The extent of market concentration in South Africa's product markets

WORKING PAPER CC2018/05

Thembalethu Buthelezi, Thando Mtani and Liberty Mncube

Abstract

Competitive markets can benefit consumers, workers, entrepreneurs, small businesses and the economy more generally but several indicators suggest the persistence of high levels of market concentration in many of South Africa's economic sectors. The causes underlying the high levels of concentration and corresponding market power are not clear. This paper uses recent data from notified mergers to show the extent of the static level of market concentration (measured using the Herfindahl-Hirschman index (HHI)). This paper argues that consumers and workers would benefit from additional actions to promote effective competition and inclusion in markets.

Keywords: market structure, market performance, economic development

JEL classification codes: D4, L1, O1

1. Introduction

For much of its history, South Africa's product markets and capital ownership have been abnormally concentrated.[1] High market concentration has been characteristic not only of scale-dependent products but also consumer products. Some of the high market concentration may be a result of the legacy of historic privileges, and some of it may be due to scale factors. South Africa's constitutional transformation gave high priority to the redressing of the racialized economic order of the past. In this setting, a stronger competition regulation system was proposed as a tool to help in that process. The democratic government deliberately made competition regulation its preferred means of regulating private enterprise in the public interest.

Prior to the Competition Act of 1998, South Africa's competition legislation had faced criticism for its permissiveness of monopolistic conditions and anticompetitive practices. In order to transform the economy, the democratic government formulated a competition law that would ultimately address concentration, inclusion and firm behaviour.[2] The preamble to the Competition Act of 1998 describes the problem that competition law seeks to address. It correctly identifies concerns about equity and justice as being core to the law's political motivations. The preamble declares that past practices, including apartheid, led to excessive concentration of ownership and control, inadequate restraints on anti-competitive trade practices, and unjust restrictions on full and free participation in the economy. As a result of these past practices, the preamble proclaims that the economy must be open to greater ownership by a greater number of South Africans.

The explanatory memorandum to the Competition Bill (1998) stated that the democratic government is "*concerned at the threat that the industrial structure poses to the efficiency and adaptability of the economy through the exploitation and outright exclusion of key participants and potential participants*".[3] The issues of market structure and ownership that were prominent in the debate about adopting the law have proven to be equally prominent today. With the recent uncovering of cartels in almost every sector of South Africa's small economy, discredited firms have created an environment disfavouring "*bigness*" and the large accumulation of illegitimate market power. Illegitimate market power is often associated with creating barriers to entry, keeping outsiders out of markets and is a major source of inequality.[4] Yet there is value to allowing firms to

[1] Roberts (2004) points out that in the past, four conglomerates controlled the majority of economic activity in the South African economy, namely Anglo American Corporation, Sanlam, Liberty Life and Rembrandt/Remgro.
[2] Roberts, S. 2004. Competition Policy, competitive rivalry, and a developmental state in South Africa. In: Edigheji, O. (ed.) *Constructing a democratic developmental state in South Africa Potentials and challenges.* World Rights
[3] Explanatory memorandum to Competition Bill, 1998, p2.
[4] The monopolist's monopoly rents come at the expense of consumers: as monopolies raise their prices, their profits increase while the well-being of consumers and workers decrease.

exercise the market power they have acquired legitimately so that we can maintain incentives for innovation, productivity gains, and entry into new markets.

2. Concentration

Market concentration reflects the number and size distribution of firms in a market, in other words, it measures the structure of a market. One objective of competition regulation is to reduce market concentration towards lowering prices and, more generally, promoting rivalry and competition.[5]

Understanding the strength and intensity of competition within a market requires complex economic analysis of which data is often not readily available. To form a preliminary assessment of the degree of competition in a defined market, the approach of the Competition Commission (Commission) is to rely on market concentration as an imperfect indicator. This approach may be important in considering the likely effects of a merger or a specific conduct. However, there is a cautionary note in relying on market concentration since there are reservations about the relationship between the structure of a market and the intensity of competition within that market. The approach of the Commission is to complement market concentration indicators with other indicators so as to draw sound conclusions on the strength and intensity of competition.

The structure-conduct-performance paradigm, in its simplest form, holds that market structure dictates conduct which in turn dictates performance.[6] The misgivings about the relationship between structure and performance are due in significant part to empirical studies that suggest that industry concentration, explains little if any of the variation in profitability. In addition, even if there is a relationship, there are competing explanations, notably, that market concentration is often due to one or a few firms being highly efficient, which is the basis for their profitability, and high margins.

There are a number of different ways to measure concentration. Concentration indexes measure the ability of firms to raise price above the competitive level (are concerned with only actual and not potential competition). The first step is to define the relevant market. The relevant market contains the most significant competitive alternatives available to the customers whilst the relevant product market is the set of products that customers consider to be close substitutes.

[5] Competition may lead to greater product variety, higher product quality, and greater innovation, which drives productivity growth and helps lift living standards.
[6] The structure conduct performance hypothesis (Bain (1951)) challenged by Baumol's contestability theory (1982), Sutton's work on sunk costs (1991), and Demetz's (1973, 1974) arguments on the direction of causality.

The second step is to measure concentration. One approach is to use concentration ratios. Concentration ratios measure the aggregate market share of a small number of the leading firms in a market (eg the three-firm concentration ratio, or C3, shows the proportion of the market supplied by the three leading firms). The ratios are absolute in value and take no account of differences in the relative size of the firms that make up the leading group.

The Herfindahl-Hirschman index (HHI) is the most commonly accepted measure of market concentration.[7] The HHI takes account of the differences in the sizes of market participants, as well as their number. The HHI gives a score that can range from close to zero (when a market is occupied by a large number of firms of relatively equal size) to 10,000. The HHI takes the value of 10,000 in the monopoly case and declines as the level of concentration decreases. In this paper, we rely on the HHIs as a measure of concentration.

3. Methodology

South Africa's merger control regime requires merging firms to notify the Commission of proposed merger transactions which fall within the ambit of what is considered to be a notifiable merger. In merger analysis, the first standard which must be assessed is whether the merger is likely to substantially prevent or lessen competition. The determination of this standard requires a multi-factor analysis. One of the factors considered is the extent of market concentration present in the market under question.

We analysed 2,150 Commission merger reports from January 2009 to March 2016 in order to identify the relevant markets, estimated market shares and calculate the corresponding HHIs. The merger reports contain information identifying the defined relevant market and sector classification. We further categorise sectors in line with the Commission's priority sectors to allow for an analysis that is consistent with the Commission's prioritisation of sectors framework.[8] The priority sectors are (i) Food and Agro-processing; (ii) Infrastructure and Construction; (iii) Intermediate Industrial Products; (iv) Financial Services; (v) Energy; and (vi) Information Communication Technologies sectors.

[7] The premise behind the HHI is that is that industry behaviour strongly correlates with industry structure. The HHI calculates the square of the market share of each firm competing in the market, and sums the resulting numbers.
[8] The prioritisation of sectors framework identifies the sectors in which the Commission's enforcement and advocacy activities will be focused. The criteria for identifying sectors focuses on (1) the impact on consumers, especially the poor; (2) alignment with government's economic growth and development objectives; and (3) the prevalence of anti-competitive conduct, especially cartels.

As part of its assessment of the effects of a merger on competition, the Commission may use market shares and measures of concentration (HHIs), assessed on the relevant market (in particular the narrowest market that satisfies the hypothetical monopolist test).[9] Market shares of firms in a market, both in absolute terms and relevant to each other, can be an imperfect indicator of the potential extent of a firm's market power. The statutory definition of a dominant position (as outlined in section 7 of the Competition Act) is used to identify firms that considered as dominant.[10] Determination of dominant position in terms of Section 7 of the Competition Act requires a definition of the relevant market and a computation of market shares. If the market share of a firm is found to be more than 45%, a dominant position is presumed.

The identified firms in a relevant market together with their respective market shares form the basis for the HHI calculations. The U.S. Department of Justice considers markets below 1500 to be un-concentrated; those between 1500 and 2500 to be moderately concentrated, whilst those above 2500 are classified as highly concentrated.[11] As regards the HHI, in the UK any relevant market with a post-merger HHI exceeding 1,000 may be regarded as concentrated and any relevant market with a post-merger HHI exceeding 2,000 as highly concentrated. We have used these two guidelines to identify highly concentrated markets in this study.

4. The extent of market concentration

An analysis of the merger reports identifies 31 sectors out 45 sectors with dominant firms in defined product markets. The sectors are identified using the two digit Standard Industrial Classification (SIC) codes. We find that at least 70.45% of South Africa sectors have defined markets with dominant firms.[12] This indicates the static level of market concentration. The finding that the majority of South African sectors are concentrated accords with various studies that have been conducted on the concentration levels of South African industries. For example, the World Bank (2014 and 2016) points out that South African manufacturing and export markets appear to have high market concentration — just a few firms account for the bulk of the market, including non-

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9 The hypothetical monopolist test provides the primary analytical framework for defining relevant markets. In defining the product market, the test poses the following question: could a hypothetical monopolist of all products (or services) within a candidate market profitably impose at least a small but significant and non transitory increase in price (SSNIP)? If a candidate market passes the test, it qualifies as a relevant market.

10 Section 7 states that "A firm is dominant in a market if (a) it has at least 45% of that market; (b) it has at least 35%, but less than 45%, of that market, unless it can show that it does not have market power; or (c) it has less than 35% of that market, but has market power."

11 US Department of Justice and Federal Trade Commission, 2010, Horizontal Merger Guidelines, p19.

12 The Standard Industrial Classification (SIC) is a system for classifying industries. We use the 2 digit code. As there are 44 SIC code sector classifications (at the 2 digit level) and the merger reports also classify mergers according to the 2 digit level, the calculation conducted was: 31/44 = 70.45%.

mineral exports where the top 5 percent of firms account for 93 percent of total non-mineral exports.[13]

We find that the average market share of the identified dominant firms in defined markets and across sectors is about 52.5%. If the sample is limited to markets with firms defined as presumptively dominant the average market share, across sectors, is about 62%. The table below provides further information on the average market share estimated for the dominant firms in defined relevant markets identified within each priority sector.

Table 1: Average market share estimates of dominant firms identified across priority sectors

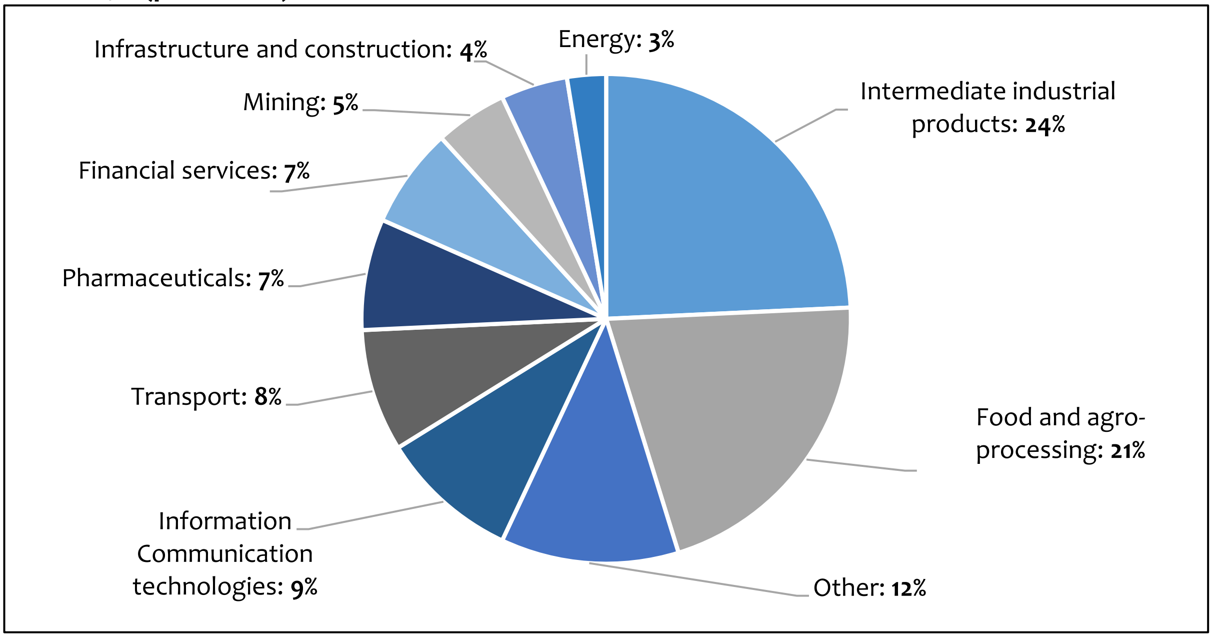
Priority Sectors	Average market shares (entire sample)	Average market shares (firms defined as presumptively dominant)
Information communication technologies	49.3%	55.2%
Energy	50.1%	60.8%
Financial services	62.2%	68.8%
Food and agro-processing	52.9%	60.5%
Infrastructure and construction	45.5%	52.6%
Intermediate industrial products	51.4%	63.3%
Mining	57.1%	62.0%
Other	51.8%	61.5%
Pharmaceuticals	52.4%	59.6%
Transport	57.1%	67.4%
Total	**52.5%**	**61.6%**

Over the entire dataset used, we find that there are 463 product markets identified in which dominant firms in defined markets have an average market share above or equal to 45%. In the financial services sector the average market share is about 69%. This indicates the extent of the static level of market concentration.

Figure 1 below shows the number of product markets in which dominant firms in defined markets were identified across each sector. As expected, the intermediate industrial products sector accounted for the largest proportion of product markets in which dominant firms in defined markets were identified (at about 24%).

[13] The World Bank (2014) makes the observation that the concentrated firm export structure is persistent. Over the period 2002–12 concentration increased slightly, with the share of the top 5 percent of exporters growing from 90 percent (85 percent for non minerals) to 92 percent (87 percent for non minerals).

Figure 1: Number of product markets in which dominant firms recorded average market shares above 45% (per sector)



We find that the average HHI across the defined product markets is approximately 2 986. Such a high HHI indicates that product markets are, on average, highly concentrated (Table 2). Indeed when considering the static measure of concentration across the Commission's defined priority sectors, we observe that all priority sectors record HHIs above 2500. The sector with defined markets that have the highest level of concentration is the Information Communication Technologies sector (at 3 539) while the financial services sector is found to have the relatively lowest level of concentration (2 788). Nonetheless the calculated HHIs are high and indicate the prevalence of concentration across defined markets.

Table 2: Average HHI in defined markets per priority sector

Sector	Average HHI
Information communication technologies	3 539
Energy	2 832
Financial services	2 788
Food and agro-processing	2 861
Infrastructure and construction	2 859
Intermediate industrial products	2 958
Pharmaceutical	3 003
Transport	3 254
Other	2 891

5. Discussion

In trying to interpret this evidence, it is clear that the static level of market concentration is quite high in South African product markets. First, at least 70.45% of South African sectors have dominant firms in defined product markets; and second all the priority sectors have defined markets which are highly concentrated with HHIs that are above 2500. It must be noted that the evidence above does not indicate the level and intensity of dynamic competition. It only provides a snapshot of the market structure at a point in time. Dynamic models of measuring concentration require complex economic analysis and extensive data which is not readily available. Given these limitations, it is generally not possible to estimate these dynamic models accurately.

One common criticism to using the HHIs relates to the arbitrary numerical thresholds. This criticism does not relate to the adequacy of the HHI per se, but merely focuses on its implementation. Another criticism of the HHI is that as a structural measure applied uniformly across markets, it misses the market-specific nuances relating structure to market power. For example, HHI provides no information about barriers to entry, economies of scale or scope, rapidly changing technology, or firm-specific characteristics, all of which may bear on the intensity of competition. In fairness, we have pointed out already that the HHI is an imperfect measure of market concentration and so criticising the HHI as used in this paper for failing to address every market-specific nuance somewhat misses the point of the index and purpose of this paper.[14] Rejecting the HHI because it does not perfectly measure market concentration in every application would, in our view, be equally senseless.

In spite of the stated caveats, when taken alongside the extensive evidence of uncovered cartels in specific markets and mark ups, this evidence does appear to suggest that South African product markets remains highly concentrated.[15] For example, Aghion et al, 2008 show that mark-ups on prices, which are used as a measure of competition, are higher in South African manufacturing industries than they are in corresponding industries worldwide. It also argues that competition policy (i.e. a reduction of mark-ups) should have largely positive effects on total factor productivity growth in South Africa. In particular, a 10% reduction in the mark-ups would increase productivity growth by 2 to 2.5% per year. Higher past mark ups are associated with lower current productivity growth.[16] The World Bank (2016) points out that *"although the typical South African manufacturer operates closer to the global technological frontier than its counterparts in comparable economies, the country's relatively low aggregate manufacturing productivity is a consequence of low-*

[14] Simply put, the HHI offers a general framework for approximating the likely competitive effects of a specific merger or specific conduct.
[15] Mark ups measure the extent to which prices exceed marginal cost. Mark ups may vary per sector. Mark ups in concentrated markets may be good indicator for market power, but firms with lower costs or better products may also to dominate the market in which case concentration and margins may be high.
[16] Other studies of South African manufacturing sectors at a 3 digit industry level have found high levels of concentration (Fedderke and Szalontai 2009; Fedderke and Naumann 2011) and high mark ups (Fedderke and others 2007; Aghion and others 2008 and 2013; OECD 2008). Holden (2001) found that the levels of concentrations were high in capital-intensive industries such as iron and steel, petroleum refineries, motor vehicles, dairy and tobacco products.

productivity firms having higher market shares than they would in most comparable economies. This, in turn, is argued to be a consequence of relatively high concentration of South African industry."

If at all there are differences in opinion in relation to the extent of concentration in South Africa, there is little debate that in the manufacturing sector, high market concentration rates in South Africa are observed and could be linked to high mark ups and lower allocative efficiency.

6. Different explanations on the persistence of concentrated markets

Suppose we accept the evidence that South Africa's product markets remain highly concentrated then the next relevant question is whether this is a result of legitimate or illegitimate means. There may be several explanations for the apparent persistence of high levels of market concentration, including deliberate behaviour by firms, mergers and acquisitions activities, the legacy of past privileges, or government regulations, among others.

One possible (and apt) explanation for the observed trends in market concentration is that some firms have increased their profits through anticompetitive means, such as colluding with competitors, erecting strategic barriers to entry to protect their incumbent positions from competition. Indeed the enforcement activities of the Commission indicate that the South African economy has structural impediments in place which may inhibit effective competition from emerging.[17]

Another explanation that we can consider is that firms may have engaged in procompetitive behaviour to expand their market share. This would imply that some firms have obtained their market power through innovation and offering consumers greater value than their rivals.[18]

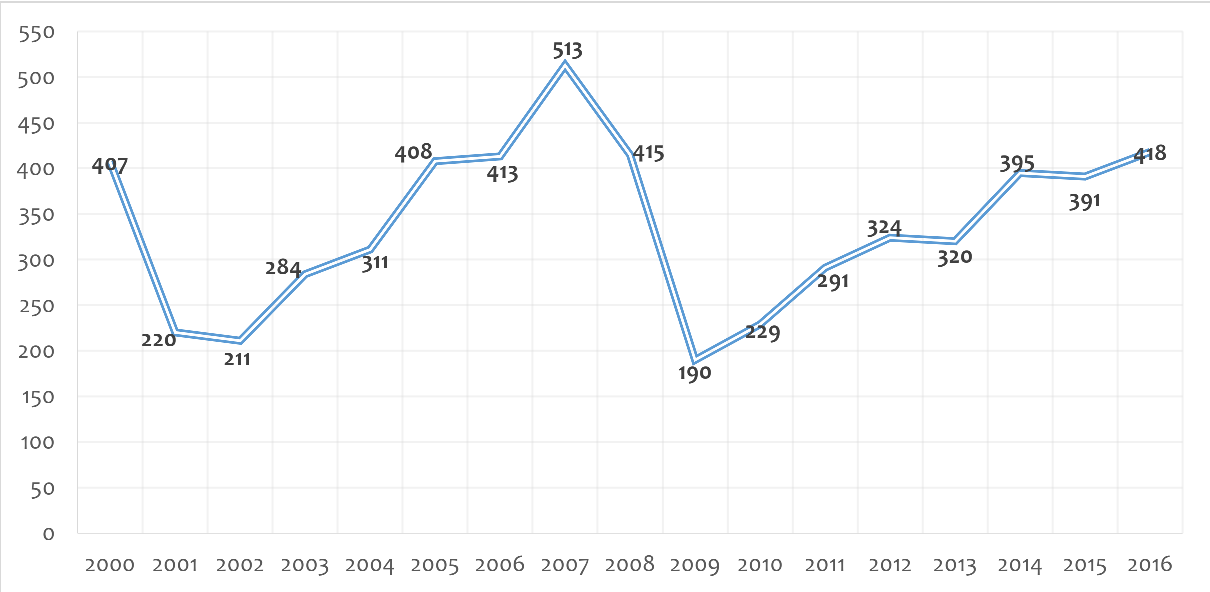
One other possible explanation of the persistence of market concentration is that past privileges, such as previous state support, created large firms with extensive market power. The benefits of these past privileges are likely to be perpetuated by economies of scale, which may act to further reduce the competitive constraints found in a defined market. A firm that attains its dominant position through special regulations or state support is likely to be preoccupied with preserving its

[17] For example, in 2015, the Commission completed 391 merger reviews, and 31 cartel investigations were finalized, along with 8 investigation relating to abuse of dominance, vertical restrictions, or horizontal restrictions (excluding cartels).
[18] However, the World Bank (2014) points out that the concentration of South Africa's exports, along with the lack of extensive innovation, is consistent with the country's higher concentration of export market share than that of its peers, and the higher price – cost margins associated with it.

position rather than pursuing investment and innovation.[19] Another possible explanation is that those firms that built market power through perhaps state support, have capitalised on this privilege by engaging in extensive lobbying and rent seeking for regulatory protection. [20]

The persistence of high levels of market concentration may also in part arise from merger and acquisition activities. Proposed mergers and acquisitions that meet certain thresholds are notified to the Commission. The figure below gives the number of mergers notified from year 2000 to 2016.[21] While merger activity may in part be a result of cyclical factors rather than changes in business practices, it could leave the economy with more large firms and potentially less competition. Preventing the lessening of competition from mergers falls squarely within the mandate of competition authorities.

Figure 2: Number of merger transactions notified with the Commission



The causes underlying the persistent high levels of market concentration and corresponding market power are not clear. The reason for this is that potential candidate explanations may include some, if not all, of the following: past privileges, the behaviour of incumbent firms' crowding out existing or potential competitors either deliberately or through innovation, efficiencies associated

[19] Roberts, S. 2004. Competition Policy, competitive rivalry, and a developmental state in South Africa. In: Edigheji, O. (ed.) Constructing a democratic developmental state in South Africa Potentials and challenges. World Rights.
[20] Licensing requirements in some markets are but one example of a type of regulatory requirements that may favour incumbents at the expense of new competitors.
[21] Merger thresholds determine whether a merger is classified as large, intermediate or small for the purposes of determining the process of approval by the competition authorities. The thresholds as applied by the Commission were first determined in 2000 and implemented in 2001. The thresholds were subsequently amended in 2009 and then again in 2017. The sharp falls in the number mergers notified as shown in the figure also corresponds to the determination of new merger thresholds.

with scale, increases in merger and acquisition activity, and regulatory barriers to entry such as licensing.

7. How should the Commission respond?

The above evidence indicates that South African product markets remain highly concentrated despite the vigorous competition enforcement by the Commission.[22] Competitive markets have the potential to provide great improvements in living standards for the poor, channelling resources to productive uses and providing consumers with quality and choices.

Reducing market concentration towards increasing consumer welfare is the Competition Act's most appealing and enduring vision. The Commission has mounted memorable campaigns to uncover cartels, prohibit competition lessening mergers and address the abuse of dominance, yet the goal of restructuring the economic order by controlling private enterprise in the public interest has eluded its pursuers. Even the shine of the Commission's greatest triumphs related to the uncovering of cartels[23], – for example uncovering and successfully prosecuting cartels in products such as bread, flour, flat and long steel, wire products, cement, plastic pipes, bricks, concrete products and construction, – dims in the face of criticisms that products markets remain highly concentrated.

From 1999 to date, the Commission has undertaken an ambitious agenda of uncovering and remedying actions by firms which impede competition, through anticompetitive mergers, exclusionary conduct, exploitative conduct, collusive agreements with rivals, or rent-seeking regulation to restrict entry, and thereby increasing the profitability of the firms, at the cost of reductions in consumer welfare and societal benefits for South Africa. Despite its efforts, the Commission has, to date, experienced largely unsatisfactory results in its investigation and litigation program in terms of reducing market concentration towards increasing consumer welfare. The Commission must continue to undertake a range of efforts designed to promote effective competition and inclusion, including identifying and remedying market power abuses. These actions include more than just competition enforcement, though such competition enforcement is crucial.

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[22] It is important to bear in mind that the competition enforcement regime in South Africa has been lauded for the effective framework in place. For example, the Global Competitiveness Report (2016/2017) ranked South Africa's competition authorities seventh in terms of effectiveness of anti-monopoly policy while the World Bank Group's Economic Update for South Africa (2016), pointed out that competition law enforcement in South Africa has brought substantial benefits to households, especially the poor.

[23] See Mncube (2014); Mncube and Grimbeek (2016); Khumalo and others (2014) and World Bank (2016).

The idea is that by exercising presence as an active and effective competition enforcer in markets, this may cause a change in the behaviour of firms in concentrated markets who may have erected strategic barriers. The change in firm behaviour may include firms exercising more discipline in the way they price their products or producing more of the product in question, for example. In this margin of restraint, a level playing field for entrepreneurs and small businesses may be created allowing for them to enter and effectively participate in markets or expand their share.

Moreover, exercising presence as a competition enforcer may include continuing to initiate market conduct investigations on firms suspected of abusing their market power, this may have an effect in modifying the behaviour of firms in concentrated markets. Another way of exercising presence, is to bring and win conduct cases. In this way the Commission may seek structural relief and thereby change the structure of markets or impose conditions on the behaviour of firms in concentrated markets. Furthermore, the Commission should also actively prohibit anticompetitive mergers.[24]

In addition, Commission should continuously advocate for competition. From time to time such an advocacy program may include advocating on behalf of the competition introduced by new entrants (in particular, small businesses and firms owned by historically disadvantaged persons), building strategic partnerships with government, business, consumers and labour so that a competition culture may be created and thrive. At times such advocacy will include undertaking studies to increase transparency in markets and identify competition distortions, but then again it may mean safeguarding opportunities to entry, participate and expand in markets by advocating against prescriptive regulatory regimes.

Effective competition regulation is but one way in which government may ensure that the market provides the best outcomes for South Africa with respect to prices, choice, innovation, as well as fair labour and product markets. Other ways include removing trade barriers. Consider for example what happened in US in the 1960s, some people were very worried about the high level of concentration, in product markets such as in cars and steel. They called for a restructuring of domestic industries (see Kovacic (1989)), including the so called "no fault" monopoly provisions to be considered.[25] In the 1970s, US trade barriers went down and the industries had to transform themselves. This example illustrates that they are also other solutions which government can consider beyond competition regulation, such as removing trade barriers or using government

[24] These may include attempts by dominant firms to acquire firms that might pose an emerging threat or a real threat to their existence in markets.

[25] The "no fault" monopoly theory abandons the search for bad behaviour instead it focuses on the following questions, (1) is there significant dominance which has persisted over a significant period of time? (2) is the dominance attributed to past privileges rather than superior performance and innovation? If the answers to these question is positive then competition authorities may have to step forward and intervene by imposing either structural relief or imposing conditions on the conduct of the firm. In this approach, there is no need to show a transgression of the law.

procurement to deliberately facilitate the entry, participation and expansion of small business or firms owned by historically disadvantaged persons.

8. Conclusion

The above evidence on the extent of concentration in product markets indicates persistence of high concentration levels. Competitive markets may promote economic efficiency and inclusive growth. The benefits competitive markets can include lower prices and better products for consumers, greater opportunities for workers, and a level playing field for entrepreneurs and small businesses that seek to enter and effectively participate in markets or expand their share.

The high levels of market concentration undermine both growth and transformation of the economy. This may result in the following:

- *A lack of competitiveness of economic sectors that rely on monopolies for key inputs.* The Commission has done extensive work, uncovering prohibited business practices and prosecuting these monopolies.[26] In some cases, the monopolies charged import parity prices to local purchasers while their competitors elsewhere were charged much lower prices because of the availability of alternatives. As a result, South African intermediate input producers become uncompetitive and this leads to a decline manufacturing in these markets as well as accelerating deindustrialisation in the economy.

- *Exclusion of small businesses and black owned enterprises from value chains.* Large incumbents play a huge role in shaping markets through supply arrangements and trade terms, and these are often used as an instrument of exclusion. This undermines the dynamism brought about by new entrants in the economy, with the consequent negative effect on jobs.

- *Lack of innovation.* Monopoly and concentrated markets may lack incentives for efficiency and innovation because incumbent firms can extract rents derived purely from their dominance of markets, which also undermines competitiveness and jobs.

If one of the goals of competition regulation is to reduce market concentration towards lowering prices, increasing consumer welfare and, more generally, promoting competition in markets. The competition enforcement mandate of the Commission already centres on this goal. The mandate

[26] The litigation program against monopolies has yielded disappointing results. Some of the cases pursued collapsed before trial while others failed to establish liability.

includes: 1) detecting, and deterring agreements by firms that replace competition with collusion; 2) challenging exclusionary and exploitative behaviour by firms that is intended to acquire, maintain, extend or exploit market power; and 3) preventing the unlawful acquisition of market power through mergers and acquisitions where the effect is likely to substantially lessen competition.

Additional proposals (the list is not exhaustive) which may be considered to aid towards achieving the goal of reduce market concentration includes the following possibilities:

- *Promote the use of structural remedies for anticompetitive offenses of collusion and exclusion*. Structural remedies are already permitted in the Competition Act, perhaps what is needed is a change in the interpretation of existing law, or perhaps a change in competition enforcement policy of the competition authorities.

- *Hold firms accountable in mergers*. One recurrent problem with mergers faced by competition authorities is that merging parties may claim all sorts of efficiencies to offset market power effects but, should the merger be approved and consummated, there is no accountability on the merging parties regarding their claimed efficiencies. For example, if the merged firm claimed that prices would not rise (due to merger-specific efficiencies) but prices do in fact rise post-merger, the merged firm is able to 'get away' with the false claimed made during merger investigation proceedings as there is currently no appropriate accountability mechanisms in place to correct for this. One response is to mandate accountability. For example, the competition authorities would have the right to approve a merger with the requirement that a study is conducted three (or five) years after the merger to assess the impact of the merger on price. In the event that prices are higher, penalties could be levied, including structural conditions.

- *Allow for competition authorities to conduct market inquiries*. By granting the competition authorities powers to conduct market inquiries or monitor market outcomes (such as concentration levels, profitability, mark ups and other relevant measures at a market level) allows for competition authorities to obtain a view on what is happening in a market. Questions such as (i) is a particular market underperforming; (ii) is the market performance a result of persisting market concentration; and (iii) what possibilities are there for effective competition may all be answered through the information uncovered in a market inquiry. Further, conducting market inquiries may allow the competition authorities to identify where there might be problems, or indeed to 'myth-bust' when there is in fact no increase in concentration or profits.

- *Expand the list of anticompetitive offenses*. The previous three proposals do not involve expansion of the set of anticompetitive offenses. It may be appropriate to expand the list of anticompetitive offenses to keep up with the ever changing strategies adopted by firms to acquire illegitimate market power. For example, as more and more sectors of the economy become digitized, competition authorities may need to consider whether additional anticompetitive offenses are required.

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