

The elusive constructs of barriers to entry and countervailing power: Post-merger analyses, the SA experience¹

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ABSTRACT

The article is an ex-post assessment of two horizontal mergers motivated by the dearth in post-merger analyses in the South African context. The objective is to examine whether market dynamics have changed as stated by the Competition Tribunal. The main theories tested are whether the merged firm post-merger was able to exert market power unilaterally or in coordinated manner. These constructs are examined against the ability of customers to restrain market power, barriers to entry, the effect of the remedies imposed.

The results reveal that the Competition Tribunal leans towards the SCP doctrine and demonstrates the need for a dynamic approach in competitive assessments informed by understanding how competitors and customers may react to a merger. The research findings indicate that the Tribunal's conclusions on both the Nampak/Burcap and Scaw/Ozz transactions were unproven, post-merger. It also demonstrates the need and importance of ex-post evaluations to improve future decisions on mergers.

Keywords: market power, countervailing power, barriers to entry, remedies

1. Introduction

The impasse in the three main doctrines of competition economics partly contributed to the scarcity in the South African scholarly arena with regard to understanding whether market performance is driven by industry structure and how firms behave; or by the increased efficiencies realised by firms (Leach, 1992). Fedderke & Szalontai (2009, p.1) confirm the dearth of studies and state that: “the study of industrial concentration in the South African manufacturing sector has been largely neglected in the past. While notable exceptions exist, concentration has featured less in the debate on South African industry characteristics and performance than the exceptionally high degrees of concentration might suggest it should”.

The South African economy is characterised by highly concentrated conglomerate groupings in the mining, manufacturing, and financial sectors (Chabane, Roberts, & Goldstein, 2006; Competition Commission, 2010; Competition Commission, 2009; Fourie, 1996; Fourie & Smith, 2001). The high levels of concentration are evident in the increased number of mergers that occur (Roberts, 2004). On average, horizontal mergers constitute the largest number of transaction filled by type (50%) between 2007 and 2012. The competition authority of South Africa (“Competition Commission”) received 310 merger notifications in the 1999/2000 financial year, and this spiked to 505 in the 2007/2008 financial year (Competition Commission, 2009). Given the rise in mergers and acquisitions, the high levels of concentration in South Africa are not abating. Telling of the high levels of concentration and prevalence of coordinated conduct endemic in the South African economy are the numerous firms seeking leniency for cartel conduct in past 5 years (Competition Commission & Competition Tribunal, 2009; Competition Commission, 2010).

The Commission approved over 90% of all the merger transactions it reviewed without any conditions/remedies. This suggests that in spite of the high levels of merger activity, transactions between direct rivals are not necessarily anticompetitive. While that is, further interrogation of this status quo indicates high mark-ups and signs of anti-competitive in the South African manufacturing industry (Fedderke & Szalontai, 2009).

In light of the increasing levels of concentration and collusive activity, continuous ex-post assessments of the competition authorities’ decisions are necessary; to test whether the desired market economics are achieved. Importantly, competition authorities decisions and policies need to be tested regularly to ensure that they do not impede competition but promote it in markets Carlton (2009) and that they are sound and sensible (OECD, 2011 and Whinston, 2007).

The ex-post assessment is undertaken for two horizontal mergers that have been decided at least three years back by the Competition Tribunal. A three-year period is suggested to be a sufficient time for the relevant markets to have adjusted to the dynamics brought to bear by the increased concentration (Buccirossi, et al., 2008). Moreover, for purposes of competition analysis, an appropriate time frame for entry to be deemed to be timely is approximately two years (ICN Merger Working Group, 2006; Office of Fair Trading, Competition Commission & Department of Trade and Industry, 2005; Buccirossi, et al., 2008).

The remaining parts of the paper are structured as follows: Section 2 sets-out the theoretical and literature framework followed by an outline of the research methodology employed in Section 3. Section 4 is a presentation of the findings and assessment of each of the two case studies examined. Here the focus will be on the key factors considered by the Tribunal in its decision; and whether the market has changed as anticipated by the Tribunal. Lastly, section 5 highlights the main lessons drawn from the research and recommends further research to be undertaken.

2. Theory and Literature Review

Tirole (1988) succinctly surmises the evolution of industrial organisation theory. He notes that the evolution has emerged through two waves namely the Harvard School (1st wave) and the Chicago School (2nd wave). This had a substantial influence on competition policy and its implementation (Rubinfeld, 2008). In recent years, a game theory approach to understanding firm behaviour and possible anti-competitive conduct in more dynamic manner has emerged (Kaufer, 2008 and Posner, 2001). This can be regarded as the third wave.

The Harvard school maintains that the market structure of an industry influences the behaviour firms and therefore their performance duped the Structure-Conduct- Performance framework. The Chicago school on the other hand, postulates that because firms are efficient, they realise greater profits (Samad, 2008; Leach, 1992) and the structure and concentration in an industry does not influence the firm's behaviour. The Post-Chicago School places emphasis on understanding the strategic decisions taken by individual firms in relation to how competitors may react (Audretsch, Baumol, & Burke, 2001). This approach to understanding market economics is cemented on more complex and dynamic theories of oligopolistic structures and game theory (Bishop & Walker, 2010; Carlton & Perlof, 1994; Holland, 2011).

According to Theron (2001), the Tribunal applies SCP framework developed by the Harvard School in its assessment. However, a closer inspection of the factors spelled out in the Competition Act reveals that the policy evidently incorporates approached of the three

schools of thought (Harvard, Chicago, and Post-Chicago). The factors of market concentration, coordination, the need for consideration of whether firm will behave in cooperative or competitive manner rests in the Harvard school. Whereas the concerns with ease of entry and specifically efficiency rests with the Chicago school of thought. The attempt to synthesise the Post-Chicago doctrine in the South African merger assessment is evidenced in the stated need for understanding the dynamic characteristics of a particular market.

Despite the marked evolution that economic analyses for competition review have undergone, there remain contestations regarding the ability either of firms to exert market power post-merger unilaterally or in a coordinated manner (Gellhorn & Kovacic, 2001). Competition authorities have however progressed to a more synthesised approach in merger assessments that incorporate all three schools of thought. The review of literature also suggests that there is convergence in the analytical framework employed by competition authorities around the world. Part of this is apparent in the horizontal merger guidelines released by the UK and US competition authorities that are strikingly similar.

Evidence from numerous ex-post assessments indicate in the main, that competition authorities are on the mark with the prediction of possible market outcomes (Aguzzoni et al., 2011; Buccirosi et al., 2008; Deloitte, 2005; Neumann & Sanderson, 2007). There are however, incidences in which market dynamics had not changes as anticipated by the authorities (Duso, Neven & Roller, 2007; OECD, 2011). Dynamics in the market that realised ex-post but were not foreseen at the time of the merger assessment, were in respect of the surge in demand of the relevant product (Deloitte, 2005). The Competition Commission's own ex-post review of three mergers *Astral/Natchix*; *Murray & Roberts/Cementation*; and *Trident/Dorbyl* present mixed outcomes between the Tribunal's view on the possible market outcomes and the realised market economics post-merger.

In the matter between *Astral/Natchix* in which both parties were active in the poultry and animal feed industries, a divestiture and behavioural conditions were imposed. The outcome of the ex-post assessment found that the structural condition was important to ensure competition in the form of an independent feed supplier was realised. The behavioural conditions were however, less successful with indications that Astral was potentially in breach of the remedy by price discriminating in the downstream market in favour of its own operations. Furthermore "(t)he review also revealed that the Tribunal's decision did not fully consider the implications of the unilateral control which Astral gained in the Elite JV through the acquisition of Natchix (and its share in the JV). The Commission has since found that this allowed the JV to operate and undermine the emergence of effective rivalry in breeding stock" (OECD, 2011 p.140).

The merger between *Murray & Roberts/Cementation* was approved with no remedies. This was on the basis that the products were part of bidding markets. The findings of the ex-post evaluation were contrary to the Tribunal's assertion that entry is unlikely given customers preference for reputable suppliers. The ex-post analysis observed entry post-merger of competitors in related markets. In relation to the coordinated conduct, whilst the Tribunal was of the view that collusion is unlikely given the bidding nature of construction equipment, a series of cartel activity has since been uncovered.

The last case reviewed by the Competition Commission in South Africa involved *Trident/Dorbyl*, who are both active in the steel processing sector. The merger was approved based on efficiencies brought to bear by the merger (OECD, 2011). The post-merger review found that the Tribunal was on the mark with respect the constraints that would be faced by the merged entity, but underestimated the substantial power of buyers.

Emanating from the review of the literature on ex-post assessments in South Africa suggest inadequate assessments and/or considerations of the role played by firms in related markets and the extent of buyer power. Bishop & Walker (2010) state that the consideration of barriers to expansion by competing firms even in the presence of high barriers to entry are important in restraining unilateral power. Thus, the familiar assessment on the ability of new firms to enter the relevant market needs to be extended to firms in related markets in terms of both product and geography. According to Ellison & Snyder, 2001 the large size of the customers is not dispositive of countervailing power; because the ability of small customers to switch is also important (Bishop & Walker, 2010). Imperatively, countervailing power needs to be present before and after a merger (ICN Merger Guidelines Workbook, 2006).

The review of ex-post assessment show that competition agencies typically employ (i) qualitative methods for post-merger studies (ii) examine at least two transactions for that purpose (iii) independent scholars typically employ quantitative methods, and (iv) ex-post evaluations report mixed results with respect to of competition authorities' decisions how markets subsequently changed.

Unlike the post-merger assessments commissioned by competition authorities that typically employ two research methods (quantitative techniques complemented by interviews with market participants), similar studies completed by independent scholars are usually based on quantitative techniques such as event studies, difference-in-differences (DiD) and regression analysis (Eckbo & Wier, 1985, Duso, Neven & Roller, 2006; Kemp & Severijnen, 2010; Friberg & Romahn, 2012).

3. Research Methodology

The more empirical methodologies employed by the Chicago and Harvard schools received severe criticisms (Leach, 1992; Theron, 2001). The disapproval relates largely to the inappropriate pooling of data from different industries (Iwasaki, Seldon, & Tremblay, 2008); the assumption of a linear uni-directional influence of concentration on firm performance and the disregard of possible reverse influence (Fourie, 1996; Liebenberg & Kamerschen, 2008). According to Buccirossi et al., (2006), empirical methods such as structural models and simulations, demand high quality and reliable data on price and quantity, which are often difficult to access. They further advise that these tools are not adequate for post-merger assessments in which remedies are imposed. Instead, they advise that: “(g)iven the flexibility of these tools, surveys can be employed for any type of decision and may be the only available technique to appropriately assess the impact on the market development of a decision that authorised a merger subject to some behavioural remedies or a prohibition” (p.196).

In South Africa, the lack of availability of concentration data series severely constrain research in this field (Fedderke & Szalontai, 2009). The lack of publicly available industry concentration ratios at either provincial or municipal level renders employing econometric models rather impossible. As such, a qualitative approach in the form of case studies, maybe more appropriate. According to Yin (2003), case studies are appropriate to address “how” and “why” research question. This is befitting in the context of this paper as the primary objective of the research is to understand *how* horizontal mergers changed market economies in terms of unilateral and coordinated behaviour assumed by the Tribunal in its Reasons for Decision. Unlike the more empirical methods, the use of case study in this context provides insight into the practical and real-life context of a merger based on facts which cannot be captured by merger simulation or estimation models (Tirole, 1988). An ex post merger study in the UK used a case study approach but supplemented the case study with quantitative methods through the use of simulation models (Deloitte, 2009). Similarly, the OFT commissioned Price Waterhouse Coopers (PwC) in 2005 to conduct post-merger analyses, which were based on 10 merger cases, based on in-depth case interviews. Neumann and Sanderson (2007) in their ex-post review in Canada also adopted a case study approach through in-depth interviews with market participants.

There are however, some caveats of using information provided by market participants through interviews in that the answers might be strategic in view of future mergers that they may get involved in (OECD, 2011). Nonetheless, the use of in-depth interviews for the purposes of research is most suitable in view of the severe data limitations.

Nine in-depth structured interviews were carried-out as part of the assessment for both cases. The profiles of the respondents are reflected in Table 1.

Table 1: Profile of respondents interviewed

Nampak / Burcap respondents	Scaw /Ozz respondents
1. Market participant	1. Customer 1
2. Customer 1	2. Customer 2
3. Customer 2	3. Customer 3
4. Market Analyst 1	4. Market Analyst 2
5. Market Analyst 2	

4. Findings and Analyses of the two case studies

The presentation of the findings for the two cases commence with the Nampak/Burcap transaction followed, by the Scaw/Ozz merger in the proceeding sub-sections.

4.1 Case study 1: Nampak Products Ltd / Burcap (Pty) Ltd

Tribunal's reasoning on relevant market

The Tribunal differed from the Commission and the merging parties in its definition of the relevant product market. The Tribunal was of the view that: "...that the two technologies can be regarded as substitutes and hence are capable of disciplining one another's prices. ... But in the near future, plastic containers will become complete substitutes (emphasis added) for metal as new plastic technologies have been developed, presently in use in overseas markets, which will allow plastic containers to store solvent-based paints, without deterioration. ...plastic and metal containers can no longer be considered as functionally distinct products. We can thus conclude that the relevant market comprises ...metal and plastic containers for the storage of liquids (solvent or water based) for industrial use" (para 24-28, 31&32).

Findings from ex-post interviews on relevant market

The research reveals that the customers have not switched away from metal containers to plastic containers. Overwhelmingly, customers' still store water based paint in plastic containers and solvent-based paint in metal containers. There are however a small minority of customers who have switched to store their solvent based paint to plastic containers. The reasons for the switch is primarily due to paint manufacturers investing in re-engineering solvent based paint to have characteristics of water based paint. Thus, the change from metal to plastic paint containers is not informed by the lower prices of plastic containers. This is largely due to the change in the chemical formulation of solvent-based paint appearing increasingly like water-based paint.

Moreover, the differences in the price of plastic and metal containers remained; and even appear to have increased since 2007. The price index in Table 2 reflects the difference in relative prices between metal paint and plastic paint containers since 2008. It shows that in the period April 2009 to April 2010, the average price of plastic declined. The reverse trend is observable for metal containers.

Table 2: Price Index of metal and plastic paint container since 2008

PACKAGING	PLASTIC			METAL		
	20 LT BUCKET	5 LT BUCKET	1L BUCKET	LACQUERE LINED 20 LT TIN	5 LT TIN	1 LT TIN
OCT 08	100%	100%	100%	100%	100%	100%
JAN 09	100%	100%	100%	100%	100%	100%
APR 09	92%	92%	92%	100%	129%	123%
JUL 09	94%	94%	94%	134%	129%	123%
OCT 09	94%	94%	94%	134%	114%	115%
JAN 10	94%	94%	94%	120%	114%	115%
APR 10	99%	98%	98%	120%	118%	119%
JUL 10	103%	103%	102%	117%	118%	119%
OCT 10	103%	103%	102%	123%	118%	119%
JAN 11	103%	103%	102%	123%	118%	119%
APR 11	113%	113%	102%	123%	124%	119%
JUL 11	113%	113%	102%	130%	124%	125%
OCT 11	113%	113%	113%	130%	131%	129%
JAN 12	109%	108%	113%	142%	131%	129%
APR 12	109%	108%	113%	142%	134%	132%
JUL 12	109%	108%	113%	139%	134%	132%
OCT 12	115%	114%	118%	139%	134%	132%

Source: Customer 2

The Tribunal thus erred in its conclusion of the relevant market. The interviews indicate that the market did not converge in terms of substitutability between metal and plastic containers. The transaction was therefore a conglomerate merger and not a horizontal as pronounced by the Tribunal. This means the evaluation on barriers to entry and countervailing power that informed the Tribunal final decision consequently are misplaced.

Tribunal's reasoning on market power and concentration

A critical consideration of the Tribunal was Nampak's ability to exert unilateral market power. Excerpts of the judgement read: "Nampak dominant position in metal containers or the soon to be established plastic substitutes for the metal.... Nampak would be able to prevent customers arbitraging between the two products, as they are presently, by raising the prices of plastic containers so that they are priced closer to their metal counterparts and thus protect its dominant position in metal containers.... To the extent that Nampak is able to raise the price of plastic containers, closer to those of metal, these firms benefit as higher plastic container prices may slow down migration from plastic to metal." (para. 34).

Findings from ex-post interviews on market power

Determining the relevant market is important to determine the size of the market and the number of players active in the market. The conclusion on the relevant market in this case whether metal containers can be substituted with plastic paint containers has important implication for determining Nampak's ability to act unilaterally.

Given the ex-post finding on the relevant market show that plastic containers used to store paint do not pose a competitive constrained on metal containers used to store paint, the acquisition of Burcap was not horizontal merger and therefore did not change structure of the market. Instead, the transaction qualifies as conglomerate merger. As such, by acquiring Burcap, Nampak did not accrue with any more market power it did not have pre-merger.

The Tribunal seemed to be of the view that the in-roads by Pailpac in capturing market share was going be short-lived after the acquisition of Burcap. The market share ascribed to Pailpac at the time of the ex-post interviews was about 90% a surge from the 41% it had in 2007. This indicates that Tribunal over – estimated the ability of Nampak to attract customers. It assumed that through offering favourable prices Nampak would be able to capture market share from Pailpac. More striking is the view by the Tribunal that Pailpac's competitive edge will be eroded and it will become a less important competitor. The dynamics post-merger however indicate the contrary. Pailpac grew into formidable and dominant player in the plastic paint container market. This post-merger interaction in the market suggest a more dynamic behaviour as postulated by the Post-Chicago school opposed to the static approach of the Tribunal. Notwithstanding the result with respect to the relevant market, further insights from the post-merger interviews and the approach by the Tribunal are conferred.

Tribunal's reasoning on barriers to entry

According to the Tribunal, barriers to entry to the plastic container manufacturing industry appear to be low, based on the ability of Pailpac to enter and capture market share. Barriers to entry refer to a firm's need to access technology and patents in order to be effective. Part of the Reasons for the Decision stipulate that "At present the only firm, which enjoys access to this new technology, is Nampak, via its exclusive licence to PET technology from PCC ... By acquiring control over Burcap, Nampak also gains control over another plastic container patent - the Bocan that Burcap enjoys as a result of an exclusive licence with a Danish company...In contrast, Pailpac not only does not have such a licence, but also is vulnerable to losing its present competitive advantage over its non-solvent plastic containers as they are not subject to a patent and can be readily copied by a rival" (para. 41).

Findings from ex-post interviews on ease of entry

The interviews confirmed the need for economies of scale in order to be an effective competitor in both metal and plastic paint container markets. Customers who procure over 200 000 metal paint containers per month require a supplier who has sufficient production capacity. The large economies of scale required therefore limit the numbers of suppliers of metal and plastic containers that realistically can be considered as effective.

The lack of new entrants in the market appears to be mainly due to unattractive profit margins. The post-merger interviews with customers point to price increases of less than the producer price index (PPI). The emphasis on the high entry barriers particularly in the plastic industry was due the PET technology, which Nampak held which was tipped to be the future of plastic paint containers. More so, given that no other competitor of Nampak and Burcap possessed such technology at the time. The research finds that the PET technology never took off, and competitors had superior technologies. To this end, the Tribunal's main argument for imposing a remedy is disproved ex-post.

Tribunal's reasoning on countervailing power

The reading of the Tribunal's Decision suggest that the authority was not convinced that customers have countervailing power or alternative suppliers to turn to in the event of price increase by Nampak.

Findings from ex-post interviews on countervailing power

Most paint manufacturers in South Africa are part of the global firms. Thus, the possibility to source globally through their international parent companies in the event of price increases was and is still reality. Paint container manufacturers are predominantly price takers both from their input suppliers and from their customers and therefore do not dictate prices to paint manufacturers. Evident of the bargaining power of customers is the price increases below PPI (read Table 2 with Table 3). Table 3 shows the producer price index (PPI) for the period 2007 to 2011. Over this period, overall producer price increased by 7.8% on average. However the prices of plastic paint containers increased by 4% to 5% on average per year.

Table 3: Average Annual PPI for the period 2007 to 2011

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave	
2007	149,3	150,2	152,5	154,9	157,0	160,5	161,9	162,5	162,9	162,3	162,9	163,3	158,2	Index
	+10,8	+11,3	+12,5	+13,1	+13,2	+12,6	+11,6	+9,6	+9,3	+9,4	+9,0	+9,5	+10,9	%
2008	164,9	167,2	170,6	174,1	182,7	187,5	192,5	193,6	186,7	185,8	183,4	181,3	180,8	Index
	+10,4	+11,3	+11,9	+12,4	+16,4	+16,8	+18,9	+19,1	+16,0	+14,5	+12,6	+11,0	+14,2	%
2009	180,0	179,4	179,6	179,2	177,2	179,9	185,2	185,8	179,8	179,7	181,2	182,5	180,7	Index
	+9,2	+7,3	+5,3	+2,9	-3,0	-4,1	-3,8	-4,0	-3,7	-3,3	-1,2	+0,7	-0,1	%
2010	184,9	185,6	186,2	189,0	189,3	196,8	199,4	200,2	192,0	191,2	192,5	193,0	191,6	Index
	+2,7	+3,5	+3,7	+5,5	+6,8	+9,4	+7,7	+7,8	+6,8	+6,4	+6,2	+5,8	+6,0	%
2011	195,1	198,0	199,7	201,5	202,4	211,4	217,2	219,4	212,2	211,5	212,0	211,9	207,6	Index
	+5,5	+6,7	+7,3	+6,6	+6,9	+7,4	+8,9	+9,6	+10,5	+10,6	+10,1	+9,8	+8,4	%
2012	212,5	214,4	214,1	214,8	215,8	225,4	229,0	230,5	221,2					Index
	+8,9	+8,3	+7,2	+6,6	+6,6	+6,6	+5,4	+5,1	+4,2					%

Source: StatsSA: Producer Price Index for domestic output of South African Industry

The Tribunal flagged the need for alternative suppliers with capacity and capability to deliver quality containers as important which is supported by Bishop & Walker (2010). These type of suppliers were however not present in the market according to the Tribunal. The ex-post interviews confirm the importance of quality and the inability of the small players to deliver on the volume requirement of the relatively big paint manufacturers. To this end, the Tribunal is vindicated.

The ability of firms to raise prices to customers is constrained by the capability of customers to (i) switch to alternative suppliers, (ii) sponsor entry, or (iii) vertically integrate (FTC Horizontal Merger Guidelines, 2010). In relation to the ability of customers to switch to alternative suppliers the Tribunal under-estimate the effectiveness of Pailpac as a sufficient alternative, post-merger. The investments planned by Nampak in the plastic container operation were deemed a greater threat to competition post-merger. Contrary to the Tribunal expectations that Nampak will be able to secure a particular large customer post-merger, Nampak was unable to secure any of the volumes. The paint manufacturers such Prominent are part of the global firms. The possibility to source globally through their international parent companies in the event of price increases was real possibility pre an post-merger. This prospect of integrating vertically as espoused by Bishop & Walker(2010) and the UK Merger Guidelines (2010) does not appear to be duly considered by the Tribunal.

The post-merger assessment of countervailing power in the context of the paper is premised on its impact on horizontal merger that are presumed to increase concentration. As aforementioned, the Nampak/Burcap transaction was not horizontal merger. The discussion on the findings with respect to countervailing power thus merely endeavours to assess whether the market economics post-merger in deed reflect the Tribunal assertions.

Tribunal's reasoning on lessening of competition

As a condition for the approval of the transaction, the Tribunal required Nampak not to acquire any further exclusive licence agreements for PET paint containers for a period of three years after the merger. The primary reason was to lower barriers to enter the plastic container market.

Findings from ex-post interviews on the effectiveness of the condition

The post-merger assessment finds that there was no need for the Tribunal to impose the remedy. Firstly, the acquisition by Nampak of Burcap was not anti-competitive because it did not raise concentration. Secondly, contrary to the Tribunal assertions that PET was the technology of choice the ex-post evaluations finds that competitors owned superior technology and customers were not attracted to PET plastic containers.

Concluding remarks on ex-post analysis of Nampak/Burcap merger

The ex-post assessment appear to confirm the Tribunal's bias towards the Harvard school, which does not consider the dynamic nature of an industry, particularly possible reactions by competing firms and customers. An important finding is that the acquisition of Burcap by Nampak in 2007 was not horizontal merger. The Tribunal's conclusion on the substitutability between metal and plastic containers has not occurred 5 years after the transaction. That critical assessment that informed the decision was flawed. This resulted in the inconsistent interpretation of the likely change in the market economics relating to the ability of competitors to acquire technology and customers' ability to restrain price increases. The post-merger reality is that barriers to enter the plastic paint container market do not appear to be high but scale as rightly pointed out by the Tribunal seem to be important to be an effective alternative. Central to a complete competitive assessment of a merger rests the theory of countervailing power. This obvious omission by Tribunal contributed to conclusion that Nampak can raise prices of plastic paint containers post-merger. The reality of plastic paint container market ex-post is one of where customers have strong countervailing power and resist unreasonable price increases. The PET technology that Nampak had access to proved to be inferior and did not pose a threat to competitors' ability to compete. The remedy imposed was not necessary, as the technology in the plastic paint container market is common. The ineffectiveness of the remedy to attracting entry or allow competitors to catch-up is not surprising because the basis for its imposition was flawed. Moreover, competitors had superior and more effective technology that rendered the condition unnecessary from the on-set. The rationale for the acquisition of Burcap also falls prey to an acquisition that did not realise the desired synergies and economies of scope set-out by Nampak. Largely, because there appear to have been limited understanding of the plastic market and pursued synergies at the expense of critical personnel.

4.2 Case study 2: Scaw Metals (Pty) Ltd / Ozz Industries (Pty) Ltd

Tribunal's reasoning on market power

There is no definitive ruling on the relevant market spelled out in the decision by the Tribunal. The judgement does however indicate that in the main the transaction was a two to one (monopoly) merger. Imports were found not to be cost effective alternatives for local customers and neither viable suppliers for the mines.

Findings from ex-post interviews on market concentration

The ex-post analysis reveal that Scaw's conduct around 2007 and 2008 did not arise because of the acquisition of Ozz but points to pre-existing market power. The exchange rate (See figure 1) and steel price increases (see Table 4) in the years preceding the merger contributed to Scaw's ability to price high as it was aware customers could not favourably switch to imports. The ability of Scaw to act unilaterally in therefore directly influenced by this dynamic. This suggests market power was not derived from the merger but was present pre-merger.

Table 4 indicate the steel price index used to determine price increases for grinding media. The table indicate the largely steel price increases in 2008 between July and August 2008. Steel is the main input into grinding media. On average steel prices increased less than 8% for the past three years. The highest steel price increase was recorded for 2008 of 14% on average.

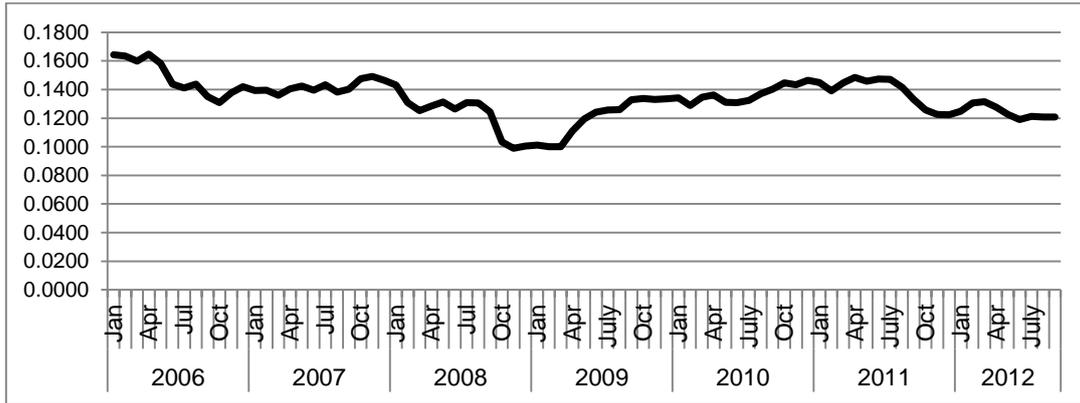
Table 4: Steel Price Index 2006 – 2011

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave	
2006	134.8	134.9	135.6	136.9	138.7	142.6	145.1	148.3	147.2	148.3	149.5	149.1		Steel PPI
	5.1%	4.7%	4.7%	5.0%	5.9%	7.2%	7.9%	9.9%	9.8%	10.6%	10.9%	10.5%	7.7%	% change
2007	149.3	150.2	152.5	154.9	157	160.5	161.9	162.5	160.9	162.3	162.9	163.3		Steel PPI
	10.8%	11.3%	12.5%	13.1%	13.2%	12.6%	11.6%	9.6%	9.3%	9.4%	9.0%	9.5%	11.0%	% change
2008	164.9	167.2	170.6	174.1	182.7	187.5	192.5	193.5	186.7	185.8	183.4	181.3		Steel PPI
	10.4%	11.3%	11.9%	12.4%	16.4%	16.8%	18.9%	19.1%	16.0%	14.5%	12.6%	11.0%	14.3%	% change
2009	180	179.4	179.6	179.2	177.2	179.9	185.2	185.8	179.8	179.7	181.2	182.5		Steel PPI
	9.2%	7.3%	5.3%	2.9%	-3.0%	-4.1%	-3.8%	-4.0%	-3.7%	-3.3%	-1.2%	0.7%	0.2%	% change
2010	184.9	185.6	186.2	189.0	189.3	196.8	199.4	200.2	192.0	191.2	192.5	193.0		Steel PPI
	2.7%	3.5%	3.7%	5.5%	6.8%	9.4%	7.7%	7.8%	6.8%	6.4%	6.2%	5.8%	6.0%	% change
2011	195.1	198.0	199.7	201.5	202.4	211.4	217.2							Steel PPI
	5.5%	6.7%	7.3%	6.6%	6.9%	7.4%	8.9%						7.0%	% change

Source: South African Iron and Steel Association

Figure 1 exhibits the value of US dollars reflects the currency until the latter half 2008 favoured locally produced grinding media as it was more expensive to import. The following six months thereafter however show a weakening of the local currency, which made imports cheaper.

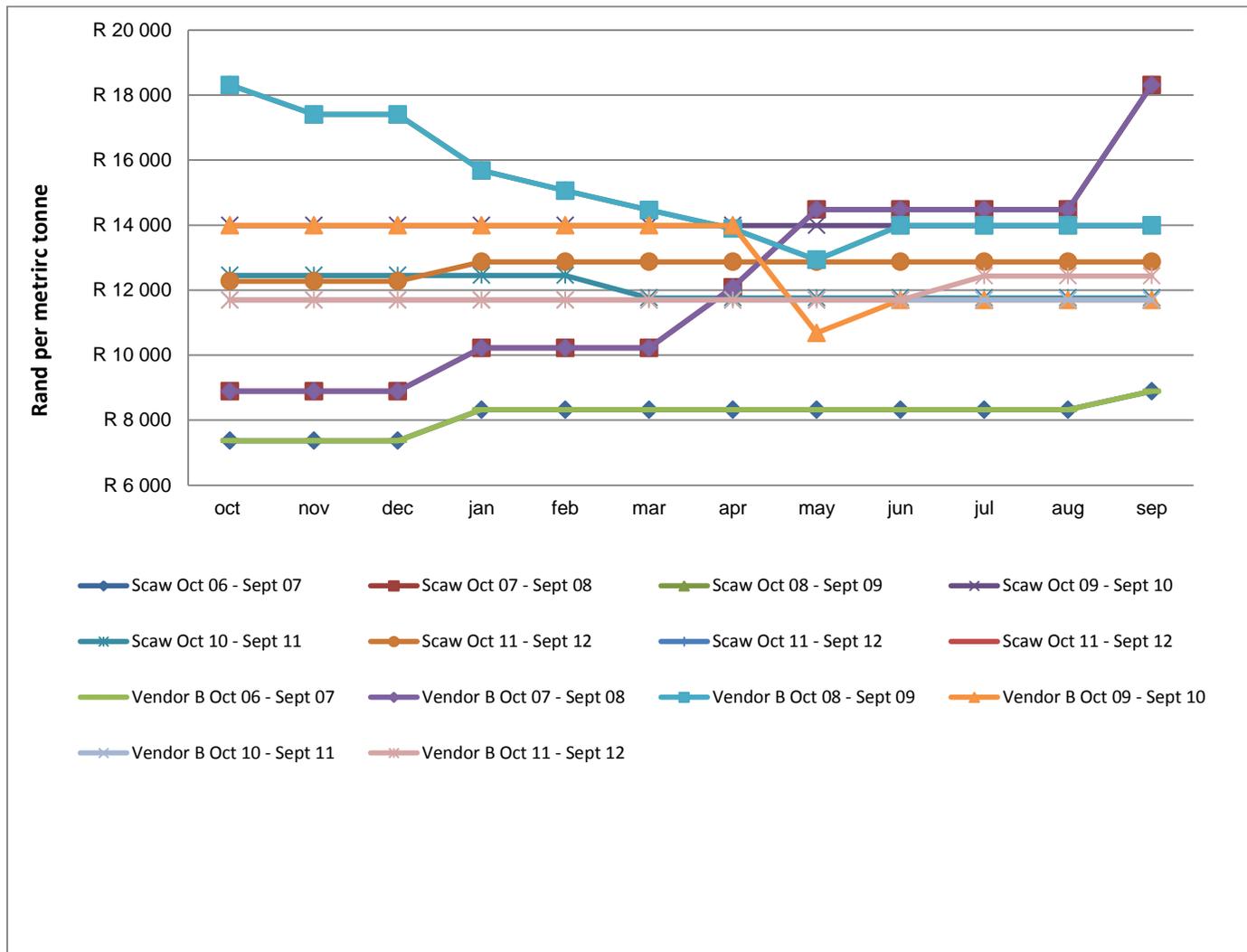
Figure 1: USD Exchange rate from Jan 2006 to July 2012



Source: South African Revenue Services.

Figure 2 show the prices paid for grinding media since October 2006. The graph shows that in 2007 to 2008 prior to the merger, the prices of grinding media was as high as R18 000 per metric tonne. For the period after September 2008, Scaw's grinding media prices dropped to about R11 000 per metric tonne in September 2011.

Figure 2: Grinding media prices Oct 2006 to Sept 2012



Source: Customer 3

Tribunal's reasoning on entry barriers

According to the Tribunal, the barriers to enter grinding media market are high “due to requirements of specific technical expertise in the market and intellectual property.”

Findings from ex-post interviews on ease of entry

The interviews with market participants confirmed the Tribunal conclusion. Not only is access to technology important, but the capital investment to start a grinding media production facility is also high. The focus on economies of scale, borne by the Harvard school has received criticism for ignoring the possibility for expansion by competitors. Imports from countries like India and China that export large volumes of steel products because of the economies of scale and the attractive prices in the domestic market were able to enter the local market. These players are already grinding media manufactures and merely extending their geographic reach. The Tribunal therefore underestimated the potential of expansion by international suppliers into the local market. This is an important economic aspect of the post-merger grinding media market.

Tribunal's reasoning on countervailing power

The Reasons for Decision indicate that “...the smaller customers which may consider the price of the product as an important consideration, and which will be impacted negatively should the merging parties decide to profitably increase prices to their customers”.

Findings from ex-post interviews on customers' bargaining power

Quality in terms of the wear rate of a grinding media is an important consideration when decisions around switching suppliers are made by customers. This limits the speed with which customers can switch to alternatives. Security of supply is another pertinent factor in deciding whether a supplier is suitable. Despite these key factors, the mining customers engaged in a deliberate process of introducing competition. One of the customers interviewed pre-merger procured its entire grinding media from Scaw. To date imports account for at least 30-35% of their steel ball purchases. The results from the research indicate that the costs of switching are high and time intensive because the steel balls need to be tested. In spite of these elements, the high (excessive) prices charged by Scaw, were sufficient incentive for customers to seek substitute suppliers in imports. As such, high switching costs do not necessarily discount countervailing power.

The countervailing power exerted by mining customers by sourcing imported steel balls transformed the market into a more competitive space. This reduced Scaw's market power. The conscious effort by customers stimulated the influx of imports, which has transformed the grinding media market. The desire to introduce more competition was steered by the

high prices charged by Scaw. This was enabled by the favourable exchange rate and raw material prices, which allowed customers to cost effectively, switch to imports.

Tribunal's reasoning on lessening of competition

The Tribunal was of the view that the acquisition of Ozz by Scaw will adversely affect customers through possible price increases post-merger. In order to constrain Scaw from unilaterally increasing prices, the merger was approved subject to conditions. In the main, the remedy requires Scaw not to increase by more than 11% for a period of 5 years. The efficiencies defence evoked by the merging parties was concluded to be insufficient to address the market power concerns.

Findings from ex-post interviews on the effectiveness of the condition

The condition imposed by the Tribunal endeavoured to reduce price increases to grinding media customers post-merger in light of the post-merger market power. Prices increases however increased by over 100% one year after the approval as illustrated in Table 5 below. The subsequent years has seen a significant decline in prices increases. Whether this is due to price condition imposed is unclear given the influx of imported grinding media and steel price increases of below 8% since 2009. These combinations of factors make it difficult to ascribe the price decreases after 2008 to the condition imposed by the Tribunal.

Table 5: Changes in the prices of grinding media

Period	Percentage price increase
Oct 07 - Sept 08	21%
Oct 08 - Sept 09	106%
Oct 09 - Sept 10	-24%
Oct 10 - Sept 11	-11%
Oct 11 - Sept 12	-1%

Information obtained from its financial reports suggests that Scaw pre-merger was able to pass on price increase to customers in 2008, which could be reflective of market power (Table 6). Scaw's ability to pass on price increases in the subsequent years appears to be constraint by the increase in imports of grinding media and the rate of exchange.

Table 6: Factors that had an influence on Scaw financial performance

Year	Factors that impacted financials
2007	• Margins remained under pressure owing to significant price increases in key raw materials and import competition.
2008	• Acquisition of Ozz takes place. Margins remained under pressure owing to significant price increases in raw materials and import competition but successfully pass this on to customers.
2009	• Decrease in operating profit due to the difficult economic environment across all operations, with reduced demand in some key markets resulting in downward pressure on prices.
2010	• Attribute to selling price pressure, rising input costs and the effect of a strong rand... Grinding media demand remained strong, albeit with some pricing pressure."
2011	• Strong performance by grinding media in spite of margin pressure owing to the strong rand.

Source: Compiled from Anglo American's Financial Report for each financial year.

5. Conclusions and Recommendations

The inconsistencies between the market economics after the merger and the Tribunal's reasoning call for efforts to narrow this gap. The research findings highlight the importance and need for post-merger analyses. They aid in ensuring that competition authorities are aware of the impact of their decisions on market outcomes. It also assists regulators to understand the dynamic nature of certain markets for future decision-making. Post-merger analyses that confirm conclusions by competition authorities will give market participants' greater comfort in their ability to anticipate market outcomes. This will shield agencies from unnecessary laborious litigations and allow resources to be devoted to ensure that correct decisions are derived from investigations.

The Tribunal did not receive a clean audit for any of the three cases evaluated post-merger by the Commission in 2010. The conclusions by the Tribunal in the three cases that were studied after the merger suffer from similar mistakes as in the instant research. The post-merger assessment of the Murray & Roberts /Cementation merger found barriers to entry to be low for firms active in related markets (that could expand), which were responsible for increased competition post-merger. In the Scaw /Ozz ex-post evaluation, imports are shown to be a significant constraint. This relates to the ability of firms to expand, which lowers barriers to entry. This is contrary to the Tribunal's reasoning that imports are ineffective. Both the Nampak/Burcap and Scaw/Ozz mergers are marked by the same lack of appreciation for countervailing power by the Tribunal, as was the case in the Trident/Dorbyl ex-post findings.

In the main, the post-merger examination of the Scaw and Ozz merger reveals predominantly opposed outcomes to the Tribunal Reasons for Decision. The findings suggest that market power was present pre-merger and therefore did not arise due to the acquisition of Ozz. Imports appear to have played an important role in improving the competitive dynamics as international firms extended their geographic reach. The market economics with respect to influence of the exchange rate and local raw material prices partly explain the high prices of grinding in the years preceding the merger. The market outcomes re-affirm the Post-Chicago doctrine that markets are dynamics and should not be viewed in a static manner.

The results from the post-merger interviews reveal that Nampak and Burcap were not direct rivals. The evaluation ex-post indicate that mergers involving metal paint and plastic paint container manufacturers do not create market power and consequently do not pose a threat to consumer welfare. This flawed conclusion had critical bearing on the theories of harm relating to barriers to entry, countervailing power, and the effectiveness of remedies. The research findings are in stark contrast to the Tribunal's judgements and decisively point to the need for rigorous evaluations informed by a deep understanding of the dynamics of a

market, the possible reactions by competitors, the potential for expansion geographically or production as a means for entry and the extent of customers to counter market power.

5.1 Recommendations for future research

The lack of ex-post evaluation in the South African context provides enormous scope for on-going research. The instant research is dedicated to two horizontal mergers that were conditionally approved. There is therefore opportunity for post – merger research on horizontal mergers that were prohibited and horizontal mergers that were approved without any conditions. Similarly, ex-post assessments of vertical mergers that were approved, prohibited, or approved can also be reviewed retrospectively.

To date, the post-merger evaluations are largely based on case studies, as such employing other methods such as simulation and DiD models can be tested if sufficient and quality data can be accessed.

5.2 Limitations of the research

A case study approach was adopted for the research question given the nature of the research topic. By nature, case studies render them susceptible to sampling errors as the decision of which cases to select are not empirical (Yin, 2003). The fact that horizontal merger transactions are reviewed restricts the inferences to the selected cases. The findings cannot to be extrapolated to non-horizontal mergers. Since two cases in different industries are used for the instant research, caution should be exercised on drawing inferences for all horizontal mergers. In addition, the study considered only large horizontal transaction decided upon by the Tribunal and excluded intermediate horizontal transactions (these have lower turnover and asset threshold) over which the Competition Commission have jurisdiction. Given that the two cases selected are of a part of listed firms, inference cannot be extrapolated to horizontal mergers that involve private entities. The research findings however still provide useful insights into how accurate the Tribunal's decisions are on market economics were.

Competition authorities by virtue of their mandate usually have access to confidential information and the ability to summons such information from market participants where necessary. This enables them to obtain accurate information that is not available in the public domain. This however, will not be the instance for the research. Since interviewees are under no obligation to provide information. There is also significant risk of response bias given the background of the interviewer (Economist for the competition authority) respondents may be cautious in their responses.

The research findings will however still provide useful insights into how accurate the Tribunal decision on market economics were. It provides a base for future multiple case studies.

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