THE USE OF BEHAVIOURAL REMEDIES IN THE REVIEW PROCESS OF VERTICAL MERGERS IN SOUTH AFRICA[1]

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Abstract:

This paper evaluates the appropriateness of behavioural remedies imposed on certain vertical mergers by the Competition Authorities (Competition Commission and Competition Tribunal) in South Africa in the past 10 years. In general, vertical mergers are considered pro-competitive despite some having the potential to yield anti-competitive outcomes. The Competition Authorities have considered a significant number of vertical mergers in the past 10 years of which a few were conditionally approved. The behavioural remedies imposed largely conform to international best practice although there are some inconsistencies in setting the scope and duration of such remedies.

Keywords: Vertical mergers, behavioural remedies

1. INTRODUCTION

In general, vertical mergers are largely pro-competitive as they produce efficiencies through the elimination of transaction costs and double marginalisation (see Church & Ware (2008, 688-707) & (Motta, 2004, 302)). As recognised by Church (2008, 1455), the nature of vertical mergers has created challenges for competition authorities as observed in the USA experiences. The efficiency effect of vertical mergers requires the Competition Authorities[3] to balance the positive and negative effect of these mergers, when making decisions.

Most vertical mergers in South Africa were sanctioned without conditions while a limited number required remedies. In the majority of cases, behavioural remedies were adopted as provided for in terms of Section 14 of the Competition Act no.89 of 1998, as amended, ("the Act"). Given their nature, behavioural remedies present enforcement challenges largely as a result of onerous monitoring requirements - most of the challenges have been identified in the International Competition Network ("the ICN") *Merger Remedies Review Project*.

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[2] The Authors write in their personal capacity and the views expressed herein do not reflect those of the institutions they are presently employed.
[3] "Competition Authorities" in this paper will mean the Competition Commission and Competition Tribunal of South Africa.

For example, in the *Aspen/Fine Chemicals* merger, when Aspen first (in 2003/4) acquired Fine Chemicals, the only manufacturer of narcotics and non-narcotics inputs in South Africa, the Competition Commission[4] allowed the merger on condition that the vertically integrated entity will continue to supply the affected inputs to downstream third-party firms for a period of 3 years. Given the nature of the affected markets, at least in narcotics where there are regulatory barriers virtually impossible to overcome, the duration and scope of the remedy appeared only capable to address the harm to competition for a limited period.

In another transaction, *Bayne/Clidet,* the Competition Tribunal also imposed behavioural remedies to counter a possible input foreclosure strategy by the vertically integrated entity for a period of 8 years (reduced from 10 years as recommended by the Competition Commission). A structural remedy was considered but found to be impracticable as it would be difficult to separate the affected input market's business. The Competition Authorities identified concerns on one upstream market, namely, the manufacture of particle board. The merging parties did not submit any efficiencies that could result from the vertical integration nor could the Competition Authorities identify any. If the ICN *Merger Remedies Review Project* principles are applied in this scenario, it is more likely that a different outcome could have been observed as the finding that the merger would lead to input foreclosure requires a closer examination of the benefits of such vertical integration, which the merging parties could not show. Where the vertical integration may not yield benefits, like in the *Bayne/Clidet* transaction*,* Competition Authorities should be more concerned about the likely collusive outcomes and foreclosure as predicated by Chen (2001) and Riordan (2008). Other similar transactions are considered in the paper and further observations are made.

The use of behavioural remedies to address potential competitive harm arising from a vertical merger may require interventions that border on economic regulation (mainly sector focused regulation). Although behavioural remedies may be used to control market outcomes (by way of price regulation, for example), the Competition Authorities have eschewed this temptation. In principle, the Competition Authorities interventions through behavioural remedies have largely been to ensure access to scarce inputs in order to remove the foreclosure effects.

What we find striking is that of the vertical mergers reviewed, despite them likely to harm competition in some respects, the efficiencies were not considered at all. This may not be a general practise, but the need to show efficiencies if a vertical merger would harm competition appears vital, particularly given the predominant view that transactions of this kind are driven by efficiencies.

Following this introductory remark is section 2, which discusses the theory of vertical integration, the intricacies of behavioural remedies, and the potential overlap between competition regulation and sector focused regulation in relation to behavioural remedies.

[4] Specific reference is made to the Competition Commission as the transaction was an "intermediate merger" at the time, which did not require the Competition Tribunal's approval.

Section 3 assesses some of the vertical mergers that were conditionally approved, while section 4 concludes.

2. BACKGROUND

2.1 Theory of vertical integration

Firms in successive stages of production are inclined to have business relationships, one way or the other. In certain instances, firms in a vertical relationship enter into supply or purchase agreements to reduce transaction costs, guarantee stability of supplies and better coordinate their actions (Motta, 2004, 302).[5] Alternatively, firms may opt to vertically integrate by way of a merger in order to circumvent problems associated with vertical agreements. Either option may have pro-competitive or anti-competitive consequences in the different stages of production in a market. This paper is focused on the instances when firms choose to vertically integrate and Competition Authorities are required to intervene when there is perceived harm to competition.

Various schools of economic theory have discussed at great length, the merits and demerits of vertical integration. The structure-conduct-performance proponents were weary of the potential exclusionary effects through foreclosure and leveraging of one monopoly market to another, whilst the Chicago school believed that vertical integration yields economic efficiencies and none of the concerns were theoretically sound (Riordan, 2008, 145). In recent times, the influence of the Chicago school has been reversed by the "transaction costs economics", dubbed post-Chicago economics, which cautions against a generic view that vertical integration is only welfare enhancing as there may be anti-competitive outcomes (Riordan, 2008, 145).

The main competition concerns that arise from vertical integration emanate from raising rivals' cost strategies that may be adopted by the vertically integrated firm (through customer or input foreclosure) or through facilitating collusion at the successive stages of production. Interventions by competition authorities are aimed at curtailing any harm to competition that may arise from either of these stratagems, which we discuss in turn.

For a raising rivals' cost strategy, a vertically integrated entity may increase the price of a scarce input by artificially raising its own demand with the overall objective being to induce the exit of rival downstream firms thereby raising the price of the final good (Riordan, 2008, 155). Although the effect on prices to final consumers may be negative, Riodan (2008, 155) further observes that the exiting of firms, if it is of inefficient firms, may be welfare enhancing and market share gains may be distributed to more efficient vertically integrated

[5] Church (2008, 1462) asserts that vertical mergers merely internalise transaction costs because of the potential for a vertical merger to enhance coordination and the efficiencies do not affect the price of the product in the output market.

firms. If the vertically integrated firm is dominant in both upstream and downstream markets, and is not capacity constrained in either market, it may be able to capture the market share lost by firms that would have exited the market. O'Donoghue and Padilla (2006, 306) also note that for a raising rivals' costs strategy to be profitable (particularly through margin squeeze), a degree of market power in the upstream and downstream markets is necessary.[6] On the other hand, Motta (2004, 374) cautions that any perceived anti-competitive strategy should be balanced against the benefits that could arise from vertical integration. Indeed, other benefits like the elimination of double marginalisation and transaction costs need to be considered.[7]

In other instances, vertical integration may facilitate collusion between firms active in different stages of production. There are generally three ways in which vertical integration may facilitate collusion in either the upstream or downstream market (Riordan, 2008, 160 - 161). Firstly, in a market in which the downstream market is supplied on a contract basis, the vertically integrated entity may maintain a collusive state in the upstream market, and can discourage upstream rivals to compete vigorously by threatening to increase competition downstream to discipline these rivals. Secondly, the vertically integrated entity may use its presence in the upstream and downstream markets to obtain information to monitor collusion in either level of the market. Thirdly, a vertically integrated firm may enter into exclusive contacts with downstream firms to facilitate collusion in the output market.

In what accords to the proposition by Motta, and O'Donoghue and Padilla, Chen (2001,670-671) models a scenarios in which there are two firms in the upstream market, providing homogenous products, and two firms in the downstream market, providing heterogeneous products. In his model, Chen (2001, 676) finds that a merger, in oligopolistic upstream and downstream markets, can only occur if it yields efficiencies by eliminating double mark-ups and other transaction costs. This will ultimately foster price competition in the downstream market, if switching costs in the upstream market are low. Chen (2001, 676) further noted, unconventionally, that vertical integration, in this situation, may increase the likelihood of tacit collusion as the non-integrated entity may opt not to source the input product from the vertically integrated supply thereby softening price competition to the detriment of consumers. Riordan (2008, 155) posits a scenario in which both downstream and upstream markets are oligopolistic considering the same assumptions by Chen (2001) and find that vertical integration, where the upstream firms opts to self-supply, may increase the likelihood for the remaining non-integrated downstream firms to raise output prices to end-users unless the vertically integrated entity can pass-on the efficiency gains.

It can be deduced from the above that not all vertical integration transactions are likely to raise competition concerns through foreclosure of rivals or facilitating collusion. The structure of the affected input and output markets is an important consideration in the assessment of the competitive effects of a given transaction. Every case would present unique challenges but adhering to consistent principles would yield welfare enhancing

[6] Motta (2004, 377) also notes that "vertical mergers are anti-competitive only if they involve firms endowed with significant market power".
[7] For a detailed discussion on this issue, refer to Church and Ware (2008, 683-707).

outcomes. In certain instances Competition Authorities may impose remedies to permit the realisation of efficiencies of a somewhat anticompetitive vertical integration; we turn below to the discussion on behavioural remedies as a tool to achieve this objective.

2.2 What of behavioural remedies?

The Act empowers the Competition Authorities to consider merger transactions between companies that do business in South Africa, directly or indirectly, and which fall within certain prevailing thresholds. The Competition Authorities can decide to approve, approve subject to conditions or prohibit such merger transactions. This paper seeks to explore some previous decisions of the Competition Authorities in transactions that were conditionally approved, to ascertain their appropriateness mirrored against best practice.

Conditional approvals of transactions may take two forms, namely, behavioural or structural. Behavioural or non-structural remedies restrict the firm on the exploitation of its property rights as they encompass such interventions that may compel access to a service by third parties, on the other hand, structural remedies modify the allocation of property rights and create new firms as they involve divestures of an entire business or a partial divestiture (Motta *et al*, 2007, 606). The effectiveness of a remedy for a perceived anti-competitive harm depends on the information available to a competition authority and merging parties, to arrive at a competitive outcome. The review period of mergers in many jurisdictions, including South Africa, is limited and this may lead to certain decisions being taken without a full appreciation of the market conditions.

Motta *et al* (2007, 606) argues that the use of structural remedies can be quite risky as these are irreversible. In some instances a firm that acquires the divested business might collude with the merged entity, thus rendering the interventions by a competition authority fruitless. Conversely, behavioural remedies are less risky as they require continual monitoring by the competition authorities and may be modified (Motta *et al*, 2007, 606).

In its 2005 *Merger Remedies Review Project*, the ICN considered the use of behavioural remedies to address the detriment to competition arising from a merger. The ICN suggests that behavioural remedies are best suited to yield outcomes that may generally not be achieved through a structural remedy, namely, to facilitate horizontal entry (for example, control of access to input, restrains on tying/bundling, exclusive dealings, and eliminating switching costs), and to control market outcomes (for example, price regulations) (ICN, 2005, 11-12).[8]

In general, there are three broad types of behavioural remedies (Motta *et al*, 2007, 623). The first relates to those designed to control access to the input or customers of the

[8] Although much emphasis is placed on the ICN guidelines, various Competition Authorities around the world have tailor-made their own guidelines largely consistent with the ICN's.

vertically integrated entity. The second type relates to contractual obligations, also referred to as quasi-structural. The third type relates to those that impose vertical firewalls that are meant to limit information sharing, in the case of it being a concern. In the main, behavioural remedies are more appropriate when the harm to competition is expected to be of a shorter period of time and when efficiencies are overwhelming (ICN, 2005, 12). Behavioural remedies, like any other remedies, should be easy to enforce and monitor, otherwise the intended benefits to competition may not be realised.

2.3 Behavioural remedies and regulation

Kahn (1988, 172/II) posits that every regulatory intervention of any economic activity limits or suppresses competition either by the control of entry or of price rivalry or both. This is normally the kind of regulation reserved for natural monopolies in such sectors as telecommunications, gas and electricity. It, however, occurs that certain sectors that are subjected to competition law display features that may require interventions akin to regulations observed in regulated sectors. By their nature, interventions by Competition Authorities are meant to dissipate the detriment to competition in a shorter period, unlike sector-specific regulations. The intervention by Competition Authorities through remedies may portend a Competition Authority assuming the role akin to that of a sector regulator, which is not the role of a Competition Authority.[9]

Competition policy requires Competition Authorities, at least in a handful of countries including South Africa, to preserve total welfare. This requires Competition Authorities to consider efficiencies that a merger could yield. It therefore becomes inevitable, at least in the case of vertical mergers, that remedies (particularly behavioural) will remain relevant for years to come. The challenge is for Competition Authorities to craft behavioural remedies in a manner that enables easy enforcement and monitoring. More importantly, behavioural remedies should be designed to address harm to competition in a relatively short period of time.

3. APPLICATION OF BEHAVIOURAL REMEDIES IN SOUTH AFRICA

The Competition Authorities have assessed a number of vertical transactions that raised competition concerns. This paper focuses on those transactions that were cleared subject to certain behavioural remedies. In particular, five transactions are assessed, namely, *Aspen/Fine Chemicals* (includes two transactions), *Chemserve/Chemiphos*, *Xstrata/ Egalite/International Carbon Holdings and* Bayne*/Clidet*, to ascertain consistency and probity of the use of behavioural remedies to address the competition concerns.

[9] Motta *et al* (2007, 626) noted that the use of merger remedies (including behavioral) may conflate the functions of a sector regulator and a competition regulator.

3.1 Some cases

3.1.1 Aspen/Fine Chemicals

In 2004, Aspen acquired sole control of Fine Chemicals, the only manufacturer of narcotic and non-narcotic active pharmaceutical ingredients in South Africa, which are inputs in the manufacturing of a variety of pharmaceutical products. The Competition Commission imposed certain behavioural conditions to regulate the supply of the narcotic and non-narcotic active pharmaceutical ingredients which were in force for three years, and expired in 2007.[10] In 2007, Aspen sold 50% of its shares in Fine Chemicals to Matrix, which transaction was not notified as it did not meet the minimum thresholds. In 2008, Aspen bought back the 50% from Matrix to return to the position of sole control.[11]

In considering the 2008 merger application by Aspen as the conditions imposed by the Commission in 2004 had expired, , the question was whether the presence of Matrix acted as a constraint on Aspen, which constraint could be removed post merger. Although Fine Chemicals had significant market shares in the upstream input markets, it was unclear how the acquisition of an additional 50% stake by Aspen (which it held before) would have had a material impact on the incentives of Fine Chemicals.

In its decision of the *Aspen/Fine Chemicals* (2008 application) the Competition Tribunal cited that it could not understand the Commission's previous logic to limit the behavioural conditions to a period of three years. Although downstream competitors of Aspen raised concerns, it was unclear how the acquisition of a further 50% stake in Fine Chemicals would change the incentives.

3.1.2 Chemserve/Chemiphos

Chemserve acquired Chemiphos, a manufacturer of polyphosphoric acid used as an input into a number of applications in which Chemserve has businesses. Chemiphos had approximately 85% market share in the production of polyphosphoric acid in South Africa, the balance of which was accounted for by a small supplier.

Competitors of Chemserve in the downstream output markets raised input foreclosure concerns about the merger given Chemipohos's dominance in the input market, in which barriers to entry were found to be high and insurmountable in a reasonable period of time. The Competition Tribunal imposed supply conditions for a period of three years aimed at, *inter alia*, ensuring continued supply to all of Chemiphos's current customers at the prevailing (and non-discriminatory) prices.

3.1.3 Xstrata/ Egalite/International Carbon Holdings

[10] The transaction was an "intermediate merger" and did require the Competition Tribunal approval.
[11] This was a large merger transaction, which required the Competition Tribunal approval.

Xstrata acquired Egalite and International Carbon Holdings (“Egalite”) to ensure a consistent supply of high quality char, which Xstrata uses as a reductant in its ferrochrome production operations. Egalite had about 73% market share in the upstream market for char in South Africa, the balance was accounted for by fringe suppliers.

Downstream competitors of Xstrata were concerned that the merged entity would not only have the incentive and ability to reduce or stop supplies of char, but also the incentive and ability to materially raise the price of char to its South African competitors in the downstream market.

The Competition Tribunal was of the view that given the extent of the merged entities’ dominance in both the upstream and downstream market,input foreclosure was likely and profitable. The transaction was conditionally approved to ensure supply of char to competitors of Xstrata in the downstream market for a period of three years, on non-discriminatory terms and prices. There was a firm considering entering the char market in South Africa, which influenced the decision.

In this instance, an alternative char producer entered the market before the conditions imposed by the Competition Tribunal expired. The behavioral remedies ensured that the vertically integrated entity did not engage in an input foreclosure strategy and the state of competition was preserved.

3.1.4 Bayne/Clidet

Bayne acquired Clidet, the ultimate target firm being Wood Chemicals South Africa (Pty) Ltd (“Woodchem”), a producer of formaldehyde and formaldehyde resin. The two downstream product markets were the market for the production and supply of raw and upgraded particle board and the production and supply of raw and upgraded medium density fibre board. A few customers and competitors of Woodchem expressed the view that a merger could result in input foreclosure and easier co-ordination between rivals.

The Competition Tribunal found that the transaction raised foreclosure concerns in the particle board market. Barriers to entry in both the upstream and downstream markets were very high. In addition, the merging parties did not put forward any efficiencies to off-set the possible harm to competition. There were potential entrants in the market but their entry could have been delayed given the regulatory barriers, which could take about four years to overcome. The Competition Tribunal imposed supply conditions on non-discriminatory terms and prices for a period of eight years, rather than ten years as has been recommended by the Competition Commission. A structural remedy was considered but found to be impracticable.

3.2 Assessment of the approach by Competition Authorities

From the 2005 ICN *Merger Remedies Review Project* and the theory of vertical integration, it appears that when firms integrate in this way, there are likely to be more benefits to the economy than harm. Depending on the structure of the affected upstream and downstream markets, the benefits may produce total welfare by passing-on the price benefits to consumers in the output markets or promote efficiency in the successive stages of production by rival firms. In instances where there are competition inhibiting factors, Competition Authorities should intervene to remove any potential bottlenecks to competition that could arise from vertical integration.

In many cases, Competition Authorities are required to favourably consider vertical integration transactions as these promote efficiency in the economy, an objective of the Act indeed. Although the vertical integration transactions are likely to improve the efficiency of the firm, there may be incentives for a vertically integrated firm to stifle competition by adopting the strategies that could raise the costs of rival firms or infuse a collusive conduct.

If the main objective to impose remedies on vertical integration transactions that raise competition concerns is to promote efficiencies that could be brought about by such transactions in the economy, then the test to assess appropriate remedies for such a transaction should be preceded by an analysis on efficiencies. In this way, remedies could be designed to promote competition and also ensure that the vertically integrated entity achieves the efficiencies driving the integration. If an assessment of efficiencies is not conducted, as required in terms of Section 12 of the Act, there is a risk for behavioural remedies to inhibit the efficiency benefits of a vertical integration and by implication be counterproductive. It is recognised in the 2005 ICN *Merger Remedies Review Project* that "through remedies we seek to restore or maintain competition while permitting the realization of relevant merger efficiencies and other benefits" (ICN, 2005, 3).

The vertical mergers presented above were sanctioned subject to behavioural remedies aimed to prevent input foreclosure either through an outright refusal to supply or by setting discriminatory prices. There has been limited use of behavioural remedies to control market outcomes[12] or prevent information sharing through the imposition of vertical firewalls.

The standard to set the duration of supply conditions is not particularly clear, as also observed by the Competition Tribunal in a recent case cited earlier. In certain instances, the supply remedies are meant to provide ample time for market correction, that is, enough time for entry to occur or suppliers to find alternative ways to source the product. In cases, for example, where entry is likely and timely, the duration set for the remedies is logical, like in the *Xstrata/ Egalite/International Carbon Holdings* case decided by the Competition Tribunal. Where there are high barriers to entry and such entry may take a longer period[13], the imposition of behavioural remedies may pose a number of problems, including those of

[12] In our view, recommending market price principles (in this case the principle of non-discriminatory prices) is not to be interpreted as a remedy to control market outcomes like price regulations.
[13] Standard for likely entry is 2 years.

monitoring. The recommended practice is for behavioural remedies to be implementable within a relatively short period of time, and designed to address the harm to competition.

In the vertical mergers reviewed above, it appears that the Competition Authorities have presumed that efficiencies would generally follow from a vertical integration transaction, and simply imposed remedies. This approach may be counterproductive. For example, where a firm may be seeking a merger to secure more input to primarily achieve economies of scale in the downstream output markets, interventions aimed to maintain supply to downstream competitors may inhibit such a vertically integrated firm from realising the full benefits of vertical integration. And since merging parties do not usually do such assessments (or reveal them), implementation problems may surface when they have to adhere to conditions acceded to. Although behavioural remedies allow for some flexibility, it becomes a difficult problem to solve when the merging parties are failing to meet their obligations, such potential problems would be prevented if a thorough examination of the pro-competitive effects of anti-competitive vertical integration transaction were undertaken.

In principle, the Competition Authorities have applied the principles of behavioural remedies on vertical integration transactions embedded on sound theoretical principles and consistent with international best practice. There can be areas of improvement to ensure that the interventions yield maximum benefits to the economy at large. Although we do not suggest that the ICN 2005 *Merger Remedies Review Project* recommendations be blindly adopted, they provide a solid framework for both the Competition Authorities to improve their work and probably formalise an approach to these issues.

4. CONCLUSION

We have assessed some transactions that were considered by the Competition Authorities in the past 10 years. In this period, the Competition Authorities were able to tackle complex problems presented by these mergers and sought to find solutions that would preserve competition and simultaneously allowing businesses to strive to realise efficiencies expected from vertical integration.

When determining the scope, the solutions vary depending on the structure and nature of products in question. For instance, Chen (2001) models a situation where there are two firms in the upstream market, providing homogenous products, and two firms in the downstream market, providing heterogeneous products, in this case a vertical integration transaction may only be pro-competitive if switching costs in the input upstream markets are close to zero (or very low). The scope of behavioural remedies should be designed in manner ensures that they are enforceable, otherwise the intended benefits to competition may not be realised.

The duration of a behavioural remedy should also be of a relatively short period of time. However, the peculiar market dynamics of industry may lead to some time periods being longer in certain markets than others. However, Competition Authorities should guard against assuming the role of a sector regulator by permanently regulating certain aspects of the production process. Although behavioural remedies are less risky to implement, they are not a tool to regulate but to promote competition. Where there are no suitable remedies to remove the potential harm to competition, and perceived efficiencies do not outweigh the harm to competition or merging parties cannot identify such efficiencies, Competition Authorities could consider disallowing such transactions. However, without a thorough examination of these factors, some of the interventions by Competition Authorities may not yield welfare enhancing outcomes.

To a large extent, the Competition Authorities have applied the principles of behavioural remedies on vertical integration transactions embedded on sound theoretical principles that are consistent with international best practice. There can be areas of improvement to ensure that the interventions yield maximum benefits to the economy at large.

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