

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

IN THE MATTER OF
MSC.SOFTWARE CORPORATION,
a corporation.

Docket No. 9299



RESPONDENT MSC.SOFTWARE CORPORATION'S
MOTION TO EXTEND TRIAL DATE

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In truth, the one real – and regrettable – undisputed fact is that Complaint Counsel and MSC are mired in a pervasive bog of discovery disputes. This is decidedly *not* what MSC contemplated when the present trial schedule was set on November 8, 2001.² It is also *not* what is expected by the Commission under Rule of Practice 3.51, which ostensibly calls for an initial decision within a year after the filing of the Complaint.³ This Rule, as discussed below, is unconstitutional *as applied* in the unusual circumstances of this case.

Significantly, as a matter of settled administrative and constitutional law, there is no justification for this “rush to judgment.” More than two years have passed since the acquisitions were consummated and Complaint Counsel is unable to point to quantitative evidence demonstrating an anticompetitive effect from the mergers. Indeed, the failure of Complaint Counsel’s economist, John Hilke, to present any independent quantitative analysis is a powerful admission that there has been no systematic, or even identifiable, statistically significant correlation between MSC’s prices and its acquisition of UAI and CSA. *See* Expert Report of John C. Hilke, at 1, 54-57. At the very least, Hilke’s reliance on anecdotal testimony and document snippets, unconfirmed by an analysis of any customer invoices or financial data, is certainly telling. *See id.* Moreover, if Complaint Counsel were truly concerned with the passage of time, it would *not* have taken *eighteen (18)* months to investigate the acquisitions.

² During the first conference held between the ALJ and the parties, Complaint Counsel told the ALJ that it would “be happy” to provide MSC with third-party affidavits and like material as soon as the Protective Order was in place. *See* 11/08/01 Hearing Tr. at 38.

³ Notably, since Rule 3.51 was promulgated, there has *never* been a merger case litigated under the onerous schedule mandated by 3.51. In fact, there has never been an administrative merger case that has gone from complaint to initial decision in the one year contemplated by Rule 3.51. Indeed, Rule 3.51 sets forth a schedule not significantly different from the *voluntary* Fast Track schedule that was enacted to address *pre-closing* time-sensitive mergers subject to a preliminary injunction. In contrast, time is *not* of the essence here (eighteen months), except by virtue of Rule 3.51’s artificial restrictions. Such artificial restrictions and Complaint Counsel’s demands for expedition cannot be reconciled with its leisurely eighteen month one-sided investigation.

Tellingly, Complaint Counsel has demonstrated no urgency at all, let alone sufficient urgency to contravene the case law's clear command that MSC be given "appropriate discovery in time to reasonably and adequately prepare [itself] and [its] defenses, before facing the charges in the administrative trial." *Standard Oil Co. v. FTC*, 475 F. Supp. 1261, 1275 (N.D. Ind. 1979) (declaring ALJ's orders barring certain discovery "null and void").

The crucial fact is that there are only *thirty-five working days* left for fact discovery. This is not enough time to develop the evidence that will put the lie to Complaint Counsel's superficial allegations. Substantial discovery of third-parties, including important competitors and key customers, is still outstanding and being contested in important instances. (e.g., ANSYS, HKS, PTC). Such third-parties – many of whom see a financial benefit from a forced divestiture of MSC.Nastran – have raised a host of procedural barriers that cannot practicably be overcome in the time allotted, thus jeopardizing MSC's ability to obtain relevant documents and exculpatory deposition testimony.

As detailed below, even if MSC were to take the depositions of only those individuals not currently employed by MSC on Complaint Counsel's Preliminary Witness List (40 individuals) and the approximately 26 customers and 30 competitor witnesses needed to rebut Complaint Counsel's allegations, MSC would be forced to take *three depositions a day* for the remainder of the discovery period. It cannot be debated that, even if MSC had the resources, such a task is logistically impossible since most would-be deponents are third-parties, outside of MSC's control.⁴

⁴ MSC is decidedly *not* Microsoft. MSC's annual revenues are only about \$180 million, and MSC is already being brutally punished by the costs of litigating this case. To date, MSC has incurred enormous expense and burden in attempting to comply with Complaint Counsel's massive document request. To date, it has spent almost one million dollars in collecting, copying, and shipping potentially responsive documents. This does not even cover attorneys' fees associated with review and production of these documents to the FTC. Nor does this include the almost three million dollars that it is likely to cost to search and produce electronic documents from MSC's computer systems.

So where do we go from here?

First, as set forth herein, the ALJ should exercise his discretion to grant an immediate two-month extension of the discovery period, the hearing date, and the filing date for the initial decision, during which discovery can be focused and the issues for trial narrowed, pursuant to Rule 3.21(f) and 3.51.

Second, Complaint Counsel should be directed to respond fully to MSC's discovery. In particular, Complaint Counsel should be compelled to:

- Set forth its market definition with the precision found in cases like *In re R.R. Donnelley & Sons Co.*, 120 F.T.C. 36 (F.T.C. 1995), which, notably, is nowhere addressed in Complaint Counsel's Opposition to MSC's Motion to Compel;⁵
- Cure its other discovery violations (as discussed below and in prior briefings); and
- Turn over any "exculpatory" evidence in its possession.⁶

Third, given the foot dragging by Complaint Counsel and the pressing need for additional discovery, the ALJ should either grant an additional six (6) month extension of the discovery period, or, if concerned about its authority to grant such an extension, the ALJ should certify for appeal to

⁵ MSC urges the ALJ to read the Commission's decision in *R.R. Donnelley*, which is attached as Exhibit A. The parallels between that case and this are striking; and more importantly, it sets forth the kinds of evidentiary detail needed in order to analyze what the Commission termed, a "price discrimination" market. There, as here, Complaint Counsel sought to identify distinct demand preferences for certain customers for whom a price discriminating hypothetical monopolist could raise prices. See Expert Report of John C. Hilke, at 6, 10. The level of evidentiary detail, and the amount of discovery (two years and three months) it required to reach a reasoned decision in that case, is illustrative of what must be done here.

⁶ Complaint Counsel claims they do not understand the meaning of the term "exculpatory." See Complaint Counsel's Revised Responses and Objections to Respondent's First Set of Interrogatories, No. 13, at 42. But the meaning is clear. According to the Supreme Court, "exculpatory evidence" is defined as evidence that is either "favorable" or material to the issue of liability, that is, evidence is exculpatory if it has a reasonable probability of affecting the proceedings. See *Brady v. Maryland*, 373 U.S. 83, 86 (1983); *Kyles v. Whitley*, 514 U.S. 419, 430 (1995). But so there can be no mistake, at a minimum, exculpatory evidence includes evidence of customers expressing no concern over or support for the acquisition, or having switched from MSC.Nastran to other FEA solvers or explained that UAI or CSA were inferior substitutes.

the Commission the constitutionality of the application of Commission Rule 3.51 to these proceedings.

The fact is, Rule 3.51 is unconstitutional as applied in these circumstances. *See Gavino v. MacMahon*, 499 F.2d 1191, 1196 (2d Cir. 1974) (“[C]oncern with calendar dispatch [cannot] triumph over a defendant’s right to a fair trial, which is the foundation of our system of justice.”). Complaint Counsel cannot place MSC between the hammer of Rule 3.51 and the anvil of its systematic refusal to clarify its case and allow timely and adequate discovery. MSC has a constitutional right to meaningful discovery and trial preparation. *Pacific Molasses Co. v. FTC*, 356 F.2d 386, 390 (5th Cir. 1966) (“Effective cross-examination requires thorough preparation by counsel *before trial*. This is especially true in involved areas of the law such as the antitrust field.”); *Cf. United States v. Ward Baking Co.*, 376 U.S. 327, 330-31 (1964) (noting that a “full exploration of [the] facts is usually necessary in order ... to draw (an antitrust) decree”). Meaningful discovery is even more important here, since Complaint Counsel has fired a shot at MSC’s head by seeking divestiture of its flagship product, MSC.Nastran.⁷ *See United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (additional procedural protections are necessary where draconian remedies are sought by the government).

In such circumstances, MSC believes that the ALJ has the discretion and the obligation to take control of this docket and ensure the availability of adequate discovery. *Interstate Commerce Comm’n. v. Louisville & N. R. Co.*, 227 U.S. 88, 91 (1913) (“[A]dministrative orders,

⁷ As one analyst explained, “[i]n the worst case, MSC would have to relinquish proprietary source code around the NASTRAN core in order to create one or two competitors. This would be an extraordinary development given the fact that customers do not only shop for NASTRAN solvers and instead consider the full range of functionality offered by dozens of companies We believe the probability of [an MSC.NASTRAN divestiture] happening should be zero” *See* R. Davis and J. Craigen, Needham Equity Research (ANSYS 02319).

quasi judicial in character, are void if a hearing [would be] inadequate or manifestly unfair. . . .”).

In the absence of doing so, however, MSC respectfully requests that the ALJ certify this issue for immediate interlocutory appeal to prevent prejudice by allowing the Commission to clarify its rules.

I. MSC’s DUE PROCESS RIGHTS ARE BEING JEOPARDIZED BY THIS UNNECESSARY RUSH TO JUDGMENT.

A. This Industry Is Exceedingly Complex – Technologically and Economically – And the Complaint’s Allegations Are So Broad It Is Impossible to Respond Meaningfully.

A “merger [has] to be functionally viewed, in the context of its particular industry.” *Brown Shoe Co. v. United States*, 370 U.S. 294, 321 (1962). And here, the industry is extraordinarily complex. Understanding the relevant history and structure of this dynamic industry and how the various components operate and relate to one another is not a simple task. The software at issue was originally developed for NASA; it is literally “rocket science.”

The class of software at issue, Finite Element Analysis (“FEA”), simulates through complex mathematical algorithms the effect of physical forces on various structures. This software constitutes a small step in the overall computerized product simulation process – a process that includes computer aided design (CAD), mechanical computer aided engineering (MCAE), and computer aided manufacturing (CAM). This process is so useful that it has become a fundamental part of the overall product development process for many industries, and has found a home well beyond its NASA origins.

But because of this wide-spread adoption, MCAE software and FEA solvers must be able to model literally hundreds of physical phenomena. Because solvers are differentiated goods,⁸

⁸ See 11/08/01 Hearing Tr. at 59 (“Solvers are differentiated products”).

customers face a multifaceted decision tree that includes which software to purchase, how many different vendors to consider or purchase from, how much usage to purchase from each vendor, and how much customization to perform on each software. *See New York v. Kraft Gen. Foods, Inc.*, 926 F. Supp. 321, 333 (S.D.N.Y. 1995) (rejecting plaintiff's narrow market definition where products were "so highly differentiated, and compete with one another along so many different dimensions, that there is no . . . break in the chain of substitutes").

Because customers must consider and live with many MCAE software and FEA solver options, there are *a myriad of reasons* why MSC's acquisitions of CSA and UAI enhanced, rather than lessened, competition. For example, the vast majority of customers never even considered using UAI or CSA. The few who did concluded that they were ineffective substitutes that lacked necessary product features, long-term viability, support, service, or complementary software modules. Moreover, most customers could switch so much of their usage to non-Nastran solvers that MSC simply lacked any ability to raise prices, irrespective of CSA's and UAI's presence in the market.⁹ Indeed, what is interesting about this market is that each customer faces different circumstances. These inherent factors, as well as competitive factors, such as documentation, training, services, proven reliability, accuracy, viability, and customer support rendered some vendors, such as UAI and CSA, inferior substitutes.

Although these competitive dynamics all significantly impact the market place, the Complaint ignores *all* of them. Instead, Complaint Counsel relies on a superficial story: Because

⁹ According to analysts that follow the industry, "the NASTRAN component of the solver sub-segment of this industry is *a niche within a niche* The FTC is trying to define the market [in a way that would] imply that MSC does not compete with ANSYS, HKS, Moldflow, PTC, Dassault, Unigraphics or dozens of other solver companies. Such logic strikes us, *at best, at best*, as unique inasmuch as it conflicts with the way customers view the market place." *See* R. Davis and J. Craigen, Needham Equity Research (ANSYS 02319).

CSA and UAI obviously tried to be MSC.Nastran “clones,” Complaint Counsel believes that an anticompetitive effect should be presumed. But that is *not* the law.¹⁰ And that is *not* the reality. The reality is that neither UAI nor CSA were strong competitors. They were “gnats” that were struggling for survival in a market that was quickly evolving beyond them.

Establishing CSAR’s and UAI’s competitive insignificance, however, requires a surgical deconstruction of Complaint Counsel’s superficial theories. Unfortunately, this deconstruction necessitates significant discovery – a process that has been stymied by Complaint Counsel’s flat-out refusal to define the contours of its case and provide necessary information. Complaint Counsel’s tactics deprive MSC of any meaningful target or starting point.

Because discovery has not been appropriately framed (or forthcoming from Complaint Counsel), MSC needs additional time to take the discovery necessary (as outlined in *R.R. Donnelley*) and deconstruct the expert-generated insinuations and speculations that are all form and no substance.

B. MSC’s Steps to Narrow the Issues – Or More Specifically to Add the *R.R. Donnelley*-Mandated Precision to These Proceedings – Have Been Repeatedly Frustrated By Complaint Counsel’s Failure to Provide Meaningful Discovery.

The fact is MSC has tried to do everything possible to narrow the issues and the discovery needed in this case. When MSC originally agreed to the trial schedule, it expected that to be able to use the available discovery mechanisms – especially contention interrogatories – in combination

¹⁰ See *United States v. Long Island Jewish Med. Ctr.*, 983 F. Supp. 121 (E.D.N.Y. 1997) (“[T]he Government failed to prove, by a preponderance of the evidence, that the merged entity would, in all probability, produce an anti-competitive effect, by a price rise above competitive levels or a reduction in services. The Court reaches this conclusion despite the fact that presently [the merging parties] are two of the premier teaching hospitals in Queens and Nassau, are direct competitors, and would be sought after by MCOs.”).

with Complaint Counsel's Initial Disclosures to focus its efforts.¹¹ Unfortunately, that has not been the case.

At every turn, Complaint Counsel has refused to cooperate with MSC's efforts, and MSC has been unable to use the available discovery tools in the ways anticipated by the Commission Rules of Practice.¹² Cf. *Berger v. United States*, 295 U.S. 78, 88 (1935) ("[The Government] is the representative *not* of an ordinary party . . . , but of a sovereignty . . . who interest . . . is *not* that it shall *win* cases, but that *justice* shall be done."). As a result, MSC is being prejudiced because there

¹¹ See *Western Res., Inc. v. Union Pac. R. Co.*, No. 00-2043-CM, 2001 WL 1723817, *1-2 (D. Kan. Dec. 4, 2001) ("contention interrogatories' may be used to narrow and define the issues for trial, and they enable the propounding party to determine the proof required to rebut the responding party's position;" authorizing "requests [that] appear to seek . . . the material facts supporting the [complaint's] allegations"); *Starcher v. Correctional Med. Sys., Inc.*, 144 F.3d 418, 421 (6th Cir.1998) (contention interrogatories, to which response is ordinarily required, are designed to clarify the scope of an adversary's claims), *cert. granted in part*, 525 U.S. 198, and *aff'd*, 527 U.S. 198 (1999), *Taylor v. F.D.I.C.*, 132 F.3d 753, 762 (D.C. Cir. 1997) ("remedy" for vague and conclusory pleading is contention interrogatories); *Orthmann v. Apple River Campground, Inc.*, 757 F.2d 909, 915 (7th Cir.1985) (the defendant's proper response is not to move to dismissal but to serve contention interrogatories requiring the plaintiff to particularize his theory of suit); *Capacchione v. Charlotte-Mecklenburg Schs.*, 182 F.R.D. 486, 489 (W.D.N.C. 1998) (proper contention interrogatories include those which ask a party to "articulate the facts underlying a contention").

Complaint Counsel argues that they do not need to respond to contention interrogatories prior to the close of fact discovery. See Complaint Counsel's Memorandum in Opposition to Respondent's Motion to Compel, at 4-5. But Complaint Counsel's cited cases did *not* involve an 18-month pre-Complaint investigation by the responding party. Moreover, those cases simply hold that a court has discretion to delay responses to contention interrogatories in certain circumstances. Here, such a delay would cause severe prejudice and defeat the purpose of those interrogatories. Where, as here, the contention interrogatories are designed to focus discovery in this incredibly short discovery period, delaying the response to these interrogatories until the end of fact discovery would be a clear abuse of discretion.

¹² For example, had Complaint Counsel simply identified its best story of an alleged anticompetitive effect at a particular customer, MSC could easily respond. But knowing that no story pieced together from documentary tidbits could withstand scrutiny, Complaint Counsel refused this invitation. Rather, Complaint Counsel simply argues that it does not need to show an anticompetitive effect for these two year old acquisitions. See, e.g., Complaint Counsel's Revised Response and Objections to MSC's First Set of Interrogatories, No. 15.

Unfortunately, MSC's discovery burden is not diminished just because Complaint Counsel is wrong on the law. See *United States v. General Dynamics Corp.*, 415 U.S. 486, 506 (1974) (relying on post-closing evidence of changes in industry structure and the fact that no anticompetitive effect occurred post-closing in granting judgment for merging parties); *R.R. Donnelley*, 120 F.T.C. at 157 (same); see also *United States v. Marine Bancorporation*, 418 U.S. 602, 622-23 (1974) (Section 7 "deals in 'probabilities,' not ephemeral possibilities"); *United States v. Long Island Jewish Med. Ctr.*, 983 F. Supp. 121 (E.D.N.Y. 1997) (same; entering judgment for merging parties).

Sadly, Hilke's effort to leave wiggle room by using the qualifiers "such as" and "including" and his insistence on using generic terms, like "users", instead of naming particular customers, only adds to MSC's burden.

is not enough time to engage in the “reverse fishing expedition” necessitated by Complaint Counsel’s late, incomplete, and improper discovery responses – responses, which violate the Commission’s Rules of Practice.¹³

Failure to Identify the Metes & Bounds of the Relevant Market. Despite its latest round of superficial interrogatory responses and Dr. Hilke’s conclusory expert report, Complaint Counsel still fails to identify the “differences in functionality” that distinguish “advanced versions of Nastran” from other FEA solvers, even though MSC propounded an interrogatory seeking this information back in November.¹⁴ Complaint Counsel’s refusal to define adequately the metes and bounds of its alleged market for “advanced version of Nastran” means that MSC may have to take the depositions of numerous customers to learn which product features and capabilities they use and to learn how they differentiate products based on those features and capabilities.

¹³ Under Rule § 3.31(b), Complaint Counsel should have identified the identities of relevant people by November 6, 2001. They did not. See 16 C.F.R. § 3.31(b)(1) (Complaint Counsel must reveal in its Initial Disclosures the “name, . . . address and telephone number of *each individual likely to have discoverable information* relevant to the allegations of the Commission’s complaint . . .”). Similarly, in violation of Rule 3.35(a)(2), Complaint Counsel listed *no one* in its December 12, 2001 interrogatory responses. See 16 C.F.R. § 3.35(a)(2) (interrogatories “shall be answered . . . fully in writing”). Yet six days later, Complaint Counsel identified *seventy-five* people in its Preliminary Witness List. And, in violation of Rule 3.38, Complaint Counsel refused to identify anyone it communicated with on the grounds of various privileges. Yet Complaint Counsel adamantly refuses to produce a privilege log and mis-cites Commission precedent to justify its refusal. See 16 C.F.R. § 3.38A(a) (Complaint Counsel must “submit . . . a schedule of the items withheld [on grounds of privilege] which states individually as to each such item the . . . the specific grounds for claiming that the item is privilege.”).

¹⁴ Complaint Counsel states, circularly, that “customers of advanced versions of Nastran are discouraged from switching to another solver that are not advanced versions of Nastran due to, among other reasons, differences in features and functionalities. Customers needing the features and functionalities found in advanced versions of Nastran are discouraged from switching because other solvers do not offer the same or similar features and functionalities found in advanced versions of Nastran.” See Complaint Counsel’s Revised Responses and Objections to MSC’s First Set of Interrogatories, No. 7. In fact, the only functionality identified by Complaint Counsel is aeroelasticity. Aside from having no relevance in the automotive industry, Complaint Counsel has not stated whether this is an exclusive list. See *id.* Dr. Hilke’s Expert Report provides even less guidance and is equally circular. It defines Advanced Nastran as “versions of NASTRAN offering a full range of advanced features and higher levels of functionalities used by dedicated analysts.” See Expert Report of John C. Hilke, at 3.

Rather than provide this information, Complaint Counsel suggested that the relevant functionalities and features could be gleaned from the witness's verbatim statements. See Complaint Counsel's Revised Responses and Objections to MSC's First Set of Interrogatories, No. 7. But this is simply not true.¹⁵ Regardless, Complaint Counsel now concedes that verbatim statements are vital pieces of information necessary to understand the allegations of the Complaint, yet despite repeated requests, Complaint Counsel withheld these verbatim statements until January 2, 2002.¹⁶ In fact, it offered to provide two additional transcripts after midnight (12:41 a.m.) on February 8, 2002.

¹⁵ *First*, These verbatim transcripts do not reveal which standard or rule Complaint Counsel is seeking to rely upon for purposes of demarcating the line between a customer that needs something called "advanced Nastran" and some other solver. See *Kraft*, 926 F. Supp. at 333.

Second, Complaint Counsel's tactic of leaving MSC – and the ALJ – to guess at what functionality is sufficiently unique to Nastran to render all other solvers irrelevant is not only bad science (as it provides an untestable hypothesis), but it is improper. *Abrahamsen v. Trans-State Exp., Inc.*, 92 F.3d 425, 428-29 (6th Cir. 1996) ("Our system of discovery was designed to increase the likelihood that justice will be served in each case, not to promote principles of gamesmanship and deception in which the person who hides the ball most effectively wins the case.")

Third, many of the verbatim transcripts do not reveal the features and functionalities that distinguish advanced Nastran from other products. Many of the transcripts were from individuals without technical background, who had faulty recollections, or could not provide an exhaustive list.

Fourth, Complaint Counsel's approach of vaguely pointing to unspecified transcripts is of little help and violates Commission Rules of Practice. See 16 C.F.R. § 3.35 (requiring specificity when relying on documents in lieu of written response to interrogatory).

Indeed, if it is so easy to determine this list of relevant features and functionalities from these verbatim transcripts, Complaint Counsel has no justification for its refusal to distill this information.

¹⁶ MSC first sought these verbatim transcripts on October 24, 2001. See 10/24/01 letter from T. Smith to P. McCartney. MSC's purpose in seeking this information was to jump start discovery, reduce Complaint Counsel's head start advantage, and identify those customers and competitors from whom MSC would need to seek discovery and learn the functionalities that distinguished "advanced Nastran." Complaint Counsel ignored MSC's request and, instead, MSC had to wait until nearly three months *after* the Complaint was filed – and after over half of the allotted discovery period had passed – for Complaint Counsel to hand over even *some* of these statements.

Significantly, Complaint Counsel continues to withhold untold numbers of verbatim statements of witnesses they chose not to place on their witness list.

Given Complaint Counsel's refusal to specify the metes and bounds of the relevant market with the precision required by *R.R. Donnelley*,¹⁷ MSC is now forced to take **additional** discovery of potentially numerous customers just to guess what Complaint Counsel refuses to disclose directly. See *In re R.R. Donnelley & Sons Co.*, No. 9243, 120 F.T.C. 36, 157 (F.T.C. 1995) (noting that great precision is necessary in defining price discrimination markets of the type the Commission is proposing here). Unfortunately, the discovery required for an *R.R. Donnelley*-type analysis takes time; and adequate time is something the current schedule does not permit.

Failure to Identify Relevant Customers and Industry Segments. Complaint Counsel has also refused to limit either its case or its discovery to the aerospace and automobile industries, the only industry segments specifically identified in the Complaint.¹⁸ Exactly what Complaint Counsel hopes to gain through its refusal to circumscribe discovery is unclear. If Complaint Counsel cannot establish an anticompetitive effect on aerospace and automotive customers, are they going to try to do so in some other presently-unspecified industry? In any event, given Complaint Counsel's refusal, MSC cannot narrow its own discovery to these two (very large) industry segments, and must be prepared to battle the Complaint Counsel as to as yet undisclosed industries, such as the electronics, semiconductor or medical device industries, which all use a variety of FEA solvers.

¹⁷ In *R.R. Donnelley*, the Complaint Counsel defined the market as "high volume publication gravure printing, which is approximated by four-color gravure printing jobs with at least five million copies, at least sixteen pages, and fewer than four four-color versions (or the equivalent in one-color versions)." 120 F.T.C. at 156.

¹⁸ MSC objected to providing discovery beyond these industries – because they were the only ones identified in the Complaint – Complaint Counsel moved to compel and demanded MSC produce documents relevant to *all* industry segments. See Complaint Counsel's Motion to Compel Complaint Counsel's First Request for Production of Documents and Things at 6 ("[T]he Complaint does *not limit* its allegations to [the aerospace and automotive industries], and the scope of allowable discovery accordingly is broader than just those industries.").

Failure to Identify Exculpatory Evidence and Fruitful Avenues of Third-Party

Discovery. Complaint Counsel has also thwarted every attempt by MSC to jumpstart and streamline its discovery by avoiding duplication of Complaint Counsel's eighteen month investigation. MSC requested exculpatory evidence gathered by the FTC during its investigation so that MSC could quickly develop relevant information that would undercut Complaint Counsel's superficial allegations. Complaint Counsel has refused, trumpeting the "informant's" privilege (of course, without explaining how that could possibly apply in the context of *exculpatory* evidence).¹⁹

But in succumbing to the fear of disclosing this exculpatory information, Complaint Counsel interfered with MSC's discovery and has expressly violated the Commission's Rule of Practice requiring the submission of a privilege log.²⁰ Had it done so, MSC could have challenged their frivolous assertions of privilege and advanced its discovery. Now, MSC must senselessly engage

¹⁹ Moreover, Complaint Counsel has surely waived any informant's privilege it may have had when it selectively decided to rely on the assertions of some of its so-called "informants" while secreting others. The use of the informant's privilege as both a sword and shield is improper.

²⁰ Complaint Counsel has repeatedly claimed that it is not bound by Rule 3.38 A and does not have to produce a privilege log. In its most recent pleading, Complaint Counsel's Memorandum in Opposition to Respondent's Motion to Compel, Complaint Counsel identified the case law allegedly underlying its position. None of those cases support Complaint Counsel.

For example, the order in *In re R.J. Reynolds Tobacco Co.*, No. 9285, 1998 FTC LEXIS 179, at *1-3 (F.T.C. Sept. 24, 1998), says just the opposite: "Documents in complaint counsel's files are subject to Rule 3.38A," and complaint counsel in that matter submitted a privilege log.

in a time-consuming reverse fishing-expedition.²¹ This is a burden that cannot be achieved under the current schedule.

MSC's next effort was to request disclosure of the third-parties contacted by Complaint Counsel. Again, Complaint Counsel refused, perhaps because that would have leveled the playing field somewhat. Rather than doing this, however, Complaint Counsel chose yet again to violate the Commission's own Rules of Practice. *See* 16 C.F.R. § 3.31 (requiring disclosure of the name of *each* individual likely to have relevant information).

Additionally, by improperly marking *all* of its Interrogatory Responses and the *entire* Hilke report "Attorneys Eyes Only," Complaint Counsel has further hampered MSC's preparation of its case. This tactic prevents MSC's counsel from obtaining the insights of MSC's business people, the true experts in the field. Perhaps this was because Complaint Counsel correctly feared that MSC's business people would quickly spot the numerous flaws in those responses.

C. MSC's Due Process Rights Are Being Jeopardized By Complaint Counsel's Abuse of the Shortened Discovery Period to Game the System and Obstruct Justice.

This proceeding should not – and cannot as a matter of Constitutionally Due Process – be a "rush to judgment."²² Due process demands that MSC be given adequate time to prepare its defense.

²¹ Because of the shortened discovery period, there is substantial hardship in not disclosing the individuals with whom Complaint Counsel met. Thus, not only does Complaint Counsel have a constitutional obligation to disclose exculpatory evidence, but under *Upjohn*, it also lacks a work-product privilege to hide behind. *See Upjohn Co. v. United States*, 449 U.S. 383 (1981) (substantial need justifies disclosure of work product that does not reveal detailed thought attorneys' thoughts and mental impressions); *see also FTC v. Staples, Inc.*, 5/8/97 Tr. at 23-24 ("I do think the antitrust area... is a specialized area by the Government in the sense that... the role and responsibility of the antitrust prosecutor is *analogous* to that of a criminal prosecutor, and that they have special obligations, even though this is civil litigation, to be full and forthright in their production of documents and their response to discovery in the conduct of this case... *The principle [of applying Brady in the civil context] has some appeal theoretically.*").

²² *Fitzgerald v. Penthouse Intern., Ltd.*, 776 F.2d 1236, 1238 n.3 (4th Cir. 1985) ("[T]he district court must avoid creating an appearance of unfairness through an unnecessary rush to judgment.").

As the district court held in enjoining orders issued by an FTC ALJ: “Due Process requires [that respondents] are entitled to appropriate discovery in time to reasonably and adequately prepare themselves, and their defenses, before facing the charges in the administrative ‘trial.’” *Standard Oil*, 475 F. Supp. at 1275 (citing *Morgan v. United States*, 304 U.S. 1 (1938)).

In *Kennecott Copper*, a Section 7 merger case decided by the Second Circuit, the trial court improperly denied the defendant the opportunity for discovery needed “to develop a complete picture of the market, its ‘structure, history, and probable future’ . . . information [that] could be secured only through discovery of third-party buyers, sellers and potential sellers.” See *Kennecott Copper Corp. v. Curtiss-Wright Corp.*, 584 F.2d 1195, 1203 (2d. Cir. 1978). The defendant argued that this denial deprived it of its constitutional right to a fair trial. The Second Circuit agreed, stating that this denial raised “troublesome” constitutional issues.²³

Due process must also prevail over rules designed to expedite proceedings. Accordingly, in promulgating Rules 3.21 and 3.51, the Commission cautioned “ALJs to exercise their discretion in regulating the course of adjudicative proceedings in a manner that expedites proceedings, *consistent with due process considerations.*” 61 Fed. Reg. 50640, 50641 (Sept. 26, 1996). As the *Gavino* Court found, in postponing a trial beyond the time mandated by the Second Circuit’s Rules: “we cannot allow our concern with calendar dispatch to triumph over a defendant’s right to a fair trial which is the foundation of our system of justice.”²⁴ 499 U.S. at 1196. As detailed below, MSC

²³ Although the court ultimately did not base its reversal on the due process issue, it did order a new trial. In doing so, the court “suggest[ed] that the parties be given a reasonable opportunity . . . to present more complete and reliable data.” *Kennecott Copper*, 584 F.2d, at 1205.

²⁴ See also *Pacific Molasses Co. v. FTC*, 365 F.2d 386 (5th Cir. 1966) (due process violated by failure to abide by agreement to provide administrative defendant with relevant documents and the names of witnesses); *Brock v. Roadway Express, Inc.*, 481 U.S. 252, 266 (1987) (due process required that administrative defendant be given the names of all witnesses contacted and the substance of any statements made during the course of the pre-deprivation

needs adequate time to develop the facts to insure that it can present “complete and reliable data” on relevant product market.

Complaint Counsel’s wish – that this case be decided on cherry-picked documentary snippets (rather than the best available evidence) – simply does not comport with due process or fundamental fairness. In *R.R. Donnelley*, for example, Complaint Counsel – using the same expert, Dr. Hilke – similarly rested its case on a mere documents presentation supported primarily by self-serving customer complaints. See *In re R.R. Donnelley*, 120 F.T.C. at 115.

But unlike what is contemplated under the current schedule, the ALJ in *R.R. Donnelley* allowed *extensive discovery over a period of two years and three months* prior to the start of trial. In allowing that discovery, the ALJ commented that these types of merger cases “usually involve extensive formal discovery into such issues as relevant product and geographic markets, entry barriers and probable competitive injury,” *Id.* at 140, thus making discovery and exhaustive trial appropriate. Precisely because the ALJ appropriately permitted extensive discovery, and therefore, allowed the respondents the opportunity to develop a full record, the Commission was able to see the truly insubstantial character of the evidence relied upon by Complaint Counsel and threw out the case. Only if the goal is to railroad MSC, can MSC be denied the same opportunities available to the defendants in *R.R. Donnelley*.

investigation).

II. MSC IS BEING IRREPARABLY PREJUDICED BECAUSE THERE IS INSUFFICIENT TIME TO CONDUCT THE DISCOVERY NECESSARY TO RESPOND TO ALL THE ISSUES RAISED BY THE COMPLAINT.

A. Complaint Counsel's Unwillingness to Narrow the Issues Means that Substantial Discovery Is Necessary.

MSC is prejudiced by the unnecessarily short, remaining expedited discovery schedule. In that regard it is important to note that no administrative merger has ever been subjected to the rigors of such an expedited rush to judgment. *See, e.g., In re Coca-Cola Bottling Co.*, Docket No. 9215, 118 F.T.C. 452 (F.T.C. 1994) (two years from filing to trial); *In re Owens-Illinois Inc.*, Docket No. 9212, 115 F.T.C. 179 (F.T.C. 1992) (ten months from preliminary injunction to trial); *In re Midcon Corp.*, Docket No. 9198, 112 F.T.C. 93 (F.T.C. 1989) (fourteen months from filing to trial); *In re B.F. Goodrich Co.*, Docket No. 9159, 110 F.T.C. 207 (F.T.C. 1988) (four years from preliminary injunction to trial); and *In re Grand Union Co.*, Docket No. 9121, 102 F.T.C. 812 (F.T.C. 1983) (one year from filing to trial); *In re Weyerhaeuser Co.*, Docket No. 9150, 106 F.T.C. 172 (F.T.C. 1985) (two years from preliminary injunction to trial).²¹

It is no surprise that most merger cases take between two to four years to complete. Analyzing markets, especially this one, is an exceedingly complex and time consuming task. The amount of discovery that must still take place is monumental: customers, competitors, industry experts, industry observers, employees, and former employees must all be contacted and subpoenaed, their documents must be reviewed, and their sworn testimony taken.

²¹ Indeed, in many of these cases, the merging parties had substantial pre-administrative-Complaint discovery as part of a prior preliminary injunction proceeding. In addition, in many of these preliminary injunctive proceedings, the government seeks a preliminary injunction and files a supporting pre-trial memorandum that lays out the government's evidence and contentions in detail at the *start* of the case. Here MSC has had no such access to compulsory process and no such disclosures from Complaint Counsel, and so it has consistently had to play catch-up.

For example, while it is clear that customers consider a wide variety of factors in making their purchasing decisions, hard evidence must be obtained *directly* from customers. Customer discovery is also necessary to put to rest Complaint Counsel's specious allegations that switching between MSC.Nastran and UAI or CSA was easy and inexpensive. And this discovery is neither simple nor straightforward. Facts concerning customers' usage and customization of MSC's software, not unsupported opinions of the type relied upon by Complaint Counsel, are necessary to determine the true economic cost of switching. This requires detailed – and potentially hostile – discovery.

Because customers all have slightly different FEA solver needs, perspectives, and perhaps willingnesses to pay for MSC.Nastran, discovery from multiple customers is necessary to defeat Complaint Counsel's arguments. While this need could have been minimized had Complaint Counsel chosen two or three customers, it decided instead to list over *thirty-three* individuals at fifteen different corporate customers in its Preliminary Witness List, without excluding the possibility of seeking to introduce evidence relating to even more customers. Dr. Hilke further identified at least 19 customers in his Expert Report. See Expert Report of John C. Hilke. Given Complaint Counsel's blunderbuss approach, MSC's burden of deconstructing the true market reality at each of the customers can only be accomplished if it is provided the time to engage in meaningful discovery.

Competitor discovery is arguably similarly difficult and more time consuming, but also imminently necessary. Competitors are eagerly approaching this market from all sides.²² The impact

²² Abaqus competes against MSC by providing codes that solve more complex problems. Dassault competes by providing an integrated solution, including a powerful FEA solver and CAD capabilities. ANSYS is competing against MSC at all levels, and is competing by offering a highly integrated suite of software.

that MSC's competitors in the FEA solver market have on MSC's pricing can only be understood if adequate time is permitted to conduct in-depth discovery of these competitors.

B. Adequate Discovery in the Time Allotted Is Impossible.

There are *less than thirty-five working days* left in fact discovery. This is simply not enough time to depose each of Complaint Counsel's listed witnesses or subpoena the customers and competitors necessary to disprove Complaint Counsel's allegations.²³

1. The Logistics Alone Prevent Meaningful Discovery and Case Preparation.

Third-party discovery – even if it were to proceed smoothly without objection – cannot be completed in the time left. The process of subpoenaing third parties, negotiating their compliance or defeating their motions to quash has been and will continue to be time consuming. Inevitably, MSC will be forced to litigate third-party motions practice as is currently the case with MSC's real and long-time “closest competitor” ANSYS.²⁴

This too has built-in procedural delays that further infringe on MSC's due process rights to prepare its defense. Under the Commission's Rules of Practice, a third-party has (typically) ten days

As we speak, ANSYS is expanding its product offerings to match, or even exceed MSC's product offerings, and can solve the same problems that MSC.Nastran solves. Indeed, ANSYS has now formally announced its plan to bundle a Nastran-based FEA solver with its own software. (See AI*NASTRAN Flyer).

Abaqus has also made significant efforts in recent months to extend its product offerings. See 2/1/02 T. Curry Dep. at 168:8-170:17 (describing HKS's Abaqus solver as MSC's “biggest threat in the solver area altogether,” and describing HKS's recent efforts to expand into applications performed by many customers using MSC.Nastran). In fact, Abaqus, as well as others, have made huge investments over the years, as has MSC, to expand product offerings to appeal to customers served by competing FEA solvers.

²³ In that regard, it must be remembered that Complaint Counsel has insisted on substantial, and unyielding, discovery from MSC, which further and substantially taxes MSC's resources. The burden and issues associated with that effort will be the subject of future briefing.

²⁴ Significantly, even Complaint Counsel is complaining about the inadequate time to conduct pretrial proceedings. See 2/8/02 Letter from P. Roach to Hon. D. Michael Chappell (arguing that it would be unfair to “be forced to shorten the period within [which] they must respond” to briefing).

to object and to move to **quash, modify**, or ask for an extension of time to respond. *See* 16 C.F.R. § 3.34(c). MSC then has ten days to respond. *See* 16 C.F.R. § 3.22(c). Even then, the ALJ will certainly need time to review and decide each such discovery dispute.

But the briefing timetable does not account for the amount of time it actually takes to secure third-party compliance with a subpoena. Once that issue has been decided, it will take still more time for third parties to collect, review, process, copy, and produce their documents. Since these third parties are also likely to have discoverable *electronic* information, like e-mails, it is likely that the process of responding to any subpoena – once it gets under way – will be lengthy and extend well beyond the time left for discovery under the existing schedule.

Of course, MSC's burden does not end once the documents are produced. From there, MSC must review and analyze the documents and determine who should be deposed from that third party. The negotiating process then starts all over again. Schedules will have to be coordinated, except this time, Complaint Counsel's schedule as well as those of third-parties will have to be accommodated.

Based upon the number of non-MSD employees that Complaint Counsel has identified (40 individuals), the need to discover and depose who it is that Complaint Counsel will not identify, and the need to conduct discovery from third-parties, including approximately 26 individuals employed by MSD's customers and 30 individuals employed by MSD's competitors, suggests that over *ninety-six* depositions may be taken by MSD alone in the next *thirty-five* days. That does not include the depositions noticed by Complaint Counsel that MSD must attend or defend. Thus, *at a minimum*, MSD would need to take about *three depositions a day* until the close of fact discovery. Assuming that there are no logistical problems – such as scheduling conflicts among the witnesses, counsel for

MSC, and Complaint Counsel, only absolute perfection would enable this crushing amount of discovery to be completed in time.

2. Many Industry Participants See a Pot of Gold At the End of the Rainbow and – Like Complaint Counsel – Will Benefit By Stonewalling or Resisting Discovery.

Substantial compliance delays from MSC's third-party discovery are to be expected. MSC's main competitor ANSYS has already used these procedures to great advantage to delay, or perhaps avoid, discovery. MSC served a *subpoena duces tecum* upon ANSYS shortly after the Protective Order was entered. MSC and ANSYS then entered into protracted negotiations regarding the scope of the subpoena, which nevertheless resulted in ANSYS filing a motion for extension of time and a motion to quash. Nearly two months after MSC served its subpoena, ANSYS has voluntarily supplied only five boxes of material and continues to refuse production of the balance of its responsive documents – even after MSC agreed to significant limitations.²⁵ This process is currently being repeated by many of MSC's competitors, all of whom have more than adequate commercial incentive to see MSC crippled by Complaint Counsel.²⁶

Nor is this surprising. Complaint Counsel's relief is so drastic that – if ever granted – it would dramatically alter the industry's landscape in favor of MSC's competitors.²⁷ The ability to

²⁵ The documents MSC seeks are highly relevant and necessary for MSC to prepare its defense. MSC's own documents recognize that ANSYS is "enemy No. 1," and much of MSC's strategic efforts – from its pricing to its product development efforts – are designed to "thwart ANSYS." Complaint Counsel cannot deny the relevance of ANSYS to these proceedings because it placed Michael J. Wheeler, Vice President of Marketing for ANSYS on its Preliminary Witness List.

²⁶ As explained previously, MSC will have to subpoena, or already has subpoenaed, most of MSC's competitors selling FEA Solvers because Complaint Counsel refuses to state which product functionalities, features, and capabilities differentiate the products that are in its alleged markets from those that are not.

²⁷ In his expert report, Dr. Hilke opines on the type of relief sought by Complaint Counsel. His proposal, however, is totally outrageous. See Expert Report of John C. Hilke, at 58-60. Despite the clear evidence that UAI and CSA were insignificant competitors, each having revenues of a few percent of MSC's Nasran-related revenues, Dr.

acquire MSC's flagship software at fire-sale prices is bound to appeal to those that would seek to buy on the cheap what it took MSC years of hard work and investment to achieve. For example, ANSYS offered a litigation-based, bad faith "offer" of \$500,000 for the UAI and CSAR codes, as well as a royalty-free license to resell MSC.Nastran. It clearly was not seriously interested in the assets – which, itself, undermines Complaint Counsel's entire case – but instead hopes that Complaint Counsel will succeed in breaking MSC apart, force MSC to divest its most valuable product, and make it available in a forced sale environment.

Documents produced suggest that the buzzards have already begun to circle and are coordinating their scavenging activities directly with Complaint Counsel.²⁸ These competitors know that the longer they delay, the more difficult it becomes for MSC to mount a successful defense.

These realities, in addition to the inherent burden of responding to discovery, are more than sufficient to cause substantial prejudice.

III. EXTENDING THE DISCOVERY PERIOD FOR TWO MONTHS IS A NECESSARY STOPGAP TO PRESERVE MSC'S DUE PROCESS RIGHTS AND IS WITHIN THE ALJ'S DISCRETION.

Given the inadequacy of the remaining discovery period, a solution must be found. MSC believes that at a minimum – even to begin to preserve MSC's due process rights – the ALJ should

Hilke suggests that MSC should be forced to create three equal competitors, destroying the 30+ years of hard work that MSC has devoted to improving MSC.Nastran. This sort of relief is punitive, and clearly *not* designed to remedy any imagined violation of the antitrust laws. See *Hartford-Empire Co. v. United States*, 333 U.S. 386 (1945) ("We may not impose penalties in the guise of preventing future violations.").

²⁸ One firm has consulted with Complaint Counsel, for example, on how to proceed in a trademark dispute with MSC. Lockheed altered, or considered altering, its business plans in anticipation of being able to benefit from this litigation. Other customers are delaying contracts in hope of better deals post-divestiture. Other companies have also recognized that a divestiture remedy in this case would seriously impact their businesses, and in ways having nothing to do with the price of MSC.Nastran.

exercise his discretion under Rules 3.21 and 3.51 to grant a two-month extension.²⁹ Simultaneously, Complaint Counsel should be ordered to comply fully and immediately with MSC's written discovery. The Motion to Compel Complaint Counsel's responses is now fully briefed and can be readily resolved.

The immediate two-month extension is a necessary stopgap measure simply to allow this matter to proceed in some orderly fashion until the larger question – whether Rule 3.51 is unconstitutional as applied in this case – can be resolved. In addition, such an extension will allow the parties to continue to move forward with this case and to begin to gather the massive amounts of discovery that will be needed.

At the same time, the obvious should be acknowledged – that, given Complaint Counsel's approach to this case, extensions are necessary – and the ALJ should grant a six-month extension now. MSC recognizes that Rule 3.51 ostensibly imposes limits on the length of an extension that can be granted at any one time. See 16 C.F.R. § 3.51. But as explained below, that Rule is void, at least as it applies here. Thus, the ALJ is free to grant this extension. Of course, MSC recognizes that the ALJ may view its authority differently. Consequently, MSC respectfully requests that the question of whether Rule 3.51 violates the due process clause as applied to MSC in this case be certified for interlocutory review by the Commission. See 16 C.F.R. § 3.23(b). During the pendency of such review, the ALJ should stay all proceedings other than discovery during the pendency of such

²⁹ In *In re Intel*, ALJ Timony granted two extensions that resulted in a postponement of the trial date by two months. The reasons for the extensions were discovery delays and the "volume of relevant evidence that must be adduced from third parties is unusually great." See *In re Intel Corp.*, No. 9288, 1998 FTC LEXIS 146, *1 (F.T.C. October 5, 1998) and No. 9288, 1999 FTC LEXIS 216, *1 (F.T.C. Jan. 20, 1999).

an appeal. *See* 16 C.F.R. § 3.23(c) (granting ALJ discretion to stay proceedings during pendency of interlocutory appeal).³⁰

Extending the trial schedule to preserve MSC's due process rights is absolutely essential for the reasons already explained. The property interests at stake could not be any higher. Complaint Counsel seeks to take MSC's flagship software, MSC.Nastran, and divest it. This loss of a product that revolutionized structural analysis because of thirty years of hard work, innovation, and investment by MSC constitutes the kind of grievous loss that mandates the highest procedural protections. "The extent to which procedural due process must be afforded the recipient is influenced by the extent to which he may be 'condemned to suffer grievous loss.'" *Goldberg v. Kelly*, 397 U.S. 254, 262-63 (1970) (quoting *Joint Anti-Fascist Refugee Comm. v. McGrath*, 341 U.S. 123, 168 (1951).) There can be no doubt that procedural due process requires adequate time for MSC to take "appropriate discovery in time to reasonably and adequately prepare themselves, and their defenses, before facing the charges in the administrative 'trial.'" *Standard Oil*, 475 F. Supp. at 1275.

IV. THE ALJ SHOULD CERTIFY FOR APPEAL THE ISSUE OF RULE 3.51'S CONSTITUTIONALITY AS APPLIED IN THIS CASE.

The fact of the matter is that Rule 3.51 is unconstitutional as applied to the facts of this case, and the authority Rule 3.51 confers upon the ALJ to grant successive two-month extensions is not sufficient to cure the defect. Extending the trial schedule in repeated two-month increments, simply keeps the loaded gun pointed at MSC's head. Without some assurance that adequate time will be

³⁰ MSC is also mindful of the page limits imposed by Rule 3.23(b) on the length of memoranda requesting interlocutory review. While this brief presents several issues beyond MSC's request for interlocutory review (and thus should be allowed to be longer than fifteen pages), if the ALJ so desires, MSC is prepared to move separately for interlocutory review of this question.

granted to prepare complete and full discovery, MSC will be perennially cutting corners in discovery and compromising its defense out of fear that no other extensions will be granted. Conversely, Complaint Counsel and self-interested competitors will be encouraged to continue to drag their feet in the hope that extensions will no longer be granted and that the clock will run out on MSC.

Therefore, MSC requests that the ALJ grant MSC a *six month* extension of the discovery period and hearing date. MSC recognizes that such a request may not be consistent with Rule 3.51. But that rule is unconstitutional as applied in this case. As a result, the Rule is void to the extent it applies to this case, and the ALJ is not bound to follow it. *Interstate Commerce Comm'n. v. Louisville & N. R. Co.*, 227 U.S. 88, 91 (1913) (“[A]dministrative orders, quasi judicial in character, are void if a hearing [would be] inadequate or manifestly unfair. . . .”). Thus, MSC requests that the ALJ grant this extension, and permit Complaint Counsel to pursue reinstatement of the Rule on appeal. Conversely, if the ALJ chooses not to grant MSC the additional six months it needs to adequately conduct discovery, then the ALJ should certify the issue of whether Rule 3.51 is constitutional as applied in this case for interlocutory appeal to the full Commission.

In that regard, assessing MSC’s right to due process requires the evaluation of three factors. “First, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional

or substitute procedural safeguards; and finally, the Government's interest."³¹ *Mathews v. Eldrige*, 424 U.S. 319, 335 (1976).

Here the private interest is substantial: Complaint Counsel is seeking the divestiture of MSC's cornerstone product, MSC.Nastran. There is a substantial risk of an erroneous deprivation of MSC's property interests. The current schedule prohibits MSC from adequately preparing a defense to rebut Complaint Counsel's allegations in this highly-complex market consisting of very sophisticated software used by customers all over the world. This violates MSC's due process rights. *See Pacific Molasses Co.*, 356 F.2d at 390 ("Effective cross-examination requires thorough preparation by counsel before trial. This is especially true in involved areas of the law such as the antitrust field."); *cf. Goldberg*, 397 U.S. at 269 ("In almost every setting where important decisions turn on questions of fact, due process requires an opportunity to confront and cross-examine adverse witnesses.")

No public purpose is served by forcing this post-merger case to trial in response to an artificial deadline.³² The mergers were consummated more than two years ago. Complaint Counsel

³¹ It is beyond peradventure that MSC has a cognizable property interest in MSC.Nastran. "Procedural due process imposes constraints on governmental decisions which deprive individuals of . . . property interests within the meaning of the Due Process Clause of the Fifth . . . Amendment." *Mathews*, 424 U.S. at 332. "Due process is flexible and calls for such procedural protections as the particular situation demands." *Gilbert v. Homar*, 520 U.S. 924, 930 (1997) (citing *Morrissey v. Brewer*, 480 U.S. 471, 481 (1972)). "[R]esolution of the issue whether the administrative procedures provided . . . are constitutionally sufficient requires analysis of the governmental and private interests that are affected." *Mathews*, 424 U.S. at 334.

³² When Rule 3.51 was adopted, the Commission explained that the purpose of the rule was to *serve justice* by improving the quality of the judgment, to reduce litigation gamesmanship, and to promote fair and efficient litigation. *See* 61 Fed. Reg. 50640, at 40 (Sept. 26, 1996). But this assumes that the allotted time is sufficient to obtain relevant evidence. Where, as here, it is not, litigation tactics take precedence over just results, the quality of judgement and the fairness of the proceedings are placed in jeopardy. Indeed, the Commission recognized this when, in adopting its Fast Track procedure, it made it voluntary, rather than mandatory. In contrast, this procedure is mandatory, and prejudices MSC without any justification. As we explained above, the post-closing merger case is ill-suited to Rule 3.51's commitment to the "rocket docket." No public interest is served where Complaint Counsel has shown no concern over the staleness of evidence during its eighteen month investigation, the relevant assets are being efficiently utilized and developed, and Complaint Counsel has failed to identify any concrete competitive harm. Moreover, Complaint

has failed to provide quantitative evidence of any actual, present, competitive harm. Indeed, Complaint Counsel has repeatedly said that MSC has not raised its prices to date because MSC knows that the FTC is watching. While competitive pressures – and not Complaint Counsel – are responsible for MSC’s prices, it can nevertheless be presumed that MSC will be under Complaint Counsel’s “watchful” eye while these issues are pending review.

In addition, the evidence is ripening with time, not growing stale. These mergers were consummated more than two years ago; if anticompetitive harm were a realistic threat, it would have occurred by now, yet Complaint Counsel fails to point to any examples, despite MSC’s repeated requests that it do so. In fact, each passing day brings additional evidence of the *actual* procompetitive effects – as opposed to Complaint Counsel’s boilerplate hypotheticals – of the acquisitions. Not only will this additional evidence disprove Complaint Counsel’s case, it will give greater confidence that the right result is reached. Nor are the assets that the government seeks to order divested in danger of becoming stale. The government does not seek mere divestiture of the CSAR and UAI codes. Instead, Complaint Counsel seeks divestiture of MSC.Nastran in which MSC continues to invest and develop as its flagship product. Thus, the asset to be divested – in the unlikely event that Complaint Counsel should prevail – is only getting stronger with time.

Rule 3.51 imposes an artificial constraint on the amount of time to prepare this case and, in particular, upon MSC’s ability to exercise its due process rights. No practical or legal consideration mandates that the initial decision in this case be filed in one year. But the resulting schedule – especially in light of Complaint Counsel’s refusal to comply with discovery – imposes great

Counsel’s ability use its eighteen months as a sword and Rule 3.51 as a shield is contrary to the Commission’s intent. Indeed, the denial of due process caused by such gamesmanship means a greater likelihood of reversal and an even greater waste of resources; thereby, totally defeating the Commission’s purpose in enacting Rule 3.51.

prejudice upon MSC's ability to defend itself. Consequently, the ALJ should certify for interlocutory appeal the issue of whether Rule 3.51's one-year timetable should apply to this case.

V. CONCLUSION

For the foregoing reasons, MSC respectfully requests Your Honor to enter the attached Order extending the deadlines, compelling Complaint Counsel to respond fully to MSC's discovery requests, and certifying the issue of whether Rule 5.31, as applied, violates MSC's due process rights to a fair hearing.

Respectfully submitted,



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*Counsel for Respondent
MSC Software Corporation*

Dated: February 11, 2002

CERTIFICATE OF SERVICE

This is to certify that on February 11, 2002, I caused a copy of the attached Respondent MSC.Software Corporation's Motion to Extend Trial Date and Proposed Order to be served upon the following persons by hand-delivery:

Honorable D. Michael Chappell
Administrative Law Judge
Federal Trade Commission
600 Pennsylvania Avenue, N.W.
Washington, DC 20580

Richard B. Dagen, Esquire
Federal Trade Commission
601 Pennsylvania Avenue, N.W.
Washington, DC 20580

P. Abbott McCartney
Federal Trade Commission
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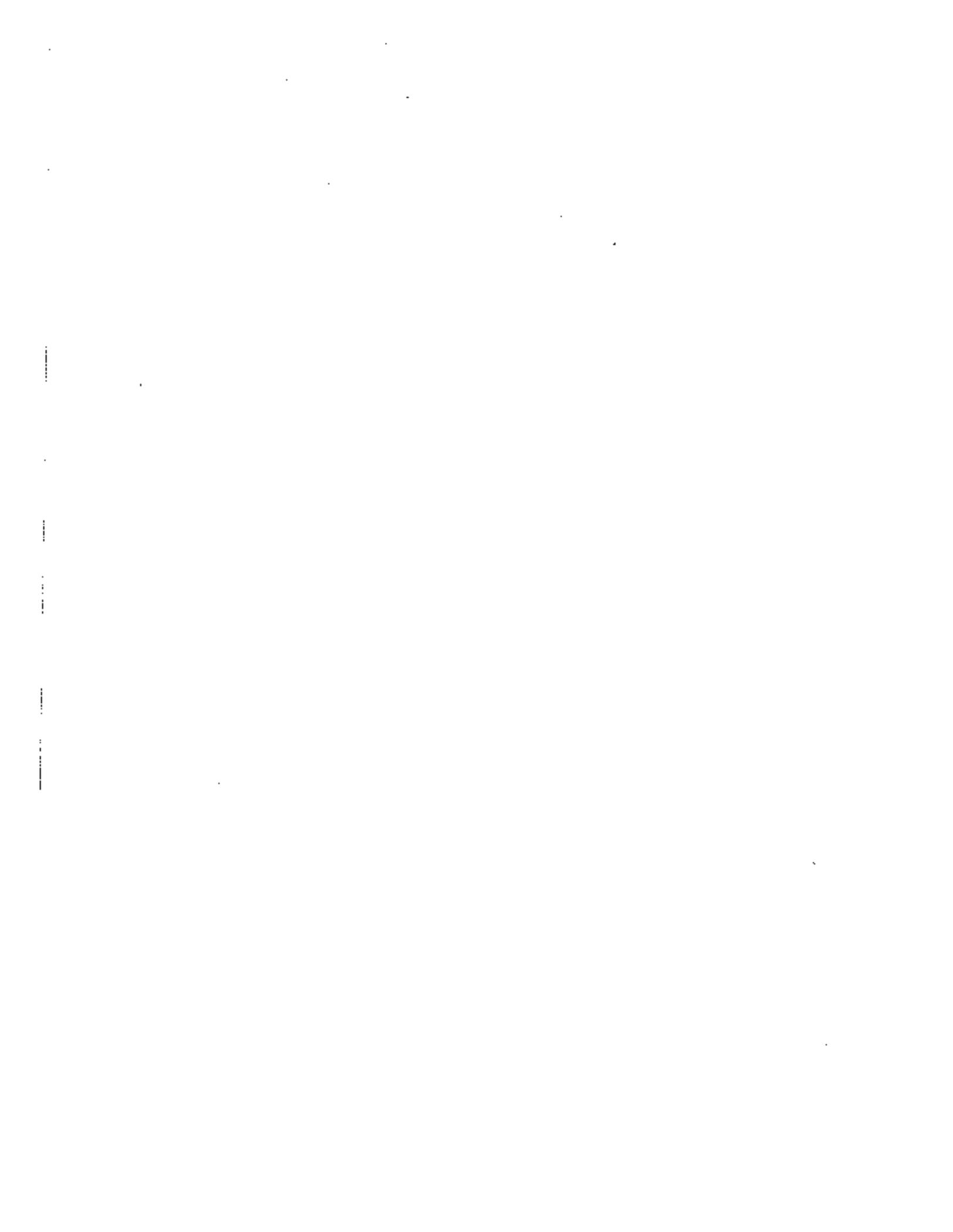
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Counsel for Respondents,
MSC.Software Corporation



IN THE MATTER OF

R.R. DONNELLEY & SONS CO., ET AL.

FINAL ORDER, OPINION, ETC., IN REGARD TO ALLEGED VIOLATION OF
SEC. 7 OF THE CLAYTON ACT AND SEC. 5 OF THE
FEDERAL TRADE COMMISSION ACT*Docket 9243. Complaint, Oct. 11, 1990--Final Order, July 21, 1995*

This final order dismisses charges against R.R. Donnelley & Sons Co., the largest supplier of commercial printing services in the world, in connection with Donnelley's 1990 acquisition of Meredith/Burda Company L.P., on the grounds that the product market for analyzing the effects of the acquisition is not as narrow as alleged and that anticompetitive effects are unlikely. This action reverses the initial decision of the Commission's Administrative Law Judge and nullifies his order that Donnelley divest various printing plants.

Appearances

For the Commission: *Robert W. Doyle.*

For the respondents: *Elroy H. Wolff, Austin & Austin,* Washington, D.C. and *H. Blair White and Thomas F. Ryan, Sidley & Austin,* Chicago, IL.

COMPLAINT

The Federal Trade Commission, having reason to believe that the respondent, R. R. Donnelley & Sons Co., ("Donnelley") a corporation subject to the jurisdiction of the Commission entered into agreements with respondents Meredith Corporation ("Meredith") and Pan Associates, Limited Partnership ("Pan"), that violated Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45, and that pursuant to those agreements, Donnelley has acquired certain business interests of the respondents Meredith and Pan in the Meredith/Burda Company Limited Partnership, and that such acquisition constitutes a violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45; and it appearing that a proceeding in respect thereof would be in the public interest, the Commission hereby issues its complaint, pursuant to Section 11 of

the Clayton Act, 15 U.S.C. 21 and Section 5(b) of the Federal Trade Commission Act, 15 U.S.C. 45(b), stating its charges as follows:

I. THE PARTIES

A. *R. R. Donnelley & Sons Co.*

1. Respondent Donnelley is a corporation organized and doing business under the laws of the state of Delaware, with its principal place of business at 2223 Martin Luther King Drive, Chicago, Illinois.

2. In fiscal year 1988 Donnelley had sales of approximately \$2.878 billion and assets of \$2.249 billion.

3. Donnelley is primarily engaged in the provision of commercial printing services throughout the United States.

B. *Meredith Corporation*

4. Respondent Meredith is a corporation organized and doing business under the laws of the state of Iowa, with its principal place of business at 1716 Locust Street, Des Moines, Iowa.

5. Meredith owned 50% of the Meredith/Burda Co., L.P. ("Meredith/Burda") and the remaining 50% was owned by Pan Associates, L.P.

6. In fiscal year 1989, Meredith/Burda had net sales of approximately \$456 million.

7. Prior to and at the time of the acquisition, Meredith/Burda was primarily engaged in the provision of commercial printing services throughout the United States.

C. *Pan Associates, L.P.*

8. Pan is a limited partnership and a holding company for the Burda family, with its principal place of business at 1270 Avenue of the Americas, #1918, New York, New York.

II. JURISDICTION

9. At all times relevant herein, respondent Donnelley, has been, and is now, engaged in commerce as "commerce" is defined in

Section 1 of the Clayton Act, as amended, 15 U.S.C. 12, and is a corporation whose business is in or affects commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, as amended, 15 U.S.C. 44.

10. At all times relevant herein, respondent Meredith, has been, and is now, engaged in commerce as "commerce" is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. 12, and is a corporation whose business is in or affects commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, as amended, 15 U.S.C. 44.

11. At all times relevant herein, respondent Pan, has been, and is now, engaged in commerce as "commerce" is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. 12, and is a partnership whose business is in or affects commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, as amended, 15 U.S.C. 44.

III. THE ACQUISITION

12. On December 21, 1989, Donnelley, Meredith and Pan entered into a Purchase and Sale Agreement whereby Donnelley would acquire all of Meredith's and Pan's interests in Meredith/Burda in two transactions totalling \$570 million. The acquisition was consummated on or about September 4, 1990.

IV. NATURE OF TRADE AND COMMERCE

13. A relevant line of commerce or product market within which to analyze the effects of the acquisition is the supply of high volume publication gravure printing. Such printing is typically used for long runs of magazines, newspaper inserts and catalogs.

14. A relevant section of the country or geographic market within which to analyze the effects of the acquisition is the entire continental United States.

15. A second relevant section of the country or geographic market within which to analyze the effects of the acquisition is the region comprising twelve western states west of the Rockies: Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

V. MARKET STRUCTURE

16. The acquisition substantially increased concentration in the already highly concentrated relevant markets, whether measured by the Herfindahl-Hirschmann Index or by four-firm and eight-firm concentration ratios.

VI. BARRIERS TO ENTRY

17. The barriers to entry into the provision and sale of the relevant product are substantial. Even if new entry were to occur, substantial harm to competition could occur until entry could be accomplished.

VII. ACTUAL COMPETITION

18. Prior to and at the time of the acquisition, Donnelley and Meredith/Burda were actual competitors in the provision and sale of the relevant product in the relevant geographic markets.

VIII. EFFECTS OF THE ACQUISITION

19. The effects of the aforesaid acquisition have been or may be substantially to lessen competition in the relevant markets in violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45, in the following ways, among others:

- (a) It eliminated actual competition between Donnelley and Meredith/Burda and between Meredith/Burda and others in the relevant markets;
- (b) It significantly increased the already high levels of concentration in the relevant markets;
- (c) It created a firm whose share of the relevant markets is so high that it has achieved the position and market power of a dominant firm;
- (d) It eliminated Meredith/Burda as a substantial independent competitive force in the relevant markets; and

- (e) It increased the likelihood of successful anticompetitive conduct, non-rivalrous behavior, and actual or tacit collusion among the firms in the relevant markets.

IX. VIOLATIONS CHARGED

20. The acquisition of Meredith/Burda by Donnelley constitutes a violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. 18 and Section 5 of the Federal Trade Commission Act, 15 U.S.C. 45, as amended.

21. The agreement described in paragraph twelve above violates Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45.

INITIAL DECISION

BY LEWIS F. PARKER, ADMINISTRATIVE LAW JUDGE
DECEMBER 30, 1993

I. PROCEDURAL HISTORY

Pursuant to 15 U.S.C. 53(b), the Commission moved for a preliminary injunction from the United States District for the District of Columbia to prevent R.R. Donnelley & Sons Co.'s ("Donnelley") acquisition of the Meredith/Burda Company Limited Partnership ("Meredith/Burda"). Following a hearing, the court denied the Commission's motion on the merits. *See FTC v. R.R. Donnelley & Sons Company*, 1990-2 Trade Cas. (CCH) ¶ 69,239 (D.D.C. 1990). Thereafter, on October 11, 1990, the Commission issued its complaint in this proceeding charging that Donnelley had entered into agreements with Meredith Corporation ("Meredith") and Pan Associates Limited Partnership ("Pan") that violated Section 5 of the Federal Trade Commission Act, ("FTC Act"), as amended, 15 U.S.C. 45, and that pursuant to these agreements Donnelley had acquired certain business interests of Meredith and Pan in Meredith/Burda, and that such acquisition violated Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, as well as Section 5 of the FTC Act.

The complaint alleges that Donnelley and Meredith/Burda are primarily engaged in the provision of commercial printing services throughout the United States, and that on or about September 4, 1990,

Donnelley acquired all of Meredith's and Pan's interests in Meredith/Burda.

The complaint claims that the challenged acquisition substantially increased concentration in an already highly concentrated relevant product market -- the supply of high volume publication gravure printing which is typically used for long runs of magazines, newspaper inserts and catalogs. The geographic markets are alleged to be the entire continental United States and the twelve states west of the Rockies.

The complaint concludes that the acquisition has had or will have the following effects:

1. Elimination of actual competition between Donnelley and Meredith/Burda and Meredith/Burda and others in the relevant markets.
2. A significant increase in already high levels of concentration in the relevant markets.
3. The creation of a dominant firm.
4. The elimination of Meredith/Burda as a substantial independent competitor in the relevant markets.
5. An increase in the likelihood of successful anticompetitive conduct, non-rivalrous behavior, and actual or tacit collusion among the firms in the relevant markets.

By stipulation, Meredith was dismissed as a respondent (Stipulation of April 19, 1991).

After extensive pretrial discovery, hearings were held in Washington, D.C. and Chicago, Illinois from January 25, 1993, to June 17, 1993.

During the trial, three experts testified for complaint counsel. They were:

Roy Hodgson, who has had 47 years of experience in the printing industry and who is currently a printing industry consultant (Tr. 114-35);¹ Dr. John Hilke, a Commission employee who is qualified as an

¹ Abbreviations used in this decision are:

| | |
|--|---------------------------------------|
| Cpl: Complaint | Tr: Transcript of the proceeding |
| Ans: Answer | F: Finding of fact |
| CPF: Complaint Counsel's proposed findings | CDX: Commission Demonstrative Exhibit |
| RPF: Respondent's proposed findings | RX: Respondent's Exhibit |
| CX: Commission Exhibit | |

expert in industrial organization economics (Tr. 2985-86); and, Professor G.S. Maddala, an econometrician who is a scholar in residence at Ohio State University and Director of the Center For Econometrics at the University of Florida (Tr. 5723).

Respondents called two experts to testify:

Mr. Eugene Hoskins, a retired supervisor in Donnelley's printing department (Tr. 498.1); and Dr. Jerry Hausman, a professor of economics at the Massachusetts Institute of Technology who is qualified as an expert in econometrics and applied microeconomics (Tr. 5180-82).

The parties filed their proposed findings of fact on September 17, 1993. Answers were filed on October 29, 1993. After ruling on several outstanding motions, I closed the record on October 8, 1993.

This decision is based on the transcripts of testimony, the exhibits which I received in evidence, and the proposed findings of fact and answers thereto filed by the parties. I have adopted several proposed findings verbatim. Others have been adopted in substance. All other findings are rejected either because they are not supported by the facts or because they are irrelevant.

Many documents and much testimony were received in camera. While I have honored the status of such information in many cases, I have, particularly with respect to Donnelley documents (Tr. 35-36), revealed it pursuant to Section 3.45(a) of the Rules of Practice.

II. FINDINGS OF FACT

A. Donnelley

1. Donnelley, a Delaware corporation whose headquarters are in Chicago, is the largest supplier of commercial printing services in the world (CX-4-B; CX-1157-Z-10). Donnelley provides both gravure and offset printing services (CX-4-D; CX-7-B); its major products include catalogs, newspaper inserts, magazines, books, directories, computer documentation and financial printing (CX-4-D; CX-1157-Z-10; CX-1455-D).

2. Prior to the Meredith/Burda acquisition, Donnelley had seven plants with gravure equipment in: Lancaster, PA (the Lancaster East plant); Gallatin, TN; Chicago, IL; Mattoon, IL; Spartanburg, SC; Warsaw, IN; and Reno, NV (CX-7-D). On January 28, 1993, Donnelley announced its intention to close the Chicago facility

whose primary customer was Sears (CX-1179-D; CX-1180-B; Tr. 4591). These plants contain a total of 57 gravure presses.

3. [] (CX-102-W-X) [] (CX-128-Z-58).

4. Donnelley's Graphic Services Division is primarily responsible for the printing and distribution of publications and contains the Catalog Group (which prints catalogs and newspaper inserts), the Magazine Group, the Telecommunications Group (which prints telephone and other directories) and the Book Group (CX-1245-B; CX-1455-E).

5. The Catalog Group prints its publications at the Chicago, Gallatin, Spartanburg, Reno, Warsaw, Casa Grande, Lynchburg, and Newton facilities (CX-1245-D) as well as at Mattoon, Lancaster, and Old Saybrook (CX-492-C). The Magazine Group prints its publications at the Danville, Glasgow, Los Angeles, Mattoon, Old Saybrook, Daytona, and Des Moines facilities (CX-1245-B-C) as well as at Lancaster (CX-492-C).

6. Donnelley's fiscal 1990, 1991 and 1992 net sales were \$3.498, \$3.915 and \$4.193 billion, respectively. Assets as of year-end for 1990, 1991 and 1992 were \$3.147, \$3.207 and \$3.410 billion, respectively (CX-1455-Z-22). Gross profits were \$689, \$727, and \$818 million, respectively (CX-1455-Z-22). Total revenues for gravure printing in 1989 and 1992 were substantial (CX-7-E; Tr. 5927-28).

B. Meredith/Burda

7. Immediately prior to its acquisition by Donnelley, Meredith/Burda was the third largest gravure printer in the United States (see CX-501-B), offering "state-of-the art equipment" including "the most versatile and efficient rotogravure and web offset presses available" (CX-5-0).

8. At the time of the acquisition, Meredith/Burda had four publication printing plants located in Casa Grande, AZ; Des Moines, IA; Newton, NC; and Lynchburg, VA (CX-5-0, V; CX-8-I; CX-492-B). All of these printing plants have gravure equipment (CX-8-I-M; CX-492-B). Only the Des Moines plant is equipped with heatset web offset equipment (CX-492-B). There are a total of 20 gravure presses in the 4 former Meredith/Burda plants (CX-8-0; CX-501-N).

9. In fiscal year 1989, the year prior to its acquisition by Donnelley, Meredith/Burda reported sales of \$456.7 million (CX-162-D; CX-492-A). [] (CX-162-E) [] (CX-162-D).

C. The Acquisition

10. On December 21, 1989, Donnelley's Board of Directors approved the acquisition of Meredith/Burda, and Donnelley, Meredith Corporation and Pan Associates entered into a purchase and sale agreement for Donnelley to acquire all of Meredith's and Pan's interest in Meredith/Burda (CX-2-N-Z-64; CX-3). The acquisition was consummated on September 4, 1990 (CX-3-B; CX-4-Z-8).

11. The final purchase price was \$486.6 million, plus the assumption of \$49.9 million in debt, for a total of \$536.5 million (CX-4-Z-8; CX-9-E). The price included over \$200 million of goodwill, reflecting the excess of the purchase price over the value of Meredith/Burda's net tangible assets (CX-4-Z-8).

D. Interstate Commerce

12. Respondents Donnelley and Pan have been, and are now, engaged in commerce as "commerce" is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. 12, and are corporations whose business is in or affects commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, 15 U.S.C. 44 (Cplt ¶¶ 9, 11; Ans ¶¶ 9, 11).

E. The Publication Printing Industry

1. Introduction

13. Publication printing consists of the printing of magazines, catalogs, and advertising inserts. Advertising inserts are the supplements that one finds in newspapers or the mail and which firms such as retail chains use to advertise their goods (Tc. 141). Two printing processes are primarily used to print publications: heatset web offset ("offset") and rotogravure ("gravure"). Two minor processes which are also used are letterpress and flexography (Tc. 143; CX-1142-N).

2. The Gravure Process

14. In the gravure process, ink is transferred to paper from an engraving that is etched into the surface of a copper-plated cylinder (Tr. 149; CDX-1; CX-1142-0, Z-39).

15. The copper cylinders are mechanically etched by a device called the "helioklischograph" which engraves many tiny recessed cells--some 4,000 per second--on the surface of the cylinder (Tr. 189-90; CX-120-Z-84-A; CX-301-Z-7).

16. The engraved cylinder rotates in a bath of ink; excess ink is wiped off the surface by a flexible steel blade called a "doctor blade." The ink remaining in the recessed cells forms the printed image by direct transfer to the paper web as it rolls across the printing cylinder (CX-1142-0).

17. Gravure presses use paper that is either web-fed from a continuous roll or "web" of paper or sheet-fed by individual sheets of paper. Web-fed gravure presses are referred to as "rotogravure" presses (Tr. 156-58; CX-977-W-X). Sheet-fed gravure is not a viable alternative to gravure printing where high volume work is required (Tr. 159; CX-977-X).

18. A typical gravure press has 8 to 10 printing units (Tr. 164-65). Each unit prints one of four basic colors--black, red (magenta), yellow or blue (cyan)--and uses a cylinder that has been engraved with the images that are to be printed (CX-977-Z-1-3; CDX-4). Four units print on the front of the paper; another four units print on the back of the paper (CX-977-Z-1; Tr. 164, 192). As the paper is fed through each successive unit, another color is printed on top of the ink of the preceding unit. Dryers situated between each unit dry the ink before the paper goes into the next unit. A folder at the end of the press cuts and folds the paper into signatures (F 37) (CX-977-Z-1, Z-8; Tr. 206-07, 09; see CDX-4).

3. The Offset (Lithography) Process

19. Offset, also known as lithography, is a photochemical process based on the principle that oil and water do not mix (CX-122-Z-6; CX-290-B; CX-1142-P, Z-36).

20. Rather than using an engraved cylinder, the offset process uses a flat aluminum printing plate folded around a cylinder; the inked image is not conveyed directly to the paper, but rather it is

"offset," first from the plate to a rubber blanket, and then from the blanket to the paper (CX-1142-P; Tr. 148, 152, 2049; *see generally* CDX-2).

21. In the offset process, a thin metal plate is treated with a photosensitive coating and exposed to ultraviolet light with film negatives to create an image on the plate. The portion of the plate with a printing image is rendered ink-receptive and water-repellent; the non-printing area of the plate is treated to be water-receptive and ink-repellent (CX-977-Z-22; CX-1142-P, Z-36; Tr. 154). The exposed plate is mounted on a cylinder in the press. As the plate cylinder rotates on the press, it comes into contact with rollers wet with water or dampening solution, and another set of rollers coated with ink (CX-977-Z-25-28; CX-1142-P).

22. The dampening solution wets the non-printing areas of the plate and prevents ink from wetting those areas (CX-977-Z-23-25). The ink then wets the ink-receptive printing image areas (CX-977-Z-25-28; Tr. 153-54).

23. The plate cylinder transfers the image from the plate to a rubber blanket wrapped around a cylinder known as a blanket cylinder. The blanket cylinder then transfers the image to paper (CX-977-Z-15, Z-28-29; CX-1142-P; Tr. 148, 152-53; *see generally* CDX-2).

24. Commercial offset presses generally print on both sides of a continuous web of paper at the same time. These presses are referred to as perfecting "web offset" presses (CX-1142-P, Z-44; Tr. 152-53).

25. A typical web offset press has four units, each printing one of the four basic colors of publication printing: black, red, yellow, and blue (CX-977-H; Tr. 142). As the web passes through each successive unit, the different ink colors are applied (CX-977-Z-16; Tr. 208; CDX-5).

26. In heatset printing, after running through all the units, the web of paper enters a single drying unit at the end of the press (CX-977-Z-16, Z-29-30; Tr. 208; CDX-5). Because the dryer is at the end of all the printing units, the successively applied ink colors are applied wet on top of each other (Tr. 209-11; CX-977-Z-16).

27. Web offset presses may be heatset or non-heatset ("coldset") (CX-977-Z-15; Tr. 154-57). Heatset printing refers to the use of inks blown dry by a high temperature dryer; the process is typically used when printing on coated papers (CX-977-Z-15; *see also* Tr. 154-55, 2049). Coldset web offset presses use absorbent, uncoated papers;

ink is dried by absorption of the ink into the paper surface and a dryer is not needed (CX-977-Z-15; Tr. 154, 2049-50).

28. Coldset competes primarily with flexography (Tr. 155, 4873; accord, CX-1169-E; CX-1306-E) and is not a viable alternative to gravure printing where high volume publication printing is required (Tr. 147, 155-56; *see* Tr. 6423).

4. The Letterpress and Flexography Processes

29. Letterpress printing uses cast metal type or plates on which the image to be reproduced is raised above non-printing areas (CX-1142-N; Tr. 144). Flexography is a variant of letterpress and uses plates made from vulcanized rubber or plastic rather than metal (CX-977-K; CX-1142-0). Neither process is a practical alternative to gravure or offset for high volume publication printing (Tr. 143-47, 6422-23).

5. Printing Steps

30. The printing process requires the purchase of paper, ink and services including artwork, separation of artwork into colors (preliminary), the transfer of film separations onto a plate (pre-press), proofing, presswork, binding, and distribution.

31. Paper can be furnished by the printer or his customer (Tr. 173-74; CX-744-E) and could cost from 30 to 55% of the total cost of a printing job (Tr. 177, 1491, 6166-72; CX-1428; CX-744-E; CX 1427-A-B). In order of descending quality, the grades of paper used in publication printing are: coated stock, supercalendar grade A ("SCA"), supercalendar grade B ("SCB"), supercalendar grade C ("SCC"), machine finished, and newsprint (Tr. 175-76; *see also* CX-1346-C-E; CX-1347-B). In recent years, print customers have increasingly purchased paper directly from the mills for delivery to their printers (Tr. 171, 173-74).

32. Gravure and offset inks, which are normally supplied by the printer, differ and are not interchangeable; gravure ink contains solvents and is very fluid. Offset ink is viscous and paste-like (Tr. 183-85, 3655).

33. Artwork, which is provided by the customer, is the design of the material to be printed (Tr. 185-86, 862-63, 1152-53, 3080). Preliminary involves the separation of artwork or photographs into

the four basic colors. Color separation is the same for either gravure or offset and can be provided by the customer, the printer, or an outside source (Tr. 186-88, 3506). Pre-press for gravure, usually provided by the printer, involves transferring the image to be printed from film to a copper surfaced cylinder by the helioktischograph (F 15) (Tr. 189-94, 957-58, 2614, 4000). In offset, film separations are transferred photographically to a plate which is then baked in an oven (Tr. 189, 2614, 4000).

34. Proofs are made to ensure that the final printed image is accurate (Tr. 170, 193-95). Offset proofs are made from "chromalins" using pigments to simulate ink, before the plates are made. Gravure proofs are made after the cylinders are engraved (Tr. 194-95). A special "proof press" is usually used to print the gravure proof (a "wet proof"). Wet proofing is unusual in offset printing (Tr. 194-97, 1163, 3725). A much less costly alternative to the proof press is the drum proofer (Tr. 229, 2539-42). If errors are found in the wet proof, corrections are made directly on the cylinder by etching (Tr. 196-97).

35. Gravure and offset presswork are substantially different (Tr. 204). The wet ink is dried in both processes, but dryers are located between each printing unit in gravure; in offset the four wet inks are applied to the paper on top of each other and are dried at the end of the process (Tr. 209-11; CDX-5). Offset presses require "chill rolls" at the end of the dryer; gravure presses do not (*see* Tr. 210-11).

36. Offset folders have a fixed cut-off that corresponds to the circumference of the roller, whereas modern gravure folders are usually variable (Tr. 209, 211, 213-18).

37. Binding and distribution occur after the printed product (called "signatures" in the trade) comes off the press. Signatures can be bound by using staples (saddle stitching) or glue (perfect binding) (Tr. 200-02, 4592). After a print job is completed, it is distributed directly to the customer or to a mailing center (Tr. 202-03).

F. The Relevant Product Market

1. Introduction

38. The relevant product market proposed by complaint counsel and their expert Dr. Hilke is high volume publication gravure printing, which is approximated by gravure jobs of at least 5 million

copies, of at least 16 pages, and with less than 4 four-color versions (or the equivalent in single color versions). The "core" of this market is claimed to be approximated by jobs of at least 10 million copies, more than 32 pages, and less than 4 four-color versions (or the equivalent in single-color versions). Versioning of a publication is a relevant consideration because its cost is greater in gravure than in offset (F 224).

39. Analysis of complaint counsel's proposed markets involves consideration of the differences between and similarities of gravure and offset, printing industry perceptions about the two processes, how such differences affect customer choice, and the ability of gravure printers to price discriminate.

2. High Volume Publication Printing

a. Type of Publications

40. Most high volume publication printing involves three kinds of publications--catalogs, magazines and advertising inserts (Tr. 140-42, 166-69; CX-4-D). Donnelley derived over half its 1990 revenue from printing four-color multi-page catalogs, newspaper inserts and magazines (CX-4-D-E); Meredith/Burda's entire printing operation involved these publications (CX-107-Z-123).

41. For various reasons such as low volume, lack of need for high quality reproduction, or a high number of versions (different forms of a basic publication), the following publications can be excluded from discussion of high volume publication printing: telephone directories, newspapers, books (Tr. 166-68), comics (Tr. 146, 168, 2721, 4773), and coupon books which are inserted into magazines or newspapers (Tr. 168, 2482-83, 2450, 2490-92, 3129, 3460).

b. Procurement of Printing Services

42. Customers can obtain high volume gravure or offset printing services either under contracts or short-term informal agreements on the "spot" market. Long term contracts are more common for high volume printing jobs (Tr. 570, 2029-30, 3043, 4597, 5476; CX-63-P; CX-327).

43. Customers provide bid packages to prospective printers. Some seek bids from many printers; others limit their bids to selected printers (Tr. 791, 798, 800-01; CX-1397; CX-1411; RX-465-C).

44. Printers, including Donnelley and Meredith/Burda, use computer cost models to calculate bids for the gravure and offset processes (Tr. 5130; CX-136-0, P; CX-901 Z-62-63, Z-65).

45. Because the estimation of job costs is computerized, the cost of calculating bids is relatively low. Printers often make many bids before making a sale (Tr. 2683-84, 5994).

c. Printers

1) Offset Printers

46. Nine offset printers with no gravure capacity testified in this proceeding. Most of their print jobs did not involve high volume publication printing:

a) Riverside County Publishing Co.

47. Riverside, a California printer, has printed only 3 jobs with more than 5 million copies; all had at least 10 versions. The largest job had 5.9 million copies. The largest job with fewer than 4 versions had 3.4 million copies (Tr. 2186-87; CX-1181).

b) St. Ives

48. The catalogs, magazines and inserts printed by this company, which is located in Hollywood, Florida, are usually versioned. The average run length was 112,000 copies. The longest run ever printed by St. Ives was approximately 2,000,000 copies (Tr. 2594-95, 2600-03).

c) Printco

49. The average run length and page count of Printco's inserts, which are printed in two offset plants in Michigan, are 1.5 to 2 million copies with 12 pages (Tr. 2672-73).

d) Judd's, Inc.

50. The average run length produced by this Pikesville, Maryland company is 200,000 copies (Tr. 2778).

e) Holladay-Tyler

51. The average run length for the catalogs and magazines printed by this Glendale, Maryland company is 500,000 copies (Tr. 2779).

52. []. This magazine is no longer published (CX-1167-E-G; CX-1441; CX-1446-B; Tr. 2790-92, 6115-16).

f) Webworks

53. This Atlanta, Georgia company prints inserts ranging from 100,000 to 25 million run lengths and 8 to 16 pages (Tr. 2829, 2838-39). Webworks concentrates on jobs with page counts of 16 or less (Tr. 2830).

g) Graphic Arts Center

54. This Portland, Oregon company's specialty is high quality commercial catalogs and brochures. The average run length of its job is less than one million with an average page count of 32 or below (Tr. 2923, 2936). Graphic printed the Victoria's Secret catalog until its run lengths became so large in 1990 and took up so much press time that Mr. Williamson, its vice president of manufacturing, decided not to continue printing it and recommended that Victoria's Secret move to gravure (Tr. 2925).

h) Alden Press

55. This company's print jobs are typically 2 to 3 million in run length, 48 pages long and versioned (Tr. 4657). [] (CX-1167-E). [] (CX-1167-E). [] (CX-1167-C, E; Tr. 4996-97).

i) Sullivan Graphics

56. This company primarily prints inserts and tabloid-size magazines. [] (CX-1167-C, E).

2) Gravure Printers

57. Complaint counsel presented four gravure printers as witnesses: Ringier America, Quad Graphics, Brown Printing, and Quebecor. [] (see CX-1167-E).

d. Print Buyers

58. Several print buyers that published catalogs, newspaper inserts and magazines testified in this proceeding.

1) Catalog Customers

a) J. C. Penney

59. Penney currently produces approximately 80 or more catalogs each year which range from 12 to 16 pages to large catalogs of 1,400 to 1,500 pages (Tr. 557-58).

60. Penney's general catalogs are issued once a year in the spring, summer, fall and winter; a Christmas book is also produced once each year (Tr. 558-59).

61. Penney's general catalogs have approximately 1,500 pages and the Christmas book has 550 pages. Twelve to thirteen million copies are produced for each general catalog (Tr. 557-59, 561).

62. Penney's general catalogs are printed at Donnelley's Warsaw plant and are printed gravure except for the covers which are printed offset. The general catalogs are not versioned (Tr. 559-60, 565, 567).

63. Penney's tabloids are printed at Donnelley's Spartanburg plant using the gravure process. Approximately 18 tabloids are printed annually, with a page count of 70 to 160 each and a run length of 11 to 12 million copies each. They are not versioned (Tr. 557-62, 564, 567).

64. Penney's specialty catalogs number 20 to 25 issues annually. All are printed gravure, except one issue (Tr. 563, 568). They are not versioned (Tr. 564).

65. The Penney catalog division's market support program is a highly changeable program and is contracted out as spot work. Each market support catalog ranges from 200,000 to 1.3 million copies and contains 16 to 48 pages. The market support issues are printed either gravure or offset, depending on the size of the book. Donnelley

prints the gravure half and several offset printers print the offset half. There are no versions (Tr. 564, 570-72). Donnelley prints the larger and longer run lengths of these catalogs, such as the run over 650,000 copies (Tr. 572).

66. The Penney 1992 print program for its catalog division cost approximately \$247 million. Out of this total, paper accounted for approximately \$95 million (Tr. 573, 609). Out of the total program of \$247 million, about \$20 million was for offset work (Tr. 573).

b) Sterling, Inc.

67. Sterling produces Spring and Christmas catalogs for its Sterling, Shaw, Guild and J.B. Robinson divisions (Tr. 931-33).

68. The Sterling division spring catalog has a page count of 20 and a run length of 12 million copies. The Shaw division spring catalog contains 16 pages and 6.8 million copies are printed; both catalogs are printed gravure (Tr. 933).

69. Sterling's Guild division spring catalog has a page count of 28 and 2.5 million copies are printed. The J.B. Robinson division spring catalog contains a page count of 16 and a run length of 900,000 copies. Both of these catalogs are printed offset (Tr. 933-34).

c) Lands End

70. Lands End publishes 13 major catalogs, 5 prospector catalogs, 4 specialty catalogs, 6 domestic catalogs, 3 shirt and tie catalogs, and several sale flyers (Tr. 1194).

71. Lands End's major catalog is produced 13 times a year. Twelve have a page count of 100 to 260 and a copy count of 5 to 11 million. The remaining catalog may have fewer pages and 1 to 2.5 million copies are printed. The body of the catalog is printed gravure and the cover, sale insert, order form, response cards, and description card are printed using offset. There are rarely any versions in the gravure body of the main catalog (Tr. 1194-97, 1199).

72. Lands End's prospector catalogs are printed using the gravure process. Each has a page count ranging from 52 to 64 and runs from 4.5 to 11 million (Tr. 1242).

73. Lands End's children's catalogs are printed offset. Each catalog has a page count ranging from 52 to 64 and runs from 1.8 to 2.8 million copies (Tr. 1259-60).

74. Lands End's domestic specialty catalogs are printed offset. Each has a page count ranging from 52 to 80 and runs from 1.5 to 2.5 million copies (Tr. 1261).

75. Lands End's shirt and tie catalogs are now printed offset because they were changed to a smaller trim size. Each has a page count ranging from 36 to 48 and from 1.5 to 1.8 million copies (Tr. 1268-69). When these catalogs were printed in an 11 3/8 inch square format, they could not be economically printed offset, despite the run length of less than two million copies (Tr. 1268-70).

76. Lands End's sale flyers are printed gravure. Each has from 3 to 3.5 million copies and the page count varies, including counts of 24, 48, and 64 pages (Tr. 1273).

d) Lillian Vernon

77. Lillian Vernon produces a core catalog, a sales catalog, a Lilli's Kids catalog, and a Memories catalog.

78. Lillian Vernon's core catalogs are printed nine times a year using the gravure process. Each issue has a page count ranging from 96 to 128 and runs from 10 to 15 million copies. There are three versions (Tr. 1326-28).

79. Lillian Vernon's sales catalogs are printed five times a year using the gravure process. Each issue has a page count of 96 and runs from 5 to 7.5 million copies. There are less than three versions per issue (Tr. 1330-31).

80. Lillian Vernon's Lilli's Kids catalog is printed three times a year by the gravure process. Each issue has a page count ranging from 64 to 72 and runs from 4 to 7.5 million copies. There are two versions (Tr. 1331-32).

81. Lillian Vernon's Memories catalog is printed gravure. It has a page count of 48 and runs from 3 to 4 million copies (Tr. 1332-33).

e) Austads

82. Austads' catalog is printed 13 times a year. Each issue has a page count ranging from 48 to 76 and runs from 800,000 to 2.5 million copies. Austads' recently changed the size of three of its catalogs to a "Slim Jim" sale format. The "Slim Jim" catalogs are printed offset, and the rest of the catalogs are printed gravure (Tr. 1417-21, 1424-25).

f) Sears

83. Sears produced three major media catalogs, a seasonal catalog, a monthly catalog and a specialty catalog (Tr. 1763). The three major media catalogs were printed gravure. Each issue had a page count of 1,500 and runs from 12 million to 13 million copies (Tr. 1763-65). The seasonal catalog was printed four times a year using the gravure process. Each issue had a page count ranging from 200 to 300 and a run length of 6 million (Tr. 1765). The monthly catalog was printed 13 times a year using the gravure process. Each issue had a page count ranging from 72 to 144 and a run length ranging from 6 to 10 million. There were two to five versions (Tr. 1763, 1766-67). The specialty catalog was printed 34 times a year using the gravure process. Each issue had a page count ranging from 48 to 200 and a run length ranging from 1 to 9 million (Tr. 1768). The specialty catalogs were bid out annually and gravure won all of the most recent year's bids (Tr. 1769-70).

g) Current

84. Current's catalog is printed 12 times a year using the gravure process (Tr. 1908-09). Each catalog has a page count of 48 and a run length ranging from 2 to 14 million (Tr. 1911-12).

h) Victoria's Secret

85. [] (Tr. 2014-15, 2012-13, 2019-26; CX-1446-B-D).

i) Bedford Fair

86. [] (Tr. 2138).

87. [] (Tr. 2138-40).

88. [] (Tr. 2138, 2144-45).

89. [] (Tr. 2138, 2147-48).

90. [] (Tr. 2138, 2148).

j) Rivertown Trading

91. Rivertown Trading Company produces two catalogs, titled "Wireless" and "Signals." The Wireless catalog has a print run of 10

to 30 million copies, has a page count of 40 to 48, and is printed offset (Tr. 3544-45, 3550). The Signals catalog has a run length of 7.5 to 20 million and is also printed offset (Tr. 3544-46). Each of the Wireless and Signals catalogs has up to 10 to 12 versions (Tr. 3350-51, 3569-70, 3573). Both catalogs use a special 50-pound type of paper that is only available for offset, called Escanaba (Tr. 3578-81, 3584). The nearest gravure equivalent for 50-pound Escanaba paper is more expensive than the offset paper (Tr. 3579).

k) Service Merchandise

92. Service Merchandise's largest catalog has a page count of approximately 564 and a run length of 13 million (Tr. 4265). Its other 2 catalogs are approximately 100 to 170 pages in length and have a run length of approximately 13 million (Tr. 4266). All three of the Service Merchandise catalogs are printed gravure with two versions, including the base version (Tr. 4265-67).

1) Ross Simons

93. Ross Simons produces eight catalogs per year (Tr. 4543-44). Each catalog has a page count of 36 to 60 and 5 to 12.5 million copies are printed. Each catalog has three different cover versions and is printed offset (Tr. 4543-44, 4564-65). The last time the Ross Simons catalog went out to bid, the gravure bids were approximately five percent less than the offset bids. Ross Simons stayed with offset because it has "last minute" changes in prices and in the items being included. Offset is better for making last minute changes because making new offset plates takes less time than producing new gravure cylinders (Tr. 4556-57).

2) Newspaper Insert Customers

a) Penney

94. Penney's retail division produces Sunday newspaper inserts. Thirty-two events are printed per year and within each event, there are three programs: the full-line department store program, the limited-line department store program, and the soft-line department store program (Tr. 693).

95. Penney's full-line department store program has a page count ranging from 12 to 48 and a run length of 37 million. Each event has approximately five to six versions and is produced by the gravure process (Tr. 693-97).

96. Penney's limited-line department program has a page count ranging from 8 to 36 and a run length of 6 million. Each event has five to six versions and has been produced by the offset process (Tr. 695-96, 700). As part of a program of upgrading the image of its stores, Penney is considering shifting this program to gravure in 1994 to improve its quality (Tr. 734-35; see CX-1443-B-C: CPF 420-440).

97. Penney's soft-line department store program has a page count ranging from 8 to 24 and a run length of 6 million. Each event has five to six versions and is produced by the offset process (Tr. 695-96, 700).

98. [] (Tr. 691).

b) Venture Stores

99. Venture Stores produces Sunday newspaper inserts. It produces 53 issues per year, with a page count ranging from 12 to 48. The circulars are printed 100% gravure. In 1992 the run length was in excess of 9 million; in 1993 it was in excess of 10 million (Tr. 814-15, 829). The inserts are unversioned except for two or three weeks a year when a new item is released (Tr. 815).

100. Venture Stores also produces inserts for grand openings with a page count ranging from 20 to 32 and a run length of 100,000 to 200,000. The inserts are printed using the offset process (Tr. 819). Venture purchases its SCB and SCA paper directly from paper mills (Tr. 812, 816).

c) Sterling Inc.

101. Sterling Inc. produces six different issues of flyers (February-Valentine, March, June, August, October, and Christmas), all of which are printed offset. The run length ranges from 900,000 to 12 million and the page count ranges from 4 to 8; occasionally, in the past, it was 12 pages (Tr. 934-35).

d) Bradlee's

102. Bradlee's produces 53 circulars per year using the gravure process. Each circular has a page count ranging from 12 to 56 and a run length of 6.3 million. There are two versions per event. Bradlee's also produces special projects circulars that are printed offset. Each of these circulars has a run length of 200,000 (Tr. 1023, 1027-28, 1030).

e) Target Stores

103. Target Stores produces 53 circulars per year using the gravure process. Each circular has a page count ranging from 12 to 36 pages and 35 million copies, with an occasional smaller copy count of approximately 20 million (Tr. 1077-78, 1081-82). For its stores in the three western states of California, Arizona, and Nevada, approximately nine million copies per week are printed (Tr. 1109).

f) Caldor

104. Caldor produces 53 circulars per year using the gravure process. Each circular has a page count ranging from 12 to 48 and a run length ranging from 10 to 14 million. There are two black type versions (Tr. 1155-57).

105. Caldor also produces circulars for store openings or reopenings using the offset process. Each circular has a page count ranging from 4 to 8 and a run length of 300,000 to 1 million. There are many versions (Tr. 1161-62).

g) Wal-Mart

106. Wal-Mart's inserts are printed 13 times a year. During 1993, Wal-Mart began shifting its predominantly gravure printed program to offset. Each issue has a run length ranging from 60 to 70 million and is divided into several separate jobs, each with many localized versions (Tr. 2257-58, 2260-61).

h) Levitz

107. Levitz Furniture Corporation has a national advertising program consisting of weekly newspaper inserts. The inserts are 8 to 16 tab size pages in length and range from 18 to 20 million in run length and are printed offset or gravure (Tr. 3954). The inserts have two to three four-color versions (Tr. 3956). Levitz has moved this program to an offset only format in order to allow its regional group to make more last minute version changes at low cost (Tr. 3992-93; RX-355).

i) K-Mart

108. K-Mart's major national advertising program consists of a weekly insert that has an average page count of 24 but going as high as 36 pages, with 73 million copies. The inserts are printed offset or gravure and have numerous versions (Tr. 4157-59, 4205-06, 4214-15). [1 (Tr. 4234-35).

j) Service Merchandise

109. Service Merchandise's inserts have a page count of approximately 32 and a run length of approximately 28 to 30 million, printed gravure, with 2 versions including the base version (Tr. 4263-65).

3) Magazine Customers

a) AARP

110. The American Association of Retired Persons ("AARP") produces Modern Maturity and the National Retired Teacher's Association Bulletin ("Bulletin") (CPF 239-240).

111. AARP's Modern Maturity magazine is printed six times a year using the gravure and offset processes. Each issue has a page count of approximately 96 and a run length of approximately 22.4 million. Of these pages, approximately 84 to 88 are gravure with 1 or 2 versions. The rest of the pages (8 to 12) are printed offset with 4 to 20 versions (Tr. 1568-70).

112. AARP's Bulletin is a two-color print job. It is printed on newsprint by the gravure process. The Bulletin has a run length of approximately 22 million and a page count of 20 (Tr. 1564-65).

b) TV Guide

113. TV Guide magazine is printed 52 times a year with a run length of 17 million per issue (Tr. 1644, 1654). TV Guide has basically four components: cover, features, listing editions and advertising (Tr. 1641).

114. TV Guide's cover is four-color, contains four to six pages and is printed gravure (Tr. 1641, 1649).

115. TV Guide's feature section is four-color and has a page count (produced in eight page increments) ranging from 24 to 48, containing 4 to 6 versions (Tr. 1652-53, 1664). The feature section is printed gravure at two locations, San Jose (for Western distribution) and Lancaster (for Eastern distribution) (Tr. 1655).

116. TV Guide's television program listings have 113 versions. All but three of these versions are printed offset (Tr. 1660-61). The remaining three are among the largest listings and are printed gravure (Tr. 1161-62). The listings are two-color (Tr. 1663).

c) National Geographic

117. The National Geographic Society publishes the Traveler Magazine, World Magazine, Research Journal Magazine, and National Geographic Magazine (Tr. 1705).

118. National Geographic's Traveler Magazine is printed six times a year using the offset process. Each issue has a page count ranging from 140 to 160 and a run length ranging from 700,000 to 800,000. There are two to three advertising versions (Tr. 1705-06).

119. National Geographic's World Magazine is printed 12 times a year using the offset process. Each issue has a page count of 32 and a run length of 1.2 million. There are no versions (Tr. 1706-07).

120. National Geographic's Research Journal Magazine is printed by sheet fed offset. Each issue has a page count ranging from 120 to 140 and a run length ranging from 6,000 to 7,000. There are no versions (Tr. 1707-08).

121. The National Geographic Magazine is printed 12 times a year using the gravure and offset processes (Tr. 1709-10). Each issue

has a page count ranging from 140 to 165 and a run length of 9.8 million (Tr. 1710-11). One hundred forty pages are printed gravure and 20 to 25 pages are printed offset (Tr. 1711). The gravure portion is not versioned (Tr. 1494). The offset portion is highly versioned (Tr. 1712-13).

e. Print Buyers Who Have Switched From Gravure to Offset

122. Several print buyers have switched their high-volume work from the gravure to the offset process in recent years, including present buyers who testified in the District Court preliminary injunction case that they could only use the gravure process for their high-volume printing needs (Tr. 5204-06).

123. Wal-Mart primarily used the gravure process to print its high-volume inserts until 1993 (Tr. 2260-61). The job characteristics of Wal-Mart's pre-1993 print program were run lengths exceeding 40 million copies, at least 16 pages, and few versions (Tr. 2260-61; RX-383). In 1993, however, Wal-Mart switched nearly half of its print program to the offset process (Tr. 2261, 5204-06). Wal-Mart chose to use offset because of its flexibility with respect to versioning, reduced distribution costs, and the ability to obtain lower prices for its overall print program (Tr. 2264, 2275-76, 2307-08). [] (Tr. 5204-06). In the future, Wal-Mart expects its print program to reach 100 million households (Tr. 2259).

124. [] publishes [] catalogs, which have job characteristics that place them in the "core" of Dr. Hilke's proposed market (RX-519). These catalogs were done through the gravure process, but are now done offset (Tr. 4004; RX-519).

125. K-Mart, which has been described as "the largest user of pre-printed inserts in the United States and probably in the world," had all its national inserts printed gravure in the past (Tr. 4163; RX-22-E). Today, K-Mart finds the gravure and offset processes to be interchangeable, receives bids in both processes, and uses both processes for its national inserts (Tr. 4158-59, 4163; RX-652). One of the reasons K-Mart has moved more to offset is increased versioning (Tr. 4234-35).

126. Montgomery Ward formerly had its catalogs printed gravure (Tr. 1541, 1389). It left the big catalog business in 1985 (Tr. 1541). Now, Montgomery Ward is having catalogs published under its name using the offset process (Tr. 1542, 1389). This includes catalogs with

run lengths in excess of 5 million copies as well as jobs in Dr. Hulke's "core" market of more than 10 million copies, more than 32 pages, and few versions (Tr. 1542; RX-173). Montgomery Ward is, however, considering a longer run catalog printed by gravure (Tr. 1542).

127. The retail division of Penney publishes inserts called limited-line inserts. These inserts are distributed to areas which have Penney stores that do not have the full Penney product line (Tr. 693). They generally have a run length of approximately 6 million copies, 8-36 pages, and 5-6 four-color versions (Tr. 695-96). In 1987, [] of Penney's limited line bids were awarded to gravure print suppliers (RX-708). By 1992, gravure usage in the limited line program had been reduced to [] (RX-708).

128. Other publishers with long-run catalogs who switched from gravure to offset include Damark and Compuadd Corporation (RX-38; RX-7). Damark publishes catalogs with run lengths of 2-9 million copies, with a range of 40-56 pages (Tr. 5214-15). Compuadd Corporation's catalogs have a run length of 20 million copies and 32 pages (RX-7). However, versioning information with respect to these two print buyers was not available.

129. [] has been a longtime user of offset (Tr. 2014). It publishes approximately [] catalogs annually, with run lengths of [] million up to [] million, an average of [] pages per catalog, and [] versions (Tr. 2015).

130. Recently, [] has been testing the gravure process (Tr. 2015-16). This involves running some of the [] catalogs gravure (e.g., 1 million catalogs out of a 20 million run), soliciting both gravure and offset bids, and comparing the sales results of catalogs printed gravure and catalogs printed offset (Tr. 2015-17, 2018-22).

131. The results of the testing program have not been determined yet (Tr. 2034). The first catalog that [] ran gravure, however, did not meet expectations (Tr. 2018). Further testing of gravure continues (Tr. 2020-22).

132. [] 1993 print program continues to be printed by [], an offset printer (Tr. 4644-46). [] will print 10 catalogs for [] in 1993, with run lengths ranging from [] million copies, page counts of [] pages, and [] versions (Tr. 4644-46).

3. Differences Between the Gravure and Offset Processes

a. Throughput

133. Throughput is the ability of a printing press to produce a given amount of printed product in a particular time period (Tr. 2399-2401) and depends on a combination of web cylinder width, circumference and press speed. Gravure presses have a greater throughput than the usual offset press.

134. Gravure presses in the United States range from 68 to 125 inches in width; heatset web offset presses used in publication printing range from 36 to 66 inches in width (Tr. 2212, 3796).

135. The most common offset presses (the Harris M-1000, the Rockwell/Baker-Perkins G-14 and the Mitsubishi L-1100) are used to print magazines and catalogs and are from 36 to 38 inches wide with an approximate cylinder circumference of 22 inches (Tr. 219-22, 2052, 2600, 4715-16, 2062-63, 4317, 4322, 4508; CX-874). As one Donnelley document stated, two web offset presses of M-1000 dimensions would still be "a peanut size gravure press" (CX-1109-D).

136. These offset presses when configured with 4 printing units and 1 web can deliver 16 pages of four-color printed matter (2 pages around the cylinder and 4 across equals 8 on either side of the web) with dimensions of approximately 8x11 inches. With 8 units and 2 webs, these presses can deliver 32 8x11 four-color pages (Tr. 223-24, 2061-62).

137. Offset press widths are limited by the tendency of cylinders to bend slightly when they rotate at high speeds. This causes a loss of "registration"--the correct alignment of colors in the finished process (Tr. 2079-81; CX-948-B; CX-1111-A-B; CX-122-Z-14).

138. Offset presses used to print magazines and catalogs are limited in cylinder circumference (20 to 42 inches whereas gravure circumferences range from 31 to 60 inches) (CX-265) because of a unique problem called "in-line color compromise" which is caused by the way ink is applied (CX-290-H).

139. To achieve various shades of color, different densities of ink must be applied around and across the cylinder (Tr. 2072). The offset press operator makes the necessary adjustments to add or subtract color on the ink fountain keys (see Tr. 3750; CX-295-B).

140. In-line color compromise occurs when pages running in line (below and above each other on the offset printing plate) have incompatible ink adjustment requirements (CX-290-H). Because any adjustment to the density of the color in offset necessarily must affect the same area across the entire circumference of the cylinder, other colors can be adversely affected or vary from the desired shade (*see generally* Tr. 199, 2072).

141. In-line color compromise is not a problem in gravure printing (Tr. 199-200, 895, 1433, 2075, 2112-13, 2209, 3902-03; CX-290-H; CX-298-C; CX-307-B; CX-631-B) because the recessed ink wells can be engraved to specified depths independently of the cells for the other pages in the same line around the cylinder (Tr. 197, 199-200, 2209; CX-290-H; CX-297-D; CX-307-B).

142. Gravure presses are not as limited in width as offset because they overcome the deflection problem by using a system which compensates for it (Tr. 2082).

143. Since gravure presses can use cylinders which offer six-around impressions (meaning six rows of page impressions wrapped around the cylinder) while offset presses use two and four around cylinders, gravure presses deliver more pages per impression than offset presses (CX-265; CX-118-Z-35; Tr. 212-13, 225-26, 1489, 2524-25, 2557).

144. A gravure press of approximately 96 inches in width can print up to 96 standard-size (8.5 x 11 inch) pages per impression (Tr. 225-26; CX-633-M). A gravure press over 110 inches wide can print up to 120 standard-size pages per impression (Tr. 250-51, 1486, 1550). A three-meter gravure press of the type installed at Brown's Franklin, Kentucky facility (with a web width of approximately 125 inches) is capable of producing 132 or 144 pages per impression (CX-981-C; Tr. 2524; *accord*, Tr. 4794).

145. The narrower web of the offset press and the smaller circumference of offset cylinders make it impossible for an offset press to deliver as many pages at a time as a gravure press (*see generally* Tr. 225-26). The most common offset press (the Harsis M-1000 and other offset presses with similar dimensions) produces only 16 pages at a time (or 32 pages if operated with 2 webs) (CX-307-C; CX-634-I; Tr. 219, 223-24, 2600, 2937-38).

146. Double webbed presses of the M-1000 type often are referred to as 32-page presses (Tr. 219, 2600, 2937-38). Offset presses with wider web widths and larger cylinder circumferences are

less common than narrower and smaller models, such as the M-1000 (Tr. 222). It is also possible for gravure presses to be double-webbed provided the folders can accommodate the output (Tr. 225-26).

147. Another factor contributing to the greater throughput of gravure presses is the speed (usually expressed in terms of feet per minute) of the press. Modern, state-of-the-art gravure presses can be expected to operate in the 2,600 to 3,000 feet per minute range (Tr. 229-30, 1493, 2400, 2422, 2524, 2617, 3827, 4365; see CX-11-Z-21; CX-21-Z-1; CX-119-Z-12-13). These gravure presses have been able to achieve close to the full potential (*i.e.*, rated speed) in actual practice (CX-117-Z-49; CX-119-Z-12-13; Tr. 1493, 2524).

148. On the other hand, Donnelley's January 1990 Technical Directors' Report remarked on a large and growing gap between the rated speeds of offset presses and actual running speeds (CX-733-N; see also CX-733-K-M). A September 1990 report prepared by Donnelley's Dr. Peekna arrived at similar conclusions, noting that increases in actual offset press speeds were less than increases in rated speeds (CX-1206-E; Tr. 3885).

149. [] (CX-937-B; see also CX-128-Z-60).

150. St. Ives, a Florida-based offset printer, reports actual run speeds in the 1400 to 1500 feet per minute range for its M-1000 presses (Tr. 2601).

151. The net speeds reported by Riverside County Publishing Company for its C-700 tabloid offset presses are approximately 60% of a rated speed of 2,000 feet per minute. Riverside achieves rates of 65 to 70% for its other offset presses (Tr. 2192).

152. The highest rated speed of any offset press currently used for publication printing is in the 2000 to 2200 feet per minute range (Tr. 3819, 3905-06; CX-874-E).

153. There are newer offset presses which come closer to the performance of gravure presses, but it appears that gravure still has a throughput advantage.

154. The offset press with the widest web width (66 inches) is the N-9000, manufactured by Heidelberg/Harris (Tr. 3907, 4331). The N-9000 press is primarily used to print newspaper inserts, coupon books, and telephone directories (Tr. 2108, 4331) and has a rated speed of 2200 feet per minute (CX-874-E; Tr. 3905-06). It is capable of producing up to 72 pages in one impression, when used to produce coupon books (Tr. 3133). When double-webbed, it can produce 112 pages in a single impression (Tr. 4331-32).

155. However, printers using the N-9000, [], have experienced problems with color consistency (Tr. 3141), [] (Tr. 4403-04), [] (CX-118-Z-76).

156. [] (CX-106-Z-67).

157. Another web offset press with a 72-page per impression capability (double-web) is the Lithoman V press manufactured by MAN-Roland (Tr. 893, 2076, 3897-98, 3772; CX-1270-A; CX-1215-C).

158. [] (Tr. 895-96; 2076, 3903; CX-946; *see* CX-1271-A-B; CX-1270). Dr. Andreas Peekna of Donnelley's R&D department called its design "a jump from the frying pan into the fire" (CX-1214-A), and MAN-Roland referred to this press as a "3 around gamble" in an August 1991 letter to Donnelley (CX-1215-C; Tr. 3900).

159. Regardless of press configuration (tandem, single-web or double-web), the record indicates that gravure throughput exceeds that of offset presses in general use, which means that the gravure process gives the printer a lower variable cost.

160. The vice president of pressroom operations for Quad, comparing the throughput of its 96-inch gravure presses to its M-1000 offset presses, concluded that the gravure presses had approximately 50% greater throughput measured in terms of pages per hour (3,472,896 for the gravure press versus 2,228,032 for the offset press) (Tr. 2401).

161. The most productive gravure press equipment identified in the record consists of two 20-unit, three-meter wide gravure presses located at Bauer in Cologne, Germany (Tr. 2582-83, 3942-43; CX-853-G; CX-1173-I). According to literature supplied by its manufacturer, this press is capable of producing 32 million pages of printed product per hour (CX-1173-I; *accord*, CX-766-Z-2). This is much greater than the comparable throughput claimed for the newer technology offset presses still in development (Tr. 3264-66).

162. The greater throughput capacity of gravure makes the process more cost-effective for printing jobs with large numbers of copies and many pages per copy (CX-307-C; CX-634-I; *see* Tr. 2612, 2614). According to one Donnelley document, a 48-page catalog with an approximate 2.5 million run length would take 3 days to produce using one gravure press compared to 14 days on an offset press (CX-290-F; *see also* RX-495-A; RX-496-A; RX-502-A; RX-678-A, indicating 2 weeks or more of press time were required when printing longer run jobs using the offset process).

163. Nancy Kaminsky, who has compared gravure printing costs to offset printing costs as a print buyer at both Bloomingdale's and Victoria's Secret, estimated that an average size book might be on press for two weeks if done offset compared to four days for the same book done gravure (Tr. 2038-39).

164. [] (Tr. 4675) [] (Tr. 4671) (see RX-188-A; RX-378-A).

b. Durability

165. Offset plates are less costly and time-consuming to prepare than gravure cylinders; thus, the offset process has a lower start-up cost than gravure. Offset's initial cost advantage is, however, overcome in higher volume jobs in part because offset plates require more frequent replacement than gravure cylinders (Tr. 246-47, 1484-84, 2614; see CX-522-B; CX-633-O, Z-9; CX-634-J, Z-5-12; CX-900-Z-1).

166. Offset plates offer from 400,000 to 1,500,000 impressions before wear and product quality deterioration require their replacement (Tr. 2214-15 (500,000-600,000); Tr. 2846 (700,000 to one million); Tr. 1600, 1714 (one million); Tr. 2374, 243 (1.2 to 1.5 million)).

167. Recent improvements in technology have resulted in increases in plate life--up to 2.8 million impressions (Tr. 3757, 4611, 4922-23); however, these plates are more expensive than conventional offset plates (Tr. 4616).

168. Gravure cylinders are coated with a thin layer of chrome for durability (Tr. 244, 2558) and can last up to ten million impressions or more before re-chroming of the cylinder is needed (CX-292-H). This operation, referred to as a "de and re" does not need to be performed as frequently as the plate changes which are required in offset (Tr. 243-48; compare CX-1358 with CX-1360).

169. James Melton of Quad Graphics testified that in his experience "de and re" occurs every 5 to 10 million impressions (Tr. 2375) and Roy Hodgson, formerly of Quebecor, estimated that "de and re" typically occurs after 6 to 9 million impressions (Tr. 244). Walter Voss, who served as President of Meredith/Burda prior to its acquisition by Donnelley (CX-900-F), testified that it was commonplace for Meredith/Burda to achieve run lengths of eight to nine million on its gravure presses without changing or re-chroming cylinders (see CX-900-Y). At Brown Printing Company's Franklin,

Kentucky gravure facility, cylinder "de and re" is generally not needed (Tr. 2558). Since gravure presses can print many pages at once, it is not infrequent for jobs of 5 million copies or more to be printed in a continuous run without a cylinder change (Tr. 247-48, 2558, 2560; CX-900-Y).

c. Cut-Offs

170. The cut-off on a press is equal to the circumference of its cylinders. One press revolution equals one cut-off. The cut-off of the press limits the size of the end product because each page or group of pages must fit within the cut-off (Tr. 211, 215-18; CX-123-Z-17-18).

171. Offset presses can accommodate plate and blanket cylinders of only one circumference (Tr. 215, 1487, 2086, 4715; CX-102-Z-173) and thus have "fixed cut-offs" (Tr. 2837; CX-1142-Z-43). As a consequence, offset presses only print products in sizes that fit the particular press, whereas most gravure presses produced in the past ten years have a variable cut-off feature which allows the press to accommodate cylinders of different circumferences (Tr. 215-17, 1487, 1508, 4870-71, 3939; CX-102-Z-52, Z-53, Z-57).

172. Because of its variable cut-off feature, the gravure process can achieve greater loading efficiency and more paper savings than offset for many jobs (see Tr. 826-27, 2445-46, 2612-13).

d. In-Line Stitching and Trimming

173. Offset presses do not generally stitch and trim on the press line, primarily because their low page capacity often renders them incapable of printing all of the pages in a single print run (Tr. 2376-77, 2789, 2947).

174. The ability of gravure presses to stitch and trim a greater number of pages in one impression is an additional advantage of the gravure process (Tr. 201-02, 937, 952-53, 1491-92, 2205-06, 2553-54). The fact that the entire product must be stitched in a separate operation adds substantially to the cost of the offset process (Tr. 953, 2727-28). In fact, one witness estimated that stitching and trimming a product off line (as opposed to stitching and trimming on press) could add as much as 20% to the cost of the print job (Tr. 946).

e. Paper Waste

175. Plate and blanket gaps in offset contribute to a certain amount of paper waste; by contrast, in gravure the image is continuously engraved around the entire circumference of the cylinder, eliminating any "gap" paper waste that results from offset gaps (CX-307-C; Tr. 2088, 2091-93; *see also* Tr. 869, 1488).

176. Gravure's lower web tension and lower temperature dryers result in fewer web breaks and less paper waste (Tr. 2373; CX-178-Z-10-11; CX-535-Z-29).

177. The result of these factors is a general industry experience that gravure paper waste is less than that of offset (Tr. 233-34, 869, 2949, 1716, 6056, 2035-36, 2446, 4871-72; CX-499-D; CX-717-J, Z-1; CX-593-Z-28). Even a change in trim size can affect paper waste and costs (Tr. 6090-91; CX-1412).

f. Paper Grade and Weight

178. Paper used in the web offset process often contains a clay-like substance known as "sizing" which is needed to absorb the water applied to the paper; as a result, lower weight paper cannot be used (Tr. 176-79, 3699-3703; CX-634-T). Also, offset paper must withstand the tackiness of offset ink and the high temperatures used in drying it (CX-633-F).

179. Sizing is not required in the gravure process (Tr. 178), and since high temperatures and water are not used, the paper need not be treated to prevent water absorption (CX-1435-E). Because gravure inks are more fluid and ink is transferred from the cylinder wells directly to paper, lesser grades of paper receive the ink as well as higher grades (CX-634-U).

180. Consequently, the gravure process yields better results than offset when printing on cheaper, lighter weight, uncoated grades of paper such as supercalendared grade B and machine-finished stock (Tr. 136, 180, 238, 353, 727, 796-97, 816, 827, 831, 850, 868, 921, 923, 1044-45, 1089, 1093, 1124, 1162, 1183-84, 1420-21, 1472, 1490-91, 1760, 1830-31, 1918-19, 2005, 2196, 2208-09, 2304, 2372, 2395, 2446, 2557-58, 2640, 2692, 2845, 2888-89, 4443).

181. The use of lighter weight paper can result in significant reductions in cost because it is less expensive than paper used on offset presses (Tr. 1093-94, 1107, 2005; CX-301-Q; CX-634-U; CX-

1452-A). Significant postal savings can also be realized by using lighter weight paper (CX-293-B; CX 303-B; CX-354-B; Tr. 183, 2004-05). As postal rates increase, gravure's cost advantage over offset will also increase (Tr. 183; accord, CX-293-D).

182. Roy Hodgson, complaint counsel's industry expert, confirmed the relative advantages of the gravure process on lighter paper:

My experience is that lightweight papers are less economical when they're running in offset, and I think that there is a quality difference on lightweight papers.

Q. And which process would have the quality advantage in lightweight papers?

A. I think that gravure has the quality advantage on that particular stock.

(Tr. 353).

183. However, paper producers have recently developed lighter paper grades that are suited to the offset process (Tr. 3651, 3653-54, 3681, 3683-84, 3687).

g. Quality

184. The ultimate consumer (*i.e.*, the person who purchases a magazine or receives an insert or catalog) cannot tell whether it has been printed by the gravure or the offset process (Tr. 1718-19, 4267) and several retailers and catalogers who sell quality products use the offset process for their high-volume publications (Tr. 2968-69, 1390-91; RX-176; RX-188; RX-381; RX-173; RX-172).

185. High quality magazines such as National Geographic and Modern Maturity use both offset and gravure for different parts of their publications (Tr. 1710-11, 1569).

186. A number of witnesses testified that for their purposes offset and gravure offer comparable quality (Tr. 1366, 1719, 2394, 3567-68, 3675-77, 3975, 4267, 4546, 4551). On the other hand, print buyers such as Mr. Henry of Penney proclaimed the superiority of gravure over offset:

The one thing to remember is we don't sell preprints. I sell merchandise. That jacket is burgundy in Seattle and it's burgundy in Duluth. So there is nothing worse than disappointing . . . a customer who thinks and looks at the preprint and sees a red sports jacket and then walks into the J. C. Penney store and finds out on the rack that the jacket that's on sale is burgundy. She will, number one, be angry at the J. C. Penney Company, walk away, go shop in Dillard's and we may never see her again.

... the important thing is the integrity of the color throughout the length of the run ... that burgundy jacket must be burgundy from copy number one through copy number 37 million. And that's what's extremely important in the gravure process is that it does protect that quality, it does show the detail throughout the entire run of the jacket which is also extremely important.

(Tr. 697-98). (see also F 96.)

187. During the course of the trial, some witnesses were presented with samples of gravure and offset printing and asked to distinguish between them; they were not able to without the use of a magnifying glass, including Mr. Hodgson, who claimed that print buyers can see the difference between the two processes (Tr. 347), as well as a print buyer who had previously testified that gravure had a quality advantage over offset (Tr. 384, 1056).

188. Nevertheless, many printers and print buyers believe that gravure produces a better or, in the words of Mr. Hodgson, a "more elegant" printed product (Tr. 258, 351); and, Donnelley's Chairman and CEO declared in a speech that the quality of gravure is "unequaled by other printing methods" (CX-260-F).

189. Many print customers prefer what they perceive as the high-quality "gravure look," particularly when high volume printing is required (see Tr. 577, 698, 709-10, 791, 817-18, 1024, 1044-45, 1094-96, 1158-59, 1204, 1422-24, 1429-30, 1442, 1572, 1595, 1650-51, 1659, 1718, 1765, 1767, 1803, 1915, 2034-35, 2149-50). Even some offset printers agree that gravure printing provides better color fidelity than offset printing (Tr. 2196, 2786-87).

190. Complaint counsel argue that the quality preference of print buyers is based upon real differences between the two which are the result of gravure's simplicity as compared to offset (CX-633-I; Tr. 232, 2373, 2586, 2615, 4872-73). These differences include: "gap streaks" (Tr. 2090), "fan-out" (the tendency of the offset web to expand as water is applied to it) (Tr. 2083, 2210), plate wear, which affects color consistency (Tr. 708, 722-23, 739, 2088; CX-290-D), the need to monitor ink, water, and temperature balance in offset (CX-634-W), the wider tonal range of the gravure process (see CX-260-F; CX-290-C-D; CX-291-G; CX-292-M; CX-295-B; CX-297-B; CX-522-D; CX-523-E, F; CX-524-A, C; CX-525; CX-526-A-F; CX-527-K; CX-534-O; CX-633-H; CX-634-R), and in-line color compromise (F 140).

191. These problems are real; however, since even complaint counsel's own expert could not distinguish between offset and

gravure products without the use of a magnifying glass, it appears that offset printers are able to overcome offset's problems in many cases. (See Tr. 3750-56). Nevertheless, while the actual quality differences between gravure and offset may be minimal, the subjective opinion of print buyers who prefer gravure is as much a constraint on their choice of process as would be an objective, verifiable opinion.

4. Recent Developments In Offset and Gravure Technology

a. Gravure

192. The web width of gravure presses has gradually increased—from 70 to 80 inches in the early 1970s to over 100 inches or more at present (CX-102-Z-127-29). Three-meter gravure presses (118 inches wide) have been used in Europe for several years and were recently introduced in this country. The widest gravure press used for publication printing is 125 inches wide (CX-504-Z-10; CX-834; Tr. 2523), and future gravure presses may be even wider (see CX-1453-B; CX-256-F; CX-775-L; CX-939-H; CX-1240-L; CX-113-Z-107-C-E; CX-487-B, F).

193. Gravure press speeds have increased steadily from less than 1200 feet per minute in the 1960s to 3000 feet per minute at present (CX-120-Z-30-31, Z-38). The most widely used offset press, the Harris M-1000, has a web width of approximately 38 inches and a rated speed of 2000 feet per minute (Tr. 4321; CX-128-Z-59-60).

b. Offset

194. One printer testifying for complaint counsel stated that as offset presses have improved, "the area of competition between the two presses . . . has definitely gotten broader and . . . there is more work crossing over between the two processes" (Tr. 2609). And, an industry publication concluded that "the latest innovations in web offset . . . [have made] web offset competitive with gravure in long-run printing" (CX-1142-Z-43).

195. Donnelley claims that new presses such as the Heidelberg-Harris M-3000 and the Lithoman V will accelerate this trend (RPF 129), citing the formation of Donnelley technical and managerial committees to suggest ways of making "gravure more competitive

with offset" in light of the "significant gains in terms of both quality and productivity" that offset has made (RX-150; RX-161-A; RX-163; RX-164; Tr. 3778-88, 4582-86). And, Donnelley management has met with gravure equipment suppliers and urged them to develop new technologies in order to keep gravure competitive with offset (RX-156; RX-262; Tr. 4586-88). Gravure industry groups have also recognized that "with the ever advancing technology in offset, the competitive advantage of gravure is becoming questionable" and that improvements in gravure technology "will be mandatory to protect our market share within the commercial printing community (vs. offset/flexo)" (RX-153-A). Donnelley has even considered replacing some of its gravure presses with M-3000's (RX-142-A), and [] (Tr. 4444, 4462).

196. The Harris M-3000 or "Sunday" press has a 54-inch web width, which is 50% wider than the M-1000, with approximately the same cut-off or cylinder circumference as the M-1000 (Tr. 4345, 4511). This enables the press to produce 24 standard-size pages per impression, or 48 pages per impression in a double-web configuration (Tr. 4346).

197. Because the use of a gapless blanket technology and other concepts is viewed as a radical departure from conventional offset press design, many offset printers are reluctant to place orders for the M-3000 without seeing the technology proven (see Tr. 1481, 2220, 2543-44, 2622, 2804, 4653, 4792-93). The unconventional nature of the press (its increased web width while retaining a narrow cylinder circumference) raises particular concerns about cylinder deflection (Tr. 4792-93; accord, Tr. 2079-81).

198. Donnelley is ordering three M-3000's, but [] (Tr. 3929-30, 4468-69, 4579-81). Donnelley is also negotiating the purchase of three-meter gravure presses and its president testified that he does not view the M-3000 as rendering gravure obsolete (Tr. 4579-81).

199. New gravure and offset developments may result in crossover presses that create more competition between these processes (see Tr. 2609; CX-1272-G), but Mr. Hodgson testified that the new technology was aimed more at enhancing the presses in their own markets and that offset and gravure are still "quite separate marketplaces" (Tr. 290-91). And Mr. Sullivan, an offset printer, stated that while the M-3000 was designed to go after some of the high end gravure market, some of the work which has been

traditionally done gravure would be unaffected by the M-3000, even if it is successful (Tr. 2806-08).

200. [] (CX-1272-G).

201. The following table of high volume publications which are printed by the offset process fall within complaint counsel's and Dr. Hilke's alleged relevant product markets, *i.e.*, four-color print jobs with a run length of more than 10 million copies, more than 32 pages and, in most cases, not highly versioned (less than 4 four-color versions) (Tier I) or four-color print jobs with a run length of more than 5 million copies, more than 16 pages and not highly versioned (Tier II) (Tr. 299).

**HIGH-VOLUME PRINT BUYERS
WHO USE OFFSET PRINTING**

| PRINT BUYER | RUN LENGTH (MILLIONS) | PAGES | SOURCE |
|-------------|--------------------------|---------------------------|--|
| [] | 8-24 21.6 | 80-120 108 | [] Tr. 4645-4646; RX-188; [] Tr. 4627 |
| [] | 11.1 10.3 | 96 104 | RX-173 RX-519 |
| [] | 11.1 | 96 | RX-173 |
| [] | 10.1 | 40 | RX-4946, RX-198 |
| [] | 10.1 | 48 | RX-496, RX-202 [] Tr. 2811-2814 |
| [] | 5-12.5 | 48-60 (36-page "core") | [] Tr. 4544-4545 |
| [] | 8-30 | 40-48 (36-page "core") | Anders T.: 3544-3545 |
| [] | 10.0 13.1 | 16-28 16 | RX-80-C, RX-81 McCoig Tr. 776,804 RX-184 |
| [] | 47.9 | 16 | RX-383 Baron Tr. 2260-2261 |
| [] | 15.2 | 28 | RX-276-Q, data point 420 |
| [] | 12.1 | 20 | RX-212 |
| [] | 7-8 | 96 | [] Tr. 2933 |
| [] | 7.5 | 48 | RX-201-B, RX-201-C- Z-40 |
| [] | 7.6 | 48 | [] Tr. 4626; RX-381 |
| [] | 6.1 6.1 5.3 | 20 16 20 | RX-205 RX-207 RX-208 |
| [] | 7.0 | 80 | RX-374 |

This table suggests that newer offset technology may be making some inroads into what was traditionally viewed as the domain of gravure.

202. Nevertheless, after considering the record evidence relating to new offset technology, Dr. Hilke concluded that it did not affect his opinion that a separate market for high volume gravure publications existed (Tr. 6070-71) because new offset technology is likely to diffuse into the market slowly, so that any substantial changes in the boundaries of the two markets are likely to be several years away (Tr. 3260-61).

5. Gravure and Offset Prices

203. Donnelley documents suggest that offset and gravure prices are independent of each other.

204. In a document entitled "Maxwell Communications: Strategic Considerations," a Donnelley employee stated that the retirement of a portion of Maxwell's 40 gravure presses could "Raise prices on gravure work" independent of changes in versioning and offset technology (CX-45; *see also* CX-47-A, C-D).

205. Donnelley prepared quarterly pricing reports for each quarter from the first quarter of 1982 until the fourth quarter of 1989 (CX-10-H; CX-674-92). These reports were assembled by almost 100 people and were used to assess pricing trends and to prepare budgets (CX-88-F; CX-147-Q; Tr. 4595). They were discontinued in early 1990 in conjunction with decentralization of the pricing function (Tr. 4594-96, 6106-07).

206. Dr. Hilke analyzed these reports and found that for the 31 quarters in which gravure and offset prices were tracked, they moved in opposite directions 48% of the time (CX-700-A; Tr. 3192-93).

207. In 8 quarters (or 26% of the time) the absolute difference between the percentage price changes was over 10 percent and in 19 quarters (or 61%) the absolute difference between the percentage price changes was over 5% (CX-700-A; Tr. 3193-94).

208. CX-81, the price tracking report for the fourth quarter of 1989, tracked pricing trends on an annual basis. Analysis of this report reveals that the annualized gravure and offset prices moved in opposite directions in two years out of eight (1988 and 1989) and that the difference in price movements exceeded five percent in every year except one (1986) (CX-700-D).

209. Dr. Hilke testified that the pricing data in the quarterly pricing reports may understate the degree of pricing independence of

high volume publication gravure printing because it includes gravure prices for low volume publication gravure printing (Tr. 3203).

210. Industry witnesses testified that during the post-acquisition period, gravure and offset prices dropped, but not to the same degree. For example, according to Mr. Hodgson, prices for gravure held up better than prices for offset (Tr. 335-36; *see also* Tr. 888-89, 1165-66, 1909-10, 2040-41, 2454, 2616, 2630-32).

211. A record of divergent price movements and price changes of different magnitudes for the gravure and offset processes, as shown here, is inconsistent with the claim that there is a single overall printing market (Tr. 3194-95). Furthermore, if offset were a close substitute for gravure, an increase in the relative price of gravure should lead to a decline in gravure volume. CX-700 shows no such result (CX-700; Tr. 3195-97, 3522-25).

6. Economics of Gravure for High Volume Publication Printing

a. Breakeven

212. The "breakeven" or "crossover" point is the number of copies at which a particular print job with given specifications is equally costly to print using either the gravure or the offset process (Tr. 867-70, 924-26, 1567, 1929).

213. The breakeven point between gravure and offset is frequently expressed in terms of the number of impressions (CX-250-H). The number of pages and versioning, among other factors, can affect when the breakeven point occurs (Tr. 1472, 1485, 1488-90).

214. The relatively low fixed or up-front costs of offset and the relatively low variable costs of gravure imply that offset is generally more cost-effective for shorter runs, while gravure is more cost-effective for longer runs. If the run length is too short, the long run advantages of gravure will not counteract its higher fixed costs (Tr. 263, 574, 867-70, 1472, 1484, 1496, 1499, 1525, 1572, 1577-78, 1713, 1737, 1765, 1817, 2155, 2215, 2434, 2553, 2612, 2683, 2693, 2848, 2921, 3090-91). However, a five percent differential between gravure and offset, absent quality considerations, is not reached until a run length even greater than the breakeven point (Tr. 3152-54).

215. The breakeven point is determined by the specifications of a particular job and the characteristics of the presses being compared (Tr. 1485; *see generally* Tr. 3152-53). Nevertheless, the general

proposition that a breakeven point exists for most page counts and page sizes is confirmed by cost studies comparing specific jobs on specific gravure and offset presses and is reflected in CX-1225 and documents found in the files of both Donnelley and Meredith/Burda (see, e.g., CX-209; CX-250; CX-1204).

b. Run Length

216. General industry consensus is that at a certain volume (five million copies or more) gravure is less expensive than offset (Tr. 136-37, 912, 918-19, 1426, 1427-28, 2002, 2465-66, 4223-24, 4967, 5965-66; CX-120-Z-69-A). For example, the former president of Holladay-Tyler, an offset only printer who is now with Judd, also an offset only printer, acknowledged that:

From a million and a half up to 5 million is a very grey area, and over that, I think, gravure has the market locked up.

(Tr. 2783).

217. The gravure advantage for long runs is reflected in print buyers' decisions to switch to that process as the run length of their publications increased. The magazine *Plain Truth* was shifted from offset to gravure by Donnelley when its circulation reached 4.5 million copies (Tr. 2650-52), and *Bloomington's Christmas catalog*, with a run length of some 4 million copies and 96 pages, was switched from offset to gravure in 1989, with substantial savings (Tr. 2002-03, 2977-78).

218. [] (Tr. 916-18, 1523, 1551-53, 2012-38, 2925-28, 5968-74, 6208-12; see also CX-1446-B-C; CX-1452).

219. Sterling, Inc., prints a spring and Christmas catalog with approximately 20-24 pages which is distributed by both newspaper insertion and the postal service (Tr. 932-33). Before 1988, the catalog had been printed using the offset process (Tr. 947). In 1988, when the run length reached approximately six million copies, Donnelley suggested to Sterling that the catalog could be printed more economically using the gravure process, and Sterling followed Donnelley's recommendation (Tr. 928, 947-48).

c. Page Count

220. Page count can also affect the relative costs of printing a job using gravure or offset--for if the page count is too small, a job is less likely to take full advantage of gravure's lower running costs (CX-297-C; CX-305-A, D).

221. Generally, offset presses can print 32 pages, while gravure presses print at least twice as many; hence, an 8 page, 2 million copy job running on a 64 page gravure press would require only 250,000 impressions. Five hundred thousand impressions would be required on an offset press (*see* CX-300-B; CX-307-C).

222. Mr. Hodgson testified that the typical offset press used in the United States can deliver a maximum of 32 pages, so there is some reason to use a page count of over 32 to identify the core of the high volume publication gravure printing market (*see* Tr. 349).

223. Offset operates at a cost disadvantage compared to gravure for print jobs with page counts and page sizes that are sufficiently large to require multiple press runs in offset when a single press run would be sufficient in gravure (Tr. 251, 573, 2196, 2216, 2681-83, 2833-34, 3092).

d. Versioning

224. Versioning, which occurs when not all copies of a particular issue of a magazine, catalog, or insert have identical printed content, affects the relative costs of gravure and offset printing (Tr. 252-53). Versioning may require major changes involving the substitution of all plates (in offset) or cylinders (in gravure) (Tr. 254, 256-57, 3090, 3093). The costs of versioning are greater in gravure than in offset, and the gravure disadvantage increases as the extent of versioning increases. Because four-color versioning requires that at least four gravure cylinders or four offset plates be changed, the cost disadvantage to gravure is greater for four-color versioning than it is for black-only versioning (Tr. 253-54, 951-52, 3093).

225. If the number of versions is great enough, even a high-volume job with many copies and a high page count may be printed more economically using offset rather than gravure (Tr. 2449-50, 2496-98, 3101-02, 3127-28).

226. Run length, page count and the extent of versioning are not the only factors which affect relative cost; trim size and capacity commitment also affect costs (Tr. 3098-99, 3103-04).

e. Industry Opinion

227. Donnelley employees recognize the economies that favor gravure over offset for high volume publication printing: A Donnelley document written in September 1989 concluded that, at run lengths above two and a half million, economics and customer preference weighed heavily in favor of the gravure process (CX-11-T, V, Z-2; CX-17-Y, Z-1). Other Donnelley analyses show breakeven points in the range of 1.6 million copies or less (see e.g., CX-250-S; CX-291-C; CX-305-A; CX-306-A C; CX 571 I-K).

228. A presentation to Donnelley's board of directors in the fall of 1988 stated:

The choice of printing process is primarily economic, with offset the process of choice for medium length jobs and jobs with multiple versions, while in gravure, we can offer our customers a wide variety of size on the same printing press as well as the advantage of lower cost on longer runs.

(CX-1072-D).

229. A seminar presentation by a Donnelley employee (CX-634; see Tr. 1089-90) stated:

Printing Process Comparison

| <u>Feature</u> | <u>Offset</u> | <u>Gravure</u> |
|----------------|-----------------------------|---------------------------|
| Economics | Shorter runs fewer pages | Longer runs more pages |
| Versioning | Less costly * * * | More costly |

(CX-634-Y).

230. A letter to a potential Donnelley customer in March 1988 stated:

Offset presses are smaller than gravure presses. They cost less to purchase, to operate, and to makeready. Also, the printing surface (plates) are considerably less expensive.

Simply put, the fixed costs are quite a bit lower than gravure but the running costs (on press) are considerably higher. Therefore, the "short" runs, offset is less expensive. For "long runs", gravure is less expensive. The longer runs "spread out" the higher gravure fixed costs.

The "break even" quantity between web offset and gravure is not a constant since a large number of pages and lower quantity may equate to a fewer number of pages and large quantity. For example, 3mm copies of an eight page may be most economically printed web offset, whereas 24 pages at a 3mm count may be best produced gravure.

(CX-297-C).

231. In making investment decisions, printers often examine the average type of work they do. A concept sometimes used is a "model job." Various documents refer to this concept and show that offset equipment is usually expected to do jobs with short run lengths (Tr. 3162-68; *see, e.g.*, CX-546; CX-547).

232. Donnelley's training manual contains a chart which shows gravure roughly 30% cheaper than offset at run lengths of 3 million and 10 million (CX-633-W). Offset's "inability to compete with gravure at higher counts" was specifically noted by Donnelley marketing personnel (CX-589-C).

233. Third-party documents and testimony also confirm that offset's ability to compete with gravure is limited for high volume work (CX-900-X-Z.1).

234. Summarizing the effects of run length, page count and versioning, several third-party printers testified that high volume publication printing is the natural domain of gravure:

Q. What if we did qualify and say for runs of over 10 million copies, over 32 pages with four or less color versions, do offset and gravure compete for these jobs?

A. No.

Q. Are these clearly gravure jobs?

A. Yes.

(Tr. 2397).

... I would say a run of four or five million without a version is pretty much a very good one for roto.

(Tr. 2214).

Q. Do you view any gravure companies as competitors?

A. Not generally.

Q. And why is that?

A. Well, I see them as different processes. It's a number of reasons. Generally, I see gravure as very long run, high page count, low versioning.

(Tr. 2682-82).

Well, 10 million and page counts of 32 or more, typically, in my experience, today, yesterday, tomorrow, is going to be done gravure.

(Tr. 2612).

235. Other print customers concluded that gravure and offset do not compete for long run jobs (Tr. 713, 1361-63, 1403, 1737).

7. Analysis of High Volume Publications Produced by Gravure and Offset Printers

236. CX-1167 is an exhibit prepared by Dr. Hilke using information obtained from 29 gravure and offset printers which analyzes, for 1990, their four-color print jobs with over 5 million copies and with 16 or more pages.

237. Dr. Hilke concluded from this document that the product market and the core of that market are substantial: 521 and 252 billion pages printed per year in those markets (Tr. 3098-99, 3101-05; CX-1167-C, C-1) (complaint counsel's largest product market consists of four-color gravure printing jobs with at least 5 million copies, at least 16 pages and less than 4 four-color versions (Tr. 2997-98, 3419-20, 6149-50); the "core" of this market consists of four-color gravure jobs with at least 10 million copies, more than 32 pages and less than 4 four-color versions (Tr. 2997, 3097)).

238. Dr. Hilke's analysis, which uses number of copies, number of pages and number of versions to identify the relevant product market, confirms that these factors are highly predictive of which jobs will be done gravure and which offset (CX-1167).

239. In the wider alleged product market, more than fifty customers had jobs printed by third-party gravure printers in 1990 (CX-1167-I, K); counting Donnelley and Meredith/Burda, the number of high volume publication gravure printing customers was well in excess of fifty. There were approximately three dozen gravure customers in the so-called "core" market (RX-665) (however, see F 363).

240. CX-1167 demonstrates that a substantial amount of high volume publication printing was done by the gravure process and that the proportion increased even further as the number of copies in the job increased. For example, for jobs of more than 32 pages which are not highly versioned, approximately 88.6% of the volume in jobs over 5 million copies, 93.9% of the volume in jobs over 7.5 million, and 95.7% of the volume in jobs over 10 million copies were done gravure:

GRAVURE AND OFFSET PORTION OF LOW VERSIONED JOBS OVER 32 PAGES

| <u>Number of Copies</u> | <u>Billions of Pages</u> | <u>Gravure Percentage</u> | <u>Offset Percentage</u> |
|-------------------------|--------------------------|---------------------------|--------------------------|
| 5 million plus | 460 | 88.6% | 11.4% |
| 7.5 million plus | 318 | 93.9% | 6.1% |
| 10 million plus | 264 | 95.7% | 4.3% |
| 12.5 million plus | 205 | 97.6% | 2.4% |

(CX-1167-C).

241. The proportion of high volume publication printing being done gravure remained higher than offset even if the number of pages per copy was reduced or if the number of versions was increased. For example, 77.4% of jobs with 10 million copies or more were done gravure even if the page criterion is relaxed to 16 pages and no restriction is placed on the number of versions (CX-1167-C-1). Adding the versioning restriction alone (less than 4 four-color versions) increases the gravure proportion from 77.4% to 86.6% (*Id.*). Adding the page count criterion (more than 32 pages) alone results in 93.8% of the work being done gravure (CX-1167).

242. Although CX-1167 does not include all gravure or offset jobs above 5 million copies and 16 pages or more, the figures shown in the exhibit present a reliable picture of publication printing meeting these characteristics that accords with record testimony and documents (Tr. 6118; CX-1167-D). For example, market share statistics derived from the data in CX-1167 correspond closely to the market share statistics based on capacity (CX-1167-D; Tr. 3100, 3326) (F 378, 379).

243. Despite what appears to be convincing evidence that print customers prefer gravure over offset for high volume jobs, Dr. Hausman, emphasizing offset's share of such jobs (over 11% for run

lengths exceeding 5 million copies), testified that these processes do compete meaningfully for such jobs (Tr. 5385-87). For the reasons given in my conclusions of law, I reject his opinion.

244. Other evidence of gravure's advantage over offset is found in analyses by or for Donnelley of gravure and offset costs which reveal that beyond a few million copies, gravure is less costly than offset when the page count is high and there are relatively few versions. For example, a 1988 study entitled "Gravure Competitiveness and Title Improvement" by the Boston Consulting Group (BCG) which compared the costs of printing a catalog on offset and gravure presses (CX-250) was analyzed by Dr. Hilke who concluded that for a 16-page catalog the breakeven point occurs somewhere between 6 and 7 million copies, and at 10 million copies the offset cost disadvantage is 9.2%, rising to 17.6% at 20 million copies and 21% at 30 million copies (CX-1164-D; Tr. 3146-51).

245. For a 48-page catalog, the breakeven point occurs at 2 million copies (CX-1164-C). The offset cost disadvantage rises to 16.1% at 5 million copies, 22% at 10 million copies and 24.9% at 20 million copies (CX-1164-C).

246. Dr. Hilke compiled CX-1433, which modified the assumption in CX-1164 about the replacement of offset plates from every 700,000 impressions to every 2 million impressions. He revised CX-1164 further by assuming, in accord with CX-316, that solvent recovery would generate revenue equal to 25% of gravure ink cost. For a 16-page catalog Dr. Hilke found that the breakeven point would occur between 5 and 6 million copies. The offset cost disadvantage would be 13.8% at 10 million copies and 22.6% at 20 million copies (CX-1433-B). For a 48-page catalog, the breakeven point would be reached between 1 and 2 million copies. The offset cost disadvantage would be 21.6% at 5 million copies, 26.5% at 10 million copies and 30.6% at 20 million copies (CX-1433-A).

247. Dr. Hilke also analyzed, in CX-1165, a Donnelley comparison of gravure and offset presses in 1989 (CX-209). He calculated that for a 48-page catalog whose page dimensions were those of the Penney big book, the breakeven point between a 95-inch gravure press and a Harris M-1000BE offset press would occur between 1 and 2 million copies (CX-1165-C). Using the same methodology as in CX-1164, the offset cost disadvantage was 27.4% at 5 million copies, 33.9% at 10 million copies and 37.1% at 20 million copies (CX-1165-C).

248. Dr. Hilke also found, in a comparison between state-of-the-art three-meter gravure and anticipated offset presses such as the M-3000, that gravure would continue to enjoy over a five percent cost advantage (see CX-1432; Tr. 6080-86, 6094).

249. A March 1992 memo by a Donnelley employee compared the cost of printing using either the M-3000 offset press or a 94-inch gravure press (CX-1225). The memo included a cost comparison based on printing 13 million copies of a 48 page form for the [] catalog and a similar cost comparison for the [] catalog. The [] comparison showed a cost advantage for the 94-inch gravure press of \$2.11 per thousand 48-page forms, or 8.9% (CX-1225-G).

250. According to a Donnelley analysis in September 1989, printing TV Guide using a combination of gravure and offset would be 20% less costly than using offset only (CX-1204-A; Tr. 3856-58. See also Tr. 1696-97).

251. The testimony of industry members and documents presented by complaint counsel support Dr. Hilke's opinion that gravure has a cost advantage over offset for high volume, low version jobs.

252. Webworks, an all-offset printer, produces highly versioned jobs with 8 to 12 pages (Tr. 2830-32). It does not compete for high count magazines because, in the opinion of Mr. Pope, such work is clearly gravure in nature (Tr. 2834).

253. The CEO of St. Ives, another all-offset printer, testified that:

Well, 10 million and page counts of 32 or more typically, in my experience, today, yesterday, tomorrow, is going to be done gravure.

(Tr. 2612).

254. After purchasing the Star magazine, which had previously been printed offset, the publisher of the National Enquirer realized a \$14 million saving by switching the printing of the Star from offset to gravure and printing both the Star and the National Enquirer in a single print run on the same gravure presses (Tr. 4704-05).

255. Bloomingdale's realized significant savings by switching its Christmas catalog with over 100 pages and 4 million copies from offset to gravure (Tr. 2003, 2927-28).

256. Mr. Habeck of K-Mart testified that gravure would be the less costly method of printing a continuous run of ten million copies with no versions (Tr. 4190, 4223).

257. Dr. Hilke presented a graph (CX-1190) based on comparisons of offset and gravure prices presented by two witnesses in this proceeding, Ian Deutsch of Sterling and Charles Wells of Current (see CX-764; CX-1177), which shows an offset price disadvantage exceeding 20% for long run jobs for both customers (CX-1177-A; CX-1190-A).

258. Dr. Hilke also prepared a study which shows that the offset bid disadvantage was 26.2% for the [] [], a two-color publication of approximately 22 million copies and generally 20 pages (CX-1411; Tr. 1564).

259. Mr. Charles Allen, the publishing director for the American Association of Retired Persons, testified that to print the 88 page gravure portion of Modern Maturity, a magazine with a circulation of 22.4 million, using the offset process would cost at least 5% more than gravure (Tr. 1563-64, 1568, 1621) and Mr. Angstrom of St. Ives claimed that at sufficiently long run lengths the cost spread between gravure and offset becomes too great for offset to take away sales from gravure even if gravure prices rose by 5% (Tr. 2603-04).

260. Sears' smaller catalogs and specialty catalogs have a page count ranging from 48 to 200 and a run length ranging from 1 to 9 million. The specialty catalogs were bid out annually and gravure won all of the bids (Tr. 1768-70).

261. The Penney catalog division's smallest jobs are in its market support program. Each market support catalog ranges from 200,000 to 1.3 million copies and contains 16 to 48 pages with no versions. Penney finds that gravure generally wins the larger jobs in this range, such as the runs over 650,000 copies (Tr. 564, 570-72).

262. [] had the largest high volume, low version offset program in 1990, accounting for approximately 30% of high volume offset work supplied by third-parties (CX-1446-B); however, because of the large potential savings from switching to gravure in high volume work (RX-308), [] is engaged in an extensive gravure testing program for its long-run, high page-count catalogs (Tr. 2012-26).

263. One of [] offset printers, Graphic Arts Center, suggested that its big book would be more appropriately printed gravure (Tr. 2925-26). Others in the industry believe [] could have been realizing significant savings by using gravure (Tr. 916, 2025-26). [] (CX-1446-C; CX-1452-B; Tr. 5969-72).

264. Dr. Hilke presented graphs (CX-1438; CX-1439) that depict the offset bid disadvantage for the higher run lengths of [] work.

According to them, between 5 and 10 million copies, the offset bid disadvantage ranged from less than 1% to over 15%. Beyond 11 million copies, the offset cost disadvantage ranged from 10 to 22% (CX-1348-C). The buyer for [] testified that the gravure prices she received were generally lower than the offset prices (Tr. 2029).

265. Donnelley and third-party data, consistent with Dr. Hilke's testimony, show that the average run length for offset is much shorter than for gravure (CX-1108-A; see CX-1187-A; CX-884-A, C, I; CX-885-A; CX-886-B; CX-887-C; CX-888-G, I-K; RX-146-Z-22, Z-23; CX-128-Z-62; CX-937-A; CX-931-A, B; Tr. 3166-68, 2923, 2558).

266. According to the 1993 World Almanac, the magazines with the largest circulations are Modern Maturity, the NRTA/AARP Bulletin, Reader's Digest, TV Guide, National Geographic and Better Homes & Gardens (CX-769-B). Each of these publications has a circulation in excess of eight million copies (CX-769-B), and each uses the gravure process (Tr. 1494-95, 1564-65, 1568-70, 1653, 1660-61, 5441-42; CX-279; CX-902-Z-8-9, Z-37-381 Z-43).

267. The Spring 1989 issue of Gravure magazine reported that 10 of the 25 leading consumer magazines had circulations of 5 million copies or more, and that all 10 were reported as using the gravure process. Five other publications contained on the list (Guideposts, National Enquirer, Redbook, Playboy and Cosmopolitan) are identified as using the gravure process. Since 1989, at least one publication on the list (the Star magazine) that was previously done offset is now done gravure (F 254). All of these publications have circulations of three million copies or more (CX-933-H).

268. Donnelley criticizes Dr. Hilke's cost analyses because they are based on unwarranted alterations of Donnelley studies; however, they appear to be accurate restatements of Donnelley's own cost comparisons around the time of the acquisition; furthermore, they are simply one bit of evidence which, along with other record facts, is consistent with the claim that, gravure costs for long run print jobs are lower than offset costs (F 249-67).

269. According to Donnelley, complaint counsel's price comparisons are primarily anecdotal and do not establish divergent trends for offset and gravure (RPF 150). This is incorrect; Dr. Hilke's analysis of nine years of quarterly pricing data compiled by Donnelley provides solid evidence that gravure and offset prices are independent of each other (F 203-09).

270. To counter complaint counsel's price and cost comparisons, Dr. Hausman prepared bid comparisons from five print buyers and regression analyses of those bids (RPF 152-66).

271. I agree with complaint counsel that these comparisons do not seriously undermine their analyses because they are based, not on actual, but on hypothetical, constructed, bids (complaint counsel's reply, p. A-29) and because, as Dr. Hilke testified:

What I did was I tried to go back and look at RX-665, which was the listing of work in the core of the market which I have identified, and compare that to the work which is included in the bid data that Professor Hausman has used. What I found was that the bid data that Professor Hausman used is just about a clean miss with respect to the core of the market as I have defined it, rather than getting information from customers that were in the core.

(Tr. 5999) (see also Tr. 6306). Finally, any conclusion about other customers which might be drawn from this analysis, even if there were no problem with the underlying data, would be questionable because the sample was not randomly chosen (Tr. 5776-77).

272. I concede that the printers whose jobs were summarized in CX-1167 were not chosen randomly; however, the sample is much larger and I am confident, from the ample corroborating evidence presented by complaint counsel, that this analysis can be relied upon.

8. The Five Percent Test

273. Several print customers testified that they would not or might not switch from gravure to offset if the price of all gravure printing services was raised by five percent, and some stated that there is at least a five percent differential between gravure and offset prices for work that is now done gravure for them (Tr. 619-20, 745, 819, 847, 948, 1067, 1104-05, 1114, 1181-83, 1335-36, 1696-97, 1932). A representative from Penney even claimed that it would not switch its full line retail program from gravure to offset if the relative price from all gravure printers were to rise by 15% (Tr. 699-700).

9. Industry Recognition

a. Donnelley and Meredith/Burda

274. Donnelley assessments of its potential acquisition of Meredith/Burda and of other possible acquisitions computed market shares based on a gravure-only market (CX-40-D; CX-41-Z-11; CX-156-E; CX-267-F; CX-268; CX-994-G; CX-47-C; CX-282).

275. Many other documents written by Donnelley employees assume the existence of a separate market for gravure printing (CX-93-N; CX-95-M; CX-96-J-K; CX-189; CX-603-B, L; CX-57-J; CX-107-Z-46-47; CX-158-N, Z-12-13, Z-16; CX-48-G; CX-141-Z-43-A; CX-98-Z-147; CX-189; CX-264; CX-267-F, G; CX-268; CX-269-F, G; CX-270-J; CX-273; CX-272; CX-276; CX-141-Z-73; CX-279; CX-282-A-B; CX-359-N; CX-520-C; CX-539; CX-557-T; CX-560-J).

276. Donnelley's head of corporate development, Jeffrey Anderson, testified that he had never seen market share statistics aggregated to include gravure and offset capacity together (CX-139-Z-69).

277. Meredith/Burda documents also reveal that its employees often assumed the existence of a separate gravure market (*see* CX-51-E, Z-7, Z-29, Z-55; CX-52-E-G, H; CX-53-D).

278. Donnelley documents relating to capacity expansions also assumed a separate gravure market (*see, e.g.,* CX-11-Z-77; CX-21-O-R; CX-26-T; CX-63-C-D, V-W; CX-90-B, G-K).

279. Other Donnelley documents and testimony suggest that its employees and consultants considered gravure and offset separately in making business decisions or recommendations (compare CX-205-Z-113 with CX-265-D; CX-277; CX-112-Z-25-26; CX-1003-Z-13; CX-702-B; CX-51-T; CX-57-G-I; CX-59-M; CX-77-F-G; CX-90-B, G, H; CX-158-T, Z-37-38; CX-213-E-G; CX-548; CX-557-B; CX-594-E; CX-596-D; CX-597-Z-10; CX-873-A, Tr. 4028-29; *see* CX-264).

b. Excess Capacity

280. Firms have made major investments in gravure printing capability even when there has been excess offset capacity. For example, at the time that Donnelley's gravure press expansion in

Reno was being considered in November 1989, there was excess capacity in the offset presses at that facility but very little excess gravure capacity (CX-219; Tr. 3231). In fact, one of the stated objectives of the Reno gravure press plan was to "limit off-loading of gravure work to offset presses" (CX-21-Z-35).

281. In the years since the acquisition, there has been substantially greater excess capacity in the offset presses at Reno compared to the gravure presses (CX-1070-A-C; CX-1078-S, Z-1; Tr. 3233-34). At the same time, there was excess capacity in other Donnelley West Coast offset facilities (see CX-285-B, C).

282. In 1989, there was a shortage of available capacity at each of the three largest United States gravure printers: Donnelley, Meredith/Burda and Maxwell (now Quebecor) (Tr. 308-09, 1115-17; see also CX-1244-A; Tr. 4071-72). One customer who requested scheduling at Donnelley's Reno facility in 1989 was informed that Reno was "too full" (CX-91-X). Brown also was "filled to the brim" at its Franklin, Kentucky gravure facility during 1989 (Tr. 2525-26). Throughout this same period, there was substantial excess web offset capacity in the marketplace (Tr. 306, 2796, 4788-89; accord, CX-219; CX-557-B; CX-587-B; CX-604-G; Tr. 4325).

283. Quad, a gravure and offset printer, had excess capacity in its offset facilities at the time it entered the gravure business (Tr. 2367-68), and Maxwell had excess capacity in offset at the time it invested in new gravure presses (Tr. 306).

284. In recent years, there has been substantially greater excess capacity in offset as compared to gravure (CX-113-Z-28; CX-286-B; CX-287-E; CX-545-A; Tr. 306, 350, 889, 1510, 2455, 2632), and many offset facilities are being shut down due to lack of business (see CX-1102).

285. Since a printer with idle capacity in gravure or offset would most likely increase output on the unused assets rather than invest in the other process, investment in gravure at a time of excess offset capacity indicates, that these processes occupy separate markets (Tr. 3232-34).

c. Recognition of a Separate Offset Market

286. Donnelley's computations of offset market shares, offset capacity estimates and the growth potential of offset were done within the context of a heatset web offset marketplace or "web offset

market" only (*see, e.g.*, CX-158-S, Z-12-16; Z-37-40; CX-190-F; CX-261-I-J; CX-265-D; CX-266-A; CX-267-F; CX-270-A; CX-273-B; CX-283-A-B; CX-296; CX-483-Z-7; CX-537-N-Q; CX-547-A; CX-552-A-B; CX-560-C-E; CX-594-Z-6; CX-598-Z-4; CX-652-D).

287. For example, as far back as 1984 Donnelley referred to the "high quality web offset catalog market" in proposing an offset expansion at its Chicago facility (CX-927-T), but no mention was made of competition with gravure.

288. When Donnelley constructed a new offset facility in Danville, Kentucky, in the early 1980s, that plant was geared specifically for competing in the web offset catalog and publications market (Tr. 2606-07).

289. In 1990-91, Donnelley launched a new offset plant in Daytona, Florida (CX-993-M). Documents relating to that new facility refer to competing offset plants in Georgia (*see e.g.*, CX-537-N; CX-1091-E), but not to competing gravure plants even though Ringier operates one in Georgia (CX-507-B). Horst Fleck, division director at Donnelley's all-gravure facility in Lynchburg, testified in his deposition that the decision to construct a new offset plant in Daytona would necessarily be based on the demand for offset printing, without regard to the supply and demand for gravure printing at Lynchburg (*see* CX-120-Z-76-77-A).

290. Separate share calculations are made in Donnelley documents assessing the "offset catalog market" (*see, e.g.*, CX-556-A) and the "web offset market" (*see, e.g.*, CX-560-C-E), again without reference to gravure competition.

291. In recommending the purchase of new web offset presses for its Des Moines plant, Meredith/Burda officials in 1988 also used the term "web offset market" (CX-296).

d. Other Gravure Printers

292. Other gravure printers made the same assumption as Donnelley and Meredith/Burda--that there are separate gravure and offset markets for certain print jobs.

293. The management of Quebecor, the second largest gravure printer, views gravure and offset as separate markets (Tr. 303-05, 2607-08; CX-292) and the president of Ringier America testified that in his opinion they are two separate markets (Tr. 1472, 1499).

294. Officials of other gravure printers came to the same conclusion:

| | |
|------------------|---------------------|
| Quad Graphics: | (Tr. 2347-49, 2460) |
| Arcata Graphics: | (CX-1151) |
| Brown Printing: | (Tr. 2522, 2563-65) |

295. Mr. Hodgson, who has 47 years of experience in the printing industry, testified that in his opinion gravure and offset were separate markets (Tr. 290, 306, 341).

296. Gravure printers belong to a separate trade association, the Gravure Association of America, or GAA, an organization devoted exclusively to gravure printing. The association holds annual conventions at which papers are presented that discuss gravure printing technology (Tr. 132-33; *see* CX-766; CX-1304). GAA also prints Gravure magazine (CX-933; Tr. 1644). Offset printing is represented by a separate trade association, the Printing Industries of America, or PLA (Tr. 133).

e. Offset Printers

297. [] (CX-969-A).

298. Century Graphics, another offset-only printer, withdrew from the bidding process for Caldor's insert program once it understood that the economics of Caldor's 12 to 14 million run no longer made offset an economically feasible option (*see* Tr. 1163-64). [] (CX-1153).

299. [] (*see* CX-1168-A-E).

300. Sullivan Graphics ("Sullivan"), a printer with only heatset offset and flexography presses, referred [] (CX-1169-F; Tr. 4722-23). However, when assessing its market share in heatset offset inserts, Sullivan excluded gravure printing from the calculation (CX-1169-C; Tr. 4724).

301. In representations made in its most recent SEC filing (CX-1306), Sullivan referred to competition with coldset offset for its flexography business (CX-1306-E; Tr. 4731) but did not mention any competition with gravure for its heatset offset business (CX-1306-F-G; Tr. 4730-33).

302. Other offset printers who testified at trial acknowledged the existence of a high volume publication gravure marketplace (see Tr. 2605, 2627, 2669-70, 2682-83, 2783, 2833).

303. Ringier views its Phoenix web offset facility as competing generally in the same market as other West Coast offset printers, and not for longer run gravure work (Tr. 1501).

304. Wayne R. Angstrom, Chief Executive Officer of St. Ives' United States operations, including an offset plant located in Hollywood, Florida, testified:

I am not a gravure printer. I'm a web offset printer. I have 32-page presses. I cannot compete against a gravure printer.

(Tr. 2603). Mr. Angstrom also concluded that if the price of all high volume gravure printing were to rise by five percent, St. Ives would not expect to gain volume as a result because the cost spread between the two processes is already too great (Tr. 2604; see also Tr. 2225, 2861).

305. Georg Decker of Riverside County Publishing Company, a Los Angeles area offset printer, testified that he would not expect to gain work if gravure printers on the West Coast raised prices by five percent (Tr. 2225).

306. When asked whether or not gravure and offset printing competed across the entire spectrum of printing jobs, Mr. Pope of Webworks responded:

No, we don't. We have our marketplace and they have their marketplace. We don't run into gravure very much at all. We have one account that we have been asked to quote against as far as gravure that I know of, and we don't effectively compete there so I would say no. We have our marketplace, they have theirs. We both do good.

(Tr. 2832).

307. Other offset printers testified that they do not monitor gravure prices (Tr. 2818, 2954, 4655, 4743-44).

10. Gravure and Offset Equipment Suppliers

308. When Heidelberg-Harris, [] (CX-1272-C; Tr. 4433-35).

309. Robert Brown, President of Heidelberg-Harris, was asked at his January 1993 deposition to list competitors for his N-9000 model

offset press. He listed only other offset press manufacturers, and no gravure press manufacturers (Tr. 4399-4400).

310. Mitsubishi (another offset press manufacturer) does not consider gravure press manufacturers to be its primary competitors (Tr. 2044).

11. Buyers' Preferences

311. Some print buyers have expressed a distinct preference for the gravure process (*see* CX-21-O; CX-104-Z-52; CX-109-Z-78; CX-116-Y; CX-118-Z-85), and it is generally recognized that they usually do not switch between processes for a particular printing program (Tr. 2223-24, 2648, 2797, 2954). As Howard Sullivan, the former President of Holladay-Tyler Company, expressed it, "when one has the mentality of going gravure, I think they pretty much stay there" (Tr. 2797).

312. At Donnelley's Reno plant, a facility with both offset and gravure equipment, no customer switched away from the gravure process to offset during the tenure of Gary Nesemeier, who served as its customer service group manager (CX-117-Z-6, Z-9-A).

313. Horst Fleck has been in charge of the former Meredith/Burda gravure facility in Lynchburg since 1987 (CX-120-Z-48) and has worked at the facility since 1973 (CX-120-Z-44). The longest run length job he could recall ever having lost to offset had a run length of 2.2 million (CX-120-Z-68-69-A).

314. Penney's James Sackett referred to the existence of a "high-quality rotogravure marketplace" (Tr. 675; CX-785-B). In his trial testimony, Mr. Sackett explained:

We have a \$4 billion business which is entirely dependent upon the supply of rotogravure capacity.

(Tr. 618).

315. Other customers have switched away from offset to gravure, in some cases based on the recommendations of the gravure printer (*see, e.g.*, Tr. 2050-52, 2002-03, 4704-07, 4861-62; CX-140-Z-80-81; CX-303-B). Donnelley's training manual suggests one reason for such switching: as the customer grows and requires more copies, the more likely the print program will be a good candidate for gravure (CX-633-Z-8; accord, CX-560-D).

316. A December 1989 Donnelley document discussing the "web offset insert market" stated:

Offset allows us to penetrate growing accounts that are not yet ready for gravure. Offset accounts are easily converted to gravure as they grow.

(CX-560-D).

317. In some instances, the customer has agreed, by contract, to pay a "stand-by charge" to reserve gravure capacity (*see* Tr. 1778-79, 1782; CX-102-Z-168; CX-104-Z-53-55; CX-106-Z-181; CX-109-Z-124; CX-671-P-Q; CX-902-Z-36-42; CX-993-V). Two examples of such customers are Sears (Tr. 1778-79, 1782) and Meredith Corporation, the parent company of the acquired firm (CX-902-Z-36-42).

318. Mr. Hodgson testified that customers desiring gravure printing on a continuous basis tend to reserve that capacity in advance through long-term contracts. This is generally not the case in offset (Tr. 339-41; *see also* Tr. 1509).

319. When faced with a shortage of gravure capacity to perform all scheduled work, Maxwell was unable to convince its gravure customers to have the work done on its offset presses which did have available capacity; instead, the company was forced to arrange for the work to be done by other gravure printers (Tr. 308-09).

320. When Standard Gravure's gravure plant was shut down due to a fire, its customers' work was shifted to other gravure printers, not offset printers (Tr. 310-12).

321. Once the acquisition was announced, many customers that had relied on Donnelley and Meredith/Burda as suppliers of gravure printing services sought to qualify another gravure printer as a second source, rather than considering an offset printer for the same work (*see, e.g.*, CX-155-C; CX-188-W; CX-601-B).

12. Conclusion

322. Donnelley's pretrial brief states that offset and gravure compete "across the board" for all types of printing work and that "offset is a viable substitute for gravure for virtually all jobs." Many knowledgeable industry witnesses disagree with these conclusions (Tr. 625-26, 901, 1525, 1171-71, 1801-02, 1950, 2662-64).

... in all honesty, I read this last night and it just seemed ridiculous to me. And I called a friend of mine in the printing industry and said, you won't believe this.

... I just read the table of contents to this friend of mine and he laughed. You know, are they kidding? Are you guys at Donnelley kidding when you say there isn't really a market? Because there is, folks. ... the one recurring theme they had was there was no roto market and that's ridiculous. I print roto market and I can't say it any more emphatically.

... that's ridiculous ... absolutely ridiculous. Why would Donnelley want to buy a gravure plant in the first place?

(Jan Deutsch of Sterling (Tr. 963, 965)).

... offset and gravure compete in certain areas, and there are certain areas that your expectation is that offset would be the predominant process. There are other areas where you would expect gravure to be the predominant process.

(Edward Nytko of Ringier (Tr. 1525)).

... offset is offset and gravure is gravure. The requirements of the processes are different, and the economics of the processes are different.

(Ed Coleman of Sears (Tr. 1802)).

323. The testimony of these and other witnesses is supported by extensive price and cost analyses of the economics of offset vs. gravure printing and by the actions of printers and print buyers which reflect the real differences between these processes when high volume publication printing is involved.

324. Thus, I agree with complaint counsel and their expert witnesses that the relevant product market in this case is high volume publication gravure printing; however, I reject the claim that Donnelley's introduction of RX-497 conceded the existence of this market (CPF 1166), for it was offered on cross-examination only as an illustration of the witness' testimony on direct (Tr. 2811).

G. The Relevant Geographic Market

1. The United States

325. The parties agree that the United States is a relevant geographic market within which the effects of the acquisition may be measured (CPF 1175; RPF 231).

326. Because of shipping costs, duties, and time constraints, European printers cannot service print customers in the United States (Tr. 314-15, 1474, 2598, 3275, 378-80; CX-604-G), and imports from Canada and Mexico accounted for less than 0.3% of the total product printed within the United States in 1991 (compare RX-4-N with RX-4-L). Thus, the geographic market for high volume publication printing is no larger than the United States (Tr. 2998).

2. The Western States

327. There are three gravure facilities in the Western United States (those states separated from the rest of the country by the Rocky Mountains) (Tr. 3282-83). These facilities are located at Reno, Nevada and Casa Grande, Arizona (both owned by Donnelley) and San Jose, California (owned by Quebecor) (Tr. 3282-83).

328. Industry participants recognize that this situation puts Midwestern and Southwest printers at a competitive disadvantage for some print jobs. A Donnelley presentation arguing the need for expansion of Reno's gravure capacity stated:

We have an unusual competitive situation in the West since the region is insulated by distance and [the Rocky] Mountains from the rest of the country. Freight from the Midwest or Southwest puts those printers at a competitive disadvantage. Within the West, there are only two gravure insert printers, ourselves in Reno and Meredith/Burda in Casa Grande, Arizona (near Phoenix).

(CX-21-0).

329. Dr. Hilke conceded that data is lacking for a precise shipment analysis of a possible Western market, such as the Elzinga-Hogarty test (Tr. 3304, 3507, 6130). He was therefore forced to rely on anecdotal evidence of customer preference for having their gravure jobs printed on the West Coast.

330. There is no doubt that the Meredith/Burda acquisition was viewed as a competitive plus for Donnelley on the West Coast, as a BCG document suggested:

West coast pricing: Because of the Burda acquisition, only RRD will have a west coast presence among major printers. An analysis will be done to determine how RRD should price to capture the value that other printers cannot match in distribution economies on the west coast.

(CX-152-D) (see also CX-156-B).

331. Certain customers such as Target Stores, which uses newspaper inserts, are particularly concerned about timely printing (Tr. 1084, 1115, 1138). Use of West Coast gravure facilities for inserts satisfies this need (Tr. 1109).

332. Nevertheless, the print buyer for Target Stores-- specifically identified by Dr. Hilke as a likely target for price discrimination-- (CX-1163; Tr. 3285-87, 3310), testified that if he faced a 5% increase in gravure prices printed in the Western United States, he might consider switching the work to a printer located outside of that area (Tr. 1115). Indeed, Quebecor printed Target's western inserts at its facility in Memphis, Tennessee, and Target's inserts for the states of Washington and Oregon are currently printed by Donnelley in the Midwest (Tr. 1111, 1126-27). [] (RX-263-Z-30, data points 10412-21).

333. Furthermore, Dr. Hausman pointed out that shipment data gathered by complaint counsel and testimony of print buyers show that a substantial amount of gravure publication printing is done in plants located outside of the Western United States and is shipped into that area (Tr. 5402-04)

PROPORTION OF PRINTING VOLUME
SHIPPED INTO WESTERN REGION
FROM OUTSIDE WESTERN REGION

| PRINTER | LOCATION | 1989 PORTION SHIPPED WEST | 1Q 1990 PORTION SOURCE SHIPPED WEST |
|-----------------------------|--------------|---------------------------|-------------------------------------|
| ARCATA (RX-85) | Buffalo, NY | [] | [] |
| BROWN (RX-87) | Franklin, KY | [] | [] (Full Year) |
| QUEBECOR (RX-89) | Dallas, TX | [] | [] |
| QUEBECOR (RX-90- RX-279) | Memphis, TN | [] | [] (Full Year) |
| QUEBECOR (RX-279) | Decison, TN | [] | [] (Full Year) |
| QUAD (RX-88) | Lomica, WI | [] | [] |

PUBLICATIONS PRINTED GRAVURE OUTSIDE WESTERN REGION
AND DISTRIBUTED INTO WESTERN REGION

| PRINT BUYER | PRODUCT | PRINTING LOCATION | SOURCE |
|-------------|----------------------------------|--|---|
| [] | Inserts | Corinth, MS Franklin, KY | Hony Tr. 719 |
| [] | Inserts | Midwest | Watts Tr. 2874-75 |
| [] | Inserts | Mattoon, IL | Gordon Tr. 3970-73 |
| [] | Inserts | Midwest Louisville, KY | Watts Tr. 2874-75 RX-263-Z-31 |
| [] | Inserts | [] Memphis, TN Midwest | RX-263-Z-62 Sicen Tr. 1111, 1126-1127 |
| [] | Inserts | [] | RX-263-Z-41 |
| [] | Inserts Catalogs Catalogs | [] | RX-263-Z-62 RX-263-Z-42 RX-263-Z-45 |
| [] | Catalogs | [] | RX-263-Z-41 |
| [] | Catalogs | Corinth, MS | Deutsch Tr. 973-974 |
| [] | Catalogs | Spartanburg, SC Lomira, WI Corinth, MS | Haight Tr. 1373 RX-263-Z-41 RX-263-Z-29 |
| [] | Catalogs | [] | RX-263-Z-29 |
| [] | Catalogs Catalogs Catalogs | [] | Glaser Tr. 2132, 2143 Glaser Tr. 2147 |
| [] | Magazine | [] | RX-263-S |
| [] | Magazine | [] | RX-263-Z-3 |
| [] | Magazine | [] | RX-263-Z-4 |
| [] | Magazine | [] | RX-263-Z-5 |

334. Given the substantial number of print buyers who have their publications printed outside of the Western Region and distributed into the Western Region, Dr. Hausman stated that it is likely that other print buyers, faced with a price increase for Western Region gravure printing, could turn to printers outside of the Western Region to defeat the price increase and receive distribution of their publications in a timely fashion (Tr. 5404-05).

335. Dr. Hilke dismissed shipment data by national publications as "distortions" which have nothing to do with competition for work, such as inserts, distributed on the West Coast (Tr. 6131), but his dismissal of this data ignores his own claim that the product market--which must be considered in conjunction with the geographic market--includes such publications.

336. It may be that for particular print customers who distribute their product--such as inserts--on the West Coast, the only feasible supplier is a printer located there; that does not, however, say anything about the geographic market for all high volume publications (inserts, catalogs and magazines)--the market which complaint counsel propose.

337. Thus, I find that no West Coast market exists for high volume publication gravure printing.

H. Market Structure

I. Competition and Product Quality

a. Meredith/Burda

338. A Donnelley document dated June 3, 1988 and addressed to Carl Doty, its current president, observed that:

Meredith/Burda is recognized by many to have superior gravure quality and technical capabilities which approach those of Donnelley.

Donnelley employees viewed Meredith/Burda as a major, if not their major, competitor (CX-21-P; CX-53-N; CX-69-N; CX-91-Z-78; CX-387; CX-66-O).

339. Many gravure printers and customers testifying in this proceeding ranked Donnelley and Meredith/Burda as the highest quality gravure printers, and viewed them as vigorous competitors prior to the acquisition (Tr. 327-28, 676-77, 704-06, 821-23, 881-82, 891-92, 969-60, 1029, 1034, 1110-11, 1142-43, 1166-67, 1289, 1358-59, 1437-39, 1507-08, 1579-80, 2008-10, 2628, 4880-81, 4288-89).

b. Other Gravure Printers

340. Some industry participants were not convinced that other gravure printers produced as high quality work as Donnelley and Meredith/Burda:

1) Quebecor

341. Robert Wyker, Chairman of AGA, testified that:

Quebecor has a lot of equipment but most of it is in the newspaper end of the field. They have one plant that we feel has good enough quality to work with and we have worked with that one plant.

(Tr. 883).

342. The print buyer for Penney's catalog testified that "[w]e regard Quebecor as having quality skills that are below the standards to which we aspire" (Tr. 587). (See also Tr. 1079-81, 1286, 1591, 2034, 2159, 4868-70, 4880-81, 4906; CX-21-P.)

2) Ringier America

343. According to a 1989 Donnelley profile of Ringier, its weaknesses were that it had gravure plants only in the Southeast, which limited distribution nationally for bulk shipments; that it was perceived by retail customers to be weak in preliminary; that it had few wide webs in gravure; and that it had a small, somewhat ineffective sales force (CX-469-D).

344. Since Penney has only one gravure press available to it at Ringier, the amount of business that can be given to it is "extremely limited" (Tr. 726). It would take two to three years for Penney to satisfy itself that Ringier America could print some of the general catalog and at least five years for Ringier to be a substantial contributor (Tr. 594-95).

345. Cory Owens of Lands End testified that, in evaluating secondary printing sources, he did not look at Ringier because he doubted the company could satisfy its quality expectations (Tr. 1287).

3) Arcata Graphics

346. Donnelley's president, Carl Doty, believed that [] (CX-102-Z-204).

347. Mr. Sackett of Penney's catalog division has never considered doing business with Arcata and would rate it a notch below Quebecor (Tr. 590); and, [] (Tr. 2023).

348. [] (CX-632-B).

4) World Color Press

349. World Color is primarily a magazine printer and provides only limited competition in catalogs and inserts (*see* CX-1060-L). Mr. Henry of Penney believes that World Color's work is inconsistent: "they run hot and cold" (Tr. 703).

5) Quad Graphics

350. A 1989-90 Donnelley document concluded that Quad's weaknesses were that it was not known as a top quality catalog printer, that it was inexperienced in retail inserts, was ineffective or slow in responding to customer inquiries, had limited retail work capacity, particularly in the West, which hindered distribution to newspapers, and that it had a small sales force which was not able to cover the entire market (CX-470-C).

351. Penney's catalog production manager testified:

They (Quad) do not seem to have the likely prospect of expansion with their base of equipment . . . Quad is new to the gravure scene. Their base of equipment, as I understand it, is limited.

(Tr. 588).

352. Ian Deutsch of Sterling, Incorporated believes that Quad is not a gravure printer of the quality of Donnelley, Meredith/Burda or Ringier (Tr. 994).

353. [] (Tr. 1592).

6) Standard Gravure

354. Standard Gravure, based in Louisville, KY at the time of the acquisition, has left the gravure business (Tr. 2475).

7) Brown Printing Company

355. Cory Owens of Lands End, in evaluating secondary printing sources, did not look at Brown because the company's gravure printing capability was too limited (Tr. 1285).

356. [] (Tr. 2023).

357. Tom Engdahl, general manager at Brown's gravure plant in Franklin, KY, testified that Brown's lack of alternative gravure capacity outside the Franklin plant is a competitive disadvantage and that customers have expressed concerns about this problem (Tr. 2563-64).

2. Gravure Price and Capacity Trends

358. Several industry members testified that prices for gravure printing have been declining since at least 1985, before the recession (Tr. 2573, 4299, 1509, 4004-05) and that there is and has been excess gravure capacity (Tr. 888, 4700, 4790, 1510, 1614, 1860).

359. One print buyer described conditions as a "buyer's market" (Tr. 888). Another printer, with 25 years experience in both gravure and offset printing, testified that he has "yet to see prices go up -- ever" (Tr. 4762). The print buyer for Service Merchandise characterized competitive conditions in the printing industry as follows:

I don't know of any other industry where buyers have been in a buyer's market so consistently so long. The print market is a dog fight and what's happening to it is the printer can't control necessarily the price of ink or the price of paper and he sure as hell can't control the price of postage. So what has he got left to compete with? He competes with his services under the general heading of manufacturing . . . They've been cutting each others' throats for a decade. . .

(Tr. 4298-99).

360. At the same time, many firms are cutting back or completely canceling their long-run, high-volume printing programs. The decision of Sears to cancel their long-standing catalog program is the

most recent example of this trend, and forced Donnelley to close down an entire gravure facility that was almost wholly dedicated to production of Sears' catalogs (Tr. 4591). A few years ago, Montgomery Ward also cancelled its big book catalog program (Tr. 1541).

361. Also, catalog firms and retailers have been shortening run lengths of their publications to reduce marketing and postage expenses, and to target their customers more effectively. This trend is expected by Mr. Wyker, a catalog consultant, to continue in the future (Tr. 908). Even before the acquisition, Meredith/Burda's President noted: "The trend towards shorter print order continues. The potential customer base is shrinking through merger and acquisition. Demographic inserts prevail over mass market penetration" (RX-96-B).

362. Firms such as Bradlee's, Ames, Hill's, Best Stores, The Company Store, and Lillian Vernon were identified during the hearing as having cut back on their print programs (Tr. 4006, 4008, 4010, 4929, 4930; RX-59-K). Moreover, several retail chains and catalogers have consolidated or gone into bankruptcy in recent years, further reducing the number of print buyers (Tr. 5425-26).

3. The Size of the "Core" Market

363. After analyzing the buyers whose printing programs placed them at one time or another in the high volume gravure publication market, Dr. Hausman found that, while there were 36 customers in the "core" market in 1990, there may have been, by the time of trial, only two remaining in that market. The following table describes this "migration" (Tr. 5446-48; RX-665-A-D):

| | |
|--|----|
| NUMBER OF PRINT BUYERS WITH JOBS IN "CORE" IN 1990 | 36 |
| NUMBER OF PRINT BUYERS NO LONGER IN "CORE" BECAUSE RUN LENGTH NOW LESS THAN 10 MILLION | -8 |
| NUMBER OF PRINT BUYERS NO LONGER IN "CORE" BECAUSE PAGE COUNTS NOW LESS THAN 33 | -3 |
| NUMBER OF PRINT BUYERS NO LONGER IN "CORE" BECAUSE WORK NOW "HIGHLY VERSIONED" | -5 |
| NUMBER OF PRINT BUYERS NOT IN "CORE" BECAUSE THEY WILL SWITCH TO OFFSET IN EVENT OF GRAVURE PRICE INCREASE | -2 |
| NUMBER OF PRINT BUYERS NO LONGER IN "CORE" BECAUSE THEIR PRINT PROGRAMS NO LONGER | -2 |
| NUMBER OF PRINT BUYERS NEVER IN "CORE" BECAUSE THEIR JOB IS NOT FOUR-COLORS | -1 |
| NUMBER OF PRINT BUYERS NOT IN "CORE" BECAUSE THEY ARE PROCESS NEUTRAL | -3 |
| NUMBER OF PRINT BUYERS NOT IN "CORE" BECAUSE MAGAZINE, IN WHOLE, IS "HIGHLY VERSIONED" | -3 |
| NUMBER OF PRINT BUYERS FOR WHOM PRINT PROCESS PREFERENCE AND PROGRAM DETAILS NOT AVAILABLE | -7 |
| NUMBER OF PRINT BUYERS WITH JOBS IN "CORE" AT TIME OF TRIAL | 2 |

364. Dr. Hausman's analysis of the "core" market led him to conclude that with six gravure printers competing for the work of as few as two print buyers (or, at most, thirty-six), the possibility of price discrimination is unlikely simply because of the number of buyers and sellers (Tr. 6337). It also means that some of the printers with gravure capacity do not have "core" work (Tr. 6337-38). [] (RX-665-A-B). Thus, if one of the printer with "core" work attempted price discriminate, one of the printers without "core" work would take the business at a lower price (Tr. 6337-38). Because of the trend toward increased versioning, buyer consolidation, and shorter run lengths, Dr. Hausman believes that the number of participants in the relevant product market will become even smaller (Tr. 6339).

4. Entry Into High Volume Publication Gravure Printing

365. *De novo* entry or expansion into gravure printing takes two or more years. For example, over 24 months--from January 1985 to March 1987--were required from project approval to first publication at Donnelley's Reno facility (CX-7-K; CX-66; CX-69).

366. Other examples of entries or expansion over a two, or more, year period include:

367. [] (CX-8-J).

368. [] (CX-141-L).

369. Two years--from 1987 to early 1990--were required from project approval to start-up of the seventh gravure press at Donnelley's Spartanburg plant (CX-7-Q; CX-90-V).

370. Two years' lead time was required for Donnelley's most recent gravure press installation, the Warsaw tandem press (CX-9-F-G; CX-63-Z-5; *see also* CX-117-Z-47).

371. Two years' lead time was required for Ringier to analyze, plan, purchase and install gravure presses at its Corinth, Mississippi facility (Tr. 1476). Its president acknowledged that the time to acquire new gravure presses generally runs in the two year range (Tr. 1479-80, 1504).

372. Over two years' lead time (from late 1983 to 1986) was required for Quad Graphics to plan for, purchase, install and print with its first gravure press (Tr. 2351-52). Its gravure operations were not profitable until 1989 (Tr. 2367).

373. Brown Printing required three years, from "early 1989" to "May of 1992," to plan, order, install and begin operation of its new three-meter press in its Franklin, Kentucky plant (Tr. 2525).

374. Wayne Angstrom, a former Donnelley executive, estimated that it would take two to three years for a new firm to enter the gravure market (Tr. 2618-19). Mr. Walter, Donnelley's CEO, estimated that it would take two years to enter and a few more years to reach full efficiency (CX-101-Z-108) (*see also* CX-106-Z-38-39). Longer time frames (from two and one half to three years) were contemplated for the three-meter presses that Meredith/Burda planned to install at its Lynchburg facility (CX-55-Z-1; CX-251-B; CX-252-B).

375. Factors which contribute to entry or expansion delay include:

Regulations requiring that appropriate environmental permits be obtained (Tr. 2742-47, 2754-56, 2767-69). Mr. Voss, former president of Meredith/Burda, testified that clean air permits are so difficult to get that obtaining them would require at least four to six months (CX-900-Z-56-66-67). Environmental restrictions will probably be more onerous in the future (Tr. 2533-34, 2755, 2768-69). The reluctance of gravure customers to switch from their current printer to a new one (Tr. 941-42, 1351, 1943-44, 1961, 2156, 2658-59).

Jerry Ryan, of Service Merchandise, testified:

[W]hen you get involved in a large complex program like the one we happen to have, whether you're talking about the overall program or you're talking just about even the fall catalog itself, you are not going to go to the first bozo who happens to have gravure facilities; you're going to go with somebody that you know has a good track record, understands your problems, comes through in a pinch. . . And you may end paying that guy, whether it's three percent or five percent more, than you might be able to pay to somebody else that you wouldn't have the same kind of faith in.

(Tr. 4298).

The reluctance to switch is increased by the long term contracts which Donnelley and other gravure printers have with their customers (in Donnelley's case, at least [] of its business involves multi-year contracts) (CX-757-A; CX-1157-Z-7, Z-11; *see also* CX-63-U; CX-102-Z-7-8; CX-159-G; CX-483-Z-236). Due to these contracts, new entrants would find that much of the relevant market would be inaccessible for at least two years.

Sunk costs, *i.e.*, costs of entry that are unlikely to be recovered through the redeployment of those assets. The investment made in gravure is "sunk" in the sense that it cannot readily be recouped by sale for other uses (Tr. 4591; *see* Tr. 1504-05).

All existing gravure facilities in the United States have at least three presses except Quebecor's Dallas facility which has two presses (Tr. 301; *see* CX-501). Those familiar with the industry recommend a minimum of two gravure presses per plant (Tr. 300, 2619, 2798-99, 1503-04).

Donnelley's Reno facility was opened in 1987 at a cost of approximately \$94 million (*see* CX-7-L; CX-501-M). [] (CX-501-M; CPF 19).

Quad Graphics, the most recent gravure entrant (Tr. 1502-03, 3341), needed a minimum of two 96-inch gravure presses to enter high volume publication gravure printing and its total cost of entry approximated \$50 million (in 1993 dollars) (*see* Tr. 2356, 2358, 2361, 2364).

[]

Individual gravure presses, with associated equipment, cost approximately [], depending on web width and other operating parameters (*see* CX-11-Z-51, Z-55; CX-106-Z-104-A; CX-247-L; CX-248-F; CX-1449-F; CX-1453-A; Tr. 299, 2532-34, 6255).

376. Consolidation, rather than new entry, has occurred in the past several years. In 1981, there were twelve gravure printers in the United States; today there are six (CX-933-G; CX-501; CX-519). The most recent exit of a gravure producer, Standard Gravure, occurred in 1992 (CX-510).

377. The six gravure printers operating in the United States in 1993 are:

1. Brown Printing
2. R. R. Donnelley (acquired Meredith/Burda)
3. Krueger/Ringier
4. Quebecor Corp. (acquired Arcata Graphics, Maxwell Communications Corp.)
5. Quad Graphics
6. World Color Press

(CX-501; CX-519).

I. Effects Of The Acquisition

1. Market Share and Concentration

378. The market share and concentration figures in the relevant geographic market--the continental United States--in terms of throughput capacity, number of presses, and sales were, for 1990:

36

Initial Decision

TABLE 1

CONTINENTAL UNITED STATES GRAVURE CAPACITY 1990

| Company | Throughput Capacity | Percent Share | HHI Contribution |
|----------------------|------------------------|------------------|---------------------|
| Donnelley | 2,753 | 33.1 | 1,093 |
| Meredith/Burda | 1,296 | 15.6 | 242 |
| Combined | 4,049 | 48.7 | 2,368 |
| | [] | | |
| | [] | | |
| Pre-Acquisition HHI | | | 2,041 |
| Post-Acquisition HHI | | | 3,070 |
| Increase in HHI | | | 1,029 |

(CX-501-B).

TABLE 2

CONTINENTAL UNITED STATES GRAVURE CAPACITY 1990

| Company | Number of Presses | Percent Share | HHI Contribution |
|----------------------|----------------------|------------------|---------------------|
| Donnelley | 56 | 35.9 | 1,289 |
| Meredith/Burda | 20 | 12.8 | 164 |
| Combined | 76 | 48.7 | 2,373 |
| | [] | | |
| | [] | | |
| Pre-Acquisition HHI | | | 2,172 |
| Post Acquisition HHI | | | 3,093 |
| Increase in HHI | | | 920 |

(CX-501-A)

Initial Decision

120 F.T.C.

TABLE 3

CONTINENTAL UNITED STATES GRAVURE SALES 1989
(for prepress and presswork in millions of dollars)

| Company | Sales | Percent Share | HHI Contribution |
|----------------------|-------|---------------|------------------|
| Donnelley | 202.7 | 27.4 | 749 |
| Meredith/Burda | 117.9 | 15.5 | 241 |
| Combined | 325.6 | 42.9 | 1,840 |
| | [] | | |
| | [] | | |
| Pre-Acquisition HHI | | | 1,868 |
| Post-Acquisition HHI | | | 2,719 |
| Increase in HHI | | | 850 |

(CX-501-E).

379. Table 4 shows market shares for certain gravure printing work of more than five million copies produced in 1990:

TABLE 4

1990 GRAVURE OUTPUT SHARES.
(PERCENT)

| | (A) | (B) |
|----------------|---------------------|----------------------|
| | 5.0+ million copies | 10.0+ Million copies |
| DONNELLEY | 36.4 | 37.4 |
| MEREDITH/BURDA | 18.3 | 16.0 |
| TOTAL | 54.7 | 53.4 |

[]

[]

2. Cancelled or Delayed Expansion Plans

380. Dr. Hilke compiled CX-502-A, a chart which depicts the cancellation or deferment of various Donnelley and Meredith/Burda expansion plans which he believed had a "quite high" probability of going forward absent the Meredith/Burda acquisition (Tr. 3349-50).

[]

381. In Dr. Hilke's opinion, the cancellation or deferral of these expansion plans had a substantial adverse competitive effect because had they gone forward, significant gravure capacity would have been added to the market at or about the time of the acquisition and this would have resulted in an increase in gravure supply and a reduction in prices (Tr. 3347-54, 3359, 6133-34).

382. Dr. Hilke concluded that, in actuality, Donnelley's acquisition of capacity rather than expansion "represents an alternative which involves higher prices and less competition. . . ." (Tr. 3359).

383. Several documents prepared by or for Donnelley tend to support Dr. Hilke's observations.

384. Donnelley's strategic consultant, BCG, pointed out that if Donnelley continued to bring on new capacity, price erosion would result (CX-701-D-E).

385. Robert A. Revak, of Donnelley's catalog group, stated in a draft of its 1989 strategic plan:

The only way that I can see Donnelley changing the trend of continuing price erosion in the marketplace is to remove our competition through acquisition.

(CX-157-B).

386. Donnelley's October 1990 Rating Agency Presentation stated that, "[w]ith the addition of Meredith/Burda's modern, well equipped plants, Donnelley obtains needed additional capacity to better serve and expand share in these markets without adding additional capacity to the industry" (CX-1156-J; see also CX-35-K; CX-40-D; CX-41-V; CX-1061-B).

387. A February 12, 1990 memorandum sent to senior Donnelley management by John S. Oberhill, then president of the magazine group (CX-140-M-N), recognized the price effect of gravure acquisitions:

Selective acquisitions to reduce supply is the preferred method to stabilize pricing levels and obtain growth in both sales and earnings. Large capacity additions, which significantly exceed market growth rates, must be brought forward cautiously unless there is enabling contract volume.

(CX-154-A).

388. An internal memorandum prepared by Shearson Lehman Hutton, the firm handling Donnelley's debt offering for the acquisition (CX-149-H-I), observed:

Meredith/Burda was one of Donnelley's larger competitors, particularly in the very long-run, very capital intensive gravure segment of U.S. printing. Thus, Donnelley effectively acquires additional, as well as some excess, capacity at less than "new" construction cost without adding to industry capacity, and eliminates some competition in the process. Correspondingly, some \$175 million [of] Donnelley's future capital needs were offset through this acquisition.

(CX-757-A).

3. Constraints on Meredith/Burda's Independence

389. The initial Donnelley/Meredith Burda acquisition agreement required the latter to obtain Donnelley's approval before any printing contracts exceeding [] could be signed by Meredith/Burda, and Meredith/Burda did seek Donnelley's approval for contracts with its customers including Target, a high volume gravure customer, from December 1989 to September 1990 (CX-2-Z-23-24, Z-32-34; CX-496-D; CX-1052; CX-1062).

390. The initial agreement required [] (CX-496-D). Capital expenditures exceeding \$100,000 required Donnelley's approval (CX-2-Z-33). Meredith/Burda sought Donnelley's approval for its contracts with suppliers during the period December 1989 to September 1990 (CX-1106-A) and Donnelley imposed changes on proposed contracts (CX-1106-H-K).

391. Other restrictions on Meredith/Burda's business decisions were also imposed in the initial acquisition agreement of 1989 (CX-2-Z-32-34; CX-496-E-G).

392. Dr. Hilke acknowledged that agreements curtailing a seller's actions for a short period after an initial sale agreement and before the closing are common and avoid the costs of redetermining and renegotiating the price at the time of the final closing; however, he

believes that extension of such agreements over an extended period of time curtails competition by severely limiting the independence of the acquisition target while it is supposed to remain independent (Tr. 3370-71).

4. Unilateral Market Power

393. The size of Donnelley's post-acquisition gravure market share in the United States (42.9 to 48.7%) suggests that it can unilaterally raise prices to some high volume publication gravure print customers, restrict output or engage in other anticompetitive conduct. 1992 Merger Guidelines of the Department of Justice and the Federal Trade Commission ("1992 Guidelines") Section 2.2.

394. Donnelley officials recognized that the acquisition would strengthen its position in the market. In his handwritten notes to Carl Doty recommending the acquisition of Meredith/Burda, catalog group president Schroder wrote "market control and stabilize" as the first on a list of "strategic issues" associated with the acquisition (CX-40-C; CX-41-I); and BCG's Michael Silverstein noted that the acquisition accorded with his observations that "[p]rice stability is facilitated by very large share of leader" (CX-701-F).

395. Ronald L. Nicol, another BCG consultant, informed Donnelley that the acquisition "creates market power for Donnelley" and "limits customer options" (CX-703-P).

396. Before the acquisition, Donnelley had a leading share in gravure catalogs and inserts (CX-158-Z-13), and some of its customers view it as the major supplier of high volume publication gravure printing (CX-622-M; CX-421-C; CX-632-C; CX-785-B; Tr. 674-75).

397. Dr. Hilke testified that Donnelley could exercise market power with respect to those high volume publication customers who would not switch to gravure in the face of a 5% increase in gravure prices by targeting them for non-cost based price increases, while keeping prices at competitive levels for lower volume gravure printing customers whose demand is more elastic (Tr. 3012-14, 3071, 5163-64).

398. Dr. Hausman agreed that some high volume gravure customers prefer that process over offset (Tr. 5224), but denied that Donnelley could successfully practice price discrimination:

in certain types of situations of price discrimination, you are able to tell whether a customer will switch or not. But in this type of situation . . . you will not be perfectly [able to] identify those customers that you could price discriminate against

(Tr. 5196-97), because where fixed costs are high and excess capacity exists, the failure to accurately predict which customers would accept a non-cost based price increase might result in a loss of revenue and, perhaps, require lower prices to obtain replacement business (Tr. 5198-99, 6330-32, 6340-41, 5921).

399. Donnelley has, over the years, asked its salesmen and operations officers to assess customer needs, to report the prices charged them, and to assess the profitability of work done for different accounts. For example, a Donnelley document entitled "Pricing Strategy, Plan, and Policy" stated:

At the meeting I outlined the concept we discussed which related toward niche marketing strategies.

Within this plan, I would also suggest identification of targeted accounts and plans for them, as well as a listing of accounts, levels, and categories of accounts. The plans, dates, needs, etc. would be part of this. What do we need to do for these particular salespeople regarding sensitivity, goals, training, special information, etc.? Probably most important to include is the actual strategy and concept of how it would work.

As a side benefit of this, I believe comparative price level information on levels, customers (Graded A, B, C, D, etc.), selected price sensitivity test customers, etc. comparisons should be made.

(CX-560-B).

400. The record contains many other examples of customer analysis (CPF 747-845) which, according to Donnelley, have no sinister implications but is rather what every successful business must do if it is to satisfy customer needs.

401. Dr. Hilke agreed that the "process of targeting" is:

not in itself offensive, it just is the underlying set of conditions and practices that could lend themselves to a targeting of customers after an acquisition of anticompetitive concern I'm talking about.

(Tr. 3024).

402. Although he denied that Donnelley could successfully engage in an extensive program of selective price increases to high volume publication gravure customers (F 398), Dr. Hausman conceded that some customers might be targeted for such increases:

Judge Parker: One second. Professor, there are still some customers that testified, I believe, the high volume customers, that they simply would never consider switching to offset.

The Witness: Yes. Penney's did, for instance.

Judge Parker: What about that?

The Witness: Well, I think for those customers --

Judge Parker: Can they be price discriminated against from now on by Donnelley or others?

The Witness: If you knew who they were. Theoretically, if you knew who they were and if that same person stays there, because it's usually a personal preference.

(Tr. 5224).

403. Dr. Hausman denies that Donnelley knows who these customers are but, in light of Donnelley's extensive, continuing analysis of customer needs, I agree with Dr. Hilke that targeting might well be successful.

5. Customer Complaints

404. As soon as the Meredith/Burda acquisition was announced, customers expressed concern to the FTC and the parties about the decrease in competition that might result (CX-8-Z-9-25; CX-119-Z-90; CX-121-Z-69; CX-171; CX-174-A; CX-174-B; CX-176; CX-177; CX-178-A; CX-179-B; CX-186-B; CX 332-C; CX-467-A; CX-620-E; CX-624; CX-1006-N; RX-79-T; Tr. 671-72, 705-06, 743, 823, 961-62, 964-65, 1033-34, 1439-40, 1934-36, 2010, 4092-94).

405. Donnelley claims that some of those customers who complained about the acquisition did not express that much concern during their testimony (RPF 256), but it is evident that even those customers who have as yet experienced no adverse effects from the acquisition may still be concerned about its long-term impact. For example, Mr. Sackett of Penney testified:

A. I should answer that our relationship with Donnelley is, as I pointed out earlier, excellent. And there has been no specific adverse impact on our business relationship with them as a result of that purchase. Nevertheless we have a \$4 billion dollar [sic] business which is entirely dependent upon the supply of rotogravure capacity and we cannot reasonably applaud an action which results in having one source of supply available to us.

(Tr. 617-18).

6. Coordinated Interaction

406. A concern of Dr. Hilke is that Donnelley's acquisition of one of its primary competitors increases concentration in an already concentrated market with a small number of firms and that it may therefore lead to coordinated interaction, or collusion, among the remaining firms (Tr. 3000, 3391-92, 6155-57, 6190).

407. Where there are, as here, few suppliers, and there is a dominant firm such as Donnelley, coordination of prices is more likely because cheating is easier to detect and punishment is severe (Tr. 3030, 3392, 6149-53, 6157).

408. Coordination of gravure prices is possible because information about competitive activity of industry members is readily available from press manufacturers (Tr. 331-34, 2547), from movement of employees from firm to firm (Tr. 3397; CX-141-Z-95) and from industry meetings (see CX-379-A; CX-391-V; CX-453; CX-454; CX-462; CX-634-Z-3; CX-644; CX-765-B; CX-891-A; CX-892-A; CX-943; CX-944; RX-152-C; RX-153-A).

409. The nature of gravure printing may also facilitate coordination: there are only two major manufacturers of gravure presses (CX-102-Z-48-49; Tr. 6901); all gravure printers use the same process to produce the finished product, and much of the printers' business is obtained through bidding, which requires an intimate knowledge of industry cost structure and other competitive variables.

410. The probability of Donnelley being able to successfully impose unilateral price increases on its high volume publication gravure customers or of colluding with its competitors with respect to price is limited somewhat by the size of its customers and their ability to switch suppliers. There have been several post-acquisition instances where print buyers have qualified additional gravure printers besides Donnelley or have switched substantial quantities of their printing to other gravure printers (RPF 268, Table F).

411. Nevertheless, many print buyers believe that the Donnelley-Meredith/Burda combination produces higher quality work than other gravure printers; and, there are substantial impediments to switching gravure suppliers with ease (Tr. 3075-77, 5894-95, 5973-75).

412. [] (Tr. 2012-13, 2015-26, 2033-34, 5968-74).

413. Mr. Angstrom of St. Ives testified:

a very large customer who commands -- significant levels of capacity . . . is going to find great difficulty finding another home quickly.

(Tr. 2669).

414. Donnelley's David Moeller testified that, when large customers have been with a printer over a long period of time, they are likely to continue the relationship even if they have to pay a higher price to do so (Tr. 4064-65), and the supervisor of the purchasing department at Current, Inc., stated [] (Tr. 1943).

415. Indeed, the concerns expressed by their larger customers over the Donnelley-Meredith/Burda acquisition reflects their belief that switching to alternative sources of high volume gravure publication printing would, in some cases, be difficult and time consuming.

7. Efficiencies

416. Dr. Hilke testified that with respect to the existence of merger specific efficiencies or synergies:

to the extent I've been able to identify such efficiencies, they don't seem to be ones which would be peculiar to this particular acquisition.

(Tr. 3412).

8. Conclusion

417. For the reasons given above, complaint counsel's concern that Donnelley's acquisition of Meredith/Burda may substantially lessen competition in high volume publication gravure printing in the United States is justified; and, since new entry or expansion into this market would require at least two years or more lead time, it would not mitigate the probable anticompetitive effects of the acquisition.

III. CONCLUSIONS OF LAW

A. *The Relevant Product Market*

1. Introduction

The purpose of market definition in antitrust cases is to "identify those sections of the economy which may be exposed by the [challenged] transaction to anticompetitive price increases" Owens-Illinois, Inc., D. 9212, at 4 (Feb. 26, 1992). The 1992 Guidelines, Section 1.0, defines a market by application of the so-called "five percent test":

A market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a "small but significant and nontransitory" increase in price, assuming the terms of sale of all other products are held constant. A relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy this test.

See also Owens-Illinois, Inc., pp. 4-5.

Complaint counsel and Donnelley do not disagree that many print buyers can and do use either offset or gravure printing services for some jobs. Donnelley goes even further: it asserts that practically all print jobs, regardless of run length, page count or number of versions can be done by gravure or offset printers, and are acceptable to their customers. Complaint counsel deny this and claim that there is a product over which Donnelley has market power (*i.e.*, "the ability profitably to maintain prices above competitive levels for a significant period of time" 1992 Guidelines, Section 0.1): the supply of high volume publication gravure printing services, a product which is sufficiently distinct from offset that buyers could not defeat an increase in its price by shifting their purchases to offset. *See Hospital Corporation of America*, 106 FTC 361, 464 (1985), *aff'd*, 807 F.2d 1381 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987).

Whether a product is "sufficiently distinct" so that switching would not occur depends on the "reasonable interchangeability" between the products, which is determined by:

examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors.

Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962). See also *United States v. E.I. duPont de Nemours & Co.*, 351 U.S. 377, 395 (1956).

2. The Peculiar Characteristics of the Gravure and Offset Processes

In addition to the physical differences of gravure and offset presses (F 14-28), there are differences between the two processes which affect customer choice: gravure's greater throughput which makes it more cost-effective than offset for jobs with large numbers of copies and many pages per copy (F 162); the greater durability of gravure cylinders (F 165-169); gravure paper savings resulting from variable cut-off capability (F 172); the ability of gravure presses to stitch and trim on line (F 173-74); less paper waste in the gravure process (F 175); and, gravure's ability to produce better results than offset on cheaper, lighter weight, uncoated paper (F 180).

3. Gravure and Offset Quality

Some industry members believe that, for their purposes, gravure and offset offer comparable quality (F 186); some high quality high volume magazines use offset and gravure for different parts of their publication (F 185); and, industry members testifying in this proceeding could not distinguish between the two processes with the naked eye (F 187).

Nevertheless, the firm belief of many print buyers that gravure offers higher quality than offset is a real constraint on their choice of printing processes.

4. The Economics of Gravure and Offset

The record supports complaint counsel's claim that, for low version, long run, high page count publications, gravure is less costly than offset. The breakeven point (F 212) at which this usually occurs

is in publications with less than 4 four-color versions, more than 32 pages (F 222) and a run length in excess of 5 million copies (F 216).

The gravure advantage for these publications is confirmed by evidence that print buyers have switched to the gravure process as the run length of their publications increased (F 217-19) and in documents written by Donnelley employees (F 227-232). Additional confirmation was supplied by the testimony of buyers who described their print programs and their choice of gravure or offset to meet their demands (F 59-132). Of particular interest is the decision of some buyers, such as National Geographic, to use both processes for their publications because of their unique contribution to specific needs, such as, in the case of offset, its lower cost when a portion of the publication requires a high number of versions (F 121).

Donnelley criticizes Dr. Hilke's product market characteristics as vague and contradictory. Some uncertainty is part and parcel of any attempt to define the boundaries of a product market but it is not a fatal flaw if it is, on balance, supported by the record. See *United States v. Pabst Brewing Co.*, 384 U.S. 546, 549 (1966). In this case, there was explicit testimony that for run lengths in excess of 5 or 10 million copies, gravure is more economical than offset (see, e.g., F 234):

Well, 10 million and page counts of 32 or more, typically, in my experience, today, yesterday, tomorrow is going to be done gravure.

5. Gravure and Offset Prices

The independence of gravure and offset prices indicates that the cross-elasticity of demand between the two processes is relatively low, and that at this level the processes occupy separate competitive niches:

The outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it.

Brown Shoe, 370 U.S. at 325.

Direct evidence of cross-elasticity of demand is often unavailable:

Hence, we may apply reasoned judgment in estimating or inferring the relative magnitude of the elasticities in order to assess the degree of market power. . . .

Grand Union, 102 FTC 812, 1041 (1983). See also *B.F. Goodrich Co.*, 110 FTC 207, 290 (1988) ("persistent price differences" a "surrogate" for direct evidence of cross-elasticity).

Evidence of independent gravure and offset prices include Donnelley's price tracking reports (F 205-09) and the testimony of industry members (F 210) confirming complaint counsel's claim that the demand for high volume publication gravure printing is relatively inelastic, *i.e.*, that demand for it does not fall significantly if its price increases by a small but significant and nontransitory amount. *FTC v. Bass Brothers Enterprises*, 1984-1 CCH Trade Cas. ¶ 66,041 at 68,613.

6. Statistical Analyses of Gravure's Advantage Over Offset

Statistical confirmation of gravure's dominance over offset for high volume publication gravure printing is provided by Dr. Hülke's analysis of such publications in CX-1167 (F 236-42) and his analysis of Donnelley's studies of gravure economics (F 244-48).

CX-1167 demonstrates that high volume publication gravure printing in 1990 accounted for a substantial amount of commerce and that such printing is predominantly the domain of gravure (F 239, 240).

High volume publication printing is not done exclusively by gravure: in 1990, offset accounted for 11.4% of print runs which exceeded 5 million copies (F 240); however, existence of some competition between the two processes does not negate the conclusion that they occupy separate markets for those customers whose demand for gravure is inelastic. See *Columbia Metal Culvert Co. v. Kaiser Aluminum & Chemical Corp.*, 579 F.2d 20, 30 (3d Cir.), *cert. denied*, 439 U.S. 876 (1978):

The existence of competition between these product lines does not alone preclude market power within each line, if each product has a cadre of customers in which it enjoys a decisive advantage.

Owens-Illinois, which Donnelley says is controlling in this case, is not inconsistent with *Columbia Metal*. In *Owens*, the Commission found that a significant competitor had entered the market with spaghetti sauce packed in metal cans and that its capture of 5% of the market in less than two years showed that metal cans compete with

glass for the packaging of spaghetti sauce. The Commission also predicted "further transfer of market share to cans" if glass container prices rise. Owens-Illinois, at 15-16.

There is no evidence in this case of any recent, dramatic inroads by offset into high volume publication printing and there is no reason to believe that there will be any technical changes in offset which will allow substantial penetration into gravure's domain, even if the M-3000 press should be successful (F 198-200).

7. Industry Recognition

The print industry, both buyers and sellers, recognize the existence of a high volume publication gravure market (F 274-310).

See *B.F. Goodrich*, 110 FTC at 290 ("industry firm perceptions are "surrogates" for direct evidence of elasticity"); *Grand Union Co.*, 102 FTC at 1041. This includes Donnelley, whose employees, in many documents, explicitly or implicitly recognized a gravure market (F 274-79), and who, along with other industry members, made major investments in gravure capacity in the face of excess offset capacity (F 285). This phenomenon, together with Donnelley's purchase of Meredith/Burda's gravure capacity (F 7-8) when it could have bought many more less costly offset presses, is inconsistent with the claim that there is no significant difference between the two processes.

8. Conclusion

Donnelley relies too heavily on its analysis of gravure print buyers who have switched to offset (F 122-32), for it ignores buyers who, like [], may switch from offset to gravure after reconsidering its cost (F 85) or who, like Montgomery Ward, may produce new gravure catalogs (F 126) (*see also* F 315-16).

This analysis also ignores the reason for some of the switches--increased versioning--which simply reinforces complaint counsel's claim that the two processes offer unique features (F 106, 108, 123, 125). In addition, versioning information for some buyers is unavailable (F 128).

Thus, although some high volume publication gravure buyers have switched to offset, the totality of the evidence convincingly demonstrates that the demand for high volume publication gravure printing is, for some customers, (*i.e.*, those who would not switch to

offset even if gravure prices were raised 5% (F 273)), inelastic and that these customers and their suppliers operate in the relevant product market alleged in the complaint.

B. The Relevant Geographic Market

The geographic area or areas within which the probable effects of this acquisition should be measured is where the "seller operates and to which buyers can practicably turn for supplies." *Tampa Electric Co. v. Nashville Coal Co.*, 365 U.S. 320, 327 (1961); *FTC v. Foodtown Stores*, 539 F.2d 1339, 1344 (4th Cir. 1976); *Midcon Corp.*, 112 FTC 93, 162 (1989).

The parties agree that the United States is one geographic market, but disagree as to complaint counsel's claim that a significant number of West Coast high volume gravure publication print customers can practicably turn only to West Coast gravure printers for their needs.

Since no Elzinga-Hogarty analysis of shipping patterns is possible (F 329), complaint counsel rely on industry perception and industry actions to establish their claims that there is a distinct West Coast market (F 328, 330).

Some West Coast customers, such as Target Stores, which must have timely printing of its inserts (F 331), are cited as examples of print customers who can turn only to West Coast gravure printers for their needs, yet Target's print buyer testified that he might consider switching from West Coast gravure suppliers if they raised their prices by 5% (F 332).

Since a substantial amount of gravure printing is done outside of, and shipped into, the Western United States (F 333) I reject complaint counsel's claim that West Coast print buyers can, in most cases, turn only to West Coast gravure printers to satisfy their needs, and I therefore reject their proposed West Coast geographic market for high volume publication gravure printing.

C. The Effects Of The Acquisition

1. Market Share and Concentration

The 1990 United States market share/concentration figures for gravure printing were:

Initial Decision

120 F.T.C.

UNITED STATES
GRAVURE SHARE MEASURES

| | Capacity (Numbers of Presses) | Capacity (Press Throughput) | Gravure Sales |
|--------------------------|----------------------------------|--------------------------------|------------------|
| Percentage Shares | | | |
| Donnelley | 35.9% | 33.1% | 27.4% |
| Meredith Burda | 12.8% | 15.6% | 15.5% |
| Combined Shares | 48.7% | 48.7% | 42.9% |
| HHI Contributions | | | |
| Donnelley | 1,289 | 1,093 | 749 |
| Meredith Burda | 164 | 242 | 241 |
| Combined HHI | 2,373 | 2,368 | 1,840 |
| United States HHI | | | |
| Pre-Acquisition HHI | 2,172 | 2,041 | 1,868 |
| Post-Acquisition HHI | 3,093 | 3,070 | 2,719 |
| Increase in HHI | 920 | 1,029 | 850 |

(F 378).

Since these figures encompass all gravure printing, market share data for gravure output in the relevant product market is a more accurate indication of the impact of the acquisition:

TABLE 4

1990 GRAVURE OUTPUT SHARES
(PERCENT)

| | (A) 5.0+ million copies | (B) 10.0+ million copies |
|----------------|----------------------------------|-----------------------------------|
| DONNELLEY | 36.4 | 37.4 |
| MEREDITH/BURDA | 18.3 | 16.0 |
| TOTAL | 54.7 | 53.4 |

[]

(F 379).

By any measure--total gravure printing or high volume publication printing--the concentration in the markets exceed the level at which illegality can be inferred. See 1992 Guidelines, Section 1.51(C):

Post-Merger HHI Above 1800. The Agency regards markets in this region to be highly concentrated. Mergers producing an increase in the HHI of less than 50 points, even in highly concentrated markets post-merger, are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 50 points in highly concentrated markets post-merger potentially raise significant competitive concerns, depending on the factors set forth in Sections 2-5 of the Guidelines. Where the post-merger HHI exceeds 1800, it will be presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise. The presumption may be overcome by a showing that factors set forth in Sections 2-5 of the Guidelines make it unlikely that the merger will create or enhance market power or facilitate its exercise, in light of market concentration and market shares.

See also Hospital Corp. of America v. FTC, 807 F.2d 1381, 1384 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987) (combined share of 26 percent, four-firm concentration of 91 percent; held unlawful); *FTC v. Warner Communications Inc.*, 742 F.2d 1156, 1163 (9th Cir. 1984) (combined share of 26 percent; four-firm concentration of 75 percent; presumptively unlawful); *RSR Corp. v. FTC*, 602 F.2d 1317, 1324 (9th Cir. 1979) (combined market share of 19.2 percent, acquisition held unlawful).

Additional analysis beyond market share statistics demonstrates that the challenged acquisition may pose a "significant threat to competition" *United States v. General Dynamics Corp.*, 415 U.S. 486, 496-99 (1974).

The particular threat to competition which the acquisition may create is its potential for the exercise of market power over high volume publication gravure printing either by one firm (unilateral market power)² or a group of firms (coordinated interaction).³

² Lessening of Competition Through Unilateral Effects

A merger may diminish competition even if it does not lead to increased likelihood of successful coordinated interaction, because merging firms may find it profitable to alter their behavior unilaterally following the acquisition by elevating prices and suppressing output. Unilateral competitive effects can arise in a variety of different settings. In each setting, particular other factors describing the relevant market affect the likelihood of unilateral competitive effects. The settings differ by the primary characteristics that distinguish firms and shape the nature of their competition. 1992 Guidelines, Section 2.2.

³ Lessening of Competition Through Coordinated Interaction

A merger may diminish competition by enabling the firms selling in the relevant market more likely, more successfully, or more completely to engage in coordinated interaction that harms consumers. Coordinated interaction is comprised of actions by a group of firms that are profitable for each of them only as a result of the accommodating reactions of the others. This behavior includes tacit or express collusion, and may or may not be lawful in and of itself. 1992 Guidelines, Section 2.1.

2. Cancellation of Expansion Plans

Donnelley's acquisition of Meredith/Burdā resulted in cancellation of its expansion plans, a cancellation which would have added capacity and which might have reduced prices in the relevant product market (F 380-88). It also removed from the competitive arena its major competitor and, to some industry observers, the only other high quality gravure printer (F 338-57).

3. The Unilateral Exercise of Market Power

In addition to allowing the reduction of output, the acquisition increased the likelihood that the combined firm, either on its own, or in combination with other gravure firms, would exercise market power. *See* 1992 Guidelines, Section 2.0.

Donnelley's post-acquisition market share suggests that it can unilaterally raise prices to some high volume publication gravure print customers, restrict output or engage in other anticompetitive conduct.

The probability of this occurrence was evident to Donnelley officials at the time of the acquisition (F 393-94), was of great concern to its print customers (F 404-05), and was conceded, at least as to customers such as Penney, by Dr. Hausman, who agreed that it could be targeted for price increases (F 402).

Donnelley disagrees that high volume publication gravure printing customers can be targeted and claims that even if the possibility exists, the number of "core" customers has diminished dramatically since the acquisition (F 364).

Donnelley's argument ignores recent test entry into the core market by [] (F 262), the probability that other high volume offset customers will do the same, and the possible effect of the recent recession on high volume publications. Reliance on post-acquisition effects which may be the result of an economic downturn ignores the possibility that as the economy improves the "trends" which Donnelley observes will vanish (F 358-62) and skepticism about their long-term effect is warranted, especially those over which Donnelley may have some influence. *See Hospital Corp. of America*, 807 F.2d 1381, 1384 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987).

4. Coordinated Interaction

Proof of actual collusion arising from an acquisition is "not required to show a violation of [Section 7 of the Clayton] Act. Instead [a] predictive judgment . . . is called for." *Owens-Illinois* (Azcuena, concurring). See also *B.F. Goodrich*, 110 FTC at 303: "As the number of firms in an industry declines, and industry concentration increases . . . it becomes easier for those firms to coordinate their pricing and the likelihood of anticompetitive effects . . . increases."

A predictive judgment that Donnelley's acquisition of its major competitor increases the likelihood of collusion can be made with confidence because of the exit of several market participants over the past few years (F 376-77), the small number of remaining firms (F 407), and the ready availability of industry information which can facilitate collusion (F 408). See *United States v. Aluminum Company of America*, 377 U.S. 271, 280-81 (1964); 1992 Guidelines, Sections 2.0, 2.11, 2.12.

5. Conclusion

The acquisition of Meredith/Burda by Donnelley creates an "appreciable danger" of future anticompetitive effects. *Owens-Illinois* at 29.

That concern could be ignored if there were no barriers to entry into gravure printing, for, in that case, "it is unlikely that market power, whether individually or collectively exercised, will persist for long." *B.F. Goodrich*, 110 FTC at 207, 296 n.63, but there are substantial barriers to rapid and effective entry into high volume publication gravure printing. Barriers to entry into gravure printing (F 375) would create a more than two year delay between the time entry or expansion is contemplated and ultimately achieved (F 365-74). Thus, entry into high volume publication gravure printing would not occur swiftly enough to counter the probable anticompetitive consequences of the Meredith/Burda acquisition:

In order to deter or counteract the competitive effects of concern, entrants quickly must achieve a significant impact on price in the relevant market. The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.

1992 Guidelines, Section 3.2.

IV. SUMMARY

1. The Commission has jurisdiction over the subject matter of this proceeding and over defendants R.R. Donnelley & Sons Co. ("Donnelley") and Pan Associates, a limited partnership.

2. Donnelley and Pan Associates were, at all times relevant herein, engaged in commerce, as "commerce" is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. 12, and their business is in, or affects, commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, as amended, 15 U.S.C. 44.

3. The appropriate line of commerce within which to evaluate the competitive effects of the acquisition of Meredith/Burda by Donnelley is the supply of high volume publication gravure printing.

4. The appropriate geographic market within which to evaluate the competitive effects of the acquisition of Meredith/Burda's high volume publication gravure printing business is the continental United States.

5. Barriers to entry into the relevant market are substantial, and substantial harm to competition would occur until new entry could be accomplished.

6. Prior to and at the time of the acquisition, Donnelley and Meredith/Burda were actual, direct and substantial competitors in the supply of high volume publication gravure printing.

7. The effect of this acquisition has been or may be substantially to lessen competition or to tend to create a monopoly in the aforesaid product and geographic market in violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45, in the following ways:

(a) It eliminated actual competition between Donnelley and Meredith/Burda and between Meredith/Burda and others in the relevant market;

(b) It significantly increased the already high levels of concentration in the relevant market;

(c) It created a firm whose share of the relevant market is so high that it has achieved the position and market power of a dominant firm;

(d) It eliminated Meredith/Burda as a substantial independent competitive force in the relevant market; and

(e) It increased the likelihood of successful anticompetitive conduct, non-rivalrous behavior and actual or tacit collusion among the firms in the relevant market.

8. All of the above increase the likelihood that firms will increase prices and restrict the output of high volume publication gravure printing.

9. The order entered hereinafter is appropriate to remedy the violation of law found to exist.

V. ORDER

I.

It is ordered, That for purposes of this order the following definitions shall apply:

A. "*Donnelley*" means respondent R.R. Donnelley & Sons Co., its directors, officers, agents, representatives and employees, and its parents, predecessors, subsidiaries, divisions, groups, affiliates, successors and assigns, and their respective directors, officers, agents, representatives, employees, successors and assigns.

B. "*Meredith/Burda*" means the former business entity jointly owned by Meredith Corporation and Pan Associates, L.P.

C. "*Pan Associates, L.P.*" means a limited partnership and a holding company for the Burda family with its principal place of business in New York, New York.

D. "*Meredith/Burda's Printing Business*" means the business of commercial printing acquired by Donnelley from Meredith/Burda, including all of the assets, titles and properties, tangible and intangible, of said business, and its associated interests, rights and privileges, including without limitation all buildings, leaseholds, machinery, equipment, inventory, supply arrangements, funded employee benefit plans, customer lists, copyrights, trade names, trademarks, trade secrets, patents and other property of whatever description, together with all additions and improvements thereto made subsequent to the Acquisition by Donnelley and all other facilities, assets, titles, properties, interests and rights and privileges,

including any business interest in Siegwirk Inc., as may be necessary to reconstitute Meredith/Burda's Printing Business as a viable competitor to the same extent as existed prior to the Acquisition. Meredith/Burda's Printing Business shall include: all of Meredith/Burda's printing plants located at Casa Grande, Arizona; Des Moines, Iowa; Newton, North Carolina; and Lynchburg, Virginia.

E. "Acquisition" means the acquisition of Meredith/Burda by Donnelley, pursuant to a Purchase and Sale Agreement entered into on December 21, 1989, and more fully described in ¶ 12 of the Commission's complaint issued in this matter.

F. The "Commission" means the Federal Trade Commission.

II.

It is further ordered, That Donnelley shall divest, absolutely and in good faith, Meredith/Burda's Printing Business within twelve (12) months from the date this order becomes final. The divestiture shall be only to an acquirer that receives the prior approval of the Commission, and only in a manner that receives the prior approval of the Commission and, if the divestiture of Meredith/Burda's Printing Business is to be accomplished by a public offering of all stock and other share capital of a corporation containing Meredith/Burda's printing business, such public offering shall also only be in a manner that receives the prior approval of the Commission. Provided, however, that for a period of ten (10) years after the date of the public offering, no person who is an officer, director or executive employee of Donnelley or who owns more than one (1) percent of the stock of Donnelley shall be an officer, director or executive employee of the corporation or shall own or control directly or indirectly more than one (1) percent of the stock of the corporation. The purpose of the divestiture is to maintain Meredith/Burda's Printing Business as a viable competitive concern engaged in commercial printing and to remedy the lessening of competition, resulting from the Acquisition, as alleged in the Commission's complaint. In connection with the divestiture required by this paragraph:

A. If any printing plant associated with Meredith/Burda's Printing Business, or any other facilities, assets, titles, properties, interests, rights and privileges associated with such Printing Business, have

been sold, closed shut down, disposed of, or are no longer operational, Meredith/Burda's Printing Business shall include Donnelley's most comparable, as determined by the Commission, printing plant or facilities, assets, titles, properties, interests rights and privileges associated with such printing business that are in the same or better condition than those that were acquired.

B. Donnelley shall provide to the acquirer of Meredith/Burda's Printing Business, or to the corporation in the event of a public offering, on a nonexclusive basis, all technology (including patents, licenses and know-how) that was not obtained by Donnelley as part of the Acquisition and is used by Donnelley, or developed by Donnelley for use, in connection with Meredith/Burda's Printing Business; Donnelley shall not interfere with any attempt by such acquirer of Meredith/Burda's Printing Business, or the corporation in the event of a public offering, to employ any personnel previously or presently employed by Meredith/Burda, or previously or presently employed by Donnelley, in connection with the operation of Meredith/Burda's Printing Business nor seek to enforce any employment contract against such personnel.

C. Donnelley shall assign to the acquirer of Meredith/Burda's Printing Business, or to the corporation in the event of a public offering, all customer agreements or understandings, formal or informal, and all customer records and files relating to commercial printing supplied by Meredith/Burda's Printing Business.

III.

It is further ordered, That:

A. If Donnelley has not fully complied, absolutely and in good faith with paragraph II of this order within the times provided in such paragraph, Donnelley shall consent to the appointment of a trustee to divest the assets pursuant to paragraph II of this order. In the event the Commission or the Attorney General brings an action pursuant to Section 5(1) of the Federal Trade Commission Act, 15 U.S.C. 45(1), or any other statute enforced by the Commission, for any failure by Donnelley to comply with this order, Donnelley shall consent to the appointment of a trustee in such action. Neither the appointment of a trustee nor a decision not to appoint a trustee under this paragraph shall preclude the Commission or the Attorney General from seeking

civil penalties and other available relief, including a court-appointed trustee, pursuant to Section 5(1), or any other statute enforced by the Commission, for any failure by Donnelley to comply with this order.

B. If a trustee is appointed by the Commission or a court pursuant to paragraph III. A of this order, Donnelley shall consent to the following terms and conditions regarding the trustee's power, authority, duties and responsibilities:

(1) The Commission shall select the trustee, subject to the consent of Donnelley, which consent shall not be unreasonably withheld. The trustee shall be a person with experience and expertise in acquisitions and divestitures. If Donnelley has not opposed the selection of a proposed trustee, in writing, within fifteen (15) days after notice by the Commission's staff to Donnelley of the identity of the proposed trustee, Donnelley shall be deemed to have consented to the selection of the proposed trustee.

(2) The trustee shall, subject to the prior approval of the Commission, have the exclusive power and authority to divest the Meredith/Burda Printing Business.

(3) The trustee shall have eighteen (18) months from the date of appointment to divest Meredith/Burda's Printing Business. If however, at the end of the 18-month period, the trustee has not submitted a plan for divesting the Meredith/Burda Printing Business or believes that such divestiture cannot be accomplished within a reasonable time, the trustee's period for divesting may be extended by the Commission or, in the case of a court-appointed trustee, by the court.

(4) The trustee shall have full and complete access to the personnel, books, records and facilities of any of the properties of Donnelley, or any other relevant information to divestiture of Meredith/Burda's Printing Business. Donnelley shall develop such financial or other information as the trustee may reasonably request. Donnelley shall cooperate with the trustee, and shall take no action to interfere with or impede the trustee's accomplishment of the divestiture. Any delays caused by Donnelley in meeting the reasonable requests of the trustee shall extend the time for the trustee to divest in an amount equal to the delay, as determined by the Commission or, for a court-appointed trustee, by the court.

(5) Subject to Donnelley's absolute and unconditional obligations under paragraph II of this order, the trustee shall use his or her best

efforts to negotiate the most favorable price and terms available in divesting Meredith/Burda's Printing Business.

(6) The trustee shall serve, without bond or other security, at the cost and expense of Donnelley on such reasonable and customary terms and conditions as the Commission or a court may set. The trustee shall have the authority to retain, at the cost and expense of Donnelley, such consultants, attorneys, investment bankers, business brokers, accountants, appraisers and other representatives and assistants as are reasonably necessary to assist in the divestiture. The trustee shall account for all monies derived from divesting Meredith/Burda's Printing Business, and for all expenses incurred. After approval by the Commission, or, in the case of a court-appointed trustee, by the court, of the accounts of the trustee, including fees for his or her services, all remaining monies shall be paid to Donnelley and the trustee's power shall be terminated. The trustee's compensation shall be based at least in significant part on a commission arrangement contingent on the trustee divesting Meredith/Burda's Printing Business.

(7) Except in the case of reckless disregard of his or her duties, Donnelley shall indemnify the trustee and hold the trustee harmless against any losses, claims, damages or liabilities arising in any manner out of, or in connection with, the trustee's duties under this order.

(8) Within thirty (30) days after the appointment of the trustee, and subject to the prior approval of the Commission, and in the case of a court-appointed trustee, of the court, Donnelley shall execute a trust agreement that transfers to the trustee all rights and powers necessary to divest Meredith/Burda's Printing Business.

(9) If the trustee ceases to act or fails to act diligently, a substitute trustee shall be appointed in the same manner as provided in paragraph III of this order.

(10) The Commission, and in the case of a court-appointed trustee, the court, may on its own initiative, or at the request of the trustee, issue such additional orders or directions as may be necessary and appropriate to accomplish the requirements of this order.

(11) The trustee shall report in writing to Donnelley and the Commission every sixty days (60) concerning the trustee's efforts to divest Meredith/Burda's Printing Business.

IV.

It is further ordered, That pending any divestiture required by this order, Donnelley shall take all measures necessary to maintain Meredith/Burda's Printing Business in its present or improved condition, and to prevent any deterioration, except for normal wear and tear, and otherwise not cause or permit impairment of the marketability or viability of Meredith/Burda's Printing Business.

Donnelley shall not burden Meredith/Burda's Printing Business, or the corporation in the event of a public offering, with any obligations that may impair the viability of the business or frustrate the purposes of the divestiture, and in no event shall any obligations, apart from funded employment benefit pension funds, transferred by Donnelley be any greater than those carried by Meredith/Burda at the time of the Acquisition.

V.

It is further ordered, That for a period of ten (10) years from the date this order becomes final, Donnelley shall not, without the prior approval of the Commission, directly or indirectly, through subsidiaries or otherwise, (A) acquire the whole or any part of the stock, share capital, equity or other interest in, any concern, corporate or noncorporate, engaging in the supply of publication gravure printing within the United States; (B) acquire any assets used for or previously used for (and still suitable for use for) the supply of publication gravure printing within the United States; or (C) enter into any agreement, understanding or arrangement with any concern by which Donnelley would obtain the market share, in whole or in part, of such concern.

VI.

It is further ordered, That:

A. Within sixty (60) days from the date this order becomes final, and every sixty (60) days thereafter until it has fully complied with paragraphs II and III of this order, Donnelley shall file with the Commission a verified written report setting forth in detail the manner and form in which it intends to comply, is complying or has

complied therewith. All such reports shall include, in addition to such other information and documentation as may hereafter be requested: (a) a specification of the steps taken by Donnelley to make public its desire to divest Meredith/Burda's Printing Business; (b) a list of all persons or organizations to whom notice of divestiture has been given; (c) a summary of all discussions and negotiations together with the identity and address of all interested persons or organizations; and (d) copies of all reports, internal memoranda, offers, counter offers, communications and correspondence concerning said divestiture; and

B. On the anniversary of the date this order became final, and every anniversary thereafter for the following nine (9) years, Donnelley shall file with the Commission a verified written report of its compliance with paragraph V of this order.

VII.

It is further ordered. That for the purpose of determining or securing compliance with this order and subject to any legally recognized privilege, upon written request and on reasonable notice to Donnelley made to its principal office, Donnelley shall permit any duly authorized representatives of the Commission access, during office hours and in the presence of counsel, to inspect and copy all books, ledgers, accounts, correspondence, memoranda and other records and documents in the possession or under the control of Donnelley and to interview officers or employees of Donnelley relating to any matter contained in this order.

VIII.

It is further ordered. That Donnelley shall notify the Commission at least thirty (30) days prior to any proposed changes in the corporation, such as dissolution, assignment or sale resulting in the emergence of a successor corporation, the creation or dissolution of subsidiaries or any other changes that may affect compliance obligations arising out of the order.

OPINION OF THE COMMISSION¹BY STAREK, *Commissioner*:

I. INTRODUCTION

On September 4, 1990, R.R. Donnelley & Sons Co. ("Donnelley") acquired all interests in the Meredith/Burda printing business ("Meredith/Burda") from Meredith Corporation ("Meredith") and Pan Associates, L.P. ("Pan").² Prior to the subject acquisition, Donnelley and Meredith/Burda independently provided commercial printing services. Donnelley is the largest supplier of commercial printing services in the United States. IDF ¶1.³ It provides printing services for publications including mail-order catalogs, newspaper inserts, magazines, books, directories, computer documentation, and financial documents. IDF ¶ 1. Prior to the acquisition, Donnelley provided printing services from plants located throughout the United States employing the two primary printing technologies in publication printing: the gravure process and the offset process. IDF ¶¶ 1-5.⁴ Immediately prior to the acquisition, Meredith/Burda was among the largest commercial printers in the United States, offering both gravure and offset printing services from four plants in the United States for a variety of publications. IDF ¶ 7-9.⁵

¹ The following abbreviations are used in this opinion:

| | |
|--------|---|
| ID | Initial Decision (page no.) |
| IDF | Initial Decision (¶ no.) |
| OA Tr. | Oral Argument Transcript (page no.) |
| RAB | Respondent's Appeal Brief (page no.) |
| CAB | Complaint Counsel's Appeal Brief (page no.) |
| RRB | Respondent's Reply Brief (page no.) |
| CPF | Complaint Counsel's Proposed Findings of Fact (¶ no.) |
| RPF | Respondent's Proposed Findings of Fact (¶ no.) |
| Tr. | Administrative Hearing Transcript (page no.) |
| CX | Complaint Counsel's Exhibit |
| RX | Respondent's Exhibit |

² Prior to the acquisition, Meredith/Burda was a joint venture comprising Meredith/Burda Companies, Inc. (a wholly-owned subsidiary of Meredith) and Pan (a limited partnership owned by members of the Burda family). Pursuant to a purchase and sale agreement, Donnelley acquired Meredith/Burda by acquiring (i) all of the issued and outstanding stock of Meredith/Burda Companies, Inc., and (ii) all of the limited partnership interests in Pan. CX-3-B.

³ Donnelley's fiscal 1990, 1991, and 1992 net sales were \$3.498, \$3.915, and \$4.193 billion, respectively. IDF ¶ 6.

⁴ Donnelley also provides commercial printing services using other processes — letterpress and flexography — that are not important to the disposition of this case. See IDF ¶¶ 1, 29; RPF ¶ 11.

⁵ In fiscal year 1989, the year prior to its acquisition by Donnelley, Meredith/Burda reported sales of \$456.7 million. IDF ¶ 9.

The Commission's complaint, issued October 11, 1990, charges that this acquisition may tend substantially to lessen competition in the supply of high volume publication gravure printing in two geographic markets -- the continental United States and the western United States -- in violation of Section 7 of the Clayton Act, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act ("FTC Act"), 15 U.S.C. 45.⁶ The Administrative Law Judge ("ALJ") assigned to this proceeding issued an Initial Decision on December 30, 1993, holding that the effect of the acquisition has been or may be substantially to lessen competition or to create a monopoly in the supply of high volume publication gravure printing in the continental United States. The ALJ ordered Donnelley to divest the acquired Meredith/Burda business.

Respondents state four bases for appeal from the Initial Decision:⁷ (1) that the doctrine of issue preclusion bars the ALJ from reexamining factual issues decided in a 1990 hearing by the United States District Court for the District of Columbia on the Commission's motion for a preliminary injunction, *FTC v. R.R. Donnelley & Sons Co.*, 1990-2 Trade Cas. (CCH) ¶ 69,23-9 (D.D.C. 1990); (2) that the ALJ erred in recognizing a relevant product market of "high-volume publication gravure printing"; (3) that the ALJ erred in finding that the acquisition would tend substantially to lessen competition or tend to create a monopoly; and (4) that the liability finding and the order of divestiture are not based on substantial competent evidence.

The Commission reviews this matter *de novo*. We conclude that the ALJ and, thus, the Commission are not barred from reexamining factual issues decided in the preliminary injunction hearing. We further conclude that "high volume gravure printing" as proposed by

⁶ Specifically, the complaint charges that Donnelley had entered into agreements with Meredith Corporation ("Meredith") and Pan Associates Limited Partnership ("Pan") that violated Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45, and that pursuant to these agreements Donnelley had acquired certain business interests of Meredith and Pan in Meredith/Burda, and that such acquisition violated Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, as well as Section 5 of the FTC Act.

⁷ Either side may appeal the ALJ's decision to the full Commission, which will then enter its own decision. 16 CFR 3.52. If the Commission finds a violation of law, it may enter an order to divest and for other appropriate relief. 15 U.S.C. 21(b). Under both the Clayton Act and the FTC Act, such an order is subject to review in the court of appeals, 15 U.S.C. 21(c), 45, and, after the record is filed, "the jurisdiction of the court of appeals to affirm, enforce, modify, or set aside orders of the Commission . . . shall be exclusive." 15 U.S.C. 21(d). Any order the Commission may issue does not take effect until judicial review is complete. 15 U.S.C. 21(g).

complaint counsel is not a relevant market for the purposes of assessing the legality of the acquisition under Section 7 of the Clayton Act. Because complaint counsel made no attempt to prove that the acquisition lessened competition in a broader market, this finding could be considered dispositive. It is undisputed that concentration and other characteristics of such a broader market are not conducive to an exercise of market power by the merged firm, unilaterally or in coordination with others. Moreover, if we assume for purposes of further analysis the existence of a relevant market for high volume publication printing, the analysis of potential anticompetitive effects reinforces our conclusion that the acquisition does not violate Section 7. We conclude that neither coordinated nor unilateral anticompetitive effects are a likely result of the acquisition in the assumed market. For the reasons set forth below, the complaint is dismissed.

II. PROCEDURAL HISTORY

In July 1990, the Commission moved for a statutory temporary restraining order and preliminary injunction under Section 13(b) of the FTC Act, 15 U.S.C. 53(b), to prevent consummation of the acquisition. The Commission sought such relief "in aid of an FTC administrative proceeding." *E.g., FTC v. Food Town Stores, Inc.*, 539 F.2d 1339, 1341 (4th Cir. 1976). As provided by Section 13(b) itself, the Commission asked that injunctive relief be granted "pending the issuance of a complaint by the Commission and until such complaint is dismissed by the Commission or set aside by the court on review, or until the order of the Commission made thereon has become final."⁸

⁸ Section 13(b) provides in pertinent part:
Whenever the Commission has reason to believe --

(1) that any person, partnership or corporation is violating, or is about to violate, any provision of law enforced by the Federal Trade Commission, and

(2) That the enjoining thereof pending the issuance of a complaint by the Commission and until such complaint is dismissed by the Commission or set aside by the court on review, or until the order of the Commission made thereon has become final, would be in the interest of the public --
the Commission by any of its attorneys designated by it for such purpose may bring suit in a district court of the United States to enjoin any such act or practice. Upon a proper showing that, weighing the equities and considering the Commission's likelihood of ultimate success, such action would be in the public interest, and after notice to the defendant, a temporary restraining order or a preliminary injunction may be granted without bond. . . .

The district court judge who heard the case permitted the parties to present a truncated evidentiary hearing under a provision in the applicable local court rules that vests in the district court judge the discretion to determine the scope and nature of any hearing for a preliminary injunction, D.D.C. Local Rule No. 205(d).⁹ The truncated evidentiary hearing lasted five partial days and ended with an additional half day for closing arguments. Neither the Commission nor the respondents objected to the truncated nature of the hearing, and no party moved under Fed. R. Civ. P. 65(a)(2) to have the hearing on the preliminary injunction consolidated with the trial on the merits.¹⁰ At all times all parties were engaged in a proceeding that sought only temporary and preliminary relief.

On August 27, 1990, the district court denied the Commission's request for a preliminary injunction. The court's findings and conclusions, adopted nearly verbatim from proposed findings submitted by Donnelley and Meredith, expressly recognized that the proceeding was one for preliminary relief:

This matter was heard on the motion of plaintiff Federal Trade Commission (FTC) for a preliminary injunction pursuant to Section 13(b) of the FTC Act, 15 U.S.C. 53(b), seeking to enjoin the acquisition of any stock, assets, or other interest in Meredith Corporation, Meredith/Burda Companies, and Pan Associates, L.P., by R.R. Donnelley & Sons Company, pending the issuance of an administrative complaint by the FTC challenging this acquisition and final action thereon.

FTC v. R.R. Donnelley & Sons Co., 1990-2 Trade Cas. (CCH) ¶ 69,239, at 64,854 (D.D.C. 1990). Similarly, an addendum composed by the district court, and added to the proposed findings of Donnelley and Meredith, acknowledged the rushed circumstances in which the court had considered the Commission's motion for preliminary relief:

The case became at issue (on August 21) during a week in which the undersigned was serving as the Court's Motions Judge, handling multiple other motions for temporary restraining orders and preliminary injunctions, etc., in cases assigned to

⁹ This Rule has since been revised slightly, but the present published form is in all material respects the same as it was in August 1990.

¹⁰ Any such consolidation would have been improper. While a court may certainly order consolidation of hearings on requests for preliminary and permanent injunctions where both types of relief have been sought in the same action, it may not consolidate a cause of action not pleaded in the complaint. The Commission's complaint sought only preliminary relief. The granting of such relief was "an end in itself," and "the district court [was] not authorized to determine whether the antitrust laws have been or are about to be violated. That adjudicatory function is vested in FTC in the first instance." *FTC v. Food Town Stores, Inc.*, 539 F.2d at 1342; see also *FTC v. Beatrice Foods Co.*, 587 F.2d 1225, 1229 (D.C. Cir. 1978); *FTC v. Lancaster Colony Corp.*, 434 F. Supp. 1088, 1090-91 (S.D.N.Y. 1977).

other judges who temporarily are away from the courthouse. Because of that fact, and recognizing that yet another criminal drug trial will begin tomorrow, the Court asked both sides to submit proposed orders respectively granting and denying plaintiff's motion for a preliminary injunction. In the interest of time, the Court obviously has largely adopted defendants' proposed order.

Id. at 64,856.

FTC counsel filed a notice of appeal and sought from the district court an injunction against the transaction pending appeal, in order to preserve the Commission's option to pursue appellate review. Following analysis of the decision, however, the Commission determined not to seek further review of the district court's denial of preliminary relief and on August 30, 1990, moved to dismiss its appeal. On September 4, 1990, Donnelley and Meredith consummated their transaction.

On October 11, 1990, the Commission issued an administrative complaint in this proceeding pursuant to Sections 7 and 11 of the Clayton Act, 15 U.S.C. 18 and 21, and Section 5 of the FTC Act, 15 U.S.C. 45, challenging the transaction.¹¹ Section 11(b) of the Clayton Act, 15 U.S.C. 21(b), expressly vests the Commission with jurisdiction to determine the legality of a corporate acquisition under Section 7 and, if warranted, to order divestiture.

On January 16, 1991, the ALJ denied Donnelley's cross motion for a summary decision and directed that its *res judicata* and collateral estoppel defenses to the complaint be stricken. The ALJ explained his rejection as follows:

Respondents argue that a five-day hearing is not a "curtailed" procedure, but it is in comparison with the typical Commission administrative hearing involving antitrust claims. These proceedings usually involve extensive formal discovery into such issues as relevant product and geographic markets, entry barriers and probable competitive injury. All of these issues are present in this case, and it has been my experience that matters of this nature involve, not five-day hearings, but hearings which may last several months and which involve many witnesses and hundreds of documents. Thus, I cannot conclude that the District Court was presented with every fact which bore on the issues before it, and I find that those facts can only be developed by discovery and a trial on the merits in this administrative proceeding.

On February 20, 1991, Donnelley filed an "emergency" appeal from the ALJ's decision. Donnelley's motion was not received by the

¹¹ Although named in the original complaint, Meredith was dismissed as a respondent by Stipulation of April 19, 1991.

Commission, as it was not authorized under Commission Rule 3.23.¹² Donnelley then filed a petition with the Court of Appeals for the Seventh Circuit seeking review of the ALJ's decision and, effectively, asking that court to direct the Commission to dismiss the complaint under the doctrine of issue preclusion. The Court of Appeals rejected Donnelley's petition for want of jurisdiction under 5 U.S.C. 704, holding that the ALJ's decision was not a reviewable "final order" of the Commission. *R.R. Donnelley & Sons Co. v. FTC*, 931 F.2d 430 (7th Cir. 1991).

After extensive pretrial discovery, hearings were held in Washington, D.C., and Chicago, Illinois, from January 25, 1993, to June 17, 1993. The parties filed their proposed findings of fact on September 17, 1993, and the ALJ closed the record on October 8, 1993.

On December 30, 1993, the ALJ issued an initial decision ("ID"), pursuant to the Commission's rules of practice, 16 CFR 3.51. The ID holds that the Commission has jurisdiction over the subject matter of this proceeding and over defendants Donnelley and Pan, and that Donnelley and Pan were engaged in "commerce" as defined in Section 1 of the Clayton Act, 15 U.S.C. 12, and Section 4 of the FTC Act, 15 U.S.C. 44. ID at 91.

With respect to the market conditions relevant to the competitive analysis of this acquisition, the ALJ found: (i) that the relevant market within which to evaluate the competitive effects of the acquisition is "the supply of high volume publication gravure printing" in "the continental United States"; (ii) that Donnelley and Meredith/Burda were actual, direct and substantial competitors in this relevant market; and (iii) that "barriers to entry into the relevant market are substantial, and substantial harm to competition would occur until new entry could be accomplished." ID at 91-92.

The ALJ held that the effect of this acquisition has been or may be substantially to lessen competition or to tend to create a monopoly in the alleged market in violation of Section 7 of the Clayton Act in the following ways:

¹² Rule 3.23, patterned after 28 U.S.C. 1292, allows Commission review only of specified types of interlocutory rulings by the ALJ (not involved here), or where the ALJ certifies his ruling for interlocutory Commission review. In this case the ALJ did not certify his ruling for Commission review. Instead, the motion was placed on the public record by the Commission's Secretary on February 28, 1990, as an *ex parte* communication.

- (a) It eliminated actual competition between Donnelley and Meredith/Burda in the relevant market;
- (b) It significantly increased the already high levels of concentration in the relevant market;
- (c) It created a firm whose share of the relevant market is so high that it has achieved the position and market power of a dominant firm;
- (d) It eliminated Meredith/Burda as a substantial independent competitive force in the relevant market; and
- (e) It increased the likelihood of successful anticompetitive conduct, non-rivalrous behavior and actual or tacit collusion among the firms in the relevant market.

ID at 92. The ALJ concluded that the ultimate effect of the acquisition is to "increase the likelihood that firms will increase prices and restrict the output of high volume publication gravure printing." ID at 92.

To remedy these anticompetitive effects, the ALJ ordered Donnelley to divest the acquired Meredith/Burda business comprising, *inter alia*, four gravure printing plants to an acquirer that obtains the prior approval of the Commission. Among other standard provisions, the order prohibits Donnelley, for a period of ten years from the date the order becomes final, from acquiring without prior Commission approval (i) any interest in a firm engaged in the supply of publication gravure printing in the United States, or (ii) any assets used (or suitable for use) for the supply of publication gravure printing within the United States. ID at 93-104.

III. ISSUE PRECLUSION

Principles of issue preclusion or collateral estoppel do not preclude the ALJ or the Commission from deciding the merits of the complaint.

Respondents argue that the district court's decision denying the Commission's request for preliminary injunctive relief under Section 13(b) of the FTC Act -- on grounds that the Commission had not adequately established the relevant product market -- estops the Commission from adjudicating the question of product market definition in an administrative proceeding under Section 11 of the Clayton Act and Section 5 of the FTC Act. The district court

determined, after a truncated hearing, that the Commission had not shown the requisite "likelihood of success" to warrant a preliminary injunction pending completion of its administrative proceeding.¹³ The district court did not, and did not purport to, decide the case, or any of its subsidiary factual issues, on the merits.¹⁴ The district court was not called upon to reach a "final resolution" on the antitrust issues, but only to determine whether the FTC made "a showing adequate to justify preliminary relief." *FTC v. Alliant Techsystems Inc.*, 808 F. Supp. 9, 19 (D.D.C. 1992); *FTC v. Beatrice Foods, Inc.*, 587 F.2d 1225, 1229 (D.C. Cir. 1978).¹⁵ Under established principles, the court's denial of a preliminary injunction does not estop the Commission from exercising its express statutory authority to adjudicate the legality of the transaction.¹⁶

A. General Lack of Collateral Preclusive Effect

Ordinarily a court is not estopped from deciding the merits of a disputed issue unless the decision alleged to create an estoppel effect was "final, and on the merits." 18 Wright, Miller & Cooper, Federal Practice and Procedure Section 4427, at 269 (1981); see also Restatement (Second) of Judgments Section 27 (1982) (an issue is precluded only when it is "determined by a valid and final judgment,

¹³ See *supra* pp. 7-9.

¹⁴ Indeed, in rejecting the Commission's request for a preliminary injunction, the district court commented at length on perceived gaps in the Commission's preliminary showing and on adjustments the Commission trial staff made in the market definition throughout the five-day hearing. *FTC v. R.R. Donnelley & Sons Co.*, 1990-2 Trade Cas. (CCH) ¶ 69,239, at 64,854-55. Similarly, in subsequently denying the Commission's request for a stay pending appeal, the court again acknowledged the preliminary nature of the case, stating that it had "found little likelihood of success on the merits." The district court thus expressly recognized that it had not heard the case on the merits.

¹⁵ The question whether the acquisition actually violates the antitrust laws is reserved for the Commission and is not before [the district court in a preliminary injunction hearing]. The Commission meets its burden "if it shows preliminarily, by affidavits or other proof, that it has a fair and tenable chance of ultimate success on the merits." *FTC v. Southland Corp.*, 471 F. Supp. 1, 3 (D.D.C. 1979) (citation omitted). The Seventh Circuit has noted: "One of the main reasons for creating the Federal Trade Commission and giving it . . . jurisdiction to enforce the Clayton Act was that Congress . . . thought the assistance of an administrative body would be helpful in resolving such [antitrust] questions." *Hospital Corp. of America v. FTC*, 807 F.2d 1381, 1386 (7th Cir. 1986), cert. denied 481 U.S. 1058 (1987). Therefore, "Section 13(b) does not contemplate a full-blown trial-type hearing in District Court." *FTC v. Ino Indus.*, 1992-2 Trade Cas. (CCH) ¶ 69,943 (D.D.C. 1992). Any order issued by the Commission as a result of the administrative proceeding is reviewable in a court of appeals. See 15 U.S.C. 45(e).

¹⁶ See *R.R. Donnelley & Sons Co. v. FTC*, 931 F.2d 430 (7th Cir. 1991); *Southwest Services, Inc.*, 98 FTC 866, 870-71 (1981) (interlocutory order) (decisions in a preliminary injunction action brought under Section 13(b) do not collaterally estop the Commission from deciding the merits in a full administrative trial); see also Statement of Federal Trade Commission Policy Regarding Administrative Merger Litigation Following Denial of Preliminary Injunction (June 21, 1993).

and the determination is essential to the judgment"); accord *Ashe v. Swenson*, 397 U.S. 436, 443 (1970) ("valid and final judgment"). Because a preliminary injunction hearing is not designed to decide the case either finally or on the merits, decisions made in that context are rarely granted collateral effect. As the Supreme Court has observed:

Since . . . likelihood of success on the merits was one of the factors the District Court and the Court of Appeals considered in granting . . . a preliminary injunction, it might be suggested that their decisions were tantamount to decisions on the underlying merits. . . . This reasoning fails, however, because it improperly equates "likelihood of success" with "success," and what is more important, because it ignores the significant and procedural differences between preliminary and permanent injunctions.

The purpose of a preliminary injunction is merely to preserve the relative positions of the parties until a trial on the merits can be held. Given this limited purpose, and given the haste that is often necessary if those positions are to be preserved, a preliminary injunction is customarily granted on the basis of procedures that are less formal and evidence that is less complete than in a trial on the merits. A party thus is not required to prove his case in full at a preliminary injunction hearing . . . and the findings of fact and conclusions of law made by a court granting a preliminary injunction are not binding at trial on the merits. . . .

University of Texas v. Camenisch, 451 U.S. 390, 394-95 (1981) (citations omitted, emphasis added); see *A.J. Canfield Co. v. Vess Beverages, Inc.*, 859 F.2d 36, 38 (7th Cir. 1988).

The law of the D.C. Circuit is particularly pertinent in determining the preclusive effect to be given findings of a district court in that circuit. The D.C. Circuit has repeatedly refused to accord preclusive effect to findings made in a preliminary injunction hearing. In rejecting the contention that categorically-stated findings of a district court in a preliminary injunction proceeding might have preclusive effect, the court observed:¹⁷

¹⁷ Because the ultimate merits are not "necessary" to the outcome of a preliminary injunction under Section 13(b), the collateral estoppel doctrine is not relevant to this case. *E.g. Parklane Hosiery Co. v. Shore*, 439 U.S. 322, 326 n.5 (1979) ("Under the doctrine of collateral estoppel . . . the judgment in the prior suit precludes relitigation of issues actually litigated and necessary to the outcome of the first action."); see *Montana v. United States*, 440 U.S. 147, 153 (1979) ("Under collateral estoppel, once an issue is actually and necessarily determined by a court of competent jurisdiction, that determination is conclusive in subsequent suits based on a different cause of action involving a party to the prior litigation."); cf. *Public Service Co. of Indiana v. EPA*, 682 F.2d 626, 630-31 (7th Cir. 1982), cert. denied, 459 U.S. 1127 (1983). The district court was authorized to consider only the "likelihood of success." The actual merits were not litigated, and even if plaintiffs thought they were litigated, the "merits" were not "necessary to the outcome of the first action." *Id.* To hold otherwise "improperly equates 'likelihood of success' with 'success,' and . . . ignores the significant procedural differences between preliminary and permanent injunctions." *Camenisch*, 451 U.S. at 394.

To the extent that the findings and conclusions of the District Judge purported to settle finally the questions of law and fact raised by the complaint, those findings and conclusions went beyond the determination the judge was called upon to make, and should not be regarded as binding in further proceedings in the trial court.

Industrial Bank of Washington v. Tobriner, 405 F.2d 1321, 1324 (D.C. Cir. 1968) (footnotes omitted); accord *Hunter Douglas, Inc. v. Sheet Metal Workers Int'l*, 714 F.2d 342, 346 (4th Cir. 1983); *Berrigan v. Sigler*, 499 F.2d 514, 518 (D.C. Cir. 1974); 11 Wright & Miller, Federal Practice and Procedure Section 2962, at 630-31.

The Seventh Circuit has stated that "in certain rare instances, decisions granting or denying preliminary relief will be given preclusive effect." *Canfield*, 859 F.2d at 38, citing and following *Miller Brewing Co. v. Jos. Schlitz Brewing Co.*, 605 F.2d 990 (7th Cir. 1976), cert. denied, 444 U.S. 1102 (1980). The "rare" situation found in *Miller Brewing*, however, is not present here. In *Miller Brewing*, Miller sued Schlitz for trademark infringement based on the latter's use of the term "Lite" for a reduced-calorie beer. The court of appeals summarily affirmed judgment for Schlitz because the court of appeals had, in an earlier preliminary injunction proceeding, decisively held that "Lite" was generic when applied to beer and hence not protected by trademark law. The court of appeals held that its earlier decision was decisive because, among other things, Miller in the earlier injunction proceeding had conceded that the evidentiary record before the court then was as complete as it could ever be on that issue and that the fundamental facts were not in dispute. 605 F.2d at 995. The court, thus, held that its earlier determination that "Lite" is a generic term was "an insuperable obstacle to Miller's claims."¹⁸

Miller Brewing is plainly inapposite. The Commission did not present at the expedited preliminary injunction proceeding all the evidence in support of its alleged market definition that it marshalled in the administrative proceeding. Although Donnelley was perfectly

¹⁸ Similarly, in *Canfield*, the court of appeals held that a plaintiff was collaterally estopped from bringing a trademark injunction suit against a competitor's use of the term "chocolate fudge" for diet soda, because, in at least one prior case involving the same plaintiff, another court had made a decisive finding that the term "chocolate fudge" was generic. Notably, however, the court rejected an argument that it had, in the context of a previous affirmance of a preliminary injunction, made a decisive ruling in plaintiff's favor on the issue. The court explained that in view of the "general presumption against giving preclusive effect to preliminary [injunction] rulings" and in view of the fact that its prior opinion affirming the preliminary injunction "dealt with probabilities only, since we were determining the likelihood of success on the merits," there was no resulting preclusive effect running in favor of the plaintiff. 859 F.2d at 38.

within its rights to insist that the preliminary injunction hearing be conducted expeditiously, it may not elevate that truncated hearing into a decision on the merits.¹⁹

Moreover, in this case, the district court lacked authority (even had it purported to do so) to resolve with finality any issue in the case.²⁰ Through Section 11(b) of the Clayton Act and Section 5(b) of the FTC Act, Congress expressly authorized the Commission, in its sole discretion, to determine the legality of corporate acquisitions and other antitrust violations by means of an administrative proceeding, subject to review in the court of appeals. To grant preclusive effect to decisions of the district court in a Section 13(b) injunctive proceeding would usurp the Commission's statutory fact-finding role under these statutes, in plain contravention of the will of Congress. See *NLRB v. Denver Building & Construction Trades Council*, 341 U.S. 675 (1951).²¹

In creating the Federal Trade Commission and establishing a procedure for administrative determination of the legality of corporate acquisitions and other conduct, Congress recognized the

¹⁹ In this regard, the Supreme Court has noted the appropriate procedures for seeking to have a preliminary injunction hearing consolidated with the trial on the merits:

Should an expedited decision on the merits be appropriate, Rule 65(a)(2) of the Federal Rules of Civil Procedure provides a means of securing one. That Rule permits a court to "order the trial of the action on the merits to be advanced and consolidated with the hearing of the application." Before such an order may issue, however, the courts have commonly required that "the parties should normally receive clear and unambiguous notice [of the court's intent to consolidate] either before the hearing commences or at a time which will still afford the parties a full opportunity to present their respective cases." *University of Texas v. Cameron*, 451 F.2d at 395 (citations in original, quoting *Pughley v. 3750 Lake Shore Drive Coop. Bldg.*, 463 F.2d 1055, 1057 (7th Cir. 1972)). Respondents did not follow this procedure. In any event, such consolidation would have been improper. See *supra* note 10.

²⁰ In *Miller Brewing*, the court that decided Miller's motion for preliminary injunction would also decide its request for final relief. It seems clear that *Miller Brewing* is no more than an application of the view that on an application for preliminary injunction, the trial court (or, as in *Miller Brewing*, an appellate court on an appeal from the grant or denial of preliminary injunction) may, in an appropriate case, go beyond the issue of preliminary relief and indicate (or direct) that the case should be dismissed in its entirety because it has fully and finally resolved an issue that presents an "insuperable" obstacle to maintaining the case. E.g., *Decker v. Independence Shares Corp.*, 311 U.S. 282, 287 (1940) ("If insuperable objection to maintaining the bill clearly appears, it may be dismissed and the litigation terminated") (citation omitted).

²¹ Respondents attempt to distinguish *Denver Building* on the dual grounds that the NLRB has exclusive jurisdiction over labor matters, while the Commission does not have exclusive jurisdiction over antitrust cases, and that the NLRB statute in that case was designed "to assist in a preliminary investigation," while the Commission in this case had already conducted a pre-merger investigation into the challenged transaction. RAB at 5 n.2. These arguments are not compelling. First, under Section 13(b) of the FTC Act the Commission is the primary (and exclusive) factfinder in all cases in which it seeks preliminary relief under that statute in aid of its adjudicative proceeding. Second, Section 13(b) is also intended "to assist" the Commission's law enforcement efforts. And neither the Hart-Scott-Rodino Act, 15 U.S.C. 18a, nor Section 13(b), nor the federal civil discovery rules, intimate that the Commission's discovery (and investigation) rights terminate at the conclusion of a preliminary injunction action.

value of specialized expertise in a complex area of the law. *See, e.g., Atlantic Refining Co. v. FTC*, 381 U.S. 357, 367 (1965); *Stanley Works v. FTC*, 469 F.2d 498, 505 (2d Cir. 1972), *cert. denied*, 412 U.S. 928 (1973).²² Section 13(b) of the FTC Act, added to the statute in 1973, was designed to permit the Commission to secure preservation of the status quo pending determination of the case on the merits in an administrative proceeding, in recognition of the difficulty of reconstituting some merged parties as viable entities through divestiture. *FTC v. Weyerhaeuser Co.*, 665 F.2d 1072, 1081 (D.C. Cir. 1981); *see also Kenneth Elzinga, The Antimerger Laws: Pyrrhic Victories*, 12 J.L. & Econ. 43 (1969). But nothing in the statute or its legislative history purports to divest the Commission of its preexisting statutory authority to adjudicate the legality of acquisitions and other practices on their merits.²³ To the contrary, courts have expressly recognized that denial of preliminary injunctive relief under Section 13(b) of the FTC Act comes without prejudice to the Commission's authority to reach a contrary conclusion when it adjudicates the merits of the case. *See FTC v. Elders Grain Co.*, 868 F.2d 901 (7th Cir. 1989). Compare *FTC v. Simeon Mgmt. Corp.*, 532 F.2d 708, 717 (9th Cir. -1976) (preliminary injunction denied with the court, per Judge Kennedy, "intimat[ing] no view . . . as to the appropriate disposition" on the merits), with *Simeon Mgmt. Corp. v. FTC*, 579 F.2d 1137 (9th Cir. 1978) (subsequent cease and desist order upheld on review of final agency action).²⁴

²² *See also Hospital Corp. of America v. FTC*, 807 F.2d 1381, 1387 (7th Cir. 1986) (Posner, J.), *cert. denied*, 481 U.S. 1038 (1987) ("One of the main reasons for creating the Federal Trade Commission and giving it concurrent jurisdiction to enforce the Clayton Act was that Congress distrusted judicial determination of antitrust questions. It thought the assistance of an administrative body would be helpful in resolving such questions and indeed expected the FTC to take the leading role in enforcing the Clayton Act. . . . *See Henderson, THE FEDERAL TRADE COMMISSION*, ch. 1 (1974)"). The risks inherent in a lack of specialized expertise in adjudicating complex antitrust issues are magnified in a preliminary injunction proceeding. *See Richard Posner, ECONOMIC ANALYSIS OF LAW* 554 (4th ed. 1992) ("The problem for the judge asked to grant a preliminary injunction is that he is being asked to rule in a hurry, on the basis of incomplete information. The risk of error is high.")

²³ A proviso to Section 13(b) permits the Commission to request, and the court to grant, a permanent injunction in a "proper case," in lieu of administrative resolution of the matter. *See, e.g., United States v. IS&A Group, Inc.*, 716 F.2d 451 (7th Cir. 1983). However, the choice whether to request such relief rests solely within the Commission's discretion, and the legislative history to the proviso indicates that it is to be invoked where the agency concludes that a case presents no issues warranting delayed administrative consideration. *Id.* at 456-57. Neither in this case, nor in any other suit to date under Section 13(b) to preliminarily enjoin a corporate acquisition, has the Commission asked the district court to render a final decision on the merits. In all such cases, as in this one, the Commission has exercised its express statutory authority under the Clayton and FTC Acts to decide the merits.

²⁴ The obverse is equally correct. Compare *FTC v. Weyerhaeuser Co.*, 665 F.2d at 1075 (finding that Commission demonstrated likelihood of success under Section 7 in five day preliminary injunction hearing), with *Weyerhaeuser Co.*, 106 FTC 173, 265 (1985) (Commission finding lack of Section 7 violation and dismissing complaint after administrative hearing). Plainly, in *Weyerhaeuser*, the

Thus, under the circumstances here, the general rule -- that decisions made in a preliminary injunction hearing do not have preclusive effect on a subsequent trial on the merits -- applies with particular clarity.

B. No Basis for Exception to the General Rule

There is no basis for a departure from the general rule in this case. Donnelley argues that it seeks to create only a narrow exception to the general rule, stating two bases for giving preclusive effect to the decisions of preliminary injunction hearing: (1) where the preliminary injunction proceeding did not afford a "full and fair opportunity to litigate"; and (2) where the preliminary injunction judgment is not vacated.²⁵ In fact, Donnelley's proposed standards for according collateral preclusive effect to a preliminary injunction are no standards at all.

On the first basis, the Supreme Court in *Kramer v. Chemical Construction Corp.*, 456 U.S. 461, 481-82 (1982), equates "full and fair opportunity" with "minimum guarantees of due process. Thus, Donnelley appears to suggest that collateral estoppel attaches each time a court denies a preliminary injunction, unless it does not afford the minimum due process. Under this standard, a preliminary injunction hearing would always bar subsequent litigation on the merits since the proper entry of a preliminary injunction decision must meet standards of minimum due process: Section 52(a) of the Federal Rules of Civil Procedure, which applies to all preliminary injunctions hearings in federal courts, requires that "in granting or refusing interlocutory injunctions the court shall . . . set forth the findings of fact and conclusions of law which constitute the grounds of its action." See *FTC v. Beatrice Foods Co.*, 589 F.2d at 1235.²⁶

On the second basis for an exception to the general rule, Donnelley cites *United States v. Munsingwear*, 340 U.S. 36 (1950), for its view that the Commission should have moved the court of appeals to vacate the district court's decision in order to avoid

Commission did not even attempt to argue that the respondent was precluded by collateral estoppel principles from litigating the merits in the administrative proceeding that followed the district court's findings that were favorable to the Commission, even though the "administrative complaint charge[d] the same anticompetitive effects earlier alleged in the Commission's complaint for a preliminary injunction." 665 F.2d at 1075 n.8.

²⁵ RAB at 5-10.

²⁶ If the "full and fair opportunity" is something greater than a "minimum guarantees of due process," Donnelley does not specify what it is.

preclusion. The remedy of vacating a lower court's opinion, however, is available only in the limited class of cases in which the litigated issues become moot before an appeal can be prosecuted. In essence, Donnelley would require every party losing a preliminary injunction to appeal in order to avoid preclusive effect.

This position poses a standard that is contrary to the sound administration of justice. It would force the Commission to pursue an appeal and emergency relief in the court of appeals, even if it believed the district court did not commit any reversible error under the standards applicable to preliminary injunction cases merely to create the circumstances in which the Commission could then ask the court of appeals to vacate the lower court's decision as moot.²⁷ *Munsingwear* simply recognizes the principle that a party ought not to be burdened with an adverse decision that it has been denied an opportunity to appeal, through no fault of its own. By contrast, to the extent Donnelley's argument is that every preliminary injunction must be either appealed to its conclusion or vacated without an appeal, Donnelley would place an enormous burden on the appellate courts. And to the extent that Donnelley's argument is that the Commission's case was moot (because Donnelley had consummated the transaction and thereby precluded the Commission from obtaining preliminary relief -- the only relief the Commission sought), Donnelley would require the Commission to ask an appellate court either to reverse or to vacate every preliminary merger injunction the Commission loses. This standard also would impose an inordinate burden on the

²⁷ Any appeal requires more than a mere disagreement with the trial court about the result in the case. The critical evaluation of an appeal entails many considerations, including an awareness that appellate courts distinguish among errors of law, errors of fact, and abuses of discretion in reviewing district court decisions. E.g., *Vision Sports, Inc. v. Melville Corp.*, 888 F.2d 609, 612 (9th Cir. 1989); *Baja Contractors, Inc. v. City of Chicago*, 831 F.2d 667 (7th Cir. 1987), cert. denied, 485 U.S. 993 (1988) (factual and legal errors constitute an abuse of discretion). The district court's legal analysis fairly correctly articulated the legal standards applicable to an action by the Commission for a preliminary injunction. Assuming the district court erred, its errors concerned questions of fact, not of law. For the Commission to have succeeded in appealing the district court's denial of an injunction, the Commission would have been required to show that the district court's findings of fact were "clearly erroneous." See Fed. R. Civ. P. 52(a) ("Findings of fact, whether based on oral or documentary evidence, shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge the credibility of witnesses"). The standard for judicial review of a district court's factual findings is much closer to the "abuse of discretion" standard than it is to the "error of law" standard. An "abuse of discretion" standard is very difficult for an appellant to meet, and courts will rarely overturn a district court for declining to grant equitable relief, especially when that court finds that the equities do not warrant an injunction. Compare *FTC v. Weyerhaeuser Inc.*, 665 F.2d 1072, with *FTC v. PPG Indus. Inc.*, 798 F.2d 1500 (D.C. Cir. 1986).

appellate courts. Neither *Munsingwear* nor any public policy compels such a result.²⁸

The Commission's preliminary injunction action did not seek a resolution of the merits, the court did not decide the case on the merits, and the Commission was never given "clear and unambiguous notice" -- nor indeed any notice at all²⁹ -- that its action for a preliminary injunction was anything more than a preliminary assessment by the district court of the Commission's likelihood of success, given the evidence the Commission presented in that proceeding.³⁰ Indeed, the district court's decision clearly contemplates that the merits of this matter will be adjudicated in an FTC administrative proceeding.³¹ Donnelley's belated attempt to turn that proceeding into something that it was not is rejected.

IV. MARKET DEFINITION

Section 7 of the Clayton Act prohibits acquisitions, the effect of which "may be substantially to lessen competition or tend to create a monopoly" 15 U.S.C. 18.³² The language of Section 7 indicates that a plaintiff need not prove that an anticompetitive effect is a certainty. *California v. American Stores Co.*, 495 U.S. 271, 284 (1990) ("plaintiff need only prove that [the acquisition's] effect may be substantially to lessen competition").³³ But Section 7 requires a prediction of probable anticompetitive effects, not ephemeral

²⁸ The more appropriate practice is for the Commission (i) to confine its requests that district court decisions be vacated to those moot cases that articulate legal principles the Commission believes are erroneous but which it cannot vindicate on appeal, but (ii) not to seek vacation of the adverse preliminary decisions that turn on their unique facts. The efficacy of this approach by the Commission depends on its continued ability to litigate the full merits of a case in the related administrative proceeding when it is denied preliminary relief in the district court.

²⁹ *Pughley v. 3750 Lake Shore Drive Coop. Bldg.*, 463 F.2d at 1057; see *supra* note 19.

³⁰ Although not dispositive, the relative length and scope of the administrative trial, and the volume and quality of evidence presented therein, is informative. The administrative trial lasted five months, as compared with five days for the preliminary injunction hearing. Moreover, complaint counsel presented live testimony from 40 witnesses and presented 1,450 evidentiary exhibits, as compared with 6 witnesses and 100 exhibits at the preliminary injunction hearing. CAB at 74.

³¹ See *supra* pp. 8-9.

³² Although the complaint challenges the acquisition under both Section 7 of the Clayton Act and Section 5 of the FTC Act, the analytical standards for assessing legality in this context are read coextensively. See *FTC v. PPG Indus., Inc.*, 798 F.2d 1500, 1501 n.2 (D.C. Cir. 1986); *FTC v. Pepsico, Inc.*, 477 F.2d 24, 28 n.6 (2d Cir. 1973); *Grand Union Co.*, 102 FTC 812, 1027 (1983).

³³ Section 7 does not require "a certainty" or "even a high probability" that an acquisition will substantially lessen competition. *United States v. General Dynamics Corp.*, 415 U.S. 486, 505 (1974); *FTC v. Elders Grain, Inc.*, 868 F.2d 901, 906 (7th Cir. 1989). See also *United States v. Western EEC Co.*, 767 F. Supp. 308, 330 (D.D.C. 1991), *aff'd*, 993 F.2d 1572 (D.C. Cir.), *cert. denied*, 114 S. Ct. 487 (1993) ("probability" rather than "certainty" is the applicable standard in antitrust law).

possibilities. *Brown Shoe Co. v. United States*, 370 U.S. 294, 323 (1962); see *Mldcon Corp.*, 112 FTC 93, 169-170 (1989).

The central concern of Section 7 is that acquisitions "should not be permitted to create or enhance market power or to facilitate its exercise." U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines ("Merger Guidelines") Section 0.1.³⁴ Market power is "the ability profitably to maintain prices above competitive levels for a significant period of time." *Id.* Section 0.1. Thus, the ultimate issue under Section 7 is whether the challenged acquisition likely will enable the merging firm, acting unilaterally or collectively with other firms, to increase prices above competitive price levels.³⁵ See, e.g., *Hospital Corp. of America v. FTC*, 807 F.2d 1381, 1386 (7th Cir. 1986) (Posner, J.), *cert. denied*, 481 U.S. 1038 (1987) (Section 7 requires "judgment [as to] whether the challenged acquisition is likely to hurt consumers, as by making it easier for firms in the market to collude, tacitly or explicitly, and thereby force prices above, or farther above, the competitive level"). The ultimate question under Section 7 may be stated more broadly to include a prediction of adverse effects in competitive dimensions other than price -- reductions in output, product quality, or innovation. See Merger Guidelines 0.1, n.6; see, e.g., *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 368-69 (1963); *FTC v. PPG Indus., Inc.*, 628 F. Supp. 881, 885 (D.D.C.), *aff'd in part*, 798 F.2d 1500 (D.C. Cir. 1986).

The prediction that an acquisition likely will have adverse competitive effects requires a series of successive determinations outlined in the Merger Guidelines Section 0.2.³⁶ First, the Commission must find that the acquisition would increase concentration and result in a concentrated relevant market, properly defined and measured. "Determination of a relevant market is a necessary predicate to a finding of a [Section 7] violation." *United States v. E.I. duPont de Nemours & Co.*, 353 U.S. 586, 593 (1957). Section 7 of the Clayton Act prohibits acquisitions "where in any line of commerce . . . in any section of the country, the effect of such acquisition may be substantially to lessen competition." 15 U.S.C. 18

³⁴ 4 Trade Reg. Rep. (CCH) ¶ 13,104 (April 2, 1992).

³⁵ See Merger Guidelines Section 1.11 (the prevailing pre-acquisition price level is generally used as a proxy for the competitive price level).

³⁶ The Commission uses the framework set out in the Merger Guidelines for determining whether to challenge horizontal acquisitions. Although the Merger Guidelines are not binding on courts, courts of appeal have considered them in determining the impact on competition of proposed acquisitions. See, e.g., *United States v. Baker Hughes*, 968 F.2d 981, 983 n.3 (D.C. Cir. 1990); *PPG*, 798 F.2d at 1503.

(emphasis added). The purpose of market definition identify those sections of the economy that may be exposed by the challenged acquisition to a substantial lessening of competition. *Owens-Illinois, Inc.*, 115 FTC 179 (1992) [FTC Dkt. No. 9212 (Feb. 26, 1992), slip op. at 4].³⁷ As suggested by the language of Section 7, the relevant market must be defined along both a product and a geographic dimension. *United States v. General Dynamics Corp.*, 415 U.S. 486, 510 (1974) ("delineation of proper geographic and product markets is a necessary precondition to assessment of the probabilities of a substantial effect on competition within them"). Complaint counsel bear the burden of proving a relevant market within which anticompetitive effects are likely as a result of the acquisition. *Kaiser Aluminum & Chem. Corp. v. FTC*, 652 F.2d 1324 (7th Cir. 1981). See *United States v. Connecticut Nat'l Bank*, 418 U.S. 656, 669 (1974).

The ALJ found that the relevant product market is "high volume publication gravure printing," as alleged by complaint counsel. ID at 81-85. The ALJ further found that the United States constitutes a relevant geographic market within which to assess the competitive effects of the acquisition, and rejected complaint counsel's proposed Western United States market. ID at 85-86. Respondents appeal the ALJ's product market determination, arguing that competition from offset printing services is sufficient to undermine any attempt by respondents, unilaterally or collectively with other gravure printers, to exercise market power with respect to gravure printing services. RAB at 10-44. Neither complaint counsel nor respondents appeal the ALJ's geographic market findings.³⁸

We find that the ALJ's conclusions as to geographic market are well supported, but we reject the ALJ's conclusions as to product market. We conclude that "high volume publication gravure printing" as proposed by complaint counsel is not a relevant market for the purposes of assessing the competitive effects of the acquisition. Using the price discrimination methodology proposed by complaint counsel, adjusted to reflect actual substitution possibilities, we find that offset printing is used extensively in high volume publication printing. Complaint counsel estimate that, in 1990, offset accounted

³⁷ See *United States v. du Pont*, 353 U.S. at 393 ("substantiality [of any lessening of competition] can be determined only in terms of the market affected").

³⁸ CAB at 51 n.72 (Complaint counsel do not "formally challeng[e]" the ALJ's rejection of the proposed "Western United States" geographic market, but nevertheless contend that the evidence supports such a separate antitrust market).

for 24.1% of print jobs with more than sixteen pages and print runs of more than five million copies.³⁹ In the "core" of complaint counsel's proposed market -- print jobs with more than thirty-two pages and print runs of more than ten million copies -- offset accounted for 13.5%.⁴⁰ These conclusions could be considered dispositive: Complaint counsel made no attempt to prove that the acquisition lessened competition in a broader market that includes offset printing, and it is undisputed that concentration and other characteristics of such a broader market are not conducive to an exercise of market power by the merged firm, unilaterally or in coordination with others. Assuming, however, the existence of a relevant market for high volume publication printing -- contrary to our finding that printers cannot identify customers with inelastic demand according to the alleged parameters of the market -- the analysis of potential anticompetitive effects reinforces our conclusion that the acquisition does not violate Section 7.

A. Product Market: General Standards

A market may be defined as "a product or group of products and a geographic area in which it is produced or sold such that a hypothetical [monopolist] of those products in that area likely would impose at least a 'small but significant and nontransitory' increase in price. A relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy this test." Merger Guidelines Section 1.0.⁴¹ Thus, a relevant product market is the smallest grouping of products whose sellers, if unified by a hypothetical cartel or merger, could profitably increase prices significantly above the competitive level.⁴² See *H.J., Inc. v. International Tel. & Tel. Corp.*, 867 F.2d 1531, 1537 (8th Cir. 1989) (a market is "any grouping of sales whose sellers, if unified by a hypothetical cartel or merger, could raise prices significantly above the competitive level"); *Owens-Illinois, Inc.*, slip op. at 4-5.

Market definition under the Merger Guidelines focuses solely on demand substitution factors -- i.e., possible consumer responses.

³⁹ CX-1167-C-1.

⁴⁰ *Id.* These estimates may understate the proportion of offset printing in the proposed market.

⁴¹ See *id.* (defining the hypothetical monopolist as "a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area").

⁴² The prevailing pre-acquisition price level is generally used as a proxy for the competitive price level. *Id.* Section 1.11.

Supply substitution factors -- i.e., possible production responses -- are considered in the identification of firms that participate in the relevant market and the analysis of entry. Merger Guidelines Section 1.0.⁴³ See Section V., *infra*. The Commission and the courts use cross-price elasticity of demand as the primary tool for market definition. See *E.I. du Pont*, 351 U.S. at 394; Merger Guidelines Section 1.11.⁴⁴ Under the Merger Guidelines, the Commission evaluates cross-price elasticities of demand through an iterative process that begins with a candidate market of each product of each merging firm and examines the extent to which the price of each such product is constrained by putative substitutes in demand. The Commission asks whether a hypothetical monopolist of that product could profitably impose a "small but significant and nontransitory" price increase in light of successive "next best substitutes." If alternative products are, in the aggregate, sufficiently attractive, an attempt to raise prices would not prove profitable, such that the candidate market would prove too narrow. The candidate market is expanded to encompass those alternative products to which consumers would switch in response to a significant price increase.⁴⁵

⁴³ Respondents argue that this approach is "mistaken" and contrary to long-standing Section 7 precedent. RRB at 46 n.44. Although case law often has treated supply substitutability (or supply elasticity) as part of market definition, the precedent does not compel that approach. See, e.g., *Kaiser Aluminum & Chem. Corp. v. FTC*, 652 F.2d 1324, 1330 (7th Cir. 1981) (explicitly eschewing application of supply substitution to market definition). The Merger Guidelines' approach was designed to eliminate analytical confusion that has often arisen when demand and supply elasticities are considered concurrently. See, e.g., Gregory Werden, *Market Delineation Under the Merger Guidelines: A Tenth Anniversary Retrospective*, 38 ANTITRUST BULL. 517, 524-27 (1992). In fact, when both demand and supply substitution are examined with the appropriate focus on market power, consideration of supply substitution in the identification of relevant market participants should yield market shares that are identical to those determined by including supply substitution as part of market definition. *Id.* at 525. The Merger Guidelines' separation of these steps merely clarifies the focus on identifying mergers that create or enhance market power. "This methodology matches the grouping of buyers who are exposed by their demand patterns to supra-competitive pricing with the set of sellers who are both readily able and likely to produce the pertinent output." Owens-Illinois, slip op. at 12.

⁴⁴ Cross-price elasticity of demand between the product in question and other products is used as the best indicator of own price elasticity of demand for the product in question, which is the ultimate concern of market definition. "The extent to which a monopolist would increase price is largely a function of own-elasticity of demand for the product . . . Cross-elasticity is relevant only because it is closely related to own-elasticity." Gregory Werden, *Market Delineation and the Justice Department's Merger Guidelines*, 1983 DUKE L.J. 514, 573 (1983). See ABA Section of Antitrust Law, *Monograph No. 12, HORIZONTAL MERGERS: LAW & POLICY 107-08* (1986) (hereinafter, *ABA Merger Monograph*).

⁴⁵ Direct evidence of cross-price elasticity of demand is often unavailable; "[h]ence, we may apply reasoned judgment in estimating or inferring the relative magnitude of the elasticities in order to assess the degree of market power." *Grand Union*, 102 FTC at 812. In addition to engaging in the direct cross-price elasticity analysis described in the Merger Guidelines, the Commission may consider "practical indicia" such as "industry or public recognition of the [market for the product at issue] as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors." *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962). See *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S.

As a general matter, the Commission considers significant "a price increase of five percent lasting for the foreseeable future." Merger Guidelines Section 1.11.

B. Market Defined by Non-Discriminatory Price Increase

Donnelley and Meredith/Burda each produce and sell gravure printing services. Thus, absent price discrimination, the initial test is whether a hypothetical monopolist producer of gravure printing services would likely impose a small but significant and nontransitory price increase above prevailing levels. In order to find that gravure printing is a relevant product market under this initial test, the Commission must conclude that substitution by the marginal consumers of gravure printing services -- those who likely would switch to offset printing (or to some other service) in response to a five percent increase from prevailing prices -- would not be sufficient to defeat the price increase.⁴⁶

The evidence demonstrates that, at the time of the acquisition, a hypothetical monopolist of gravure printing services could not profitably impose a significant nontransitory price increase for all current gravure printing services. Complaint counsel and Donnelley do not disagree -- and the ALJ found -- that buyers can and do use either offset or gravure printing services for a wide range of printing jobs. ID at 84.⁴⁷ Customers' demand for printing services varies

377, 395 (1956). As with evidence of cross-price elasticity, evidence of such practical indicia is relevant only to the extent that it is probative of the own-price elasticity of demand for the product at issue. See ABA Merger Monograph, *supra* note 44, at 108-09 ("The hypothetical monopolist paradigm does not expressly incorporate the submarket indicia identified in Brown Shoe, except to the extent that the indicia may assist the factfinder in inferring whether the hypothetical monopolist could profitably impose a price increase." (notes omitted)). Cf. *Rothery Surveys & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 218-19 (D.C. Cir. 1986), *cert. denied* 479 U.S. 1033 (1987) (treating submarket indicia as "proxies for cross-elasticities . . . in predicting a firm's ability to restrict output and hence to harm consumers").

⁴⁶ Offset printing is clearly the next best substitute for gravure printing for any relevant job specification. Merger Guidelines Section 1.11 n.9 ("Throughout the Guidelines 'next best substitute' refers to the alternative which, if available in unlimited quantities at constant prices, would account for the greatest value of diversion of demand in response to a 'small but significant and nontransitory' price increase"). More specifically, the next best substitute to gravure in high volume publication printing is heatset offset printing. IDF ¶¶ 27-28; RPF ¶¶ 12-36 (respondents refer only to heatset technology); Hausman Tr. 6422-23 (including only offset as competing with gravure in high volume publication printing). The three other processes used in commercial printing -- coldset offset, letterpress, and flexography -- are not economically reasonable alternatives for high volume publication printing and would likely not significantly constrain the competitive conduct of a hypothetical monopolist of gravure and heatset offset printing services. IDF ¶ 29; CPF ¶¶ 85-86, 115-136. In any event, the exclusion of these processes from the relevant market is not critical to the ultimate determination.

⁴⁷ See generally RAB at 10-44; CAB at 25-26.

across a number of significant dimensions,⁴⁸ and gravure and offset printing are not perfectly substitutable for all differentiated print jobs demanded. But there is a significant margin of overlapping use.⁴⁹ At this margin, gravure and offset printing are relatively cross-price elastic. Even complaint counsel's expert testified that a price increase to all gravure customers could not be sustained because too many purchasers would substitute to offset printing.⁵⁰ This conclusion is not disputed by complaint counsel and is analytically indisputable.⁵¹

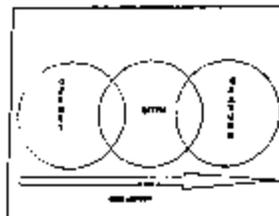
Thus, absent an ability to price discriminate, the hypothetical gravure monopolist could not increase prices profitably and the relevant market would be expanded to include offset.⁵² Indeed, by proposing a relevant market consisting of a subset of all gravure print jobs, the complaint in this matter contemplates a relevant market defined by the ability to price discriminate between relatively elastic and inelastic customers of gravure printing services.

C. Market Defined by Discriminatory Price Increase

The complaint alleges a relevant market for "high volume publication gravure printing," which is approximated by four-color gravure printing jobs with at least five million copies, at least sixteen pages, and fewer than four four-color versions (or the equivalent in one-color versions).⁵³ Thus, complaint counsel have attempted to

⁴⁸ These dimensions include, most significantly: number of versions of each publication, number of copies per version, number of pages per copy, print quality, colors, and, of course, price.

⁴⁹ RX 497 depicts the competition between gravure and offset essentially as follows:



See also CPF Conclusions of Law at 13 (citing this exhibit as showing "some competition between gravure and offset but also . . . significant areas where the processes do not compete" and as standing for the proposition that there is "limited direct competition between the processes"). The testimony of all of complaint counsel's witnesses corroborates this view. See, e.g., Nytko Tr. 1525 ("offset and gravure compete in certain areas, and there are certain areas that your expectation is that offset would be the predominant process [and] other areas where you would expect gravure to be the predominant process").

⁵⁰ Hülke Tr. 3070-71.

⁵¹ See CAB at A-1 (citing Dr. Hülke for the proposition that "a price increase across all gravure printing (broader than high volume gravure printing only) may not be profitable").

⁵² See Hülke Tr. 3174-75.

⁵³ CAB at 10; CPF ¶ 657; Hülke Tr. 2997-98, 3419-20, 6149-50. See CX 1:67; CX 1351-B.

prove that a hypothetical gravure printing monopolist could profitably impose a discriminatory price increase on customers whose printing demand fits these parameters. Complaint counsel further describe the "core" of this proposed market as gravure print jobs with at least ten million copies, more than thirty-two pages, and fewer than four four-color versions (or the equivalent in one-color versions), but does not plead this as an alternative market.⁵⁴

The Commission and the courts recognize that if a seller or group of sellers can earn substantially different returns from different classes of customers based on their relative demand elasticities for the products of the sellers, the relatively inelastic class of customers may constitute a relevant market.⁵⁵ Under the standards set forth in Section 1.12 of the Merger Guidelines, the Commission will define a relevant market for a group of buyers for which a hypothetical monopolist would separately impose a "small but significant and nontransitory" increase in price.⁵⁶

If a hypothetical monopolist can identify and price differently to those buyers (targeted buyers) who would not defeat the targeted price increase by substituting to other products in response to a "small but significant and nontransitory" price increase for the relevant product, and if other buyers would not purchase the relevant product and resell to targeted buyers, then a hypothetical monopolist would profitably impose a discriminatory price increase on sales to targeted buyers.

Merger Guidelines Section 1.12.⁵⁷

⁵⁴ See CAB at 10; CPF ¶ 657; *Hilke Tr.* 2997-98, 3097; CX 1351-B. Complaint counsel define the "core" of the market "as the area in which a hypothetical monopolist has the greatest possibility of success." CAB at 10, citing *Hilke Tr.* 2997-98, 3417. Complaint counsel do not propose the "core" as a relevant market alternative to the relevant market proposed in the complaint. OA Tr. at 41.

⁵⁵ See, e.g., *Owens-Illinois, Inc.*, 115 FTC 179 (1992) [FTC Dkt. No. 9212 (Feb. 26, 1992), slip op.]; *Midcon Corp.*, 112 FTC 93 (1989). See also *United States v. Grinnell Corp.*, 384 U.S. 563 (1966) (in monopolization case under Section 2 of the Sherman Act, 15 U.S.C. 2, relevant price discrimination product market for class of inelastic buyers); *United States v. Rockford Memorial Corp.*, 898 F.2d 1278 (7th Cir.), cert. denied, 498 U.S. 920 (1990) (affirming injunction against merger under Section 7 of the Clayton Act). In *Rockford Memorial*, Judge Posner explained that each category of customers identified with a specific hospital service (i.e., a specific medical indication) could represent a separate relevant product market if a hypothetical monopolist could discriminate in price (or other terms of competition) between such categories based on identified demand elasticities.

⁵⁶ "This is true regardless of whether a general increase in price would cause such significant substitution that the price increase would not be profitable," Merger Guidelines Section 1.12, as in the case here.

⁵⁷ Price discrimination consists of "differences in price not based on differences in cost." *Midcon*, 112 FTC at 168-69. "Price discrimination consists of obtaining different economic profits from different customers for similar products." *Hilke Tr.* 3498-99; Hausman Tr. 5474-75. See also F.M. Scherer & David Ross, *INDUSTRIAL, MARKET STRUCTURE & ECONOMIC PERFORMANCE* 489 (3d ed. 1990) ("Price discrimination is the sale of different units of a good or service at price differentials not directly corresponding to differences in supply cost"). "Profitability" and "cost" are defined in economic rather than accounting terms. See Merger Guidelines Section 0.1 ("References to profitability of certain actions focus on economic profits rather than accounting profits. Economic profits may be defined as the excess of revenues over costs where costs include the opportunity cost of invested capital.").

In this matter, the Commission may find that a profitable discriminatory price increase is possible, and therefore sufficient to define a relevant market, if three conditions are satisfied: (1) the hypothetical monopolist can identify gravure customers with sufficiently inelastic demand for gravure printing (*i.e.*, those who will not switch to offset printing in response to a five percent price increase); (2) the hypothetical monopolist can selectively and profitably increase prices to those gravure customers;⁵⁸ and (3) arbitrage of gravure printing (resale by favored elastic customers to targeted inelastic customers) would not be sufficient to undermine the price increase.⁵⁹

There appears to be no dispute regarding arbitrage: it is generally not feasible in markets for individualized services,⁶⁰ and publication printing does not appear to be an exception.⁶¹ Assuming that a hypothetical gravure monopolist could impose a discriminatory price increase on a class of buyers whose print jobs fit the proposed market parameters, those buyers would not likely make the price increase unprofitable by purchasing required printing services from elastic buyers who obtained the service at a lower price.⁶² Thus, the focus of the remaining product market inquiry is whether a hypothetical gravure monopolist could accurately identify, and profitably increase price to, a class of current printing customers with inelastic demand for gravure printing.

We do not require proof of actual past or present price discrimination to use the possibility of price discrimination to define a market in a Section 7 case. Section 7 addresses likely future effects on competition, so proof of likely future discrimination could support

⁵⁸ The issue is whether a sufficient number of customers with high volume requirements would not switch to offset in response to a "small but significant and nontransitory" price increase for high volume printing jobs such that the price increase would prove profitable. Complaint counsel need not prove that all current gravure customers have inelastic demand for gravure printing high volume publication printing jobs, only that enough customers are sufficiently inelastic so as to make the price increase profitable.

⁵⁹ CAB at 12-13; *Hilke Tr.* 3011-3012.

⁶⁰ *Hilke Tr.* 5876-77; *Hausman Tr.* 5225-26. See Merger Guidelines Section 1.22 n.12 ("arbitrage is inherently impossible for many services"); accord Robert Pitofsky, *New Definitions of the Relevant Market and the Assault on Antitrust*, 90 *COLUM. L. REV.* 1805, 1848 (1990); Scherer & Ross, *supra* note 57, at 489.

⁶¹ *CPF ¶¶* 736-40; *Hilke Tr.* 3069-70.

⁶² *Hilke Tr.* 3070 ("[A]rbitrage is a non-starter in [high-volume publication gravure printing]. I simply don't see any reason why J.C. Penney would find any use for old Best catalogs in trying to sell their product. Once the thing is printed, arbitrage is really not something that's in the realm of interest.")

the necessary market definition showing.⁶³ "Thus the possibility of price discrimination might in appropriate circumstances be enough to justify concern about anticompetitive effects. But, possibilities can be a weak foundation for a prediction of 'likely,' 'substantial' competitive effects." *Midcon*, 112 FTC at 169-70.⁶⁴

The Commission must be mindful of the analytical hazards of defining markets by reference to possible price discrimination. It is an economic truism that buyers do not have homogeneous preferences or demand elasticities for a given product within a relevant market, and there may often be some conceptual means of identifying classes of customers that appear to have inelastic demand for the product. The potential for this approach to swallow up the market definition principles established by the federal courts and the Commission is substantial. As the Commission warned in *Midcon Corp.*: "In considering possible markets under [a price discrimination] theory, there is a danger of implicitly assuming the conclusion." 112 FTC at 168.⁶⁵ That risk requires a particular rigor in examining the conceptual basis for distinguishing the allegedly inelastic customers and the factual basis for the prediction that price discrimination with respect to those customers is likely.⁶⁶

The analytical hazards of defining a relevant market by the possibility of price discrimination are manifest in complaint counsel's theory and the ALJ's decision. Although complaint counsel have described, in theory, a methodology for identifying a category of printing customers whose demand for gravure printing should be relatively inelastic, complaint counsel have not carried the burden of proving that the methodology allows an accurate identification of

⁶³ See *Owens-Illinois*, slip op. at 39 (Commissioner Azcuenaga, concurring).

⁶⁴ See *Owens-Illinois*, slip op. at 36 n.4 ("[T]he absence of price discrimination . . . is not determinative of what is likely to occur in the future. Its presence, however, might have conveyed a warning of appreciable danger . . .")

⁶⁵ See Pivofsky, *supra* note 60, at 1816 ("There will almost always be classes of customers with strong preferences for [differentiated] products, but to reason from the existence of such classes to a conclusion that each is entitled to the 'protection' of a separate narrow market definition grossly overstates the market power of the sellers.")

⁶⁶ The Commission will recognize the possibility of price discrimination as a means of defining a relevant market if there is a conceptually sound methodology, supported by the record, by which a hypothetical monopolist can identify the alleged inelastic customers. See *Owens-Illinois*, slip op. at 34; *Midcon*, 112 FTC at 168-69.

inelastic end uses and, thus, that a price increase within the identified category likely would be profitable. First, the identification of the parameters of the proposed market reflects a significant analytical error. In particular, the number of versions is not determined exogenously but is instead an endogenous competitive variable; increasing the number of printed versions ("versioning") is a means by which printing customers can and do substitute from gravure to offset.⁶⁷ Second, even assuming that the described parameters are a reasonable means of distinguishing elastic from inelastic customers, there is substantial historical and existing use of offset printing within the proposed market, even at existing prices and even within the "core" of the market. Third, given this existing substitution at current (presumptively competitive) prices, a significant and nontransitory increase in gravure prices for high volume printing would likely expand use of offset printing. Eliminating (or discounting) the versions parameter significantly increases the amount of observable substitution between offset and gravure. The dynamic analysis of the Merger Guidelines clarifies that substitution at the margin would likely make unprofitable such a supracompetitive price increase. For these and other reasons described below, we find that "high volume publication gravure printing" does not constitute a relevant market for purposes of evaluating the competitive effects of Donnelley's acquisition of Meredith/Burda.

D. Identification of Inelastic Uses

1. "Breakeven Analysis"

Complaint counsel have attempted to describe a methodology for identifying a category of commercial printing customers whose demand for gravure printing should be relatively cross-inelastic with offset: the "breakeven" analysis of gravure and offset printing costs. Complaint counsel argue that above a certain volume level, offset printing becomes an increasingly less viable alternative to gravure as the total number of copies increases. If a hypothetical gravure monopolist can approximate with some degree of confidence the

⁶⁷ The ability to version is an important variable of competition between gravure and offset for high volume printing. Increasing the number of versions is a means of reaching customers more specifically and is an attribute for which printing customers are willing to pay. Thus, a current gravure customer that chooses to print a greater number of versions and therefore shifts to offset has substituted offset for gravure.

volume level at which offset printing becomes an unprofitable substitute for gravure, it likely would increase prices to all customers for jobs above that volume.⁶⁸

The breakeven analysis is based on a fundamental difference between the cost structures of the gravure and offset processes.⁶⁹ The record shows that the cost of a print job can be divided into two basic economic categories: (1) fixed costs, which do not depend upon the number of copies printed, and (2) variable costs, which vary with the number of copies printed.⁷⁰ The cost structure of the gravure process is characterized by relatively high fixed costs and low variable costs for each print run.⁷¹ Relative to the gravure process, the cost structure of the offset process is characterized by lower fixed costs and higher variable costs for each print run.⁷² The primary difference in fixed costs between the processes is that, for a typical print job, the costs of engraving gravure cylinders and installing them to the gravure press are higher than the costs of producing offset printing plates and installing them into an offset press.⁷³ The primary differences in variable costs between the two processes are that gravure presses generally have a higher rate of throughput than offset presses⁷⁴ and that, for a given high volume print job, offset plates are less durable

⁶⁸ Thus, the relevant "identification" in this case concerns the job, not necessarily the customer. If gravure printers know that offset printing is not a reasonable economic alternative to gravure printing for high volume publication jobs, it need not distinguish among customers.

The profit maximizing strategy for the hypothetical monopolist is to approximate perfect price discrimination: setting a separate profit maximizing price for each product and each customer for which it can identify demand elasticity. Hal R. Varian, *Price Discrimination*, in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 600 (Richard Schmalensee & Robert D. Willig, eds. 1989).

⁶⁹ Although there is considerable dispute regarding the volume at which the breakeven point occurs, as well as whether trends in technology have or will significantly alter the cost structures that form the basis of the breakeven analysis, the general validity of the breakeven analysis is supported by internal cost studies of the merging firms and by testimony of both gravure and offset printers. See IDF ¶¶ 212-15.

⁷⁰ The fixed costs of a print job include the preliminary costs of original artwork and color separations, the costs of making the original set of offset plates or gravure cylinders (including proofs), the costs of the initial "makeready" (including ink and paper used in the makeready), and other costs that do not vary for a print run. Hodgson Tr. 186-96; CX 1164-F-G; CX 1165-G-H. The variable costs of a print job include the operating cost of the press and the materials used in printing the product, such as ink and paper. Hodgson Tr. 204-20; CX 1164-F-G; CX 1165-G-H.

⁷¹ Nytko Tr. 1484, 1514, 1525; Kelly Tr. 1716; Angstrom Tr. 2614; H. Sullivan Tr. 2789; J. Sullivan Tr. 4871-72. See Hausman Tr. 6208, 6417.

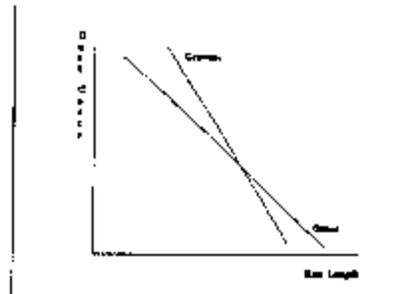
⁷² Kelly Tr. 1716; Glazer Tr. 2155; Angstrom Tr. 2614; J. Sullivan Tr. 4871-72. See Hülke Tr. 3090; Hausman Tr. 6308, 6417.

⁷³ IDF ¶ 165. See, e.g., Hodgson Tr. 244-45; Haight Tr. 1328; Engdahl Tr. 2557-58. See also Hülke Tr. 3514-16.

⁷⁴ IDF ¶¶ 133-164. See, e.g., Scirocco Tr. 1024-26; Wells Tr. 1916-19; Kaminsky Tr. 2001-02, 2037. Slower input of offset implies, among other things, longer press time per printed page.

and require more frequent replacement than gravure cylinders.⁷⁵ Thus, average unit costs for a particular print job when printed on gravure decrease with volume more rapidly than when printed on offset.

The breakeven point between gravure and offset is defined as the number of copies at which a print job with given page specifications (number and size) is equally costly to print using either the gravure or the offset process. IDF ¶ 212.⁷⁶ In other words, the breakeven point is the intersection of the differing average cost curves, as depicted in the following figure.⁷⁷



Within the framework of the Merger Guidelines, the relevant point for evaluating the usefulness of the breakeven analysis is the volume that would yield a five percent cost differential between gravure and offset.⁷⁸ Of course, printing customers do not make purchases based on the relative costs of their suppliers; their purchases are based on relative prices (and other attributes) of the printing services offered. Assuming that both gravure and offset firms have operated competitively (whether or not they are all in one

⁷⁵ IDF ¶ 165-69. The evidence suggests that, for technology in current use, offset plates for a print run must be replaced at approximately 1-2 million impressions while gravure cylinders for a print run require maintenance ("dechroming and rechroming") at approximately 5-10 million impressions.

The ALJ noted other variable costs that are higher for offset than for gravure, including gravure paper savings resulting from variable cut-off capability (IDF ¶ 172); the ability of gravure presses to stitch and trim on line (IDF ¶ 173-74); less paper waste in the gravure process (IDF ¶ 175-76); and gravure's ability to produce better results than offset on cheaper, lighter weight, uncoated paper (IDF ¶ 180). For purposes of analysis, we can assume that such cost-differences exist. These other factors are relevant to the explanation of any observed cost differences, but specific quantification is not necessary to the evaluation of the breakeven analysis. The ALJ did not attempt such quantification.

⁷⁶ The breakeven analysis appears most reliably defined in terms of run length. The number of versions are then defined as the number of runs. The cost structure of the gravure printing process suggests that run length determines the relative cost advantage vis-a-vis offset. Hodgson Tr. 254-55, 373-74; Hiltke Tr. 3093, 3435-36.

⁷⁷ See Hiltke Tr. 3152 (describing this relationship).

⁷⁸ Hiltke Tr. 3153.

antitrust market), relative average prices for gravure and offset printing should maintain a relationship similar to that depicted in Figure 1.⁷⁹

The record does not indicate clearly the volume at which the breakeven occurs or the volume at which the "breakeven plus five percent" occurs. Although there is some evidence in the record that the breakeven point may occur at a lower point,⁸⁰ the ALJ found that the intersection occurred at the lower bound of complaint counsel's proposed relevant market: approximately five million copies for publications with sixteen pages and fewer than four versions. ID at 82-83. But complaint counsel's economic expert testified -- based on internal studies of relative costs by Donnelley -- that the theoretical gravure-offset breakeven for a sixteen-page catalog may be greater than six million copies.⁸¹ To the extent that these cost-based breakeven estimates do not reflect a five percent differential,⁸² the relevant volume for purposes of market definition is higher. What complaint counsel call the "core" of this market -- more than ten million copies, more than thirty-two pages, and low versioning -- may be viewed as an attempt to approximate the relevant "breakeven plus five percent" point.⁸³

⁷⁹ The record is not "strongly suggestive" that gravure producers are currently engaged in coordinated interaction or that Donnelley is otherwise behaving non-competitively and, therefore, does not provide a basis for postulating a price increase lower than five percent, or for using a threshold other than prevailing prices from which the price increase is postulated. See Merger Guidelines § 1.11. In this case, complaint counsel have argued that the acquisition has resulted in dominant firm conduct by Donnelley and have presented evidence that capacity utilization of gravure has been high at times when there has been substantial excess capacity on offset. See IDP ¶¶ 230-234. Other evidence suggests that prices for both gravure and offset continue to fall in this industry and that it is a "buyer's market." See IDP ¶¶ 358-59. Moreover, the exact specification of the postulated price increase is not critical to our conclusions.

⁸⁰ See IDP ¶¶ 227-35.

⁸¹ *Hilke Tr. 3146-51; CX-1164-B, D; CX-1433-B*. The economically relevant breakeven analysis must compare the costs of the most efficient technology of each process. It is not clear whether the isolated cost studies upon which CX-1164 is based reflect a state-of-the-art comparison. Nor is it clear that industry witnesses were making the economically relevant comparison. The evidence taken as a whole, however, provides a reasonable approximation of the costs of the marginal technologies.

⁸² Dr. Hilke's estimate explicitly excludes the five percent addition. The ALJ's conclusion appears not to incorporate the five percent differential:

The record supports complaint counsel's claim that, for low version, long run, high page count publications, gravure is less costly than offset. The breakeven point (IDP ¶ 212) at which this usually occurs is in publications with less than 4 four-color versions, more than 32 pages (IDP ¶ 222) and a run length in excess of 5 million copies (IDP ¶ 216) . . . In this case, there was explicit testimony that for run lengths in excess of 5 or 10 million copies, gravure is more economical than offset. (see, e.g., ¶ 234).

ID at 82-83.

⁸³ An additional complication in the breakeven analysis arises from considerations of print quality. The ALJ's conclusions reflect the conflicting testimony regarding differences in quality between gravure and offset:

2. Reservations About the Breakeven Analysis

These varying estimates suggest that "breakeven" analysis may be a poor means of distinguishing, with a reasonable degree of confidence, jobs for which gravure is relatively cross-price elastic with offset from those for which it is not. Indeed, one of complaint counsel's witnesses testified that even a "ballpark estimate" would be a "gross generalization."⁸⁴ In particular, he testified that "it's very dangerous to generalize about . . . the specific crossover point at which gravure is more efficient than offset" in large part because changes in technology shift the crossover point.⁸⁵ The continuing trend of increased productivity and efficiency of offset relative to gravure magnifies our doubts about the value of the breakeven analysis as a means of identifying inelastic gravure uses.

Significant trends in process technology between the two putative substitutes should also be considered in the forwardlooking analysis required by Section 7. Over the past decade, offset technology has made significant gains in both quality and productivity relative to gravure technology.⁸⁶ As a result of these relative improvements in offset technology, the margin of competition between gravure and offset has increased in recent years. IDF ¶¶ 194-201.⁸⁷ In general,

Some industry members believe that, for their purposes, gravure and offset offer comparable quality (IDF ¶ 186); some high quality high volume magazines use offset and gravure for different parts of their publication (IDF ¶ 185); and, industry members testifying in this proceeding could not distinguish between the two processes with the naked eye (IDF ¶ 187). Nevertheless, the firm belief of many print buyers that gravure offers higher quality than offset is a real constraint on their choice of printing processes.

ID at 82. Complaint counsel argues that, whatever similarities may be shown in an isolated comparison, print customers generally perceive a reduction in the quality of printed copies as a print run approaches its conclusion, and that the reduction begins earlier in the print run for offset than for gravure. CAB at 22-24. It appears, however, that the breakeven estimates already account for this consideration: differences in quality are incorporated into the relative cost structures through the inclusion of the costs of changing offset plates and the costs of "dechroming and rechroming" gravure. In any event, although the ALJ appears to have felt constrained to hold "quality considerations" aside when discussing the economics of breakeven, IDF ¶ 214, his conclusion regarding the actual estimate of the relevant breakeven did not do so explicitly. See ID at 83.

⁸⁴ Nyika Tr. 1485.

⁸⁵ *Id.*

⁸⁶ RX-161-A, RX-163, RX-164 (pre-acquisition internal Donnelley memoranda describing program to improve gravure productivity to compensate for relative improvements in offset); Doty Tr. 4582-86; Weir Tr. 377E-88; RX-150.

⁸⁷ See Angstrom Tr. 2609 (as offset press technology has improved, "the area of competition between the two processes . . . has definitely gotten broader and . . . there is more work crossing over between the two processes"); CX-1142-Z-43 (industry publication stating that "the latest innovations in web offset . . . [have made] web offset competitive with gravure in long-run printing"). See also RX-153-A (gravure industry group document stating that "with the ever advancing technology in offset, the competitive advantage of gravure is becoming questionable" and that improvements in gravure technology "will be mandatory to protect our market share within the commercial printing community

however, these improvements should already be reflected in the measures of substitution described above and in the estimate of the breakeven point for gravure and offset economics.

Donnelley claims that the recent introduction of the latest generation offset presses will accelerate this trend and may, in fact, eliminate any gravure cost advantage in high volume printing.⁸⁸ The ALJ found that these newer offset presses "come closer to the performance of gravure presses." IDF ¶ 153. These presses are designed for rated speeds and web widths that suggest substantial unit cost improvements over prior generations of offset presses in high volume publication printing.⁸⁹ In particular, the Heidelberg/Harris M-3000 offset press has a rated speed of 3000 feet per minute, which approaches the highest rated speed for any existing gravure press.⁹⁰ Some evidence suggests that the M-3000 offset press compares favorably with late generation gravure presses in terms of unit cost and productivity for high volume printing jobs.⁹¹ As a result, the M-3000 and other new generation offset presses may further reduce whatever cost differential exists between gravure and offset, even for print jobs well within the volume and page parameters of the proposed market.⁹²

vs. offset/flexo"; (emphasis added); CX-1 (71-B (reflecting view that offset's share of an overall printing "market" is increasing while gravure's share is "steady").

These latter two documents, and many others in the record, refer to a "market" that includes at least gravure and offset. They therefore tend to counter complaint counsel's attempt to bolster their alleged market definition by referring to internal Donnelley documents that mention a "gravure market." The ALJ relied on these documents as evidence of industry recognition of a separate "gravure market." IDF 87 ¶¶ 274-79. These documents generally do not refer to a separate high volume publication gravure market as alleged in the complaint.

⁸⁸ KAB at 36-40.

⁸⁹ Rockwell Graphics recently introduced an offset press named the G-25W, which has a rated speed of 2500 feet per minute. Nyko Tr. 1547; Weir Tr. 3771-73. Mitsubishi and Man-Roland have also introduced offset presses with rated speeds of greater than 2000 feet per minute. Buchanan Tr. 2055-76; Weir Tr. 3771; RPF ¶ 29.

⁹⁰ RPF ¶ 27-28; CPP ¶ 490 (CX 120-Z-30-31, 38).

⁹¹ Dr. Hausman performed an econometric analysis comparing the estimated costs of printing the largest catalog described in the record (J.C. Penney's 1000-1500 page catalog) using an M-3000 with the costs of printing the same catalog using a new three-meter gravure press, RX-666. His analysis purports to show that the state-of-the-art offset press maintains a unit cost advantage of approximately 2-4%, depending on varying assumptions. Hausman Tr. 5320-21, 6384-85, 6388-89. Compare CX-1432; CPP ¶¶ 954-967 (Dr. Hilke's analysis estimating a 11-22% cost advantage for a state-of-the-art gravure press over the M-3000), with Hausman Tr. 6382-89 (Dr. Hausman's analysis of Dr. Hilke's methodology, estimating a 1-3% cost advantage for the M-3000 after replacing some of Dr. Hilke's assumptions with some of his own). See also RX 476; Melton Tr. 2426 (comparison of the M-3000 with a modern gravure press, performed by one of complaint counsel's witnesses, showing M-3000 to be 26% more productive).

⁹² See, e.g., Angstrom Tr. 2608-10, 2622-23 (M-3000 and Man-Roland's "Lithoran V" offset press considered "cross-over presses" because of their ability to do print jobs traditionally thought of as "gravure" work, including high-volume publications).

Complaint counsel admit that these and other technological areas of competition between advances may "create a gravure and offset." CPF ¶ 53.9.⁹³ In fact, evidence presented by complaint counsel shows that the M-3000 was designed to be cost-competitive with gravure in run lengths of up to ten million copies⁹⁴ and that, when commercially diffused, it would increase substitution between gravure and offset in high volume publication printing.⁹⁵ In essence, the commercial success of the M-3000 (and other new generation offset presses) would shift the unit cost breakeven point for gravure and offset to a higher run length and larger volume.

On the other hand, there is no evidence in the record that the M-3000 offset presses have achieved commercial success in high volume publication printing services, as defined by complaint counsel.⁹⁶ Although some evidence suggests that other new generation offset presses are now commercially viable,⁹⁷ there is no evidence in the record that these presses have significantly altered the nature of competition between gravure and offset or that they have produced dramatic increases in the use of offset in high volume publication printing.⁹⁸ Thus, there is no assurance that these presses will have a significant impact on competition in high volume publication printing. See IDF ¶ 202; ID at 84. Nevertheless, the continuing trend of increased productivity and efficiency of offset relative to gravure reinforces our skepticism regarding the value of the breakeven analysis as a means of identifying inelastic gravure uses. A small but significant and nontransitory increase in the price of gravure for high volume publication printing certainly would not

⁹³ Citing Angstrom Tr. 2609; CX 1272-G.

⁹⁴ See IDF ¶ 200; CX-1272 (graphically depicting the "potential market for the M-3000" and showing this offset press as cost-competitive with gravure for volumes as high as ten million copies). Sullivan Tr. at 2806-08.

⁹⁵ See Hilze Tr. 6060-70 ("[T]he M-3000 might be effective in enlarging that area of competition between the two processes, but that doesn't eliminate the portion of gravure that is basically beyond the reach of offset under most circumstances" (citing CX 1272-G; emphasis added); CPF ¶ 541. See also Hodgson Tr. 290-91; Coleman Tr. 1302-03; Angstrom Tr. 2609-10; Sullivan Tr. 2807-08 (testimony to the effect that the commercial success of the M-3000 would simply shift the breakeven point to a higher volume).

⁹⁶ See CAB at 42; "not one page of high volume printing has been contracted to be printed on an M-3000"; emphasis in original). Complaint counsel attribute the lack of success to two phenomena: (i) performance problems in trials, which suggest that it will not be commercially viable in the near future, and (ii) the revolutionary (as opposed to evolutionary) nature of the technology, which suggests that printers will be reluctant to incur the risks of an unproven technology. See generally CPF ¶¶ 500-535.

⁹⁷ IDF ¶¶ 194-95, 198. See RPF ¶¶ 29-32.

⁹⁸ ID at 84; IDF ¶ 198-200, 202.

reverse this trend, and as discussed above, would shift the breakeven point (wherever it currently lies) to a significantly higher volume.

3. "Versioning" as a Competitive Variable

The ALJ's identification of the parameters of the proposed market reflects a significant analytical error that results in a substantial understatement of competition between gravure and offset printing. Specifically, the ALJ's market definition treats the number of versions of a given print job as somehow pre-determined for each customer. In fact, it appears to be a variable of competition between gravure and offset in high volume publication printing. Increasing the number of versions is a means for publishers to target customers more specifically, IDF ¶ 361, and is an attribute for which printing customers are willing to pay.⁹⁹ As the breakeven analysis makes clear, the costs of versioning are greater in gravure-printing than in offset printing. IDF ¶¶ 38, 224, 225. The record clearly shows that many customers, including some of the largest, have shifted their purchases of high volume publication printing services from gravure to offset. IDF ¶¶ 122-32. Recognizing these facts, offset printers attempt to influence customers to increase the number of versions of high volume publications.¹⁰⁰ Complaint counsel argue that the Commission should ignore the competitive relevance of this switching by, in essence, treating these customers as having exited the relevant market. CAB at 10 n.9.¹⁰¹ The ALJ concurred in this view. ID at 85.¹⁰²

Complaint counsel's analysis presumes implicitly that the number of versions of a particular print job is predetermined. In fact, however, the number of versions ordered for a given print job appears

⁹⁹ "Target marketing" has become increasingly common as retailers and magazine publishers attempt to tailor their publications to the specific preferences of customers or to competitive circumstances. Wyker Tr. 908; Engdahl Tr. 2571; Van Horne Tr. 4637; Dory Tr. 4576-77; Higham Tr. 2321; CX-483-X.

¹⁰⁰ RX-19-A; Van Horne Tr. 4636-38; Pope Tr. 2443-44.

¹⁰¹ See CPF ¶ 1111 ("In instances where switching between processes occurs, it is usually as a result of a change in the requirements of the printing program. (Bentele Tr. 1441-42; Nytko Tr. 1522-23)").

¹⁰² "Donnelley relies too heavily on its analysis of gravure print buyers who have switched to offset (IDF ¶ 122-32), for it ignores . . . the reason for some of the switches — increased versioning." See IDF ¶ 106 ("During 1993, Wal-Mart began shifting its predominantly gravure printed program to offset. Each issue has a run length ranging from 60 to 70 million . . . each with many localized versions"); IDF ¶ 108 (K-Mart shifting weekly 24-36 page insert from gravure to offset after increasing versions); IDF ¶ 122-125.

to be selected by many buyers after comparing the benefits and costs -- that is, the net profit -- associated with varying the attributes of a particular print job. As the relative prices of gravure and offset printing change, so too will the profits associated with each possible variant of a particular job (e.g., low-version/high-run length versus high version/low-run length). The ability of buyers profitably to adjust these attributes provides a means by which printing customers can and do substitute from gravure to offset.¹⁰³

That substitution of this sort occurs is beyond dispute. Print customers with very large print volumes and page counts have substituted from gravure to offset in response to changes in perceived profit considerations related to versioning. Wal-Mart, for example, recently shifted to offset a large portion of its print program (with print issues of 60 to 70 million copies) in order to version more extensively and to target customers geographically. *IDF ¶¶ 106, 123-24.*¹⁰⁴ K-Mart, one of the world's largest purchasers of high volume publication printing services, also shifted the printing of its weekly national inserts from gravure to offset after deciding to increase versions. *IDF ¶¶ 108, 125.*¹⁰⁵ The print volumes and page counts in

¹⁰³ To illustrate, consider a retail merchant that intends to mail a sales catalog nationwide. The characteristics of a catalog -- the number of pages, the page size, the type of paper, the number of versions -- seldom will be fixed in advance, but are instead competitive choices made by the retailer. Focusing on versioning (holding other characteristics constant), the retailer will weigh the potential benefits of greater versioning (i.e., greater sales revenue from a more accurately targeted catalog) against potential costs (i.e., higher unit costs from shorter run lengths). Given existing prices for offset and gravure, the retailer will select the set of characteristics that offers the greatest expected profit. Clearly, this profit calculation will change as the relative prices of offset and gravure change. At one set of relative prices, the retailer may find it most profitable to opt for a single version catalog with a high run length, which might dictate the use of gravure. Were gravure prices to increase, however, a multiple-version publication might yield higher profits, which would dictate the use of offset.

Analogously, consider an airline that offers passenger service on a competitive route and is faced with the choice of leasing either one jet that seats 500 passengers or two jets that seat 250 each. Assuming the price of a lease for the larger jet is significantly lower than the price of the lease for the two smaller jets (i.e., a price differential greater than 5%), the airline may choose the larger jet in order to minimize costs and, accordingly, to set a lower passenger ticket price. Alternatively, the airline could choose to lease the two smaller jets at a higher lease price in order to provide additional service to passengers (more departure times) albeit at a higher ticket price. The number of jets selected to provide the service is a competitive variable that is determined by the customer to maximize its profits; it is not an invariable, pre-determined market condition. Thus, it would be incorrect to interpret the airline's choice of the two-jet lease as a departure from the relevant market. The correct interpretation is that the airline selected between two substitutes.

¹⁰⁴ See *Baron Tr. 2261, 2275-76, 2207-08.*

¹⁰⁵ Specifically, the ALJ found: "Today, K-Mart finds the gravure and offset processes to be interchangeable, receives bids on both processes, and uses both processes for its national inserts. . . . One of the reasons K-Mart has moved more to offset is increased versioning." *IDF ¶ 123. See Habeck Tr. 4152-59, 4163, 4234-35; RX-652.*

each of these examples are not only within complaint counsel's proposed relevant market, they are well within the "core."¹⁰⁶

Of course, not all volume of a print customer need be shifted to offset to undermine a gravure price increase.¹⁰⁷ As the ALJ found, "some buyers, such as National Geographic, use both processes for their publications because of their unique contribution to specific needs, such as, in the case of offset, its lower cost when a portion of the publication requires a high number of versions." ID at 83; see IDF ¶ 121.¹⁰⁸ Customers who currently use both processes would likely shift additional volume to offset as a result of a relative increase in the price of gravure.¹⁰⁹

This evidence shows that the ability to version is an important variable of competition between gravure and offset for high volume printing. In reaching this conclusion, we do not find that all high volume gravure print jobs are currently at this margin of substitution. We need only find that a sufficient number of jobs are at this margin such that a high volume gravure price increase likely would not be profitable. A hypothetical gravure monopolist could profitably raise price only to those customers who could not avail themselves of versioning and other alternatives. As complaint counsel recognize, "the gravure monopolist must take versioning into consideration when targeting price increases. It is inappropriate to ignore versioning when identifying printing likely to be targeted by the hypothetical gravure monopolist." CAB at 9-10 n.8 (emphasis in original). Because a gravure monopolist could not determine *ex ante* whether current purchasers of gravure services will choose to print a greater number of versions in response to a small but significant and

¹⁰⁶ The record reflects other specific examples of customers substituting offset for gravure in order to obtain more versions. See, e.g., RX-355; Gordon Tr. 3954-57 (Levitz Furniture). The record generally reflects that versioning is increasing. See, e.g., Moeller Tr. 4009-10.

¹⁰⁷ See, e.g., IDF ¶ 121 (regarding National Geographic: for each 9.8 million copy run length, more than four versions of up to 25 pages are printed offset and fewer than four versions of up to 88 pages are printed gravure); IDF ¶ 111 (regarding Modern Maturity: for each 22.4 million copy run length, 4-20 versions of up to 12 pages are printed offset and one or two versions of up to 88 pages are printed gravure). Customers who use both processes would likely shift additional volume to offset as a result of a relative increase in the price of gravure.

¹⁰⁸ Each National Geographic issue has a volume of nearly ten million copies and the offset portion is 20-25 pages per issue. IDF ¶ 121. Again, this print job is well within complaint counsel's proposed market and approaches the proposed "core" (absent the versioning restriction). See Allen Tr. 1598-99 (AARP plans increased versioning so that certain pages formerly printed gravure will be printed offset, even without a change in relative prices).

¹⁰⁹ Likewise, a publication printing customer faced with a relative increase in the price of offset could alter its print program to reduce the number of versions in order to obtain a better quality-adjusted gravure price. Customers with very high volume print requirements, but who are now using offset for highly-versioned programs, cannot be said to be insulated from gravure competition.

nontransitory price increase, it would likely not be able profitably to target such price increases.

By ignoring this method of substituting between offset and gravure, the data and analysis presented by complaint counsel mask the amount of actual substitution that currently occurs between offset and gravure.¹¹⁰ Eliminating the versioning parameter significantly increases the amount of observable substitution between offset and gravure.¹¹¹ Given this existing substitution, the dynamic analysis of the Merger Guidelines clarifies that substitution at the margin would likely make a high volume gravure price increase unprofitable.

E. Current and Likely Purchasing Patterns

Assuming *arguendo* that versioning is an appropriate market parameter, the evidence suggests that the boundaries at five million copies and sixteen pages have been drawn too low: at both pre-acquisition and post-acquisition prices, a substantial portion of print jobs above this line is done using offset printing.¹¹² Complaint counsel estimate that, in 1990, offset accounted for 12.5% of printing in their proposed relevant market: "low versioned jobs over 16 pages" for print runs of more than five million copies.¹¹³ Moreover, when the versioning parameter is eliminated to reflect more accurately actual substitution (and substitution possibilities), the proposed market boundaries become more porous still. Complaint counsel

¹¹⁰ To a lesser extent, the analysis in this section with respect to versioning also applies to these other listed variables. For example, customers faced with a supracompetitive price increase for gravure could conceivably adjust the number of pages in order to obtain an economical offset bid. However, the extent to which customers likely would make changes in these other variables in response to a gravure price increase is unclear. By comparison, the demand for a greater number of versions is clearly derived from demand for targeted marketing. Thus, unlike changes in other listed variables, an increase in the number of versions has an identified benefit to the print customer that can be considered along with any increase in unit costs assumed by switching to offset.

¹¹¹ Because the versioning parameter is selected somewhat arbitrarily, its elimination also eliminates some anomalous results. See RPF 64-73; RX-28 (showing, for example, one job with a total volume of 35 million copies that is excluded from complaint counsel's proposed market because it had several versions, despite the fact that one of the four-color versions had a run length of 18 million, which would place that version alone in the "core"); Hausman Tr. 5371-81.

¹¹² The finding is also consistent with the testimony of complaint counsel's economic expert that, for a 16-page catalog, the theoretical gravure-offset "break-even point" may be greater than six million copies. Hille Tr. 3146-51; CX-1164-D; CX-1433-B.

¹¹³ CX-1167-C-J. See CX-1167-C (showing offset accounted for 11.4% of "low versioned jobs over 32 pages" for print runs of more than five million copies). Dr. Hille prepared CX-1167 based on subpoena responses from 29 printers with gravure and offset printing capacity. He compiled information regarding run length, page counts, and versions for high volume work that the printers perform. Based on this information, he tabulated proportions of gravure and offset for different permutations of these factors. CX 1167-F-G.

estimate that, in 1990, offset accounted for 24.1% of print jobs with more than sixteen pages and print runs of more than five million copies.¹¹⁴ Even in the "core" of complaint counsel's proposed market -- print jobs with more than thirty-two pages and print runs of more than ten million copies -- offset accounted for 13.4%.¹¹⁵ For purposes of analysis, we will consider these estimates to be representative.¹¹⁶

This substantial existing use of offset printing at current prices would likely increase in response to an attempt by gravure printers to impose a supracompetitive price increase.¹¹⁷ Historical, or existing, purchasing patterns may indicate demand elasticities at competitive prices, but the focus of market definition under Section 7 is demand elasticities at a future, supracompetitive price as a result of the acquisition.¹¹⁸ The principal object of Section 7 market definition analysis is to determine susceptibility to an exercise of market power.¹¹⁹ Therefore, the Commission employs a hypothetical supracompetitive price increase to define the market. Even where historical purchasing patterns suggest that a product is insulated from a putative substitute under existing, competitive prices, relevant purchasers may readily turn to the substitute if faced with any significant price increase. Current preferences in the competitive equilibrium would be altered by an increase in the relative prices of gravure. *Olin Corp.*, 113 FTC 590, 598 (1990) ("Evidence of what

¹¹⁴ CX-1167-C-1.

¹¹⁵ *Id.*

¹¹⁶ The estimates may understate slightly the proportion of offset printing in the proposed market. Respondents argue that these proportions underrepresent the amount of high volume work done on offset because the entire universe of gravure printers are represented while only 20 offset printers are represented, even though Dr. Hilke testified that there are "thousands and thousands" of offset printers. Hausman Tr. 5365; Hilke Tr. 3106. Dr. Hilke admitted that this may tend to understate the offset proportion, but that he considered the proportions reliable because the 20 offset printers appear to be those most likely to bid on high volume business. Hilke Tr. 3106-07, 3447. Nevertheless, in response, Dr. Hilke adjusted his estimates and arrived at the estimates stated in CX-1167-C-1. Dr. Hausman made his own estimates based on third-party information regarding the same print job parameters and found, *inter alia*, that 27% of work in complaint counsel's core was performed on offset (compared with Dr. Hilke's estimate of 4.5%). RX-668. These estimates have their own problems, none of which needs be resolved here.

¹¹⁷ Similarly, if offset prices increased from prevailing levels, one would expect an increase in the use of gravure, especially at lower volumes: the margin defined by the breakeven analysis would shift to a lower volume and page count.

¹¹⁸ See Robert G. Harris & Thomas J. Jordan, *Antitrust Market Definition: An Integrated Approach*, 72 Cal. L. Rev. 1 (1984) (examination of historical purchasing patterns is an initial step necessary to permit consideration of evidence bearing on purchasers, likely responses to future price increases); Pitofsky, *supra* note 60, at 1836 n.141 ("Examination of historical purchasing patterns is a first step in market definition. While it reflects the sensible concern about using actual rather than hypothetical data, it must be corroborated by further analysis in order to be reliable.")

¹¹⁹ See ABA *Merger Monograph*, *supra* note 44, at 99-101 (and authorities cited therein).

has happened during a period of equilibrium . . . does not serve as a predictor of what would happen if the price [of the product at issue] . . . rose above the competitive level.").

Current substitution provides the strongest evidence that additional marginal substitution is likely to occur in response to a supracompetitive price increase.¹²⁰ Absent evidence that current offset purchasing within the proposed market is not "competitively relevant," we can conclude that the parameters selected by complaint counsel to define the relevant market have not accurately identified inelastic uses of gravure.¹²¹ There appears to be no basis for concluding that current substitution is not competitively relevant.

Several of the largest print buyers in the United States use the offset process for high volume publication printing falling within the specifications of complaint counsel's proposed market.¹²² Several buyers have switched their high volume printing from gravure to

¹²⁰ Pitofsky, *supra* note 60, at 1836 ("The single most reliable line of evidence in relevant market definition is whether, in response to past price changes, buyers promptly shifted to other products, or competitors promptly adjusted sales efforts. When evidence of this type is available, it should outweigh speculation based on theoretical constructs").

¹²¹ See *Adventist Health Systems West*, Docket No. 9234, slip op. (April 1, 1994). In *Adventist*, the Commission rejected a proposed relevant market based on existing purchasing patterns similar to those here, as measured by "Elzinga-Hogarty" ("E-H") statistics. The E-H statistics for a given area are the LOFI ("little out from inside") — the percentage of production in the area that is consumed in the area — and the LIFO ("little in from outside") — the percentage of consumption in the area that is produced in the area. See Kenneth Elzinga & Thomas Hogarty, *The Problem of Geographic Market Delineation Revisited: The Case of Coal*, 23 ANTITRUST BULL. 1, 2 (1978) (proposing a relevant geographic market as an area in which the LIFO and LOFI both exceed 90%); Kenneth Elzinga & Thomas Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 ANTITRUST BULL. 43, 73-76 (1973) (earlier proposal for 75% thresholds; now called the "weak" market test). In an appropriate case, the approach could be extended to product market definition:

[T]he LOFI analogue would ask: what is the smallest group of applications required to account for nearly all shipments of a given product? The LIFO analogue would ask: Of total purchases intended to serve the group of applications identified by the LOFI test, do nearly all consist of the given product? ABA Merger Monograph at 97. In this case, the LIFO value for high volume gravure printing — i.e., the estimate of current offset use in print jobs above the proposed parameters — is 75.9%. The LOFI value — i.e., the percentage of total gravure capacity used in the proposed high volume publication market — is less than 31%. See Section V.A.1., *supra*. The LIFO statistic is more probative of substitution opportunities of consumers in a proposed price discrimination market. In *Adventist*, the Commission rejected the proposed geographic market based on a LIFO of 75% and lack of proof that existing substitution was not "competitively relevant." Slip op. at 10-13 (also noting that EH statistics are merely one factor in market definition).

¹²² Competition is also indicated by bidding between offset and gravure printers. Both complaint counsel and respondent submitted economic and econometric analysis based on pricing data from common sets of print jobs for which both gravure and offset bids were received. For example, compare CX-1177; CX-764; CX-1411; CX-1348; with RX-465-R; RX-465-Z. The very existence of this pricing data suggests competition between the processes. The relevance of this competitive bidding can be discounted somewhat because the cost of submitting a bid may be relatively insignificant. Given our conclusions based on the amount of existing substitution, however, it is not necessary to engage in further analysis of this conflicting evidence.

offset in recent years, including -- as the ALJ found -- present buyers who testified in the preliminary injunction hearing that they could only use the gravure process for their high volume printing needs and that they would not switch in response to a significant price increase. IDF ¶ 122. As discussed above, some buyers have substituted to offset in order to take advantage of versioning, including Wal-Mart and K-Mart. IDF ¶¶ 123, 125. Many other buyers, some of whose print jobs occupy complaint counsel's proposed core, recently have shifted purchases to offset (without respect to versioning). IDF ¶¶ 124, 126-132 (e.g., Montgomery Ward, Hanover House, J.C. Penney, Damark, and Compuadd).

The experience of one customer in the proposed "core" is also instructive. Victoria's Secret uses offset for seventeen (low versioned) catalogs, each with an average of 100 pages and a run length of 3.5 million to 30 million copies. IDF ¶ 129. Victoria's Secret, like many others, solicits bids from both gravure and offset printers and continues to purchase the bulk of its printing services from an offset printer. IDF ¶¶ 130, 132. But this customer is "testing" with gravure printing for some catalogs and is comparing the sales results of (consumer responses to) catalogs printed on gravure versus catalogs printed on offset. IDF ¶ 130. Although the first catalog printed on gravure did not meet expectations, Victoria's Secret continues to test, IDF ¶ 131, and may very well shift all or a significant portion of its printing requirements to gravure. The ALJ treats these facts as if they indicate some inevitable trend to gravure for all high volume print jobs. But Victoria's Secret has been purchasing primarily offset for years, despite a print program that is among the largest in the proposed "core." If price alone dictated this customer's printing requirements, it would have been expected to substitute to gravure long ago, particularly in light of the relative decrease in the gravure cost advantage over the last decade. Should this customer substitute gravure for offset in the future, it should not be considered an inevitable and permanent gravure customer any more than Wal-Mart should now be considered an inevitable and permanent offset customer.

Complaint counsel attempt to argue that current substitution is not marginal by arguing that "there is no record evidence that offset has taken a long publication gravure job on the basis of price. . . . there [are] many instances where the program of the retailer changes, and becomes a many version job, and they switch, but none of price

alone." OA Tr. 48.¹²³ In fact, there is testimony in the record of gravure-to-offset substitution on the basis of price.¹²⁴ And, in any event, substitution on the basis of price alone makes little sense in the context of competition between differentiated products. Where putative substitutes are differentiated, "relevant market definition turns on the aggregate decisions of different classes of customers who have different attitudes toward the importance of price and product characteristics in deciding whether to substitute or not."¹²⁵

A publication printing purchaser's choice of characteristics for a particular print job -- and thus the purchaser's choice of printing technology -- does not turn on any single factor. Each purchaser demands the package of printing services attributes that will reach its customers most effectively.¹²⁶ The purchaser will choose the bundle of characteristics that offers the highest profit. This calculation will be determined partly by the prices offered by the two competing printing technologies. Moreover, as the discussion of versioning illustrates, even when substitution is triggered by a change in the relative prices, one would not necessarily expect other characteristics of the job to remain constant -- purchasers would almost surely select a new set of optimum job characteristics (*i.e.*, a new program). It is perhaps plausible that there are few instances where only the print process (but not the print program) changes. The ALJ errs, however, by inferring that this substitution is not economically relevant for the purpose of evaluating the competitive effects of this transaction.¹²⁷

In defining relevant markets under Section 7, the Commission and the courts recognize competition -- and the potential elimination of competition -- in variables other than price. In considering the

¹²³ See CAB at 35 n.50.

¹²⁴ The witness from Wal-Mart testified that price was a primary consideration in shifting a substantial portion of its insert printing from gravure to offset. Baron Tr. 2307-08, 227576; RX-383. See also RX-84-B (Wal-Mart stating that it is seeking bids from both gravure and offset printers to ensure competitive pricing); Moeller Tr. 4003-04 (Dornelley witness referring to substitution of offset for gravure by Hanover Direct, a retailer, based on more favorable price); ID# ¶ 124.

¹²⁵ Pirofsky, *supra* note 60, at 1835. See Robert D. Willig, Mergers Analysis, Industrial Organization Theory, and Merger Guidelines, BROOKINGS PAPERS ON ECONOMIC ACTIVITY (MICROECONOMICS) 281, 259-305 (1991) (economic analysis of merger policy in a differentiated products setting).

¹²⁶ See, e.g., Hiltke Tr. 6028-30 (print customer's choice of paper determined by preferences of purchasers of the publication; choice of paper and number of versions suggest offset more economical than gravure for particular print job).

¹²⁷ [Redacted]'s experience demonstrates that demand for print services is multi-dimensional; even though the witness testified that the bid prices she receives from gravure printers are generally lower than bid prices for offset, [redacted] continues to purchase primarily offset printing services. ID# ¶¶ 262-64.

likely reaction of buyers to a price increase for purposes of market definition, the Merger Guidelines state that "the Agency will take into account all relevant evidence, including ... evidence that buyers have shifted or have considered shifting purchases between products in response to relative changes in price or other competitive variables." Section 1.11 (emphasis added). See *United States v. Continental Can Co.*, 378 U.S. 441, 455 (1964) (rejecting argument that different prices for metal and glass containers demonstrate the existence of separate glass and metal container markets because "price is only one factor in a user's choice between one container and another").¹²⁸

No evidence in the record appears to suggest that high volume customers using offset are inframarginal, economically irrational, or otherwise irrelevant to market definition. Complaint counsel offer no explanation for the existing use of offset.¹²⁹ Thus, there is no reason to believe that the high volume print jobs currently using offset do not represent marginal consumers in high volume publication printing, as defined by the complaint.¹³⁰

¹²⁸ Cf. Merger Guidelines Section 0.1 n.6 ("Sellers with market power also may lessen competition on dimensions other than price, such as product quality, service, or innovation.").

¹²⁹ Complaint counsel did not attempt to speculate seriously on existing substitution decisions at oral argument:

COMMISSIONER STAREK: [W]hy is it that the I.D. found that 11.4 percent of all the low versioned jobs over 32 pages for runs of 5 million or more were done in offset? Why did 11 percent of the purchasers choose offset?

MR. DOYLE [for complaint counsel]: I think on the basis of the record evidence on quality and cost, it doesn't make sense. And quite frankly, Commissioner, I don't know. I don't know.

CHAIRMAN STEIGER: Does the record indicate whether there could ... have been a capacity constraint problem or a time problem for these 11 percent, or is that not in the record?

MR. DOYLE: Well, ... given the fact that this is 1990 [dated], there are instances when particular suppliers could have been capacity constrained, and that very well could explain that. But beyond the capacity constraint situation, I can't address that.

OA Tr. 48-49.

¹³⁰ The ALJ also found that evidence presented by complaint counsel of independent gravure and offset prices is inconsistent with the proposition that the two processes compete. ID at 8384; IDF ¶ 211. Complaint counsel attempt to support the proposed relevant market with evidence purportedly showing a lack of correlation between the prices of offset and gravure. There are serious doubts about the quality of the data on which these correlations were based; but even putting these reservations aside, there are serious conceptual problems with using price correlations to delineate antitrust markets. Although some economists have proposed using price correlations to identify relevant markets, others have noted that price correlations often can be very misleading and, in any case, are static measures of competition that are not designed to predict probable demand responses to an exercise of market power. See, e.g., Jonathan Baker, *Why Price Correlations Do Not Define Antitrust Markets*, FTC Working Paper No. 149 (1987); Luke M. Froeb & Gregory J. Werden, *Correlation, Causality, and All That Jazz: The Inherent Shortcomings of Price Tests of Antitrust Market Definition*, 8 REV. INDUS. ORG. 329 (1993). Cf. *Coca-Cola Bottling Co. of the Southwest*, 118 FTC 452 (1994) [FTC Docket No. 9215 (Aug. 31, 1994), slip op. at 46-47]. In particular, even if two goods are very close substitutes (as measured by demand cross-elasticity), the correlation between their prices can be low given sufficiently high supply elasticities. Hence, even assuming that the price correlations presented by complaint counsel are valid, this is not dispositive evidence that high volume gravure printing is a relevant product market. In any event, actual evidence of existing competition between gravure and offset confirms that this and other indicia of separate markets should be given little weight.

The record as a whole shows substantial existing competition between gravure printing services and offset printing services, particularly in publication printing for print jobs with volumes between one million and ten million copies, but the margin (with the versioning parameter appropriately evaluated) appears to extend into even higher volumes. In view of these facts, it appears that gravure printers, if unified by a hypothetical cartel or merger, could not identify inelastic end users effectively and, thus, could not profitably impose a small but significant and nontransitory increase in the price of high volume publication printing.

V. RELEVANT COMPETITORS & CONCENTRATION

Based on the foregoing, we conclude that "high volume publication gravure printing" is not a relevant market for purposes of assessing the competitive effects of the acquisition. At a minimum, the "gravure" qualification to that definition is too restrictive: even if we assume the existence of a distinct market for "high volume publication printing," the relevant competitors in that market would include a significant number of firms that supply both gravure and offset printing services and a significant number of firms that supply only offset printing services.¹³¹ In the remainder of this opinion, we will assume the existence of a "market" for high volume publication printing in order to provide a more comprehensive description of (i) the competitive interaction of firms currently capable of producing high volume publication printing services and (ii) the possibilities of anticompetitive conduct by the merged firm, either unilaterally or in coordination with other firms.

The assumed relevant market must be measured in terms of its participants and concentration. Following the methodology of the Merger Guidelines, the Commission identifies relevant suppliers, assigns to each relevant supplier a market share that reflects its future competitive significance in the relevant market, and then, based on these determinations, calculates market concentration. *See id.*

¹³¹ It is far from clear that this assumption is reasonable. To conclude that high volume publication printing services constitutes a relevant market, the Commission must find that a hypothetical monopolist of printing services could systematically discriminate, on the basis of relative elasticities of demand, between high volume customers — those satisfying complaint counsel's volume, page count, and color criteria, but not the versioning criterion — and other printing customers. The evidence suggests that a hypothetical monopolist could not systematically discriminate in this way. Instead, the evidence tends to demonstrate that firms producing gravure and/or offset printing services cannot systematically identify print jobs for which customers have relatively inelastic demand. *See* Section IV.D.-E.

Sections 1.3 - 1.5. Market concentration is a function of the number of firms in the relevant market and their respective shares. *Id.* Section 1.5. The Commission uses the Herfindahl-Hirschmann Index ("HHI") as the most economically relevant measure of concentration. The HHI is calculated by summing the squares of the shares of relevant market participants, and thereby "gives proportionately greater weight to the market shares of the larger firms, in accord with their relative importance in competitive interactions." *Id.*¹³²

A. Relevant Market Participants

For purposes of estimating market shares and concentration in the assumed relevant market, firms to be identified as participants are (i) those currently engaged in high volume publication printing at the time of the acquisition and (ii) any "uncommitted entrants" -- firms not currently engaged in high volume publication printing but whose inclusion would more accurately reflect probable supply responses to a supracompetitive price increase. Merger Guidelines Section 1.3. The ALJ identified as relevant suppliers only the nine printers with gravure capacity at the time of the acquisition. *IDF* ¶¶ 377-79.¹³³ The ALJ erred in failing to identify as relevant participants at least seventeen offset-only printers that, according to complaint counsel, supplied high volume publication services in the United States at that time.¹³⁴ We find that each offset producer that currently bids on and supplies high volume publication printing is a relevant participant.

The ALJ also erred in failing to address whether any printing firms not currently supplying high volume publication printing are properly considered "uncommitted entrants." In the assumed price discrimination product market, such firms would include any offset printers who currently are not supplying high volume publication printing but who are likely to do so "within one year and without the expenditure of significant sunk costs, in response to a 'small but significant and nontransitory' price increase."¹³⁵ Merger Guidelines

¹³² See *FTC v. PPG Indus., Inc.*, 798 F.2d 1500, 1503 (D.C. Cir. 1986).

¹³³ The ALJ found that, since the acquisition, one firm has exited (Standard Gravure in 1992) and two others have merged (Quebecor acquired Arcata in 1993). *IDF* ¶ 376.

¹³⁴ See note 113, *supra* (describing CX 1167).

¹³⁵ All existing gravure printers participate in high volume publication printing and have been included as relevant suppliers. Moreover, we conclude that entry into high volume publication printing using gravure capacity would require the expenditure of substantial sunk costs and would entail a lag

Section 1.32. "Sunk costs are the acquisition costs of tangible and intangible assets that cannot be recovered through the redeployment of these assets outside the relevant market." *Id.* Since we find that the relevant market is not limited to gravure printing and have assumed that the relevant market is high volume publication printing, we find that assets used for high volume publication printing represent sunk costs only if the assets cannot be redeployed to lower volume print jobs. Even assets that can be used only in publication printing are not properly considered sunk if they can be used for printing jobs that do not meet the volume and page count criteria that define the assumed relevant market.¹³⁶ Because offset printing assets that are used in high volume publication printing can also be used for lower volume publication printing, the acquisition costs of those assets are not properly considered sunk for purposes of this analysis.¹³⁷ Complaint counsel did not present, and the ALJ did not find, any other significant sunk costs of entry into or exit from the assumed relevant market.¹³⁸

Therefore, a firm not currently bidding on high volume publication printing jobs may be considered an uncommitted entrant and counted among the relevant suppliers if (i) it owns offset printing assets capable of both high volume and lower volume publication printing or (ii) it could acquire such assets and deploy them within one year.¹³⁹ The record does not permit a reliable estimate of the likely supply response by such firms to a supracompetitive price

of more than one year. See IDP ¶¶ 365-75 (finding that *de novo* entry into gravure printing would take more than two years); CPF ¶¶ 1480-90 (entry into gravure printing production entails substantial sunk investment). Therefore, the only potential uncommitted entrants are printers who could deploy offset capacity to supply high volume publication printing.

¹³⁶ Complaint counsel argue that asset acquisition costs are sunk if the assets cannot be redeployed for use other than in gravure printing. CPF ¶¶ 1477-84. This would be correct in a market defined to include only gravure printing.

¹³⁷ This is particularly clear with respect to the more recent generation of offset presses. See Section IV.D.2., *supra*. To the extent that these presses can be used to produce efficiently in both high volume/high page and low volume/low page jobs, their purchase cannot be considered a sunk cost in either putative "market." See RRB at 56.

¹³⁸ In the assumed price discrimination market, in which both gravure and offset technologies participate, the only costs identified by complaint counsel that may properly be considered sunk are the investments in "accumulated know-how and familiarity that both printers and customers gain about each other during an on-going relationship." Complaint counsel argue that this sunk investment "means that customers are reluctant to switch suppliers." CPF ¶ 1462. Of course, such costs (assuming they are significant) affect the potential for switching to any new supplier, whether it is an offset printer or a gravure printer. And in any event, the significance of such costs is helied by the substantial switching between gravure and offset at preacquisition and current prices. See Section V.E., *supra*; IDP ¶¶ 122-32.

¹³⁹ "Uncommitted supply responses may occur . . . by the switching or extension of existing assets to production or sale in the relevant market; or by the construction or acquisition of assets that enable production or sale in the relevant market." Merger Guidelines Section 1.32.

increase by incumbent high volume publication printers. Nevertheless, given the lack of contrary evidence, we find that some supply response is likely to constrain the conduct of incumbent firms.

B. Pre-Acquisition Market Shares & Concentration

In general, each firm that is identified as a market participant is assigned a market share that reflects its future competitive significance. Normally, this share is "based on the total sales or capacity currently devoted to the relevant market together with that which likely would be devoted to the relevant market in response to a 'small but significant and nontransitory' price increase." Merger Guidelines Section 1.41. More specifically, when the potential for price discrimination defines the relevant market, each firm should be assigned a share reflecting sales likely to be made in, or capacity likely to be used to supply, the price discrimination market in response to such a price increase. Merger Guidelines Section 1.42. In the assumed relevant market, complaint counsel argue that firms are primarily distinguished on the basis of their relative advantages in serving different groups of customers.¹⁴⁰ Under these conditions, unit sales are generally the best indicator of firms' future competitive significance. *Id.*

Using complaint counsel's estimates for unit sales at the time of the acquisition, Table 1 depicts market shares and concentration in high volume publication printing defined to include print jobs of at least five million copies and at least sixteen pages per copy, and Table 2 depicts market shares and concentration in the supply of printing services for print jobs of at least ten million copies and at least sixteen pages per copy.¹⁴¹

¹⁴⁰ See CPP ¶ 1737.

¹⁴¹ Tables 1 and 2 are derived from CX-1167, which summarizes complaint counsel's estimates of relative shares of output of gravure producers (CX-1167-D) and offset printers (CX-1167-E).

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TABLE 1
U.S. UNIT SHARES IN HIGH VOLUME PRINTING (1990)
5 MILLION+ COPIES (16 PAGES/COPY)
Billions of Pages

| <u>Printer</u> | <u>Gravure</u> | <u>Offset</u> | <u>Total</u> | <u>Share</u> | <u>HHI</u> |
|-----------------------|----------------|---------------|---------------|--------------|--------------|
| Donnelley | 313.4 | 10.7 | 324.1 | 28.6 | 818 |
| Quebecor | 177.4 | 2.4 | 179.8 | 15.9 | 253 |
| <i>Meredith/Burda</i> | <i>157.6</i> | 11.2 | 168.8 | 14.9 | 222 |
| Ringier | 75.8 | 8.8 | 84.6 | 7.5 | 56 |
| Valassis | 0.0 | 69.9 | 69.9 | 6.2 | 38 |
| Arcata | 58.5 | 5.2 | 63.7 | 5.6 | 31 |
| Quad | 19.8 | 43.5 | 63.3 | 5.6 | 31 |
| World Color | 34.4 | 19.7 | 54.1 | 4.8 | 23 |
| Sullivan | 0.0 | 20.0 | 20.0 | 1.8 | 3 |
| American Signature | 0.0 | 18.6 | 18.6 | 1.6 | 3 |
| Perry | 0.0 | 17.9 | 17.9 | 1.6 | 3 |
| Standard | 10.3 | 6.5 | 16.8 | 1.5 | 2 |
| Brown | 13.8 | 1.9 | 15.7 | 1.4 | 2 |
| 13 Others | 0.0 | 26.6 | 26.6 | 3.2 | * |
| TOTAL | 861.0 | 273.0 | 1134.0 | 100.0 | 1486* |

TABLE 2
U.S. UNIT SHARES IN HIGH VOLUME PRINTING (1990)
10 MILLION+ COPIES (16 PAGES/COPY)
Billions of Pages

| <u>Printer</u> | <u>Gravure</u> | <u>Offset</u> | <u>Total</u> | <u>Share</u> | <u>HHI</u> |
|-----------------------|----------------|---------------|--------------|--------------|--------------|
| <i>Donnelley</i> | <i>229.3</i> | 2.9 | 232.2 | 29.3 | 858 |
| Quebecor | 156.3 | 0.8 | 157.1 | 19.8 | 392 |
| <i>Meredith/Burda</i> | <i>98.1</i> | 0.0 | 98.1 | 12.4 | 154 |
| Valassis | 0.0 | 69.9 | 69.9 | 8.8 | 77 |
| Ringier | 55.2 | 8.4 | 63.6 | 8.0 | 64 |
| Quad | 14.1 | 42.9 | 57.0 | 7.2 | 52 |
| Arcata | 49.6 | 5.2 | 54.8 | 6.9 | 48 |
| Perry | 0.0 | 11.5 | 11.5 | 1.4 | 2 |
| Sullivan | 0.0 | 9.2 | 9.2 | 1.2 | 1 |
| Brown | 5.5 | 0.6 | 6.1 | 0.8 | 1 |
| American Signature | 0.0 | 5.8 | 5.8 | 0.7 | 1 |
| Standard | 4.9 | 0.7 | 5.6 | 0.7 | 1 |
| Century Graphics | 0.0 | 3.4 | 3.4 | 0.4 | * |
| Graphic Arts | 0.0 | 3.3 | 3.3 | 0.4 | * |
| Alden | 0.0 | 3.2 | 3.2 | 0.4 | * |
| World Color | 0.0 | 2.1 | 2.1 | 0.2 | * |
| 6 Others | 0.0 | 9.1 | 9.1 | 1.1 | * |
| TOTAL | 613.0 | 179.0 | 792.0 | 100.0 | 1650* |

Two important caveats apply to the interpretation of Tables 1 and 2, each tending to suggest that the tables overstate concentration in the assumed relevant market. First, the tables may understate slightly the proportion of historical high volume publication printing sales made by offset printers.¹⁴² Second, neither of these tables reflects any likely supply responses of uncommitted entrants. To the extent that a significant and nontransitory increase in high volume publication printing prices by all or some subset of incumbent sellers would induce a supply response through uncommitted entry, the historical sales share of each incumbent seller would overstate its relative competitive significance. Shares of high volume printing capacity (as an alternative to unit sales) may reflect a more comprehensive measure of the future competitive significance of incumbent firms and uncommitted entrants.¹⁴³ However, we lack a reliable basis for making (i) a quantitative estimate of the full measure of offset capacity likely to be devoted to the high volume publication printing in response to a supracompetitive price increase, or (ii) a quantitative adjustment to the historical sales shares reflected in Tables 1 and 2. In sum, although Tables 1 and 2 may not significantly overstate the appropriate measure of relevant market concentration, they likely represent the upper bound of the range of reasonable concentration estimates.

C. Effect of the Acquisition on Concentration

Based on this (appropriately qualified) concentration information, the Commission next considers whether the acquisition significantly increases concentration and results in a concentrated market. Other things being equal, market concentration affects the likelihood that

¹⁴² See note 116, *supra* (even complaint counsel's expert admitted that his approach to data collection and estimation may tend to understate the use of offset printing, although not significantly; moreover, respondents' economic expert found that, even using complaint counsel's market parameters, offset accounted for a much higher percentage of high volume printing jobs than complaint counsel had estimated).

¹⁴³ In order accurately to portray the relative competitive significance of the identified relevant market participants, all capacity used or likely to be used to supply the price discrimination product market should be included for purposes of calculating market shares and concentration. Merger Guidelines Section 1.42. The evidence suggests that all gravure printing capacity should be included in the relevant market, and that some unspecified, substantial portion of offset printing capacity must also be included.

one firm, or a group of firms, could successfully exercise market power. *Id.* Section 2.0.¹⁴⁴

From Table 1, the maximum effect of the acquisition on market share and concentration in print jobs of at least five million copies and at least sixteen pages per copy can be summarized as follows:¹⁴⁵

| | |
|---------------------------------|-------|
| Donnelley-Meredith/Burda Share: | 43.5% |
| Increase in HHI: | 852 |
| Post-Acquisition Market HHI: | 2338 |

From Table 2, the maximum effect of the acquisition on market share and concentration in print jobs with a volume of at least ten million copies can be summarized as follows:¹⁴⁶

| | |
|--------------------------------|-------|
| Donnelley-Meredith/Burda Share | 41.7% |
| Increase in HHI | 727 |
| Post-Acquisition Market HHI | 2377 |

In general, the Commission presumes that an acquisition producing an increase in the HHI of more than 100 points and yielding a post-acquisition HHI exceeding 1800 is likely to create or enhance market power or facilitate its exercise. Merger Guidelines 1.51.¹⁴⁷ Based on the concentration information described above, this presumption likely applies.¹⁴⁸ This presumption may be overcome by showing that other market conditions make it unlikely that the

¹⁴⁴ See *B.F. Goodrich Co.*, 110 FTC 207, 303 (1988) ("As the number of firms in an industry declines, and industry concentration increases, *ceteris paribus*, it becomes easier for those firms to coordinate their pricing, and the likelihood of anticompetitive effects from an acquisition consequently increases as well."). Conversely, a merger between market participants is unlikely to create or enhance market power or to facilitate its exercise unless it significantly increases concentration in the market. Merger Guidelines Section 1.0.

¹⁴⁵ Compare IDP ¶ 378, Tables 1 and 2 (based solely on gravure capacity, finding that the acquisition produced an HHI increase in the range of 920-1029 to a post-acquisition HHI in the range of 3070-3093). See CX-501-A-B.

¹⁴⁶ For purposes of the competitive effects analysis that follows, note that both the merged firm's market share is lower in the higher volume segment.

¹⁴⁷ In general, the Commission regards as "highly concentrated" markets with an HHI exceeding 1800 and regards as significant an increase in the HHI exceeding 100 points. *Id.*; see, e.g., *Coca-Cola Co.*, slip op. at 44 (HHI increase of 443 to post-merger HHI of 3572); *Owens-Illinois*, slip op. at 27 (using production figures, post-acquisition HHI of 2478 with increase of 852 points); *Olin Corp.*, 113 FTC 400, 610-11 (1990), *aff'd*, 986 F.2d 1295 (9th Cir. 1993), *cert. denied*, 114 S.Ct. 1051 (1994) (based on production, post-acquisition HHI of 4122, with increase of 1186); *Hospital Corp. of America*, 106 FTC 361, 488 (1985), 807 F.2d 1381 (7th Cir. 1986), *cert. denied* 481 U.S. 1058 (1987) (post-acquisition HHI of 2416 with increase of 395 points).

¹⁴⁸ We assume here that an adjustment to compensate for any understatement of actual and likely offset supplies would not be sufficient to reduce market concentration below the highly concentrated threshold or to reduce the HHI increase below 100.

acquisition will create or enhance market power or facilitate its exercise, in light of market concentration and market shares.

VI. LIKELY COMPETITIVE EFFECTS OF THE ACQUISITION

An acquisition may give rise to anticompetitive effects in two general forms. First, it may facilitate coordinated interaction: a collective exercise of market power among relevant suppliers. Second, it may allow the merged firm to exercise market power unilaterally. See Generally Merger Guidelines Section 2. The ALJ found that the acquisition is likely to give rise to both unilateral and coordinated anticompetitive effects. ID at 90-91. In addition, the ALJ found that the merged firms already have exercised market power unilaterally by cancelling or deferring pre-acquisition plans to expand printing capacity. ID at 89-90. We reject these findings and conclude that neither coordinated nor unilateral anticompetitive effects are likely in high volume publication printing.¹⁴⁹

A. Coordinated Interaction Analysis

"Coordinated interaction" is defined broadly as "actions by a group of firms that are profitable for each of them only as a result of the accommodating reactions of the others. This behavior includes tacit or explicit collusion, and may or may not be lawful in and of itself." Merger Guidelines Section 2.1. "Successful coordinated interaction entails reaching terms of coordination that are profitable to the firms involved and an ability to detect and punish deviations that would undermine coordinated interaction." *Id.*; see *Coca-Cola Bottling Co. of the Southwest*, 118 FTC 452 (1994) [FTC Docket No. 9215 (Aug. 31, 1994), slip op. at 74]; *B.F. Goodrich Co.*, 100 FTC at 294. The ALJ made few findings related explicitly to the possibility of coordinated interaction, and concluded that the acquisition increases the likelihood of coordinated interaction because the post-acquisition market is concentrated and because information about competitive activity of suppliers is readily available. ID at 90-91.¹⁵⁰

¹⁴⁹ We reject the ALJ's finding that Donnelley's "deferral or cancellation" of capacity expansion plans constituted an anticompetitive effect because, *inter alia*, we find that the merged firm does not have unilateral market power.

¹⁵⁰ The ALJ found that "Donnelley's acquisition of one of its primary competitors . . . may lead to coordinated interaction, or collusion, among the remaining firms." IDF ¶ 406 He makes five subsidiary findings. First, the acquisition increases concentration in an already concentrated market. IDF ¶ 406. Second, Donnelley is a dominant firm and, as a result, coordination of prices is more likely

We affirm the ALJ's findings that the significant increase in concentration occasioned by the acquisition increased the probability of successful coordination. Nevertheless, based on the totality of market conditions, we conclude that coordinated interaction to discriminate against high volume publication printing customers would be inherently unstable.

The two principal impediments to coordinated interaction are specific to the theory of discriminatory effects alleged. First, relevant suppliers would have strong incentives to deviate from the coordination by diverting capacity from the elastic lower volume into the more profitable high volume publication printing jobs. Second, since the alleged inelastic printing jobs encompass (by definition) only the largest contracts of the largest customers, the incentives to make such diversions are overwhelming. As discussed below, the significance of each problem is inversely related to the breadth of the relevant discrimination market: if the market is defined narrowly in order to minimize the perceived substitutability of offset for gravure, then each problem is magnified. Other market conditions exacerbate these problems.

1. Potential Diversion of Capacity

Coordination directed at some subset of the customers served by a putative collusive group is inherently less likely to succeed than coordination focused on all customers, all other things equal. *Owens-Illinois*, slip op. at 31. Relative to a nondiscriminatory coordination, a discriminatory coordination creates greater incentives to depart from the terms of the coordination and can be undermined by smaller increases in output into the relevant market by relevant suppliers that either cheat or fail to coordinate altogether. Assuming that relevant

because cheating is easier to detect and punishment is severe. IDF ¶ 407. Third, coordination of gravure prices is possible because of the ready availability of "information about competitive activity of industry members." IDF ¶ 408. Fourth, "[t]he nature of gravure printing may also facilitate coordination; there are only two major manufacturers of gravure presses . . . ; all gravure printers use the same process to produce the finished product, and much of the printers' business is obtained through bidding, which requires an intimate knowledge of industry cost structures and other competitive variables." IDF ¶ 409. Fifth, customers are concerned that switching to new suppliers is difficult. IDF ¶¶ 411-15.

As described below, only the concentration finding appears well-founded. In particular, the record basis for the ALJ's conclusion that competitively-sensitive information is readily available and facilitates coordination is very thin. For example, much of the witness testimony cited in the relevant factual finding, IDF ¶ 408, merely describes speculation about the availability of relevant competitor information. See, e.g., Engdahl Tr. 2547, Hodgson Tr. 333. And the record does not reflect that rival printers can readily obtain competitively sensitive information that would facilitate tacit, or explicit collusion.

publication printers can accurately identify printing jobs by relative elasticities of demand, the potential for diversion of printing capacity from elastic lower volume jobs to inelastic high volume publication printing poses a serious impediment to coordination. Under complaint counsel's theory of coordinated anticompetitive effects, relevant suppliers will earn higher economic returns from high volume publication print jobs than from lower volume print jobs.¹⁵¹ As such, any relevant supplier would have an incentive to divert capacity from the lower volume printing jobs to the higher-return high volume jobs.¹⁵² As output is diverted to the high volume jobs (*i.e.*, as supply to the assumed relevant market is increased), prices will fall toward the competitive level. Despite the obvious application of this analysis to the instant case, and the precedent in *Owens-Illinois*, the ALJ did not address the possibility of diversion.

In *Owens-Illinois*, the Commission found that certain end users of glass containers had inelastic demand for glass (based on the characteristics of the end use), that the inelastic end uses comprised a minor portion of total glass container output, and that capacity used to produce glass containers for elastic end uses could also be used to produce glass containers for inelastic end uses. Under these circumstances, the Commission considered whether glass container manufacturers would collusively price discriminate against customers in the inelastic end uses, and concluded that the incentive to divert capacity would be a powerful force subverting collusion:

Any collusive scheme focused on the inelastic end-uses would be threatened not just by the normal incentives to cheat which might in some circumstances undermine even across-the-board collusion; it would face in addition the disruptive force of a pool of readily fungible productive capacity far greater in magnitude than any contemplated output reductions, yet presently devoted to the elastic end-uses and therefore not benefiting from the collusive scheme.

¹⁵¹ This is true regardless of the precise nature of the predicted anticompetitive conduct. As discussed below, whether the coordination takes the form of an agreement (tacit or explicit) on price and other relevant terms or an agreement (tacit or explicit) to allocate customers, the outcome is that suppliers achieve supracompetitive profits with respect to the targeted customers. Therefore, the incentives to obtain supracompetitive profits and the diversion analysis in this section apply to discriminatory coordination generally.

¹⁵² Printers have strong incentives to divert capacity to an inelastic end use even if they currently operate at full capacity utilization. The profit maximizing gravure printer would shift production based on changes in the relative profitability: if prices increased in high volume publication printing, every gravure printer would have an increased incentive to obtain the supracompetitive profits available from shifting sales away from elastic uses.

Id., slip op. at 31. Following this analysis, discriminatory coordination is less likely, other things equal, the smaller is the percentage of total capacity currently devoted to the inelastic end uses and the more cross-price elastic is supply between the elastic and inelastic end uses.

Even in the case most favorable to complaint counsel -- that is, assuming that only gravure printers are necessary to successful coordination and that only gravure capacity could be diverted to the inelastic high volume print jobs -- it appears that a small diversion would undermine any anticompetitive price increase. The parties' estimates of the share of total gravure capacity currently devoted to all high volume publication printing range from approximately 9% to 31%, depending on a variety of disputed assumptions about production and capacity.¹⁵³ Using the formulation from Owens-Illinois, a gravure output diversion from low volume printing into high volume printing of at most approximately 1.5% -- and perhaps as little as 0.5% -- would defeat a supracompetitive price increase of 5% (the benchmark generally used to define a significant and nontransitory price increase).¹⁵⁴ If the hypothetical coordination

¹⁵³ Respondents' expert, Dr. Hausman, estimated that "low version gravure jobs" with more than 32 pages" and more than 5 million copies accounted for 6.8% to 17.6% of total gravure capacity, depending on the measure of capacity. See RK-397; RK-687; RK-688. Using the same capacity denominators, but changing the numerator to include all jobs with more than 16 pages (to conform with complaint counsel's proposed market), low version gravure jobs above 5 million copies account for 8.7% to 22.5% of total gravure capacity. See CX-1351-F; CX-1167 (reducing the page threshold from 32 to 16 increases the numerator almost by 28%). Complaint counsel's expert, Dr. Hilke, calculated "the gravure capacity share of low version gravure jobs," with more than 16 pages. See CX-1351-I. He estimated that such pricing jobs greater than 5 million copies accounted for 30.6% of total gravure capacity.

Dr. Hilke also estimated "the gravure capacity share of low version gravure jobs compared to non-Donnelley capacity." See CX-1351-A and G, and "the gravure capacity share of low version gravure jobs compared to capacity outside the [three or four largest firms including Donnelley]." See CX-1351-C and H. Since Donnelley is part of the hypothetical coordination, excluding its capacity unreasonably understates the amount of divertible capacity in the coordinating firms. Excluding the capacity of the largest three or four firms is an even greater distortion. The principal point of the diversion analysis is not to determine whether some "fringe" has sufficient capacity to perform all of the work in the relevant market; it is to determine the amount of diverted output that would defeat coordination at the margin. Nevertheless, assuming a subset of gravure printers could coordinate, "fringe" firms with little or no sales into the assumed market would have stronger incentives to shift output into the market.

¹⁵⁴ This diversion percentage is derived as follows (from Owens-Illinois, slip op. at 32 n. 36): Elasticity of demand is defined roughly as a ratio of percentage change in output demanded divided by a given percentage change in price; demand for a product is inelastic if this ratio is less than one. In a market with inelastic demand, for example, a 5% price increase would result in less than a 5% decrease in output, and a 5% price increase could be defeated by less than a 5% increase in output. Thus, a 5% price increase targeted at allegedly inelastic customers representing 9% of total printing output would be defeated by an increase in output of less than 5% of 9%, or 0.45% of total gravure capacity. That amount of output represents approximately 0.5% of gravure production available for elastic end uses. See also Merger Guidelines Section 1.11 ("In attempting to determine objectively the effect of a 'small but significant and nontransitory' increase in price, the Agency, in most contexts, will use a price increase of five percent lasting for the foreseeable future").

among gravure printers is limited to imposing supracompetitive prices in the "core" (low-versioned jobs, 32 pages per copy, at least 10 million copies), the output diversion required to upset the coordination is even smaller. The parties' estimates of the share of total gravure capacity currently devoted to the "core" range from approximately 3% to 15%, depending primarily on disputed assumptions about capacity.¹⁵⁵ Thus, a gravure output diversion of less than 1% into the core would defeat a supracompetitive price increase of 5% on core printing jobs.¹⁵⁶

This exercise illustrates that a discriminatory coordination is increasingly less stable the more narrowly defined is the alleged market of inelastic customers. Thus, if the market definition properly takes account of actual and potential substitution to offset, the category of inelastic customers (assuming they can be identified by any objective criteria) appears considerably smaller than either complaint counsel's broad market or its alleged "core." Thus, the gravure output diversion necessary to defeat a price increase to any inelastic customers is likely to be considerably less than one percent. In any event, the percentage of total relevant printing capacity currently used in high volume publication printing is not meant to yield a precise prediction of likely results. Instead, it merely illustrates the relatively strong incentives of suppliers, to deviate from a discriminatory coordination and, thus, the inherently greater instability of such coordination, other things equal.¹⁵⁷

¹⁵⁵ See RX-397-A, B, E (using various measures of capacity, Dr. Hausman estimated that core printing accounted for 2.9% to 10.9% of total gravure capacity); RX-687 and RX-688 (using adjusted capacity and production data from CX-502 and CX-1167, Dr. Hausman estimated that core printing accounted for 3.0% to 10.8% of total gravure capacity). See CX-1351-I (Dr. Hille adjusted the capacity and production data used to produce RX-397 and estimated that core printing accounted for 14.8% of total gravure capacity).

¹⁵⁶ If core printing accounts for 3% of total gravure capacity, diversion of less than 0.2% from lower volumes would defeat the price increase. If core printing accounts for 15% of total gravure capacity, diversion of less than 0.9% from lower volumes would defeat the price increase.

¹⁵⁷ Complaint counsel also argue that cheating by colluding printers and diversion by a non-colluding fringe would not "reduce the price obtained by the primary printer." CAB at 69. They state: "where, as in printing, all production is customized and done to order," cheating and fringe firms "would have to increase their production massively to enable customers to switch work from colluding printers to cheaters or to the non-colluders." CAB at 69-70. It is not clear that the form of competition, coordination, or diversion this argument contemplates is economically well-founded. For example, under complaint counsel's customer allocation scenario, cheating (diversion) would take the form of soliciting business from customers who have been allocated to other suppliers. By definition, the cheater would offer terms of sale that are more attractive to the customer than the terms offered by the supplier earning supracompetitive profits; if it cannot offer more attractive terms, then the allocation is a natural consequence of cost conditions and does not require coordination. In addition, the necessary diversion does not require any increase in production by any firm; it merely requires a shift in production in order to obtain higher profits.

Having established in theory that a small diversion of output would defeat a discriminatory coordination, even under assumptions most favorable to complaint counsel, we now examine whether such a diversion is practical and economically feasible. Gravure printing capacity appears to be highly cross-price elastic between low volume and high volume publication printing. Each of the incumbent gravure printers is not only capable of supplying high volume publication printing; complaint counsel assert that "all the gravure printers are already doing high volume publication gravure printing." CAB at 70-71. Consequently, substantial capacity now being used to produce into the elastic lower volumes likely would be diverted in response to the prospect of earning higher, supracompetitive returns in high volume printing.¹⁵⁸ Even the gravure printer with the smallest amount of gravure capacity, Brown Printing, alone has more than sufficient divertible capacity to defeat any coordinated price discrimination.¹⁵⁹

Complaint counsel argue that the theoretical diversion calculation understates the actual amount of diversion necessary to defeat a supracompetitive price increase in high volume publication printing. CAB at 69. In particular, complaint counsel assert that diversion of small amounts of high volume publication printing is not economical for customers because printing is characterized by job-specific scale economics and "batch economics" and because customers value color consistency throughout a print job (which, presumably, is best achieved by consolidating one job in a single printer). *Id.* Even assuming, however, that it is more efficient to consolidate all of the work on one job in one printer,¹⁶⁰ this does not significantly affect the incentives or potential for diversion. Diversion (even in relatively small amounts) need not take the form of dividing up a single print job. The high volume printing programs of most publication printing

¹⁵⁸ Although the ALJ found that switching costs between printing customers are significant, IDP ¶ 411-15, this finding proves too little and too much at the same time. The finding necessary to the conclusion that relevant diversion would not undermine coordination is that it is less costly for a buyer to switch to a printer who already supplies high volume publication printing than to switch to a printer who does not. The record does not support such a finding. If the finding is simply that it is costly for a buyer to switch to any printer, it suggests that the acquisition at issue would have very little effect on competition. The finding has greater resonance in the discussion of unilateral effects. See Section VLB, *infra*.

¹⁵⁹ See RPF ¶ 221. Dr. Hausman testified that, following its acquisition of a three meter gravure press (one of the largest and most efficient in the U.S.), Brown alone has more than six times the capacity needed to defeat the price increase. Hausman Tr. 6369-71.

¹⁶⁰ The record contains numerous references to high volume print jobs that are divided among more than one gravure printer at current prices. See, e.g., Secon Tr. 1110-11, 1132; Doty Tr. 4593. With supracompetitive prices, the incentives to divide jobs would increase, although perhaps not significantly.

customers entail several jobs, and many customers routinely use more than one gravure printer within a program -- using one printer for one job and another printer for another job.¹⁶¹ Thus, a buyer would likely attempt to induce diversion to obtain lower prices by switching entire jobs among gravure printers, and could do so without affecting any job-specific scale economies or color consistency.

Substantial increases in gravure capacity in recent years have increased both the potential and the incentives of gravure printers to divert output to chase the highest available return. Since 1990, gravure printers other than the merged firm have engaged in substantial capacity expansions.¹⁶² In addition, gravure printers could use any excess capacity to undermine the coordinated interaction. The ALJ appears to find that gravure printing capacity has been in shortage, IDF ¶ 282, based largely on evidence that gravure printing capacity at certain locations for certain limited periods was fully utilized.¹⁶³ The totality of the evidence, however, suggests that excess capacity exists. Several industry participants, including witnesses called by complaint counsel, testified "that there is and has been excess gravure capacity." IDF ¶ 358. Moreover, in recent years, "many firms are cutting back or completely cancelling their long-run, high-volume printing programs." IDF ¶ 360. Some buyers have simply eliminated publications -- the most prominent of whom are Sears and Montgomery Ward. *Id.* Other buyers have increased versioning, choosing more targeted marketing, and have substituted offset for gravure accordingly. IDF ¶¶ 361-62. At the same time, several firms have expanded gravure capacity. IDF ¶¶ 280-84. Consistent with this information, gravure prices have been falling since at least 1985 and continue to fall. This evidence is consistent with two market conditions: (i) gravure capacity exceeds gravure demand or (ii) offset capacity constrains the price of gravure printing.

¹⁶¹ Sackett Tr. 570-72; McColg Tr. 739-40; Callio Tr. 828-29; Scirocco Tr. 1029-34; Steen Tr. 1079; Joy Tr. 1166; Haight Tr. 1347-48; Baron Tr. 2279-82.

¹⁶² Using complaint counsel's estimates, gravure printers other than the merged firm have increased total gravure printing capacity by more than 7% between 1990 and 1993. See CX-502-B-C (indicating expansions by Quebecor, Ringier, Quad, and Brown). The post-acquisition expansion by gravure printers other than the merged firm is equivalent to more than 23% of Meredith/Burda's pre-acquisition capacity. *Id.* In fact, post-acquisition capacity expansions by these other gravure printers may exceed 50% of Meredith/Burda's pre-acquisition capacity, measured by the number of presses. Ringier has acquired two gravure presses and is planning to acquire three additional large (3-meter) presses. Nytko Tr. 1474-75; RX-269-1. Brown has added the first 3-meter press installed in the U.S. IDF ¶ 373; Engdahl Tr. 2525; RX-269-B. Quad Graphics, which entered in the mid-1980s, has acquired three gravure presses, and has ordered two more (as well as four M-3000 (high volume) offset presses). IDF ¶ 372; Melton Tr. 2251-52; RX-269-F.

¹⁶³ See CPF ¶¶ 1340-46.

We have found that offset capacity does constrain the price of gravure printing. See Section IV, *supra*. In any event, the existence of excess capacity is not necessary to a finding that diversion is likely.¹⁶⁴

The potential for diversion is not dispositive.¹⁶⁵ Relative to nondiscriminatory coordination, however, the existence of readily available supracompetitive returns from shifting sales from one group of customers to another creates relatively stronger incentives to divert production away from customers for whom the return is lower.

2. Characteristics of Buyers and Transactions

Since the allegedly inelastic printing jobs, by definition encompass very large contracts, publication printers would have substantial incentives to divert production from the elastic print jobs to obtain supracompetitive returns. The ALJ found that the probability of coordinated interaction is limited by the size of buyers with an ability, and demonstrated willingness, to switch suppliers. IDF ¶ 410.¹⁶⁶ We affirm this finding and expand on it.

Other things equal, the fewer the number of major buyers and the larger the size of single transactions in a relevant market, the less likely it is that coordination among the sellers will succeed. The larger the payoff from each discrete instance of cheating, the more likely that firms will cheat.

The bigger a buyer is, the more easily and lucratively a member of the cartel can cheat on his fellows; for with a single transaction, he may be able to increase his

¹⁶⁴ "[P]redictions about the size of a firm's probable supply response require an evaluation of both the technical feasibility of making supply adjustments and the economic opportunity cost of doing so." ABA Merger Monograph, *supra* note 44, at 160-61 (citations omitted). For a firm considering increasing its output to inelastic end uses, the opportunity cost of using excess capacity will be lower than the opportunity cost of using capacity currently used to supply the elastic uses. Nevertheless, assuming it is practically feasible, a profit-maximizing firm will shift output to the inelastic end-uses in response to a supra-competitive price increase even if its capacity is fully utilized prior to the price increase.

¹⁶⁵ The import of the percentages can easily be overstated. After all, the Commission's simple diversion calculation would show that a nondiscriminatory collusive price increase would be undermined by a "small" percentage increase in output. For example, a 5% price increase would be generated by something less than a 5% output reduction and defeated by an equal output increase. In fact, any non-trivial output increase by one of the coordinating sellers would tend to destabilize the coordination and lead to output increases by other firms seeking to avoid loss of sales to sellers deviating from the terms of the coordination.

¹⁶⁶ *Id.* ("There have been several post-acquisition instances where print buyers have qualified additional gravure printers besides Donnelley or have switched substantial quantities of their printing to other gravure printers (RPF 268, Table 7)").

sales and hence profits dramatically. But with all the members thus vying for the large orders of big buyers, the cartel will erode.

Hospital Corp. of America v. FTC, 807 F.2d 1381, 1391 (7th Cir. 1986), *cert. denied*, 481 U.S. 1038 (1987), citing George Stigler, A Theory of Oligopoly, in *THE ORGANIZATION OF INDUSTRY* 38 (1968); *FTC v. Elders Grain, Inc.*, 868 F.2d 901, 905 (7th Cir. 1989); Owens-Illinois, slip op. at 32 ("As buyer concentration . . . increases, the benefits from cheating to capture a customer's business increase relative to the magnitude of gains from collusion").¹⁶⁷

By its terms, complaint counsel's proposed relevant market includes only the largest print jobs in publication printing. Indeed, according to the theory of anticompetitive effects, the customers with the largest print programs are the "most vulnerable to a price increase." CAB at 67. Many of these printing programs generate revenues for printers in excess of \$10 million annually, and some as high as \$100 million annually.¹⁶⁸ Each high volume printing program represents substantial incremental revenue for any one printer. Thus, large contracts are likely to attract gravure printers to cheat on the terms of any coordination. It follows that coordination in the "core" the category of the largest and ostensibly most vulnerable printing jobs -- appears to be particularly vulnerable to cheating.¹⁶⁹

Large high volume print buyers often use procurement techniques designed to ensure negotiating leverage vis-a-vis printers and to undermine coordination. For example, most large buyers solicit and obtain multiple bids and privately negotiate line items based on the best of the bids.¹⁷⁰ Such techniques increase uncertainty in

¹⁶⁷ See also Richard Posner, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* 53-54 (1976) (noting that large buyers and large transactions also make it more difficult to detect deviations from coordination, since a substantial loss of sales may be attributable to random defections rather than seller conduct that should be punished).

¹⁶⁸ Allen Tr. 1573. See generally *IDF ¶¶* 59-121.

¹⁶⁹ At the time of the acquisition, four print buyers accounted for 60 to 80 percent of purchases in the "core." Complaint counsel estimate that this amount is approximately 60%, although the derivation of this figure is not clear. CAB at A-8, citing CX-1374-B. Respondents estimate that the same four buyers account for nearly 80 percent of the "core." RAB at 45, fn. 38 (comparing RX 665 with CX 1167). Buyer concentration in the core appears to have increased since that time, as firms have "exited" the core (through substitution to offset or actual exit). *IDF ¶¶* 363-64. At the time of the acquisition, complaint counsel's broad putative market comprised approximately 100 purchasers with approximately 1,000 print jobs, and the putative "core" comprised 36 purchasers with approximately 200 jobs. *CPF ¶* 2911; *RX-665*. Dr. Hausman found that increased versioning, reduced print programs, and elimination of print programs, among other things, substantially reduced the number of firms in the "core" to as few as nine (including the buyers about whom he lacked information). *IDF ¶¶* 364-65. These are precisely the buyers who are best positioned to induce deviations from coordination.

¹⁷⁰ *IDF ¶* 43; *RPF ¶* 261.

coordinating firms and make detection and punishment of deviations from coordination more difficult. See *B.P. Goodrich Co.*, 100 FTC at 325. More importantly, large purchasers commonly offer long-term contracts to printers. IDF ¶¶ 42, 375.¹⁷¹ Common use of long-term contracts on large transactions increases the potential gains from deviating from coordinated interaction. The longer the term of a printing supply agreement, the greater are the revenues available from a single deviation, and thus the stronger the incentives to deviate, other things equal. See Merger Guidelines Section 2.12.¹⁷² The use of long-term contracting and other sophisticated procurement techniques may be expected to increase in response to any anticompetitive conduct by high volume publication printers.¹⁷³

3. Other Impediments to Successful Coordination

Compounding these fundamental weaknesses in complaint counsel's theory of coordinated effects are a variety of other significant obstacles to coordination in high volume publication printing. First, coordinating printers could not likely agree on the identity of inelastic users and, thus, could not tacitly identify the margin. RRB at 73. Although we have assumed to this point in the competitive effects analysis that this problem does not exist, it is, in fact, an imposing problem for the hypothetical coordination among publication printers. See Section IV, *supra*.

Second, printers have varying cost structures and vary in other important ways that undermine the probability of achieving a consensus on the terms of coordination. See *B.F. Goodrich Co.*, 110 FTC 207, 321 (1988). As complaint counsel concede, even if the roster of relevant participants is limited to gravure printers, such firms differ in a variety of ways.¹⁷⁴ See generally IDF ¶¶ 340-57.

¹⁷¹ CPF ¶ 2014-15. Many of these contracts provide the buyer with the right to audit price increases. CPF ¶ 2016; RPF ¶ 261-62.

¹⁷² Section 2.12 of the Merger Guidelines states that long-term contracts will induce deviations only "where the duration, volume and profitability of the business covered by such contracts are sufficiently large as to make deviation more profitable in the long term than honoring the terms of coordination, and buyers likely would switch suppliers." This contemplates incentives to cheat in the aggregate. More precisely, a particular seller is more likely to deviate to obtain a particular contract the greater are the revenues from the contract relative to the seller's total revenues.

¹⁷³ In addition, any firms that are under long-term contracts with price and other terms fixed are at least partially protected from post-acquisition anticompetitive effects for the term of the contract.

¹⁷⁴ Complaint counsel state that "gravure printers differ in terms of capacity, utilization, efficiency of operation, press capabilities, service, distribution and sales, reputation and track record, and reputation for quality." CAB at 71. Complaint counsel's industry expert testified to the differences in cost structure. Hodgson Tr. 367-69.

When the hypothetical coordination in the assumed market is expanded to account for the conduct of many offset printers who currently supply the market, the asymmetries among firms are even more pronounced. The different cost structures of gravure and offset printing would further confound any attempt to reach consensus.¹⁷⁵

Third, because high volume printing jobs are performed on a custom basis, relevant suppliers would be required to achieve consensus on a great number of variables and would have multiple opportunities to cheat by shading on hidden variables.¹⁷⁶ Complaint counsel respond by positing a simple customer allocation scheme that ostensibly obviates consensus on multiple variables. CAB at 67-68. It is not clear, however, that all firms would maximize profits by settling on the current allocation -- for example, firms that have recently expanded capacity likely would not.¹⁷⁷ In any event, assuming customer allocation is the most effective form of coordination among printers, it entails the essential incentives to deviate common to any form of coordinated discrimination against high volume publication printing customers, as discussed in Section VI.A.1.2., *supra*.

These market conditions, taken together, indicate that the merger is very unlikely to give rise to coordinated, discriminatory anticompetitive effects in high volume publication printing. At the same time, the differences among relevant suppliers, in conjunction with Donnelley's post-acquisition share, suggest the possibility of unilateral anticompetitive effects.

B. Unilateral Effects Analysis

"A merger may diminish competition even if it does not lead to increased likelihood of coordinated interaction, because merging firms may find it profitable to alter their behavior unilaterally following the acquisition by elevating price and suppressing output." Merger Guidelines Section 2.2. An individual firm has "unilateral" market power if it can raise price above the competitive level without inducing customers to reduce their purchases to a degree that makes

¹⁷⁵ See Section IV.D.1., *supra*.

¹⁷⁶ See CAB at 69; RRB at 73, 78-79.

¹⁷⁷ See note 162, *supra*, and accompanying text (regarding increases in capacity).

the price increase unprofitable.¹⁷⁸ A merger yields unilateral anticompetitive effects if it permits the merged firm to impose a significant and nontransitory price increase without inducing so much substitution to other relevant suppliers that the price increase becomes unprofitable.¹⁷⁹ A merger may facilitate a unilateral exercise of market power in two general market "settings": where firms are "distinguished primarily by differentiated products," Merger Guidelines Section 2.21, and where firms are "distinguished primarily by their capacities." *Id.* Section 2.22.¹⁸⁰ Complaint counsel allege that both settings are applicable to this case and that the acquisition likely will permit the merged firm unilaterally to increase prices. Without specifying the prerequisite market setting, the ALJ held that "Donnelley's post-acquisition market share suggests that it can unilaterally raise prices to some high volume publication gravure print customers, restrict output or engage in other anticompetitive conduct." *Id.* at 90.¹⁸¹ We reject the ALJ's conclusions and find that the acquisition is unlikely to give rise to unilateral anticompetitive effects under any theory.

¹⁷⁸ Merger Guidelines Section 0.1. ("Circumstances also may permit a single firm, not a monopolist, to exercise market power through unilateral or non-coordinated conduct — conduct the success of which does not rely on the concurrence of other firms in the market or on coordinated responses by those firms."); Robert D. Willig, Merger Analysis, Industrial Organization Theory, and Merger Guidelines, BROOKINGS PAPERS ON ECONOMIC ACTIVITY (MICROECONOMICS) 281, 293 (1991) ("A unilateral effect would arise, in contrast, when a merger between sellers of close substitutes impels them to raise prices profitably whether or not rivals in fact follow"). See also William Landes and Richard Posner, Market Power in Antitrust Cases, 94 HARV. L. REV. 937 (1981).

¹⁷⁹ See generally ROSECKE B. STARK III and STEPHEN STOCKUM, What Makes Mergers Anticompetitive? "Unilateral Effects" Analysis Under the 1992 Merger Guidelines, 63 ANTITRUST L. J. 801 (1995).

¹⁸⁰ Although Section 2.2 of the Merger Guidelines does not limit itself to a particular theoretical economic model of competitive behavior, the general distinction between market settings appears to be based on the distinction between two general models: the differentiated product Bertrand model and the homogeneous product Cournot model. See generally Willig, *supra* note 178, at 292-93. In the differentiated products Bertrand model, a merger between two firms that produce close substitutes in a market of differentiated products will generate an increase in market power. In the Cournot model, a merger will generate market power if nonmerging rivals would not find it profitable to expand output by an amount sufficient to offset the output reductions of the merged firm. See, e.g., Martin K. Perry and Robert H. Porter, Oligopoly and the Incentive for Horizontal Merger, 75 AM. ECON. REV. 219 (1985); Joseph Farrell and Carl Shapiro, Horizontal Mergers: An Equilibrium Analysis, 80 AM. ECON. REV. 107 (1990); see also Willig, *supra* note 178, at 295-98.

¹⁸¹ The ALJ based this holding primarily on the basis of Donnelley's post-acquisition market share, "admissions" that Donnelley could increase prices following the acquisition, and testimony from customers stating "concerns" about the effect of the acquisition. *Id.* at 90; ID# ¶¶ 393-405.

1. Potential Reduction in Localized Competition

Where different products within a market differ in the degree of their substitutability for one another, competition can be "localized" so that a seller competes more directly with those firms selling relatively close substitutes. Similarly, competition may be localized in markets where sellers are differentiated by their relative advantages in serving different groups of buyers, and buyers negotiate individually with sellers.¹⁸² In the context of localized competition, unilateral anticompetitive effects may result from (i) a merger between rival sellers that produce relatively close substitutes in a market for differentiated products and (ii) a merger between rival sellers that have similar advantages in serving a particular group of buyers. See Merger Guidelines Section 2.21. Such a merger may enable the merged firm unilaterally to increase prices above premerger levels because some of the sales lost by one firm due to the price increase will be diverted to the other firm. "[C]apturing such sales loss through merger may make the price increase profitable even though it would not have been profitable premerger." *Id.* Whether the merger facilitates a unilateral exercise of market power in this setting depends on the "closeness of the products of the merging firms" and the "ability of rival sellers to replace lost competition." *Id.*

Substantial unilateral price elevation in a market for differentiated products requires that there be a significant share of sales in the market accounted for by consumers who regard the products of the merging firms as their first and second choices, and that repositioning of the non-parties' product lines to replace the localized competition lost through the merger be unlikely.

Id. See *Coca-Cola Bottling Co. of the Southwest*, 118 FTC 452 [FTC Dkt. No. 9215 (Aug. 31, 1994), slip op.]; *State of New York v. Kraft General Foods, Inc.*, 1995-1 Trade Cas. (CCH) ¶ 70,911 (S.D.N.Y. 1995). In other words, to show that the acquisition facilitated a unilateral exercise of market power, complaint counsel must demonstrate that (i) customers of the two merging firms have relatively inelastic demand for a particular type or quality of printing services that is currently provided only by the merging firms, and (ii) the supply elasticity of other relevant printers (gravure and offset) is

¹⁸² See Merger Guidelines Section 2.21 n. 21.

insufficient to meet the demand of such buyers that would otherwise switch to a repositioned printer.¹⁸³

Economic analysis indicates that the perceived substitutability between two firms' products (*i.e.*, their "closeness") is the primary factor determining the market power that will be created by a merger in a differentiated product setting, and that market concentration plays a lesser role.¹⁸⁴ The closeness of the merging firms' products has a critical effect on the profitability of a post-merger price increase because the more closely substitutable are two products (relative to their substitutability with other products), the greater is the degree to which substitution away from each of the products of the merging firms due to a price increase will be "internalized" by the merged firm. Therefore, information that directly reflects customers' actual preferences is more probative than market concentration data in assessing the relative substitutability of differentiated products.¹⁸⁵ Nevertheless, market concentration can sometimes act to reinforce other evidence bearing on the closeness of the products of the merging firms:

Where market concentration data fall outside of the safeharbor regions of Section 1.5, the merging firms have a combined market share of at least thirty-five percent, and where data on product attributes and relative product appeal show that a significant share of purchasers of one merging firm's product regard the other as their second choice, then market share data may be relied upon to demonstrate that there is a significant share of sales in the market accounted for by consumers who would be adversely affected by the merger.

Merger Guidelines Section 2.211.

Although respondents argue that printing services of the different gravure printers are not differentiated,¹⁸⁶ it appears that printers may be differentiated in their relative advantages in dealing with particular customers.¹⁸⁷ Printers appear to be distinguished in a variety of

¹⁸³ See Landes and Posner, *supra* note 178.

¹⁸⁴ See Willig, *supra* note 173, at 300-011.

¹⁸⁵ *Id.* at 301 (The concentration presumption is "unlikely to be valid in many areas of application where specific information can be developed about product characteristics and about consumer preferences for them. For such applications, merger analysis that focuses exclusively on market shares is likely to go awry.")

¹⁸⁶ RAB at 51-52.

¹⁸⁷ See CPF ¶ 1737 ("Each print job is unique and firms are perceived to have differing capabilities to produce a job to a customer's satisfaction"); CPF ¶ 1738 ("Suppliers of printing services have differing equipment capabilities and differing reputations for quality, service and reliability"); RAB at 56. Printing firms, differing abilities to serve given customers or categories of customers may be based not on any particular aspect of the service, but on the totality of their printing operations — product

dimensions, and the merging firms had many common characteristics prior to the merger. IDF ¶¶ 338-357. Donnelley certainly perceived Meredith/Burda as one of its most significant competitors.¹⁸⁸ Moreover, many customers testified that they "ranked Donnelley and Meredith/Burda as the highest quality gravure printers, and viewed them as vigorous competitors prior to the acquisition." IDF ¶ 405; see IDF ¶ 411.¹⁸⁹ The concerns expressed by large customers of the merging firms may reflect their belief that switching to alternative printers would be difficult. IDF ¶ 415. Where such evidence suggests that market shares may reflect each firm's relative appeal as the first and second choices of their current customers, the merged firm's substantial share of the assumed relevant market may give rise to a presumption that the firms are particularly close substitutes for a significant share of customers. Merger Guidelines Section 2.211.

Here, the structural presumption is very weak. Many customers view the printing services of other printers to be good substitutes for the services of the merging firms and did not consider the merging firms to be the first and second choices for quality and service.¹⁹⁰ And there appear to be no general, objective criteria by which buyers with relatively inelastic demand for the services of the merged firm can be identified.¹⁹¹ The best objective evidence that the level of differentiation between printers is not significant -- and that other printers are reasonable substitutes that constrain the merging firms -- is that each of the other gravure printers, and many offset printers, are

quality, technical expertise, distribution capabilities, bindery capacity, geographic proximity, and other aspects of the relevant service.

¹⁸⁸ See generally CPF ¶¶ 1770-1815.

¹⁸⁹ There is some danger in relying on these customer complaints to draw any general conclusions about the likely effects of the acquisition or about the analytical premises for those conclusions. The complaints are consistent with a variety of effects, and many -- including those the ALJ relied upon -- directly contradict complaint counsel's prediction of unilateral price elevation. In fact, some suggested that the effect would be the opposite. See, e.g., Deutsch Tr. 961-62 (predicting that the merged firm would reduce prices following the acquisition "and keep them low enough to drive some of their competition out of business"); Bentele Tr. 1439-40 (concerned that Donnelley would set post-acquisition prices at a level that would not allow other printers "to exist in the marketplace").

¹⁹⁰ Henry Tr. 718; Gallo Tr. 829, 838; Owens Tr. 1284-85; Allen Tr. 1577-78; see RX-396. Many customers did not consider Donnelley to provide the kind of quality and service that would make it a closer substitute for Meredith/Burda than were other firms. See, e.g., CPF ¶¶ 1873, 1877-78, 1880. The concerns expressed by these customers may be interpreted as the result of a change in management rather than as a change in the nature or level of competition.

¹⁹¹ As discussed previously, the volume, version, and page parameters of the assumed relevant market do not yield accurate predictions about demand elasticities for gravure generally. Moreover, they do not provide a basis for estimating demand elasticity for the services of the merging firms -- all gravure printers supply printing services that meet the parameters. Therefore, the criteria by which inelastic customers are identified must be different from the alleged market parameters.

currently selling into the alleged inelastic uses.¹⁹² Among the "core" customers complaint counsel identifies as most susceptible to anticompetitive effects, Quebecor's share was substantially higher than Meredith/Burda's prior to the acquisition, and seven firms had a premerger market share of approximately seven percent or higher.¹⁹³ Each of the gravure printers other than the merged firm is currently supplying printing services to customers who have expressed "concerns" about the acquisitions.¹⁹⁴

Even assuming that printers are sufficiently differentiated in their abilities to perform work for groups of customers, and that customers who regarded the merging firms as their first and second choices prior to the merger comprise a significant share of sales in the market, unilateral effects are not likely. In high volume publication printing, incumbent printers "likely would replace any localized competition lost through the merger by repositioning their product lines." Merger Guidelines Section 2.212.¹⁹⁵ Each of the incumbent gravure printers is currently supplying high volume publication gravure printing,¹⁹⁶ implying that the customers for whom the merging firms were first and second choices represent a minor portion of a proposed relevant market that already represented a minor portion of total gravure capacity. The capacity available for diversion from elastic customers to alleged inelastic customers is similar to that in the coordinated effects scenario.¹⁹⁷ The other printers would have strong incentives to increase sales to the alleged inelastic customers because, by definition, they obtain no benefit from the merged firm's unilateral anticompetitive conduct. Thus, as long as their supply is relatively elastic, these firms should be expected to reposition with alacrity.

"In markets where it is costly to evaluate product quality, buyers who consider purchasing from both merging parties may limit the total number of sellers they consider." Merger Guidelines Section

¹⁹² See Section V.B. (Tables 1 and 2), *supra*.

¹⁹³ See *id.* (Table 2).

¹⁹⁴ See, e.g., RAB at 53.

¹⁹⁵ Willig, *supra* note 178, at 304 (Absent this important consideration, as Willig notes, the analysis would include an "implicit assumption that the pattern of demand relationships and products' characteristics are not subject to endogenous change. Although this may be an accurate description in many contexts, others firms may be readily and quickly able to reposition their products in response to market incentives.")

¹⁹⁶ CAB at 70-71.

¹⁹⁷ See Section VI.A.1., *supra*. In the unilateral effects calculus, the merged firm's capacity is removed from the denominator, and high volume firms that did not view the merging firms as first and second choices are removed from the numerator. See Hausman Tr. 5450-58; RX-397.

2.212.¹⁹⁸ High volume publication printing meets this description. Contracts are complex, purchase decisions are multidimensional, and buyers often limit the number of potential suppliers through a qualifying process. IDF ¶ 43. Under these circumstances, "[i]f either of the merging firms would be replaced in such buyers' consideration by an equally competitive seller not formerly considered, then the merger is not likely to lead to a unilateral price elevation." Merger Guidelines Section 2.212. Substantial evidence has been presented that many buyers would incur non-trivial costs of qualifying an additional printer to replace one of the merged firms in their bidding consideration. IDF ¶ 411-15. The actions of relevant buyers, however, belie the competitive significance of these "switching costs." Following Donnelley's acquisition of Meredith/Burda, several customers have shifted substantial quantities of business from the merged firm to other gravure printers (as well as to offset printers); and many buyers have replaced one of the merging firms by qualifying other gravure printers to bid on and supply their high volume publication printing services. IDF ¶ 410.¹⁹⁹ The merged firm's competitors have actively sought to expand their sales to high volume publication customers, with observable success.²⁰⁰ Under these circumstances, unilateral anticompetitive effects through the loss of localized competition are unlikely.

2. Unilateral Effects Under Capacity Constraints

Unilateral anticompetitive effects may also result from horizontal mergers in markets in which products are "relatively undifferentiated."²⁰¹ In these markets, where "capacity primarily distinguishes firms and shapes the nature of their competition," merging firms with a high combined market share may find it profitable unilaterally to raise price and suppress output after merger:

¹⁹⁸ In such markets, rivals of the merging firms may need to induce customers to incur whatever costs are necessary to evaluate a repositioned product.

¹⁹⁹ See Section IV.E., *supra*.

²⁰⁰ See, e.g., RX-99-A (Browne's efforts to solicit Meredith/Burda accounts immediately following the merger).

²⁰¹ Because the model of competitive effects in this Section assumes that firms are not differentiated by their ability to serve particular groups of customers, it is mutually exclusive with the model described in Section V.B.I., *supra*. Nevertheless, complaint counsel have essentially argued these models in the alternative.

The merger provides the merged firm a larger base of sales on which to enjoy the resulting price rise and also eliminates a competitor to which customers otherwise would have diverted their sales. . . . [M]erged firms [with a high market share] may find it profitable to raise price and reduce joint output below the sum of their premerger outputs because the lost markups on the foregone sales may be outweighed by the resulting price increase on the merged base of sales.

Merger Guidelines Section 2.22. Under the Merger Guidelines, the Commission recognizes that a combined share of greater than thirty-five percent raises the possibility of such effects. *Id.*²⁰²

Although the merger may have given Donnelley the requisite market share for further analysis, the record establishes that nonmerging firms would be able economically to respond to the merged firm's price increase "with increases in their own outputs sufficient in the aggregate to make the unilateral action of the merged firm unprofitable." *Id.* Assuming that the services of other gravure printers are relatively undifferentiated, anticompetitive effects are unlikely because those other gravure printers are able quickly and easily to expand their output to the category of customers allegedly subject to discrimination by the merged firm.²⁰³ As discussed previously, the merged firm's gravure and offset competitors are under no binding capacity constraint that would keep them from expanding output to high volume publication printing.²⁰⁴ Indeed, each relevant printer has substantial existing capacity that currently is not used to supply the assumed relevant market but could be used in response to unilateral anticompetitive conduct by the merged firm.²⁰⁵ To undermine a discriminatory unilateral price increase by the merged firm, each other supplier needs only to shift output from the elastic to the allegedly inelastic print jobs; it need not have excess

²⁰² The logic of this analysis does not depend on a particular market share. Only if a consumer has limited opportunities to substitute will he be willing to pay an anticompetitive price. If customers have access to suppliers that are able to supply them with a relatively undifferentiated product, then the market share of these firms is of limited significance to the effect of potential substitution on a firm's market power. The importance of market share in this type of industry is only its potential reflection of constraints on firms' productive capacities. See Willig, *supra* note 181, at 295. If a firm has a two percent share of a homogeneous good market largely because it can only produce additional output at substantially higher marginal cost, its economic significance is very different than if it can expand its production at relatively constant marginal cost. See Landes & Posner, *supra* note 178, at 945. See also *United States v. General Dynamics Corp.*, 415 U.S. 486 (1974).

²⁰³ Under the standards of the Merger Guidelines, if the firm can expand output within one year without significantly increasing costs, then its expansion can be presumed to constrain a unilateral price increase by the merged firm. *Id.*; see *id.* Section 1.3 (uncommitted entry).

²⁰⁴ See Sections V.B., VI.A.1., and VI.B.1., *supra*.

²⁰⁵ *Id.*

printing capacity overall, and it need not expand its capacity. Moreover, the merged firm's gravure competitors have actively engaged in capacity expansions under competitive conditions, adding more efficient capacity that could easily be used to supply customers against whom the merged firm attempts to impose a discriminatory price.²⁰⁶

C. Deferral of Capacity Expansion Plans

The ALJ's finding that Donnelley's post-acquisition deferral or cancellation of capacity expansion plans was anticompetitive describes a theory of competitive effects that appears to be, at best, only casually related to the theory of discriminatory anticompetitive effects in high volume publication printing. Prior to the acquisition, Donnelley and Meredith/Burda independently had given various levels of consideration to purchasing and installing gravure presses.²⁰⁷ Following the acquisition, Donnelley deferred these considerations "so that the firms could be integrated and a complete assessment of any operating efficiencies could be made." RAB at 62. For much of the capacity that was considered, the deferrals appear to have become cancellations.²⁰⁸ Respondents state that these cancellations or deferrals were the result of the onset of economic recession immediately following the acquisition and the significant decrease in the demand for gravure printing services. RAB at 62. Complaint counsel allege that the cancellation or deferral of "planned" capacity expansions is, by itself, an anticompetitive effect of the acquisition. CAB at 50-51. The ALJ found that "the cancellation or deferral of these expansion plans had a substantial adverse competitive effect because had they gone forward, significant gravure capacity would have been added to the market at or about the time of the acquisition and this would have resulted in an increase in gravure supply and a reduction in prices." IDF ¶ 381; see ID at 89.90.²⁰⁹

The ALJ's finding is based in large part on evidence that Donnelley believed that, by acquiring Meredith/Burda, it could increase its own capacity and could thereby avoid investing in

²⁰⁶ See note 162, *supra*, and accompanying text.

²⁰⁷ See IDF ¶380; RAB 61-62.

²⁰⁸ See, e.g., Mocler Tr. 4124 (Donnelley now appears to have no plans to order a press that it had planned, prior to the acquisition of Meredith/Burda, to install at its Reno facility).

²⁰⁹ See Hilke Tr. 3347-54, 3359 (Donnelley's acquisition of capacity rather than expansion "represents an alternative which involves higher prices and less competition").

internal expansion. IDF ¶¶ 381-88. Such evidence likely would exist regarding a vast number of horizontal acquisitions for which no other theory of anticompetitive effects could be articulated.²¹⁰ Capacity expansion deferrals (or cancellations) likely occur in connection with many procompetitive acquisition. It will frequently be the case that a firm that buys existing assets from another firm also considered, as a possible alternative, the creation of new assets, but opted for the former course of action as the least costly alternative. In such cases, the decision to acquire existing assets will frequently (if not usually) cause the acquirer to decide against the contemplated new capital expenditures (e.g., the firm only needs one new factory, not two). Without more, we cannot infer that the cancellation was anticompetitive. A firm's decision to forego internal expansion in favor of acquisition may be anticompetitive only if the merger creates or enhances unilateral market power.²¹¹

Respondents concede that a cognizable anticompetitive effect based on allegations of this type could be found under an analysis similar to an actual potential competition analysis: (i) Would the expansions likely have taken place absent the acquisition? If so, (ii) Would the expansions have increased competition (reduced quality-adjusted prices) in the alleged relevant market relative to what exists today?²¹² First, the Commission would need to find that the capacity expansions were reasonably probable in a timely manner. Here, however, some of the plans appear to have been inchoate.²¹³ It also appears that Donnelley completed some capacity expansions after a deferral following the acquisition.²¹⁴

²¹⁰ See *United States v. Amos, Inc.*, 402 F. Supp. 956, 959 (D. Conn. 1975) (the argument that defendant's acquisition is anticompetitive because it could have expanded internally rather than through acquisition is an argument that "can be made, at least in theory, against any horizontal merger, and Section 7 of the Clayton Act has not been interpreted to outlaw all such mergers.").

²¹¹ Cf. Robert H. Bork, *THE ANTITRUST PARADOX* 206-08 (1978) (internal expansion is preferable to merger only where the merger would create unilateral market power in the merged firm; otherwise, "we must assume that the firm makes the choice between internal expansion and merger on the basis of the relative costs of the two routes to larger size"). See RAB at 52; CAB at 50 n. 70 (conceding standard and arguing that Donnelley gained unilateral market power through the acquisition).

²¹² See, e.g., *B.A.T. Indus., Ltd.*, 104 FTC 352, 930 (1984).

²¹³ For example, the record describes Meredith/Burda as "considering" and "contemplating" an expansion at its Lynchburg facility, and taking only preliminary steps toward such an expansion. See CPF ¶¶ 1597-1627. There appears to be no evidence that Meredith/Burda's board or general management ever approved these expansion plans. See, e.g., RX-280 (Meredith/Burda's capital budgets prior to the acquisition did not reflect plans for expansion at Lynchburg).

²¹⁴ For example, Donnelley appears to have proceeded with expansion at its Warsaw facility after deferring the projected date of completion from the fall of 1991 to the fall of 1994. CPF ¶ 1565.

Second, assuming Donnelley cancelled certain planned expansions, it appears unlikely that the cancellations were the result of a unilateral exercise of market power.²¹⁵ To prove that the actions constituted a unilateral exercise of market power resulting from the acquisition, we would be required to conclude that the merging firms are uniquely able to expand capacity to the extent allegedly cancelled. If other firms are equally well-positioned to expand capacity, or could quickly and economically expand capacity in response to a supracompetitive price increase, Donnelley's actions would not result in a reduction in capacity relative to the hypothetical world that would have existed "but for" the acquisition. Clearly, other firms have expanded gravure capacity since the acquisition.²¹⁶ And the record does not indicate the extent to which these other firms would have expanded capacity if Donnelley had completed the expansions allegedly considered.²¹⁷

More importantly, the relevant capacity expansion involves not capacity to produce gravure printing but rather capacity to produce high volume publication printing. As discussed throughout this opinion, the only relevant market alleged by complaint counsel comprises a small share of total printing capacity. Thus, the relevant measure of available capacity under this theory is the capacity to produce for the high volume customers whose demand is allegedly inelastic. Most of the "cancelled" capacity would have been used in printing jobs for which there was no threat of post-acquisition anticompetitive conduct. The assumed relevant market consumes substantially less than one-third of total gravure capacity, and an even lesser share of gravure-plus-offset capacity. Hence, complaint counsel's theory requires that Donnelley would forego the returns it would have earned on the capacity's competitive uses (*e.g.*, in lower volume publications) -- returns which constitute the major share of the total returns on the assets -- in order to earn supracompetitive returns on activities which constitute a minor portion of the assets' total uses. Even if the supracompetitive returns in the relevant market were assured to the merged firm, the conditions necessary for

²¹⁵ The cancellation would also be anticompetitive if it had been coordinated with the other gravure printers. Complaint counsel do not allege such a coordinated action.

²¹⁶ See note 162 *supra*, and accompanying text.

²¹⁷ Other firms may not have proceeded with their expansion plans if Donnelley had completed all of the expansions allegedly planned. There is no evidence in the record allowing the Commission to predict the extent to which the acquisition affected other firms' plans for expansion. Therefore, we cannot assess the likely effect of the acquisition on total industry capacity or output.

this tradeoff to make economic sense seem implausible. The monopoly profits in the putative relevant market would have to be substantial.

In any event, we have concluded that the merger did not create or enhance unilateral market power in Donnelley even in the narrow price discrimination market. Given the conclusions of the relevant market analysis and the competitive effects analysis above, the record does not reveal that the cancellation of the premerger plans for expansion was anticompetitive.²¹⁸

VII. CONCLUSION

The complaint's proposed market definition does not sufficiently account for actual and potential substitution and is therefore too narrowly drawn. Even assuming the relevance of a high volume publication printing market, there is no theory of anticompetitive effects that withstands scrutiny. The complaint is dismissed for failure to prove that the acquisition is likely substantially to reduce competition in a relevant market.

CONCURRING OPINION OF COMMISSIONER MARY L. AZCUENAGA

I concur in the decision of the Commission to dismiss the complaint. To support the product market alleged in the complaint, "high volume publication gravure printing," complaint counsel attempted to show that a discriminatory price increase could be imposed on customers who purchase high volume gravure printing services. Many such customers do not regard offset printing as a substitute for gravure printing. In defining the product market using the analytical approach set forth in the 1992 Horizontal Merger Guidelines, the question is whether enough customers would switch from high volume gravure printing to offset printing to defeat a price increase. In my view, the opinion of the Commission understates the strength of complaint counsel's case in support of the product market. Nevertheless, the evidence of actual switching from high volume gravure to offset printing is sufficient that I am unable to conclude that the weight of the evidence supports the proposed product market. Not having found a relevant market in which to assess competitive

²¹⁸ A similar theory was proposed and rejected in *Owens-Illinois* [IDF ¶ 10], slip op.

effects, I would dismiss the complaint, and I do not reach the other issues discussed in the opinion of the Commission.

FINAL ORDER

The Commission has heard this matter on the appeal of respondents R.R. Donnelley & Sons Company and Pan Associates, L.P. from the Initial Decision and on briefs and oral argument in support of and in opposition to the appeal. For the reasons stated in the accompanying Opinion, the Commission has determined to grant the appeal.

Accordingly, *It is ordered*, That the complaint is dismissed.