**Chapter 3: The underlying principles of the South Africa Competition Act**[[1]](#footnote-2)

 “*Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident that it would be absurd to attempt to prove it. But in the mercantile system, the interest of the consumer is almost constantly sacrificed to that of the producer; and it seems to consider production, and not consumption, as the ultimate end and object of all industry and commerce*.”

 1776 by Adam Smith.[[2]](#footnote-3)

3.1 The essence of the Competition Act[[3]](#footnote-4)

As mentioned earlier the purpose of the Competition Act[[4]](#footnote-5) is to promote and maintain competition in the Republic of South Africa with economic efficiency and therefore consumer welfare being the overruling principles for the application of the competition Act.[[5]](#footnote-6)

Competition is important because it is the regulatory force ensuring the efficient functioning of the market system.[[6]](#footnote-7) The reason for this is that competition prohibits firms from asking more than the market price for any specific good or service.[[7]](#footnote-8) Accordingly, the competition process ensures that firms need to maximise their efficiency if they want to supply their products at the market price.[[8]](#footnote-9) If not, they face losing sales (profits) to other more efficient firms and hence exit from the market.[[9]](#footnote-10) The Competition process thus ensures that the market system guides the use of the economic resources in such a way that the socially efficient quantity is produced at the socially efficient price i.e. that market the equilibrium is achieved.[[10]](#footnote-11)

Competition requires the freedom of enterprise, which entails that firms are free to obtain and use economic resources to produce that combination of goods and/or services that they wish and lastly to sell their products in any market they choose.[[11]](#footnote-12)

Competition also requires the freedom of choice which entails that the owners of property are free to obtain, use and dispose of their property and money as they choose.[[12]](#footnote-13) It also entails that consumers are free to buy, within their budget constraints, that combination of goods and services from which they derive the most satisfaction (utility).[[13]](#footnote-14) Lastly, competition requires that firms (sellers) and individuals (consumers of buyers) exercise these aforementioned freedoms in the realization of their self interests.[[14]](#footnote-15)

Broadly speaking, competition thus requires that sellers and buyers are free to enter and exit any market they wish in their effort to satisfy their self interest.[[15]](#footnote-16) The result hereof is the creation of competition between the various sellers and buyers and as a result the market power of the individual buyers and sellers in a given market is diminished.[[16]](#footnote-17)

Competition therefore reduces market power and market power is defined by the Competition Act[[17]](#footnote-18) as the ability of firms to

 a) “*Control prices.*

 *b) Exclude competition.*

 *c) Behave to an appreciable extent independently from competitors, suppliers and customers*.”[[18]](#footnote-19)

From this definition, it is clear that market power is the ability of firms to influence the market price and thus also the market forces i.e. market power is the ability to direct the economic activity within a market.[[19]](#footnote-20) Consequently, the abuse of market power, in any given market, is held to decrease the competition in that market and subsequently the abuse of market power has the effect of decreasing the efficient functioning of that market.[[20]](#footnote-21) In light of the importance of competition and given that market power reduces competition, competition legislation aim to regulate market power so as to enhance competition and as a result increase the efficiency of markets and hence, also the efficiency of the economy as a whole.[[21]](#footnote-22)

In practice however, all firms have some degree of market power with some having a significant degree of market power[[22]](#footnote-23) and others having an insignificant degree of market power.[[23]](#footnote-24) Since all firms possess market power the Competition Act[[24]](#footnote-25) which aspires to promote and maintain competition does not regulate the possession of market power *per se* but rather regulates the situation where a single firm or a group of firms acting together possess so much market power so as to allow it/them to abuse this market power and hence decrease the level of competition in that market.[[25]](#footnote-26)

From the preceding paragraphs, it is clear that the most important concept in competition regulation is that of market power.[[26]](#footnote-27) Accordingly, the following sections will examine the measurement of market power by the South African competition authorities.

3.2 The competition analysis undertaken by the competition authorities

The function of the South African competition authorities is to promote and maintain competition within the Republic of South Africa.[[27]](#footnote-28) As indicated previously, this goal is achieved by regulating the abuse of market power seeing that the abuse of market power discourages competition in any given market.

Competition however, can only occur within a market and accordingly the possession and abuse of market power too can only exist within a market.[[28]](#footnote-29) This market is called the relevant market and the relevant market can be defined as the area within which the conduct under consideration should be evaluated.[[29]](#footnote-30)

As a result, the competition analyses[[30]](#footnote-31) undertaken by the competition authorities to determine whether certain conduct is anti-competitive[[31]](#footnote-32) consist of two phases namely the delineation of the relevant market and secondly the assessment of the nature and degree of competition in the relevant market.[[32]](#footnote-33)

The delineation of the relevant market is essential because it positions the boundaries of the area of competition within which it is to be determined whether the conduct under consideration substantially prevents or lessens competition i.e. whether it is anti-competitive or not.[[33]](#footnote-34) The assessment of the nature and degree of competition in the relevant market in turn is important given that the nature and degree of competition in a market determines whether it is possible for firms in that market to abuse their market power and consequently reduce competition in that market.[[34]](#footnote-35) In other words, the nature and degree of competition in any given market is used to assess the unilateral and/or collective market power of the firms in that market. Accordingly, the process of determining the nature and degree of competition is also referred to as the measurement of market power.

In view of the preceding paragraphs the following sections will examine the delineation of the relevant market and the measurement of market power.

3.3 The delineation of the relevant market

3.3.1 Components of the relevant market

The relevant market can be divided into four categories namely the product market, the geographical market; the functional market and the temporal market.[[35]](#footnote-36)

The product market

The product market is defined as a particular collection of products (goods or services) that are considered by consumers as being substitutable products with regard to the price and function of those products.[[36]](#footnote-37) Stated differently, the product market is a set of products that is viewed by consumers as having a similar price and function and hence are easily substitutable.[[37]](#footnote-38) Substitutability is the essence of delineating the relevant market.[[38]](#footnote-39)

The Geographical market

The geographical market is defined as the geographical area within which the product market is located.[[39]](#footnote-40) In other words, the geographical market is the geographical area within which various firms supply products that are considered substitutable with regard to their price and function.[[40]](#footnote-41) Geographical markets can be divided into four subcategories namely local, regional, national and international geographical markets.[[41]](#footnote-42)

The functional market

The functional market is defined by the position on the supply chain[[42]](#footnote-43) occupied by the relevant firms.[[43]](#footnote-44) This position on the supply chain in turn is determined by the stage of production of their products and their respective customers.[[44]](#footnote-45)

The functional market can be divided into two categories namely the upstream and the downstream markets.[[45]](#footnote-46) The upstream market mainly includes products in the early stages of production, which are typically sold to other manufactures for re-processing or to wholesalers and distributors.[[46]](#footnote-47) The downstream market mainly includes products at the latter stages of production, which are generally sold to consumers in the retail sector.[[47]](#footnote-48)

The temporal market

Occasionally time is a factor that needs to be taken into account when delineating the relevant market.[[48]](#footnote-49) This generally arise when the substitution of products by consumers cannot occur instantaneously i.e. consumers need time to switch from one product to another.[[49]](#footnote-50) Time characteristics include among others seasonality, peak and off-peak services and work that can only be performed at a specific time of day.[[50]](#footnote-51)

The product-, geographical- and functional markets are used most often in the process of delineating the relevant market with the temporal market rarely used.[[51]](#footnote-52)

3.3.2. The importance of market delineation

The South African Competition Act[[52]](#footnote-53) does not define the term “relevant market” nor does it prescribe any processes or methods to be applied in delineating the relevant market.[[53]](#footnote-54) As a result, the South African competition authorities use contemporary economic and econometric techniques to delineate the relevant market.

As discussed previously, market power is the essence of competition regulation since it is this market power that allows firms to harm competition in any given market.[[54]](#footnote-55) Also discussed previously is the fact that market power can only exist within a market hence the term “market power”.[[55]](#footnote-56) Accordingly, the delineation of the relevant market is vital to the measurement of market power since the delineation of the relevant market determines the area within which market power is to be measured.[[56]](#footnote-57) Therefore, extreme conscientiousness ought to be applied when delineating the relevant market.[[57]](#footnote-58) An erroneous delineation of the relevant market could potentially lead to an overestimate or an underestimate of market power.[[58]](#footnote-59) In view of this, an erroneous delineation of the relevant market could have severe consequences for competition in the relevant (actual) market.[[59]](#footnote-60)

An example of this would be, when a merger is prohibited on the grounds that the merger will increase the market power of the merging firms to such an extent so as to allow the merging firms to abuse their market power and when it is then later revealed that the relevant market was delineated to narrowly and that the merger should have been approved.[[60]](#footnote-61) In this example, competition was effectively hampered because the competition authorities prohibited a more competitive firm from entering into the relevant (actual) market.[[61]](#footnote-62) Equally, when the relevant market is delineated to broadly the competition authorities could potentially approve a merger where the merger has the consequence of providing the merging firms with sufficient market power to allow them to abuse their market power to the detriment of competition in the that market.[[62]](#footnote-63) Accordingly, the erroneous delineation of the relevant market could potentially decrease the efficacy of competition legislation and as a result reduce the social welfare of society.[[63]](#footnote-64)

3.3.3 Methods of market delineation.

 *“My lament is that this battle on market definitions, which is fought thousands of times what with all the private antitrust suits, has received virtually no attention from us economists. Except for a casual flirtation with cross elasticities of demand and supply, the determination of markets has remained an undeveloped area of economic research at either the theoretical or empirical level.”*

 *1982 by* George J. Stigler.[[64]](#footnote-65)

Traditionally, economists have delineated the relevant market, from a consumption standpoint,[[65]](#footnote-66) using cross-price elasticity of demand.[[66]](#footnote-67) The cross-price elasticity of demand measures how sensitive the demand for a specific product (for example product X) is to changes in the price of another product (for example product Y).[[67]](#footnote-68) In other words, what will be the change in the quantity demanded for product X if the price of product Y decreases or increases?

The cross-price elasticity of demand is thus defined as:[[68]](#footnote-69)

 Exy = $\frac{percentage change in the quantity demanded of product X}{percentage change in the price of product Y}$

Where Exy denotes the cross-price elasticity of demand.

The market delineated using the cross-price elasticity of demand method is generally referred to as the economic market.[[69]](#footnote-70) In the past, the cross-price elasticity of demand and other techniques have been used to delineate the relevant market, used in competition matters, since many economists assumed that the relevant market is analogous to the concept of the economic market.[[70]](#footnote-71) However, these techniques were always plagued by inadequacies when applied to competition matters.[[71]](#footnote-72) The reason for these inadequacies being that the relevant market used in competition matters are not analogous to the concept of the economic market.[[72]](#footnote-73)

The economic market consists of that combination of products and geographical areas in which the prices of the various products are linked through arbitrage.[[73]](#footnote-74) On the other hand the relevant market, as used in competition matters, refer to “*any product or group of products and any geographic area in which collective action by all firms (as through collusion or merger) would result in a profit maximizing price that significantly exceeds the competitive price.*”[[74]](#footnote-75) Stated differently, the relevant market consists of that combination of products and that specific geographical area that can potentially be monopolised by the relevant firms.[[75]](#footnote-76) In other words, the relevant market refers to that market where a specific firm or a group of firms acting collectively could exhibit sufficient market power to allow them to abuse that market power to the detriment of the competition in that market.

The inadequacies that plagued the above mentioned techniques eventually lead to the development of a technique specifically designed to delineate the relevant market with reference to market power.[[76]](#footnote-77) This technique, which is called the Small but Significant and Non-Transitory Increase in Price (SSNIP) Test was first implemented by the US Department of Justice in 1982 and would eventually become the standard test for market delineation in competition matters.[[77]](#footnote-78) The SSNIP Test, also called the Hypothetical Monopoly Test (HMT),[[78]](#footnote-79) is also used in South African competition matters[[79]](#footnote-80) and accordingly this test will discussed in the next section.

3.3.3.1 The Small but Significant and Non-Transitory Increase in Price (SSNIP) test

Up to this point, this paper has defined market power using the Competition Act’s[[80]](#footnote-81) definition of market power without considering the rationale for the Competition Act’s[[81]](#footnote-82) definition of market power. The Competition Act[[82]](#footnote-83) defines market power as “*the power of a firm to control prices, or to exclude competition or to behave to an appreciable extent independently of its competitors, customers or suppliers*.”[[83]](#footnote-84)

In industrial economics however, market power is commonly defined as the ability of a firm or a group of firms acting together to increase the price of any specific product or a group of products, by restricting output, from what the price would have been in a perfectly competitive market and as a result increase their respective profits from what it would have been under conditions of perfect competition.[[84]](#footnote-85) From this definition, the rational for the Competition Act’s[[85]](#footnote-86) definition of market power becomes clear.

The Competition Act’s[[86]](#footnote-87) definition of market power includes three powers namely:

 1. The power to control prices.

 2. The power to exclude competition.

 3. The power to act independently from your competitors, customers and suppliers.

It is clear that the first power falls within the industrial economics definition of market power. The second power also falls within the industrial economics definition of market power. The reason being, if a firm has successfully excluded competition in a market, then the concentration level within that market should increase i.e. there is less competitors to compete with, which in turn will provide the abusive firm with more control over price and output and enable it to sustain higher profits. The third power also falls within the industrial economics definition of market power because the power to act independently means that the market forces do not bind the specific firm and accordingly that firm can determine a price without considering the reaction of his competitors, suppliers and customers to that price.

Accordingly, the rational for the Competition Act’s[[87]](#footnote-88) definition of market power lies in the definition of market power in industrial economics.[[88]](#footnote-89) Hence, market power in terms of the Competition Act[[89]](#footnote-90) can broadly be defined as the ability of a firm or a group of firms acting together to increase the price of any specific product or a group of products, by restricting output, from what the price would have been in a perfectly competitive market and as a result increase their respective profits from what it would have been under conditions of perfect competition.[[90]](#footnote-91)

As discussed previously, the regulation of market power lies at the heart of competition regulation. Also discussed earlier, is the importance and influence of market delineation in measuring market power because market delineation determines the market within which market power is to be assessed. With the preceding paragraphs in mind, the SSNIP Test will now be discussed.

The SSNIP Test, also called the Hypothetical Monopolist Test (HMT), is described in the Horizontal Merger Guidelines of the US Department of Justice and the Federal Trade Commission as:

 “*a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximising firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a ‘small but significant non- transitory’ increase in price, assuming the terms of sale of all other products are held constant. A relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy this test*.”[[91]](#footnote-92)

For the SSNIP test to be of any use it is important to note that this test considers the market from the demand side i.e. what will happen to the demand for a product if the price of that product increase?[[92]](#footnote-93) If a price increase cause the demand for that product to decrease it implies, in terms of the SSNIP test, that consumers are now substituting that product for other products.[[93]](#footnote-94) The SSNIP test is thus based upon the cross price-elasticity of demand as discussed earlier.[[94]](#footnote-95)

A “*small but significant non-transitory increase in price*” is generally taken to be between 5 and 10 percent.[[95]](#footnote-96) This “*small but significant non-transitory increase in price*” is referred to as a SSNIP hence the SSNIP test.[[96]](#footnote-97)

The purpose of the SSNIP Test is to determine the narrowest possible market within which a hypothetical monopolist or cartel could increase the price of their product(s) by imposing a small but significant non-transitory increase in the price of their product(s).[[97]](#footnote-98) Accordingly, the first step in applying this test is to determine the characteristics, price and function of the product under investigation so as to ascertain other substitutable products.[[98]](#footnote-99)

More specifically, this test considers whether the relevant firm or the relevant group of firms acting together can maintain a small increase in the price (i.e. a SSNIP between 5-10 percent) for at least a 12 month period (hence the term non-transitory) without diminishing their profits.[[99]](#footnote-100) If this SSNIP leads to lower profits for the firm(s) under investigation it is argued that the relevant market is delineated to narrowly.[[100]](#footnote-101)

The reason for this decrease in profits is that the SSNIP test considers the market from the demand side.[[101]](#footnote-102) Accordingly, this decrease in the profits of the firm(s) under investigation is held to be caused by consumers substituting the investigated firm(s) product(s) with other sufficiently close substitutable products in that and other geographical areas.[[102]](#footnote-103) In such a case, the relevant market needs to be delineated more broadly so as to include these other sufficiently close substitutable products and other geographical areas i.e. the next closest substitutable product(s) in this and other geographical markets need to be added to the relevant market.[[103]](#footnote-104)

This process is repeated until the narrowest market is delineated within which the SSNIP is profitable.[[104]](#footnote-105) This narrowest market is referred to as the relevant market and it includes all products and/or geographical areas for which the SSNIP is profitable.[[105]](#footnote-106) Stated differently, the relevant market is the smallest market within which there are no other substitutable products and as a result, the hypothetical monopolist can profitably and sustainably increase the price of its products.[[106]](#footnote-107)

The purpose of this SSNIP test is to include all the competitive constraints that are applicable to the firm(s) under investigation.[[107]](#footnote-108) Competitive constraints can be defined as any constraint that prohibits firms from abusing their market power, their importance will become clear in the following sections.

If significant constraints on the investigated firms are left out then the relevant market is defined to narrowly.[[108]](#footnote-109) On the contrary, if products and geographical areas are included that do not pose a competitive constraint on the firm(s) under investigation, then the relevant market is delineated to broadly.[[109]](#footnote-110) Accordingly, the SSNIP test is not exclusively based upon the cross price-elasticity demand and other economic evidence should be considered with the purpose of evaluating the reliability of the price-elasticities.[[110]](#footnote-111)

The competition authorities should thus consider a broad array of factors when delineating the relevant market, which include all possible competitive constraints.[[111]](#footnote-112) These factors however, fall beyond the scope of this paper and accordingly they are ignored. Also, note that the SSNIP test comprises several other considerations that are beyond the scope of this paper and consequently they are also ignored.

In practice however, the data necessary for correctly applying the SSNIP test is rarely available.[[112]](#footnote-113) As a result, competition authorities in practice use a combination of the following techniques to delineate the relevant market:[[113]](#footnote-114)

 1. Consider the internal documentation of the suppliers of the product(s) under investigation.[[114]](#footnote-115)

 2. Apply the SSNIP Test insofar it is possible.[[115]](#footnote-116)

 3. Use other statistical techniques, which include other statistical techniques to calculate price elasticities.[[116]](#footnote-117)

 4. Consider information from industry and economic experts on what constitute the relevant market.[[117]](#footnote-118)

 5. Consider information from consumers and suppliers on what constitutes the relevant market.[[118]](#footnote-119)

Nonetheless, in instances where the data required for the effective application of the SSNIP test is not available, the SSNIP test is still applied in the analyses of delineating the relevant market.[[119]](#footnote-120) In such circumstances however, the application of the SSNIP test becomes and intuitive process where the SSNIP test only provides a framework within which the relevant market is delineated.[[120]](#footnote-121)

3.3.4 The measurement of market power

Note: The measurement of market power is only relevant in cases where rule of reason prohibitions were contravened or in cases where proposed mergers are evaluated.[[121]](#footnote-122) The reason being that in cases where *per se* prohibitions were contravened, the competition authorities have only to determine whether the firm under investigation has indeed committed an *per se* prohibitions.[[122]](#footnote-123) On the other, if a rule of reason prohibition was contravened, the competition authorities must in addition to proofing that the firm breached a rule of reason prohibition, also proof that the infringement substantially prevented of lessened competition in the relevant market.[[123]](#footnote-124)

3.3.4.1 Direct measurement of market power

Economic theory stipulates that in a perfectly competitive market no firm possess sufficient market power[[124]](#footnote-125) to allow it to individually influence the market price and hence also the market quantity.[[125]](#footnote-126) Consequently, in a perfectly competitive market, all firms are price takers since all firms within that perfectly competitive market are constraint to ask the market price (Pm) for their products.[[126]](#footnote-127)

Furthermore, economic theory dictates that at the market price the perfectly competitive firm can sell as many of its products as it likes.[[127]](#footnote-128) On the other hand, the perfectly competitive firm will have zero sales if it asks any price (Pf) higher than the market price.[[128]](#footnote-129) Moreover, the perfectly competitive firm has no incentive to ask any price lower than the market price since this, ceteris paribus, will decrease its profits and it could potentially decrease the relevant market price.[[129]](#footnote-130)

Given that a perfectly competitive firm is constraint to ask the market price for its products, it is argued that the marginal revenue[[130]](#footnote-131) (MR) of a perfectly competitive firm is equal to the market price of that firm’s product.[[131]](#footnote-132) Furthermore, economic theory dictates that a perfectly competitive firm will maximise its profits by producing that quantity of output where the firm’s marginal revenue is equal to the firm’s marginal cost (MC).[[132]](#footnote-133)

Accordingly, a profit maximising firm in a perfectly competitive market will produce that quantity of output where the firm’s marginal revenue is equal to the firm’s marginal cost[[133]](#footnote-134) which is equal the price of the firm’s products which is equal to the market price.[[134]](#footnote-135) Stated differently, in a perfectly competitive market the following statement is true for a profit maximising firm: Pf=Pm=MR=MC.

Note: as discussed previously in this paper, the purpose of all economic agents are to satisfy their self interest and in the case of the firm its self interest is money.[[135]](#footnote-136) Accordingly, the objective of all firms, for the purpose of competition legislation, is to maximise their profits.[[136]](#footnote-137)

Previously in this paper, market power was defined as the ability of a firm or a group of firms acting together to increase the price of any specific product or a group of products from what the price would have been in a perfectly competitive market and as a result increase their respective profits from what it would have been under conditions of perfect competition.[[137]](#footnote-138)

In light of the preceding paragraphs, the previous definition of market power can be written more correctly by augmenting it slightly to read as follows. Market power is the ability of a firm or a group of firms acting together to raise the price of their products above their marginal costs at the profit maximising level of output.[[138]](#footnote-139) In this case the price of their products and hence their marginal revenue will be higher than their marginal cost.[[139]](#footnote-140) Accordingly, the firms will increase their profit from what it would have been under conditions of perfect competition namely where Pf=Pm=MR=MC.[[140]](#footnote-141) Simplifying this definition, market power can be defined as the ability of a firm to maintain prices that are higher than that firm’s marginal cost at the profit maximising level of output.[[141]](#footnote-142)

To conclude the meaning of market power, take note that market power can be divided into two type’s namely unilateral market power and collective market power.[[142]](#footnote-143) Unilateral market power is the market power possessed by an individual firm whereas collective market power refers to the situation where a group of firms are able to profitably co-ordinate their behaviour by way of their accommodating reactions to the conduct of the other firms in the group i.e. collective market power refers to the market power held collectively by a group of firms acting together.[[143]](#footnote-144)

3.3.4.1.1 The Lerner Index (also called the Price Cost Margin, PCM)[[144]](#footnote-145)

The Lerner Index was developed by A.P. Lerner in 1934 as an instrument to directly quantify the market power of a firm.[[145]](#footnote-146) According to Lerner, the difference between a firms marginal cost and the price that it asks for its products, called the price mark-up,[[146]](#footnote-147) can be used to quantify the degree of market power for that firm.[[147]](#footnote-148) Hence, the degree of a firm’s market power can be quantified by the following equation:

LI = $\frac{P-MC}{P}$

Where:

LI = Lerner Index.

P = the price asked by the firm for its product.

MC = the firm’s marginal cost.

As mentioned earlier, in a perfectly competitive market the price asked by the perfectly competitive firm for its products are equal to the market price, which is equal to their marginal revenue, which is equal to its marginal cost. Accordingly, in a perfectly competitive market firms are constraint from asking a price that is higher than the market price. Hence, the Lerner Index for a perfectly competitive firm will be zero.[[148]](#footnote-149) In opposition to the perfectly competitive firm, the monopolist is unconstraint from asking the market price and consequently the monopolist will ask a higher price than that of the market price i.e. the monopolist has a great degree of market power.[[149]](#footnote-150) Accordingly, for the pure monopolist the Lerner Index will be equal to one.[[150]](#footnote-151)

The usefulness of the Lerner Index is that it provides a direct measure of market power to easily determine the degree of market power of a particular firm or a group of firms acting together.[[151]](#footnote-152) Accordingly, it should be straightforward to decide whether certain conduct should be approved by the competition authorities.[[152]](#footnote-153) The Lerner Index also indicates whether a specific market deviates from the perfectly competitive market and to what extent it deviates.[[153]](#footnote-154)

Despite these advantages gained from using the Lerner Index, the Lerner Index has several weaknesses.[[154]](#footnote-155) These weaknesses include among others the following.[[155]](#footnote-156) The Lerner Index does not provide for a benchmark to test the degree of market power against.[[156]](#footnote-157) Accordingly, it is difficult to interpret any result other than zero, which indicates perfect conditions of competition.[[157]](#footnote-158) If for example the Lerner Index provides a value of 0.4, how should this value be interpreter with regard to the approval of prohibition of firm conduct by the competition authorities? Another potential weakness of the Lerner Index is that it could lead to the prohibition of conduct by firms who offer superior or cheaper products.[[158]](#footnote-159) Furthermore, the Lerner Index is a single market metric, accordingly, it is subject to significant error when applied to firms competing in multiple markets.[[159]](#footnote-160)

Regardless of these weaknesses, the Lerner Index is widely used in competition matters and is commonly discussed in undergraduate and postgraduate textbooks on industrial organisation.[[160]](#footnote-161)

3.3.4.1.2 Price elasticity of demand

Another method used to quantify the degree of market power is through the use of the price elasticity of demand.[[161]](#footnote-162) The price elasticity of demand indicates how sensitive consumer demand for a specific product (for example product X) is to changes in the price of that product.[[162]](#footnote-163) In other words, by how much will the demand for product X change if the price of product X increases or decreases? Accordingly, the price elasticity of demand is defined as follow:[[163]](#footnote-164)

Ed = $\frac{percentage change in the quantity demanded of product X}{percentage change in the price of product X}$

Where:

Ed = price elasticity of demand.

Note: Demand is inversely related to price therefore, Ed will always have a negative sign.[[164]](#footnote-165) Nonetheless, this negative sign is ignored and consequently Ed is always expressed in absolute (positive) terms.[[165]](#footnote-166)

If the percentage change in the quantity demanded of a product is larger than the percentage change in the price of that product, the demand is said to be elastic.[[166]](#footnote-167) If the percentage change in the quantity demanded of a product is smaller than the percentage change in the price of that product, the demand is said to be inelastic.[[167]](#footnote-168)

For example, if the demand for a product is elastic, a 5 percent decrease in the price of that product will result in an increase in the demand of that product that is larger than the 5 percent decrease in the price.[[168]](#footnote-169) Furthermore, elastic demand is indicated by a value of Ed larger than one i.e. Ed > 1 and inelastic demand is indicated by a value of Ed smaller than one i.e. Ed < 1.[[169]](#footnote-170)

Additionally, it is held that a firm possess market power if the demand for his product is inelastic.[[170]](#footnote-171) The reason for this lies in the fact that the percentage change in the price of the firm’s product is larger than the percentage change in the demand for that product.[[171]](#footnote-172) This implies that for example, if a firm decide to increase the price of its product by 20 percent, the demand for that product will decrease by less than 20 percent i.e. by increasing the price, the firm increased its profits.[[172]](#footnote-173) The opposite holds for elastic demand.[[173]](#footnote-174) In other words, a firm is regarded as having market power if Ed < 1 and is regarded as not having market power if Ed > 1.[[174]](#footnote-175)

Note: The price elasticity of demand and the Lerner Index are inversely related since elastic demand will make it extremely difficult for firms to apply a price mark-up.[[175]](#footnote-176) Inelastic demand however, will make it much easier for firms to apply a price mark-up. In other words, the larger Ed,the smaller the potential price mark-up and Lerner Index value will be, and the smaller Ed,the larger the potential price mark-up and the larger the Lerner Index value.[[176]](#footnote-177)

To conclude, in practice the application of the Lerner Index and the price elasticity of demand is severely limited by the scarcity of the data required to calculate these direct measures of market power.[[177]](#footnote-178) Accordingly, various methods have been developed to measure market power indirectly to indicate whether a firm or a group of firms acting together have sufficient market power to enable them to abuse that market power and accordingly destroy competition in that market.[[178]](#footnote-179) In South Africa, market power is measured indirectly using the so-called Structure-Conduct- Performance paradigm (SCP). The SCP paradigm will be discussed in the following section.[[179]](#footnote-180)

3.3.4.2 Indirect measure of market power

Note: this paper focuses on the determinants and measurement of supply side market power i.e. the market power of producers and sellers and not those of consumers and buyers (demand side market power).

3.3.4.2.1 The Structure-Conduct-Performance paradigm

As discussed earlier[[180]](#footnote-181) the market system itself consists of different models with the so called “perfectly competitive model” being the most efficient model for the market system.[[181]](#footnote-182) Furthermore, economic theory stipulates that in a perfectly competitive market no firm possess sufficient market power to allow it to individually influence the market price and hence also the market quantity.[[182]](#footnote-183) Consequently, in a perfectly competitive market, all firms are price takers since all firms within that perfectly competitive market are constraint to ask the market price (Pm) for their products.[[183]](#footnote-184)

Accordingly, no individual firm is in a position to coordinate and direct the economic activity within a perfectly competitive market. Stated differently, in a perfectly competitive market no individual firm can influence the market price and accordingly no individual firm has control over the quantity demanded and supplied within that market.[[184]](#footnote-185) Consequently, in a perfectly competitive market all the firms are in a position of perfect competition with each other.[[185]](#footnote-186) The result of the perfectly competitive market is thus that the scarce economic resources of society are used in such a way that the socially efficient quantity is produced at the socially efficient price i.e. market equilibrium is obtained.[[186]](#footnote-187)

In view of the fact that the perfectly competitive market is the most efficient form of the market system, it is used as the benchmark for reviewing all other markets.[[187]](#footnote-188) In real life however, no market actually achieves the position of being perfectly competitive.[[188]](#footnote-189) The perfectly competitive market does however provide a very useful benchmark that can be used to estimate and increase the efficiency in markets.[[189]](#footnote-190)

Also mentioned earlier, the monopoly market is positioned in stark contrast to the perfectly competitive market.[[190]](#footnote-191) The monopolist is unconstraint from asking the market price and consequently the monopolist will ask a higher price than that of the market price i.e. the monopolist has a great degree of market power which implies that the monopolist is in a position to influence the market forces and consequently also the efficiency of the market.[[191]](#footnote-192)

With these two extremes namely the perfectly competitive market and the monopoly market in mind, Edward S. Mason developed the Structure-Conduct-Performance paradigm.[[192]](#footnote-193) The SCP paradigm functions between the perfectly competitive market and the monopoly market and is used to determine the nature and degree of competition in the relevant market.[[193]](#footnote-194) Furthermore, it is held that the nature and degree of competition in a market determines whether it is possible for firms to abuse their unilateral and/or collective market power.[[194]](#footnote-195)\*

The SCP paradigm states that “*exogenous basic conditions determine market structure and that there is a unidirectional flow of causality from market structure, through conduct, to performance*.”[[195]](#footnote-196) Stated differently, the SCP paradigm suggests that there is a causal link, which runs from the market structure, to the conduct of the firms in that market to the performance of the firms in that market.[[196]](#footnote-197) Furthermore, it is suggested that this causal link only moves in one direction namely from the market structure, to the firm behaviour to the performance of the firms.[[197]](#footnote-198) Accordingly, the most important concept in the SCP paradigm is that of market structure because market structure is regarded as the primary variable that influences market performance i.e. the efficiency of the market.[[198]](#footnote-199) Therefore, competition authorities should assess competition matters by evaluating where the structure of the relevant market lies between the continuum of a perfectly competitive market and a monopoly market.[[199]](#footnote-200)

The SCP paradigm can be illustrated as follow:[[200]](#footnote-201)

|  |  |  |
| --- | --- | --- |
| **Structure** | **Conduct** | **Performance** |
| Perfect Competition | marginal cost pricing | Allocative efficiency and equity between firms |
| Imperfect Competition | pricing deviates from marginal cost | Inefficiency and potential monopoly profits |

According to the SCP paradigm the closer the market structure resembles that of a perfectly competitive market, the lower the market price is and accordingly the higher the quantity of products produced are.[[201]](#footnote-202) Such a market is said to provide the highest benefit to society.[[202]](#footnote-203) On the other hand, markets structures that more closely resembles a monopoly market are associated with higher market prices and thus lower quantities of products produced.[[203]](#footnote-204) Such markets are also said to provide less benefit to society.[[204]](#footnote-205) In other words, according to the SCP paradigm the further the market structure of a market departs from that of a perfectly competitive market the further that market departs from the social ideal or equilibrium.[[205]](#footnote-206)

The structure of a market refers to the number and relative size of the firms in that market i.e. the level of concentration.[[206]](#footnote-207) Conduct refers to the conduct of the firms in a market for example do they collude, what prices do they ask for their products and any other anticompetitive conduct by the firms in the market.[[207]](#footnote-208) Performance include among other things, the profitability the firms in a market, their efficiency and any economies of scale they obtain.[[208]](#footnote-209)

Also, note that a perfectly competitive market is said to be less concentrated[[209]](#footnote-210) (the number and relative size of the firms in a market) whereas a monopoly market is said to be more concentrated.[[210]](#footnote-211) Furthermore, according to the SCP paradigm it is held that higher concentration levels are positively correlated with the ability of firms to act together (collude) and so to obtain collective market power in addition to their unilateral market power i.e. high concentration levels are held to lead to abnormal profits for firms, lower social welfare and potentially lower economic growth.[[211]](#footnote-212) For this reason, the SCP paradigm argues that industrial structure (concentration) ought to be regulated to prevent firms from obtaining and abusing market power.[[212]](#footnote-213)

Thus, in practical terms, the SCP paradigm assumes that all firms within a market endeavour to obtain and to abuse a large market share in order to maximise their profits.[[213]](#footnote-214) This endeavour by all firms is said to lead to a struggle between the various firms in the market to obtain a larger market share.[[214]](#footnote-215) This struggle in turn, constraints the firms in the market, keeps costs and prices under control and ensures that the market structure remains one that resembles a perfectly competitive market.[[215]](#footnote-216) If however, a firm were to obtain a large market share, monopoly power, it is held that that firm can increase prices and so obtain monopoly profits and consequently also pave the way for inefficiency, reduced innovation and an inequitable distribution of income and wealth in that market.[[216]](#footnote-217) As a result, the number of firms in a market and their relative sizes i.e. the concentration in the market, is an important element in determining market structure.[[217]](#footnote-218)

Nonetheless, it is argued by some that these inefficiencies and reduced innovations, associated with monopoly structures, could in fact be counterbalanced by an actual increase in efficiency and innovations under certain conditions of monopoly structure.[[218]](#footnote-219) This is relevant for the weighing of anti-competitive effects against technological, efficiency and other pro-competitive gains, which forms an essential part of the efficiency defence, which is the object of this paper. These potential increases in efficiency and innovation and the subsequent weighing process will be discussed in later chapters.

3.3.4.2.1. The validity of the SCP paradigm in South Africa

The development of the SCP paradigm was based upon empirical research, which indicated that the profits of firms in relatively more concentrated markets are significantly higher than those of firms in relatively less concentrated markets.[[219]](#footnote-220) Accordingly, it was held that concentrated markets make it easier for firms to obtain abnormal profits by way of collusive behaviour and increased prices (collective and unilateral market power).[[220]](#footnote-221) As a result, it was promulgated that the structure of a market influences the conduct of firms, which in turn influence their performance i.e. high levels of concentration (structure) leads to collusive behaviour and higher prices (conduct) which leads to abnormal profits (performance) and its associated disadvantages.[[221]](#footnote-222) Hence, market structure ought to be regulated.[[222]](#footnote-223)

This was the standard position of the SCP paradigm and it is termed the “monopoly hypothesis” or the “collusion hypothesis”.[[223]](#footnote-224) The monopoly hypothesis states that a positive correlation between market concentration and the profitability levels in the market is an indication of collusive behaviour and/or other abuses of market power designed to increase profits i.e. there is a unidirectional causality from structure, to conduct to performance.[[224]](#footnote-225) Stated differently, a concentrated market structure makes it possible for firms to abuse their unilateral market power or to collude with other firms to abuse their collective market power.[[225]](#footnote-226) It is this abuse of market power (conduct) that is said to cause increased levels of profit (performance).[[226]](#footnote-227) Accordingly, market structure causes firms to abuse their market power (conduct) which increases their performance (profits).[[227]](#footnote-228)

Several schools of thought however, have rejected the monopoly hypothesis and stated that a positive correlation between market concentration and the profitability level within that market reflects the natural tendency of efficient firms to obtain larger market shares and higher profits and thus contribute to the concentration of that market i.e. market conduct (being efficient) influences market structure and not the other way around as proclaimed by the supporters of the SCP paradigm.[[228]](#footnote-229)

This point of view is known as the “efficiency hypothesis” and it states that high levels of market concentration and the associated high levels of market power is the result of the competition process in which efficient firms have outperformed less efficient firms.[[229]](#footnote-230) Accordingly, firms with large market shares do not necessarily implement collusive and/or other anticompetitive conduct.[[230]](#footnote-231) The efficiency hypothesis thus rejects the hypothesis that there is a unidirectional flow of causality from market structure, through conduct, to performance.[[231]](#footnote-232) In other words, the efficiency hypothesis proclaims that there is a multi-directional flow of causality between market structure, conduct and performance i.e. structure, conduct and performance can all influence each other in no apparent hierarchy.[[232]](#footnote-233) The supporters of the monopoly hypothesis can be referred to as the non-Chicago school of thought while the supporters of the efficiency hypothesis can be referred to as the Chicago School of thought.[[233]](#footnote-234) The importance of this debate between the Chicago and non-Chicago schools of thought lies in its influence on competition policy.[[234]](#footnote-235) Competition policy based upon the non-Chicago school will primarily focus on industry structure whereas competition policy based upon the Chicago school will mainly focus on market conduct.[[235]](#footnote-236)

As discussed earlier, South Africa’s economy is highly concentrated.[[236]](#footnote-237) Furthermore, it is argued that prices within South Africa are extremely high because of the concentrated nature of South Africa’s markets.[[237]](#footnote-238) As a result, several authors have tested the validity of the SCP paradigm in South Africa in light of the debate between the non-Chicago and the Chicago schools of thought.[[238]](#footnote-239)

The first author to test the validity of the SCP paradigm in South Africa was Reekie in 1984.[[239]](#footnote-240) His results however, provided for an ambiguous interpretation supporting both the collusion hypothesis and the efficiency hypothesis.[[240]](#footnote-241) Accordingly, Reekie disputed the correctness of the SCP paradigm within the context of the South African economy.[[241]](#footnote-242) The next author to test the validity of the SCP paradigm in South Africa was Leach in 1991.[[242]](#footnote-243) Leach concluded that the efficiency hypothesis rather than the collusion hypothesis holds for South Africa and hence he argued that market conduct influences market structure and not the other way around.[[243]](#footnote-244) However, in a later paper in 1997, Leach found that the correlation between concentration and industry profitability is consistent with both the collusion hypothesis and the efficiency hypothesis i.e. his results were ambiguous.[[244]](#footnote-245) Although, Reekie and Leach could not dismiss the SCP paradigm they did cast significant doubt on its accuracy.

Nonetheless, there are authors in South Africa who unequivocally support the monopoly hypothesis most notably the authors Fourie and Smith.[[245]](#footnote-246) In 1998, Fourie and Smith published a paper in which they declared a stalemate between the validity of the monopoly hypothesis and the validity of the efficiency hypothesis in South Africa.[[246]](#footnote-247) In their paper they emphasised that it is inappropriate, to search for universal laws that are applicable to all situations i.e. to follow an either/or approach.[[247]](#footnote-248) Furthermore, they cited deep ideological and methodological differences as contributing to the stalemate between the Chicago and non-Chicago school of thought in addition to the technical difficulties of testing causality.[[248]](#footnote-249)

In spite of more recent empirical research, the stalemate between the Chicago and non-Chicago schools of thought seems to remain in South Africa.[[249]](#footnote-250) Accordingly, in South Africa the validity of the SCP paradigm is in doubt i.e. it is uncertain whether there is a unidirectional flow of causality from market structure, through conduct, to performance.[[250]](#footnote-251)

Despite these uncertainties surrounding the validity of the SCP paradigm in South Africa, it has nonetheless been incorporated into the Competition Act.[[251]](#footnote-252) The competition authorities are however hesitant to assume a unidirectional causality from structure, to conduct to performance.[[252]](#footnote-253) Accordingly, the South African competition authorities follow a holistic approach, considering all relevant factors when assessing market power.[[253]](#footnote-254) In this regard, the delineation of the relevant market is very important since it includes all the potential competitive constraints that prohibit firms from abusing their unilateral and collective market power.[[254]](#footnote-255)

Nonetheless, the SCP paradigm, and thus market structure, remains an important element in the assessment of market power and it provides a very useful framework within which to assess the market power and the ability to abuse it of the firms in the relevant market.[[255]](#footnote-256)

Note: the debate between the Chicago and non-Chicago schools of thought entails a great deal more than what is discussed in this paper. A lengthy discussion on this debate is however beyond the scope of this paper. Furthermore, the following sections will briefly discuss the structure, conduct and performance elements of the SCP paradigm. Once more, a comprehensive discussion on these elements is beyond the scope of this paper.

3.3.4.2.2 Structure

Market structure can be defined as the characteristics of a market that determines the conduct and the performance of the firms within that market.[[256]](#footnote-257) Accordingly, the market structure itself consists out of various characteristics, which include among others the following:

 1. The number of firms within the market.[[257]](#footnote-258)

 2. The size of the firms in the market relative to the size of the other firms in the market.[[258]](#footnote-259)

 3. Barriers (obstacles) to entry and exit.[[259]](#footnote-260)

 4. Product differentiation.[[260]](#footnote-261)

 5. Diversification between the various firms in the market.[[261]](#footnote-262)

 4. The cost conditions within the market and economies of scale.[[262]](#footnote-263)

 5. The technological environment within the market.[[263]](#footnote-264)

These characteristics of market structure, among others, are used to determine the structure of a market and to classify markets into various types of market models.[[264]](#footnote-265) The market model in turn is an indication of the nature and degree of competition within that market model.[[265]](#footnote-266) As mentioned, there is a variety of different market models, this paper however only considers two namely the perfectly competitive model and the monopoly model.

3.3.4.2.2.1 Market models

The perfectly competitive model[[266]](#footnote-267)

The perfectly competitive model has the following characteristics:

 1. Large number of buyers and sellers.[[267]](#footnote-268)

 2. Consumers and producers have perfect knowledge.[[268]](#footnote-269)

 3. A homogenous product.[[269]](#footnote-270)

 4. No barriers of entry and exit i.e. easy entry into and exit from the market.[[270]](#footnote-271)

 5. Firms act independently from one another and endeavour to maximise profits.[[271]](#footnote-272)

 6. All firms are price takers and accordingly there is no price competition between the firms in a perfectly competitive market.[[272]](#footnote-273)

 7. At the market price, a firm can sell as much output as it wishes i.e. the demand curve of an individual firm is perfectly elastic.[[273]](#footnote-274)

As mentioned earlier, this is the most efficient model of the market system and accordingly the perfectly competitive model serves as a benchmark to asses all markets by.[[274]](#footnote-275) Furthermore, in a perfectly competitive market, firms do not possess unilateral nor collective market power as defined in the Competition Act.[[275]](#footnote-276) From the characteristics of the perfectly competitive market it is clear that no individual firm is in a position to “*control prices, exclude competition and to behave to an appreciable extent independently of its competitors, customers or suppliers*,” i.e. no firm is in a position to abuse its unilateral market power.[[276]](#footnote-277)

Additionally, because the perfectly competitive market consists of a large number of buyers and sellers, it is very difficult for firms in the market to coordinate their behaviour to obtain collective market power i.e. in a perfectly competitive market, firms do not possess collective market power.[[277]](#footnote-278) Accordingly, the perfectly competitive market has the greatest degree of competition and as a result, the competition authorities rarely regulate it.[[278]](#footnote-279)

In real life however, no market actually achieves the position of being perfectly competitive.[[279]](#footnote-280) Nonetheless, the perfectly competitive model provides a very useful benchmark to asses all markets by.[[280]](#footnote-281)

Monopoly model

The monopoly model has the following characteristics:

 1. There is only one seller of the product.[[281]](#footnote-282)

 2. There are a large number of buyers.[[282]](#footnote-283)

 3. The product of the monopolist is unique and there are no close substitutes for it.[[283]](#footnote-284)

 4. Very large barriers to entry.[[284]](#footnote-285)

The monopoly model is positioned in contrast to the perfectly competitive market.[[285]](#footnote-286) Furthermore, because that the monopolist is the only supplier in the market, it is in control of the total output of that market.[[286]](#footnote-287) Accordingly, the monopolist has a great degree of control over the price of the product.[[287]](#footnote-288) As a result, the monopolist will charge a price higher than that of the equilibrium price namely where price is equal to the monopolist’s marginal cost.[[288]](#footnote-289)

Additionally, the monopoly model is associated with certain efficiency and welfare losses for society.[[289]](#footnote-290) These losses are caused by the lack of competition in the monopoly market, which in turn makes it possible for the monopolist to decrease output so as to increase prices.[[290]](#footnote-291) Furthermore, the lack of competition also makes it possible for the monopolist to survive in the market despite of being inefficient and asking higher prices.[[291]](#footnote-292) The monopolist is also in a position to contribute to the barriers of entry into the monopoly market, thereby strengthen the monopolist’s grip on the market.[[292]](#footnote-293)

From the preceding paragraphs it is clear that the monopolist is in a position to “*control prices, exclude competition and to behave to an appreciable extent independently of its competitors, customers or suppliers*.”[[293]](#footnote-294) Accordingly, the monopolist has the greatest degree of market power and consequently the monopolist has a Lerner Index value of one.[[294]](#footnote-295) Furthermore, the monopoly market has the lowest degree of competition (zero competition in fact) and as a result, the competition authorities vigorously regulate it.[[295]](#footnote-296) Lastly, the monopoly market is contrasted with the perfectly competitive market and accordingly competition regulation functions between these two extremes.[[296]](#footnote-297)

As mentioned earlier, markets have various characteristics that are used to classify the structure of a market. All these characteristics are important do assess the degree of market power. However, this paper will only discuss two characteristics namely concentration and barriers to entry.

Note: Market characteristics are used to classify the structure of a market.[[297]](#footnote-298) The market structure in turn, is an indication of the nature and degree of competition in a market.[[298]](#footnote-299) The nature and degree of competition in turn, is used to assess the degree of unilateral or collective market power of the firms in a market.[[299]](#footnote-300)

3.3.4.2.2.2 Market characteristics

3.3.4.2.2.2.1 Market Concentration

As discussed earlier, the SCP paradigm asserts that there is a positive correlation between the level of concentration and the profitability in a market and that this correlation is an indication of collusive behaviour and/or other abuses of market power designed to increase profits i.e. there is a unidirectional causality from structure, to conduct to performance.[[300]](#footnote-301) Stated differently, a concentrated market structure makes it possible for firms to abuse their unilateral market power or to collude with other firms to obtain and abuse their collective market power.[[301]](#footnote-302) Accordingly, it is held that relatively more concentrated markets results in higher prices and lower levels of social welfare i.e. the closer the structure of a market resembles that of a monopoly market, the higher the prices and the lower the social welfare should be.[[302]](#footnote-303)

Market concentration refers to the number of firms in the relevant market and their size in the market relative to each other.[[303]](#footnote-304) Stated differently, concentration refers to the extent to which a small number of firms are responsible for a large proportion of the economic activity within a market.[[304]](#footnote-305) Numerous indices are used to measure industry concentration. Several of these indices have been used in South Africa and they include among others the following: market share; the Concentration Ratio, the Herfindahl-Hirschman Index; the Rosenbluth Index, the Gini Coefficient; Lorenz Curve; the Occupancy Count; C5% index.[[305]](#footnote-306)

Nonetheless, the two most widely used concentration measures are the Concentration Ratio (CR) and the Herfindahl-Hirschman Index (HHI).[[306]](#footnote-307) Accordingly, this paper will only focus on these two indices along with market share (which is necessary to calculate the CR and HHI).

Note: No single index is superior to all the other indices.[[307]](#footnote-308) The appropriateness of an index depends on the study being done and on the availability of the necessary data required to calculate a specific concentration index.[[308]](#footnote-309)

Market share

Market share measures the percentage of the total sales within the relevant market that can be attributed to a particular firm and the distribution of the remaining percentage market share among its competitors.[[309]](#footnote-310) Total sales can be substituted with other metrics such as total revenues, total output, total production capacity, total value and total inputs.[[310]](#footnote-311) A market will be regarded as concentrated if for example one or two firms in that market possess large market shares.[[311]](#footnote-312) In South Africa, a firm will be regarded as having sufficient market power to allow it to abuse that market power if it has at least 45 percent market share.[[312]](#footnote-313)

As mentioned previously, the delineation of the relevant market determines the area within which the market shares are to be calculated.[[313]](#footnote-314) Accordingly, an erroneous delineation of the relevant market could potentially lead to an overestimate or an underestimate of the market shares.[[314]](#footnote-315) Furthermore, using market shares as an indication of market power has several shortcomings.[[315]](#footnote-316) These shortcomings are however beyond the scope of this paper.

The Concentration Ratio (CR)

The concentration ratio is a straightforward summary statistics[[316]](#footnote-317) and is defined as “*the percentage of total industry sales (or capacity, or employment, or value added, or physical output)*”[[317]](#footnote-318) contributed by an N number of leading firms within the relevant market.[[318]](#footnote-319) Accordingly, the CR is written as follows:

n

CRn =∑Si

i=1

Where:

n = the number of firms being measured.

Si = the market share[[319]](#footnote-320) of a specific firm.

Concentration ratios come in a variety of different categories for example CR4, CR8 and CR10.[[320]](#footnote-321) Where the letters indicate how much of the market is controlled by the 4, 8 or 10 leading firms in the market.[[321]](#footnote-322) Stated differently, the CR is calculated by the summation of the market shares of the N leading firms in the relevant market.[[322]](#footnote-323) For example, the CR2 is calculated by adding the market shares of the two leading firms in the relevant market together.[[323]](#footnote-324)

The CR to, is plagued with inadequacies.[[324]](#footnote-325) The largest of these inadequacies being that the CR do not consider all the firms in a market nor does it account for the differences in the size (size distribution) of the various leading firms.[[325]](#footnote-326) Again, these inadequacies fall beyond the scope of this paper.

Herfindahl-Hirschman Index (HHI)

The HHI accounts for the total number of firms in the relevant market as well as their size distrubutions.[[326]](#footnote-327) The HHI is calculated by the summation of the squares of the market shares of all the firms in the relevant market.[[327]](#footnote-328) Accordingly, the HHI is written as follows:[[328]](#footnote-329)

 n

CRn =∑Si2

i=1

Where:

n = the total number of firms in the market.

Si = the market share[[329]](#footnote-330) of a particular firm.

The HHI can have an index value between zero and 10000.[[330]](#footnote-331) An index value of zero indicates that each of the firms in the market have an immeasurable small market share.[[331]](#footnote-332) This indicates that the market is perfectly competitive.[[332]](#footnote-333) An index value of 10000 indicates that one firm has a 100 percent market share (1002 = 10000).[[333]](#footnote-334) This indicates that the market is a monopoly market.[[334]](#footnote-335)

The US Merger Guidelines of 1992 divides the HHI into three regions.[[335]](#footnote-336) Region one encompasses all values between zero and 1000, region two encompasses all values between 1000 and 1800 and region three encompasses all values higher than 1800.[[336]](#footnote-337) Additionally, the regions are characterised respectively as unconcentrated, moderately concentrated and highly concentrated.[[337]](#footnote-338)

Furthermore, the HHI has various mathematical and economic theory characteristics which makes it an attractive concentration index.[[338]](#footnote-339) One of these characteristics is that it recognises the important influence of large firms have on the degree of competition in a market while also recognising the influence of smaller firms.[[339]](#footnote-340) Despite of the advantage of using the HHI to measure market concentration there is no consensus in South Africa on which measure is best seeing that concentration is a highly complex concept and extremely difficult to measure.[[340]](#footnote-341)

However, in most cases, the South African Competition Authorities use the HHI and the CR as an indication of market concentration.[[341]](#footnote-342) Some of these cases include the proposed mergers between Santam Limited and Guardian National Insurance Company Limited;[[342]](#footnote-343) JD Group Ltd and Ellerine Holdings Ltd;[[343]](#footnote-344) Tongaat-Hulett Group Ltd and Transvaal Suiker Bpk.[[344]](#footnote-345)

Lastly, empirical research in South Africa indicate that South Africa’s industry concentration was very high and increasing up to 1996.[[345]](#footnote-346) However, concentration levels seems to have decreased after 1996.[[346]](#footnote-347) Nonetheless, empirical research indicate that price mark-ups in South Africa are significantly higher than those of comparable industries and that these mark-ups are increasing.[[347]](#footnote-348)

3.3.4.2.2.2.2 Barriers to entry

There are several definitions for barriers to entry which include the following definitions: “*Barriers to entry are anything that allow existing firms to earn pure (abnormal) profits without threat of entry by other firms*;”[[348]](#footnote-349) “a Cost of production which must be borne by a firm which seeks to enter an industry but is no borne by firms already in the industry;”[[349]](#footnote-350) “*any competitive advantage that established firms have over potential entrants*.”[[350]](#footnote-351) A more formal definition of barriers to entry is that “*barriers to entry reflect the extent to which established firms, in the long run, can elevate their selling price above minimum average cost of production and distribution without inducing potential entrants to enter the industry*.”[[351]](#footnote-352)

It is clear from the preceding paragraph that barriers of entry is anything that prevents new firms from entering into a market or anything that makes it possible for existing firms to ask high prices for their products without the worry that new competitors will enter into the market.

What is important for barriers of entry as a consideration in the assessment of market power is the relative ease or difficulty with which new firms can enter into a market.[[352]](#footnote-353) Furthermore, high barriers to entry will make it possible for firms to sustain prices in excess of its marginal costs in the long run whereas low barriers to entry will prevent firms from asking prices that are higher than its marginal cost.[[353]](#footnote-354) Accordingly, a firm with a large market share in an industry with low barriers to entry is unlikely to have market power whereas a firm with a large market share in an industry with high barriers of entry is likely to have market power.[[354]](#footnote-355)

Broadly speaking, barriers to entry can be divided into two categories namely natural barriers to entry and artificial barriers to entry.[[355]](#footnote-356) Natural barriers to entry are those barriers of entry that are inherently part of functioning in a market.[[356]](#footnote-357) Examples of natural barriers to entry include economies of scale for existing firms,[[357]](#footnote-358) absolute cost advantages by existing firms,[[358]](#footnote-359) product differentiation,[[359]](#footnote-360) switching costs,[[360]](#footnote-361) network externalities,[[361]](#footnote-362) geographical barriers[[362]](#footnote-363) and legal barriers to entry.[[363]](#footnote-364)

On the other hand, artificial barriers to entry are barriers to entry that are established by the existing firms through entry-deterring strategies.[[364]](#footnote-365) Artificial barriers to entry include among others pricing strategies such as providing large rebates to customers, lowering the price to such an extent that the new entrant or an existing entrant is forced to leave the market (called predatory pricing).[[365]](#footnote-366) Artificial barriers to entry also include agreements by which an existing firm secures exclusive ownership, control or supply over essential resources required to function in that market.[[366]](#footnote-367)

Furthermore, barriers to exit may also be considered when assessing market power.[[367]](#footnote-368) These barriers generally refer to sunk costs.[[368]](#footnote-369) Sunk costs are cost that cannot be recuperated when a firm leaves a market.[[369]](#footnote-370) Accordingly, a new entrant will be hesitant to enter a market if the sunk cost are high since that firm is unsure whether it will survive in that market.[[370]](#footnote-371) This application of sunk costs to barriers of entry and exit is also referred to as the Contestable Market theory, which was developed in 1982.[[371]](#footnote-372)

From the preceding paragraphs, it is clear that there are numerous barriers to entry that can exist in a specific market and that these barriers can vary from market to market. Accordingly, the competition authorities consider all the factors that influence a firm in its decision to enter a market.[[372]](#footnote-373) A more detailed discussion on barriers to entry and the different types of barriers to entry is beyond the scope of this paper.

Furthermore, as mentioned earlier, the SCP paradigm assumes a unidirectional causality from structure, to conduct to performance.[[373]](#footnote-374) Accordingly, market structure is the most important element when assessing market power using the SCP paradigm.[[374]](#footnote-375) Indeed, this is also the case in South Africa where the market structure remains a very important element in the assessment of market power and the ability of firms to abuse it.[[375]](#footnote-376)

Nevertheless, the Competition Act[[376]](#footnote-377) does not prohibit the possession of market power but rather the abuse thereof.[[377]](#footnote-378) Accordingly, structural characteristics, which are an indication of the degree of market power in an industry, do not provide sufficient evidence to conclude whether or not a firm is in a position to abuse its market power.[[378]](#footnote-379) One example would be a market where buyers choose suppliers by way of a bidding process.[[379]](#footnote-380) Even if these markets where to be characterised by high concentration levels and large barriers to entry, structural indicators could potentially provide a wrong assessment of market power.[[380]](#footnote-381) The reason for this is that the bidding process could prohibit firms with large market shares from abusing their market power.[[381]](#footnote-382)

Given that structural characteristics are insufficient to conclude that firms are in a position to abuse their market power, the South African competition authorities follow a holistic approach when assessing the ability of firms to abuse their market power.[[382]](#footnote-383) Furthermore, it has been said the “*market power is not an absolute term but a matter of degree, and the degree of market power will depend on the circumstances of each case. In assessing whether an undertaking has substantial market power, it is helpful to consider whether and the extent to which an undertaking faces competitive constraints.”[[383]](#footnote-384)* With this statement in mind, the holistic approach followed by the South African competition authorities is one that includes all factors (conditions) that could potentially constraint firms from abusing their market power.[[384]](#footnote-385)

One means in which to assess the existence of these competitive constraints is by analysing the conduct and the performance of the firms within a market.[[385]](#footnote-386) Accordingly, the conduct and the performance of firms that could indicate an absence of competitive constraints within a market will be discussed in the following sections. These discussions however, will be brief and only focus on the essence of the conduct and the performance that is relevant for the assessment of the ability of firms to abuse their market power.

3.3.4.2.3 Conduct

Conduct refers to the behaviour of firms.[[386]](#footnote-387) More specifically, conduct refers to the numerous business decisions that need to be taken on a daily bases by the firms within a market.[[387]](#footnote-388) In the context of the SCP paradigm however, the relevant behavioural patterns (conduct) of firms relate to the market structure.[[388]](#footnote-389) Furthermore, it is argued that market structure and market conduct is always correlated with each other.[[389]](#footnote-390) Be it whether market structure determines market conduct or whether market conduct determines market structure.[[390]](#footnote-391)

However, as discussed previously, the SCP paradigm assumes that market conduct is determined by the market structure i.e. there is a unidirectional causality from structure, to conduct to performance.[[391]](#footnote-392) As a result, it is assumed that a firm’s market conduct is an indication of whether that firm is able to abuse its market power within the relevant market structure i.e. it is an indication of the competitive constraints that exist within that specific market’s structure, prohibiting firms from abusing their market power.[[392]](#footnote-393)

Furthermore, the abuse of market power is also referred to as anti-competitive conduct.[[393]](#footnote-394) As discussed earlier, the abuse of market power i.e. anticompetitive conduct, is taken to be detrimental to competition.[[394]](#footnote-395) In other words, anti-competitive conduct is any conduct that lessens or prevents competition within a market.[[395]](#footnote-396)

When considering the conduct element of the SCP paradigm the competition authorities consider all conduct that could potentially prevent or lessen competition in the relevant market.[[396]](#footnote-397) Conduct that is viewed as anti-competitive depends on the circumstances of each case and market and as a result it will vary from case to case and from market to market.[[397]](#footnote-398) Furthermore, there are copious quantities of different types of conduct that can be regarded as being anti-competitive.[[398]](#footnote-399) Accordingly, it is impossible to provide an exhaustive list of all the different types of conduct that can be considered as anti-competitive.[[399]](#footnote-400) Anti-competitive conduct could include among others the following:

1. The pricing behaviour of the firms in the market:[[400]](#footnote-401) Here the key question is whether the firms in the market are able to sustain prices in excess of their marginal costs.[[401]](#footnote-402) Remember, it is argued that only highly concentrated markets with high barriers to entry will allow firms to determine prices in excess of their marginal cost.[[402]](#footnote-403) In other words, if firms are able to sustain prices above their marginal cost it indicates that the firms have market power and that the market structure more closely resembles that of the monopoly model.[[403]](#footnote-404) Lastly, pricing behaviour seems to be the most important measure of conduct.[[404]](#footnote-405)

2. Barriers to entry:[[405]](#footnote-406) This measure of conduct refers to any conduct of a firm that contributes to any barriers to entry.[[406]](#footnote-407) These include among others, product design, branding, advertising and marketing which contribute to the product differentiation barrier to entry.[[407]](#footnote-408)

3. Research and development:[[408]](#footnote-409) The investment in research and development together with advertising and marketing is an important measure to indicate the degree of non-price competition between the various firms in the market.[[409]](#footnote-410)

4. Collusion:[[410]](#footnote-411) This measure of conduct includes all agreements between firms in the same market by which they agree not to directly compete with each other.[[411]](#footnote-412) This includes collective decision on prices; output; advertising and marketing and research and development.[[412]](#footnote-413) Lastly, collusion can be explicit or tacit.[[413]](#footnote-414)

5. Mergers:[[414]](#footnote-415) This includes horizontal, vertical and conglomerate mergers.[[415]](#footnote-416) Each one of these mergers could alter the market structure of the relevant market and provide the merging parties with sufficient market power to abuse it.[[416]](#footnote-417)

3.3.4.2.4 Performance

As discussed earlier, the perfectly competitive market model is the most efficient market model.[[417]](#footnote-418) The reason being that the perfectly competitive market is regulated by the competition process, which ensures that the market forces functions properly.[[418]](#footnote-419) The consequence of this being that the market equilibrium is achieved i.e. the socially efficient quantity is produced at the socially efficient price.[[419]](#footnote-420)

Furthermore, the competition process, which regulates the perfectly competitive market, ensures that all firms are efficient given that they face exit from the market if they are not.[[420]](#footnote-421) Competition thus ensures economic efficiency and consumer welfare. Accordingly, the purpose of the South African Competition Act[[421]](#footnote-422) is to promote and maintain competition within the Republic of South Africa with economic efficiency and consumer welfare being the overruling principles for the application of the Competition Act.[[422]](#footnote-423)

Additionally, it has been discussed that in equilibrium the follow equation holds for the profit maximising firm: Pf=Pm=MR=MC.[[423]](#footnote-424) Furthermore, market power has been said to be the ability of a firm or a group of firms acting together to raise the price of their products above their marginal costs at the profit maximising level of output.[[424]](#footnote-425) This will result in increasing their profits from what it would have been under conditions of perfect competition namely where Pf=Pm=MR=MC.[[425]](#footnote-426)

Moreover, it has been discussed that the essence of the Competition Act[[426]](#footnote-427) lies in the regulation of market power.[[427]](#footnote-428) More specifically, the essence of the Competition Act[[428]](#footnote-429) is to regulate the situation where a single firm or a group of firms acting together possess so much market power so as to allow it/them to abuse this market power and hence decrease the level of competition in that market.[[429]](#footnote-430)

As a result, the performance element of the SCP paradigm is nothing more than an evaluation of the performance of the firms in the relevant market in light of the performance outcomes of the perfectly competitive market, where the competition process functions properly, and where no unilateral or collective market power exists. The evaluation of market performance is thus an indication of the degree market power that exists in the structure of the relevant market.

The relevant performance outcomes of the perfectly competitive market, in the context of the SCP paradigm, is lower prices, higher quality goods, more choices of goods and/or services for consumers and for producers it is higher efficiency.[[430]](#footnote-431) These performance outcomes also results in the highest possible consumer welfare.[[431]](#footnote-432)

Accordingly, market performance in context of the SCP paradigm is assessed by, among others, the following metrics:

1. Profitability:[[432]](#footnote-433) As discussed in the preceding paragraphs, market power is the ability to raise prices above marginal cost to obtain higher profits. High profits are thus an indication of market power. However, there is a debate on whether high profits are a result of market power or a result of efficiency.[[433]](#footnote-434) This debate is beyond the scope of this paper.

2. Growth:[[434]](#footnote-435) The profitability measure is less appropriate to firms that pursue other objectives as profit maximisation for example firms that pursue growth, sales, number of clients etc.[[435]](#footnote-436) Market power can thus be indicated, for example, by a firm that had exceptional growth. The debate between the Chicago and non-Chicago is also relevant for the growth measure but beyond the scope of this paper.[[436]](#footnote-437)

3. Efficiency:[[437]](#footnote-438) As discussed in the previous paragraphs the perfectly competitive market results in firms that are more efficient. Accordingly, efficiency can provide an indication on the degree of market power within a market.[[438]](#footnote-439)

3. Quality and variety of products:[[439]](#footnote-440) As mentioned in the preceding paragraphs, perfect competition should result in higher quality products and a larger variety of products. Therefore, the quality of products and the choices for consumers can be an indication of market power.[[440]](#footnote-441)

4. Technological advancement:[[441]](#footnote-442) This measure is the result of research and development, which is a conduct measure.[[442]](#footnote-443) Accordingly, the technological advancement of firms can indicate the degree of non-price competition between firms and as a result, it could indicate the existence of market power.[[443]](#footnote-444)

**Ek gaan die consumer en producers surplus sowel as die presiese efficiencies wat deur die perfectly competitive market verkry word bv. allocative, production, technical efficiency ens in die volgende hoofstuk bespreek want dan begin ek met die efficiency defence.**

3.3.4.3 The meaning of competition revisited[[444]](#footnote-445)

The meaning of competition is important since the purpose of the Competition Act[[445]](#footnote-446) is to promote and maintain competition.[[446]](#footnote-447) Accordingly, the Competition Act[[447]](#footnote-448) prohibits all conduct that it perceives as being anti-competitive. As a result, for the Competition Act[[448]](#footnote-449) to be of any use, the term “competition” needs to be defined. Nevertheless, the Competition Act[[449]](#footnote-450) does not provide a definition for the term “competition.”[[450]](#footnote-451)

For economists the term “competition” refers to the market structure where no firm is in a position to abuse its unilateral or collective market power.[[451]](#footnote-452) Accordingly, the term “competition” refers to all competitive constraints that prohibit firms from abusing their unilateral or collective market power i.e. competition refers to the absence of the ability to abuse market power.[[452]](#footnote-453) Therefore, the general definition of competition, which defines competition as a process of rivalry between competitors,[[453]](#footnote-454) is fundamentally flawed when applied in competition matters since it does not provide for all the competitive constraints that could prohibit firms from abusing their market power and hence decrease competition in their market.[[454]](#footnote-455) On the other hand, the general definition also seems unable to provide for collusive behaviour by firms.

In light of the Competition Act’s[[455]](#footnote-456) omission to define the term “competition,”[[456]](#footnote-457) there is an opportunity to debate the proper meaning of the term “competition.” However, a more detailed discussion on the proper meaning of the term “competition” is beyond the scope of this paper.

1. 89/1998. [↑](#footnote-ref-2)
2. As cited in Reekie 2000: 20. [↑](#footnote-ref-3)
3. 89/1998. [↑](#footnote-ref-4)
4. 89/1998. [↑](#footnote-ref-5)
5. CUTS 2002: 12; Neuhoff *et al* 2006: 14; Roberts 2004: 7. [↑](#footnote-ref-6)
6. McConnell & Brue 2008: 31. [↑](#footnote-ref-7)
7. McConnell & Brue 2008: 31. [↑](#footnote-ref-8)
8. McConnell & Brue 2008: 31. [↑](#footnote-ref-9)
9. McConnell & Brue 2008: 31. [↑](#footnote-ref-10)
10. Wetzstein 2005: 368; McTeer 2002: Chapter 2; McConnell & Brue 2008: 31. [↑](#footnote-ref-11)
11. McConnell & Brue 2008: 30. [↑](#footnote-ref-12)
12. McConnell & Brue 2008: 30. [↑](#footnote-ref-13)
13. McConnell & Brue 2008: 30. [↑](#footnote-ref-14)
14. McConnell & Brue 2008: 31. [↑](#footnote-ref-15)
15. McConnell & Brue 2008: 31. [↑](#footnote-ref-16)
16. McConnell & Brue 2008: 31. [↑](#footnote-ref-17)
17. 89/1998: section 1. [↑](#footnote-ref-18)
18. The Competition Act 89/1998: section 1. [↑](#footnote-ref-19)
19. It is argued by the author of this paper that the ability to control prices, exclude competition and to behave to an appreciable extent independently from competitors, suppliers and customers provides such firms with the ability to influence the quantity supplied and the quantity demanded in that market. [↑](#footnote-ref-20)
20. Refer to section 2.4.5. [↑](#footnote-ref-21)
21. Neuhoff *et al* 2006: 27. [↑](#footnote-ref-22)
22. A significant degree of market power refers to the situation where a single firm or a group of firms acting collectively have sufficient market power so as to allow it/them to abuse that market power in a particular market in order to decrease competition and hence the effective functioning of that market’s forces. An insignificant degree of market power on the other hand refers to the situation where a single firm or a group of firms acting collectively does not have sufficient market power so as to allow it/them to abuse that market power. For more information see Neuhoff *et al* 2006: 27. [↑](#footnote-ref-23)
23. Neuhoff *et al* 2006: 27. [↑](#footnote-ref-24)
24. 89/1998. [↑](#footnote-ref-25)
25. Neuhoff *et al* 2006: 27. [↑](#footnote-ref-26)
26. Walker 2006: 10; Pleatsikas & Teece 2001: 668. [↑](#footnote-ref-27)
27. Competition Act 89/1998: section 2 read with chapter 4. [↑](#footnote-ref-28)
28. Neuhoff *et al* 2006: 29. [↑](#footnote-ref-29)
29. Neuhoff *et al* 2006: 29. [↑](#footnote-ref-30)
30. The competition analysis is the process followed by the Competition Authorities to determine whether certain conduct is anti-competitive. [↑](#footnote-ref-31)
31. Anti-competitive conduct is any conduct that substantially prevents or lessens competition in any given market. It is argued, except for the *per se* prohibitions which by its very nature reduce competition and hence is anti-competitive, that conduct will only substantially prevent or lessen competition in a given market if the firm(s) that perpetrate that conduct possess sufficient market power so as to allow them to abuse that market power. Accordingly, anti- competitive conduct can also be described as the abuse of market power. For more information see the Competition Act 89/1998: sections 4(1), 5(1) & 5(2), 7, 8, 9 and 12(A); Rudman & Ostrovsky 2010: 7; Neuhoff *et al* 2006: 16 and 44. [↑](#footnote-ref-32)
32. Competition Commission 2002: 6; Neuhoff *et al* 2006: 29 read with 30. [↑](#footnote-ref-33)
33. Boshoff 2006: 2; Neuhoff *et al* 2006: 29. [↑](#footnote-ref-34)
34. Neuhoff *et al* 2006: 35. [↑](#footnote-ref-35)
35. Competition Commission 2002: 9; Neuhoff *et al* 2006: 30-31. [↑](#footnote-ref-36)
36. Neuhoff *et al* 2006: 30; Competition Commission 10; Boshoff 2011: 2. [↑](#footnote-ref-37)
37. Neuhoff *et al* 2006: 30; Competition Commission 10; Boshoff 2011: 2. [↑](#footnote-ref-38)
38. Competition Commission 2002: 9. [↑](#footnote-ref-39)
39. Neuhoff *et al* 31; Massey 2000: 315; Competition Commission 2002: 16. [↑](#footnote-ref-40)
40. Neuhoff *et al* 2006: 31; Massey 2000: 315; Competition Commission 2002: 16. [↑](#footnote-ref-41)
41. Neuhoff *et al* 2006: 31. [↑](#footnote-ref-42)
42. The supply chain can be defined as the causal link between participants in the production cycle of goods and services. There are four participants in the production cycle namely the manufacturers, distributors, wholesalers and retailers. [↑](#footnote-ref-43)
43. Competition Commission 2002: 19; Neuhoff *et al* 2006*:* 31. [↑](#footnote-ref-44)
44. Competition Commission 2002: 19; Neuhoff *et al* 2006: 31. [↑](#footnote-ref-45)
45. Competition Commission 2002: 19; Neuhoff *et al* 2006: 97. Also see National Association of Pharmaceutical Wholesalers and Others v Glaxo Welcome (Pty) Ltd and Others case 45/CR/Jul01. [↑](#footnote-ref-46)
46. Competition Commission 2002: 19; Neuhoff *et al* 2006: 97. Also see National Association of Pharmaceutical Wholesalers and Others v Glaxo Welcome (Pty) Ltd and Others case 45/CR/Jul01. [↑](#footnote-ref-47)
47. Competition Commission 2002: 19; Neuhoff *et al 2006:* 97. Also see National Association of Pharmaceutical Wholesalers and Others v Glaxo Welcome (Pty) Ltd and Others case 45/CR/Jul01. [↑](#footnote-ref-48)
48. Competition Commission 2002: 18; Neuhoff *et al* 2006: 31. [↑](#footnote-ref-49)
49. Competition Commission 2002: 18; Neuhoff *et al* 2006: 31. [↑](#footnote-ref-50)
50. Competition Commission 2002: 18. [↑](#footnote-ref-51)
51. Neuhoff *et al* 2006: 31. [↑](#footnote-ref-52)
52. 89/1998. [↑](#footnote-ref-53)
53. Competition Act 89/1998: section 1. [↑](#footnote-ref-54)
54. Refer to section 2.5.1 of this paper. [↑](#footnote-ref-55)
55. Refer to section 2.5.2 of this paper. [↑](#footnote-ref-56)
56. Refer to section 2.5.2 of this paper. [↑](#footnote-ref-57)
57. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-58)
58. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-59)
59. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-60)
60. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-61)
61. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-62)
62. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-63)
63. Filistrucchi 2008: 2; Ridyard *et al* 2003: 1. [↑](#footnote-ref-64)
64. Stigler 1982: 9. [↑](#footnote-ref-65)
65. The relevant market can also be delineated from a technological standpoint. For more information see Reekie 2000: 48. [↑](#footnote-ref-66)
66. Massey 2000: 314. [↑](#footnote-ref-67)
67. Massey 2000: 314; McConnel & Brue 2008: 350. [↑](#footnote-ref-68)
68. Massey 2000: 314; McConnel & Brue 2008: 350. [↑](#footnote-ref-69)
69. Boshoff 2006: 2; Massey 2000: 317; Werden & Froeb 1993: 329. [↑](#footnote-ref-70)
70. Boshoff 2006: 2; Werden & Froeb 1993: 329; Massey 2000: 317. [↑](#footnote-ref-71)
71. Massey 2000: 318; Boshoff 2006: 2. [↑](#footnote-ref-72)
72. Boshoff 2006: 2; Werden & Froeb 1993: 329; Massey 2000: 317. [↑](#footnote-ref-73)
73. Massey 2000: 318. [↑](#footnote-ref-74)
74. Massey 2000: 318. [↑](#footnote-ref-75)
75. Boshoff 2006: 2. [↑](#footnote-ref-76)
76. Massey 2000: 318. [↑](#footnote-ref-77)
77. Dobbs 2002: 1; Serge *et al* 2008: 2; Boshoff 2006: 2; Filistrucchi 2008: 2; Massey 2000: 318; Stenborg 2004: 4. [↑](#footnote-ref-78)
78. Dobbs 2002: 1; Serge *et al* 2008: 2; Boshoff 2006: 2; Filistrucchi 2008: 2; Massey 2000: 318; Stenborg 2004: 4. [↑](#footnote-ref-79)
79. Boshoff 2006: 2; Neuhoff *et al* 2006: 34. [↑](#footnote-ref-80)
80. 89/1998. [↑](#footnote-ref-81)
81. 89/1998. [↑](#footnote-ref-82)
82. 89/1998. [↑](#footnote-ref-83)
83. Competition Act 89/1998: section 1. [↑](#footnote-ref-84)
84. Theron 2001: 615-616; Walker 2006: 10. [↑](#footnote-ref-85)
85. 89/1998. [↑](#footnote-ref-86)
86. 89/1998. [↑](#footnote-ref-87)
87. 89/1998. [↑](#footnote-ref-88)
88. Theron 2001: 615-616. [↑](#footnote-ref-89)
89. 89/1998. [↑](#footnote-ref-90)
90. Walker 2006: 10. [↑](#footnote-ref-91)
91. Boshoff 2006: 3; Dobbs 2002: 2; Walker 2006: 26; Theron 2001: 623; US Department of Justice on http://www.justice.gov/atr/public/guidelines/horiz\_book/11.html (accessed on 19 Mei 2011); US Federal Trade Commission 1992 on http://www.ftc.gov/bc/docs/horizmer.shtm (accessed 19 Mei 2011) [↑](#footnote-ref-92)
92. Theron 2001: 623; Stenborg 2004: 4. [↑](#footnote-ref-93)
93. Massey 2000: 318; Boshoff 2006: 3; Stenborg 2004: 4. [↑](#footnote-ref-94)
94. Theron 2001: 623. [↑](#footnote-ref-95)
95. Massey 2000: 319; Boshoff 2006: 3; Filistrucchi 2008: 6; Dobbs 2002: 2; Competition Commission 2002: 10; Stenborg 2004: 4; Walker 2006: 25. [↑](#footnote-ref-96)
96. Walker 2006: 26; Competition Commission 2002: 10; Dobbs 2002: 2. [↑](#footnote-ref-97)
97. Massey 2000: 318. [↑](#footnote-ref-98)
98. Competition Commission 2002: 10. [↑](#footnote-ref-99)
99. Boshoff 2006: 3; Massey 2000: 318. [↑](#footnote-ref-100)
100. Stenborg 2004: 4; Competition Commission 2002: 10; Boshoff 2006: 3; Massey 2000: 318. [↑](#footnote-ref-101)
101. Theron 2001: 623; Stenborg 2004: 4. [↑](#footnote-ref-102)
102. Massey 2000: 318; Boshoff 2006: 3; Stenborg 2004: 4. [↑](#footnote-ref-103)
103. Massey 2000: 318; Boshoff 2006: 3; Stenborg 2004: 4; Competition Commission 2002: 10. [↑](#footnote-ref-104)
104. Massey 2000: 318; Boshoff 2006: 3; Stenborg 2004: 4; Competition Commission 2002: 10. [↑](#footnote-ref-105)
105. Massey 2000: 318; Boshoff 2006: 3; Stenborg 2004: 5; Competition Commission 2002: 10. [↑](#footnote-ref-106)
106. Theron 2001: 623; Boshoff 2006: 3. [↑](#footnote-ref-107)
107. Stenborg 2004: 5; Boshoff 2006: 3. [↑](#footnote-ref-108)
108. Stenborg 2004: 5. [↑](#footnote-ref-109)
109. Stenborg 2004: 5. [↑](#footnote-ref-110)
110. Boshoff 2006: 3. [↑](#footnote-ref-111)
111. Boshoff 2006: 3. [↑](#footnote-ref-112)
112. Theron 2001: 623; Neuhoff *et al* 2006: 34. [↑](#footnote-ref-113)
113. Neuhoff *et al* 2006: 33. [↑](#footnote-ref-114)
114. Neuhoff *et al* 2006: 33. [↑](#footnote-ref-115)
115. Neuhoff *et al* 2006: 33. [↑](#footnote-ref-116)
116. Neuhoff *et al* 2006: 33. [↑](#footnote-ref-117)
117. Neuhoff *et al* 2006: 33. [↑](#footnote-ref-118)
118. Neuhoff *et al* 2006: 33. [↑](#footnote-ref-119)
119. Theron 2001: 623; Neuhoff *et al* 2006: 34. [↑](#footnote-ref-120)
120. Theron 2001: 623; Neuhoff *et al* 2006: 34. [↑](#footnote-ref-121)
121. Competition Act 89/1998: sections 4, 5, 8, 9; 12A. [↑](#footnote-ref-122)
122. Competition Act 89/1998: sections 4, 5, 8, 9; 12A and section 10A of the Competition Amendment Act 1/2009. [↑](#footnote-ref-123)
123. Competition Act 89/1998: sections 4, 5, 8, 9; 12A [↑](#footnote-ref-124)
124. Market power is the power (ability) of an individual firm or a groups of firms acting together to ask a higher price than the market price for their products. Refer to section 3.3.3.1 for a discussion on the meaning of market power. [↑](#footnote-ref-125)
125. Wetzstein 2005: 259; McConnel & Brue 2008: 400-401. [↑](#footnote-ref-126)
126. Lipczynski *et al* 2009: 57; Wetzstein 2005: 259; McConnel & Brue 2008: 400-401. [↑](#footnote-ref-127)
127. Lipczynski *et al* 2009: 57; McConnel & Brue 2008: 401. [↑](#footnote-ref-128)
128. Lipczynski *et al* 2009: 57; McConnel & Brue 2008: 401. [↑](#footnote-ref-129)
129. Lipczynski *et al* 2009: 57; McConnel & Brue 2008: 401. [↑](#footnote-ref-130)
130. Marginal revenue can be defined as the extra revenue obtained by selling one more unit of output i.e. it is the change in total revenue due to selling one more unit of output. For more information see McConnel & Brue 2008: 401. [↑](#footnote-ref-131)
131. McConnel & Brue 2008: 401. [↑](#footnote-ref-132)
132. Wetzstein 2005: 263; McConnel & Brue 2008: 405. [↑](#footnote-ref-133)
133. Marginal cost can be described as the extra cost incurred from producing one additional unit of output. For more information see McConnel & Brue 2008: 5 & 50. [↑](#footnote-ref-134)
134. Wetzstein 2005: 259-263; McConnel & Brue 2008: 400-405. [↑](#footnote-ref-135)
135. Refer to section 2.2. [↑](#footnote-ref-136)
136. Wetzstein 2005: 261. Also, refer to section 2.2. [↑](#footnote-ref-137)
137. Refer o section 3.5.2.3. [↑](#footnote-ref-138)
138. Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-139)
139. Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-140)
140. Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-141)
141. Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-142)
142. Neuhoff *et al* 2006: 28-29. [↑](#footnote-ref-143)
143. Neuhoff *et al* 2006: 28-29. [↑](#footnote-ref-144)
144. Lavergne *et al* 2001: 159. [↑](#footnote-ref-145)
145. Lerner 1934: 169. [↑](#footnote-ref-146)
146. Vallejo 2006: 96. [↑](#footnote-ref-147)
147. Lerner 1934: 169; Vallejo 2006: 96; Littlechild 2006: 6; Massey 2000: 324; Tardiff & Weisman 2009: 521; Stenborg 2004: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-148)
148. Lerner 1934: 169; Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-149)
149. McConnel 7 Brue 2008: 428; Neuhoff *et al* 2006: 37-38. [↑](#footnote-ref-150)
150. Lerner 1934: 169; Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-151)
151. Rojas 2010: 1. [↑](#footnote-ref-152)
152. Rojas 2010: 1. [↑](#footnote-ref-153)
153. Rojas 2010: 1. [↑](#footnote-ref-154)
154. Rojas 2010: 1. [↑](#footnote-ref-155)
155. Rojas 2010: 1. [↑](#footnote-ref-156)
156. US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-157)
157. US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-158)
158. US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011) [↑](#footnote-ref-159)
159. Tardiff & Weisman 2009: 521. [↑](#footnote-ref-160)
160. Stenborg 2004: 1; Rojas 2010: 1. [↑](#footnote-ref-161)
161. Neuhoff *et al* 2006: 27. [↑](#footnote-ref-162)
162. Neuhoff *et al* 2006: 27; McConnel & Brue 2008: 340. [↑](#footnote-ref-163)
163. Neuhoff *et al* 2006: 28; McConnel & Brue 2008: 340. [↑](#footnote-ref-164)
164. Neuhoff *et al* 2006: 28; McConnel & Brue 2008: 341. [↑](#footnote-ref-165)
165. Neuhoff *et al* 2006: 28; McConnel & Brue 2008: 341. [↑](#footnote-ref-166)
166. Neuhoff *et al* 2006: 27; McConnel & Brue 2008: 341. [↑](#footnote-ref-167)
167. Neuhoff *et al* 2006: 27; McConnel & Brue 2008: 341. [↑](#footnote-ref-168)
168. The law of demand states that if the price of a product increases, the demand for that product decreases and vice versa. For more information, see McConnel & Brue 2008: 46. [↑](#footnote-ref-169)
169. Neuhoff *et al* 2006: 28; McConnel & Brue 2008: 341. [↑](#footnote-ref-170)
170. Neuhoff *et al* 2006: 27-28. [↑](#footnote-ref-171)
171. McConnel & Brue 2008: 340-341; Neuhoff *et al* 2006: 27-28. [↑](#footnote-ref-172)
172. McConnel & Brue 2008: 342-344. [↑](#footnote-ref-173)
173. McConnel & Brue 2008: 342-344. [↑](#footnote-ref-174)
174. Neuhoff *et al* 2006: 28. [↑](#footnote-ref-175)
175. Inferred from Rojas 2010: 1. [↑](#footnote-ref-176)
176. Inferred from Rojas 2010: 1. [↑](#footnote-ref-177)
177. Stenborg 2004: 1; Neuhoff *et al* 2006: 28. [↑](#footnote-ref-178)
178. Stenborg 2004: 1-2; Neuhoff *et al* 2006: 28. [↑](#footnote-ref-179)
179. Neuhoff *et al* 2006: 35. [↑](#footnote-ref-180)
180. Refer to section 2.2.5. [↑](#footnote-ref-181)
181. Martin 2005: 15; Chabane *et al* 2003: 2; Witztum 2010: 157; Roberts 2004: 2; Reekie 2000: 11; Neuhoff *et al* 2006: 36; Fourie 2006: 335; McConnell & Brue 2008: 400; Wetzstein 2005: 258-259. [↑](#footnote-ref-182)
182. Wetzstein 2005: 259; McConnel & Brue 2008: 400-401. [↑](#footnote-ref-183)
183. Wetzstein 2005: 259; McConnel & Brue 2008: 400-401. [↑](#footnote-ref-184)
184. McConnel & Brue 2008: 400-401. [↑](#footnote-ref-185)
185. McConnel & Brue 2008: 400-401. [↑](#footnote-ref-186)
186. Wetzstein 2005: 368; McTeer 2002: Chapter 2; McConnell & Brue 2008: 31. [↑](#footnote-ref-187)
187. Martin 2005: 15; Chabane *et al* 2003: 2; Witztum 2010: 157; Roberts 2008: 2; Reekie 2000: 11; Neuhoff *et al* 2006: 36; Fourie 2006: 335; McConnell & Brue 2008: 400; Wetzstein 2005: 258-259. [↑](#footnote-ref-188)
188. Neuhoff *et al* 35-36; McConnel & Brue 400; Wetzstein 259. [↑](#footnote-ref-189)
189. Martin 2005: 15; Chabane *et al* 2003: 2; Witztum 2010: 157; Roberts 2008: 2; Reekie 2000: 11; Neuhoff *et al* 2006: 36; Fourie 2006: 335; McConnell & Brue 2008: 400; Wetzstein 2005: 258-259; Reekie 1989: 38. [↑](#footnote-ref-190)
190. Refer to section 2.5.3.1.1 [↑](#footnote-ref-191)
191. McConnel 7 Brue 2008: 428; Neuhoff *et al* 2006: 37-38. [↑](#footnote-ref-192)
192. Kahn 1981: 1; Cook 2001:12; Audretsch *et al* 2001: 615; López 2001: 360; Smith 1999: 6; Reid 1987: 11. [↑](#footnote-ref-193)
193. Kahn 1981: 1; Cook 2001: 12; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-194)
194. Neuhoff *et al* 2006: 35. [↑](#footnote-ref-195)
195. Reid 1987: 11. [↑](#footnote-ref-196)
196. Smith 2005: 8. [↑](#footnote-ref-197)
197. Smith 2005: 8. [↑](#footnote-ref-198)
198. Audretsch *et al* 2001: 615; Smith 2005: 8; Kahn 1981: 1. [↑](#footnote-ref-199)
199. Audretsch *et al* 2001: 615; Smith 2005: 8; Kahn 1981: 1; López 2001: 360. [↑](#footnote-ref-200)
200. Reekie 1989: 38. [↑](#footnote-ref-201)
201. López 2001: 360; Audretsch *et al* 2001: 615; Gilbert & Du Plessis 2008: 2; Reekie 2000: 12; Weis 1979: 1105; Smith 2005: 8. [↑](#footnote-ref-202)
202. López 2001: 360; Audretsch *et al* 2001: 615; Gilbert & Du Plessis 2008: 2; Reekie 2000: 12; Weis 1979: 1105; Smith 2005: 8. [↑](#footnote-ref-203)
203. López 2001: 360; Audretsch *et al* 2001: 615; Gilbert & Du Plessis 2008: 2; Reekie 2000: 12; Weis 1979: 1105; Smith 2005: 8. [↑](#footnote-ref-204)
204. López 2001: 360; Audretsch *et al* 2001: 615; Gilbert & Du Plessis 2008: 2; Reekie 2000: 12; Weis 1979: 1105; Smith 2005: 8. [↑](#footnote-ref-205)
205. López 2001: 360. [↑](#footnote-ref-206)
206. Liebenberg & kamerschen 2008: 228; Theron 2001: 620; Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-207)
207. Liebenberg & kamerschen 2008: 228; Theron 2001: 620; Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-208)
208. Liebenberg & kamerschen 2008: 228; Theron 2001: 620; Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-209)
209. Concentration will be discussed in the following section. [↑](#footnote-ref-210)
210. Du Plessis & Gilbert 2008: 2; Weis 1979: 1105; Smith 2005: 8; López 2001: 360. [↑](#footnote-ref-211)
211. Du Plessis & Gilbert 2008: 2; Weis 1979: 1105; Smith 2005: 8; López 2001: 360. [↑](#footnote-ref-212)
212. Reekie 2000: 12. [↑](#footnote-ref-213)
213. Reekie 2000: 11. [↑](#footnote-ref-214)
214. Reekie 2000: 11. [↑](#footnote-ref-215)
215. Reekie 2000: 11. [↑](#footnote-ref-216)
216. Reekie 2000: 11. [↑](#footnote-ref-217)
217. Neuhoff *et al* 2006: 40. [↑](#footnote-ref-218)
218. Reekie 2000: 12. [↑](#footnote-ref-219)
219. Du Plessis & Gilbert 2008: 4. [↑](#footnote-ref-220)
220. Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-221)
221. Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-222)
222. Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-223)
223. Du Plessis & Gilbert 2008: 2. [↑](#footnote-ref-224)
224. Lipczynski 2009: 17. [↑](#footnote-ref-225)
225. Inferred from Lipczynski 2009: 17; Du Plessis & Gilbert 2008: 2; Smith 2005: 8; Audretsch *et al* 2001: 615. [↑](#footnote-ref-226)
226. Inferred from Lipczynski 2009: 17; Du Plessis & Gilbert 2008: 2; Smith 2005: 8; Audretsch *et al* 2001: 615. [↑](#footnote-ref-227)
227. Inferred from Lipczynski 2009: 17; Du Plessis & Gilbert 2008: 2; Smith 2005: 8; Audretsch *et al* 2001: 615. [↑](#footnote-ref-228)
228. Reid 1987: 16; Lipczynski 2009: 17 [↑](#footnote-ref-229)
229. Black *et al* 1999: 42 as cited in Smith 2005: 8. [↑](#footnote-ref-230)
230. Smith 2005: 8. [↑](#footnote-ref-231)
231. Smith 2005: 9. [↑](#footnote-ref-232)
232. Smith 2005: 9. [↑](#footnote-ref-233)
233. Fourie & Smith 1999: 66. [↑](#footnote-ref-234)
234. Fourie & Smith 1999: 67. [↑](#footnote-ref-235)
235. Lipczynski 2009: 17; Kahn 1981: 3. [↑](#footnote-ref-236)
236. Refer to section 2.3.2.4. [↑](#footnote-ref-237)
237. Klein 1998: 510. [↑](#footnote-ref-238)
238. Theron 2001: 620; Klein 1998: 510; Du Plessis & Gilbert 2008: 5; Smith 2005: 8. [↑](#footnote-ref-239)
239. Du Plessis & Gilbert 2008: 5. [↑](#footnote-ref-240)
240. Reekie 1984: 154. [↑](#footnote-ref-241)
241. Reekie 1984: 154. [↑](#footnote-ref-242)
242. Du Plessis & Gilbert 2008: 5. [↑](#footnote-ref-243)
243. Du Plessis & Gilbert 2008: 6; Reekie 1999: 269. [↑](#footnote-ref-244)
244. Leach 1997: 12. [↑](#footnote-ref-245)
245. Reekie 1999: 269; Du Plessis & Gilbert 2008: 6. [↑](#footnote-ref-246)
246. Fourie & Smith 1998: 577. [↑](#footnote-ref-247)
247. Du Plessis & Gilbert 2008: 11. [↑](#footnote-ref-248)
248. Fourie & Smith 1999: 66-67. [↑](#footnote-ref-249)
249. Du Plessis & Gilbert 2008: 16. [↑](#footnote-ref-250)
250. Reekie 1999: 269; Du Plessis & Gilbert 2008: 6. [↑](#footnote-ref-251)
251. 89/1998. Neuhoff *et al* 2006: 43; Reekie 1999: 269; Du Plessis & Gilbert 2008: 16 [↑](#footnote-ref-252)
252. Theron 2001: 621. [↑](#footnote-ref-253)
253. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-254)
254. Stenborg 2004: 5; Boshoff 2006: 3. [↑](#footnote-ref-255)
255. Lipczynski 2009: 6; Neuhoff *et al* 2006: 35 & 43; Reekie 1999: 269; Du Plessis & Gilbert 2008: 16; Theron 2001: 622. [↑](#footnote-ref-256)
256. Neuhoff *et al* 2006: 35. [↑](#footnote-ref-257)
257. Reid 1987: 12; Lipczynski 2009: 8; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-258)
258. Reid 1987: 12; Lipczynski 2009: 8; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-259)
259. Reid 1987: 12; Lipczynski 2009: 8; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-260)
260. Reid 1987: 12; Lipczynski 2009: 8; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-261)
261. Reid 1987: 12; Lipczynski 2009: 8; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-262)
262. Reid 1987: 12; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-263)
263. Neuhoff *et al* 2006: 35. [↑](#footnote-ref-264)
264. McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 35. [↑](#footnote-ref-265)
265. Neuhoff *et al* 2006: 35. [↑](#footnote-ref-266)
266. Refer to section 2.5.3.1. [↑](#footnote-ref-267)
267. Wetzstein 2005: 259; Lipczynski 2009: 4; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-268)
268. Wetzstein 2005: 259; Lipczynski 2009: 4; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-269)
269. Wetzstein 2005: 259; Lipczynski 2009: 4; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-270)
270. Wetzstein 2005: 259; Lipczynski 2009: 4; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-271)
271. Lipczynski 2009: 4. [↑](#footnote-ref-272)
272. Wetzstein 2005: 259; Lipczynski 2009: 4; McConnel & Brue 2008: 400; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-273)
273. Lipczynski 2009: 4; McConnel & Brue 2008: 401. When demand is perfectly elastic, it implies that any increase in the price of the product, no matter how small, will cause the demand for that product to become zero i.e. a firm will not sell any output at any price higher than the market price. For more information, see McConnel & Brue 2008: 341. [↑](#footnote-ref-274)
274. Refer to sections 2.4.5 and 3.3.4.1. [↑](#footnote-ref-275)
275. 89/1998. Neuhoff *et al* 2006: 36. [↑](#footnote-ref-276)
276. Competition Act 89/1998: section 2. [↑](#footnote-ref-277)
277. Neuhoff *et al* 2006: 36. [↑](#footnote-ref-278)
278. Neuhoff *et al* 2006: 36. [↑](#footnote-ref-279)
279. Neuhoff *et al* 2006: 35-36; McConnel & Brue 400; Wetzstein 259. [↑](#footnote-ref-280)
280. Martin 2005: 15; Chabane *et al* 2003: 2; Witztum 2010: 157; Roberts 2008: 2; Reekie 2000: 11; Neuhoff *et al* 2006: 36; Fourie 2006: 335; McConnell & Brue 2008: 400; Wetzstein 2005: 258-259. [↑](#footnote-ref-281)
281. Reid 1987: 130; Wish 1993: 3; Wetzstein 2005: 273; McConnel & Brue 400; Lipczynski 2009: 60; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-282)
282. Wetzstein 2005: 273; McConnel & Brue 400; Lipczynski 2009: 60; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-283)
283. Wetzstein 2005: 273; McConnel & Brue 400; Lipczynski 2009: 60; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-284)
284. Wetzstein 2005: 273; McConnel & Brue 400; Lipczynski 2009: 60; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-285)
285. Walker 2006: 4; Wish 1993: 3; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-286)
286. Wish 1993: 3; Lipczynski 2009: 61; Wetzstein 2005: 378; McConnel & Brue 2008: 446-448; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-287)
287. Wish 1993: 3; Reekie 1989: 21; Lipczynski 2009: 61; Wetzstein 2005: 378; McConnel & Brue 2008: 446-448; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-288)
288. Walker 2006: 4-5; Wish 1993: 3; Reekie 1989: 21; Lipczynski 2009: 61; Wetzstein 2005: 378; McConnel & Brue 2008: 446-448; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-289)
289. Reid 1987: 131; Walker 20006: 4-6; Wish 1993: 3; Reekie 1989: 21; Wetzstein 2005: 387. [↑](#footnote-ref-290)
290. Inferred from Wish 1993: 3; Reekie 1989: 21; Lipczynski 2009: 61; Wetzstein 2005: 378; McConnel & Brue 2008: 449-450; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-291)
291. Inferred from Wish 1993: 3; Reekie 1989: 21; Lipczynski 2009: 61; Wetzstein 2005: 378; McConnel & Brue 2008: 449-450; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-292)
292. Lipczynski 2009: 251-252; Wetzstein 2005: 377; [↑](#footnote-ref-293)
293. Competition Act 89/1998: section 2; Neuhoff *et al* 2006: 37. [↑](#footnote-ref-294)
294. Lerner 1934: 169; Rojas 2010: 1; US Federal Trade Commission 2007 on

 http://www.ftc.gov/opp/jointvent/classic3.shtm (accessed on 13 Mei 2011); Wetzstein 2005: 384. [↑](#footnote-ref-295)
295. Wetzstein 2005: 392; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-296)
296. Inferred from Walker 2006: 4; Wish 1993: 3; Reekie 1989: 38; Neuhoff *et al* 2006: 36. [↑](#footnote-ref-297)
297. Refer to section 2.5.2. [↑](#footnote-ref-298)
298. Refer to section 2.5.2. [↑](#footnote-ref-299)
299. Refer to section 2.5.2. [↑](#footnote-ref-300)
300. Lipczynski 2009: 17. Refer to section 2.5.3.2.1. [↑](#footnote-ref-301)
301. Inferred from Lipczynski 2009: 17; Du Plessis & Gilbert 2008: 2; Smith 2005: 8; Audretsch *et al* 2001: 615. [↑](#footnote-ref-302)
302. Refer to section 2.5.3.2.1. [↑](#footnote-ref-303)
303. Cook 2001: 15; Theron 2001: 636; Neuhoff *et al* 2006: 40. [↑](#footnote-ref-304)
304. OECD on www.oecd.org/dataoecd/8/61/2376087.pdf (accessed on 31 Mei 2011) [↑](#footnote-ref-305)
305. Applied by various authors as cited in Fedderke & Simbanegavi 2008: 2. [↑](#footnote-ref-306)
306. Fourie 1996: 116; Fedderke & Simbanegavi 2008: 2; Walker 2006: 13; Liebenberg & kamerschen 2008: 230-231; Competition Commission 2002: 23; OECD on www.oecd.org/dataoecd/8/61/2376087.pdf (accessed on 31 Mei 2011) [↑](#footnote-ref-307)
307. Liebenberg & kamerschen 2008: 231. [↑](#footnote-ref-308)
308. Liebenberg & kamerschen 2008: 231; Theron 2001: 637. [↑](#footnote-ref-309)
309. Neuhoff *et al* 2006: 40. [↑](#footnote-ref-310)
310. Neven 1998: 11; Competition Commission 2002: 23; Office of Fair Trading 2004: 13. [↑](#footnote-ref-311)
311. Neuhoff *et al* 2006: 40. [↑](#footnote-ref-312)
312. Competition Act 89/1998: section 7(a). [↑](#footnote-ref-313)
313. Refer to section 2.5.2.1. [↑](#footnote-ref-314)
314. Refer to section 2.5.2.1. Also, see Theron 2001: 623. [↑](#footnote-ref-315)
315. Walker 2006: 12. [↑](#footnote-ref-316)
316. Walker 2006: 13. [↑](#footnote-ref-317)
317. Competition Commission Annual Report 2001: 49. [↑](#footnote-ref-318)
318. Smith 2005: 7. [↑](#footnote-ref-319)
319. Remember, market shares can be expressed in various metrics such as total sales, total revenues, total output, total production capacity, total value and total inputs. [↑](#footnote-ref-320)
320. López 2001: 360; Liebenberg & kamerschen 2008: 230-231; Theron 2001: 637; Walker 2006: 13; Competition Commission Annual Report 2001: 49; Competition Commission 2002: 23. [↑](#footnote-ref-321)
321. López 2001: 360; Liebenberg & kamerschen 2008: 230-231; Smith 2005: 7; Theron 2001: 637; Walker 2006: 13; Competition Commission Annual Report 2001: 49; Competition Commission 2002: 23. [↑](#footnote-ref-322)
322. López 2001: 360; Smith 2005: 7; Liebenberg *et al*  2008: 230-231; Competition Commission Annual Report 2001: 49; Walker 2006: 13. [↑](#footnote-ref-323)
323. López 2001: 360; Liebenberg & kamerschen 2008: 230-231; Walker 2006: 13. [↑](#footnote-ref-324)
324. Liebenberg & kamerschen 2008: 231; Walker 2006: 13. [↑](#footnote-ref-325)
325. Liebenberg & kamerschen 2008: 231; Walker 2006: 13; Neuhoff *et al* 2006: 41. [↑](#footnote-ref-326)
326. Fedderke & Simbanegavi 2008: 3; López 2001: 361; Liebenberg & kamerschen 2008: 231; OECD on www.oecd.org/dataoecd/8/61/2376087.pdf (accessed on 31 Mei 2011); US Federal Trade Commission 1992 on http://www.ftc.gov/bc/docs/horizmer.shtm (accessed 19 Mei 2011) [↑](#footnote-ref-327)
327. Fedderke & Simbanegavi 2008: 3; López 2001: 361; Liebenberg & kamerschen

 2008: 231; Competition Commission Annual Report2001: 49;

 OECD on www.oecd.org/dataoecd/8/61/2376087.pdf (accessed on 31 Mei 2011);

 US Federal Trade Commission 1992 on http://www.ftc.gov/bc/docs/horizmer.shtm (accessed 19 Mei 2011) [↑](#footnote-ref-328)
328. Leach 1992: 154; Fedderke & Simbanegavi 2008: 3;

 OECD on www.oecd.org/dataoecd/8/61/2376087.pdf (accessed on 31 Mei 2011) [↑](#footnote-ref-329)
329. Remember, market shares can be expressed in various metrics such as total sales, total revenues, total output, total production capacity, total value and total inputs. [↑](#footnote-ref-330)
330. López 2001: 361; Liebenberg & kamerschen2008: 231. [↑](#footnote-ref-331)
331. López 2001: 361; Liebenberg & kamerschen 2008: 231. [↑](#footnote-ref-332)
332. López 2001: 361; Liebenberg & kamerschen 2008: 231. [↑](#footnote-ref-333)
333. López 2001: 361; Liebenberg & kamerschen 2008: 231. [↑](#footnote-ref-334)
334. López 2001: 361; Liebenberg & kamerschen 2008: 231. [↑](#footnote-ref-335)
335. US Federal Trade Commission 1992 on http://www.ftc.gov/bc/docs/horizmer.shtm (accessed 19 Mei 2011); Fedderke & Simbanegavi 2008: 3. [↑](#footnote-ref-336)
336. US Federal Trade Commission 1992 on http://www.ftc.gov/bc/docs/horizmer.shtm (accessed 19 Mei 2011); Fedderke & Simbanegavi 2008: 3. [↑](#footnote-ref-337)
337. US Federal Trade Commission 1992 on http://www.ftc.gov/bc/docs/horizmer.shtm (accessed 19 Mei 2011); Fedderke & Simbanegavi 2008: 3; López 2001: 361; Theron 2001: 637. [↑](#footnote-ref-338)
338. OECD on www.oecd.org/dataoecd/8/61/2376087.pdf (accessed on 31 Mei 2011) [↑](#footnote-ref-339)
339. Fedderke & Simbanegavi 2008: 3. [↑](#footnote-ref-340)
340. Fourie 1996: 114; Theron 2001: 637. [↑](#footnote-ref-341)
341. Theron 2001: 637. [↑](#footnote-ref-342)
342. Case No: 14/LM/Feb00. [↑](#footnote-ref-343)
343. Case no. 78/LM/Jul00. [↑](#footnote-ref-344)
344. Case no: 83/LM/Jul00. [↑](#footnote-ref-345)
345. Fourie & Smit 1989; Fourie 1996. [↑](#footnote-ref-346)
346. Fedderke & Simbanegavi 2008: 1. [↑](#footnote-ref-347)
347. Fedderke & Simbanegavi 2008: 1. [↑](#footnote-ref-348)
348. Wetzstein 2005: 377; Office of Fair Trading 2004: 15. [↑](#footnote-ref-349)
349. Stigler 1968: 67. [↑](#footnote-ref-350)
350. Spulber 2003: 55. [↑](#footnote-ref-351)
351. Neuhoff *et al* 2006: 42. [↑](#footnote-ref-352)
352. Lipczynski 2009: 8. [↑](#footnote-ref-353)
353. Office of Fair Trading 2004: 15. [↑](#footnote-ref-354)
354. Office of Fair Trading 2004: 15. [↑](#footnote-ref-355)
355. Neuhoff *et al* 2006: 42. [↑](#footnote-ref-356)
356. Neuhoff *et al* 2006: 42. [↑](#footnote-ref-357)
357. Economies of scale refer to the situation where the average cost of a firm decreases as it produces more output. For more information, see Office of Fair Trading 2004: 17; Competition Commission 2002: 30; Reid 1987: 15; McConnel en Brue 2008: 425; Lipczynski 2009: 253. [↑](#footnote-ref-358)
358. Absolute cost advantage refers to any factor that contributes to decreasing the costs for a firm. For more information, see Reid 1987: 15; Lipczynski 2009: 254-255. [↑](#footnote-ref-359)
359. Product differentiation refers to the situation where a firm has differentiated its product from the products of his competitors and accordingly the firm’s customers are loyal to it. Therefore, a new entrant will have to, somehow entice the customers of the existing firm away from that firm. For more information, see Wish 1993: 266; Reid 1987: 15; Lipczynski 2009: 256. [↑](#footnote-ref-360)
360. Switching costs refer to the situation where consumers are faced with additional costs when switching from one supplier to the other. For more information, see Lipczynski 2009: 257. [↑](#footnote-ref-361)
361. Network externalities refer to the situation where consumers’ satisfaction from consuming a certain product or service increase as more consumers use that product or service. For more information see Office of Fair Trading 2004: 19; Korah 2004: 20; Competition Commission 2002: 31; Lipczynski 2009: 257. [↑](#footnote-ref-362)
362. Geographical barriers refer to barriers to entry that face foreign firms when they want to enter into the domestic market. For more information, see Lipczynski 2009: 259. [↑](#footnote-ref-363)
363. Legal barriers to entry is any barrier to entry that is placed on a new entrant by way of legislation and other government regulations such as intellectual property rights, monopoly rights, licenses. For more information see Office of Fair Trading 2004: 17; Competition Commission 2002: 31; Wish 1993: 264; Korah 2004: 21; Wetzstein 2005: 377; McConnel & Brue 425-426; Lipczynski 2009: 258- 259. [↑](#footnote-ref-364)
364. Wish 1993: 267; Lipczynski 2009: 252. [↑](#footnote-ref-365)
365. Broder 2005: 100; Office of Fair Trading 2004: 17; Lipczynski 2009: 262-265; McConnel & Brue 2008: 426. [↑](#footnote-ref-366)
366. Competition Commission 2002: 30; Office of Fair Trading 2004: 19; McConnel & Brue 2008: 426. [↑](#footnote-ref-367)
367. Office of Fair Trading 2004: 16; Competition Commission 2002: 29; Lipczynski 2009: 252. [↑](#footnote-ref-368)
368. Office of Fair Trading 2004: 16; Competition Commission 2002: 29; Lipczynski 2009: 252. [↑](#footnote-ref-369)
369. Cseres 2005:62; Office of Fair Trading 2004: 16; Competition Commission 2002: 29; Lipczynski 2009: 252. [↑](#footnote-ref-370)
370. Cseres 2005:62;Office of Fair Trading 2004: 16; Competition Commission 2002: 29; Lipczynski 2009: 252. [↑](#footnote-ref-371)
371. Cseres 2005:62. [↑](#footnote-ref-372)
372. Neuhoff *et al* 2006: 42. [↑](#footnote-ref-373)
373. Theron 2001: 621. [↑](#footnote-ref-374)
374. Audretsch *et al* 2001: 615; Smith 2005: 8; Kahn 1981: 1. [↑](#footnote-ref-375)
375. Neuhoff *et al* 2006: 35 & 43; Reekie 1999: 269; Du Plessis & Gilbert 2008: 16; Theron 2001: 622. [↑](#footnote-ref-376)
376. 89/19998. [↑](#footnote-ref-377)
377. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-378)
378. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-379)
379. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-380)
380. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-381)
381. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-382)
382. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-383)
383. Office of Fair Trading 2004: 6. [↑](#footnote-ref-384)
384. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-385)
385. Neuhoff *et al* 2006: 43. [↑](#footnote-ref-386)
386. Lipczynski 2009: 9; Neuhoff *et al* 2006: 44. [↑](#footnote-ref-387)
387. Neuhoff *et al* 2006: 44. [↑](#footnote-ref-388)
388. Lipczynski 2009: 9. [↑](#footnote-ref-389)
389. Reekie 2000: 16. [↑](#footnote-ref-390)
390. Reekie 2000: 16. [↑](#footnote-ref-391)
391. Theron 2001: 621. Refer to section 2.5.3.2.2 for a discussion on the SCP paradigms assumption of a unidirectional causality from structure, to conduct to performance. [↑](#footnote-ref-392)
392. Office of Fair Trading 2004: 25. [↑](#footnote-ref-393)
393. Neuhoff *et al* 2006: 44. [↑](#footnote-ref-394)
394. Refer to sections 2.2.5 & 2.5.1. [↑](#footnote-ref-395)
395. Agnew 1985: 67. [↑](#footnote-ref-396)
396. Competition Commission 2002: 40. [↑](#footnote-ref-397)
397. Competition Commission 2002: 40. [↑](#footnote-ref-398)
398. Competition Commission 2002: 40. [↑](#footnote-ref-399)
399. Competition Commission 2002: 40. [↑](#footnote-ref-400)
400. Reekie 1989: 54; Wish 1993; Liebenberg & kamerschen 2008: 233; Reid 1987: 12; Lipczynski 2009: 9; Competition Commission 2002: 40; Office of Fair Trading 2004: 25. [↑](#footnote-ref-401)
401. Liebenberg & kamerschen 2008: 233; Reekie 1989: 54; Lipczynski 2009: 9; Competition Commission 2002: 40; Office of Fair Trading 2004: 25. [↑](#footnote-ref-402)
402. Office of Fair Trading 2004: 15. [↑](#footnote-ref-403)
403. Office of Fair Trading 2004: 15. [↑](#footnote-ref-404)
404. Reekie 1989: 54; Wish 271: 1993; Liebenberg & kamerschen 2008: 233; Reid 1987: 12; Lipczynski 2009: 9; Competition Commission 2002: 40; Office of Fair Trading 2004: 25. [↑](#footnote-ref-405)
405. Reid 1987: 12; Wish 1993: 272; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-406)
406. Reid 1987: 12; Wish 1993: 272; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-407)
407. Reid 1987: 12; Wish 1993: 272; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-408)
408. Lipczynski 2009: 9; Reid 1987: 12. [↑](#footnote-ref-409)
409. Lipczynski 2009: 9; Reid 1987: 12. [↑](#footnote-ref-410)
410. Competition Commission 2002: 42-47; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-411)
411. Competition Commission 2002: 42-47; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-412)
412. Competition Commission 2002: 42-47; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-413)
413. Competition Commission 2002: 42-47; Reekie 1989: 56; Lipczynski 2009: 9. [↑](#footnote-ref-414)
414. Lipczynski 2009: 9. [↑](#footnote-ref-415)
415. Lipczynski 2009: 9. [↑](#footnote-ref-416)
416. Lipczynski 2009: 9. [↑](#footnote-ref-417)
417. Refer to section 2.2.5. [↑](#footnote-ref-418)
418. Refer to section 2.2.5. [↑](#footnote-ref-419)
419. Refer to section 2.2.5. [↑](#footnote-ref-420)
420. Refer to section 2.2.7. [↑](#footnote-ref-421)
421. 89/1999. [↑](#footnote-ref-422)
422. 89/1998. Refer to section 2.4.1. [↑](#footnote-ref-423)
423. Refer to section 3.3.4.1 [↑](#footnote-ref-424)
424. Refer to section 3.3.4.1. [↑](#footnote-ref-425)
425. Refer to section 3.3.4.1. [↑](#footnote-ref-426)
426. 89/1998. [↑](#footnote-ref-427)
427. Refer to section 3.1. [↑](#footnote-ref-428)
428. 89/1998. [↑](#footnote-ref-429)
429. Refer to section 3.1. [↑](#footnote-ref-430)
430. Neuhoff *et al* 2006: 44. [↑](#footnote-ref-431)
431. Neuhoff *et al* 2006: 44. [↑](#footnote-ref-432)
432. Lipczynski 2009: 11. [↑](#footnote-ref-433)
433. Refer to section 3.3.4.2.1 for a discussion on this debate. [↑](#footnote-ref-434)
434. Lipczynski 2009: 10. [↑](#footnote-ref-435)
435. Lipczynski 2009: 10. [↑](#footnote-ref-436)
436. Refer to section 3.3.4.2.1 for a discussion on this debate. [↑](#footnote-ref-437)
437. Reid 1987: 13; Lipczynski 2009: 10. [↑](#footnote-ref-438)
438. Inferred from Reid 1987: 13; Lipczynski 2009: 10. [↑](#footnote-ref-439)
439. Reid 1987: 13; Neuhoff *et al* 2006: 44; Lipczynski 2009: 10. [↑](#footnote-ref-440)
440. Inferred from Neuhoff *et al 2006*: 44. [↑](#footnote-ref-441)
441. Reid 1987: 13; Lipczynski 2009: 11. [↑](#footnote-ref-442)
442. Lipczynski 2009: 11. [↑](#footnote-ref-443)
443. Inferred from Lipczynski 2009: 10. [↑](#footnote-ref-444)
444. Refer to section 2.2.6. [↑](#footnote-ref-445)
445. 89/1998. [↑](#footnote-ref-446)
446. Competition Act 89/1998: section 2. [↑](#footnote-ref-447)
447. 89/1998. [↑](#footnote-ref-448)
448. 89/1998. [↑](#footnote-ref-449)
449. 89/1998. [↑](#footnote-ref-450)
450. Competition Act 89/1998: section 1. [↑](#footnote-ref-451)
451. Land *et al* 2010: 98. [↑](#footnote-ref-452)
452. Land *et al* 2010: 99. [↑](#footnote-ref-453)
453. Lorimar v Sterling Clothing Manufacturers 1981 3 SA 1129 (T) 1141. Also, see Neethling & Van Heerden 1995: 2-3 and Klopper & Van Der Spuy 2008: 65. [↑](#footnote-ref-454)
454. Neuhoff *et al* 2006: 26. [↑](#footnote-ref-455)
455. 89/1998. [↑](#footnote-ref-456)
456. Competition Act 89/1998: section 1. [↑](#footnote-ref-457)