COMPETITION TRIBUNAL
REPUBLIC OF SOUTH AFRICA

Case No: 06/LM/Jan02

In the large merger between:

Mondi Limited

And

Kohler Cores and Tubes a division of Kohler Packaging Limited

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Reasons for Tribunal Decision (Non-Confidential version)

Prohibition

1. The proposed merger between Mondi Limited and Kohler Cores and Tubes was prohibited by the Tribunal in an order issued on 23 May 2002. The reasons for this decision follow.

The transaction

2. This is a vertical merger where Mondi Ltd, a supplier of paper products, including those used in the manufacture of cores and tubes, is acquiring the cores and tubes division of Kohler Ltd, one of Mondi's downstream customers. Moreover, the upstream paper supplier is also a customer of the downstream cores and tubes manufacturer - that is certain of Mondi's other paper products (for example, newsprint) are wound on to cores and tubes produced in the target market.

3. On the 13th March 2002 the Competition Commission recommended that this merger be prohibited.

The Parties

4. Mondi Ltd, the acquiring company, is a wholly owned subsidiary of Anglo America plc. Both Anglo and Mondi control numerous companies. Mondi is an international pulp, paper, board and timber manufacturer. Mondi's divisions are Mondi Paper,

Mondi Recycling, Mondi Cartonboard, Mondipak, Mondi Kraft, Mondi Timber and Mondi Forests.

5. The primary target firm is Kohler Cores and Tubes ("KC&T"), a division of Kohler Packaging Ltd ("Kohler"), which is a subsidiary of Malbak Ltd. Remgro Limited, Malbak's largest shareholder, holds 50,4% of the issued share capital of Malbak

6. Mondi intends to locate KC&T within Mondipak, which produces corrugated packaging for both agricultural and industrial markets.

Rationale for the transaction

7. Kohler, in a letter from its attorneys, informed the Commission that Kohler wanted to sell KC&T because the manufacturing of cores and tubes is not its core business. Kohler had approached two companies to purchase its cores and tubes business, Sonoco International[1] and Mondi. In the papers submitted to us Mondi averred that Sonoco decided against purchasing Kohler's cores and tubes business because of concerns surrounding the depreciation of the Rand, labour unrest and crime. However, in the hearing the witness from KC&T testified that Sonoco rejected the approach because it preferred to enter into a joint venture with Kohler rather than an outright purchase of KC&T – we return to this discrepancy below.

8. Mondi, for its part, averred that it had considered the possibility of starting its own cores and tubes manufacturing business in order to ensure the quality of the cores and tubes it used in certain of its manufacturing processes. However when Kohler approached it with an offer it decided to purchase KC&T rather than 'destabilizing' an already small industry by introducing a new player. Note, however, that at the hearing the witness from Mondi (and the witness from KC&T) denied any knowledge of quality problems experienced with KC&T's product and informed the panel that Mondi had purchased KC&T because it represented a solid business opportunity - it regarded the merger as value enhancing[2] and it believed that it could run KC&T more cost effectively[3]. Neither of these claims was substantiated. Again, we return to this discrepancy below.

Background information

9. As already noted, this is a vertical transaction with Mondi, the acquiring firm, producing paper products, an input into the activities of Kohler, the target firm, which produces cores and tubes. Mondi's activities are thus in the upstream market and Kohler's in the downstream market.

[1] Sonoco is a global supplier of industrial consumer packaging and packaging solutions, based in the USA and which is listed on the New York Stock Exchange. It's sales in 2001 were approximately $2.6 billion.
[2] See page 211, line 10 of the transcript.
[3] See page 217, line 16 of the transcript.

The upstream market

10. Mondi Cartonboard operates in two broad categories, namely packaging and industrial. It produces coated, uncoated and laminated folding boxboard, which is used for packaging of, inter alia, food, pharmaceuticals and detergents. The division also manufactures specialty boards used in the stationery, match, paper and textile industries. The carton board division's mill is situated at Springs and it produces approximately 130 000 tons of board each year.

11. Mondi Cartonboard supplies the following products to KC&T and its competitors for use in the manufacturing of cores and tubes:

    1) *Ndicore[4] core board*
    This is a core board, manufactured from recycled paper[5], with a maximum strength of 300-330 scott ply[6]. It is not a strong paper for "scott ply bond" purposes, as it does not have individual ply adhesion strengths and tears easily. It does however create bulk to build up the wall thickness, and, hence, the 'crush strength', of cores. Mondi specifically developed Ndicore approximately 6 years ago specifically for use in the cores and tubes industry. The price per ton is approximately R3 723. The witness from Mondi averred that at approximately 12 000 tons per annum[7], the production of Ndicore represents a relatively small part of Mondi Cartonboard's total output, and that it is a relatively low return part of the carton board business.

    2) *Kraft Paper*
    Kraft paper is manufactured for use in the corrugated box industry, although, to a limited extent it is also used in the manufacture of cores and tubes. Kraft paper ("kraft") is manufactured from virgin paper and is stronger and gives a smoother finish than Ndicore. Kraft prices are currently lower than the price of Ndicore. Mondi Kraft is manufactured at the company's Richard's Bay mill.

12. Sappi – the other South African producer of paper products – also produces kraft paper at its Ngodwana and Tugela mills. However, the Sappi product specifically directed at the manufacture of cores and tubes is ***Spiralwind***. This is the trade name given to the kraft liner board which Sappi supplies to the cores and tubes industry. Spiralwind then is a kraft paper manufactured from off-cuts[8] with an approximate maximum strength of 200 scott ply. It is manufactured from virgin paper. As with the

[4] Ndicore is the brand name of the specialty core board supplied by Mondi Cartonboard.
[5] The distinction between a paper product produced from recycled paper (for example, Ndicore) and one produced from off-cuts of virgin paper (for example, Spiralwind, Sappi's specialist core-board) is elucidated in the testimony of Mr. Van Breda, the witness from Mondi at page 238, line 10 of the transcript.
[6] Scott-ply refers to the strength of the paper used.
[7] This represents approximately 9.2% of the total output of board from the Springs Mill per year.
[8] See footnote 4, above. These are the off-cuts or the reel ends of the Kraft linerboard manufacturing process, the paper manufactured by Sappi for the corrugated industry. Those off-cuts that are not used by the core manufacturers are re-pulped.

kraft paper produced by Mondi, it is stronger and gives a smoother finish than Mondi Ndicore. Price per ton for both Mondi and Sappi kraft paper is between R3 247 – R3 555.[9] Note that although Ndicore currently costs approximately 15% more than Spiralwind, it does give a 7% better yield leaving an effective price differential of approximately 8%.

13. Core board can also be imported from Indonesia, Finland, France, Spain and the UK.[10] Imported core board is generally of a higher quality than that available locally and is used where exceptional crush strength or very large internal diameters of the core are required. Some of these papers are also made from recycled waste. The import duty on imported paper used in the manufacturing of cores and tubes is 8% and will be lowered over the next 2 years to 2%.

14. Mondi supplies Ndicore to KC&T, Qualicores and Triumph in Kwazulu Natal and to Framen[11] (the second largest producer of cores and tubes in South Africa) and Tube Products in Gauteng. It also supplies Ndicore to KC&T in the Western Cape.

The downstream market

15. KC&T manufactures cores and tubes, angle board, dufaylite (honeycell) and textile cones. Kohler operates from 3 factories located in Johannesburg, Pinetown in Natal (known as Texac) and Cape Town.

16. Cores and tubes are spirally wound paper tubes. They are utilized as an inner core in various applications – for example, products such as paper, board, textiles, steel and plastic are wound on to an inner core or tube. Note that when these products – for example, newsprint, - are used by their downstream purchasers, the core is inserted into the printing press and the product is wound off. This means – and the significance of this point will become apparent – that if the core collapses or crushes it is not possible to use the surrounding material because it cannot then be easily and smoothly wound off the core. Hence, although the value of the core is a fraction of the value of material surrounding it, a malfunctioning core may nevertheless render useless the material that it supports.

[9] The Spiralwind price is a factor of the kraft price. Mr De Sousa (page 294 – 295 of the transcript) testified that because Spiralwind is a considerably narrower width than the linerboard of which Spiralwind is an off-cut and which Sappi sells to the carton board manufacturers, the price of Spiralwind is between R500 and R1000 per ton lower than the price of linerboard.

[10] We will refer to board that is used in the manufacture of cores and tubes by South African core and tube manufacturers as 'core board' even though certain of the board used for this purpose – for example, kraft – is not specialist core board. In fact, as already noted, the only truly specialist core-board produced in South Africa is Mondi's 'Ndicore'. Sappi's 'Spiralwind' is exclusively used in the manufacture of cores and tubes board but it is produced from kraft liner board, which is produced as an input in the manufacture of cartons and which generates certain off-cuts used to produce Spiralwind. When relevant we will specify the particular core board or paper product to which we are referring.

[11] According to Framen , Ndicore represents 75% of the paper used by it in the manufacturing of its cores and tubes.

17. KC&T's largest customers for its cores and tubes are Sappi Paper, Hulett's Aluminium, Columbus Steel and S.A. Nylon Spinners. These high-end industrial customers represent 65% of KC&T's core and tube turnover per annum. Mondi Cartonboard, Mondi Paper, and Mondi Kraft currently purchase 25%, 57% and 50% respectively of their cores and tubes requirements from KC&T.

18. Framen, KC&T's largest rival, supplies most of Mondi's core and tubes requirements.[12] According to the parties Framen supplies 100% of Mondi's requirements in the Gauteng province while KC& T supplies 100% of Sappi's requirements in the same region.

19. The cores and tubes market accounts for 65% of KC&T's turnover and is the focus of this decision. Note however that KC&T is also active – indeed is the dominant force – in the production of angle board, dufaylite and textile cones. KC&T's market share for Angle Board, [13] which is used as a stabilizing strut for pallet loads for transport of fruit is 65%. Its market share for Dufaylite[14], which is used as a lightweight filler for door panels is 33%. Its market share for Textile Cones,[15] on to which yarn is wound is 75%. It was common cause between the Commission and the parties that the merger raised no competition concerns in respect of these three markets. We concurred with this assessment and accordingly we confine ourselves to the cores and tubes market.

The hearing

20. A pre-hearing conference was held on 4 April 2002 at which the Tribunal instructed the merging parties and the Commission to furnish additional information. The parties indicated that they intended calling only Mr. Peter Davies, Divisional Manager of Kohler Cores and Tubes, for the plants in Natal, Gauteng and the Cape as a witness. The Commission informed the pre-hearing conference that it would be calling only Mr. Bino Silva, Managing Director and sole shareholder of Diversified Paper Cores & Tubes (Pty) Ltd. Mr. Silva's opposition to the transaction was on record.

21. The Tribunal member presiding at the pre-hearing conference instructed the Commission to secure the presence at the hearing of representatives of Framen Paper Products, the target company's largest competitor, from International Tube Technology, another producer of cores and tubes, and from Sappi[16], another major supplier of board to the cores and tubes manufacturers and a significant purchaser of

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[12] According to the Representative of Framen, 52% of its total annual turnover is derived from sales to Mondi.
[13] Angle board is paper, which is laminated and shaped to a right angle. The largest users are in the fruit industry, particularly those who export.
[14] Dufaylite is paper which is spot laminated to form strips of paper which resemble a beehive cell structure when expanded. According to the Commission no substitute products are available at competitive prices.
[15] According to the Commission plastic cones, for technical reasons, cannot be substitutes for paper cones.
[16] The witnesses of Sappi were subpoenaed to attend the hearing.

cores and tubes.[17] We also requested that representatives of Mondi and KC&T be available for questioning at the hearing.

22. The following witnesses then gave evidence at the hearing:

- Mr. Bino Silva, Managing Director and sole shareholder of Diversified Paper Cores & Tubes (Pty) Ltd.
- Mr. Peter Davies, Divisional Manager of Kohler Cores and Tubes, for the plants in Natal, Gauteng and the Cape.
- Mr. Peter Jooste, Manufacturing Director of International Tube Technology.
- Mr Theo van Breda, General Manager of Mondi Carton Board.
- Mr. Shalom Bouzaglou, Managing Director of Transpaco Cores (Trading as Framen Paper Products)
- Mr. Koos Janse van Vuuren, Purchasing Manager of Sappi Enstra Mill.
- Mr. Antonio de Sousa, Business Manager for Container Board, Sappi.

Competition Evaluation

Introduction

23. In his closing statement counsel for the merging parties cautioned us against being '… seduced by speculative arguments, which are easy to conjure up but altogether more difficult to prove…'. As a statement of general principle this caution is, of course, unimpeachable, even trite. But in the context of merger adjudication it invites comment. Judge Richard Posner, the highly regarded anti-trust scholar and US Appeals Court Judge expresses it thus:

    'Section 7 (of the Clayton Act) does not require proof that a merger or other acquisition has caused higher prices in the affected market. All that is necessary is that the merger create an appreciable danger of such consequences in the

[17] Note that counsel for the merging parties expressed some concern (transcript p202-6) regarding the witnesses called by the Tribunal. The precise nature of the concern is not at all clear. It does not seem that the right of the Tribunal to call witnesses was contested. Nor is this surprising because Section 45 of the Competition Act provides in clear terms that 'The member of the Competition Tribunal presiding at a hearing may - (a) direct or summons any person to appear at any specified time and place; (b) question any person under oath or affirmation'. The Tribunal was however cautioned by counsel of the dangers of 'entering the ring' - he appeared concerned that he may be presented with evidence that he had not had sufficient opportunity to consider. The panel made it clear that should he wish to take further instructions on any matter raised by these witnesses then we would be willing to consider a postponement to allow him to do so. It should also be pointed out that the witnesses called by the Tribunal all represented firms who had made written submissions in the course of the Commission's investigation and whose submissions were on record – the questions put to them by the Tribunal were based on their written submissions. It should also be borne in mind that we are enjoined to determine whether or not the transaction is likely to substantially prevent or lessen competition. Where the merging parties and the Commission elect to call so few witnesses – note that the witness list did not even include a representative of the acquiring party – then we are obliged to take the steps necessary to discharge our functions under the Act. This routinely includes instructing the parties and the commission to file additional documents and to make additional witnesses available.

future. A predictive judgment, necessarily probabilistic and judgmental rather than demonstrable, is called for. Considering the concentration of the market, the absence of competitive alternatives, the regulatory barriers to entry (the certificate of need law), the low elasticity of demand, the exceptionally severe cost pressures under which American hospitals labour today, the history of collusion in the industry, and the sharp reduction in the number of substantial competitors in this market brought about by the acquisition of four hospitals in a city with only eleven (one already owned by Hospital Corporation), we cannot say that the Commission's prediction is not supported by substantial evidence.'[18]

24. Of course a prediction must be supported by evidence, but no amount of reliable evidence will remove the predictive or 'probabilistic' element in merger adjudication. This is explicitly recognized in the Act, which enjoins us to determine the '*likely'* consequences of a transaction before us. The Act provides explicitly for a regime where the effect of a merger is assessed prior to its implementation. The necessary implication of this regime is that adjudication is *a priori*, not *post hoc*. Since the merger has not taken place at the time of adjudication and indeed may not take place at all, an element of prediction regarding what may happen after implementation is inherent in the statutory design.[19] Fortunately significant advances in economic theory, particularly in game theory, have eased the task of prediction – based on observations of past behaviour and on the rational responses of profit maximizing firms to a given set of incentives we are able to make predictions from a strong scientific basis, one far from the act of 'conjuring' which counsel for the merging parties so rightly disparages. It is instructive that game theory has its earliest origins in observations of the behaviour of participants in oligopolistic markets.

25. We are dealing here with a vertical transaction. We have elsewhere observed that vertical transactions seldom attract adverse attention from the competition authorities.[20] This is not surprising given that these transactions, unlike their horizontal counterparts, do not imply greater concentration in either of the markets implicated in the transaction. Indeed contemporary anti-trust scholarship and jurisprudence is careful to acknowledge the pro-competitive, efficiency promoting features that frequently attach to vertical arrangements generally.

26. However, there was a time when the US Courts treated vertical mergers as almost per se illegal and several landmark Supreme Court decisions perceived a danger of foreclosure arising from what would now be considered very low upstream and downstream market shares indeed. The *Brown Shoe* judgment in which a manufacturer with a 4% share of the upstream market was prevented from acquiring a retailer with a market share of less than 2% is the best known of these Supreme Court

[18] Hospital Corporation of America v. Federal Trade Commission 807 F.2D 1381 (1986).
[19] There is, of course, a predictive aspect at all stages of a merger evaluation, not merely in the competition evaluation. Hence a competition authority attempting to evaluate the competition implications of a merger is no more 'predictive' than a merging party claiming efficiencies or predicting a positive impact on public interest.
[20] Sasol/Schumann Tribunal Case No: 23/LM/May02

judgments.[21] The Chicago School attacked this view – which it disparaged as protecting competitors rather than competition - with a significant degree of success although judicial and scholarly opinion clearly never embraced Robert Bork's argument in support of treating vertical transactions as *per se* legal. Now the pendulum has swung back some considerable distance since the halcyon days of the Chicago School and, while contemporary anti-trust would distance itself from the approach taken in *Brown Shoe,* the prevailing wisdom strongly accepts that vertical transactions require close anti-trust scrutiny, and, in certain circumstances, outright prohibition.[22] Certain features of the transaction currently under examination would unquestionably attract contemporary anti-trust attention.

27. Firstly, that the target firm, KC&T, is overwhelmingly the most powerful firm in its market is bound to attract the attention of any competition authority – Mr. Davies, the KC&T official who testified at the hearing, describes it 'a very dominant player in the industry'.[23] Secondly, the acquiring firm, Mondi, does not only enjoy a powerful presence in the upstream core board market, but is also one element of a long-standing duopoly spanning a significant number of markets within the broadly defined paper products market. The other member of this duopoly, Sappi, is also an important supplier of input to the cores and tubes manufacturers (including to the target firm) and is also a significant customer of the target firm – indeed Sappi is a more significant customer of KC&T, the target firm, than is the acquiring firm, Mondi. And then there are several highly unusual features of this transaction. For example, it is unusual, to say the least, that the acquiring firm, Mondi (as well as its fellow duopolist Sappi) is both a key input supplier to the target firm and a key purchaser of its output. Moreover, the fact that KC&T's competitor, [acquiring firm – confidential], is simultaneously in the process of concluding a deal with the acquiring firm, Mondi, to purchase, post-merger, the Cape Town plant of KC&T also demands consideration by the competition authorities.

28. There are three broad theories or sets of concerns that inform anti-trust evaluation of vertical mergers. The first is best characterised as 'raising rivals costs' pursued by means of 'foreclosure' – either by foreclosing access on the part of downstream customers to key inputs ('input foreclosure') or else through foreclosing access on the part of upstream competitors to key customers ('customer foreclosure'). The second set of concerns centers on the vertical transaction's ability to promote coordinated conduct between competitors (horizontal coordination) through facilitating an exchange of competition sensitive information. The third – not relevant to this transaction – is concerned with the ability of a vertically integrated firm to evade

[21] Brown Shoe Co. v United States (370 U.S. 294 (1962))

[22] For brief historical overviews of the US treatment of vertical mergers see Michael H.Riordan and Steven C. Salop – Evaluating Vertical Mergers: A Post-Chicago Approach (Antitrust Law Journal Vol. 63, 1995); M. Howard Morse – Vertical Mergers: Recent Learning (The Business Lawyer, Vol. 53, August 1998); Areeda, Hovenkamp and Solow – Antitrust Law (Vol. IVA)

[23] Page 136 of the transcript of the hearing.

price regulation.[24] The parties have also identified these as the major concerns arising from vertical mergers.[25]

Foreclosure

29. The Commission's recommendation that the transaction be prohibited rests primarily upon the ability of the merged, vertically integrated firm to foreclose the downstream market by denying to its non-integrated competitors the supply of the board essential in the manufacture of cores and tubes (input foreclosure). The parties, however, take issue with the factual basis of this concern: they contend that, should the integrated firm attempt to 'self-deal' only, that is, should it decide to deny Ndicore to its downstream competitors, then the foreclosed cores and tubes manufacturers will simply turn to alternative inputs readily available in the market.[26] It appears then that the identification of the relevant market will determine whether or not foreclosure will result from this transaction.

30. However, as will be elaborated below, while our analysis of the relevant market does, on balance, persuade us of the likely existence of substitutes for Ndicore, those substitutes are only available from Sappi, the other member of the paper products duopoly. We will demonstrate that by withholding Ndicore from non-integrated rivals downstream, Mondi will enable Sappi to increase the price of its core board thus raising the costs of Mondi's rivals in the downstream cores and tubes market. In other words, foreclosure will not be affected by Mondi unilaterally withdrawing supplies of Ndicore from non-integrated cores and tubes producers. Rather, foreclosure will be affected through coordination between Mondi and Sappi. This coordination need not be explicit. It may be tacit, driven by the respective interests of the members of the paper products duopoly which point them in the direction of cooperation. We have also determined that the foreclosure will not only be directed at Mondi's rivals in the downstream market. We will also show that it will be directed against prospective imports of paper products or new entrants into the upstream market where, trite to say, Mondi and Sappi's interests are closely aligned.

Facilitating Coordinated Conduct

31. In addition, we are persuaded that the transaction will facilitate coordinated conduct between Mondi and Sappi in the input market as well as in other related markets in which the duopolists are present. The transaction will facilitate this conduct by easing the exchange of information in both the upstream and downstream markets. The prospect that a vertical agreement may be an instrument for strengthening a

[24] For useful surveys of the competition theory governing vertical mergers see Riordan and Salop (op.cit) and Areeda, Hovenkamp and Solow (op cit)
[25] On page 537 of the record the parties explicitly state that 'Vertical mergers can potentially give rise to three types of competition concerns namely: (1) anti-competitive exclusion;(2) collusion facilitated by information exchange; (3) evasion of regulation.'
[26] By 'self-deal' we mean confine the supply of the upstream product to its downstream division only and/or confine its purchases of upstream inputs to its upstream division alone. Note that Mondi denies that it intends to self-deal post-merger. This is discussed in detail below.

horizontal arrangement is widely accepted in anti-trust scholarship and jurisprudence. In the words of Areeda, Hovenkamp and Solow:

> *'..under fairly conventionally accepted theories vertical mergers might facilitate horizontal collusion, principally by changing the nature of output pricing and thus making cartel 'cheating' easier to detect and discipline.'*[27]

32. We are enjoined by Section 12A of the Act to determine whether the transaction 'is likely to substantially prevent or lessen competition'. In summary, we find that the transaction will likely

    - Raise the cost of doing business by rivals of Mondi and Sappi in the upstream market,
    - Raise the cost of doing business by rivals of KC&T in the downstream market;
    - Facilitate the exchange of pricing and other sensitive information and, hence, facilitate coordinated conduct between Sappi and Mondi in the upstream market and in a number of other markets in which both are engaged,

    and, thus, 'substantially prevent or lessen competition'.

33. The reasons for these findings follow.

The Relevant Markets

34. This being a vertical transaction there are, per definition, two relevant markets to be determined. The upstream market is that market in which board is supplied to manufacturers of cores and tubes. The downstream market is the market in which cores and tubes are supplied to a variety of end-users. As already noted the characteristically neat distinction between these markets is somewhat muddied by the dual role of the input suppliers who are simultaneously amongst the most important purchasers of cores and tubes.

The Downstream Product Market

35. It is, for ease of exposition, preferable to begin with identifying the relevant downstream market. The Commission argues that there is not a single market for cores and tubes. It insists that there are two markets, a top-end and bottom-end market. The parties make much of the Commission's failure to delineate clearly the two markets for which they contend. This shortcoming notwithstanding it is clear that all the participants in the market share the Commission's view to the extent that they recognize a distinction between, on the one hand, the market segment for heavy industrial cores in which the quality of the core and particularly its 'crush strength',

[27] Op. cit., page 143. See also the *Non-Horizontal Merger Guidelines, 1984,* par 4.22 of the U.S. Department of Justice and the Federal Trade Commission.

that is its ability to withstand considerable pressure, is paramount, and, on the other hand, the market segment for light industrial and consumer product cores. The various witnesses all distinguished their firms' activities by reference to the segment of the market in which they competed – certainly while KC&T, Framen and Diversified Cores and Tubes were somewhat active in the production of lighter cores and tubes, all clearly identified the production of heavy cores and tubes as their principal market. ITT, on the other hand, clearly operated at the lighter end of the market and while it was not confined to the production of mere cores for toilet rolls – the core consistently caricatured as typifying the lower end of the market - nor, it appears, was it active in the production of heavy industrial cores and tubes.

36. These two markets are distinguished by a variety of factors. As already noted, the quality of the core, and, in particular, its crush strength is paramount.[28] Predictably, it appears that those manufacturers focused on the production of lighter cores are not easily able to compete in the production of heavier cores without investment in particular equipment and skills. Mr. Bouzaglou, the witness from Framen, even held that a producer would not want to use the same machine in producing for the top and lower ends of the market, nor, he averred, would it be commercially sensible to switch from one paper input to another on the same machine.[29] Mr. Silva also testified – and this part of his testimony was not contested - that returns in the upper segment of the market are notably larger than those at the lower, easier-to-enter end of the market.[30]

37. This having been said, it is indeed not easy to specify a precise point of delineation between these market segments. Counsel for the parties insists that because a specific delineation proves elusive, we are then left with a single market for cores and tubes with the various categories simply falling along a single, seamless spectrum. It is somewhat akin to defining an elephant – while this may be a difficult task, it is nevertheless easy to recognize an elephant when one happens upon one. A failure to accurately define an elephant does not simply place it along a continuum of four-legged beasts, the one substantively indistinguishable from the other. So with cores and tubes – every witness who testified before the Tribunal (including those representing the merging parties) constantly referred to two distinct market segments. We accept this delineation and simply identify the downstream market relevant to this transaction as the market for heavy industrial cores and tubes. Its principal customers are in the metal, paper and textile industries although certain textile cores and tubes do belong at the heavier end of a second market segment, namely, the market segment

[28] Counsel for the merging parties insisted that because certain purchasers of industrial cores and tubes specified only the diameter and length of the core they required and not the crush strength that this latter capacity was therefore of no consequence in the construction of cores for those customers. This is persuasively answered by Mr. Silva who argued that, in those cases, it was for the core and tube manufacturer to ensure that it produced a core of the requisite crush strength. If the manufacturer attempted to cut corners by under-specifying the crush strength the core would collapse, presumably together with the core manufacturer's business.

[29] See page 270 of the transcript.

[30] Page 19, line 7 of the transcript.

for light industrial and consumer product cores and tubes which is not relevant to this transaction.

38. KC&T's national market share of all cores and tubes is 45%. Its main competitors are Framen Paper Products (11%), International Tube Technologies (ITT) (6%), Tube Products (1%) and Raybro (1%). If the other products produced by KC&T are included – that is, the textile cones, dufaylite and angle board – KC&T's share rises to 59% and Framen's to 15%. The Commission calculated the concentration level (HHI) in the downstream market at approximately 2502 points – the 1984 US Vertical Guidelines, par. 4.131, states "*that the Department is unlikely to challenge a potential competition merger unless overall concentration of the acquired firm's market is above 1800 HHI*."

The Upstream Product Market

39. As already noted, the upstream market may be generally characterized as that in which core board is supplied to manufacturers of cores and tubes. Indeed the merging parties are content to leave the definition there. On this version the market is characterized by a range of competing products, a variety of types of board, each of which may be used interchangeably in the production of both heavy and light cores. This includes the specialty core boards – namely Mondi's Ndicore and Sappi's Spiralwind – as well as kraft paper produced by Mondi. In support of this contention, the parties have submitted evidence purporting to show that cores and tubes are indeed manufactured using both of the locally produced specialty core board varieties, Mondi-produced kraft and specialty imported core board.

40. However, the Commission holds otherwise. It holds that the relevant market is that for the supply of Ndicore, the specialty core board produced exclusively by Mondi, the acquiring firm. The Commission provides evidence purporting to show that there is no efficient, commercially viable substitute for Ndicore in the manufacture of 'top-end' or, what we have described as 'heavy industrial' cores and tubes. This naturally implies that the acquiring firm is a monopolist in the relevant market. By foreclosing the supply of Ndicore to all but its vertically integrated producer of cores and tubes – itself a dominant producer in its market – it would effectively leverage its upstream monopoly to the downstream stage of the production process.

41. This view of the relevant market is emphatically rejected by the parties who present evidence purporting to show that there are several substitute products for Ndicore. In the lower market segment – caricatured as the production of toilet roll cores but in truth comprising a range of light industrial and consumer good applications – it appears generally accepted that Ndicore would be over-specified because cores and tubes in this segment of the market do not require the crush strength which the Commission alleges is a feature of Ndicore alone. On the other hand, at the top end of the upper segment of the market – that is, that part of the heavy industrial segment of the market in which the most technically demanding cores and tubes are produced, cores that require a particularly high crush strength - it is common cause that there is

no substitute for imported paper. This latter – the heaviest industrial cores - implicates only a small part of the relevant market.

42. However, between these extremes, in particular in the market for the production of heavy industrial cores and tubes, there are a large range of cores and tubes produced out of Ndicore alone, or a combination of Ndicore and imported paper, or a combination of ndicore and one of the kraft papers (Spiralwind or Mondi kraft), or one of the kraft papers alone.

43. This evidence appears to fly directly in the face of the Commission's contention and of the evidence of the only witness that it called, Mr. Silva of Diversified Cores and Tubes. Mr. Silva initially insisted that it was impossible to build a core for a large part of the market without using a large proportion of Ndicore as the core-board input. While later he appeared to concede that it was technically possible to build most heavy cores without using Ndicore, he nevertheless continued to insist that it did not make commercial sense to do so. Mr. Silva's personal conduct as a producer of cores and tubes is at least confirmatory of his assertions – he is, without doubt, a person of considerable experience in this industry (which he has only recently re-entered after 'serving out' a five year restraint of trade) and he clearly uses only Ndicore in production of industrial cores and tubes.[31]

44. We are persuaded that Ndicore is indeed a superior product. In fact a careful reading of the record will show that only one witness – Mr. Jooste of International Tube Technologies – insisted that Ndicore was absolutely interchangeable with kraft paper. Indeed Mr. Jooste's insistence that an industrial core could be made out of *any* paper whatsoever including, in his estimation, toilet paper, undermines, in our view, the reliability of his evidence. It is possibly predicated on the narrow range of ITT's experience which appears to be in the manufacture of cores and tubes for consumer applications and at the lighter end of industrial applications.

45. For the rest the evidence was located somewhere between the polarities occupied by Mr. Silva and Mr. Jooste. In other words it was acknowledged by witnesses from both KC&T and Framen that, all things being equal, Ndicore was the preferred input in producing a core that was required to withstand considerable pressure or 'crush', that is, all cores in the relevant market, the heavy industrial segment of the cores and tubes market. It has been pointed out time and again that the value of the material surrounding the core – for example, the newsprint or the aluminium – dwarfs the value of the core itself and, yet, if the core malfunctions, essentially if it is crushed by the pressure of the surrounding material, the latter is rendered useless. This suggests that the purchasers of heavy industrial cores would be prepared to pay a premium for reliable quality – expressed otherwise one would reasonably expect a low price

[31] Indeed counsel for the merging parties attempted to establish, through a perusal of the records of his purchases of inputs, that Mr. Silva used kraft paper in the production of his industrial cores and tubes. However after examining the records submitted by Mr. Silva, this assertion was not made again suggesting that Mr. Silva had indeed established that he, at least, used Ndicore alone in the production of heavy industrial cores and tubes.

elasticity for Ndicore, the clear quality leader amongst the variety of board and paper input used for the production of heavy industrial cores and tubes.

46. Moreover, the merging parties' arguments for denying the distinction between Ndicore and kraft papers are not, on their own, persuasive. They argued, for example, that because, prior to the development of Ndicore, cores and tubes had been manufactured from alternative inputs that this established that it could be done again – in other words, that core manufacturers could simply revert to utilizing the board used in pre-Ndicore days. However, horse drawn carriages were used before the development of the automobile and could still technically be used as a means of road transport from one point to another, but they would not render a very efficient service compared to the alternative product now available. Indeed one is left with the distinct impression that Ndicore may well be the core-board of the future but that a combination of factors nevertheless ensures that inferior board is still widely used in the manufacture of cores and tubes. These factors include the vested interest and market power of a company like Sappi whose preference for using its own paper in the manufacture of its cores and tubes combined with its purchasing power in the cores and tubes markets ensures that Sappi product is used in the manufacture of cores and tubes – it is interesting that after lengthy trials using Sappi product to manufacture cores, trials which Mr. Silva insisted had failed, Sappi has now decreed that all its cores and tubes must be manufactured using Spiralwind. In other instances a plant such as Mondi Tugela that has long been producing its cores and tubes in-house continues to do so on old machinery designed to work with a particular type of paper, that being the kraft paper produced at the Tugela mill.[32] In any innovative process there is a transitional period in which vested interests and installed capacity ensure that the new and old products continue to co-exist – *vide* vinyl records, cassette tapes and CDs - even though the superiority of the new product is clear. We are left with a strong sense that this may explain the apparent interchangability of a technically superior product like Ndicore with other inferior board and kraft papers.

47. This is considerably more than mere hunch. The very manner of Ndicore's development tends to confirm the product's superiority over alternative inputs. Ndicore was clearly designed for use as a specialized core-board. It was developed by Mondi with the assistance of the major cores and tubes manufacturers, notably KC&T itself and Framen.[33] Sappi, as noted above, has striven to produce a core-

[32] Mr. Bouzaglou's testimony confirms that Mondi and Sappi's specifications to the cores and tubes manufacturers are frequently driven by their insistence that their own products be used as the input in the manufacture of those cores and tubes that they purchase. (transcript page 261)

[33] Conflicting explanations for the development of ndicore were provided. Mr. Jooste of ITT and Mr. Davies of Mondi claimed that the core-board then used – kraft – could not be efficiently used in combination with the bonding agent (silicate) that had then been used in the manufacture of cores. However, they contended that once silicate was no longer used as the bonding material core manufacturers were then able to revert to kraft, that is, that the source of Ndicore's technical superiority was lost. Mr. Bouzaglou and Mr. Silva, both of whom (in contrast with Jooste and Davies) had personal knowledge of the development of Ndicore offered a less particular and more plausible explanation. It appears that prior to the development Ndicore Mondi had been supplying a particular box liner for use in the manufacture of cores and tubes. Mondi wished to discontinue production of this paper and approached Kohler and Framen to assist in the development of a specialist core board. Kohler identified the paper available in the

board to match Ndicore's capacity but, it appears, without success. Despite Sappi's recent requirement that cores and tubes purchased by it use Sappi inputs, we are not persuaded that it has successfully developed a core board with Ndicore's capabilities. The papers submitted for this merger indicate that Sappi expected to take another three years before developing a product that would match Ndicore.[34] However, without explanation it appears that the company has suddenly decided to compel core manufacturers to use its product in the manufacture of cores for Sappi's use. There are solid prima facie grounds for believing that this decision was inspired precisely by this transaction rather than by any sudden technological breakthrough.

48. On balance however we cannot ignore the clear evidence that demonstrates that, despite Ndicore's technical superiority, users of heavy industrial cores and tubes who are clearly concerned with the quality of the product are using cores made up of Sappi's Spiralwind as well as locally produced kraft paper. As already noted, all other things being equal, Ndicore is the preferred product for producing industrial cores and tubes, that is cores and tubes in which crush strength is an important requirement. However it is clear that substitution is technically and commercially feasible albeit limited by Ndicore's clearly superior qualities.

49. We accordingly conclude that the relevant upstream product market is that for the provision of board utilized in the production of industrial cores and tubes. This includes Mondi's Ndicore, Sappi's Spiralwind and Mondi's kraft paper. Imported paper can also obviously be used in the production of cores and tubes. However, as we outline below, except where the most technically demanding cores and tubes are concerned, imported paper is not in the geographical market.

50. The parties aver that Mondi Cartonboard and Sappi each have a 38% share of the market for core board, the paper product supplied to the cores and tubes, angle board, dufaylite and textile cones markets.[35] The remaining 24% of core board is imported from Europe and the East.[36] It appears that the imported core board is principally used for the production of technically demanding cores for selected customers – for example, all of the cores supplied to Huletts Aluminium are manufactured from imported core board. The Commission calculates the HHI at approximately 2021 points.

51. The parties aver that Mondi Kraft has a 33% market share of the overall kraft market. Sappi is Mondi's largest competitor with a market share of 51%.

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international market that it believed to be most effective core board. Together these three companies developed Ndicore (see page 256 of the transcript). This, incidentally, appears, on the face of it, to be a clear example of how the proclaimed efficiencies arising from cooperation between different segments of a production or value chain can be easily and pro-competitively achieved through mechanisms that fall significantly short of a full merger.

[34] See Competition Commission's recommendation, page 6, par 6.

[35] See page 15, par. 6.7.2.4.1 of the record.

[36] The Commission, on page 16 of its recommendation, remarks that it has reservations regarding this high import figure since all the competitors contacted by it confirmed that imports are possible but not economically viable due to the exchange rate.

The Relevant Geographical Markets

52. What of the geographical markets? The Commission contends for a national market in respect of both the upstream and downstream. The parties have made so much of the role of core board imports in constraining any exercise of market power by the merged entity, that one might have expected them to define the relevant upstream geographical market as global. They have however chosen not to broaden the relevant geographic market beyond the national and they are, in this respect, well advised.

53. Although tariffs are scheduled to fall, the level and volatility of the exchange rate means that imports are unlikely to act as a substantial constraint on domestic producers of core board post- merger, much less be included in the relevant geographical market. We are also persuaded by those submissions that point out the difficulties faced by small cores and tubes manufacturers in profitably importing their key input. Their purchases are too small to take advantage of volume discounts; they would have to hold larger stocks and absorb the associated storage and financing charges.

54. This is not to say that the larger core and tube manufacturers – for example the pre-merger KC&T - are not capable of importing their core board inputs, of assuming, in other words, the mantle of the 'disruptive buyer', or that the transaction is not, in part, precisely designed to foreclose imports that may threaten Sappi and Mondi's collective dominance of the upstream market or the merged entity's dominance of the downstream market. We return to this below.

55. Note that it is generally accepted that there are no imports into the downstream market, the market for cores and tubes. Indeed, our reading of the evidence is that the downstream markets may well be regional or sub-national. KC&T appears to have located its three plants in order to service its customers in the areas surrounding the plants. Framen's plant is located in Gauteng from which it services customer in the north of the country as does Diversified Cores and Tubes, also located in Gauteng. International. International Tube Technology services a predominantly Western Cape clientele from its Cape Town plant. In its submission to the Commission, Sappi states:

> *'Logistically it does not make sense to supply coastal mills from Gauteng and vice versa. The reason being that freight costs would increase the price of the product by approximately 25% to 30%. To import cores would also not be feasible as the freight costs and the exchange rate would affect the prices even more. It would also add additional cost to Sappi because larger amounts of stock will have to be carried as imported products can take up to 8 week to be shipped to South Africa.'*[37]

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[37] Record, page 404

Is the merged entity likely to substantially prevent or lessen competition in the relevant markets?

56. As noted above there are two mechanisms through which this vertical transaction may threaten competition. First, there is the possibility that the transaction may, through foreclosing access to important inputs (input foreclosure) or a sufficient customer base (customer foreclosure), increase rivals cost of doing business in either or both of the upstream and downstream markets.

57. Second, there is the prospect that the merger may, through easing the flow of information between competing firms, be an instrument for facilitating coordinated conduct between the post-merger participants in either or both of the relevant markets or, indeed, of ancillary markets.

Input Foreclosure

58. A superficial reading of this particular transaction and of foreclosure theory generally may suggest that the prospect of foreclosure is effectively denied by our acceptance of the existence of substitutes for Ndicore. In fact the parties have insisted that once there are alternative products available for use in the manufacture of cores and tubes any attempt by the merged entity to deny Ndicore to its non-integrated downstream rivals will simply result in a loss in Ndicore's market share to Sappi's Spiralwind. Moreover, Sappi, by suddenly requiring that the cores and tubes that it purchases be manufactured from Sappi product alone, has surely effectively eliminated the prospect of input foreclosure. However this conclusion manifests both a very crude reading of foreclosure theory and a self-serving blindness to the facts of this particular transaction.

59. In any event Mondi insists that, post merger, it will *not* self-deal, that it will be 'business as usual', that, in other words, it will continue to sell Ndicore to its non-integrated downstream rivals.[38] Before examining the likely modalities of foreclosure it is necessary to take a view on the plausibility of Mondi's claim regarding its post-merger conduct in the markets implicated in this transaction.

60. We are persuaded that Mondi will indeed continue to engage in a limited amount of trading in core board outside of its newly integrated core board and cores and tubes producer – that is, its downstream division will purchase a certain quantity of core-board from Sappi and its upstream division will continue to sell a limited quantity of core-board to non-integrated manufacturers. As will be elaborated below a certain amount of trading outside of its integrated facilities will be an extremely effective platform for exchanging critical pricing information with Sappi. However, we do not find the 'business as usual' scenario at all plausible.

[38] See statement by Mr Van Breda, page 213, line 6 of the transcript.

61. Why, if Mondi, had wished to conduct its commercial relationship with the core and board manufacturers 'as usual' would it have purchased KC&T in the first place? We have been offered a number of conflicting and implausible accounts of the rationale for the transaction:

- In the papers filed with the Commission, Mondi claimed that it 'had been considering the possibility of starting its own cores and tubes manufacturing business in order to ensure the quality of the cores and tubes it used in certain of its own manufacturing processes'.[39] However, not only did the parties fail to identify any efficiency or pro-competitive gains that it expected to accrue from the transaction, the witnesses from Mondi and KC&T denied any knowledge of any quality problems associated with the KC&T's product.[40] Indeed the overwhelming impression of cores and tubes production conveyed by most of the witnesses, notably those from the parties, was of a technologically mature product that could be produced to a specified standard by any participant in the market. No evidence that has been presented suggesting that there are any product or process innovations expected in the manufacture of cores and tubes. The only innovation referred to concerned Sappi's continuing efforts to develop a core-board capable of emulating or improving upon Ndicore.

- Mondi ultimately decided to purchase KC&T rather than set up its own cores and tubes business. It avers that it took this decision, firstly, because it enabled it to purchase KC&T as a going concern with the requisite technical skills. Secondly, by going the acquisition route the cores and tubes market would not be 'destabilised' by the creation of additional capacity. It did not, however, respond to the Tribunal's invitation to give more precise meaning to this latter rationale.

- However, at the hearing the Mondi witness insisted that the transaction simply presented a good business opportunity, one that, in opaque corporate-speak, would be 'value enhancing…going forward'.[41] The precise source of the enhanced value was not identified despite several invitations to the Mondi witness to do so. KC&T, for its part, painted a less rosy picture of the cores and tubes business – flat demand, excess capacity, mature technologies, low returns are some of the descriptors that spring to mind. As we will elaborate below, we accept that the vertically integrated firm is indeed a good business opportunity because it is, in essence, a mechanism for securing market domination.

62. In short we have been offered a number of conflicting and unsubstantiated accounts of the rationale underpinning the transaction. Several witnesses questioned Mondi's averment that it would not engage in self-dealing. We too find implausible the notion that the merged entity would conduct business as usual. There would seem to be little point in a vertical transaction between parties that did not have self-dealing as a central objective and post-merger feature. Certainly any efficiency gains to be derived

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[39] Letter from the merging parties' attorneys to the Competition Commission. (Record, page 364).
[40] See page 218, line 20, of the transcript.
[41] See page 211, line 10 of the transcript.

from a vertical transaction would rely on self-dealing, on the internalization of transaction costs and other prospective efficiency rationales that potentially arise from vertical transactions. The US Courts simply presume that an '…integrated firm will deal with itself when all things are roughly equal as they usually will be. Indeed, this would seem to the primary motive for vertical mergers.'[42]

63. However, just as self-dealing may be at the heart of efficiency gains, so may it be the centerpiece of anti-competitive foreclosure. The important question to be resolved by a competition evaluation of a vertical merger is usually whether the internalization of trade that is implied by a vertical agreement is pro-competitive or competition neutral or whether it is anti-competitive. In this transaction we have been offered nothing other than bland assertions regarding potential pro-competitive consequences – not a shred of evidence has been presented to substantiate the sparse assertions of efficiency gains. On the other hand, the post-merger market structure and the incentives of the key players persuade us that input foreclosure will be an outcome of the transaction with a consequent increase in the costs faced by both the downstream and the upstream rivals of the merged entity.

64. In summary, then we proceed on the basis – in our estimation an eminently reasonable assumption – that the post-merger integrated entity will largely self-deal, that is, it will largely confine its sales of Ndicore to its integrated downstream cores and tubes manufacturer and that the latter will largely confine its purchases of core board to its upstream producer of core board. Mondi's integrated core board and cores and tubes producer will certainly engage in a *limited* amount of trade in the market. As already intimated (and elaborated more fully below) a limited amount of participation in the market will facilitate the flow of information, and, hence facilitate cooperation between Mondi and Sappi. In addition it is probably unreasonable to expect a mathematically precise alignment between the output of Ndicore by the upstream division and the demand for Ndicore by the downstream division. Mondi's upstream division would enter the market to sell occasional supplies of Ndicore in excess of its needs and its downstream division would enter the market to make good occasional shortfalls in the supply of Ndicore.[43]

65. Given then that the merged entity will largely self-deal, that is, it will, by and large, restrict sales of Ndicore to its downstream division alone, all other cores and tubes manufacturers will be left in the hands of an effective Sappi monopoly. There would, under these circumstances, be little to prevent Sappi from exercising its new found market power by charging a monopoly price for its core board, Spiralwind. To the extent that Mondi's newly merged entity continues to participate in the market (that

[42] Areeda, Hovenkamp and Solow op.cit. page 159

[43] Ndicore is produced by a single machine at Mondi's Springs plant. This machine is, however, not dedicated to the production of Ndicore – it is thus a relatively simple matter to increase the machine time devoted to Ndicore as per the requirements of the downstream cores and tubes division. However relative to the alternative product which is produced by this machine, Ndicore is low margin. Accordingly both commercial imperatives and, as will be elaborated below, Mondi's monopolization strategy ensure that the output of Ndicore will be limited to the requirements of the downstream cores and tubes manufacturer. See pages 224 – 225 and 230 of the transcript.

is, to the extent that it does *not* exclusively self-deal but rather continues to supply some Ndicore to non-integrated cores and tubes manufacturers) it will have no interest in increasing output and decreasing prices in order to wrest market share from its rival, Sappi. On the contrary Mondi's best interests would simply lie in following Sappi's price increase thus permitting both producers of core-board to extract monopoly rents from non-integrated cores and tubes manufacturers in the downstream market. Hence by reducing the supply of Ndicore to the market (that is by engaging largely in self-dealing) Mondi will permit Sappi to increase the price of core-board to non-integrated producers of cores and tubes.[44] Sappi will be the principal beneficiary of this strategy in the upstream market – it will supply the lion's share of this market and it will do so at a monopoly price.

66. Mondi's interest in allowing Sappi to charge a monopoly price to its customers resides in the impact of Sappi's monopoly price in the downstream core and tube market – it raises the cost of Mondi's rivals in the downstream cores and tubes market thus either enabling Mondi's newly acquired cores and tubes division to capture a larger share of this market, or, more rationally, enabling it to raise its prices to its customers in the downstream market, a market in which it will, through its acquisition of KC&T, already command a dominant share. In this way vertical integration does indeed ensure that this will be good business opportunities for both Mondi and Sappi.

67. For Mondi's part foreclosure will transform Kohler's low return cores and tubes business into a lucrative dominant firm. This strategy was not open to a non-integrated KC&T and, hence, where it was faced with low returns 'going forward', the newly integrated producer is, on the other hand, faced with enhanced value 'going forward'. This explains why Mondi is prepared to pay approximately R40 million for a production facility that, by its own reckoning, it could have replicated with state of the art equipment at less than two-thirds of that price.[45] Had it constructed its own downstream cores and tubes facility it would have been faced with a non-integrated KC&T. As we shall elaborate below, because a non-integrated firm of KC&T's size and market share may have attracted an international partner, input foreclosure may

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[44] We do note however that, any anti-competitive imperatives aside, Mondi's capacity to produce Ndicore is restricted to a single machine located at its Springs plant. This machine is not dedicated to Ndicore and Mondi's witness commented that it could be used for the production of more commercially lucrative alternatives. So, even from a narrow commercial perspective there is no incentive to increase the supply of Ndicore.

[45] The purchase price of KC&T is R 37.5 million whereas Mondi estimated that it would have cost between R25 million – R30 million to establish a state of the art new plant. We instructed Mondi to furnish us with the record of the due diligence undertaken prior to the acquisition. It appears, from the document furnished, that a very cursory study was done, one that appears to have been confined to an assessment of human resource-related liabilities. This contrasts markedly with the elaborate study undertaken by Mondi when it was considering setting up a new cores and tubes facility. A copy of the study had also been requested at the pre-hearing although it was only furnished at the hearing itself. A possible inference from the sparse due diligence is that, despite the claim that the transaction was undertaken because it represented a good commercial opportunity, Mondi was principally driven by a desire to eliminate the dominant independent cores and tubes producer. Certainly Mondi's claim that it would be able to operate Kohler more efficiently and cut costs could not have been gleaned from the results of the due diligence submitted to the Tribunal.

not have succeeded in monopolizing the cores and tubes market. In short, had Mondi entered the market in competition with KC&T, the only buyer capable of 'disruptive' (destabilizing?) behaviour, viz, KC&T, would have remained a threat. Areeda, Hovenkamp and Solow cite the possibility that 'a vertical merger might eliminate a large buyer whose aggressive bargaining has disrupted oligopolistic collaboration among suppliers' as one of a number of possible scenarios for anti-competitive effects from a vertical merger.[46]

68. It is important to add that a foreclosure strategy in the upstream market that effectively passes a monopoly price extracted by input suppliers on to the customers of the downstream manufacturers is ably abetted by the low price elasticities that appear to characterize the demand for cores and tubes. Several witnesses commented on this feature of the cores and tubes markets. As already noted, it was repeatedly pointed out that the value of the product wound on to the core vastly exceeded that of the core itself. In the scale of things even a significant increase in the price of a core is unlikely to be resisted by an aluminium or textile or paper manufacturer for whom the price of the core represents a relatively small part of the total value of the product of which the core forms one, albeit vital, part.

69. But are Mondi and Sappi, and particularly the non-integrated Sappi, not faced with conflicting incentives in raising the cost of and hence the price charged by downstream core and tube manufacturers? They are, after all, important consumers of cores and tubes. Indeed Sappi explicitly noted its concern at the prospect of an increase in the price of cores and tubes.[47]

70. Mondi, of course, need have no fear of raising the cost of cores and tubes to its divisions who purchase these products. As a fully integrated producer its purchases of cores and tubes are not affected by the pass through of the monopoly rent to the consumers of cores and tubes. Sappi, may, at worst, end up paying more for its own cores and tubes but may recoup this from the monopoly rent gleaned from its sales of its core-board to non-integrated downstream producers. Mondi, of course, extracts its monopoly rent from the customers of its cores and tubes division. In short, the incentives of the duopolists, Sappi and Mondi, are well aligned. There should indeed be no need for explicit co-ordination of this monopolistic outcome between Sappi and Mondi – once Mondi acquires KC&T all the incentives point in the direction of tacit cooperation. We do however note that, in response to a question posed by one of the panel members to the witness from KC&T it was confirmed that Sappi had been consulted about the transaction.[48]

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[46] Areeda, Hovenkamp and Solow 'Antitrust Law' Vol IVA page 143. Bear in mind that KC&T's share of the relevant market is conservatively estimated at 45% whereas its largest competitor – Framen – has an 11% share. KC&T is also part of a much larger packaging group. It's size and resources qualify it as a potentially disruptive buyer, indeed probably the only one in the South African cores and tubes market.
[47] See page 404 of the record.
[48] Transcript page 186

71. In any event, a related transaction was brought to our attention that undoubtedly helps to cement Sappi's support in pursuing this foreclosure strategy. We refer to the intended post-merger sale by Mondi of KC&T's Cape Town plant to [acquiring firm – confidential] competitor of KC&T. We should note that while the parties put on record their intention to dispose of the Cape Town plant, the identify of the purchaser and the extent to which the transaction had evolved – [acquiring firm - confidential] and Mondi were already entering into heads of agreement at the time of the hearing – was only revealed at the hearing in response to questions put by the Tribunal panel.[49] Sappi is a particularly significant customer of KC&T's Cape Town plant, whereas it appears that Mondi does no business with this plant.[50]

72. By selling the Cape Town KC&T plant to [acquiring firm – confidential], Mondi thereby effectively assures Sappi that its upstream market for Spiralwind and its downstream supply of cores and tubes are secure – the ceding of some of KC&T's current capacity to [acquiring firm – confidential] ensures that there is sufficient non-integrated downstream capacity to secure a market for Sappi's upstream output and to supply its cores and tubes requirements. Nor is there any reason for Sappi to fear a more powerful [acquiring firm – confidential]. For one thing it is not beholden to [acquiring firm – confidential] – there are other cores and tubes manufacturers. On the contrary, post-merger [acquiring firm – confidential] is thoroughly beholden to Sappi both for its supplies of core-board and as a market for [acquiring firm – confidential] output. Bear in mind that pre-merger [acquiring firm – confidential] customer was Mondi – [acquiring firm - confidential] of its output was purchased by Mondi. Accordingly post-merger Sappi's custom will loom exceedingly large in [acquiring firm – confidential] calculation.

73. Turning to the supply of core-board, we learned in the hearing that Sappi will henceforth require downstream manufacturers who produce for it to utilize Sappi core-board in their manufacturing processes. In our estimation this is simply a cautious safeguard on Sappi's part. As already elaborated, the logic of the transaction dictates that Mondi will accord priority to its in-house needs certainly when supplying Ndicore. Even without a Sappi requirement that non-integrated producers use its product as an input in the core manufacturing process, these producers, including [acquiring firm – confidential], will have no alternative but to turn to Sappi for supplies of core-board. The requirement that Sappi input be used as a precondition for supplying Sappi with cores and tubes is either a display of excessive caution or it is a strong inducement for non-integrated downstream producers not to seek

[49] We should also note that the post-merger relationship between Sappi and [acquiring firm – confidential] will help ensure that Sappi's purchase of cores and tubes is not prejudiced by the pursuit of a monopolistic strategy in the upstream market for core board - given that Sappi will both supply [acquiring firm – confidential] with unusually high volumes of core board and that it will purchase unusual volumes of cores and tubes from [acquiring firm – confidential], volume based discounts could be justified in both markets thus 'legitimising' Sappi charging a monopoly price for its core board to all but [acquiring firm – confidential] and 'legitimising' [acquiring firm – confidential] passing on this monopoly input price to all but Sappi.

[50] Note our earlier remarks regarding the sub-national character of the relevant geographical market for cores and tube, that is, the downstream market.

alternative input suppliers offshore. It is little wonder that the parties refrained from presenting the sale of the Cape Town plant as a pro-competitive gesture. They have not done so because what appears, at first blush, to be a complementary transaction that will weaken the post-merger market position of Mondi's downstream producer of cores and tubes, is revealed, on closer examination, to be the instrument by which [acquiring firm – confidential] is bound over to the Sappi leg of the duopoly.

74. Mr. Bouzoglou of Framen is clearly alert to the unenviable predicament in which he finds himself.[51] He intimated that he was considering offshore sources of paper. However, he, who struck us as a particularly candid, thoughtful and well-informed witness, has clearly not made any significant progress in securing these supplies. Nor do we believe that he will. Framen's scale makes it the only independent potentially 'disruptive buyer' in the cores and tubes business. But its independence is illusory – its input is supplied by Sappi and its market is provided by Sappi and, under these circumstances, it would be extremely foolish to risk the consequences of disruptive or destabilizing action.

75. The merging parties are correct then when they argue that, on account of Ndicore's substitutability, the merged entity does not, on its own, have the capacity to successfully foreclose inputs and to raise the costs of its rival cores and tubes producers. Successful foreclosure requires the support of Sappi. However Sappi's interests and incentives are well aligned with those of the merged entity. As already noted, it is an alignment that does not require explicit coordination. In summary, the integration of Mondi's core-board manufacturing division with the country's largest cores and tubes manufacturers places Sappi in an effective monopolistic position with respect to other downstream manufacturers. Mondi will have no reason to take advantage of monopolistic pricing by Sappi by attempting to gain a larger market share of the core board market. And to the limited extent that it will supply core-board – either Ndicore or kraft – to non-integrated cores and tubes manufacturers it not only has no reason to oppose monopolistic pricing on Sappi's part, but every reason to follow suit. By allowing Sappi to take advantage of its monopoly position vis a vis the non-integrated producers of cores and tubes, it effectively ensures that its rivals costs in the downstream market are increased thereby allowing Mondi's downstream division to capture its own monopoly rent in the downstream market which, through its acquisition of KC&T, it will immediately dominate post-merger.

Customer Foreclosure

76. The parties have also insisted that imports, or the threat of imports, will undermine any attempt at input foreclosure. However, as already intimated, we are thoroughly un-persuaded. High quality European core-board will continue to be used in small volume for the manufacture of particularly demanding cores. It will however not be a viable general alternative to local supplies of core-board – it is extremely costly both

[51] See page 273 of the transcript where he is specifically asked for his reaction to Sappi's post-merger dominance over his core board input.

because of its quality and because of the depreciation of our exchange rate *vis a vis* developed country currencies.

77. However, other developing country core-board producers may present a more viable alternative, with Indonesia frequently mentioned as the most likely country of origin for imports. The board produced by these countries appears to be of a lower quality and hence less costly than the European product. Our exchange rate has remained relatively stable *vis a vis* the Indonesian currency which has also suffered the significant depreciation that has characterized the Rand. If evidence is required that this is viewed as a serious threat by the members of the local core-board duopoly then one need look no further than Mondi's reaction to KC&T's earlier attempt to import core-board from Indonesia. On the single occasion that this was attempted Mondi responded by drastically reducing its purchases of cores and tubes from KC&T which then immediately recognized that its interests lay rather in ceasing to import core-board. An extract from Kohler Cores and Tubes divisional budget for 2001/2 is revealing:

> *'We had been importing raw materials at prices well below the local mills' prices. However, the local mills represent 25% of our turnover and Mondi has taken business away from us as a result of the imports. As a result of this we have stopped importing raw materials and are working with Mondi to gain more business.'*[52]

78. We should add that with Mondi acquiring the country's dominant producer of cores and tubes and Sappi requiring that its product be used in the manufacture of cores and tubes which it purchases, the size of the domestic market for imported core-board is reduced (that is, foreclosed) significantly. It certainly eliminates KC&T as a possible purchaser of imported core-board and drastically reduces the prospect of Framen – destined to become a primary supplier of cores and tubes to Sappi – importing core board. As already noted, Framen, the country's second largest cores and tubes manufacturer may have the scale and the resources necessary to import its paper input. However, Sappi will constitute a significant part of Framen's market which obliges it to purchase Sappi-produced input. Moreover, beyond these contractual obligations, it is clear that Framen is effectively bound over to Sappi which will, at once, be both Framen's largest supplier and largest customer. This will not predispose Framen to displays of independence inimical to the paper duopoly's best interests.

79. This leaves the smaller cores and tubes manufacturers as potential importers of core-board. In relying on imports they will face reduced certainty in the source of supply of their critical input; in order to take advantage of volume discounts and reductions in transport costs they will have to purchase input in greater volume and face concomitantly larger storage and financing charges; they will have to cope (without commanding the resources necessary to hedge large foreign exchange exposures) with the volatility that characterizes emerging market exchange rates; they will, given

[52] Record page 339

Sappi's injunction, cut themselves off from Sappi's custom; and they run the risk, as the much larger KC&T earlier discovered, of incurring Mondi's wrath;.

80. In short, importing carries considerable risk for local downstream producers. And the South African market for core-board, with the lion's share foreclosed by the actions of the powerful domestic duopoly, will not be an attractive market for exporters – they are unlikely to go the extra mile to penetrate this market given their structurally limited prospects.

81. One possible threat to Sappi and Mondi's domestic duopoly comes from foreign investment. Were a significant foreign core and tube manufacturer to set up in this country, particularly one linked backward into core-board manufacture, this may represent a significant challenge to Sappi and Mondi's collective dominance of the upstream market. A potential challenge from this quarter would, of course, extend beyond core-board to other segments of the domestic market collectively dominated by Sappi and Mondi.

82. Indeed it is instructive to recall that KC&T's shareholder held discussions regarding the sale of its cores and tubes division with both Mondi and Sonoco, the giant US paper manufacturer and converter. Again, we have been offered several explanations for why Sonoco ultimately decided not to invest in this country. In the papers filed we are offered the familiar mix of crime and labour unrest. In the hearings however, the witness from KC&T suggested that Sonoco preferred to enter into a joint venture with Kohler and that this was ultimately not attractive to the latter's shareholders.[53] We suggest, however, that a joint venture between a large domestic paper converter like Kohler and a major multinational paper manufacturer and converter like Sonoco would have been anathema to Mondi and Sappi. Suffice to say that with the sale of KC&T to Mondi, in combination with Sappi's requirement to use its input in producing its cores and tubes, entry into the South African market either through the manufacture of core board or cores and tubes is effectively foreclosed. This, in our view, is the real meaning of Mondi's concern to prevent 'destabilisation' of the core and board market, one of several rationales offered by Mondi for the transaction and one which was not satisfactorily elaborated despite our invitation to do so.

83. In summary, potential entrants at the core and tube manufacturing stage of the production process will find their source of core-board inputs effectively foreclosed by the collective dominance of Mondi and Sappi and their cost structure hostage to the interests of the duopoly. Entrants (either exporters or foreign investors) at the upstream core-board manufacturing stage, will find potential sources of custom foreclosed by Mondi's integration with the country's largest core and board manufacturer and Sappi's requirement to use its product exclusively in the manufacture of its cores and tubes.

[53] Note that Mr. Davies from KC&T informed the Tribunal 'if the Mondi deal didn't materialize then maybe one could progress the Sinoko (sic) deal.' Transcript page 189

84. On these grounds alone we conclude that this transaction is likely to substantially prevent or lessen competition in both the relevant markets identified and, accordingly, it falls to be prohibited.

Facilitation of Co-ordination

85. However, the likelihood of input and customer foreclosure is not the only ground for concern with this transaction. We are specifically enjoined by Section 12A(2)(c) of the Act to consider 'the level and trends of concentration, and history of collusion, in the market' when evaluating a proposed merger.[54]

86. We are concerned that the transaction is the centrepiece of a strategy designed to facilitate the flow of price and other competition sensitive information between Mondi and Sappi thus cementing the domestic duopoly, indeed cartelising a number of segments of the broad domestic paper manufacturing market.

87. The formation and operation of a cartel is the most egregious offence under competition law, it is indeed the very antithesis of competition. While a cartel is difficult to form, most cartels fail, not because the prospective members were unable to forge an agreement amongst themselves but because of the powerful incentive for cartel members to cheat on one another – while the collective has an interest in maintaining the price and output and market division covenants that underpin the cartel, each individual member has an incentive to cheat, to increase output and undercut its co-conspirators. This is why a successful cartel requires not merely an agreement, but also a mechanism for enforcing the agreement. This is clearly risky under conditions of illegality. In order for a cartel to monitor effectively the conduct of its members, the first-best solution is to minimize secrecy, to ensure transparency in respect of those factors that make up the substance of the illegal agreement.

88. We are not in the process of trying a cartel. We are adjudicating a merger. Moreover, although mergers are agreements between firms – the first requirement for the existence of a cartel - we must bear in mind that we are adjudicating a vertical agreement whereas a cartel is an agreement between firms in a horizontal relationship to one another. However, we are not seeking to prove the existence of a cartel. We are merely establishing whether the transaction will facilitate the flow of information, the degree of transparency, necessary to overcome the problem of monitoring the members of an illegal conspiracy, arguably the most significant impediment confronting successful cartelisation. In order to do this we must first establish whether the structure of the market in question and the character of the products lend themselves to cartel formation. We should also examine whether the past and current conduct of the participants in the market provide prima facie grounds for concern regarding prospective cartelisation.

[54] The Commission, too, has raised the prospect of post-merger collusion between Mondi and Sappi – see page 17 of the Commission's recommendation.

89. We should note that the parties themselves acknowledge that the structure of the upstream market lends itself it to collusion:

> '*absent the merger, the upstream market is oligopolistic in nature. Structural conditions in the upstream market thus are such that Mondi would be able to pursue a collusive strategy with Sappi in any event should it wish. The merger certainly does not enhance the possibilities for collusion between Sappi and Mondi. In addition, the dangers of relying solely on structural conditions to conclude on potential conduct post transaction are well known'*[55]

90. When, as per Section 12A(2)(c) of the Act, 'the level and trend of concentration' in a market lends itself – even on the merging parties own admission - to collusive conduct, we are obliged to take this into account. In contrast with the approach of the parties, our responsibilities under the Act do not permit us to simply shrug off an anti-competitive structure with the observation that a member of the oligopolistic market 'would be able to pursue a collusive strategy….should it wish'. Indeed the Act requires that, under these structural conditions, we exercise particular vigilance and, in this case, a vigilant examination reveals that the present merger does indeed 'enhance the possibilities for collusion between Sappi and Mondi'.

91. George Stigler first attempted to identify those features of markets and products that lent themselves to collusion or cartelisation.[56] Stigler's groundbreaking work actually took issue with an anti-trust establishment that the Nobel Prize winning Chicago University economist considered unduly concerned with the problem of cartels. His critique was based precisely upon the difficulty of the cartel monitoring and disciplining its members. In developing his critique he identified those features of the product and the market that lent themselves to successful monitoring of the conduct of cartel members and the enforcement of its rules. Stigler's typology provides a near perfect fit for the South African pulp and paper products markets – a small number of large participants, stable and equal market shares, homogenous products, mature technologies, high entry barriers and transparency. If this transaction provides additional transparency then we would have to conclude that these are markets that would make even the skeptical and venerable father of the Chicago School of anti-trust sit up and take notice.

92. A mere glance at the following table will confirm that Sappi and Mondi collectively dominate a range of important market segments in the paper products sector and that their market shares are equivalent in most of these markets:

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[55] Additional Submission (by the merging parties) in the Competition Tribunal of South Africa (para 11.11.1, p35) – record page 551

[56] George Stigler – The Organisation of Industry (1968)

Product	**Estimated market share of Mondi**	**Estimated market share of Sappi**
Uncoated woodfree		
- Cut sheet	54%	46%
- Converting grades	38%	62%
Newsprint	62%	38%
Cartonboard	38%	38%

Source: the merging parties, record page 131 and 132

93. It is common cause – and was stressed by several witnesses in the present enquiry – that the products are homogenous and there is a low rate of product innovation. Paper manufacturing (although not necessarily paper converting) is one of the most capital intensive sectors in the South African economy thus ensuring that new entry is only feasible for those with extremely deep pockets and well established access to capital markets.

94. The present enquiry has, moreover, been provided with strong evidence of transparency in pricing information and of coordination of pricing decisions. It was certainly commonly accepted – with remarkably little embarrassment even from the witnesses from Sappi and Mondi – that the list prices for Mondi and Sappi Kraft were set for the same period and changed at the same time and by effectively the same amount. The timing of Ndicore's price adjustment is known well in advance. Hence the relationship between kraft prices (including Spiralwind prices) and Ndicore prices is well known – it appears that the adjustment in the Sappi and Mondi kraft prices takes place some six months earlier than the adjustment in the Ndicore price. The following exchange at the hearing between a member of the panel and Mr. Davies from KC&T bear this out:

> Mr. Manoim: Perhaps we should just be specific about whose Kraft we are talking about since they both make it.
> Mr. Davies: No Kraft is Kraft, whether it is Sappi or whether it is Mondi the price….
> Mr. Manoim: Yes, but I think that we are talking about the prices. You are saying both firms' prices have moved up?
> Mr. Davies: No what I am saying is the Kraft price, which is the price of paper supplied into the corrugated industry increased on first (1^{st}) of April from both Sappi and Mondi, the core board price which we buy from Mondi in Springs (this is Ndicore – our addition) did not increase in April and will be increasing in October.[57]

[57] Transcript page 154

95. This is confirmed in an exchange between Mr. Coetzee (for the Commission) and Mr. Bouzaglou:

> Mr. Coetzee: Right. On the Kraft papers increases does Mondi's and Sappi's Kraft prices get increased at the same time?
> Mr. Bouzaglou: Ja
> Mr. Coetzee: And the price increases are the normally close to each other or almost exactly the same?
> Mr. Bouzaglou: No it's not all the same. It's different.
> Mr. Coetzee: But very close?
> Mr. Bouzaglou: It is close. I mean we pay three oh six oh (3 060 – that is, Rand per ton – our addition), the other one is three oh five oh (3 050)[58]

96. Our concern then that this transaction provides the basis for an exchange of information that would facilitate horizontal coordination does not emanate from a clear sky. The structure of the pulp and paper market, the characteristics of the product and the existing level of transparency all meet the requirements for successful coordination. And there is prima facie evidence that coordination is already the order of the day.

97. We have already intimated how we envisage these information flows occurring post-merger. We proceed on the assumption – which we believe, as already elaborated, is perfectly reasonable – that the newly integrated Mondi will, by and large, self-trade. However, in line with what Mondi itself has told us, it will not self-trade exclusively, that is, it will place a certain quantum of its sales and purchases on the market. Mondi's downstream cores and tubes operation may thus purchase a small quantity of Spiralwind or Sappi kraft. It will also likely sell a certain amount of Ndicore to its downstream competitors who are clearly destined to purchase the bulk of their core-board requirements from Sappi. This will likely include Framen who will rely upon Sappi as the supplier of its core-board inputs. By the same token, the divisions of Mondi that require cores and tubes – and this would covers most, probably all, of its key paper producing activities – will mostly secure its requirements from its downstream cores and tubes manufacturer. However, some of its divisions may well purchase certain of its requirements from the competitors of its newly acquired cores and tubes division, including from those competitors, like Framen, who will supply Sappi with its cores and tubes.

98. The quantum and quality of information exchange afforded by this small transaction is, on the face of it, sufficient to enable Mondi and Sappi to monitor a cartel that extends well beyond the core-board market. At the very least it covers core-board (Ndicore and Spiralwind) and cores and tubes but it also clearly takes in kraft. It may also facilitate an exchange of important information between other users of cores and tubes within the Sappi and Mondi stable – their respective producers of newsprint for example.

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[58] Transcript pages 286-7

99. We accordingly find that this transaction will facilitate tacit or express coordinated conduct (and thus is likely to substantially lessen competition) by facilitating the exchange of pricing and other competitively sensitive information in both the input or output market. On this ground too it falls to be prohibited.

Order

100. We find then that this merger is likely to substantially prevent or lessen competition in both the upstream and downstream markets and thus order that it be prohibited.

D. Lewis — **<u>20 June 2002</u>**
Date

Concurring: N. Manoim and S. Zilwa