As I will explain below, this is important because the central fact that CRA attempt to establish in their quantitative assessment of the potential for this merger to harm consumers – that News Corp. will not find it profitable to permanently withhold programming from rival MPVDs after the merger – is completely consistent with the possibility that the transaction significantly increases News Corp.'s ability to bargain for higher prices. The transaction increases News Corp.'s bargaining power to the extent that News Corp.'s losses from withdrawing programming from rival MVPDs are partially offset by DirecTV's increased profits. Therefore, the merger will have a significant effect on News Corp.'s bargaining power to the extent that DirecTV's profits significantly offset News Corp.'s losses and it is NOT necessary for DirecTV's profits to be greater than News Corp.'s losses. I explain below why CRA's own data and calculations suggest that DirecTV's profits will offset a significant share of News Corp.'s losses even if they do not completely offset them. Furthermore, the threat of temporary withdrawals of programming during disputes over price is an independent source of bargaining power and I will explain why CRA's own data and calculations suggest that the merger will have an even more dramatic effect on the profitability of temporary withdrawals of programming.

II. THE TRANSACTION WILL INCREASE NEWS CORP.'S INCENTIVE TO RAISE PRICES AND ITS ABILITY TO BARGAIN FOR HIGHER PRICES EVEN IF COMPLETE AND PERMANMENT FORECLOSURE IS NOT PROFITABLE

CRA considers a hypothetical case in which News Corp. permanently withholds programming from a rival MVPD.[9] This causes some subscribers to shift from the rival MVPD

[9] *See generally CRA Report* at Section III.

to DirecTV. CRA then calculates the size of demand shift that would be necessary in order for withholding to be profitable for News Corp. and argues that this is larger than would be plausible. Below, I review these non-confidential calculations and explain why there is a serious conceptual error with them. When this error is corrected, the size of the required demand shift is much smaller. More importantly, I will explain why the most significant harms associated with this transaction *in no way depend* upon it being profitable for News Corp. to completely and permanently withhold programming from rival MVPDs.

A. An Overview Of CRA's Calculations

CRA presents calculations of the profitability of withholding programming both for the case of regional sports programming and the case of broadcast signals of local Fox owned and operated stations ("O&Os"). Since the calculations are similar and the same qualitative points apply to both,[10] I will only explicitly consider the regional sports calculations in the main body of this affidavit. I present the calculations for the case of local broadcast signals of Fox O&O stations in Appendix B below.

CRA attempts to determine whether or not News Corp. would find it profitable to withhold regional sports programming by comparing the losses News Corp. would suffer from reduced programming sales to the gains News Corp. would experience as the claimant on 34 percent of DirecTV's profits. CRA embeds the profit margin of News Corp on regional sports programming and the profit margin of DirecTV on satellite subscription service in its

[10] Notably, CRA makes the same error in both calculations and the size of the demand shift required for a permanent withdrawal of programming to be profitable is significantly smaller when this error is corrected. Furthermore, in both cases the estimated demand shift required to profitably foreclose on a temporary basis is nowhere near the levels CRA posits for permanent withdrawals.

calculations. Although CRA does not report these profit margins in its public submission, the actual margins are not important for our purposes here. The variable "x" can easily be used to denote the profit margin per subscriber for News Corp. on regional sports programming and the variable "y" to denote the profit margin per subscriber on satellite subscription service. Relying on these publicly disclosed calculations, a simple algebraic relationship between CRA's reported answer and the ratio of profit margins (y/x) can be derived. The ratio of y/x used by CRA can be calculated from publicly available data, and it will be useful in my subsequent analysis.

CRA assumes that DirecTV has a market share of .13 and that its rivals have a market share of .87.[11] It lets the variable "s*" denote the share of total customers in the market that would decide to switch from rival MVPDs to DirecTV if News Corp. withheld it regional sports programming from them. If we let N denote the total number of MVPD subscribers in the market, then CRA defines News Corp.'s losses in programming revenue from rival MVPDs to be

(1) $$L = x\ \{.87\ N\}.$$ [12]

This is because, when News Corp withholds programming from rival MVPDs, its loss is x dollars per subscriber and there are .87N subscribers. Therefore News Corp.'s loss is the product of these two terms. CRA defines News Corp.'s gain in profit to be

(2) $$G = (x + .34y)\ \{ s^*\ N\}.$$ [13]

[11] *CRA Report* at ¶ 50.

[12] *Id.*

[13] *Id.*

This is because it gains x dollars of programming profit and 34 percent of the y dollars on satellite subscription profit for every subscriber that switches and there are s*N subscribers that switch. CRA then asserts that News Corp. will decide to withhold programming if and only if the gains G are greater than the losses, L. That is, it asserts that News Corp. will withhold programming if and only if

$$(3) \qquad (x + .34y)\,\{s^*\,N\} \geq x\,\{.87\,N\}.[14]$$

Simple algebra shows that condition (3) can be rewritten as

$$(4) \qquad s^* \geq \; .87 \;/\; \{\,1 + .34(y/x)\}.$$

CRA reports that the RHS of (4) is equal to .17.[15] This means that, in order for News Corp. to withhold programming, it must be the case that at least 17 percent of subscribers would switch from a rival MVPD to DirecTV. Since DirecTV currently serves 13 percent of all subscribers this means that DirecTV's market share would have to increase from 13 percent to 30 percent.

For future reference, note that equation (4) shows that the minimum required value of s* is an invertible function of the ratio of profit margins, y/x. Therefore, we can invert equation (4) to determine the ratio of y/x relied upon by CRA in its non-confidential calculations. This

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[14] *Id* As I will explain below, this assertion is incorrect. However, for the moment I am merely reporting the calculations that CRA performed without critiquing them.

[15] *Id.*

calculation shows that the ratio of y/x relied upon by CRA is 12.11. That is, according to the public calculations performed by CRA, DirecTV's profit margin per subscriber on satellite subscription service is 12.11 times as large as News Corp.'s profit margin per subscriber on regional sports programming. For example, if it was the case that News Corp. earned $1 per customer on its regional sports programming this would mean that DirecTV earned $12.11 per customer on its satellite subscription service.

This is an extraordinarily large ratio. Given that the profit margin that DirecTV earns per subscriber is apparently so much dramatically larger than the profit margin that News Corp. earns per subscriber according to the CRA analysis, it seems intuitive that News Corp. would have a large incentive to withhold programming since the profit margin it gains on subscribers that switch to DirecTV is so much larger than the profit margin it loses on subscribers that do not switch. However, a careful review of the CRA algebra shows that the factor that keeps the incentive to withhold relatively low is the CRA assumption that News Corp. will only consider 34 percent of the profit margin on new satellite subscribers in determining whether or not to withhold programming. I will now turn to this assumption and explain why it is fundamentally incorrect.

B. News Corp. And The Outside Shareholders of DirecTV Can Be Expected To Coordinate Their Actions and Maximize Their Joint Profits

CRA implicitly assumes that News Corp. and DirecTV will not be able to coordinate their actions to maximize joint profits. Because of this assumption, CRA significantly underestimates the extent to which foreclosure will occur after News Corp. acquires control of DirecTV.

The best way to explain my point is through an example:

Suppose that News Corp. vertically integrates with DirecTV by purchasing 34 percent of DirecTV. Now consider the following scenario. Suppose that News Corp. would lose $4 million on programming if it withheld programming from rival MVPDs. Suppose that DirecTV would gain $10 million dollars due to an increase in its subscription revenue. Therefore, the joint profits of News Corp. and DirecTV would increase by $6 million if News Corp. withheld programming from DirecTV's rivals.

The CRA formulation I describe above predicts that News Corp. will NOT withhold programming from DirecTV in this scenario. The reasoning is fairly simple: News Corp. will compare its 34 percent share of the $10 million gain -- which amounts to $3.4 million -- with its 100 percent share of the $4 million dollar loss and conclude that withholding programming is unprofitable and simply decide not to withhold programming without any further discussions, consultations or attempts to coordinate actions with DirecTV. In particular, the CRA formulation assumes that *even though* News Corp. will be a controlling shareholder of DirecTV, and *even though* News Corp will presumably work closely with DirecTV in myriads of ways to achieve all of the claimed efficiencies that News Corp. touts so highly, News Corp. and the representatives of the outside shareholders of DirecTV will be completely unable to coordinate their activities to achieve a joint profit gain of $6 million.

I think this assumption is completely untenable. It seems much more likely to me that two companies that will work as closely and harmoniously together as News Corp. predicts that it and DirecTV will do after it acquires control of DirecTV, will manifestly be able to coordinate their activities to achieve outcomes that maximize their joint profits. [16]

[16] I would like to stress the fact that I am NOT suggesting in any way that News Corp. would take advantage of the outside shareholders of DirecTV -- or in fact do anything to the outside

Following the above logic, the correct way to predict when News Corp. will withhold programming from rival MVPDs is that News Corp. will withhold programming from rival MVPDs when this will increase the joint profits of itself and DirecTV. Therefore the appropriate measure of the gains from withholding in equation (2) above is now replaced by

(5) $$G = (x + y) \{ s^* N\}.$$

The losses are still the same. Therefore the condition describing when gains are greater than losses in equation (3) is now replaced by

(6) $$(x + y) \{ s^* N\} \geq x \{.87 N\}.$$

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shareholders that might be viewed as unreasonable or unethical – or that a Hughes board of directors that adequately represented the interests of the outside shareholders would somehow be opposed to this behavior. In fact, quite the opposite is true. A board of directors that adequately represented the interests of the outside shareholders would be delighted to participate in the behavior that I predict would happen. Consider the hypothetical case I describe above where News Corp. would lose $4 million in programming profit but DirecTV would gain $10 million in subscription profit if News Corp. withheld programming. CRA is suggesting that News Corp. would simply not withhold programming because News Corp.'s own share of the subscription profits of $3.4 million would be less than the forgone programming profits of $4 million. Therefore, the outside shareholders of DirecTV would be forced to forego $6 million dollars.

I am suggesting , however, that News Corp. and DirecTV would simply strike a bargain that maximized their joint profits and then distribute the gains so that everyone would be better off. For example, suppose that DirecTV agreed to pay News Corp. an extra fee of $4 million dollars to reflect the extra value of the exclusive that is created when News Corp withdraws programming from its rivals'. Then, News Corp.'s net profit from withholding would be $2 million and the outside shareholders net profit from withholding would be $4 million. (After the $4 million payment from DirecTV to News Corp., News Corp.'s net profit from withholding would be zero. DirecTV's net profit would be $6 million. News Corp.'s share of this $6 million which can be rewritten as

$$(7) \qquad s^* \geq .87 / \{1 + (y/x)\}.$$

As shown above, the value of y/x in the CRA data is 12.11. Substitution of this value into equation (7) yields

$$(8) \qquad s^* \geq .066.$$

That is, the corrected calculation shows that, in the hypothetical situation considered by CRA, News Corp. will withhold programming from rival MVPDs if by so doing it could increase DirecTV's market share by about 6.6 percentage points. Therefore, according to the corrected CRA calculations, News Corp. will withhold programming if by so doing it could increase it market share from 13 percent to about 20.6 percent.

While this is still not a trivially small shift, it is one third the size of the 17 percent shift that CRA has announced would be necessary fo r complete and permanent foreclosure to be profitable for News Corp. Moreover, I believe that, by focusing on whether or not permanent withdrawals of programming will profitable after the takeover, CRA is missing the critical point I made in my initial Affidavit.[17]

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would be $2 million, and the outside shareholders' share would be $4 million.) Therefore, both News Corp and the outside shareholders of DirecTV would be made better off.

[17] I agree with CRA that the very limited information available from public reports suggests that the demand shifts in response to temporary withdrawals of programming associated with price disputes may have been smaller than this. The parties themselves publicly disclose that

C. The Transaction Will Harm Consumers Without Complete And Permanent Withdrawals Of Programming

Fundamentally, the entire issue of whether or not it would be profitable for News Corp. to engage in a complete and permanent withdrawal of programming is a red herring. While I agree this is a *sufficient* condition for the transaction to be harmful to consumers, it is obviously not a *necessary* condition.

There are three important reasons why the proposed transaction is likely to harm consumers even in regions where it turns out not to be profitable for News Corp. to completely and permanently withhold programming. First, the deal is likely to significantly increase News Corp.'s bargaining power even if complete and permanent foreclosure turns out not to be profitable *ex post* and the resulting price increases will harm consumers. Second, even if permanent program withdrawals are not profitable, it is much more likely that temporary withdrawals will be profitable. An increased level of temporary withdrawals would also harm consumers, and the threat of temporary withdrawals would further increase News Corp.'s ability to negotiate higher prices. Third, it is likely that smaller price rises short of the levels that would

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DirecTV gained no more than "a few percentage points" when the YES network was unavailable on Cablevision. *News Corp. Reply* at p.29. However, it is important to note that all of these previous "natural experiments" involved withdrawals of programming that consumers expected to be temporary. We would expect the size of shifts in response to withdrawals that consumers expected to be permanent to be larger than this. Furthermore, in less dense areas served by smaller cable systems where the business case for multiple MVPDs is much weaker, there is a potential that News Corp. might either induce incumbent cable systems to exit or at least induce them not to invest in further upgrades. In this case it seems likely that News Corp. would have no trouble attracting at least an additional 6.6% of the market. While it is true that the existing infrastructure of cable systems is largely a sunk cost, it is also the case that many smaller cable systems have not yet fully invested in digital upgrades and it is certainly possible that a significant deterioration in their business prospects brought on by the withdrawal of important programming might induce them to forgo these investments. *See generally* Monica Hogan, *Pagon: Pity Cable's Rural Ranks,* Multichannel News, June 4, 2001, at 36.

cause rival MVPDs to cease purchasing the programming altogether are likely to be more profitable than complete foreclosure and CRA's calculations do not directly address whether such less extreme strategies would be profitable. I will now consider each of these three points in turn.

The economic explanation of why the transaction will increase News Corp.'s ability to bargain for higher programming prices is that the profits DirecTV will earn when News Corp. withdraws programming from its rivals will offset a fraction of the losses that News Corp. would suffer from withdrawing programming. To the extent that these losses are reduced, News Corp.'s threat to withdraw programming will become more credible and this will allow it to negotiate a higher price. Therefore, taking over DirecTV is likely to have a significant effect on the price that News Corp. is able to negotiate with other MVPDs so long as DirecTV's profits -- when News Corp. forecloses its rivals -- significantly offset News Corp.'s losses in programming revenues. While the corrected calculations for the CRA model I presented above may not demonstrate that DirecTV's profits from foreclosure are likely to be *greater* than News Corp.'s programming losses, I think it is fair to say that they do demonstrate that DirecTV's profits are at least likely to *significantly offset* News Corp.'s programming losses.

Moreover, as I stressed in my initial Affidavit, after it acquires control of DirecTV, News Corp. might find it profitable to temporarily withdraw programming during negotiations with MVPDs *even if* it would not be profitable for it to permanently withdraw programming.[18] Such temporary withdrawals would have a minuscule effect on News Corp.'s long-run revenues because the loss of subscription and advertising revenues is only temporary, but they would have

[18] *See Rogerson Affidavit*, section III.B.

a lasting effect on subscribership at the MVPD level, because customers that switch during a temporary withdrawal of programming are unlikely to switch back after the programming is restored.[19] The CRA model of course only calculates the effect of permanent withdrawals of programming.

It is straightforward to adapt the CRA model to assess the profitability of temporary withdrawals in programming. I will consider exactly the same situation as before except that I will assume that the withdrawal in programming lasts for only three months while it produces a permanent shift in subscribers. Just as before, I will assume that DirecTV has a 13 percent market share and its rivals have an 87 percent market share. Continue to let x denote the profit margin that News Corp. earns per subscriber on programming and let y denote the profit margin that DirecTV earns on satellite subscriptions. Just as before, I will use the CRA value of 12.11 for the ratio of y to x. Finally, I will assume that News Corp. withdraws programming from the rival MVPDs for a period of three months and that this causes a permanent shift of the fraction s* of the total number of subscribers from the rival MVPDs to DirecTV. Recall than N denotes the total number of subscribers in the market so that s*N is the total number of customers that are induced to shift.

Since the impacts on cash flows will now vary over time, it will be necessary to evaluate the profitability of this action by explicitly describing cash flows on a period-by-period basis and then calculating their discounted present value. For the purposes of this calculation I will use

[19] Switching providers generally requires a visit by a service representative to the home and/or purchase and installation of new equipment. This can be costly and inconvenient. The common industry practice of subsidizing equipment and installation costs suggests that industry participants also recognize that there is some subscriber inertia and that, once a customer is induced to switch, the customer is likely to stay.

periods of 3 months (so that the withdrawal of programming occurs in the first period). I use a per period cost of capital of 3.75 percent to discount future cash flows.[20]

Now I will calculate the losses and gains just as before. News Corp.'s loss of programming revenue that it earns from the rival MVPDs is equal to .87xN in the first period (since it loses .87N subscribers and earns x dollars on each of them) and s*xN is all subsequent periods (since this is the permanent loss of subscribers.) Therefore the discounted expected value of losses is given by

$$(9) \qquad L \quad = \quad .87xN + s^*xN \{ (1/1.0375) + (1/1.0375)^2 + (1/1.0375)^3 + \ldots \}.$$

The term in curly brackets is the present discounted value of receiving one dollar per period beginning a period from the present and is equal to 26.67 Substitution of 26.67 for the bracketed term in (9) yields

$$(10) \qquad L \quad = \quad .87xN + 26.67s^*xN.$$

News Corp.'s gain in programming revenue from DirecTV is of course s*N every period. In addition, DirecTV receives a permanent gain of ys*N in subscription revenue. Therefore the joint gain in profit is[21]

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20 This corresponds to an annual cost of capital of 15%. It is easy to verify that my basic qualitative conclusions will hold for any reasonable assumption about the cost of capital.

21 For the reasons I discussed *supra*, I believe that is appropriate to include all of DirecTV's increased profits from subscriptions when determining whether or not News Corp. will have an incentive to withhold programming.

$$(11) \qquad G = ys^*N + xs^*N \ \{ 1 + (1/1.0375) + (1/1.0375)^2 + (1/1.0375)^3 + \ldots \}$$

The term in curly brackets is equal to the present discounted value of receiving one dollar per year beginning immediately and is equal to 27.67. Substitution of 27.67 for the bracketed term in equation (11) yields

$$(12) \qquad G = 27.67\,(x+y)s^*N.$$

Foreclosure will be profitable if and only if the gains from foreclosure exceed the losses. Therefore foreclosure will be profitable if and only if

$$(13) \qquad 27.67\,(x+y)s^*N \geq .87xN + 26.67s^*xN$$

which can be rewritten as

$$(14) \qquad s^* \geq .87 / \{1 + 27.67(y/x)\}.$$

Substitution of the CRA value of 12.11 for y/x in equation (14) yields

$$(15) \qquad s^* \geq .0026$$

This means that a temporary withdrawal of programming would be jointly profitable for News Corp. and DirecTV if the temporary withdrawal would cause a permanent shift of about *one quarter of one percent* of the subscribers in the market. Although there is very limited evidence, it does not seem improbable to expect demand shifts of around this share of the market in response to temporary withdrawals of "must have" programming.

The fact that temporary withdrawals of programming will likely be profitable for News Corp. and DirecTV after the transaction means that the threat of temporary withdrawals will further increase News Corp.'s bargaining power and thereby allow it to raise programming prices even more. Furthermore, as I stated in my previous affidavit, it seems likely to me that the transaction will actually increase the number of temporary withdrawals engaged in by News Corp. That is, it may well be that after taking over DirecTV, News Corp. will be "looking for a fight" in the sense that it will actually be able to increase its profits by manufacturing disputes that would create the pretext for a temporary withdrawal of service. This of course will create additional harms for subscribers that are affected by these disruptions in service.

Finally, the proposed transaction is likely to harm consumers even in regions where it turns out not to be profitable for News Corp. to completely and permanently withhold programming because it may still be profitable for News Corp. to institute smaller price increases short of the levels that would cause MVPDs to cease purchasing the programming. Such smaller increases in price would potentially be more profitable because News Corp. would also earn additional profit on subscribers that do not switch to DirecTV. Most critics of this transaction, including myself, have focused primarily on the harm that News Corp. would raise programming prices after the takeover, rather than withdraw programming completely, because this is the most likely harm in most regions of the country.[22] News Corp.'s economists have responded by focusing almost all of their attention on the less likely scenario that News Corp. will completely withhold programming.

III. REMAINING ARGUMENTS BY NEWS CORP. AND ITS ECONOMISTS CARRY LITTLE WEIGHT

News Corp. and its economists make several additional attempts to explain why the Commission should not be concerned with the proposed transaction. They argue that the harms I envision from the transaction could instead be achieved by contract and are therefore not transaction-specific. This argument contradicts News Corp.'s own claims that the transaction is necessary to achieve the efficiencies it predicts. They argue that a "reduced double marginalization effect" will necessarily outweigh any of these harms. This they fail to show. They also argue that there are low barriers to entry into the sports programming market. This is simply not credible. And they continue to make claims about efficiencies, the efficacy of the Commission's rules, pricing behavior and corporate governance that do not answer my concerns about the transaction. As I demonstrate below, none of these arguments disprove that the transaction will enhance News Corp.'s incentive and ability to raise prices and harm consumers.

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22 The one possible exception I identify in my original affidavit is the case of less dense rural areas where it might be possible for News Corp. to induce a rival to exit by withdrawing programming from it. In regions of the country where News Corp. thought it could induce a rival to exit by completely withdrawing programming from it, complete withdrawal programming (as opposed to simply raising the price of programming) might be the most likely harm of the merger.

A. News Corp. and DirecTV Could Not Accomplish the Same Anti-Competitive Harms through Arms-Length Contracting

Lexecon claims that the transfer of control would not be necessary to allow News Corp. and DirecTV to jointly coordinate, plan, and split the gains from any anti-competitive actions that might increase their joint profits.[23] Rather, Lexecon suggests that any such opportunities for coordinated action could be easily captured through arms-length contracting.[24] If this is true, it argues, then the Commission should not even consider the anti-competitive harms that might arise because they would have occurred in any event.[25] I have four responses to this argument.

First, it is well recognized that complex agreements that require continual adjustment and exchange of information, and which create opportunities for parties to take advantage of one another, are better managed within the boundaries of the firm. While it may be fairly easy to sign a contract that guarantees that News Corp. will provide its programming exclusively to DirecTV, I believe that it is much more likely that the profit maximizing way to raise rivals' costs will involve other actions, such as charging rivals higher prices rather than excluding them altogether, or providing them with slightly less satisfactory service, or being purposefully difficult to bargain with and therefore causing more temporary withdrawals in service.

To the extent that raising rivals' costs would involve almost any type of activity other than the permanent withdrawal of all programming, such activities are complex enough, and require enough subjective judgments about whether or not rivals' costs are actually being raised in appropriate ways and what the true benefits and costs of such activities are, it seems beyond

23 *Lexecon Report* at ¶ 46 *et seq.*

24 *Id.*

25 *Id.*

any doubt that News Corp. and DirecTV could better manage and coordinate any conspiracy to raise rivals' costs from within the boundaries of the firm.

Furthermore, optimal coordination might require significant sharing of information to calculate jointly optimal actions and a deal like the one proposed here might be necessary to facilitate such information sharing. In addition, control of DirecTV provides News Corp. with assurances that if it withholds programming from rival MVPDs in order to create long-term and permanent gains in market share for DirecTV, that News Corp. will continue to receive a share of these gains over the long term.

Second, I believe that there is a substantial contradiction in News Corp.'s own position about whether or not it and DirecTV are able to use arms-length contracting to effectively take advantage of opportunities for joint actions that would increase their joint profits. When it comes to joint actions that the two firms could undertake to increase their joint profits that the Commission might view as *undesirable*, News Corp. seems quite sure that the transfer of control itself would not be necessary for the firms to undertake these actions. However, when it comes to joint actions that the two firms could undertake to increase their joint profits that the Commission might view as *desirable* (*i.e.*, the transaction's efficiencies), News Corp. seems to take an entirely different view of the subject. Namely, News Corp. seems quite sure that the efficiencies it claims for the transaction could NOT be achieved through arms-length contracting.[26] I submit that these two positions are in substantial contradiction with one another.

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[26] *See The News Corporation Limited's Response to Initial Information and Document Request*, attached to Letter of William M. Wiltshire to Marlene H. Dortch, July 28, 2003 at 32 (*"News Corp. Interrogatory Response"*) (noting that the Applicants' projected efficiencies "are particularly difficult to achieve in any manner other than an integration of the two firms.").

Third, News Corp. and DirecTV might not want to enter into certain types of explicit agreements to conspire with one another to harm DirecTV's rivals. The example I will use is temporary withdrawals of programming, but many other examples can be thought of that have the same flavor. Suppose that the optimal way for News Corp. and DirecTV to maximize their joint profits is for News Corp. to purposely manufacture disputes with DirecTV's rivals that create the pretext for temporary withdrawals of programming. Furthermore, suppose that News Corp. could solve the contracting complexity problem discussed above by agreeing to a simple contract which would require News Corp. to withdraw programming for a specified number of days from DirecTV's rivals in return for a cash payment.

I suspect that News Corp. and DirecTV would still not want to enter into an explicit contract of this sort even if it could be written. To begin with, it may well be illegal for one company to pay another company to harm one of its rivals in such a fashion. Moreover, even if it were not illegal, it is highly likely that the regulators that watch over this industry and Congress itself would react quite poorly if the information came out that News Corp. had accepted a contract from DirecTV in which DirecTV paid News Corp. to harm its rivals. Therefore, it seems highly likely that the parties would never risk putting such an agreement on paper in some sort of arms-length contract. Rather, the better way to undertake such cooperative actions would be through implicit and informal understandings. Of course, it precisely this type of informal cooperation that can be best accomplished within the confines of a firm.

Fourth, DirecTV and News Corp. could not enter into arms length contracts that would increase News Corp.'s *bargaining power* with respect to rival MVPDs. Lexecon is not even attempting to assert that News Corp. and DirecTV could use arms-length contracting to increase

News Corp's bargaining power. News Corp.'s bargaining power will increase following its assumption of control over DirecTV because News Corp. will gain a controlling interest in DirecTV. There is no alternate contracting mechanism short of such ownership that I am aware of that would create the same effect. Therefore, even if Lexecon's argument that arms-length contracting could be used to raise rivals' costs was correct (which it is not), Lexecon does not show that arms-length contracting could be used to increase News Corp.'s ability to bargain for higher prices.

B. There Is No Basis to Believe Any "Reduced Double Marginalization Effect" Will Necessarily Outweigh The Anti-Competitive Harms Of This Transaction

Both Lexecon and CRA argue that even if the transaction creates an incentive for News Corp. to raise prices to rival MVPDs, it will also create an incentive for DirecTV to reduce its prices to subscribers because it will remove the "double marginalization" effect that occurs when News Corp. and DirecTV are separately owned. Lexecon seems to take the view that the "reduced double marginalization" effect is likely to dominate the "raising rivals' costs" effect in most vertical mergers and therefore, in particular, in this case.[27] CRA is somewhat more circumspect in its claims. It presents a linear example in Appendix B of its report in which the double marginalization effect outweighs the raising rivals' costs effect, and then suggests that this linear example demonstrates that the double marginalization effect is likely to outweigh the raising rivals' costs effect in this particular case.

Let me begin my making two statements about the raising rivals' costs literature with which I completely agree. First, in the models used in the raising rivals' costs literature, a

[27] "Vertical integration generally is procompetitive." *Lexecon Report* at ¶ 16.

vertical merger generally has two effects -- a raising rivals' costs effect that tends to raise prices and thereby harm consumers and a reduction of double marginalization effect which tends to lower prices and thus benefit consumers. Second, examples can be created where either effect dominates. Nonetheless, I disagree completely with the suggestions that the literature generally proves that one of the two effects will dominate in most mergers or that the particular linear example provided by CRA sheds any new light on the question of which effect dominates in general or which effect is likely to dominate in this particular transaction. I will explain why by making two points.

1. There Is No Consensus among Economists as To Which Effect Dominates

While examples can be created where either effect dominates, there is in fact no consensus among economists regarding whether or not one of the two effects is likely to be generally more important than the other. This is true in part because the theoretical models in which the double marginalization effect is strongest generally make two modeling assumptions that may well not be generally correct for many markets. The reduction in double marginalization effect refers to the phenomenon observed in many models that the effect of a vertical merger is to reduce the price that the upstream firm charges for inputs to the downstream firm it merges with. (After the merger, the price is a transfer price between two divisions of the same firm.) Therefore, models that make assumptions tending to maximize the reduction in this markup tend to produce the biggest welfare gains to consumers.

In particular, many models assume that the upstream firm is able to make a take-it-or-leave-it offer to downstream firms. This tends to maximize the pre-merger markup. Moreover, these models assume away any incentive problems within the firm so that it is perfectly optimal for the vertically integrated firm to set the transfer price for the input equal to marginal cost after the merger. However, in the real world, downstream firms may have some bargaining power and this tends to reduce the pre-merger markup. Furthermore, in the real world firms often choose transfer prices significantly above marginal cost for reasons not captured in simple models. Both of these factors would tend to reduce the extent to which the merger will reduce mark-ups and therefore reduce the extent to which the double marginalization effect is likely to be important in real markets where these factors are important.

Another reason why there is no consensus about which of the two effects dominates, is that even in models where assumptions are made that tend to maximize the reduction of double marginalization effect,[28] it is possible to construct simple examples in which either effect dominates. Therefore even these models yield no unambiguous answer.

The published academic work of one of the principal CRA experts, Steven Salop, supports this position. I agree with CRA and Lexecon on the importance of the paper by Michael Riordan and Steven Salop that lays out an economic framework for evaluating vertical mergers that incorporates ideas from the raising rivals' costs literature.[29] Riordan and Salop advocated a "rule of reason" type approach that would attempt to compare the costs and benefits of such mergers.[30] Two economists from the Federal Trade Commission, David Reiffen and Michael Vita, reviewed this article and argued that the reduction in double marginalization

[28] That is, where it is assumed that the upstream firm is able to make take-it-or-leave-it offers to the downstream firm and that the vertically integrated firm finds it optimal to charge a transfer price equal to marginal cost.

[29] *See* Michael H. Riordan and Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 Antitrust L. J. 513 (1995).

[30] *Id.*

effect will almost surely dominate the raising rivals' cost effect in most real markets and that the optimal regulatory policy was therefore to view all vertical mergers as being presumptively legal.[31] One of the main arguments they used to support their position was that they presented a simple example in an appendix to their paper where the reduction in double marginalization effect always dominated the raising rivals' costs effect.

Riordan and Salop immediately disputed the contention that the reduction in double marginalization effect was likely to be generally more important than the raising rivals' cost effect.[32] They observed that:

> Reiffen's and Vita's central contention - that the efficiency benefits of vertical mergers are likely in almost all cases to outweigh any anticompetitive harms from input foreclosure - is not well founded and does not justify a laissez-faire approach to vertical mergers.[33]

Their explanation of why Reiffen's and Vita's presentation of a single example does not prove that vertical mergers will always be beneficial covers all of the points I raised above. For example, they note that, to the extent downstream purchasers have bargaining power, this will tend to reduce the pre-merger mark-up and therefore reduce the benefit of the merger:

> [If] big buyers obtain competitive input prices despite high concentration, a vertical merger between a big buyer and an input supplier might involve no significant double-markup or variable-proportions distortion to eliminate.[34]

They go on to remark that vertically integrated firms may not actually set transfer prices equal to marginal costs in real markets for reasons not captured in Reiffen and Vita's simple example:

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31 David Reiffen and Michael Vita, *Is There New Thinking On Vertical Mergers?*, 63 Antitrust L. J. 917 (1995).

32 Michael H. Riordan and Steven C. Salop, *Evaluating Vertical Mergers: Reply To Reiffen and Vita*, 63 Antitrust L.J. 943 (1995) ("*Riordan and Salop Reply*").

33 *Riordan and Salop Reply* at 944.

34 *Id.* at 947.

> [In] some cases integrated firms may find it profitable to set internal transfer prices in excess of marginal costs in order to facilitate pricing coordination in the output market. [footnote omitted] Integrated firms also sometimes set transfer prices at market prices in order to provide incentives to managers and to monitor the financial performance of the upstream and downstream divisions.[35]

They summarize their conclusion as follows:

> Therefore, we conclude that substantial efficiency benefits (like competitive harms) must be demonstrated on the facts, not simply assumed on the basis of some technical economic model.[36]

Thus, one of the principal authors of CRA's work himself recognizes the importance of considering the specific facts of a particular transaction rather than relying on vague generalizations about reduced double marginalization.

2. The Linear Example Presented In Appendix B of The CRA Report Provides No Basis For Concluding That The Reduction In Double Marginalization Effect Will Outweigh The Raising Rivals' Cost Effect In This Particular Transaction

There are three observations to make with respect to this point. First, CRA make several critical assumptions that undermine the validity of their conclusions. Second, CRA's model relies upon profit margins that bear no resemblance to those of News Corp. and DirecTV. Third, CRA's demand curve formulations over-zealously "stack the deck" in favor of CRA's conclusions. I discuss these observations in more detail below.

First, the CRA example makes the two assumptions that Riordan and Salop identify above as being relatively arbitrary assumptions that tend to maximize the reduction in double marginalization effect. These assumptions are (i) that the upstream firm is allowed to make take-it-or-leave-it offers to the downstream firms and (ii) that the vertically integrated firm finds it

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35 *Id.*

36 *Id.*

optimal to charge a transfer price equal to marginal cost after the merger. However, CRA does not make any attempt at to investigate or discuss whether or not these are reasonable assumptions in the case of this particular deal. I have argued that there is no basis at all for CRAs implicit and unquestioned assumption that sellers are able to make take-it-or-leave it offers to buyers in this market. Regarding the assumption that the merged firm will find it optimal to set transfer prices equal to marginal cost, it is important to note that the marginal cost of distributing programming to additional MVPDs given that it has already been produced is likely close to zero. Therefore, in the context of this particular transaction, CRA assumes that News Corp. will charge a transfer price close to zero to DirecTV after the takeover.[37]

Even if we ignore CRA's unquestioned adoption of these two assumptions -- and even if we ignore the fact that they are working with a linear example -- the CRA analysis still cannot be seriously interpreted as applying to this particular transaction. We conclude from the public version of CRA's work that the ratio of profit margins between the downstream and upstream firms is 12.11 for the case of regional sports programming and 3.46 for the case of retransmission consent for local broadcast signals. As I pointed out in Section II, higher values of this ratio ought to generate a stronger incentive for News Corp. to raise rivals' costs. Of course, the value of this ratio played an important role in CRA's own analysis of the likely profitability of foreclosure in this particular transaction that CRA conducted in the main body of its report.

[37] CRA has made no attempt to investigate whether or not this is a reasonable assumption. For example, CRA could ask: What sorts of transfer prices does News Corp. charge its MVPDs in foreign countries where it already owns MVPDs? What sorts of transfer prices do other vertically integrated programmers charge their MVPDs in the United States? Is there any evidence that vertical integration causes a reduction in double markups in these cases? CRA does not even raise these questions and certainly does not answer them.

However, when we turn to Appendix B, which CRA claims can be used to assess the likely welfare effects of this particular deal, we find that CRA has used an example where it has assumed that the pre-merger ratio of the profit margins of the downstream firm to the upstream firm is 0.4.[38] That is, with respect to the transaction at issue, CRA reports that the profit margin of the downstream firm is *over twelve times as large* as the profit margin for the upstream firm in the case of regional sports programming and is *over three time as large* for the case of retransmission consent of local broadcast signals. Meanwhile, with respect to the model it uses to analyze the welfare effects of the transaction, CRA assumes that the profit margin of the downstream firm is *less than half as big* as the profit margin of the upstream firm. Given that the ratio of these profit margins is an important factor affecting the incentives for raising rivals' costs, and given that CRA has provided information on the size of this ratio for this particular transaction, I think that an absolute minimum requirement to place on CRA when it claims to provide an example that measures the welfare effects of this particular transaction is that the ratio of profit margins in their example bear some resemblance to the ratio of profit margins in the real world.

When I discovered this discrepancy between the ratio of profit margins in the CRA model and the ratio of profit margins for this transaction, I attempted to recalculate the CRA example using parameters that produced a ratio of profit margins closer to their real value in this transaction. In doing so, I discovered what I view to be a fatal shortcoming of the CRA example. In the symmetric linear model that CRA has created, where it is assumed that a single upstream firm makes take-it-or-leave-it offers to downstream firms, it is easy to show that the ratio of the

[38] The premerger profit margin of the upstream firm is calculated to be 5 and the premerger profit of the downstream firms is calculated to be 2. *CRA Report* at ¶ 133.