**Chapter 4: The efficiency defence in South Africa: Application and recommendations.**

 “*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.[[1]](#footnote-2)

4.1 The purpose of competition legislation

In general, the principal objective of competition legislation is to improve the efficiency of an economy i.e. to improve the utilization of the scarce economic resources.[[2]](#footnote-3) Additionally, it is argued that economic efficiency is obtained by means of competition.[[3]](#footnote-4) Hence, competition legislation is often cited as having the purpose of maintaining and promoting competition.[[4]](#footnote-5) This is also the case in South Africa with the South African Competition Act[[5]](#footnote-6) citing the maintenance and promotion of competition as its exclusive purpose.[[6]](#footnote-7) Additionally, economic efficiency is held to be the overruling principle for the application of the South African Competition Act.[[7]](#footnote-8)

Furthermore, as mentioned previously, perfect competition is the pinnacle form of competition and as a result, it serves as the benchmark by which all other markets are evaluated by.[[8]](#footnote-9) Accordingly, the following section will discuss the economic efficiencies obtained in the perfect competitive market and contrast these efficiency gains with the potential efficiency losses of the monopoly market.

4.2 The importance of efficiency

For the field of competition law to be of any use, it requires the ability to make normative statements (value judgements or prescriptive rules).[[9]](#footnote-10) To obtain this ability, a criterion (standard) is required to serve as a benchmark against which all normative statements of the field of competition law can be evaluated against.[[10]](#footnote-11) This criterion is economic efficiency for the reason that economic efficiency is objective (purposeful) in nature.[[11]](#footnote-12) Efficiency has also been said to be the scientific backbone of economics.[[12]](#footnote-13)

Furthermore, the criterion for economic efficiency is value with value referring to the benefit obtained.[[13]](#footnote-14) Therefore, economic efficiency refers to the “relationship between the value of the benefit relative to the cost incurred in obtaining the benefit.”[[14]](#footnote-15) Soek viljanovski

Additionally, for the purposes of competition law there are, broadly speaking, three types of efficiencies brought about by perfect competition.[[15]](#footnote-16) They are allocative, productive and dynamic efficiency.[[16]](#footnote-17) These three efficiencies will now be discussed.

4.3 Types of economic efficiencies

4.3.1 Allocative efficiency (static efficiency):

As discussed in chapter 2[[17]](#footnote-18) the central problem in economics is the problem of scarcity which derives from the fact that society’s demand for goods and services are unquenchable, yet any given society has only a limited quantity of economic resources[[18]](#footnote-19) available to its disposal.[[19]](#footnote-20) Accordingly, economic resources are scarce relative to the demand thereof.[[20]](#footnote-21) This in turn implies that goods and services are limited and hence society is forced to make decisions on the goods and/or services it is going to demand and produce.[[21]](#footnote-22)

This decision process is known as the economising problem.[[22]](#footnote-23) The economising problem, lead to economics being defined as “the social science concerned with how individuals, institutions and society make optimal choices under conditions of scarcity.”[[23]](#footnote-24) Furthermore, economics have also be defined as a “philosophical inquiry...which outlines how society allocates its scarce resources to achieve prosperity and well-being for its citizens.”[[24]](#footnote-25) These definitions of economics imply that economics is concerned with maximising the social welfare of a country’s citizens.[[25]](#footnote-26) It should be noted however, that the meaning of social welfare is in fact subjective and accordingly there is no true (universal) meaning for social welfare.[[26]](#footnote-27)

However, according to economic theory, social welfare will be maximised when it is not possible to reallocate the scarce economic resources and its output without making any agent (consumer or producer) worse off i.e. the scarce economic resources are allocated in such a way that any change in the allocation thereof will result in at least one agent being worse off.[[27]](#footnote-28) This position is referred to as pareto optimality, pareto efficiency or the socially efficient allocation of economic resources (allocative efficiency for short).[[28]](#footnote-29) Furthermore, a Pareto improvement is obtained when one or more agents are made better off without any other agents being made worse off.[[29]](#footnote-30) Accordingly, social welfare is taken to improve with pareto improvements.[[30]](#footnote-31)

Despite of the lack of a true (universal) meaning for social welfare, the branch of welfare economics can be defined as “that branch of study which endeavours to formulate propositions by which we may rank, on the scale of better or worse, alternative economic situations open to society.”[[31]](#footnote-32) In other words, welfare economics strives to obtain the most efficient use of society’s scare economic resources to maximise social welfare.[[32]](#footnote-33) Accordingly, social welfare can be described as “whatever is good or whatever ought to be maximised” within the context of the allocation of society’s scare economic resources.[[33]](#footnote-34) Since it is virtually impossible to measure society’s welfare, the preference (consumer tastes or consumer wants) of society is used as an indication of its welfare.[[34]](#footnote-35) Accordingly, social welfare can be defined as the happiness of society, which is measured by the total utility (benefit or satisfaction) consumers derive from consuming a particular combination of goods and services subject to the scarce economic resources.[[35]](#footnote-36) In other words, “whatever is good or whatever ought to be maximised” should be interpreted in the context of the utility (benefit) derived from the consumption of goods and/or services.

As a result, allocative efficiency (pareto efficiency) requires that economic resources are allocated in such a way so that the goods and/or services that are produced are those that are valued most highly by consumers.[[36]](#footnote-37) Furthermore, the market price of any good or a service is taken to be indicative of the value society places upon that good or service.[[37]](#footnote-38) Stated differently the market price (Pm) is taken to be equal to the utility (benefit) society receives from consuming that good or service.[[38]](#footnote-39).

Furthermore, for allocative efficiency to be obtained, the value society places upon an extra (marginal) unit of a good or a service must be equal to the cost of producing that extra (marginal) unit i.e. marginal benefit (MB) should equal marginal cost (MC).[[39]](#footnote-40) As mentioned in the preceding paragraph, the price of a good is taken to indicate the value of that product for society. Therefore, allocative efficiency exists when Pm (MB)=MC.[[40]](#footnote-41) Accordingly, if Pm>MC it indicates that the value society places upon an additional unit of that good or service exceeds the cost of producing that additional unit.[[41]](#footnote-42) This indicates that the industry output of that good or service is too low.[[42]](#footnote-43) As a result, allocative efficiency and social welfare could be increased by producing more of that good or service up to the point where P=MC.[[43]](#footnote-44) Contrarily, if P<MC then society values an additional unit of that good or service less than the cost of producing that additional unit.[[44]](#footnote-45) This indicates that the industry output for that good or service is too high.[[45]](#footnote-46) As a result allocative efficiency and social welfare can be increased by producing less of that good or service until P=MC.[[46]](#footnote-47)

4.3.2 Productive efficiency (static efficiency)

Production efficiency can be defined as producing the maximum possible quantity of output at the lowest possible cost using the least possible quantity of inputs.[[47]](#footnote-48) More specifically, production efficiency can be divided into two categories namely technical efficiency and cost efficiency.[[48]](#footnote-49)

a) Technical efficiency

Technical efficiency refers to the situation where a firm is using the minimum quantity of inputs to produce the maximum quantity of output which is technologically possible to produce with the given inputs.[[49]](#footnote-50)

b) Cost efficiency

Cost efficiency on the other hand refers to the situation where a firm is producing its level output at the lowest possible cost.[[50]](#footnote-51)

Allocative and productive efficiencies are also referred to as static efficiencies.[[51]](#footnote-52) Allocative and production efficiencies are called static in nature because it assumes that the products in the market and the production methods used to produce these products are fixed.[[52]](#footnote-53) Static efficiency (allocative and productive efficiency) thus ignores the innovation of improved and/or new products and methods of production brought about by competition.[[53]](#footnote-54) Stated differently, in a static competition model firms compete against each other on the ground of price i.e. price competition.[[54]](#footnote-55)

Competition needed to ensure efficiency. Monopoly leads not to minimize cost but to certain x-inefficiencies which increases loss above that occurred from allocative inefficiency.

4.3.3 Dynamic efficiency

Dynamic efficiency specifically refers to the innovation of improved and/or new products and methods of production which increases production efficiency.[[55]](#footnote-56) Stated differently, dynamic efficiency refers to the development of new/improved products and technological advances brought about by research and development and entrepreneurial creativity.[[56]](#footnote-57) In other words, in a dynamic competition model firms do not compete against each other on the ground of price but rather on the ground of unique products.[[57]](#footnote-58) Stated differently, in a dynamic competitive market, producers respond to consumer wants (preferences) through innovation and other technological advances.[[58]](#footnote-59)

4.4 The market system and the importance of price

As discussed in section chapter 2,[[59]](#footnote-60) economic systems are used to govern the economising problem.[[60]](#footnote-61) With an economic system being defined as “a particular set of institutional arrangements and a coordinating mechanism designed to respond to the economising problem.”[[61]](#footnote-62) In other words, the economic system of a country is that country’s economic policy determining among other things, which goods and services are to be produced within that country and who are going to produce them.[[62]](#footnote-63) In South Africa, the market system is used to direct and coordinate economic activity i.e. to determine the allocation of the scarce economic resources.[[63]](#footnote-64) How does the market system go about to achieve allocative efficiency and thus ensuring that only the goods and services that are valued most highly are produced? **Should be how does it create economic efficiency.**

As discussed in section 2.2.3, the market system is based upon the right to private property, the freedom of enterprise, the freedom of choice and the right to pursue one’s self interest.[[64]](#footnote-65) These fundamental principles lead to the creation of market demand and market supply.[[65]](#footnote-66)

4.4.1 Rational behaviour

In economics, agents (consumers) are assumed to behave rationally in order to increase their self-interests.[[66]](#footnote-67) More specifically, it is assumed that agents always act to increase their utility (satisfaction) which is obtained through the consumption of goods and/or services.[[67]](#footnote-68) In other words, it is assumed that agents behave purposefully with the purpose being to maximise their utility.[[68]](#footnote-69) The principle of revealed preference on the other hand, states that society’s preferences are indicated through their behaviour. In other words, society’s preferences are exposed through their utility maximisation behaviour (rational behaviour) i.e. through the goods and/or services they buy (consumption).[[69]](#footnote-70)

Furthermore, the scarcity of economic resources relative to the demand for the goods and services produced using these resources forces consumers and also producers to choose between different combinations of goods and/or services with each combination providing varying levels of utility.[[70]](#footnote-71) Additionally, given the rational behaviour of individuals, it is assumed that consumers will always choose that combination of goods and/or services from which they derive the maximum utility given their budget constraints.[[71]](#footnote-72)

Stated differently, the scarcity of the economic resources relative to the demand thereof forces consumers to choose between different products i.e. when they choose a marginal (additional) unit of one product they have to give up some quantity of another product.[[72]](#footnote-73) For example to obtain two marginal units of apples, the consumer is forced to give up say one pear. This is called opportunity cost.

Opportunity cost is the cost of that which you must give up in order to obtain a marginal unit of another product.[[73]](#footnote-74) In this example the opportunity cost is 1 pear. This opportunity cost ratio of giving up pears to obtain apples can also be expressed in terms of money.[[74]](#footnote-75) In the example given the opportunity cost ratio is 2:1. Given this ratio, opportunity cost can also be expressed in monetary terms as for example an apple costing 50c and a pear costing R1.[[75]](#footnote-76) As a result, the price of a product is taken to be the opportunity cost of buying that product.[[76]](#footnote-77) Note that the opportunity cost for the consumer is also his marginal cost of obtaining a marginal unit of a specific product.[[77]](#footnote-78) Furthermore, since the consumer is willing to give up the amount of money (price) needed to buy a marginal unit of a product in order to attain a marginal unit of another product, price is also taken to be indicative of the marginal benefit a consumers derives from consuming one marginal unit of a product.[[78]](#footnote-79)

4.4.2 Utility Maximisation

4.4.2.1 The consumer

 In order to obtain that combination of goods and services from which consumers derive the highest possible level of utility, consumers weigh marginal benefits against marginal costs.[[79]](#footnote-80) Marginal benefit refers to the additional utility which is derived from consuming one additional unit of a particular good or service.[[80]](#footnote-81) Furthermore, the law of decreasing marginal utility states that the marginal utility derived from an additional unit of a good or a service will decline as you consume more and more of that particular good and/or service.[[81]](#footnote-82) In other words, as you consume more and more units of a particular product, say apples, you become less willing to give up some quantity of another product, say pears.[[82]](#footnote-83)

Marginal cost on the other hand refers to the additional cost associated with obtaining an additional unit of a particular good or service.[[83]](#footnote-84) As mentioned in the preceding paragraphs, the marginal cost for consumers is the price they pay for that particular product and the price in turn contains information on the opportunity cost associated with consuming an additional unit of that particular product.

The law of demand is derived from the above-mentioned budget constraints and the decreasing marginal utility.[[84]](#footnote-85) The law of demand states that as the price of a product increases the demand thereof decreases, other thing equal.[[85]](#footnote-86) Conversely, if the price of a product decreases then the demand thereof increases.[[86]](#footnote-87) The law of demand thus assumes that there is a negative correlation between the price of a product and the quantity demand thereof, all other things equal.[[87]](#footnote-88)

Two possible explanations for this negative correlation are the budget constraints of consumers and the utility they obtain from consuming a product.[[88]](#footnote-89) The budget constraint of consumers prevents consumers from buying as many of a product as they wish and accordingly, the price of a product is an obstacle for the consumers.[[89]](#footnote-90) Therefore, if the price of a product increases the consumer can buy less of that product, all other things equal.[[90]](#footnote-91)

Additionally, the amount of utility consumers derive from the consumption of a product will determine whether they are prepared to pay the price for that product.[[91]](#footnote-92) If the marginal utility of a product is less than the price (marginal cost) thereof then the consumers most likely will not buy that product, all other things equal.[[92]](#footnote-93) However, if MB>P then consumers will most likely buy that product, all other thing equal.[[93]](#footnote-94)

Stated differently, if the price of a product increases, all the consumers who value that product less than its price will stop buying that product, all other things equal.[[94]](#footnote-95) For this reason, any point on the market demand curve is held to denote the marginal benefit society derives from consuming that quantity of that product.[[95]](#footnote-96)

The demand curve is inferred from the law of demand and accordingly the law of demand can be illustrated using the demand curve.[[96]](#footnote-97)

Figure 1



This graph clearly illustrates the negative correlation between price and quantity demanded by illustrating that when the price of the product increased from R3 to R8 that the quantity demanded decreased from 50 units to 15 units. Also, note that point on the demand curve is taken to be representative of the marginal demand that is derived from consuming the corresponding quantity.

4.4.2.2 The producer

For the producer, utility maximising is taken to be the maximisation of his/her profits with total profit being derived from [(Price × Quantity sold) – cost of production].[[97]](#footnote-98) Furthermore, the law of diminishing marginal (extra) returns states that as more variable resources are added to a fixed resource at some point the marginal (extra) product (output) that is produced using the additional variable resource will decline i.e. more variable resources are needed to produce an extra unit of output.[[98]](#footnote-99) Accordingly, the marginal product obtained from each additional unit of a variable input is declining and as a result more variable resources are needed to produce an additional unit of output i.e. the marginal cost for an additional unit of output is increasing as the marginal product is decreasing.[[99]](#footnote-100)

More specifically, the marginal cost of a producer are those cost that the producer can control directly and without delay i.e. marginal cost is the cost of producing the last unit of output.[[100]](#footnote-101) Hence, marginal cost is that cost which the producer can save or bring upon himself by not producing an additional unit of output or by producing an additional unit of output.[[101]](#footnote-102) As a result, the supply curve has a positive slope (tilted forwards) and points on the supply curve represent the marginal cost for producing the corresponding level of output.

The profit maximisation behaviour of firms coupled with increasing marginal cost is used to derive the law of supply.[[102]](#footnote-103) The law of supply states that as the price of a product increases the supply thereof will also increase, all other things equal.[[103]](#footnote-104) Contrarily, when the price of a product decreases, the supply thereof also decreases, all other thing equal.[[104]](#footnote-105) The law of supply thus specifies that there is a positive correlation between the price of a product and the supply thereof.[[105]](#footnote-106)

The law of supply is illustrated by the supply curve, which is derived from the law of supply.[[106]](#footnote-107)

Figure 2



This graph clearly illustrates the positive correlation between price and quantity supplied by illustrating that when the price of the product increased from R3 to R8 the quantity supplied increased from 50 units to 90 units. Also, note that points on the supply curve represent the marginal cost for producing the corresponding level of output.

Furthermore, market equilibrium will be obtained when the market demand curve intersects the market supply curve. In equilibrium, market demand is equal to market supply. This entails that P=MB=MC i.e. the marginal benefit society receives from the product is equal to the cost to society of producing that quantity of that product. As a result, allocative efficiency is achieved i.e. the socially efficient quantity is produced at the socially efficient price and hence social welfare is maximised.

Remember, allocative efficiency is achieved when the scarce economic resources are used to produce those goods or services which society values the most i.e. the most preferable products are produced. To illustrate how the market system achieves allocative efficiency within the context of the above mentioned scarcity, rational and utility maximisation behaviour of agents, the law of demand and the law of supply we merely have to look at the perfectly competitive market and contrast it with the monopoly market.

4.5 Efficiency and market models

The following sections will discuss the way in which the market system will result in allocative-, productive- and dynamic efficiency.

4.5.1 Allocative efficiency

4.5.1.1 The perfectly competitive market

As mentioned previously,[[107]](#footnote-108) in the perfectly competitive market all firms are prohibited from asking any price other than the market price. Accordingly, it is held that the marginal revenue of each firm is equal to the market price since every product is sold at the market price. Furthermore, it was also discussed that in the perfectly competitive market no individual producer is in a position to abuse its market power i.e. no firm can ask any price higher than the market price.[[108]](#footnote-109)

Additionally, it was also discussed that all firms are taken to be profit maximising firms and accordingly these firms will produce that level of output where marginal revenue is equal to marginal cost.[[109]](#footnote-110) The reason why this level of output will maximise profits lays in the assumption that all firms are price takers and from the assumption that marginal cost is increasing as more output is produced.[[110]](#footnote-111) Accordingly, the gap between MR and MC will get smaller as more output is produced and hence a firm will maximise its profits by producing that output where MB=MC i.e. a firm should increase its output up to the point where MC has increased so that it equals MB.[[111]](#footnote-112)

Furthermore, as discussed previously, in the perfectly competitive market all firms are prohibited from asking any price other than the market price.[[112]](#footnote-113) Accordingly, firms are in a position where their marginal revenue obtained by selling an additional unit of output is equal to the market price i.e. P=MR.[[113]](#footnote-114) As a result, the perfectly competitive market automatically arrives at the position where MB=P=MR=MC.[[114]](#footnote-115)

The position of consumers in the perfectly competitive market is similar for to that of the producers. In the perfectly competitive market, no individual consumer is in a position to influence the market price through his/her buying power.[[115]](#footnote-116) In other words, individual consumers are not in a position to influence the proper functioning of the market forces. Furthermore, as discussed in the preceding paragraphs, consumers want to consume, within their budget constraints, that combination of goods and services from which they derive the highest utility. Furthermore, given the scarcity of the economic resources, consumers are obligated to choose between different combinations of goods and services with each combination providing varying levels of utility. Hence, consumer choices as reflected in the prices they are prepared to pay for a product is taken to be representative of the marginal utility they receive from that product. Stated differently, the aggregate market demand of all consumers is representative of their cumulative preferences i.e. consumer sovereignty exists.[[116]](#footnote-117) Hence, the following equation holds for the perfectly competitive market: Pm=MB.

Given the rational behaviour of the economic agents, the scarce economic resources, the law of demand and supply and the subsequent consumer sovereignty; the perfectly competitive market automatically achieves the position where MB=MC (allocative efficiency) and it does this through the price[[117]](#footnote-118) system.[[118]](#footnote-119) For example, if the demand for a product increases then that product becomes more scarce and hence that product’s price will increase.[[119]](#footnote-120) As a result of this price increase, producers will produce more of that product since they will make more profit given the higher price.[[120]](#footnote-121) By producing more, the producers are actually only producing that which consumers value most i.e. the market is moving towards allocative efficiency.[[121]](#footnote-122) This chain reaction will conclude when the market supply is equal to the market demand i.e. when allocative efficiency is achieved.[[122]](#footnote-123)

Accordingly, the perfectly competitive market automatically achieves this position of equilibrium and allocative efficiency through the use of the market forces without any regulation by the government or any other authority.[[123]](#footnote-124) In other words, the market forces in the perfectly competitive market coordinate and direct the economic activity within that market so as to produce the socially efficient quantity at the social efficient price i.e. to maximise the social welfare of society.

4.5.1.2 The pure monopoly market

As discussed in section 3.3.4.2.2.1, the pure monopoly market has several characteristics one of which is that there is only one seller in the relevant market. As a result, in contrast to the perfectly competitive market, the monopolist’s supply of the relevant product is also the total market supply of that product.[[124]](#footnote-125) Consequently, the monopolistic firm is not constrained by competition.[[125]](#footnote-126) Furthermore, the monopolistic firm’s price for its products is also the market price for those products.[[126]](#footnote-127) Consequently, the monopolistic firm is a price maker and there is no market price that constrains the monopolistic firm.[[127]](#footnote-128)

As discussed in section 3.3.4.1, the perfectly competitive firm can sell as much output as it wishes at the market price. Furthermore, because of the fierce competition in that market, the perfectly competitive firm will sell zero output at any price higher than the market price.[[128]](#footnote-129) Furthermore, since firms endeavour to obtain profit, there is no incentive for the perfectly competitive firm to ask any price lower than the market price.[[129]](#footnote-130) As a result the perfectly competitive firm’s price for each product sold is equal to the market price i.e. the same price is charged for all levels of.[[130]](#footnote-131) As a result the market price is equal to the marginal revenue obtained from selling a marginal unit of output i.e. P=MR.[[131]](#footnote-132) Note, for the individual perfectly competitive firm, the demand curve is a horizontal line indicating that at the market price the firm can sell as many output as it wishes.[[132]](#footnote-133) The aggregate market demand curve however is downward sloping as indicated by figure 1.[[133]](#footnote-134)

However, since the monopolistic firm’s supply is also the market supply its demand curve is also the market demand curve.[[134]](#footnote-135) Furthermore, because it is unconstrained by competition and a market price, its demand curve is downward sloping and identical to figure 1.[[135]](#footnote-136) In other words if the monopolistic firm wishes to increase its output it must decrease the price of its products i.e. it cannot sell as many output as it wishes at any given price.[[136]](#footnote-137) Furthermore, because the monopolistic firm is required to decrease the price if it wishes to increase output and because the price decrease is not only applicable on the additional units of output but also on the previous units of output, marginal revenue for each product is lower than the price for that product.[[137]](#footnote-138) The reason being that marginal revenue should now be calculated by taking the additional revenue received from selling an additional unit and subtracting the loss incurred from also selling the previous units at the now lower price.[[138]](#footnote-139) In other words, for the monopolistic firm P>MR.[[139]](#footnote-140)

Furthermore, as discussed in previous sections,[[140]](#footnote-141) all firms are assumed to be profit maximising firms and the profit maximising level of output is taken to be that output where MR=MC. Furthermore, since the monopolistic firm is unconstrained by competition, the monopolistic firm will charge the highest possible price at which it can sell that level of output where MR=MC.[[141]](#footnote-142) As a result, in the pure monopoly market price will always be higher than marginal cost and marginal revenue.[[142]](#footnote-143) Also, as discussed in the preceding paragraphs, price is taken to be indicative of the value society places upon that product i.e. P=MB. Furthermore, because P>MR in the pure monopoly market and given that the monopolistic firm produces that level of output where MR=MC, price is also higher than marginal cost.[[143]](#footnote-144)

Allocative efficiency, as discussed in section 4.2.1, Occurs when P=MC. This is the same as stating that allocative efficiency will be obtained when MB=MC. In the monopoly market however P>MC (MB>MC).[[144]](#footnote-145) This indicates that society values that product more than the cost of producing that quantity of the product as produced under monopoly conditions.[[145]](#footnote-146) Accordingly, allocative efficiency and social welfare can be increased by producing more output in the monopoly market i.e. the monopolistic firm restricts output so as to increase price and profits.[[146]](#footnote-147) Stated differently, the pure monopoly market does not produce the socially efficient quantity at the socially efficient price.[[147]](#footnote-148)

4.5.2 Production efficiency

4.5.2.1 The Perfectly competitive market versus the monopoly market

The rational behaviour of economic agents i.e. their profit maximising behaviour to the creation of the axiom that firms will always endeavour to achieve production efficiency in order to maximise their profits. This axiom is called the theory of the internal efficiency of the firm. However, in 1966 Harvey Leibenstein developed the x-efficiency hypothesis. According to the x-efficiency hypothesis, a lack of competitive pressure results in various inefficiencies causing firms to become productive inefficient. The reasons for these inefficiencies are best described by Comanor and Leibenstein:[[148]](#footnote-149)

“*In the first place, the process of competition tends to eliminate high cost producers, while the existence of substantial market power often allows such firms to remain in business. This is due to the oft-noted fact that the high price-cost margins, which are established by firms with substantial market power, often serve as an umbrella which protects their high-cost rivals. Second, the process of competition, by mounting pressures on firm’s profits, tends to discipline managements and employees to utilize their inputs, and to put forth effort, more energetically and more effectively than is the case where this pressure is absent*.”

Consequently, competition is held to be a pre-requisite for production efficiency and as a result it is held that production efficiency will be highest in conditions of perfect competition. The reason being that competition ensures that firms need to increase their efficiency if they which to stay in business.[[149]](#footnote-150)

To illustrate, the perfectly competitive market is characterized by a large number of buyers and sellers, low barriers to entry and exit, firms are taken to be price takers and firms are assumed to have no to very little market power. As a result, if a firm cannot provide the product at the market price it leaves the market and if a potential firm is of the opinion that it can produce the product more efficient than the firms already in the market it simply enters into the relevant market. Eventually this competition process will force all firms to become production efficient if it wishes to survive in that market. Any firm failing to achieve the same productive efficiency as the other firms in the market will be forced to exit from that market due to losses. This illustrates how competition ensures productive efficiency in the market.

Contrary to the perfectly competitive market, the monopoly market has no competition and markets more closely resembling the monopoly market have lower levels of competition. As a result of the lack of competition, firms in these market tend to have no or very little market power. As a result the competition process has a lower influence on these firms causing these firms to be less productive efficient than those firms in the perfectly competitive market.

4.5.3 Dynamic efficiency

4.5.3.1 The Perfectly competitive market versus the monopoly market

Competition and max profits ensure innovation in order to make more profits. Monopoly no competition and therefore less innovation.

Thus more competition ensures higher efficiencies therefore competition law primarily endeavours to increase efficiency.

Market power does reduces allocative, productive and dynamic efficiency.

But why increase efficiency? Consumer surplus is indication of welfare and to amx that you need efficiencies.

Soek unctad report, footnote 41 and areeda & hovenkamp vir production efficiency.

Sine glossary bl by pareto efficiency wat obtained word as allocative en productive efficiency verkry word en dar pareto beteken dat goedere op die mees efficienctste wyse produseer word.

4.6 Consumer surplus

Hoe beinvloed production efficiency consumer welfare? Sien Bohm 60-61.

From this and because consumer welfare is difficult to interpret and measure the consumer surplus was developed. Onthou alhoewel die mb daal soos die prys daal styg total benefit nogsteeds alhoewel dit teen ‘n dalende koers daal.

Equilibrium Principle of revealed preference: As mentioned previously, it is virtually impossible to measure society’s welfare therefore the preferences (consumer tastes or consumer wants) of society is used as an indication of its welfare (utility).[[150]](#footnote-151) The Principle of revealed preference on the other hand states that society’s preferences are indicated through their behaviour. In other words, society’s preferences are exposed through their utility maximisation behaviour (rational behaviour) i.e. through the goods or serviced they buy. For this reason the market system allocates resources efficiently because when D increase price increase and therefore supply and vice versa.

Sine chapter 15 david Friedman. SCP paradigm follows this and this should be the market outcome. Because social welfare is very difficult to measure and interpreted, the notion om consumer surplus was developed.

Gebruik surplus om economic efficiency aan te dui as daar geen deadweight loss is nie. Bespreek die eienskappe van diedeamnd en supply curve.

Consumer surplus and the price system. Consumer sovereingity Reekie 1989. Sien ook mishan bl 19. En bring the SCP paradigm in. Die consumer en producer surplus indicate economic efficiency. Sien Wetzstein bl 299-301. Sien ook price system Wetzstein bl 165.

2. Since monopoly leads to welfare or efficiency losses, competition fails competition authorities have the gripe with market power and why market power is the essence of the Competition Act. Allocative efficiency is thus goal. i.e when coduct is anti competitive it means market power which lowers allocative efficiency. Kan egter ook production efficiency verminder. Kom uit dat allocative efficiency eintlik die doel is en die rede is hoekom competition authories teen p>mc is want dit is social loss. i.e. allocative loss want mense word uit gesluit.

Bespreek definisie van market power. En se hoekom market power geruguleer word is omdat dit competition decrease wat die firmas instaat stel om pryse te lig en sodoende efficiency te verlaag.

**Production efficiency (static efficiency):** competition forces firm to become technical efficient and economic efficient. Techinical efficient; produce most output with lowest input. Economic efficienct; produce at the lowest cost.

**Discuss the conflict of allocation and production efficiency**

*Dynamic efficiency*: Producers respond to changes in consumer tastes through innovations and the development of new technologies.

*Monetary efficiency:* e.g. tax savings or lower input costs resulting from improved bargaining power with suppliers. These may be the easiest to “put a number” to, but are not considered real savings in resources and are less favoured.

4.3 The efficiency defence

**Efficiency defence when production or dynamic efficiencies can potentially offset the los in allocative efficiency. Market power ability to increase price, exclude competition, behave independently. Given the assumption that firms strive to max profits, the only explanation why firms would want to exclude competition, behave independently is so that in can increase price (profits.). i.e behave independent from market forces and hence decrease efficiency.**

**Allocative efficiency is normally the purpose of competition legislation. But should it be for South Africa?** What efficiencs are we trying to maximise? See cseres bl 17. The question is “what is the welfare standard we are trying to maximise?” The following section will discuss the efficiency gains of competition.captures the central role of antitrust in protecting consumers against anticompetitive conduct that raises prices, reduces output, and retards innovation and economic growth. Therefore allocative efficiency (consumer surplus) needs to be the welfare standard supported. Sien die artikels by die doel van medediningingsreg en sat dat mededingingsreg daar is om consumers teen anti-competitive conduct te beskerm en om laer pryse, meer keuses en beter kwaliteit te verseker.

**Wie moet bevoordeel word sien ook decreasing and increasing cost industries and economies of scale and scope se invloed op welfare.**

4.4 Substantial lessening/prevention of competition

4.5 Accepted efficiencies

Real & pecuniary efficiencies

4.6 Weighing process

Williamson trade off en welfare standard

1. As cited in Reekie 2000: 20. [↑](#footnote-ref-2)
2. Cseres 2005: 17; Foer 2006: 566; Pace 2007: 39; Dabbah 2005: 21;Lipczynski *et al* 2009: 594-595; OECD 1993: 23; Asian Development Bank on

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 (accessed 23 Mei 2011) [↑](#footnote-ref-3)
3. Cseres 2005: 17; Foer 2006: 566; Pace 2007: 39; Dabbah 2005: 21;Lipczynski *et al* 2009: 594-595; Wetzstein 2005: 299; OECD 1993: 23; Asian Development Bank on

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 (accessed 23 Mei 2011) [↑](#footnote-ref-4)
4. Torok 2005: 26.International Competition Network (hereafter ICN) 2006: 7; Asian Development Bank on

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 (accessed 23 Mei 2011) [↑](#footnote-ref-5)
5. 89/1998. [↑](#footnote-ref-6)
6. Competition Act 89/1998: section 2. [↑](#footnote-ref-7)
7. CUTS 2002: 12; Neuhoff *et al* 2006: 14; Roberts 2004: 7. [↑](#footnote-ref-8)
8. Refer to section 2.2.5. [↑](#footnote-ref-9)
9. Cseres 2005: 16. [↑](#footnote-ref-10)
10. Cseres 2005: 16. [↑](#footnote-ref-11)
11. Cseres 2005: 16. [↑](#footnote-ref-12)
12. Elzinga 1977: 1212 as cited in Cseres 2005: 16; Leibenstein 1966: 392. [↑](#footnote-ref-13)
13. Cseres 2005: 16. [↑](#footnote-ref-14)
14. Cseres 2005: 16. [↑](#footnote-ref-15)
15. Hesen 2006: 23; Smit 2005: 6 footnote 32; Neuhoff *et al* 54; Asian Development Bank on

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 (accessed 23 Mei 2011) [↑](#footnote-ref-16)
16. Hesen 2006: 23; Smit 2005: 6 footnote 32; Neuhoff *et al* 54; Asian Development Bank on

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 (accessed 23 Mei 2011) [↑](#footnote-ref-17)
17. Section 2.2.1. [↑](#footnote-ref-18)
18. In economics there are 4 types of economic resources. They are as follow: “Land, which include all natural resources used in the production of goods and services; Labour, which include the physical and mental talents of individuals used in producing goods and services; Capital, which is defined as all manufacturing aids used in the production of goods and services and lastly entrepreneurial ability.” For more information see McConnel & Brue 2008: 4. [↑](#footnote-ref-19)
19. McConnell & Brue 2008: 4; Wetzstein 2005: 2-3. [↑](#footnote-ref-20)
20. McConnell & Brue 2008: 4; Wetzstein 2005: 2-3. [↑](#footnote-ref-21)
21. McConnell & Brue 2008: 4; Wetzstein 2005: 2-3. [↑](#footnote-ref-22)
22. McConnell & Brue 2008: 10. [↑](#footnote-ref-23)
23. McConnell & Brue 2008: 4; Wetzstein 2005: 2-3. [↑](#footnote-ref-24)
24. Wetzstein 2005: 3. [↑](#footnote-ref-25)
25. Wetzstein 2005: 3. [↑](#footnote-ref-26)
26. Mishan 1981: 17. [↑](#footnote-ref-27)
27. Mishan 1981: 35; Yew-Kwang 1979: 31; Bohm 1987: 1-2; Reid 1987: 13; Hesen 2006: 23; Reekie 1989: 5; Lipczynski *et al* 2009: 63; Wetzstein 2005: 161; OECD 1993: 65. [↑](#footnote-ref-28)
28. Mishan 1981: 35; Yew-Kwang 1979: 31; Bohm 1987: 1-2; Reid 1987; Hesen 2006: 23; Reekie 1989: 5; Lipczynski *et al* 2009: 63; Wetzstein 2005: 161; OECD 1993: 65. [↑](#footnote-ref-29)
29. Yew-Kwang 1979: 3; Mishan 1981: 35; Bohm 1987: 1-2; Reid 1987: 13; Hesen 2006: 23; Wetzstein 2005: 161. [↑](#footnote-ref-30)
30. Yew-Kwang 1979: 3; Wetzstein 2005: 163; [↑](#footnote-ref-31)
31. Mishan 1960 as cited in Yew-Kwang 1979: 2. [↑](#footnote-ref-32)
32. Bohm 1987: xi. [↑](#footnote-ref-33)
33. Yew-Kwang 1979: 2. [↑](#footnote-ref-34)
34. Yew-Kwang 1979: 7; Bohm 1987: 1. [↑](#footnote-ref-35)
35. Wetzstein 2005: 3. Mishan 1981: 150. [↑](#footnote-ref-36)
36. Hesen 2006: 9; Neuhoff *et al* 2006: 54. [↑](#footnote-ref-37)
37. Weber 2008: 2; Whish 1993: 1; Reekie 1989: 21; Lypczynski 2009: 63; Wetzstein 2005: 302; McConnel & Brue 2008: 418. [↑](#footnote-ref-38)
38. Inferred from Lypczynski 2009: 63; Wetzstein 2005: 302; McConnel & Brue 2008: 418. [↑](#footnote-ref-39)
39. Asian Development Bank on

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 (accessed 23 Mei 2011); Lypczynski 2009: 63; Wetzstein 2005: 302; McConnel & Brue 2008: 418. [↑](#footnote-ref-40)
40. Asian Development Bank on

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 (accessed 23 Mei 2011); Lypczynski 2009: 63; Wetzstein 2005: 302; McConnel & Brue 2008: 418. [↑](#footnote-ref-41)
41. Asian Development Bank on

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 (accessed 23 Mei 2011); Lypczynski 2009: 63; Wetzstein 2005: 299-302; McConnel & Brue 2008: 418. [↑](#footnote-ref-42)
42. Asian Development Bank on

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 (accessed 23 Mei 2011); Lypczynski 2009: 63; Wetzstein 2005: 299-302; McConnel & Brue 2008: 418. [↑](#footnote-ref-43)
43. Asian Development Bank on

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44. Asian Development Bank on

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 (accessed 23 Mei 2011); Lypczynski 2009: 63; Wetzstein 2005: 299-302; McConnel & Brue 2008: 418. [↑](#footnote-ref-46)
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47. Hesen 2006: 9; Asian Development Bank on

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 (accessed 23 Mei 2011); [↑](#footnote-ref-48)
48. Lipczynski *et al* 2009: 64. [↑](#footnote-ref-49)
49. Muller 1974: 730; Lee 1986: 81; Byrnes 1987: 2-3; Lipczynski *et al* 2009: 64. [↑](#footnote-ref-50)
50. Smit 2005: 4; Lee 1986: 81; Lipczynski *et al* 2009: 64; Asian Development Bank on

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 (accessed 23 Mei 2011) [↑](#footnote-ref-51)
51. Trident Steel (Pty) LTD v Dorbyl Ltd 89/LM?Oct00; McCartney 2004: 2; Kolasky & Dick 2003:

 247; Coate & Rodriguez 1997: 104; Hesen 2006: 9; Asian Development Bank on

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52. Trident Steel (Pty) LTD v Dorbyl Ltd 89/LM?Oct00; McCartney 2004: 2; Kolasky & Dick 2003:

247; Coate & Rodriguez 1997: 104; Hesen 2006: 9; Asian Development Bank on

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 (accessed 23 Mei 2011). [↑](#footnote-ref-53)
53. Trident Steel (Pty) LTD v Dorbyl Ltd 89/LM?Oct00; McCartney 2004: 2; Kolasky & Dick 2003:

247; Coate & Rodriguez 1997: 104; Hesen 2006: 9; Asian Development Bank on

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 (accessed 23 Mei 2011). [↑](#footnote-ref-54)
54. Asian Development Bank on

http://www.adb.org/Documents/Others/OGC-Toolkits/Competition-Law/documents/chap1.pdf

(accessed 23 Mei 2011). [↑](#footnote-ref-55)
55. McCartney 2004: 2; Kolasky & Dick 2003:

247; Coate & Rodriguez 1997: 104; Hesen 2006: 9; Asian Development Bank on

 http://www.adb.org/Documents/Others/OGC-Toolkits/Competition-Law/documents/chap1.pdf

 (accessed 23 Mei 2011). [↑](#footnote-ref-56)
56. McCartney 2004: 2; Kolasky & Dick 2003:

247; Coate & Rodriguez 1997: 104; Hesen 2006: 9; Asian Development Bank on

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 (accessed 23 Mei 2011). [↑](#footnote-ref-57)
57. McCartney 2004: 2; Kolasky & Dick 2003:

247; Coate & Rodriguez 1997: 104; Hesen 2006: 9; Asian Development Bank on

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 (accessed 23 Mei 2011). [↑](#footnote-ref-58)
58. Neuhoff *et al* 2006: 54. [↑](#footnote-ref-59)
59. More specifically section 2.2.1. [↑](#footnote-ref-60)
60. McConnell & Brue 2008: 29. [↑](#footnote-ref-61)
61. McConnell & Brue 2008: 29. [↑](#footnote-ref-62)
62. Economy Watch on

 http://www.economywatch.com/world\_economy/world-economic- indicators/type-of-economic- system.html (accessed 18 April 2011) [↑](#footnote-ref-63)
63. Refer to section 2.2.8. [↑](#footnote-ref-64)
64. Refer to section 2.2.3. [↑](#footnote-ref-65)
65. Refer to section 2.2.4. [↑](#footnote-ref-66)
66. Friedman 1986: Chapter 1 page 1; McConnel & Brue 2008: 4. [↑](#footnote-ref-67)
67. Friedman 1986: Chapter 1 page 1; McConnel & Brue 2008: 4. [↑](#footnote-ref-68)
68. Friedman 1986: Chapter 1 page 1; Wetzstein 76; McConnel & Brue 2008: 4. [↑](#footnote-ref-69)
69. Friedman 1986: Chapter 1 page 1; Wetzstein 76; McConnel & Brue 2008: 4. [↑](#footnote-ref-70)
70. Bohm 1987: 1-4; [↑](#footnote-ref-71)
71. Yew-Kwang 1979: 48; Mishan 1981: 49-59; Bohm 1987: 1-4; Reekie 1989: 8-17. [↑](#footnote-ref-72)
72. Yew-Kwang 1979: 48; Mishan 1981: 49-59; Bohm 1987: 1-4; Reekie 1989: 8-17. [↑](#footnote-ref-73)
73. Friedman 1986: Chapter 3 page 5. [↑](#footnote-ref-74)
74. Mishan 1981: 151; Bohm 1987: 14-16. [↑](#footnote-ref-75)
75. Weber 2008: 2; Mishan 1981: 8; Friedman 1986: Chapter 3 page 8-9. [↑](#footnote-ref-76)
76. Reekie 1989: 32; McConnel & Brue 2008: 9. [↑](#footnote-ref-77)
77. McConnel & Brue 2008: 9; Friedman 1986: Chapter 3 page 5. [↑](#footnote-ref-78)
78. Weber 2008: 2; Whish 1993: 1; Reekie 1989: 21; Lypczynski 2009: 63; Wetzstein 2005: 302; McConnel & Brue 2008: 418. [↑](#footnote-ref-79)
79. Friedman 1986: Chapter 3 page 4-5; McConnle & Brue 2008: 13-14. [↑](#footnote-ref-80)
80. Friedman 1986: Chapter 3 page 4; McConnle & Brue 2008: 5. [↑](#footnote-ref-81)
81. Mishan 1981: 148-150; Friedman 1986: Chapter 3 page 4. [↑](#footnote-ref-82)
82. Friedman 1986: Chapter 3 page 4. [↑](#footnote-ref-83)
83. Wetzstein 2005: 235. [↑](#footnote-ref-84)
84. Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-85)
85. Henderson on http://www.econlib.org/library/Enc/Demand.html (acessed 4 July 2011); Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-86)
86. Henderson on http://www.econlib.org/library/Enc/Demand.html (acessed 4 July 2011); Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-87)
87. Henderson on http://www.econlib.org/library/Enc/Demand.html (acessed 4 July 2011); Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-88)
88. Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-89)
89. Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-90)
90. Wetzstein 2005: 21; McConnle & Brue 2008: 46. [↑](#footnote-ref-91)
91. Wetzstein 2005: 57-58; McConnle & Brue 2008: 46. [↑](#footnote-ref-92)
92. Wetzstein 2005: 57-58; McConnle & Brue 2008: 13. [↑](#footnote-ref-93)
93. Wetzstein 2005: 57-58; McConnle & Brue 2008: 13. [↑](#footnote-ref-94)
94. Mishan 1981: 146-147. [↑](#footnote-ref-95)
95. Mishan 1981: 146-147; McConnel & Brue 2008: 418. [↑](#footnote-ref-96)
96. Image obtained from http://www.bized.co.uk/sites/bized/files/images/demand1.gif

 (acessed on 4 July 2011) [↑](#footnote-ref-97)
97. Yew-Kwang 1979: 48; McConnel & Brue 2008: 379 [↑](#footnote-ref-98)
98. McConnel & Brue 381. [↑](#footnote-ref-99)
99. McConnel & Brue 387. [↑](#footnote-ref-100)
100. McConnel & Brue 387. [↑](#footnote-ref-101)
101. McConnel & Brue 387. [↑](#footnote-ref-102)
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103. Ehrbar on http://www.econlib.org/library/Enc/Supply.html (accessed 5 July 2011);

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106. Image obtained from http://www.bized.co.uk/sites/bized/files/images/supply1.gif

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107. Refer to sections 2.2.5; 3.3.4.2.2; 3.3.4.2.2.1 and 3.3.4.1. [↑](#footnote-ref-108)
108. Refer to section 3.3.4.2.2.1. [↑](#footnote-ref-109)
109. Refer to section 2.2. and 3.3.4.1. [↑](#footnote-ref-110)
110. Refer to the previous section. [↑](#footnote-ref-111)
111. Refer to the previous section (section 4.2.1). [↑](#footnote-ref-112)
112. Refer to section 3.3.4.1. [↑](#footnote-ref-113)
113. Refer to section 3.3.4.1. [↑](#footnote-ref-114)
114. Refer to the previous section (section 4.2.1). [↑](#footnote-ref-115)
115. Bohm 1987: 15. [↑](#footnote-ref-116)
116. Wetzstein 2005: 299. [↑](#footnote-ref-117)
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118. Bohm 1987: 14-16; Reekie 1989: 20-23; Wetzstein 2005: 299. [↑](#footnote-ref-119)
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126. Wish 1993: 3; Lipczynski *et al* 2009: 60-61; Wetzstein 2005: 378; McConnel & Brue 2008:

426. [↑](#footnote-ref-127)
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426. [↑](#footnote-ref-128)
128. Refer to section 3.3.4.1. [↑](#footnote-ref-129)
129. Refer to section 3.3.4.1. [↑](#footnote-ref-130)
130. Refer to section 3.3.4.1. [↑](#footnote-ref-131)
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133. Refer to the previous section. [↑](#footnote-ref-134)
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135. Lipczynski *et al* 2009: 60-61; McConnel 7 Brue 2008: 427. [↑](#footnote-ref-136)
136. Lipczynski *et al* 2009: 60-61; McConnel 7 Brue 2008: 427. [↑](#footnote-ref-137)
137. Lipczynski *et al* 2009: 60-61; Wetzstein 2005: 379-380; McConnel & Brue 2008: 427.For more

information see McConnel & Brue 2008: 427. [↑](#footnote-ref-138)
138. Lipczynski *et al* 2009: 60-61; Wetzstein 2005: 379-380; McConnel 7 Brue 2008: 427. [↑](#footnote-ref-139)
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140. Refer to the preceding section; section 2.2 and section 3.3.4.1. [↑](#footnote-ref-141)
141. Wetzstein 2005: 380; Wish 1993: 3; Reekie 1989: 20; Lipczynski *et al* 2009: 64. [↑](#footnote-ref-142)
142. Reekie 1989: 20; Wetzstein 2005: 380; Lipczynski *et al* 2009: 64. [↑](#footnote-ref-143)
143. Reekie 1989: 20; Wetzstein 2005: 380; Lipczynski *et al* 2009: 64. [↑](#footnote-ref-144)
144. Reekie 1989: 20; Wetzstein 2005: 380; Lipczynski *et al* 2009: 64. [↑](#footnote-ref-145)
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146. Waterson 1988; 13-15; Bohm 1987: 59; Korah 2004: 10; Wish 1993: 3; Reekie 1989: 20-22;

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150. Yew-Kwang 1979: 7; Bohm 1987: 1. [↑](#footnote-ref-151)