the first conduct rule, where an agreement involves undertakings whose combined share of the relevant market is low, the agreement is generally unlikely to raise competition concerns unless it contains "hardcore" anti-competitive conduct (such as price fixing, market sharing, output control or bid rigging).

1.4 For analysis under the second conduct rule, undertakings with low market shares will usually not possess market power individually. Therefore, an investigation of an individual undertaking whose market share is low may normally be closed at an early stage.

2 MARKET DEFINITION

Market and the Hypothetical Monopolist Test

2.1 A market is commonly understood to consist of both buyers and sellers of a product or service in a certain geographical area. However, the term "market" has a specific meaning for competition law purposes. The essential task in market definition is to define all the products on the demand side that buyers regard as reasonable substitutes for the product under investigation ("focal product"), and then to identify all the sellers who supply the focal and substitute products, or who could potentially supply them – this is the relevant market. The exercise of market definition includes defining the geographical reach of the relevant market, which may extend beyond the area under investigation and in which the focal product is sold ("focal area").

2.2 A market definition should normally contain two dimensions: the product market and the geographic market. It is often practical to define the relevant product market first and then to define the relevant geographic market.

2.3 In order to establish which products are "close enough" substitutes to be in the relevant market, a conceptual approach known as the **hypothetical monopolist test**[1] ("the test") is used. The test tries to identify all the products that buyers regard as reasonably substitutable for the focal product. Once those substitute products are identified, all those undertakings that could potentially supply the focal product and substitutes can be identified. These are the competitors that actually constrain the exercise of market power.

2.4 In essence, the test seeks to establish the relevant market by including in the market all the products and their sellers that constrain the exercise of market power and then, determine if a hypothetical monopolist that controls this defined market would be able to act without constraint.

2.5 The relevant market is therefore the smallest product group (and geographical area) such that a hypothetical monopolist controlling that product group (in that area) could **profitably** sustain prices that are at least a small but significant and non-transitory amount above competitive levels. That product group (and area) is usually the relevant market for competition law purposes.

2.6 Therefore, for example, if a hypothetical monopolist over a candidate product group could not profitably sustain prices above competitive levels, that means there are likely other competing substitutes which can constrain the exercise of market power by the hypothetical monopolist and have not been included in the product group. In other words, that product group would be too narrow to be a relevant market.

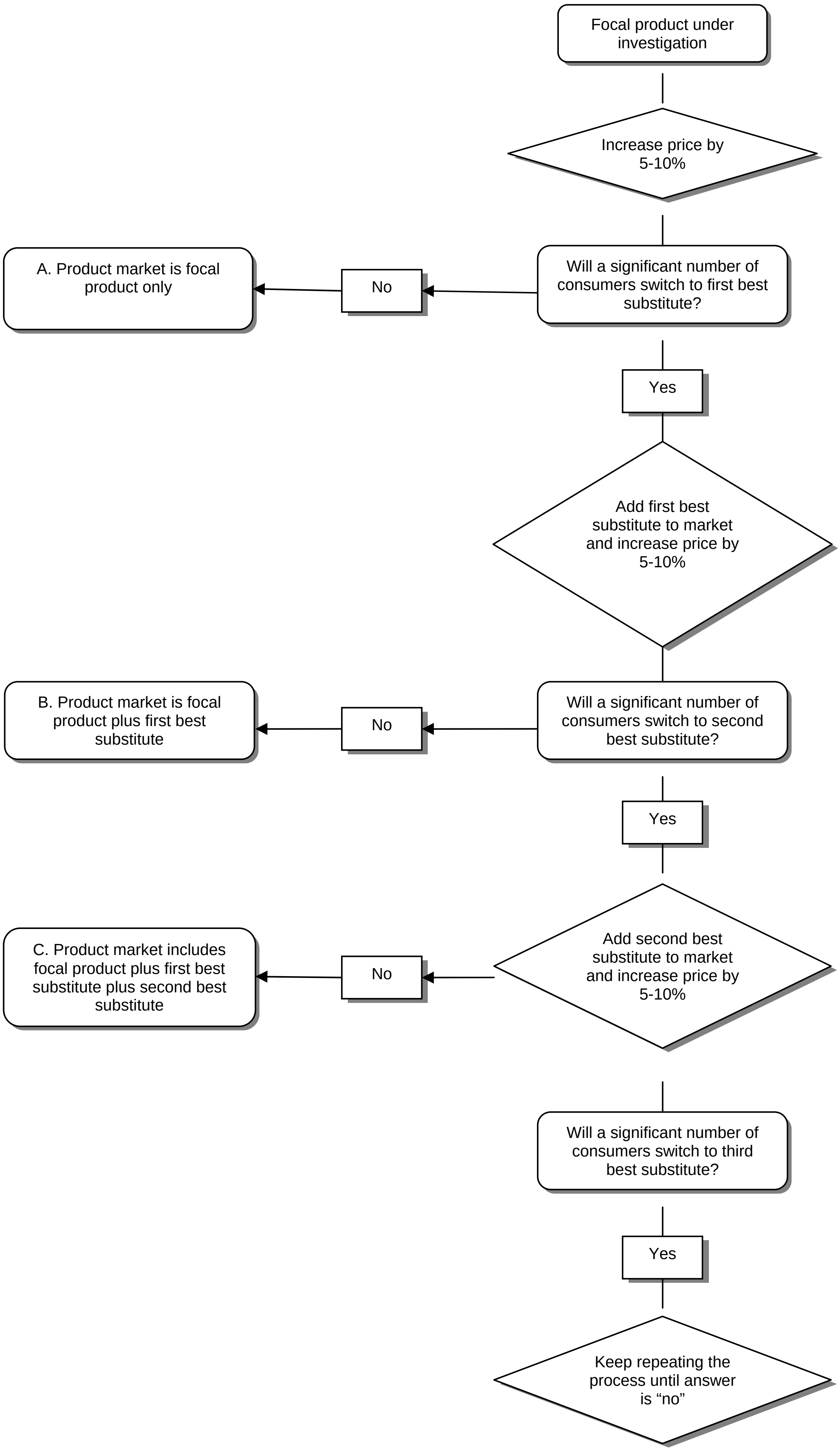
2.7 The test starts by considering a hypothetical monopolist of the focal product (i.e. normally the product under investigation) which operates in a focal area (i.e. normally the area under investigation in which the focal product is sold). The next question will be whether it would be profitable for the hypothetical monopolist to sustain the price of the focal product a small but significant amount (e.g. 5 to 10 per cent) above competitive levels. Usually, the current pricing levels are assumed to represent the competitive levels and are used as the starting point.

[1] The hypothetical monopolist test is sometimes referred to as the SSNIP (i.e. Small but Significant Non-transitory Increase in Price) test.

2.8 If the answer to this question is 'yes', the test is complete. The product and area under the hypothetical monopolist's control is usually the relevant market.

2.9 If the answer to this question is 'no', this is typically because a sufficiently large number of customers would switch some of their purchases to other substitute products (or areas). In this case, it will be assumed further that the hypothetical monopolist controls both the focal product and its closest substitute. The test will then be repeated, but this time in relation to the larger set of products (or areas) under the hypothetical monopolist's control.

2.10 As before, the question to be asked is whether it would be profitable to sustain prices at 5 to 10 per cent above competitive levels. If so, the test is complete. The relevant market is usually the focal product and its closest substitute. If not, we assume the hypothetical monopolist also controls the second closest substitute to the focal product and repeat the process once more. The product group (or areas) will continue to be expanded in this way (i.e. by adding the next best substitute) until a group of products (or areas) is found for which it is profitable for the hypothetical monopolist to sustain prices 5 to 10 per cent above competitive levels. The following diagram provides an illustration of the process -


Focal product under investigation
Increase price by 5-10%
Will a significant number of consumers switch to first best substitute?
No
A. Product market is focal product only
Yes
Add first best substitute to market and increase price by 5-10%
Will a significant number of consumers switch to second best substitute?
No
B. Product market is focal product plus first best substitute
Yes
Add second best substitute to market and increase price by 5-10%
No
C. Product market includes focal product plus first best substitute plus second best substitute
Will a significant number of consumers switch to third best substitute?
Yes
Keep repeating the process until answer is “no”

2.11 It should be emphasized that the above approach to market definition is a conceptual framework and is not intended to be applied mechanically. In practice, the test provides a conceptual framework within which evidence on competitive constraints can be gathered and analysed. The relevant market serves mainly as an appropriate frame of reference for competition analysis. In cases where it may be apparent that an activity is unlikely to have an appreciable effect on competition, or that the undertaking under investigation does not possess substantial market power within any sensible market definition, it would not be necessary to formally establish a definition of the market.

3 THE PRODUCT MARKET

3.1 Defining the relevant product market involves determining which products would be regarded by buyers as substitutes for the focal product on the demand side and then determining, on the supply side, who currently supply such products and also who could potentially supply them at short notice by, for example, switching production from other products.

Demand-Side

3.2 Product market definition starts by considering the products which the parties to an agreement produce, or the products which are the subject matter of an abuse of a substantial degree of market power complaint. The effects of a price increase above competitive levels are considered in order to determine the relevant market for these products.

3.3 The hypothetical monopolist test will usually be carried out using a 5 to 10 per cent increase in price above competitive levels. This figure may vary depending on the facts of each case. The price increase must be large enough that a response from buyers is reasonably likely, but not so large that the price rise would inevitably lead to a substantial shift in demand, and so lead to markets being defined so widely that market shares convey no meaningful information on market power.

3.4 Following the price rise, customers may switch some of their purchases from the focal product to other substitute products (**demand side substitution**). It is not necessary for all or a majority of customers to switch. The important factor is whether the volume of purchases likely to be switched is large enough to prevent a hypothetical monopolist profitably sustaining prices 5 to 10 per cent above competitive levels. If a significant number of buyers and volume of purchases switch to substitute products following the increase in price above competitive levels, these substitute products would be included in the definition of the product market.

3.5 Products may be viewed as substitutes although they do not have similar physical or other characteristics. Their prices also need not be similar. For example, matches and disposable lighters may be considered to be in the same market because customers viewed them as close substitutes. If two products serve the same function but one is of a higher price and quality than the other, they might be included in the same market. This is because even though one product is of a higher price and quality than the other, a price increase in the product of a higher quality could be such that buyers no longer feel that the quality difference between the two products outweigh their price differential. Hence a price increase in one product could lead to buyers switching to the other product.

3.6 The important issue is whether a hypothetical monopolist could profitably **sustain** prices above competitive levels. The more quickly buyers can switch, the greater the constraint on the exercise of market power. Products to which buyers would switch within a short period of time without incurring significant switching costs (i.e. the real or perceived costs that are incurred by buyers when changing sellers) are more likely to be included in the relevant market. The relevant time period used in the assessment varies depending on the circumstances of each case. For example, in industries where transactions are made very frequently, the relevant time period would be shorter. A case by case analysis of switching is therefore appropriate.

3.7 Evidence on substitution by buyers from a variety of sources may be considered. Although the information used will vary from case to case, the following evidence and issues are often likely to be important –

- **interviews with buyers:** buyers can be interviewed directly to determine their reaction to a hypothetical price increase. Survey evidence might also provide information on buyer preferences that would help to assess substitutability. For example, evidence on how buyers rank particular products, whether and to what extent brand loyalty exists, and which characteristics of products are important in their decision to purchase.

- **information from players in the market:** information from undertakings active in the market and their commercial strategies may also be useful. For example, company documents such as public statements, and studies on buyer preferences may provide useful evidence on which products are likely to be the closest substitutes to the products of the concerned undertakings.

- **switching costs:** buyers could be deterred from substitution because of the high costs involved. High switching costs relative to the value of the product would make substitution unlikely.

- **patterns in price changes:** Supplementary evidence can be gathered from patterns in price changes. If two products share a similar pattern of price changes unrelated to changes in cost or general price inflation, this may indicate that these two products could be close substitutes.

- **own or cross price elasticities:** The own price elasticity of demand provides estimates of the percentage change in demand for a product (for example, the focal product) arising from a change in its price. The cross price elasticity of demand measures the percentage change in demand for a product (for example, a rival product) in response to a change in price of another product (for example, the focal product). In general, if there is little change in the amount of a product bought by buyers as a result of a change in price (either in the price of the product itself or the rival product) then this could imply that there is limited substitutability.

- **product characteristics**: Evidence on product characteristics may provide useful information where buyer substitution patterns are likely to be influenced significantly by those characteristics. Where the objective characteristics of products are very similar and their intended uses are the same, this could be good evidence that the products are close substitutes.

Price Discrimination

3.8 In some cases, an undertaking may be able to charge some buyers a higher price than others, where the price difference is not related to higher costs of serving those buyers. This is called price discrimination. Price discrimination is only possible when the undertaking is able to differentiate between buyers, and there is no arbitrage between them[2]. The hypothetical monopolist could be able to discriminate between buyers due to a variety of reasons, for example:

- some buyers may face such high switching costs that they might be locked into purchasing a particular product. For example, a buyer might use a product as an input to its production process and switching to a rival product might mean increased costs and lower quality production, as well as adjustments to its production process.

- buyer demand may differ at different times, for example, demand for transport services at peak times may be less price sensitive than off peak demand for the same services.

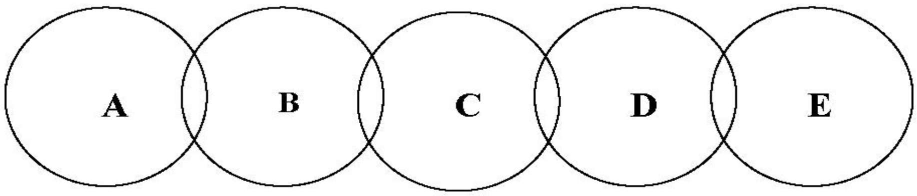
3.9 Where a hypothetical monopolist is able to charge different prices for different buyers, separate relevant markets could be created. For example, tour agencies could price discriminate between travellers who travel during peak season (such as during the school vacations) and those who are able to travel during off-peak season (during the school term). These could be two separate markets.

[2] That means buyers purchasing at low prices must not be able to sell on sufficient quantities to buyers paying higher prices to undermine price discrimination.

Chains of Substitution

3.10 Sometimes due to a “chain of substitution”, a market may be defined to include certain products that are not direct substitutes of the focal product. For example, a small two-door hatchback may not be a direct substitute for a large 8-10 seat “people mover”. However, a rise in the price of the small car might have an effect on the demand and supply of slightly more expensive cars (i.e. the mid-size cars) and result in a price rise for these cars. This subsequent price rise might in turn affect the demand and supply of more expensive large-size cars and result in a price rise in these large-size cars.

3.11 Even though all products in the chain are substitutes, this does not mean that all the products in the chain will form part of the relevant market. The closer the two products are to each other in the chain, the more substitutable they are from the point of view of buyers. Using the diagram below as an example, buyers may regard products A and C as very good substitutes for product B but they may view products D and E as poor substitutes for product B. The important consideration is therefore, whether, via these chains of substitution, the ability to raise the price of the focal product, for example product B, would be constrained by products D and E. It may be that a hypothetical monopolist of three products next to each other in the chain (say A, B and C with B being the focal product) could profitably sustain prices 5 to 10 per cent above competitive levels. In short, the hypothetical monopolist test is a way of determining what range of products in the chain constitutes the relevant product market.



Supply-Side

3.12 Undertakings might be prevented from charging higher prices if other undertakings currently not supplying the product in question could easily switch production or otherwise supply the product within a short time period. In other words, substitution can occur on the supply side as well. This form of substitution is carried out by suppliers and hence is known as **supply side substitution**. An example is the supply of paper for use in publishing. Paper is produced in various different grades dependent on the coating used. From a buyer’s point of view, the different types of paper may not be viewed as substitutes, but because they are produced using the same plant and raw materials, it may be relatively easy for sellers of one grade of paper to switch production to another grade. Hence a hypothetical monopolist in one grade of paper might not be able to profitably sustain prices above competitive levels because manufacturers currently producing other grades would rapidly start supplying that grade.

3.13 Supply-side substitution can be thought of as a special case of entry that occurs quickly (generally in less than one year); effectively (such as on a scale large enough to affect prices); and without the need for substantial sunk investments / sunk costs[3]. Supply-side substitution addresses the questions of whether, to what extent, and how quickly, undertakings could start supplying a market in response to a hypothetical monopolist attempting to sustain prices above competitive levels.

3.14 Indications of supply-side substitution could include:

• **Ease of substitution:** potential suppliers could be asked as to whether substitution is possible in terms of technical feasibility, substitution costs and the time taken to switch production. The key consideration is whether it would be worthwhile to switch production given a small (i.e. 5 to 10 per cent) price increase above competitive levels.

• **Evidence as to existing capacity:** undertakings may be prevented from switching production because of a lack of spare capacity to supply the new products. Undertakings could also face difficulties in obtaining necessary inputs or finding distribution outlets.

• **Buyer preference:** even though new undertakings may be able to supply the new products, buyers might not choose to buy the products. The views of buyers on how loyal they are to existing products and whether they would consider buying from new sellers could be relevant. More generally, buyers may also be able to provide information regarding potential sellers.

4 THE GEOGRAPHIC MARKET

4.1 The geographic market refers to the area over which substitution takes place. If buyers will travel further afield to buy products when their local prices are increased, then the geographical spread of the market is wide and vice versa. If sellers from afar will now supply to local markets because the local price has risen, then the geographic market is also wider than the situation where only local sellers are willing to supply.

4.2 The geographic scope of the market can be defined using the same framework used to analyse the product market, while putting emphasis on three particular categories of issues:

• demand-side issues;

[3] A sunk investment or sunk cost is a cost incurred on entering a market that is not recoverable on exiting that market. This could include investments in product placement, distribution and production technology.

• supply-side issues; and

• imports.

Demand-Side

4.3 The process for defining the geographic market is similar to the process for defining the product market. It begins by looking at a relatively narrow geographic area (the focal area) and by asking if a 5 to 10 per cent increase in the price of a product in one area would lead to buyers switching to sellers in neighbouring areas. The focal area might be the area supplied by the parties to an agreement or the subject of a complaint about conduct. If a significant number of buyers are likely to switch to other sellers, this would restrain the ability of a hypothetical monopolist to charge higher prices in its area. These neighbouring areas would be included in the market definition.

4.4 The analysis of price discrimination and chains of substitution would be applied in defining the geographic market in the same way as those for the product market. The evidence used to define geographic markets on the demand side would also usually be similar to that used to define the product market. An additional consideration would be the value of the product and transportation costs. Generally, the smaller the transportation costs in relation to the price of the product, the greater the willingness of buyers to travel further to buy cheaper supplies. The mobility of buyers (whether buyers have the ability to travel to buy cheaper supplies) is also relevant.

Supply-Side

4.5 Apart from the willingness of buyers to switch to sellers from neighbouring areas in response to a price increase, the potential for undertakings in neighbouring areas to supply to buyers should also be considered. As in the product market definition, these sellers should be considered if they can respond in the short run, (for example, within one year). Significant costs in terms of advertising or marketing, or non-access to distribution channels may constrain a potential seller.

4.6 The costs of transportation should also be considered. If buyers and sellers face high transportation costs, then the geographic market will be smaller than when transport costs are low. The higher the costs of transportation, the smaller the geographic market is likely to be.

Imports

4.7 Significant imports of a particular product may indicate that the market is wider than Hong Kong. However, the presence of imports will not always mean that the market is international. First, imports could come only from the international operations of domestic sellers, in which case they may not act as an independent constraint on domestic undertakings. Second, in order to import on a larger scale, international sellers may require substantial investments in establishing distribution networks or branding their products in the destination country. These factors may mean that sellers of the relevant product located outside Hong Kong would not provide a sufficient constraint on domestic sellers to be included in the relevant geographic market.

Geographic Market for Hong Kong Cases

Given Hong Kong's relatively small size, territory-wide markets are likely to be more common than in other jurisdictions such as the US, the UK and Australia, where local or regional sub-national markets are common.

As Hong Kong is an open economy, special mention should also be made of imports. A significant level of imports is a key indicator that the market may be wider than Hong Kong in its geographic scope. Where the goods could be potentially supplied by suppliers outside Hong Kong, the ability of local suppliers to raise their prices above the competitive level could be constrainted by import substitutes.

However, as pointed out in the above, a high level of imports is not conclusive evidence that local suppliers are constrained from abroad. It may not always be possible to significantly increase the scale of imports in response to price rises in the local market without, for example, a substantial investment in distribution and/or branding.

5 OTHER ISSUES

Temporal Markets

5.1 Another dimension that may be relevant in some markets is time. Examples of how the timing in the production and purchasing of products can affect markets include -

• Peak and off-peak services (for example, tour packages during peak season (school vacations) and off-peak season (school term)): In these cases, it may not be possible for buyers to substitute between time periods. Some buyers may not view peak and off-peak services as substitutable.

• Seasonal variations (for example, food specialties which have a significantly higher demand during local festive celebrations).

5.2 To some extent, the time dimension is simply an extension of the product dimension. For example, the product can be defined as the supply of tour packages at a certain time of the year if buyers do not treat different time periods as substitutes for each other.

Identifying the Competitive Price

5.3 The hypothetical monopolist test uses the competitive price as the base price, and the current price is usually assumed to represent the competitive level. However, where an undertaking has market power, it may operate in a market where the current price is already substantially higher than the competitive level. If it tries to raise the price further, buyers might switch to purchasing other products because the price is simply too high. The switch might have nothing to do with the constraint brought about by substitutes. In this case, it would be wrong to argue that these substitutes prevented the undertaking from exercising market power and it would be wrong to include them in the relevant market. If these substitutes are included in the relevant market, it might lead to a misleading finding that the market power of the undertaking is lower than it actually is. This problem is known as the "cellophane fallacy" after a US case involving cellophane products.

5.4 The possibility that market conditions are distorted by the presence of market power will be accounted for when all the evidence on market definition is considered. Where current prices are likely to differ substantially from their competitive levels, caution must be exercised when dealing with the evidence on switching patterns as such evidence may not be a reliable guide to what would occur in normal competitive conditions.