IN THE COMPETITION APPEAL COURT
OF SOUTH AFRICA

In the matter between: CAC CASE NO.: 113/CAC/NOV11
CT CASE NO: 81/AM/DEC10

PIONEER HI-BRED INTERNATIONAL INC. 1st Appellant

PANNAR SEED (PTY) LTD 2nd Appellant

and

THE COMPETITION COMMISSION 1st Respondent

AFRICAN CENTRE FOR BIOSAFETY 2nd Respondent

JUDGMENT 28 May 2012

SWAIN A J A

Introduction

[1] Pioneer Hi-Bred International Inc. (Pioneer), the first appellant and Pannar Seed (Pty) Ltd. (Pannar), the second appellant, appeal against the order of the Competition Tribunal (the Tribunal) prohibiting the proposed merger between the appellants under Section 16 (2) (c) of the Competition Act 89 of 1998 (the Act). The application to the Tribunal, arose from a decision of the Competition Commission (the Commission), being the first respondent, to prohibit the proposed merger. The African

Centre for Biosafety (A C B), being the second respondent, was granted leave to intervene in the proceedings before the Tribunal, as an interested third party, on the basis that it represented the interests of small scale commercial and subsistence farmers in South Africa, who would be affected by any potential maize seed price increases, as a result of the proposed merger.

[2] The present appeal presents a unique factual situation against which the proposed merger must be assessed. It is common cause that Pannar is in decline as a competitive force in the hybrid maize seed breeding market in South Africa. It is also common cause that this decline has been occasioned by a lack of adequate access, on competitive terms, to advanced breeding technologies, germplasm and genetically modified traits, which are vital to ensure that Pannar maintains its competitive position. In order to secure access to this technology, it was also common cause, that Pannar would have little choice but to combine with an international breeder of hybrid maize seed,. It was this need on the part of Pannar, which was advanced by Pannar and Pioneer as the primary justification for their proposed merger.

[3] It is accordingly in the application of the requirements of Section 12 A of the Act to the facts of this case, namely whether the merger is likely to substantially prevent or lessen competition, that difficulties arise. On the one hand, the merger will reduce the number of major competitors in the hybrid maize seed market, which at present are Monsanto South Africa (Pty) Ltd. (Monsanto), Pioneer and Pannar, from three to two, being Monsanto and Pioneer (merged with Pannar). On the other hand, if the demise of Pannar as a competitor, in the absence of a merger is inevitable, then a reduction in competition to such an extent will occur in any event. This case cannot however be disposed of in terms of the concept of a failing firm, as it was accepted by all of the

parties, that Pannar did not fall into this category.

[4] The solution advanced by the Commission to this problem, and which found favour with the Tribunal, was that Pannar's salvation lay in a possible merger in the future between Pannar and an international seed breeder with the requisite technology. Representatives of two international seed breeding companies, namely Syngenta Crop Protection AG (Syngenta) and Dow Agro Sciences LLC (Dow) gave evidence before the Tribunal and were identified as likely suitors to fulfil such a rôle. The Tribunal found:

"Both Syngenta and Dow have also had specific discussions and negotiations in that regard with Pannar in the past. There is no reason why those negotiations would not be renewed absent the proposed merger, and every reason to believe that they would, especially having regard to the erosion of market strength that Pannar says it is experiencing.

Furthermore, the factual witnesses agreed that access to adequate germplasm, well adapted to the relevant agro-climatic conditions, is a key to commercial success in the South African maize seed business. Not surprisingly access to Pannar's locally-adapted germplasm pool is also one of the main reasons for this proposed transaction, and Pioneer is paying a very substantial sum of money to acquire this. A locally-adapted germplasm pool is furthermore a fundamental barrier to entry into maize hybrid seed breeding."

The Tribunal held that it was "unlikely that Pannar'sgermplasm would become obsolete as opportunities exist for it to be commercially exploited through strategic partnerships with one or more other global seed companies"

It is the correctness of this conclusion, which lies at the heart of any assessment of whether the merger should be approved. If this conclusion is found to be wrong, with the inevitable consequence that Pannar's demise as a competitive force in the hybrid maize seed breeding market in South Africa is likely, with the resultant loss of its germplasm, this must weigh heavily in favour of the proposed merger being approved.

A merger with Syngenta?

[5] Mr.Unterhalter S C, who together with Mr.Gotz appeared for the appellants, submitted that a vital component for the successful commercial exploitation of Pannar'sgermplasm by a strategic partnership, whether with Syngenta or Dow, was that any postulated partner would have to possess germplasm, which was complementary to the germplasm possessed by Pannar. This requirement was not considered by the Tribunal, in its assessment of the likelihood of a successful merger, between Pannar and either Syngenta, or Dow.

[6] Mr Unterhalter referred to the evidence of Mr van Rooyen, the managing director of Pannar as to the likelihood of a successful merger between Syngenta and Pannar. When asked about the complementarity of the germplasm of these two companies, van Rooyensaid they did not obtain any promising results from their extensive tests. He told the Tribunal that:

"From what we know there is not a great prospect of complementarity. The companies that they took over in the US, particularly the Golden Harvest Group, I think were fairly incumbent to Holdens as well. We tested quite a bit of the Golden Harvest material at the time and I'm not even sure that we got a lot of it to South Africa, but we tested a lot of it in our US program too and we couldn't really identify anything that we wanted to proceed with in South Africa."

He explained that Syngenta was "quite strong in France" - Pannar had tested "a lot of European genetics," but did not obtain the fit with Pannar's genetics, that Pannar had achieved with U S genetics.

Van Rooyen also testified that Pannar had not enjoyed a good experience with other germplasm that Syngenta had sent them. It appeared to him that Syngenta was interested in supplying yellow germplasm, while Pannar sought to supply white germplasm. He stated

that “their whole emphasis with us has been we are actually interested in your white genetics and we could not really understand it” been an interest in the white genetics of Pannar. He was of the view that there was little complementarity with the germplasm of Pannar. He went on to say: “I think they might have even overestimated the value of the white market in South Africa. It is round about 60 to 65% of the area, but there is also a very important and growing yellow sector in the market, which cannot really be met in the medium maturity. It is not adequately met by … well, it’s not met at all by US Germplasm, except as I said in pockets of the country.

The irrigated region would be met by US Germplasm and that’s predominantly yellow at the moment, but they haven’t had a success rate with their own hybrids that they introduced into the JV. There was no success when we looked at that. But as I say, I think their whole emphasis with us has been we are actually interested in your white genetics and we could never really understand it. Maybe it’s a relic of the Seed Co relationship, because Seed Co, because they are outside South Africa, their programs are principally white genetics.

van Rooyen confirmed that a key limiting feature in any merger with Syngenta, was the competitiveness of their genetics in South Africa. In thenegotiations Pannar held with Syngenta, he found that Syngenta found it very difficult to put a proper value on the potential of the business in terms of how Pannar’sgermplasm could be exploited. van Rooyen emphasised that synergies had to be present: ”You’ve got to be sure that you can actually do something with that germplasm. Otherwise it is valueless, or of lesser value.” For all of these reasons, van Rooyen could not envisage a merger with Syngenta, unless there was a sudden breakthrough and Syngenta sent Pannar a whole new set of genetics with the result that Pannar could see huge synergies, developing in the future.

[7] In summary, van Rooyen's attitude to a possible merger with Syngenta, is clearly set out in his supplemental witness statement, where he says the following:

"In fact since Pannar last extensively considered fuller collaboration with Syngenta in hybrid maize seeds (a 2006 process that included the consideration and ultimate rejection by Pannar, of a possible equity acquisition in Pannar by Syngenta) its view of Syngenta as a potential maize seed collaborator has remained the same. Over the years Pannar has pursued limited evaluations of the potential to develop joint maize hybrids from combinations of inbreds from Syngenta and Pannar, including full tests of such combinations. The results of these tests have confirmed Pannar's earlier conclusion that Syngenta's lack of compatible maize germplasm makes it an inappropriate candidate for a partnership with Pannar, especially when compared to Pioneer".

[8] Mr.Suter, the head of the African Middle East business for the Syngenta Group of Companies, stated that Syngenta had embarked upon a joint venture with Seedco, between 2001 and 2006, with the object of gaining a foothold in the southern African market. They tried, together with Seedco, to expand breeding capabilities based on germplasm that both Syngenta and Seedco would contribute. One of the reasons why the joint venture failed, according to Suter, was that from a germplasm point of view "there was no direct fit at that moment between our own germplasm as well as the Seedco Zimbabwe germplasm".

He explained that "the fit of the germplasm" did not allow Syngenta to expand the breeding operations. By the "fit of the germplasm" he explained that he meant that it was originally thought that the Seedcogermplasm would fit the South African conditions, but this was not so. In addition,

the South African market was shifting towards earlier maturity germplasm, but the specificities of the germplasm of Seedco, were in the later maturity grades.

He stated that the attraction that Pannar had as a partner was the germplasm that Pannar had to offer.

When cross-examined by Mr.Unterhalter, he agreed that in 2004, Syngenta made two significant acquisitions of seed companies in the U S, namely Garst and Golden Harvest

and conceded that since the acquisition of these companies, Syngenta had lost a significant share in the market. He accepted that it had taken Syngenta "much longer to develop the basis of germplasm, adapted from these acquisitions" and they had expected to commercialise it faster. He agreed that Syngenta had not yet been able to exploit the germplasm that it had acquired.

[9] As regards the joint venture with Seedco, he conceded that after a six year research programme, the results were not impressive. There was no data with which to determine the competitiveness of the programme. He also agreed that it did not produce very successful hybrids and that the hybrids making it to the commercial stage, were utilising the genetic material of either Syngenta or Seedco, which according to the assessment of Pannar (which was offered the assets of the joint venture for purchase) were not winners. He accepted that this outcome was not suggestive of Syngenta's position as a genetic pool which was highly useful, at that time, for the purposes of entry into the South African market. As regards his contention that the Seedcogermplasm was not particularly well suited to South African conditions, Mr.Unterhalter put it to Suter that at present there are

fourteen Seedco hybrids on the register, and that Suter was not in a position to say much about Seedco'sgermplasm, because Seedco had commercialised offerings in their own right on the market for many years. Suter agreed with this proposition but added that his remarks were directed at the joint venture, not Seedco itself.

Suter said he was not aware that the reason why the attempt by Syngenta to acquire Pannar had failed was because the ability to exploit the germplasm pool of Syngenta and Pannar, was thus not a very promising prospect for Pannar.

[10] Suter stated that he was aware of the collaboration between Syngenta and Pannar, where fifteen lines were made available for the purposes of testing hybrids with Pannar, of which four were based on the BT 11 trait of Syngenta. These comprised 100% Pannar genetics, with the Syngenta trait introduced, because Syngenta would prefer Pannar to sell their seeds with Syngenta traits, rather than Monsanto traits. Suter agreed, that apart from this, "in terms of taking the germplasm that had been part of a testing programme with Pannar… since 2006, nothing had been commercialised."

As regards the BT 11 trait he said it was being tested in limited quantities for its efficacy by Pannar, during the then current season. However no agreement had as yet been concluded with Pannar, in respect of the GA 21 trait or the stack trait.

[11] By reference to the document headed "SA Topical Review 2011 maize seeds" compiled by Syngenta, with reference to Syngenta's objectives in the South African market, it was clear that there was no express reference to finding a seed breeding partner on the South African market, by Syngenta. Express reference was however made to looking for a seed partner which could be utilised in order, to sell the crop protection portfolio of Syngenta as well as for the purpose of ingressing Syngenta's traits into seeds.

Conclusion regarding Syngenta

[12] In summary, it is clear that a vital element in whether a successful merger could be consummated between Syngenta and Pannar, turned upon the complementarity of their germplasm. As is evident from the evidence so summarised, this vital element is lacking. In the absence of the production of "a whole new set of genetics" by Syngenta, any such collaboration is doomed to fail, as occurred in the abortive joint venture between Syngenta and Seedco, for the same reason.

[13] Consequently, in so far as Syngenta is concerned, the evidence cannot support the Tribunal's conclusion that if the proposed merger does not proceed "the way in which the value of the Pannar business could be preserved and exploited is by a partnership with an international seed firm".

A merger with Dow?

[14] Turning to a consideration of the likelihood of a successful merger, between Pannar and Dow. Mr. van Rooyen said that the Dow germplasm was probably "less of a fit" than the Syngenta germplasm. Mr

van Rooyen testified that

Pannar had crossed Dow's germplasm with Pannar's lines and tested and evaluated it. There was one white hybrid that Pannar had in its final testing phase, in which Pannar was interested, because it would have fitted the ultra early market and Pannar had never had a white hybrid, for the ultra early market. However, when Pannar wished to develop this hybrid, Dow told Pannar that it was actually a line from another company, that they had an arrangement with, and they did not have authority to supply it to Pannar.

[15] According to van Rooyen, Dow had taken over a company in Argentina, with which Pannar had had a long standing relationship. Pannar had never identified "anything exciting" in the Argentinian genetics. He explained that benefit could be obtained from Argentinian genetics, but they had to be put into a programme and worked on and it was not possible to simply take a line and cross it.

[16] Van Rooyen stated that Dow had possibilities in relation to Brazilian genetics, where the germplasm was yellow and more suited to the tropics. However, because South Africa was not tropical and did not work in yellow germplasm, the contribution would be limited. As regards the U S genetics he stated that a lot of the companies that were today part of the Dow group, were companies with which Pannar had relationships, before they were taken over, all of which had very small breeding programmes.

[17] Mr. Robertson, Dow's global project success leader for corn in that evidence in chief, stated that Pannar were seeing some benefits from the germplasm testing that they had done and requested "the registration and the potential commercialisation of a hybrid or two". He stated that they had permitted Pannar, to put one hybrid into registration prior to a commercial licensing agreement. He added that Dow was consequently interested in discussing with Pannar, the germplasm components that Pannar owned in South Africa.

However, under cross-examination when it was put to him, that the results of the Pannar tests of the inbreds and hybrids of Dow that were made available to Pannar, were singularly unsuccessful, he re-iterated that Pannar had requested "one or potentially two hybrids that they would like to take to commercialisation. So there was some success that was generated from these tests". However, he agreed that, in respect of one of those hybrids, which was a white inbred, when Pannar said it was showing promise and they would like to develop it further, it transpired that it did not belong to Dow. He also conceded that there was one hybrid that was still being tested, but "it did not have any great future … all the rest were eliminated, at a much earlier stage." When it was then put to him that the evidence from Pannar would be that they found very little complementarity between Dow's germplasm and Pannar'sgermplasm he replied

"If that's their statement, that's their statement"

[18] Robertson agreed that Dow had no breeding programme either in South Africa, or anywhere else on the African continent He had never contemplated the possibility of acquiring local germplasm, such as from

Kenya or Tanzania to see how that worked with Dow's hybrids.

Conclusion

[19] On this evidence, it is clear that there was very little complementarity between the germplasm of Dow and that of Pannar. Consequently, as in the case of Syngenta, the evidence cannot support the Tribunal's conclusion, that a way in which the value of Pannar's business could be preserved and exploited would be by way of a merger or any other partnership with Dow.

[20] As pointed out above, the Tribunal in its assessment of the capabilities of Dow and Syngenta as possible partners of Pannar, failed to assess the vital issue of the complementarity of the germplasm of these two companies with that of Pannar. Significantly, the Tribunal did however note the complementarities between the Pioneer and Pannargermplasm pools and the fact that both Dr Soper head of the research of Pioneer and Mr Schickler President of Pannar emphasised that Pannar had developed a highly valuable pool of maize germplasm, adapted specifically for South African growing conditions which Soper described as "unique".

[21] Unfortunately, rather than giving due weight to the fact that, on the evidence, Pioneer was the only international seed breeder, possessed of the complementary germplasm as well as the technology needed to fully exploit and develop the unique local asset which is Pannar'sgermplasm, the Tribunal viewed the value of Pannar'sgermplasm as a factor operating against approval of the proposed merger, in the following respects:

[21.1] Pannar'sgermplasm pool was the only pool that was sufficiently diverse and extensive, to constitute a platform for timely and effective new entry into the market by a participant to compete with

Pioneer and Monsanto.

[21.2] It was not credible that Pannar would allow its locally adapted germplasm, which was a very valuable and "unique" asset, to go to waste and this would be achieved by "strategic partnerships with one or more other global seed companies".

[22] This approach effectively compels Pannar to enter into such a "strategic partnership" to prevent its demise and thereby preserve its germplasm pool, which would be in the public interest of maintaining competition, by ensuring the presence of at least three competitors in the market. The Tribunal correctly noted that, in the context of a higher price being paid for a target firm, in terms of a transaction under scrutiny, as opposed to an alternative transaction, the private interests of firms "cannot ever trump the broader public interest consideration of a substantial lessening or prevention of competition, with concomitant negative effects on consumers".

However, in my view, such an approach is of limited application in the present context. The Tribunal framed the key question for determination thus: "If realistic alternative strategies exist that Pannar could pursue and which could stem the alleged decline of its maize seed business, which strategies may include an alternative transaction with another partner, ultimately of Pannar's choice, should the current transaction not proceed." The public interest in maintaining competition in the market, cannot justify the refusal of a merger, on the basis that competition will be maintained in the market, as a consequence of such refusal, by virtue of unsubstantiated

speculation that the target firm will enter into a partnership with another firm, which is not a competitor in the market, and which is wholly unsuited to a merger. The Tribunal's approach runs the danger of placing too much emphasis upon the interests of competitors rather than upon the key principle, of maintaining or promoting competition in the relevant market. The public interest in maintaining competition in the market, does not justify the exploitation of the vulnerability of a target firm, by the competition authorities, in such a manner. To condone such an approach would constitute an intrusion into the management and control of private companies, not justified in the public interest, particularly, as on the available evidence such a merger could not possibly be considered to make financial sense

[23] In this context the Tribunal rejected the view of Hodge, that an insistence upon the availability of Pannar's local germplasm as a platform for effective new entry into the market, meant that an obligation was being imposed upon Pannar"to be a public repository for local germplasm" with whatever partner came along.

The Tribunal's rejection of this allegation, was justified on the basis that there were only three firms in South Africa with substantially locally adapted germplasm pools being Pannar, Pioneer and Monsanto and such a germplasm pool was required for timely and effective new entry into the hybrid maize breeding market.

The Tribunal then added the following:

"If the proposed merger raised no significant competition concerns on the merits, then this would not be an issue, but if it did and one wanted to preserve a market

structure with at least three effective competitors, then the pairing of the proposed two of the three incumbent firms would not be a possibility"

It added that any firm operating in a "three firm market" such as the present "must accept that an anticipated merger with either of the other two incumbent firms, would inevitably risk rejection by the competition authorities. That risk was known to the merging parties when this transaction was contemplated".

[24] In my view, the reasons advanced by the Tribunal do not justify its rejection of the proposition advanced by Hodge, because they take no account of the fact that Pannar will eventually cease to be a competitor in the market, which will then be reduced from a three to two firm market, with the accompanying loss of Pannar's local pool of germplasm. The evidence cannot justify the denial of the preservation and exploitation of Pannar'sgermplasm, by way of the proposed merger and accept as a likely solution the acquisition of Pannar and its germplasm by another entity, not presently in the market and, on the available evidence, which is unlikely to be successful in the South African market. This justification cannot be found in the public interest principle of ensuring competition by maintaining the presence of three competitors in the market, if this means the effective imposition of an obligation on Pannar to be a public repository for local germplasm.

[25] In summary, the approach of the Tribunal, which effectively compels Pannar to seek a partnership with another company, not presently competing in the market and more particularly Syngenta or Dow, also impinges upon the private control of Pannar in another and far more insidious manner. The vulnerability of Pannar, and its inevitable decline in the market, has been exposed in the proceedings before the Commission and the Tribunal. The need to enter into an alliance with an international seed breeder, in order to prevent its demise, has been made clear. Consequently, its ability to negotiate such an alliance must have been considerably weakened in the interim.

[26] The Commission, has failed manifestly to establish the likelihood of a successful acquisition and exploitation of Pannar's local pool of

germplasm by Syngenta, Dow or an unnamed international seed breeder. The only conclusion which flows from the evidence must run contrary to the Tribunal's decision that the answer to the "crisprelevant issue" (in regard to the counterfactual) of whether absent the merger Pannar could hold its "alleged deteriorating competitiveposition", is by way of a strategic partnership with one or more other global seed companies.

[27] I accordingly disagree that the relevant counterfactual is the conclusion of "a viable commercial arrangement with anotherinternational seed breeder" by Pannar, to arrest its decline and that the *status quo,* is the relevant counterfactual against which the effects of the proposed merger should be determined, as decided by the Tribunal.

[28] In my view, the relevant counterfactual is the continued decline, eventual demise and exit from the market as a competitor, by Pannar, with the consequent loss of its valuable local germplasm and thus a two firm market, probably dominated by Monsanto.

[29] This conclusion has a profound effect upon an assessment of the proposed merger. At the heart of the Tribunal's disapproval of the merger, lies the assumption that where there are three competitors in a market, a merger between two of them must lessen competition and "inevitably risk rejection by the competition authorities". Generally speaking such an approach is warranted, but not in the present case, where the demise of one of the competitors is inevitable, albeit that the precise time when this will occur, is uncertain. It is of little assistance, on the unique

facts of the present case, to approach the issue of whether the proposed merger will lessen competition, by simply focusing upon possible post-merger price increases, whether these would be offset by any dynamic efficiencies flowing from the merger, and whether any adverse effects, can be resolved by way of the proposed remedies, and to turn a blind eye to the reality of the situation.

[30] Of vital importance is the need to ensure that the valuable local asset, being Pannar'sgermplasm is preserved and effectively exploited in the public interest, based upon evidence which ensures this, rather than speculative propositions of what may occur in the future. On the available evidence, the merger achieves this result. In addition, the preservation of the economic incentive to innovate, by the application of the advanced breeding technology and germplasm of Pioneer, to the germplasm of Pannar, in a market which is dominated by innovation competition, is also of importance. This is particularly so where Monsanto is the market leader, in respect of which increased innovation competition, as a consequence of the proposed merger, is a desirable and likely consequence.

Price Increases

[31] Notwithstanding this conclusion, I will deal with the Tribunal's assessment of the consequences of the merger by examining firstly the predicted unilateral price increases of the proposed merger.

[32] An issue much debated before the Tribunal and dealt with extensively in its judgment, was whether the so-called "irrigation market" was a separate market, which fell to be excluded from the unilateral price effects modelling, as contended for by the merging parties.

[33] In argument before us, it appeared that Mr.Unterhalter no longer relied upon this proposition.. He contended that, although the distinction

was not abandoned, it was not necessary for this Court, to examine it. The distinction consequently need not detain this Court any further.

[34] Mr.Unterhalter, referred to a table prepared by Dr Waehrer which set out the predicted percentage price effects, applying the model to all South Africa and assuming inputs, the 2010/2011 trait penetration rates, but not including the effects of dynamic efficiencies. This table illustrated that the percentage price increase with trait fee efficiencies included, as well as the proposed price cap remedy, was 1.6%. With trait fee efficiencies excluded, the price increase was 2.6 %.

[35] As regards the dynamic efficiencies which would flow from the merger, Mr.Trengrove S C, who appeared for the Commission, together with Mr Wilson, submitted that although 3 hybrids, may have been produced from 117 hybrids, as a result of the joint trials conducted between Pioneer and Pannar, there was no evidence of any benefit from these hybrids. Mr Trengove contended that Mr Hodge's assumption of yield gains between 5% and 15% was also fundamentally flawed because he assumed that those yield gains would be achieved across all the hybrids sold by the merged entity in a single year. In his view, such an assumption was wholly unsupported by the trial results which, at best, suggest that they might produce three new hybrids in respect of which these yield gains might be achieved (out of a total portfolio of some 71 hybrids in Pioneer's 2011 catalogue and 46 hybrids in Pannar's 2011 catalogue, or a total of 117 hybrids for the merged entity). Mr Trengove referred to Dr Soper's evidence that the industry average yield gain is 1% per year and that Pioneer strives towards 2%.
Mr.Unterhalter in reply, submitted that this proposition was flawed and referred to the Genesis report, which compared a combined hybrid, with the best performing hybrids of Pioneer and Pannar in the following

terms.

"This combined hybrid demonstrates a superior yield performance of over fourteen percent in the Western region relative to Pioneer's and Pannar's best performing hybrids in this segment, namely PHB30Y79B and PAN 6Q – 455B".

In support of appellant's argument in favour of dynamic efficiencies, Mr.Unterhalter then referred to schedules of sales figures of the Pioneer and Pannar hybrids. Pioneer hybrid 30Y79B was the second best selling hybrid in Pioneer's range with 6.9% of Pioneer's total sales. Pannar hybrid 6Q-455B was the sixth best selling hybrid in Pannar's range, with a 5% share of Pannar's total sales. By reference to the evidence of Dr.Soper, he pointed out that the hurdle rate, of whether a hybrid is progressed to the next level of development at the T4 – T5 level, was a yield gain of 4%.

He consequently submitted that the yield gain of 14% by the combined hybrid, over two of the best selling hybrids of Pannar and Pioneer, demonstrated that there was evidence of the benefit from the joint tests, and that this came close to an annual yield gain of 1%. On this basis, the trial result illustrate the yield gain. Indeed this figure came close to the 1.2%, which Mr.Trengrove had submitted was needed to counteract the predicted price increase because of the merger. This figure was based on the evidence of Dr.Waehrer that a yield improvement of 1.2% was sufficient to offset a 10% increase in price.

However, if the predicted percentage price effects of Mr. Smith, the expert who testified on behalf of the Commission, of 1.6% with trade fee efficiencies and the price cap included, were utilised, the yield gain would offset the predicted price increase. Consequently I must respectfully disagree with the approach of the Tribunal that Hodge's dynamic efficiency calculations were grossly overstated, in so far as the evidence relating to this particular hybrid is concerned. In addition, by reference to the table,

Mr.Unterhalter submitted further that the yield increased over the following years, which would counteract any price increases. As regards any immediate price increase, this would be dealt with by the price cap proposed by the appellants.

The question of precise quantification of efficiencies

[36] The Tribunal, in reliance upon the U K Merger Assessment Guidelines (paragraph 5.7.4), stated that the efficiency claims of the parties to a merger must meet three criteria, namely they must be likely, timely and sufficient to prevent a substantial prevention or lessening of competition. The *onus* of proving this lay upon the merging parties.

Mr.Unterhalter, submitted however that what was important was their verification, rather than their precise quantification, which was difficult to assess. He submitted that the U S merger guidelines provided for an assessment of the evidence relating to their existence, but did not require the welfare amount, to be exactly quantified.

[37] It appears to me that in a market, such as the one under consideration, which is dominated by innovation competition, verification of the existence of such efficiencies, rather than their precise quantification, should be emphasised.

[38] In a presentation (George Mason University Law Review, 11th Annual Symposium on Antitrust), Thomas Barnett the Assistant Attorney General, Antitrust Division, U S Department of Justice on 31st October 2007 notes:

"……..antitrust enforcers must be careful not to pursue immediate, static efficiency

gains at the expense of long term, dynamic efficiency improvements, since the latter are likely to create more consumer welfare than the former". (at 15)

Mr Barnett then says:

"Since dynamic efficiency is crucial, preserving innovation incentives is one of the most important concerns of U S antitrust law. This can mean bringing an action to prevent conduct that reduces innovation or it can mean declining to act where overly aggressive antitrust enforcement risks killing the type of vigorous, innovative competition that brings long term benefits to consumers. In this regard, we recognise that when innovation leads to dynamic efficiency improvements and a period of market power, it is not a departure from competition, but it is a particular type of competition, and one that we should be careful not to mistake for violation of the antitrust laws". (page 17)

[39] Of relevance to this issue is the argument of Michael Katz and Howard Shelanski of the University of California at Berkeley:

"Merger policy is the most active area of U S Antitrust policy. It is now widely believed that merger policy must move beyond its traditional focus on static efficiency to account for innovation and address dynamic efficiency. Innovation can fundamentally affect merger analysis in two ways. First, innovation can dramatically affect the relationship between the pre-merger market place and what is likely to happen if a proposed merger is consummated. Thus, innovation can fundamentally influence the appropriate analysis for addressing traditional, static efficiency concerns. Second, innovation can itself be an important dimension of market performance that is potentially affected by a merger".*(Michael L Katz and Howard A Shelanski Merger Policy and Innovation: Must Enforcement Change to Account for Technological Change? Innovation Policy and the Economy (2005))*

[40] Katz and Shelanski point out that "traditionally merger policy focused on the question of whether a proposed transaction would lead to higher or lower prices,

based on a static analysis that compared market power and efficiency effects".

However, as important as is price competition, "a second major and possibly even greater concern is maintaining competition for innovation". It is important that economic incentives to innovate are preserved. "Merging parties frequently assert that the transaction will allow them to engage in greater innovation, while antitrust enforcers may object to a transaction, on the grounds that it will lead to a loss of competition that would otherwise spur innovation". They submit that "to assess fully the impact of a merger on market performance, merger authorities and courts must examine how a proposed transaction changes market participants' incentives and abilities to undertake investments in innovation". They refer to this first rôle for innovation in merger policy as "the innovation incentives criteria".

Katz and Shelanski*supra* at pg 110

[41] The learned authors also propose that

"A second way in which innovation is central to antitrust policy is that the presence of innovation can fundamentally alter the nature of the appropriate analysis even if one focuses on traditional performance measures, such as static pricing efficiency. In brief, merger analysis forms a prediction of a proposed transaction's effects on consumer welfare by examining present characteristics of the parties to the transaction and the market setting in which these parties operate. Innovation can dramatically affect the relationship between the pre-merger market place and what is likely to happen if the proposed merger is consummated ….. This situation raises the broad question of how merger analysis should form predictions about the likely competitive effects of a proposed transaction".

They refer to

"this second rôle for innovation in merger analysis as the innovation impact criterion".

Katz and Shelanski *supra* at pgs 110 -111

[42] As to how "the innovation incentives criterion" and "the innovationimpact

criterion" are to be applied Katz and Shelanski have the following to say:

"Under the innovation incentives criterion, one asks how the change in market structure and competition brought about by a merger will likely affect consumer welfare through effects on the pace or nature of innovation that might reduce costs or bring new products to consumers. Under the innovation impact criterion, the situation is reversed. It refers not to how market structure will affect innovation but to how innovation will affect the evolution of market structure and competition. Innovation is a force that could make static measures of market structure unreliable or irrelevant, and the effects of innovation may be highly relevant to whether a merger should be challenged and to the kind of remedy antitrust authorities choose to adopt". (page 111)

Katz and Shelanski*supra* at pg 111

[43] The learned authors also point out that:

"The closer the innovation at issue in a particular merger is to resulting in an identifiable, predictable product, the more likely the issue for merger review will be how the innovation will affect future structure and performance in the product market, relevant to the transaction (i.e. the innovation impact criterion). The further the innovation is from a tangible result, the more likely the question for merger authorities will be how the transaction will affect the likelihood and level of continued investment in R & D (i.e. the innovation incentives criterion)". (page 112)

Katz and Shelanski*supra* at pg 112

[44] Dr.Soper, on behalf of Pioneer, was of the view that the test results of the joint hybrids developed with Pannar were "very promising" and that the test results were "just the tip of the iceberg of what couldoccur ifthe two germplasm pools were brought together" and that it had "tremendous potential".

He expressed the view that the successful joint hybrids could be commercialised and be brought to market by the 2015/2016 cycle year or season.

[45] Soper stated that upon merger, Pioneer "would take the Pannar material and genetically profile it to see what genetics it has." They would also conduct tests to confirm association of certain traits with the genetic markers in the Pannargermplasm. Within a year, Pioneer "would start utilising the marker selection techniques and their double haploid technology to speed up the Pannargermplasm and put it on the same track of efficient and expedient breeding used for Pioneer material." The advantages that would be obtained from this process, would then be put through a normal breeding cycle, which would result in the advantages coming into the market, probably within six to eight years of the merger. None of this evidence was disturbed ,to any material extent, under cross examination. Indeed, when Mr Wilson put it to Soper that the hybrids could be 'commercialised' even if the transaction did not proceed, Soper's answer was significant:

"I don't think we can tell yet. We would have to go back through the process and again would hope you could work something like that out, but history tells us that it rarely works out that way, I don't know exactly what the percentage is, but in my time we have had far more failures to come to commercialisation than successes in taking joint hybrids to market, again because when you get the final result one company gets that and the other one doesn't and the one that doesn't is really fearful of losing market share by letting it go, when you have a really good result like we appear to see here. In cases where it does work it is usually that the provider of the inbred is a relatively small player and recognises the value of receiving royalties on much larger hectare age because of the distribution power of a company like Pioneer and then they would be more apt to agree to this sort of commercial term.

[46] According to van Rooyen, Pioneer had probably the most extensive international genetics base. By contrast, in South Africa Monsanto was the clear market leader in genetics, followed by Pioneer and then Pannar. On a percentage basis Monsanto had about 50% of the market, Pioneer 25% to 30%, followed by Pannar at 16% of the market in terms of genetics.

[47] Appendix E of the Genesis report, dealing with the dynamic efficiencies flowing from the merger, concludes that the merger "presents certain merger-specific dynamic efficiencies". These "efficiencies are scientifically certain as the germplasm pools are demonstrably diverse and advanced breeding tools are proven to bring about improvements in breeding performance". In addition "the efficiencies are merger specific as the parties would not share their elite inbreds absent the merger and Pannar could not effectively license or use the advanced breeding tools absent close integration with Pioneer". The report also observes that "the dynamic efficiencies are also likely to be of an order of magnitude that brings large total welfare benefits which are highly likely to be passed through to farmers and final consumers".

The following remarks of Smith, in the light of this evidence are apposite:

"These dynamic efficiencies described above seem more compelling and that's more compelling than trait efficiencies and that I think that goes to a legal point, which I will leave for others. Well, we could classify it as a legal point, although I think there is some economic rationale to it and could potentially be of large magnitude and beneficial both to farmers directly and for competition in the industry. I think that's fairly unobjectionable"

[48] The Tribunal however decided that "the benefits flowing from the current joint trials of the merging parties are not merger specific". The Tribunal reasoned that "If the gains realised from the current collaboration were merger-specific it would mean that the proposed merger had been implemented without competition approval" which was not the case. It pointed out that "the material exchange agreement between Pioneer and Pannar predates the merger agreement of July 2009 and is independent of the merger….. hence the joint trial yield gains are merely indicative of potential future efficiencies that may follow from a merger".

[49] The Tribunal also pointed out that "efficiencies must be achieved within a relatively short period of time to prevent a proposed merger from causing harm to consumers". It also concluded that the new hybrids would take a number of years to commercialise and "any potential merger-specific efficiency lies beyond a five year time horizon in the future". In addition, "any new varieties which might arise from the combination of Pannar and Pioneer germplasm are likely to take several years to emerge" and finally concluded "that the efficiencies are distant and therefore not associated with a high probability of offsetting the competitive harm".

[50] With respect, the reasoning and conclusion of the Tribunal, starkly illustrates the danger of pursuing immediate static efficiency gains, at the expense of long-term dynamic efficiency improvements, in a market dominated by innovation competition. This is unfortunately an example of anti-merger enforcement, stifling vigorous innovative competition that brings long-term benefits to consumers. The present case is one, where

innovation is a force that, to a degree, renders static measures of market structure unreliable. The evidence reveals that new combined hybrids will be commercialised by the 2015/2016 year, with more to follow in six to eight years. The predicable products will consequently arrive within the near future and over the long term. Consequently both "the innovation incentives criterion" as well as the "innovation impact criterion", must be assessed.

[51] As regards the "innovation incentives criterion" it is likely that the merger will affect consumer welfare, as the pace and nature of innovation will bring new hybrids to the market. Absent the merger, it is clear that Pioneer, without the germplasm of Pannar, will not achieve the same level of innovation. Pannar, without the advanced breeding technology of Pioneer and the complementary germplasm pool of Pioneer, likewise will not achieve the same level of innovation. As regards the "innovation impact criterion" it is likely that the market structure will be altered by the creation of a more competitive adversary for Monsanto, the market leader, in the long-term in the form of the merged entity of Pioneer and Pannar.

[52] I consequently disagree with the views of the Tribunal, regarding the possible effects of the dynamic efficiencies flowing from the merger. I, consider that the Tribunal's exclusion of the results of the joint trials from consideration, on the grounds that they are not merger-specific, are somewhat artificial. These joint tests are merger-specific, as they predict the consequences of the merger and the future benefits that will inure to the advantage of consumers, if the merger is approved. In addition, I disagree that the unilateral anticompetitive effects that result from the merger, are not offset by the dynamic efficiencies, when proper regard is had to the incentive to innovate, as well as the effect of innovation upon the market, post merger. Should the merged entity, as a consequence of innovation, attain a period of market power, as against Monsanto (the

present market leader), this would not be anti-competitive, but rather a form of competition.

This would simply constitute an example of the impact of innovation upon the market. Monsanto in turn would be compelled to undertake further investment and innovation to remain competitive, which would be an example of an incentive to innovate, operating in an innovation market.

Pass-through benefit

[53] The Tribunal decided that the merging parties had not substantiated their assumed level of pass-through of benefits to farmers. However, Schickler testified that of the total amount of increased value created by improvements to Pioneer seed, Pioneer realises approximately 30% and the other 70% of gains are realised by farmers.

In addition, the appellants in their heads of argument referred to the decision of the Tribunal, in the case of ***Trident Steel and Dorbyl (Case No. 89/LM) at para 81)*** where the following was said:

"Where efficiencies constitute 'real' efficiencies and there is evidence to verify them of a quantitative or qualitative nature, evidence that the efficiencies will benefit consumers, is less compelling ……. The test is thus one where real economies and benefit to consumers exist in an inverse relationship. The more compelling the former, the less compelling need be the latter".

As pointed out above, the dynamic efficiencies are "real" efficiencies which have been verified qualitatively and quantitatively by evidence.

[54] I accordingly disagree with the conclusion of the Tribunal that the efficiencies were distant and therefore not associated with a high probability of offsetting the competitive harm.

If due regard is had to the fact that the market is one of innovation, the conclusion of the Tribunal is again erroneously based upon a narrow application of immediate static efficiency gains, and not long-term dynamic efficiency improvements.

Co-ordinated effects

[55] Turning to the issue of co-ordinated effects, the Tribunal decided that there was no need to decide on this issue, because it had already decided that the merger raised significant concerns regarding unilateral price effects, which were not offset by cognisable efficiencies, and this issue did not alter their conclusion.

[56] The Tribunal did however note that "The merger itself by permanently changing the market structure to that of a duopoly would significantly increase the susceptibility of the market to tacit co-ordination".

[57] This view was based upon the fact that post-merger monitoring of a tacit agreement by Monsanto and the merged entity, would be easier with the detection of deviation by either party. This was because the merged entity would be "far more similar to Monsanto in terms of its product portfolio, size cost structure and scope than anyindividual Pioneerand Pannar". In addition, because "there would be only two significant firms in the market after the merger would significantly increase the market transparency from both a price and

volume perspective".

[58] The Tribunal has ignored the fact that the market is one which is dominated by innovation competition. As pointed out by Katz and Shelanski (*supra* at pg 120), albeit uttered in the context of intellectual property policy

"The modern view holds that both intellectual property policy and merger policy seek to promote consumer welfare by creating an economic environment in which innovative activities are stimulated by both competition and the promise of returns to successful innovation".

[59] Soper stated that Pioneer and Monsanto were, as regards technical expertise, on a similar level, which was at a higher level than other seed breeders. Monsanto and Pioneer were the leading breeding organisations across most of the world. He described Monsanto in the following terms:

".....they are the other gorilla in the cage and we kind of look at ourselves as two organisations that are continually fighting tooth and nail to remain on top of the market. It's been good for the market, because it's stimulating competition, but it's a very, very tough battle".

Mr.Unterhalter asked Soper whatrôleinnovation played in the competitive struggle, to which he replied:

"Well innovation is critical in staying on top and innovation such as the market technologies and such as the biotechnology traits, those are all part of innovation that all of us at the top as particularly Pioneer and Monsanto are investing extremely and heavily in to stay on top. And I think it just takes one pause in terms of aggressive investment, in those technologies and

you put your company at risk of falling stiffly behind". Mr.Unterhalter then asked Soper what effect the merger would have upon competition in South Africa, in the light of the views expressed by the Commission to the Tribunal, that the merger might give rise to softer competition, to which he replied as follows

"Well I think it would …….when we think about Monsanto, there's never a day that we think about the word soft competition. It is hard, in your face slugging battling going on constantly. We're fighting in the freedom-four free-in-the operate *(sic* freedom to operate*)* patterns (*sic* patents) and intellectual property. We're constantly battling in courts over various issues. So its ….. I don't foresee any softening of competition between Monsanto and Pioneer, it will make maybe South Africa the same as it is in the rest of the world, where they really are head-to-head, and investing strongly in technologies to maintain a leadership in those markets".

[60] What emerges clearly from these answers of Soper, is that central to competition between Pioneer and Monsanto, is innovation competition. Successful innovation ensures leadership in the market, together with profitable returns. I find it difficult to imagine, in such a context, that the type of "tacit co-operation" in terms of a "tacitagreement" concluded between Pioneer and Monsanto, would exist yet the Tribunal seemed so readily to so infer. I accordingly regard the likelihood of co-ordination between Monsanto and the merged entity as remote.

Remedies

[61] Turning to the issue of the remedies proposed by the merging parties, I have already dealt with the price cap and its effect upon any unilateral price increases caused by the merger. This issue consequently

need not be canvassed any further. The remaining issue is that of the licensing of plant materials to third parties, the object of which would be to facilitate entry into the market, by a new competitor, to compensate for the loss of Pannar, as a consequence of the merger.

[62] A central issue in the Tribunal's assessment of the adequacy of the licensing remedy, was that, in a worst case scenario, Pannar would still have a market share in the breeding market of approximately 10% in five years' time, and that Pannar's share in respect of commercialisation would fall more slowly, and not to such a low level.

The Tribunal concluded that "a minimum of a 10% market share in breeding and a higher market share in commercialisation would appear to be the bare minimum market share that any new entrant would require to compensate for the loss of competition as a result of the proposed merger". This entry was also to be achieved in the interim "window period" of three seasons.

[63] The imposition of such a minimum standard by the Tribunal, again entirely ignores the fact that the market is one dominated by innovation competition. In the light of the evidence that any new entrant would not only have to be in possession of the advanced breeding technology, to enable it to exploit any germplasm of Pannar's made available to it, but also its own germplasm which was complementary to the germplasm of Pannar, it is difficult to see how any remedy proposed by the merging parties, short of a divestiture by Pannar of its seed breeding division, including its germplasm, could ever satisfy the Tribunal's requirements. In this regard, the Tribunal stated that "it is conceivable that a divestiture remedy may have provided a more workable solution to the identified concerns. No such remedy was suggested by the merging parties".

[64] Divestiture by Pannar of its seed breeding division, would obviously prevent the merger taking place. On the available evidence, I find it difficult to see how this could have been achieved. In any event, when regard is had to the evidence that if the merger is allowed, the joint hybrids developed by Pioneer and Pannar, will only be commercialised and be on the market by the 2015/2016 season. It is clear that it would be impossible for a new entrant to achieve a 10% market share within a period of three years, even if it was handed Pannar's entire pool of germplasm. What this illustrates is that the minimum requirement established by the Tribunal is unrealistic and incapable of being fulfilled.

[65] On the particular facts of this case it is clear that any licensing remedy standing alone, could never satisfy the traditional requirement of providing sufficient and sustainable entry, such that effective competition will remain between three providers, at both the breeding and commercialisation levels.

The reason is that the adequacy of any licensing remedy is dependent upon the attributes possessed by any potential new entrant, in the form of advanced breeding technology and its own germplasm. Both Syngenta and Dow have been found manifestly wanting, in the absence of complementarity between their respective germplasm pools and that of Pannar. Where innovation competition dominates the market, it becomes extremely difficult, if not impossible, in the absence of clear evidence of the attributes of any potential new entrant, to devise a minimum requirement for a licensing remedy, which will ensure sufficient and sustainable entry into the market by a potential new entrant.

[66] In any event, I consider that the *crux* of the matter is whether, on the facts of this case, the merger will in fact result in a lessening of competition, with the result that a remedy is required to facilitate entry by a new competitor. I have found that the relevant counterfactual is the continued decline and exit from the market, as a competitor, by Pannar. It is also clear that Monsanto and Pioneer are fierce competitors and that their rivalry is dominated by innovation competition, such that any danger of a co-ordination between them is remote. I accordingly agree with the submission of Mr.Unterhalter, that the proposed merger will not result in a significant reduction in competition. This follows if due weight is given to the long-term dynamic efficiency improvements to be gained by the merging parties, resulting in the merged entity being a far stronger adversary for Monsanto, than Pioneer and Pannar individually. On this basis, no remedy is required to facilitate entry by a new competitor into the market.

[67] However, in so far as Syngenta and Dow have professed a desire to enter the market, it is necessary to examine the adequacy of the remedy as far as they are concerned. Suter, on behalf of Syngenta, maintained that if the merger went ahead it would be impossible for Syngenta to enter the South African market in the short term.
He also maintained that the limited portfolio offered by Pannar in respect of the remedy, was not significant, when the percentage of inbreds was compared to the total. However when cross-examined, he agreed that he had not properly investigated, or applied his mind to this aspect of the offer because his concern lay with the licensing requirement, which meant that Syngenta would not have the exclusive right, to use the proprietary germplasm of Pannar, which was offered. He agreed however, that the remedy allowed competition between companies, who

were in a position to exploit the germplasm offered but maintained that his main concern was the market structure if the merger proceeded, of there being only two competitors in the market and that the remedy was restricted to South Africa, because Syngenta's aim was to gain "*a foothold to expand in the rest of Africa*."

[68] It is therefore clear that Syngenta had not investigated the value of the germplasm offered and whether it was technologically able to exploit the germplasm offered, and did not wish to compete with other companies in doing so.

[69] As regards Dow, Robertson said the germplasm component offered as part of the remedy "would certainly be a starting point". He added however that "I think I would probably need to have much more in-depth information and then provide that to some of our breeding staff to fully understand what that might entail, what it might deliver ….". However, he emphasised that his concern lay in the concentration of the market which he saw as the main factor inhibiting entry into the market. He agreed, however when cross-examined, that in terms of the remedy offered, Pannar was making its germplasm available for a full breeding programme and accepted that the contract with Pannar, in terms of which Dow sent Pannar some of its germplasm, only entitled Pannar to cross one inbred of Dow, with one inbred of Pannar's, but that they were not given the flexibility to produce more inbreds. It was therefore clear that the access remedy, was more generous than the contract with Pannar.

[70] As in the case of Syngenta, it is clear that Dow had not investigated the value of the germplasm offered, and whether it was

technologically able to exploit it.

[71] It appears that Syngenta and Dow are not interested in the remedies offered, as they see the only desirable entry into the South African market, to be by way of the acquisition of Pannar, now made even more vulnerable in the event that the merger with Pioneer does not take place. In the absence of any evidence from Syngenta or Dow, as to their technological capacity to exploit the remedy offered, it becomes impossible to properly evaluate its adequacy. As pointed out, it is extremely difficult to assess the remedy *in vacuo*, without knowledge of the attributes of any potential new entrant. In this regard the evidence was that in the big seed breeding markets, the companies involved are Monsanto, Pioneer, Syngenta, Dow and then, arguably Bayer and smaller companies.The only companies not considered in this context would therefore appear to be Bayer and certain unnamed smaller companies. However, in the event that Dow or Syngenta may wish to avail themselves of the remedy provided and enter the South African market, it should remain as a condition of approval of the merger.

The Amicus

[72] Turning to the final issue, namely the interests of small scale communal and subsistence farmers who were represented by A C B, who limited its case to "the negative effect that an increase in hybridseed prices will have on subsistence and small scale farmers".

[73] The Tribunal concluded that the merger would have a "likely and significant effect ……. on maize seed prices that would affect maize farmers in South Africa including small scale commercial and subsistence farmers ….."

[74] The appellants had proposed a pricing remedy, in terms of which, in respect of the seven hybrids and two open pollinated varieties (O P V's) as well as any replacement products, currently sold by Pannar to small scale commercial, developing and subsistence farmers, there would be no increases in prices for a period of three sales seasons immediately following the date of the closing of the transaction. Thereafter the appellants undertook that the actual selling prices of these products would not increase beyond the C P I on an annual basis for a further five sale seasons. The appellants also committed to continue offering the seven hybrids and two O P V products, currently being marketed and sold by Pannar to small scale commercial and developing farmers, in sufficient commercial quantities to meet demand from these farmers, and to ensure that such seed was accessible, in line with Pannar's existing, ordinary commercial practices.

[75] In the event that the appellants could not retain a maize hybrid currently being marketed and sold by Pannar in South Africa, by reason of the licensing agreement or consents that the parties had with third parties, the appellants committed to replacing such hybrid with a functionally similar product.

[76] The Tribunal concluded that because the proposed pricing remedy was of limited duration, being eight sales seasons, it was only meaningful if it was combined with an effective long-term structural remedy, in the terms required by the Tribunal under the proposed competition remedies.

[77] In his argument, Mr.Budlender, who appeared together with Ms Lewis on behalf of A C B, fairly and properly conceded that A C B accepted that the pricing remedy proposed by the appellants was "as good as it gets". When due regard is had to the fact that there will be no

price increase, in the maize seed sold to small scale commercial, developing and subsistence farmers, for a period of three years and thereafter for a further five years, any price increase on an annual basis will not be beyond the C P I, I agree with the submission of Mr.Gotz that the proposed price cap is a "complete answer" to any concerns in this regard.

[78] Due weight should also be given to the evidence that Pioneer is not present in the O P V market and Pannar estimates its share of this market at 5 to 7%. As regards the hybrid seed market, in respect of this sector of the market, Pioneer's share is approximately 7%. Pannar's share of this market is estimated to be 25% but according to van Rooyen, in respect of these hybrids which they have identified as being part of this market, they have sought to contain price increases in a number of ways. Because it is uneconomical to conduct a separate breeding programme for the benefit of small scale farmers, the hybrids which they had identified for small scale farmers, had, where possible, been introduced into the main market, so that the benefits of the economy of scale of production could be enjoyed. In addition, they had tried to make these identified hybrids available at a reasonable cost. By helping such farmers to improve their overall farming practices and obtain a return on their investment and seed, they thereby sought to render such seed more affordable.

[79] Accordingly, and in so far as this sector of the market is moving away from the use of O P V's, and towards the use of hybrid seed, as submitted by Mr.Budlender, I am satisfied that the price cap remedy is adequate.

[80] A C B, in their heads of argument, refer to a structural remedy which they had proposed, which was not accepted by the appellants, in terms of which the appellants would be obliged to set up a fund, from their own resources, to improve maize O P V's under their ownership in collaboration with public institutions and farmer organisations. The fund

would also be used to build seed production capacity amongst smallholder farms and associated organisations. The appellants would also be obliged to make available maize plant material on the variety list under their ownership on a non-exclusive and perpetual basis on request by public institutions for development, propagation and/or development to small scale farmers. Such provision would be without any licensing fees or payment of royalties. The public institutions would be entitled to develop, propagate and distribute the seed to black small holder farms free of charge.

[81] Mr.Gotz submitted that there was considerable uncertainty as to the meaning of this proposal. In addition, no agreement had been reached on the size of the fund. In my view, it will be extremely difficult to agree, not only upon the amount of the fund, but also the particular "maize plant material onthe variety list under their ownership" which would be subject to the agreement. It would also be difficult to manage and monitor the conduct of the parties, to ensure compliance with the terms of the agreement.

[82] In my view, the public interest would be better served by the establishment of a new International Research and Technology hub in South Africa, implementing world class technology in double haploids, molecular markers, embryo rescue, laser assisted seed selection, precision phenol typing, trait characterisation and new trait development, as tendered by the appellants.

[83] The Tribunal dismissed this offer by the appellants, as well as that offered in respect of community partnerships, on the ground that it suffered "from one fatal flaw in that it is not measurable and therefore is incapable of any enforcement". The Tribunal added that even after A C B at the hearing brought this particular flaw to the attention of the appellants, "they did not ultimately step up to plate to address it".

[84] The appellants' commitment in this regard, as well as its defined terms, appear not only in Schickler's witness statement but also in a letter dated 29 November 2010 written by Schickler on behalf of Pioneer, to the Commission:

"As part of the establishment of this research hub, Pioneer hereby confirms that it is prepared to invest up to R 62 million by 2015 to develop the research and technology hub in South Africa. In this context, we note the following:

- This research hub will have global expertise in all aspects of advanced breeding and technology development, which will improve the precision of and shorten research breeding cycles, increase the pace and scope of innovation, and bring South African farmers better products faster. Specifically, the technologies likely to be employed at the South African research hub include:
    - Doubled haploid production, which shortens research breeding cycles.

Utilization of advanced breeding and enabling technologies such as molecular markers, embryo rescue and Laser Assisted Seed Selection – technologies that allow for increased precision.
Precision phenotyping for key genetic characteristics, including insect and disease resistance and drought tolerance.
Trait characterization and new trait development, which is research targeted to value adding traits for African germplasm and the African environment."

I agree with the appellants' submission that this commitment is both specific and enforceable and that any breach could be rectified by the Commission, acting in terms of Rule 39 of its Rules. In order to ensure compliance, I intend incorporating the terms contained in the letter, as part of the conditions to be attached to approval of the merger. In this regard Mr.Gotz asked however that the date for the completion of the project, which was specified to be 2015, be delayed by one year to 2016, because the commencement date had obviously been delayed by the present approval process. This is a reasonable request which will

find expression in the order I intend making.

[85] I accordingly disagree with the conclusion reached by the Tribunal that the proposed merger "would not be in the best interests of South African maize farmers and consumers of maize products, since it would result in a likely substantial prevention or lessening of competition in the relevant maize seed market(s)".

[86] During the hearing, the merging parties were requested to engage with ACB with regard to the formulation of a proposal which would further assist small scale and developing farmers. In a letter of 11 May 2012, the attorney for the merging parties informed this Court that: "With regard to Community Partnerships (clause 5 of Remedy Proposal), the parties will formulate measurable targets and deliverables and Pioneer will commit an additional and specific amount of R 20 million over the next six years aimed at fostering the partnerships, endeavours and collaborations contemplated by the Remedy Proposal to increase the productivity, knowledge and welfare of small-scale and developing farmers. In the interest of clarity, Pioneer confirms that his expenditure is in addition to any existing expenditure that would arise in the ordinary course of business, as well as in addition to the investment in the Hub."
The undertaking will also form part of the order that I intend to make.

Conclusion

[87] In my view, in the absence of the proposed merger, the decline of Pannar as a competitive force in the market will continue, resulting in its eventual demise, together with the loss of a valuable local resource, being its pool of local germplasm. In addition, the merger will result in an increase in competition, for the market leader Monsanto, in the form of the merged entity, combining Pioneer and Pannar. Such competition, in

the South African maize seed breeding market, dominated as it is by innovation competition, will result in long-term dynamic efficiency improvements, in the nature and quality of seed produced, as well as its competitive pricing, to the benefit of maize farmers and maize consumers in South Africa.

For all these reasons, the following is ordered:

a) The appeal is upheld.

b) The order of the Competition Tribunal handed down on 14 October 2011 in C T Case No. 81/AM/DEC10, is set aside.

c) The merger between the first and second appellants is approved subject to the conditions contained in Annexure C to the appellants' heads of argument, read together with the conditions contained in the letter, from Pioneer to the Commission, dated 29 November 2010, relating to the establishment by Pioneer of an International Research and Technology Centre in South Africa, to be completed by 2016; and with the undertaking given in a letter from Pioneer's attorney of 11 May 2012 which is to be read together with clause 5 of Annexure C

d) The first respondent is ordered to pay the appellants' costs in this appeal and in the Tribunal proceedings, including the costs of two Counsel and the qualifying fees of the appellants' experts.

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SWAIN AJA

DAVIS JP and MAILULA JA agreed

Appearances:/

For the Appellants	**:**	Adv D. N. Unterhalter S C Adv A. G. Gotz
Instructed by:	**:**	Bowman Gilfillan
For the 1st Respondent	**:**	Adv W. Trengrove S C Adv J. Wilson
Instructed by	**:**	The Competition Commission
For the 2nd Respondent	**:**	Adv S. Budlender S C Adv N. Lewis
Instructed by	**:**	Impact Litigation Unit Legal Aid S A
Date of Hearing	**:**	02 and 03 April 2012

Date of Filing of Judgment : May 2012

Appendix C – Remedy Proposal

This document proposes remedies or conditions for the approval of the transaction between Pioneer Hi-Bred International Inc. and Pannar Seed (Proprietary) Limited that is the subject of a Request for Consideration before the Competition Tribunal under case number 81/AM/Dec10. This document consolidates remedies and conditions submitted before and during the hearing of this matter including concerning Developing Farmers (defined below).

The commitments herein recognise that many Developing Farmers are Historically Disadvantaged Persons and that the Act aims to promote the ability of small businesses, or firms controlled or owned by Historically Disadvantaged Persons, to become competitive.

1. **Definitions**

The following expressions shall bear the meaning assigned to them below

-

1.1 "**Conditions**" means these conditions or remedies;

1.2 "**Commission**" means the Competition Commission of South Africa;

1.3 "**CPI**" means the average annual rate of change (expressed as a percentage) in the Consumer Price Index as published by the South African Statistics Council in terms of the Statistics Act No. 6 of 1999, which annual change shall be determined by comparing the most recently published index with the index published in respect of the corresponding month in the previous year.

1.4 "**Date of Closing**" means the date on which the proposed transaction is implemented by the Parties following the approval by the Tribunal of the merger between Pioneer and Pannar subject these Conditions;

1.5 "**Developing Farmers**" means small-scale, developing and subsistence farmers within South Africa;

1.6 "**Developing Farmer Product**" means those current and replacement hybrid maize seeds and open pollinated maize varieties ordinarily sold by Pannar to Developing Farmers including the following current products:

- PAN 6479, RO 413, PAN 53, PAN 67, PAN 7M-07 (white hybrid maize);
- PAN 6480, PAN 6966, (yellow hybrid maize);

PAN 6671 (white OPV);
PAN 66 (yellow OPV);

1.7 "**Discounts**" means those discounts which Pannar provides in the ordinary course of its business based on volumes of

purchases, timing of payment and customer type;

1.8 "**Dow**" means any of the South African subsidiaries of Dow AgroSciences LLC;

1.9 "**Genetic Material List**" means the conventional, Pannar, maize, inbred lines in South Africa attached as **Annexure "A"** for use in South Africa in terms of these Conditions;

1.10 "**Historically Disadvantaged Persons**" means historically disadvantaged persons within the meaning of the Act;

1.11 "**Monsanto**" means Monsanto South Africa (Pty) Ltd, Monsanto International, SARL or any affiliated, related, subsidiary or associated company or firm;

1.12 "**Parties**" means Pioneer and Pannar;

1.13 "**Pannar**" means Pannar Seed (Proprietary) Limited or the target firm in these proceedings;

1.14 "**Pioneer**" means Pioneer Hi-Bred International Inc. or the acquiring firm in these proceedings;

1.15 "**Public Institutions**" means South African public institutions such as the Agricultural Research Council established in terms of the Agricultural research Act of 1990, Public Benefit Organisations registered as such in terms of Income Tax Act of 1962, the Council for Scientific and Industrial Research (CSIR) established in terms of the Scientific Research Council Act of 1945, public universities or technikons and/or other suitable public institutions that may be identified by the Ministers of Agriculture, Forestry and Fisheries and Science and Technology;

1.16 "**Syngenta**" means any of the South African subsidiaries of Syngenta Crop Protection AG;

1.17 "**Transitional Products**" means those current maize hybrids sold by Pannar that are the subject of license agreements between Pannar and Monsanto;

1.18 "**Tribunal**" means the Competition Tribunal of South Africa.

2. Pricing Remedy

2.1 The Parties undertake that, for a period of three sales seasons immediately following the Date of Closing, the annual increase in the prices of all the Pannar maize hybrids in South Africa available for sale in commercial quantities and all current commercialised Pannar open pollinated maize varieties ("OPVs") in South Africa on the Date of Closing will not exceed the CPI published one month prior to advertisement of Pannar's prices. This commitment does not apply to any new maize products not available for sale in commercial quantities on the Date of Closing.

2.2 In addition to item 2.1 above, the Parties undertake, for a period of three sales seasons immediately following the Date of Closing, that there will be no increase in the prices of the Developing Farmer Products (as prevailing at the sales season immediately following the Date of Closing). Thereafter, the Parties undertake that the actual selling prices of the Developing Farmer Products will not increase beyond the CPI on an annual basis for a further five sales seasons.

2.3 The pricing commitment in item 2.1 shall apply to any hybrid products that may replace the Transitional Products in the three sales seasons after the Date of Closing, and the Parties commit to ensure that any replacement of the Transitional Products shall be functionally similar.

2.4 The parties confirm that all prices for purposes of this item 2 will be calculated on the basis that all Pannar customers will continue to receive Discounts on no less advantageous or favourable terms than those which apply on the Date of Closing.

3. Employment

The Parties confirm and undertake that there will be no job losses or retrenchments attributable to the merger at the merged entity for

a period of two years after the Date of Closing.

4. **Research and Development**

4.1 In addition to the Parties' ongoing research investments in South Africa, Pioneer confirms its commitment to establish an International Research and Technology Hub in South Africa by 2016 (as more fully described by Pioneer to the Competition Commission on 29 November 2010).

4.2 The Parties commit to work with Public Institutions (in particular the Agricultural Research Council) to increase a better understanding and application of advanced breeding skills in relation to improving expertise in crops important to South Africa. Pioneer will partner with Public Institutions to coordinate areas of cooperation to provide advisory services to such institutions, the establishment of internships at the hub for students from Public Institutions and the transfer of know-how (including Pioneer sponsored scientific symposia, the development of course design and instruction).

5. Community Partnership

The Parties note that a key rationale of the merger is to make all farmers in South Africa and throughout Africa more productive. This applies specifically to Developing Farmers. Accordingly, the Parties recognise that partnerships with communities and Government (Including under extension services or programs) are crucial. The Parties commit to foster and to work with Government to establish further community programs and partnerships in the interests of Developing Farmers. Such programs will focus on know-how about effective farming practices in conjunction with the use of maize seeds to increase the productivity and welfare of Developing Farmers, and will include training programs (dealing with hybrid choice and crop production practices), information days (with plot trials) and collaboration with Government extension

programs and managers.

6. **Seed varieties post merger**

6.1 The Parties commit to keep in place the same maize hybrids currently being marketed and sold by Pannar in South Africa that are affected by the pricing remedy (in item 2.1 above) and all current PannarOPVs sold in South Arica for a period of three years. In the event that the Parties cannot retain a maize hybrid currently being marketed and sold by Pannar in South Africa by reason of the licensing agreements or consents that the Parties have with a third parties, then the Parties commit to replace such hybrid with a functionally similar product.

6.2 In addition to item 6.1 above, the Parties commit to keep in place the Developing Farmer Products in sufficient commercial quantities to meet demand from Developing Farmers and to ensure accessibility to Developing Farmers in line with Pannar's ordinary commercial practices.

6.3 The Parties intend to maintain Pannar's breeding programs in South Africa related to sunflower, grain sorghum, forage sorghum, wheat, dry beans and soybeans for five years from the Date of Closing. If for any reason, the Parties undertake to terminate any such breeding programs during that time, other than soybeans, Pioneer will seek to divest the programs to a suitable purchaser for use within South Africa within two years, failing which Pioneer will make the germplasm available to Public Institutions by way of donation subject to licenses as may be required to protect the Parties' intellectual property within the confines of this proposal.

Licensing of Varieties

6.4 The Parties undertake to negotiate in good faith to make available and licence the plant materials in the Genetic Material List (as defined above), of which it has a right to license, to public Institutions in South Africa on a non-exclusive and perpetual basis, subject to such terms as agreed upon by the parties and the terms and conditions stated herein. The license shall allow the right to sub-licence and/or commercialise any inbreds so developed solely

for use in South Africa that may be a consequence or outcome of the Public Institutions' breeding activity under the license. Such licences shall occur as soon as practical after the Date of Closing, and after request in this regard have been received from the Public Institutions in question.

6.5 The licences shall be on commercially reasonable terms and conditions including reasonable compensation and/or royalties.

6.6 The licence shall permit the Public Institutions in South Africa to cross the licensed plant material with other non-Pannar lines to create breeding populations. No inbred derived from such breeding population may contain more than 50% Pannargermplasm based on pedigree. The license will require systems of notification and inspection to allow the Parties the ability to monitor compliance with the license and sub-licences.

6.7 The Parties also undertake to negotiate in good faith to make available and licence the plant materials in the Genetic Materials List (as defined above), of which it has a right to license, to Dow and Syngenta in South Africa on a non-exclusive and perpetual basis, subject to such terms as agreed upon by the parties and the terms and conditions state herein. It shall not permit the right to sub-licence any genetic material so developed as a consequence of either Dow or Syngenta's breeding activity under the license. Such licences shall occur as soon as practical after the Date of Closing, and after request in this regard have been received from either Dow or Syngenta.

6.8 The licences shall be on commercially reasonable terms and conditions including reasonable compensation and/or royalties.

6.9 The licence shall permit Dow and Syngenta in South Africa to cross the plant material licensed to each with other non-Pannar lines to create breeding populations for use in South Africa. No inbred derived from such breeding population may contain more than 50% Pannargermplasm based on pedigree. It shall also allow the right to commercialise hybrids in South Africa developed as a consequence or outcome of either Dow or Syngenta's breeding activity under the license. The license will require systems of notification and inspection to allow the Parties the ability to monitor compliance with the license.

6.10 The obligation of the Parties to licence the material in the Genetic Material List to either Dow or Syngenta that has not entered into a license as contemplated hereby shall cease after three years from the Date of Closing. This requirement will not apply to Public Institutions.

6.11 The Parties record that any such license shall include provisions

excluding any transfer of plant materials provided under license or any derived inbreds or hybrids derived as a consequence of breeding activity under the licenses either directly or indirectly to Monsanto.

7. Monitoring of compliance with these Conditions

In the event that the Commission receives a complaint regarding non-compliance by the Parties with these Conditions, or otherwise determines that there has been an apparent breach by the Parties of the Conditions, the matter shall be dealt with in terms of Rule 39 of the Rules for the Conduct of Proceedings in the Commission.

8. **General**

81. The Parties undertake to negotiate any licences or other requirements in these Conditions in the utmost good faith.

8.2 The Parties reiterate that the above commitments recognise that many Developing Farmers are Historically Disadvantaged Persons and that the Act aims to promote the ability of small businesses, or firms controlled or owned by historically disadvantaged persons, to become competitive. Accordingly, these commitments will be interpreted and implemented in line with these objectives.

8.3 The Parties record that these Conditions shall under no circumstances whatsoever apply to, or directly or indirectly favour, Monsanto.

8.4 Any obligation in terms of these Conditions shall be subject to the terms and conditions of any third party licences, agreements or consents that may apply and/or to the appropriate and necessary consents being obtained in this regard.

8.5 Subject to any approval from the Tribunal that may be required, the Commission may on good cause shown, lift, revise or amend these Conditions upon being approached by the Parties.