

Competition Commission of Mauritius Guidelines

MARKET DEFINITION AND THE CALCULATION OF MARKET SHARES

November 2009



1.	Introduction	3
2.	Market definition.....	4
	Dimensions of market definition.....	4
	Detailed approach to market definition.....	6
	The Commission’s approach in practice.....	9
3.	Market shares	12
	Assessment for comparison to thresholds in the Act.....	12
	Assessment as an indicator of market power.....	12

1. Introduction

- 1.1 The Competition Act 2007 establishes market share thresholds below which the Competition Commission of Mauritius (CCM) will not find a monopoly situation or (in the case of a merger) a substantial lessening of competition. In addition to this legal role, market shares can help to indicate whether companies have market power. Market shares will therefore often be of crucial importance to the outcome of an investigation.
- 1.2 An enterprise's market share is its own sales in a market divided by total sales in that market. To calculate a market share, therefore, the 'relevant market' needs to be defined, essentially by determining what constitutes 'similar,' or 'substitutable', products. For example, a seller of one brand of luxury cars might have a relatively high share of 'the luxury car market', a much smaller share of 'the car market' and a tiny share of 'the vehicle market'. The choice between these different market definitions is not arbitrary, but will be the result of analysis of the market carried out by the CCM, in each case it investigates. This process, well established by competition authorities worldwide, is termed 'market definition'.
- 1.3 In essence, markets are defined to be the set of products that really do, or could, compete with one another. To continue the car example, if only a small fraction of buyers of luxury cars would switch to buying economy cars if the price of luxury cars rose, then it would be appropriate to define the market narrowly as 'luxury cars', not as 'all cars' (and the seller's market share might therefore be high). But if, on the other hand, quite a significant fraction of luxury car buyers would switch to economy cars if the price of luxury cars would rise, then it would be appropriate to define the market broadly as at least 'all cars' (and then the seller's market share is likely small).
- 1.4 The CCM will be interested in market definition even when not considering market shares, because the 'relevant market' defines the set of products that together provide competition to the product under consideration. If many sellers operate in the relevant market, and none has a large market share, then it is usually less likely that there will be a competition problem than if few operate in the market.
- 1.5 In this document, we set out the CCM's approach to market definition, which will apply across all types of restrictive practice covered by the Competition Act. We conclude with some more detailed guidelines on how the CCM will normally calculate market shares.
- 1.6 Market definitions used to determine whether market shares are over thresholds specified in the Act, and therefore whether the CCM can investigate, may differ from the markets the CCM ultimately defines after its investigation and analysis. Given the uncertainty over the true market definitions, as well as the inevitably arbitrary threshold values, the CCM will not engage in protracted debate over which method to use to calculate market share.

2. Market definition

- 2.1 The 'relevant market' (the terms 'market' or 'economic market' are also used) has a precise meaning in competition policy. It is a defined set of products, and a defined geographic area, within which competition occurs. Relevant markets could be defined narrowly or widely, in either of these dimensions. The narrower the market definition, the higher is likely to be any given enterprise's product's share of that market.
- 2.2 Like other competition authorities, the CCM's approach to defining the relevant market is to consider (and, where feasible, to measure) what happens when relative prices change. Economists define two products as *substitutes* if an increased price for one causes increased demand for the other¹. If products are sufficiently close substitutes, they will be considered to be in the same relevant market.
- 2.3 Very similar goods sold in the same place are very likely to be in the same 'relevant market' defined this way because they are very likely to be good substitutes². Completely dissimilar goods³ are certain to be in different markets. Between these two extremes, however, things become much less obvious⁴, and market definition will require economic analysis of whether sufficient substitution is likely to occur if relative prices change⁵. The degree of substitution is what matters.
- 2.4 In addition, the CCM will consider whether substitution can occur on the supply side. If the price of a product increases, are other sellers likely quickly to switch production into that market to take advantage of this situation⁶?
- 2.5 Confusion between the technical use of the term 'market' in these guidelines and the common language use of the term should be avoided. The word 'market' might mean something different outside the context of a competition investigation. For example, marketing specialists might well consider different language groups or communities to be different 'markets' in the sense that very different advertising strategies are required to reach them. These perceptions are not wrong, but they might not coincide with the precise, technical meaning of the word 'market' in competition analysis. Internal company documents referring to a particular 'market' might

¹ Increasing the price of oranges might cause increased demand for apples, for example, as consumers substitute apples for oranges when deciding what to buy.

² Such as otherwise identical apples sold at two neighbouring street stalls.

³ Apples and cars, for example.

⁴ For example, are different varieties of apples in the same market? Are apples and pears in the same market? Are apples sold on the street in the same market as apples sold in a nearby supermarket?

⁵ If for example an increase in the price of supermarket apples significantly increases sales of apples from a street stall, then the street stall apples are in the same market as the supermarket apples. If when the supermarket prices change, sales of apples from the stall are unaffected, they are not in the same market.

⁶ For example, if street sellers' prices for apples increased might a local supermarket which had previously not been supplying apples of that variety start supplying them?

therefore not always provide evidence on the relevant market for the purposes of competition analysis.

Dimensions of market definition

- 2.6 The CCM will normally define 'the relevant market' for any given goods or services in two dimensions: product market and geographic market.
- 2.7 The product market is the set of products which are substitutes for the product being examined in any specific investigation, as defined above. In each investigation, the CCM may need to consider, among other things, whether the following sorts of different goods or services are in the same, or different, markets:
- (a) Different brands of essentially similar products (eg two brands of whisky)
 - (b) Different types of products serving similar purposes (eg whisky and rum)
 - (c) Products targeted on clearly different consumer groups (eg men's and women's shoes)
 - (d) Products of differing quality (eg five star and three star hotels)
 - (e) Second hand and new products (eg cars)
 - (f) Products sold through different channels (eg apples sold at street stalls or supermarkets)
 - (g) Products available at different times (eg flights serving the same destination departing in the morning or the evening)
- 2.8 The geographic market will also be important. The geographic extent of some markets will be very local because products sold in one location are not regarded by customers as good substitutes for products sold in another⁷. Equally, rural and urban customers might be in separate geographic markets. In these circumstances, the relevant geographic market will be narrower than 'Mauritius'.
- 2.9 Markets can be wider than 'national', if it is relatively easy to obtain new sources of supply from overseas. For example, if an importer of a product raises price and then loses sales to a new importer, then that product may be in a market wider than Mauritius. Markets can be regional or even global. Services (such as search engines) delivered purely over the Internet may well be global, for example. Shipping costs, import tariffs or restrictions and the need for local marketing and distribution support may be considered when assessing whether the geographic market for a given product is wider than Mauritius.

⁷ For example, a cinema in Grand Baie is unlikely to compete directly with a cinema in Mahebourg (it is more likely to compete with alternative sources of entertainment in Grand Baie, or possibly with DVDs).

- 2.10 Normally, if the CCM decides that a market is global or otherwise significantly wider than Mauritius in scope, it is unlikely to have concerns about market power being exercised by Mauritian players in that market.
- 2.11 In many cases, Rodrigues is likely to form a separate geographic market to the rest of Mauritius.
- 2.12 If there is price discrimination, that is, if different groups of buyers are charged different prices for the same product, then the CCM may define different relevant markets for each group of buyers corresponding to these groups. In these cases, the relevant markets would be defined in three dimensions, by product, geography, and buyer group.

Detailed approach to market definition

- 2.13 The process of market definition is a structured sequence of economic analysis based on available data. The CCM will always bear in mind the basic principle of market definition, and will take a pragmatic approach to this task, preferring to find a workable, sensible and simple market definition to use as a tool to assess market power rather than to expend a lot of effort and time refining the market definition, or dealing with too much abstruse economic analysis or legal precedent. In general, the CCM will follow international practice and apply the 'hypothetical monopolist' test to define markets, as shown below.
- 2.14 Furthermore, where questions of market definition make no difference to the assessment of market shares or market power, then the CCM will not address those questions. For example, a monopolist of 'all water supply in Mauritius' will also, obviously, be a monopolist of 'all water supply in Port Louis'. There would be no need to determine whether there are local geographic markets in such a case.

Product market

- 2.15 The CCM will set out a number of alternative or 'candidate' product market definitions and, starting with the narrowest, assess whether each is a relevant market as defined above.
- 2.16 Following standard international practice, the CCM will take as its relevant market the narrowest candidate market for which a monopolist of all the products in the candidate market would be able profitably to increase the price of the product being investigated by a small but significant amount (typically 5-10%) over a sustained period.
- 2.17 This technical definition, sometimes referred to as the 'Hypothetical Monopolist Test', captures the sense that a relevant market is the set of products that compete with one another. If the candidate market is too narrow (because there are many products outside that market definition that effectively compete with the products within it) then even if one enterprise monopolized all of the sales of that candidate market, it would not be able profitably to increase price. That candidate market definition being too narrow, attention would shift to a wider candidate market definition containing more products, until the condition above is met. Only

when a monopolist of a candidate market would have the ability profitably to increase price as described above is that candidate market considered to be the relevant market. Meeting the condition described in 2.16 shows that the products within the candidate market are in reality providing a competitive constraint. To put it another way, it has been said that “A relevant market is something worth monopolizing”.

- 2.18 The constraints on such price increases could arise from customers switching to other products (‘demand-side substitution’) or other suppliers switching production to enter the market (‘supply side substitution’). The CCM will normally consider whether sufficient substitution would happen within a year to render a price increase unprofitable, when assessing market definition.
- 2.19 For example, when considering cars, proposing separate markets defined by colour (‘yellow cars’, ‘red cars’ etc) is presumably too narrow because it would fail the test above. Even if only one seller (for some reason) was selling cars coloured yellow, it seems implausible it would be able to increase profits by charging 5-10% more for them. Consumers would simply buy cars of other colours (“demand side substitution”) or other sellers would quickly start painting cars yellow instead of red (“supply side substitution”). At the other extreme, a monopolist of the entire ‘cars’ market could surely profitably increase prices – it seems unlikely that substitution to other forms of transport would be so easy as to provide a competitive constraint. Thus, the relevant market for investigating car sales presumably lies between the (obviously too narrow) market for ‘yellow cars’ and the (obviously sufficiently wide) market ‘cars’. Between these two extremes, however, there will be questions that are not so obvious. Is ‘luxury cars’ a separate market, in the sense defined above? Are new cars and second-hand cars in the same market? Answering these questions, rather than the obvious ones chosen here for illustration of the principle, may require economic analysis.
- 2.20 When looking at mergers, the ‘5-10% price increase’ that the CCM considers in the definition above will normally be as compared to prices in the absence of the merger – normally the pre-merger prices. When considering abuse of monopoly, or cartel investigations, it will often be more appropriate to consider an increase compared to prices that would prevail under competitive conditions. Monopoly power might result in prices that are so high that customers switch to quite unsatisfactory alternatives⁸ but to regard these substitutes as ‘competitors’ merely accepts and legitimizes monopoly power⁹.

⁸ For example, if car prices were very high indeed due to a monopoly, many customers might switch to using the bus.

⁹ Failure to recognize this point is sometimes referred to as the ‘cellophane fallacy’ following a celebrated case in which a manufacturer of cellophane plastic wrapping successfully argued that other wrapping materials were in the same market – when in fact they only acted as substitutes because prices of the cellophane wrapping were at monopoly levels. Ultimately, all products for which prices are not controlled will have some substitutes, even monopoly products (as the monopolist will increase prices until a substantial fraction of consumers start to substitute away).

2.21 All of the above is framed in terms of price competition. However, the CCM recognizes that products compete in dimensions other than price: such as quality, the provision of add-on services or even through promotional activity such as advertising. Where these other dimensions of competition are deemed important, the CCM will endeavour to use quality-adjusted prices.

Geographic market

2.22 In principle, identification of the geographical limits of the market should follow the same approach as is used in defining the product dimension. In practice, however, for a very wide variety of products and services, the outcome of such a process is likely to be a conclusion that the relevant geographic market is the island of Mauritius. In order to make effective use of limited CCM resources, the CCM will normally take as a starting point an assumption that the geographic market is Mauritius. Parties to the investigation are of course welcome to provide evidence and arguments that it is smaller or wider for the goods or services being examined. Furthermore, the CCM itself will examine these questions in the cases where there is a reasonable prospect that markets are narrower or wider.

2.23 For goods and services with an obviously local dimension, the CCM will examine whether the geographic market should be narrower than national. This will apply especially to retail sales to final consumers and to services provided in person (such as hairdressing).

2.24 In some cases, where transport costs are very low and other sources of supply are readily available, it might be appropriate to consider wider regional or global markets. However, parties seeking to claim that they face direct competition from possible imports should consider the CCM's approach to market definition carefully. Would a 5-10% increase in prices across Mauritius cause such an increase in imports within a year as to render that price increase unprofitable? There will be many products which face the possibility of additional import competition, at some time, which nonetheless are not subject to such a tight constraint as is implied in that question. It will not be enough simply to demonstrate that additional imports are possible: it must be expected that they will respond quickly and at sufficient scale to a relatively small price change. The CCM would normally expect to see clear evidence in order to accept a claim that a product sold in Mauritius actually faces competition within a wider geographic market.

Price discrimination (buyer group) market

2.25 Separate markets arising for what are physically the same products could also be defined on the basis of buyer behaviour.

2.26 If the hypothetical monopolist likely would price discriminate between different groups of buyers, for example by charging them different prices for the same product, then the CCM may define different relevant markets for each group of buyers corresponding to these groups.

Similarly, separate markets might arise if different buyers could be provided with substantially different levels of service. In these cases, relevant markets would be described by product, geography, and buyer group. Such a disaggregation would be sensible, and practiced, only if a merger or a monopoly situation had a significantly different effect on different groups of buyers. For example, this would be the case if only certain buyers would be able to switch to a new foreign supplier to defeat a monopoly but other buyers could not make the switch, and the local seller was able to discriminate among the two types of buyers.

The CCM's approach in practice

- 2.27 The standard approach to market definition described above implies, in principle, a very clear economic assessment of the boundaries of the relevant market. Markets are defined by patterns of substitution in response to price changes. Thus, by examining past patterns of substitution in response to past changes in price, the relevant market can be identified.
- 2.28 In practice, this is rarely possible for two reasons. Firstly, the past might not always be a good guide to the present or the future. Secondly, and normally decisively, there will almost never be enough data to examine substitution in response to price changes in this way. Even if all past price movements and changes in demand or supply have been recorded (for example, some shops record and collect barcode scanner data for marketing purposes), there will often simply not have been the price changes that are needed to define markets.
- 2.29 For example, consider again the question of whether 'luxury cars' is a relevant market (separate from the wider 'cars' market). To answer this question would require that prices for all luxury cars, but no other cars, had for some reason gone up by 5-10% for at least a year, at some point in the recent past (and the resulting changes in sales all recorded). This is unlikely to have happened.
- 2.30 In practice, the CCM is likely to have to consider a range of evidence – some quantitative based on data analysis, others qualitative – in order to form a view on market definition. For product market definition there is no 'default option' that the CCM can or should adopt in the face of weak evidence. When market definition is in doubt, the CCM will adopt a market definition that seems the most likely to be correct, given the full range of evidence before it. It will not, for example, need to 'prove' that the market asserted by parties is wrong, but only that the full range of the evidence supports the CCM's assessment of the relevant market as being more likely.
- 2.31 There is no 'hierarchy' of evidence that the CCM will use in this assessment. Quantitative evidence should not automatically be assumed to be superior to qualitative evidence. In general, evidence of changes in demand or supply (substitution) in response to price changes is particularly relevant to market definition. However, very certain evidence derived from other sources may be better than very uncertain evidence on substitution.

- 2.32 Some possible types of evidence relevant for market definition include price correlations and customer interviews and surveys. Often, products within a single market show similar price movements over time¹⁰. A (roughly) constant difference, but following a similar pattern of price changes, might also suggest that the two products are in the same market, but with some constant cost differential¹¹. Similarly, two products of different quality might well be in the same market but with a (roughly) constant price differential. In the same vein, an absence of correlations in price changes might imply that the two products are in separate markets. However, there are many factors influencing price movements and the CCM will regard relative price movements only as one component of its overall assessment.
- 2.33 Evidence of customer preferences, for example from surveys, might provide evidence on demand-side substitution. Customers could be asked to which products or sources of supply they would turn if the price of what they now buy would rise by 5-10%. Or there may be evidence regarding their switching suppliers in the past that may be relevant for the present. Again, it is important to bear in mind that the question is not whether substitution is possible, but whether there would be enough substitution in response to a small price change to make that price change unprofitable. Many consumers might respond to a survey saying that they might consider switching to an alternative in some circumstances, but the relevant question is how many would do so in response to a small price change.
- 2.34 Some evidence on supply-side substitution might be available from considering costs and technology. For example, if it could be demonstrated that an alternative source of production could and would rapidly switch into the market, in response to a small price change, then it might be appropriate to widen the market to include that source. It might be appropriate to consider the capacity of the alternative production facility and any costs, including opportunity costs, involved in switching. Again, it is important to draw a distinction between whether other suppliers could switch into the market and whether they would do so quickly in response to a relatively small price change. For example, many agricultural producers might be able to switch from one crop to another, but would they do so within a year in response to a 5-10% relative price change? As another example, would an international manufacturer switch to supplying Mauritius if supplying customers in another geographic area was more profitable?
- 2.35 When defining prices or other data in the analysis above, the CCM will be careful to compare like with like as much as possible. For example, it will normally calculate unit prices against a standard unit (such as by weight) when comparing the prices of products shipped in different quantities. Companies will be asked for detailed descriptions of the components of prices or

¹⁰ For example, if prices of apples are consistently different in Port Louis and Curepipe, that might suggest that these are separate geographic markets.

¹¹ For example, if apples in Curepipe were consistently 5% more expensive than those in Port Louis, the prices rising and falling together with seasonal or other variation but maintaining a constant differential, that might imply they are in the same market but with higher cost (eg transport) in Curepipe than in Port Louis. On the other hand, such a pattern could also mean the products have a common important input.

revenue data submitted to the CCM, to understand for example, whether delivery costs or taxes are included or excluded.

2.36 If assessing quantitative evidence (data) on market definition, the CCM will expect that some data will be uncertain or unknown. If one piece of data required to complete a market definition exercise is uncertain or unknown, it will rarely be appropriate to discount that data completely – assuming, in effect, the figure to be zero. This would bias the results. Where necessary, the CCM will adopt ranges or even assumed values for figures around which there is uncertainty. The degree of uncertainty of any such figures (and their importance to the final calculation) will be taken into account when considering the overall weight to attach to the conclusions of the exercise. However, the CCM will normally prefer to calculate an estimate that is ‘approximately right’ rather than one that is ‘precisely wrong’ because it excludes figures that are known to exist but are not known with certainty. For example, if one or more sellers’ sales are unknown when calculating market shares, treating those sales as zero would certainly overstate the market shares of the remaining sellers – so it would normally be appropriate to estimate those sales, or take a range of values.

2.37 The CCM may also take into account reasoned decisions of other authorities on market definition. Where competition authorities overseas have defined markets using similar principles to those defined here, the CCM may have regard to those conclusions and the analysis supporting them. However, such analysis will not always be directly relevant to the matter being examined by the CCM. Product markets will differ in different countries, for example reflecting different customer tastes and opportunities. Furthermore, the purpose for which markets were examined may affect the market definition arrived at and even the same authority might reach different market definitions when assessing different issues¹². The CCM will also consider whether any previous decisions and analysis by sector regulators or other authorities in Mauritius may be informative about market definition. Any market definition exercise by other authorities would only provide information to the CCM’s own analysis, however, and should not be regarded as setting a binding precedent.

¹² For perfectly legitimate reasons. Market definition depends on the starting point, so for example the assessment of competition from product C when considering a merger between products A and B may be quite different from the assessment of competition from product B when assessing a merger between A and C.

3. Market shares

- 3.1 Having defined the relevant market, the CCM may calculate market shares and other indices based on market shares (such as the HHI, C3 and C4 indices of concentration¹³), for purposes of assessing market shares against the threshold for monopoly and merger control, and as an indicator of possible market power. In some cases, market shares will differ according to precisely how they are calculated.

Assessment for comparison to thresholds in the Act

- 3.2 For the purpose of assessing market shares against the thresholds in the Act, the CCM will measure market share by value (ie Rupees, as opposed to by volume), at delivered cost to the immediate customer for the product under investigation, for the most recent full year for which reliable figures are available. If the CCM estimates a range of possible figures for a market share, then the share used for assessing whether a monopoly or relevant merger situation exists will be the highest in that range. In the case of products where market shares vary greatly from one year to the next, for example due to infrequent large contracts, then the estimates made will reflect this¹⁴.
- 3.3 In general, the CCM does not regard debate as to whether a given enterprise's market share is just above or just below a threshold level as a useful exercise. Given that the threshold values are inevitably arbitrary, the CCM will not engage in protracted debate over which method to use in order to get a mathematical result on one side or the other of the threshold.

Assessment as an indicator of market power

- 3.4 The CCM is not constrained by the approach described above when measuring market shares in order to assist its assessment of market power. Although market shares based on revenues are usually appropriate, if the CCM believes that volume-related measures of sales better capture the competitive positions of enterprises within the relevant market than do revenue measures, it will use volume-related measures. The same applies for capacity-related measures, as there are some industries in which the capacity to produce goods is a better measure of an enterprise's competitive position than actual production would be. Similarly, the CCM will normally want to consider the evolution of market shares over a period of time, such as five years, but may choose to examine shorter or longer periods if those seem more relevant to the assessment of market power.

¹³ Herfindahl-Hirschman Index, three-firm concentration ratio and four-firm concentration ratio. See the guidelines on merger assessment for definitions.

¹⁴ For example, all of the enterprises capable of bidding for large construction projects might be included in the relevant market for a bidding contest, even if the infrequent nature of such contests resulted in one or more of them not having actually taken part in such a contest in the past year or few years.

- 3.5 Market shares are less useful as an indicator of competitive constraint where products are more highly differentiated. The guidelines on the assessment of mergers provides more detail.

Competition Commission of Mauritius

7 Maupin St
Port Louis
Republic of Mauritius
Tel: (230) 211 2005
Fax: (230) 211 3107
Inquiries: info@ccm.mu
www.ccm.mu