Docket #3359 Date Filed: 08/26/2026

UNITED STATES BANKRUPTCY COURT
WESTERN DISTRICT OF NORTH CAROLINA
CHARLOTTE DIVISION

In re	:	Chapter 11
ALDRICH PUMP LLC, *et al.*,[1]	:	Case No. 20-30608 (LMJ)
Debtors.	:	(Jointly Administered)

NOTICE OF FILING OF UNSEALED DEBTORS' MOTION *IN LIMINE* TO EXCLUDE EVIDENCE OF DEFENSE COSTS

PLEASE TAKE NOTICE that Aldrich Pump LLC and Murray Boiler LLC, as debtors and debtors in possession (together, the "Debtors"), hereby file this Notice (the "Notice") of Filing of Unsealed *Debtors' Motion in Limine to Exclude Evidence of Defense Costs* [Docket No. 3183] (the "Motion"). In support of this Notice, the Debtors respectfully state as follows:

1. On June 25, 2026, the Debtors filed the Motion under seal pursuant to the *Agreed Protective Order Governing Confidential Information* [Docket No. 345]. That same day, the Debtors filed the *Debtors' Motion to File Documents Under Seal* [Docket No. 3186] (the "Motion to Seal").

2. Since the filing of the Motion, the parties have agreed that the Motion can be unsealed in its entirety pursuant to the *Stipulated Order Regarding Confidentiality Issues for Phase I Estimation Trial* [Docket No. 3265] (the "Order") with the corresponding Motion to Seal withdrawn. Accordingly, attached hereto as Exhibit A is an unsealed version of the Motion.

[1] The Debtors are the following entities (the last four digits of their respective taxpayer identification numbers follow in parentheses): Aldrich Pump LLC (2290) and Murray Boiler LLC (0679). The Debtors' address is 800-E Beaty Street, Davidson, North Carolina 28036.

Dated: August 26, 2026
Charlotte, North Carolina

Respectfully submitted,

/s/ Matthew L. Tomsic

C. Richard Rayburn, Jr. (NC 6357)
John R. Miller, Jr. (NC 28689)
Matthew L. Tomsic (NC 52431)
RAYBURN COOPER & DURHAM, P.A.
227 West Trade Street, Suite 1200
Charlotte, North Carolina 28202
Telephone: (704) 334-0891
Facsimile: (704) 377-1897
E-mail: rrayburn@rcdlaw.net
jmiller@rcdlaw.net
mtomsic@rcdlaw.net

COUNSEL TO THE DEBTORS

Exhibit A

Unsealed *Debtors' Motion in Limine to Exclude Evidence of Defense Costs*

UNITED STATES BANKRUPTCY COURT
WESTERN DISTRICT OF NORTH CAROLINA
CHARLOTTE DIVISION

In re	:	Chapter 11
ALDRICH PUMP LLC, *et al.*,[1]	:	Case No. 20-30608 (LMJ)
Debtors.	:	(Jointly Administered)

DEBTORS' MOTION *IN LIMINE*
TO EXCLUDE EVIDENCE OF DEFENSE COSTS

Aldrich Pump LLC ("Aldrich") and Murray Boiler LLC ("Murray"), as debtors and debtors in possession (together, the "Debtors"), respectfully move this Court for an order *in limine* precluding any party from introducing evidence of, or relying upon, the Debtors' historical or projected tort system defense costs in the estimation of the Debtors' liability for current and future asbestos personal injury claims. In support of this Motion, the Debtors state as follows:

PRELIMINARY STATEMENT

1. The Court has directed the parties and their experts to estimate the Debtors' liability for current and future asbestos claims using the tort system extrapolation method based on the Debtors' settlement and verdict history. The expert for the Official Committee of Asbestos Personal Injury Claimants ("ACC"), Dr. Andrew Sackett of Legal Analysis Systems ("LAS"), has included in his liability estimate a projection of approximately $850 to $917 million in defense costs he posits the Debtors would pay to their own lawyers and experts if they remained in the tort system. This figure—which alone exceeds the entire ***liability*** estimates of

[1] The Debtors are the following entities (the last four digits of their respective taxpayer identification numbers follow in parentheses): Aldrich Pump LLC (2290) and Murray Boiler LLC (0679). The Debtors' address is 800-E Beaty Street, Davidson, North Carolina 28036.

both the Debtors' and the Future Claims Representative's experts—is not an estimate of what any claimant is owed. It is Dr. Sackett's estimate of what the Debtors would have spent on their own attorneys, expert witnesses, court reporters, and travel. See Ex. A, Sackett Dep. Tr. at 167:7-15. It is, in short, Dr. Sackett putting his thumb on the scale, inflating his estimate by nearly a billion dollars with costs that no claimant has a right to receive and that no bankruptcy court has ever included in an estimation of asbestos liabilities.

2. The Court should not consider this evidence. As set forth in further detail below, defense costs should be excluded for several reasons. First, they are irrelevant to claim valuation, as they fall outside the scope of the Court's estimation order. They are also not part of the compensation received by claimants. Finally, their inclusion would be unprecedented: no bankruptcy court has ever included tort system defense costs when estimating a debtor's asbestos liability.

LEGAL STANDARD

3. A bankruptcy court is "afforded broad discretion" to exclude evidence that is not relevant. Truth Tellers, LLC v. Levine, 662 F. Supp. 3d 605, 621 (N.D. W. Va. 2023); cf. In re Denke, 524 B.R. 644, 653 (Bankr. E.D. Va. 2015) ("Neither the Code nor the Rules prescribe any method for estimating a claim, and it is therefore committed to the reasonable discretion of the court, ... which should employ whatever method is best suited to the circumstances of the case."); In re Pro. Coatings (N.A.), Inc., 210 B.R. 66, 87-88 (Bankr. E.D. Va. 1997). Evidence is relevant only if "it has any tendency to make a fact more or less probable than it would be without the evidence; and the fact is of consequence in determining the action." Fed. R. Evid. 401. Evidence that is not relevant should be excluded. Fed. R. Evid. 402; see also Fed. R. Bankr. P. 9017 (making the Federal Rules of Evidence applicable in bankruptcy proceedings).

ARGUMENT

I. Evidence of Defense Costs Falls Outside the Scope of the Court's Estimation Charge and Is Irrelevant to Trust Funding.

4. Evidence regarding defense costs should be excluded because it falls outside the scope of the Court's order setting the upcoming Phase I estimation trial, which directed the parties to estimate the Debtors' liability for "current and future asbestos claims by using the tort system extrapolation method, using the Debtors' settlement and verdict history[.]" Order Commencing Phase I of the Estimation Trial with Hearing Based on the Tort System Extrapolation Method and the Parties' Expert Reports [Dkt. 3011] ¶ 2 (Jan. 23, 2026); see also Second Amended Case Management Order for Estimation of Asbestos Claims [Dkt. 2656] ¶ 3 (Apr. 17, 2025). The object of the Court's orders is the estimation of ***claims*** held by creditors—that is, rights to payment held by asbestos personal injury claimants. See In re Federal-Mogul Global Inc., 330 B.R. 133, 155 (D. Del. 2005) ("The principal consideration must be an accommodation to the underlying purposes of the Code. In accomplishing this task, the estimating court is bound by the legal rules which may govern the ultimate value of the ***claim***.") (emphasis added) (internal citation omitted); In re Eagle-Picher Indus., Inc., 189 B.R. 681, 683 (Bankr. S.D. Ohio 1995) ("The Bankruptcy Code at § 502(c) makes it clear that we are estimating claims, and the term 'claim' is defined in the Bankruptcy Code at § 101(5)(A) for present purposes as a 'right to payment.'").

5. Defense costs are none of these things. They are costs incurred by a defendant in litigating claims: payments made to defense counsel, experts, and other litigation vendors in connection with the defense and resolution of claims. No claimant holds a "right to payment" of the legal fees a defendant pays to its own attorneys. Dr. Sackett himself acknowledged as much, testifying that he "separate[s] it into indemnity and defense costs. So by indemnity, I'm referring

to funds that would go to claimants, and by defense costs, I'm referring to the funds that would be spent, paid to other parties to—in the process of resolving those claims." Ex. A at 166:22-167:6. He confirmed that these "other parties" are "[p]rimarily attorneys" representing the defendants, as well as "expert witnesses, third-party service providers like court reporters and videographers, Amtrak, airlines, hotels, all of the things that lawyers spend money on in the process of resolving a case." Id. at 167:10-15.

6. A claimant who settles a mesothelioma claim receives the amount of the settlement, not the amount of the settlement plus some share of the Debtors' legal fees. Defense costs are a cost of doing business as a litigant, just as plaintiffs' attorney fees are a cost borne by claimants—neither is separately estimated or included in a valuation of the defendant's liability.[2]

II. No Bankruptcy Court Has Included Defense Costs in Estimating Asbestos Liability, and Accepted Methodology Does Not Support Including Them.

7. Defense costs should be excluded because including them in the estimation would be, so far as the Debtors are aware, without precedent. No bankruptcy court has ever included tort system defense costs when estimating a debtor's liability for current and future asbestos personal injury claims. And this is not for lack of opportunity. Asbestos estimation proceedings have been conducted in numerous bankruptcy cases over the past three decades, including cases in which defense costs were discussed. Yet in no reported decision has a court included defense costs as a component of the debtor's estimated liability. See, e.g., In re Garlock Sealing Techs.,

[2] Debtors believe Dr. Sackett's inclusion of defense costs in his estimate is not only wrong legally, but that his estimate of those future defense costs is grossly inflated. Dr. Sackett testified that he did not disaggregate defense costs by disease and instead applied a multiplier based on total indemnity, adding defense costs equal to 32% of Aldrich's indemnity and 44% of Murray's indemnity. See Ex. A at 184:1-13, 185:9-187:10. Thus, the premise of his approximately $850 to $917 million defense-cost projection rises or falls with his indemnity forecast: if the underlying liability estimate is overstated, the derived defense-cost estimate is overstated as well. That inflation is apparent from the face of Dr. Sackett's combined approximately $3.2 billion estimate.

LLC, 504 B.R. 71, 94 (Bankr. W.D.N.C. 2014) ("The bankruptcy estimation process requires a pure (or more academic) analysis of Garlock's 'liability' to claimants … Here, the court's mission is to determine Garlock's ***liability*** to claimants—and data that includes avoided defense costs does not prove that.") (emphasis in original); compare Owens Corning v. Credit Suisse First Boston, 322 B.R. 719, 720 (D. Del. 2005) (excluding costs in estimation decision) with Ex. B, Owens Corning and Fibreboard Projected Liabilities for Asbestos Personal Injury Claims As of October 2000, Mark A. Peterson, Legal Analysis Systems (Garlock Trial Exhibit GST-6579) (including defense cost estimates in appendix to report).

8. Dr. Sackett himself confirmed as much. When asked whether he was "aware of a single court that has ever included defense costs in an estimation of current and future asbestos liabilities," Dr. Sackett conceded: "I am not aware of an estimation in which the court estimated liability to … claimants in which they included defense costs." Ex. A at 176:6-9; 177:6-9. More, he acknowledged that in his experience, courts conducting estimations "were generally estimating the money to go in the trust which would not include defense costs." Id. at 178:3-6. Dr. Sackett also conceded that defense costs "would be less relevant" in the context of trust funding, because in that context the court "would be looking instead at trust administrative costs." Id. at 175:21-176:1.

9. The ACC should not be permitted to depart from this well-established practice. Accepted estimation methodology does not call for the inclusion of defense costs. The case law does not support it. And the practical effect of doing so would be to add nearly a billion dollars to the Debtors' estimated liability—not to compensate claimants, but to account for expenditures that no claimant is entitled to receive.

CONCLUSION

10. For the foregoing reasons, the Debtors respectfully request that the Court enter an order *in limine* precluding the parties from introducing evidence in support of the proposition that an estimate of the Debtors' tort system defense costs should be included in the estimation of the Debtors' liability for current and future asbestos personal injury claims.

Dated: June 25, 2026
Charlotte, North Carolina

Respectfully submitted,

/s/ John R. Miller, Jr.

C. Richard Rayburn, Jr. (NC 6357)
John R. Miller, Jr. (NC 28689)
RAYBURN COOPER & DURHAM, P.A.
227 West Trade Street, Suite 1200
Charlotte, North Carolina 28202
Telephone: (704) 334-0891
Facsimile: (704) 377-1897
E-mail: rrayburn@rcdlaw.net
jmiller@rcdlaw.net

-and-

Brad B. Erens (IL Bar No. 06206864)
Mark A. Cody (IL Bar No. 6236871)
Morgan R. Hirst (IL Bar No. 6275128)
JONES DAY
77 West Wacker
Chicago, Illinois 60601
Telephone: (312) 782-3939
Facsimile: (312) 782-8585
E-mail: bberens@jonesday.com
macody@jonesday.com
mhirst@jonesday.com
(Admitted *pro hac vice*)

ATTORNEYS FOR DEBTORS
AND DEBTORS IN POSSESSION

-and-

C. Michael Evert, Jr.
EVERT WEATHERSBY HOUFF
3455 Peachtree Road NE, Suite 1550
Atlanta, Georgia 30326
Telephone: (678) 651-1200
Facsimile: (678) 651-1201
E-mail: cmevert@ewhlaw.com
(Admitted *pro hac vice*)

SPECIAL ASBESTOS LITIGATION
COUNSEL FOR DEBTORS AND DEBTORS
IN POSSESSION

EXHIBIT A

In the Matter Of:

In re: Aldrich Pump LLC

20-30608 (LMJ)

ANDREW J. SACKETT

May 11, 2026

Conf. AEO

ESQUIRE
DEPOSITION SOLUTIONS

800.211.DEPO (3376)
EsquireSolutions.com

A. No.

Q. All right. New topic, Dr. Sackett. Back to your report, page 8, paragraph 36. You reference there -- this is your introduction, first sentence of your introduction actually, that [As read] "The report is an initial estimate of the aggregate anticipated tort liability for all pending and future asbestos personal injury claims against Aldrich and Murray."

Do you see that?

A. Yes.

Q. When you refer to "tort liability," what are you referring to?

A. In that particular sentence?

Q. Let's start with that particular sentence.

A. Sure. Estimating what they are going to pay in the tort system for the resolution of all their pending claims.

Q. And who's that liability to?

A. Some of it is in -- I'd

separate it into indemnity and defense costs. So by indemnity, I'm referring to funds that would go to claimants, and by defense costs, I'm referring to the funds that would be spent, paid to other parties to -- in the process of resolving those claims.

Q. And who are those other parties that the defense costs that you calculated going to be paid to?

A. Primarily attorneys, but also expert witnesses, third-party service providers like court reporters and videographers, Amtrak, airlines, hotels, all of the things that lawyers spend money on in the process of resolving a case.

Q. And the attorneys that these costs are going to be paid to are attorneys representing who?

A. Well, they're defense costs, so they're attorneys representing the defendants.

Q. And just to be clear, these

answer what the court asked for. And if they think there's something helpful to add, then they can add it. I know sometimes in the past Dr. Peterson included defense costs, and sometimes he didn't.

BY MR. HIRST:

Q. That wasn't my question, sir. My question was, are you aware of any court that has ever included defense costs in an estimation of current and future asbestos liabilities?

MR. CROWTHER: Objection to the form.

A. Again, it depends what they are estimating. Frequently they already have -- it's the estimation may be part of a confirmation hearing, in which case they already have a trust set up and ready to go, and they are trying to figure out how much money the trust needs.

At that point, defense costs would be less relevant because they would be looking

instead at trust administrative costs.

MR. HIRST: Dr. Sackett, if you just answer my question, we'll get done a lot quicker.

BY MR. HIRST:

Q. All I want to know is, are you aware of a single court that has ever included defense costs in an estimation of current and future asbestos liabilities?

MR. CROWTHER: Objection to form.

BY MR. HIRST:

Q. It's a yes or no.

MR. CROWTHER: Objection to form.

A. Again, what a court includes depends on what it's looking for.

BY MR. HIRST:

Q. That's --

A. And I'm not -- and I haven't read all of the cases.

Q. And I don't care about the cases you haven't read, Dr. Sackett.

Are you aware of any instance where a

court has included defense costs in an estimation of current and future asbestos liabilities?

MR. CROWTHER: Objection to the form.

A. I am not aware of an estimation in which the court estimated liability to claim -- claimants in which they included defense costs.

BY MR. HIRST:

Q. How about estimated liability to anybody?

MR. CROWTHER: Objection to the form.

A. I assume there are lots of bankruptcies where people owe money to the lawyers.

BY MR. HIRST:

Q. Name me a case where a bankruptcy court included an estimation of defense cost in its calculation of current and future asbestos liabilities.

MR. CROWTHER: Objection to the form.

A. As I said, the ones that I'm aware of are ones where they were generally estimating the money to go in the trust which would not include defense costs. I don't know if there are any other ones.

BY MR. HIRST:

Q. So it's correct to say you are not aware of any cases where a court has estimated defense costs in estimating current and future asbestos liabilities?

MR. CROWTHER: Objection to the form.

A. I'm not aware of any case where that was at issue, so I'm not aware of any that did it.

BY MR. HIRST:

Q. Good enough. You testified earlier that it was your understanding that this initial expert report was for purposes of mediation.

Q. Let's go to page 61 of your report, Dr. Sackett, at paragraph 213.

In that paragraph, you write, [As read] "Because spending on defense costs is proportional to liability by disease, portion of defense costs applicable to mesothelioma claims has gross up by the percentage -- the same percentages as the calculations for overall liability for claims for other diseases."

Do.

Do you see that?

A. Yes.

Q. You don't cite anything for this paragraph. What do you base your opinion that spending on defense is proportional to liability by disease?

A. So I think what I'm -- because I was -- I'm making sure that -- I think what I was doing here is identifying that the gross-up is the same for all diseases but if you're looking just at mesothelioma claims,

the defense costs -- so I don't disaggregate defense costs by disease, I can't do that because I didn't have any data on that.

What I'm trying to say is that the percentage of defense costs I -- I assign to mesos is in the same -- and to other diseases is the same as the ratio of indemnity liability for mesothelioma diseases.

Q. But if you had no data to support it, then why did you conclude that spending on defense costs is proportional to liability by disease?

MR. CROWTHER: Objection to the form.

A. The defense costs are for the debtor spending for all diseases. So if I'm gross -- if I'm applying the defense costs as a multiplier, then you can -- you can assume that the portions are the same as they were in the past.

BY MR. HIRST:

Q. Okay. So in this case, you're

doing an actual multiplier-based gross-up on defense costs; is that correct?

A. It's based on total indemnity, yes.

Q. And you simply applied -- explain that to me, it's based on total indemnity what is?

A. Sure. The debtors stated that they're spending -- let me see. They're spending on -- on defense costs for Aldrich was 32 percent of its spending on indemnity.

And so what I did is I added 32 percent of their spending on indemnity to what I calculated what their indemnity was to get a total liability.

Q. And that 32 percent was specific to mesothelioma or at all?

A. That's total indemnity so here, it's to -- it's to all -- because this table shows total indemnity, the defense costs are based on total indemnity. If you wanted to back out the approximate amount

related to meso, I suppose you could use the gross-up figures that I mentioned earlier and reduce the defense costs by that amount so that you could get some attributable to mesothelioma.

Q. You use 44 percent then for the Murray, paragraph 211?

A. Yes, that's what debtors reported and I think I cite a filing for -- for that at some point.

Q. All right. Let's go to page -- yeah, I guess we're going to change topics. We can take our break now then. Take five minutes. Let's do 2:35.

THE VIDEOGRAPHER: We are off the record at 14:27.

(A break was taken at 2:29 p.m.)

(Proceedings resumed at 2:41 p.m.)

THE VIDEOGRAPHER: We are on the record at 14:40.

BY MR. HIRST:

Q. All right. I promised you a

EXHIBIT B

Owens Corning and Fibreboard Projected Liabilities for Asbestos Personal Injury Claims As of October 2000

Mark A. Peterson

Legal Analysis Systems

October 15, 2004

PENGAD 800-631-6989
Peterson
DEPOSITION EXHIBIT
12

Trial Exhibit
GST-6579

Table of Contents

1. Overview of Report 1
2. Dr. Peterson's Qualifications 1
3. Bases of OC's and Fibreboard's Asbestos Liabilities 2
4. Data for asbestos bodily injury claims 7
5. Estimating Liabilities for Asbestos Bodily Injury Claims 7
6. Estimation of OC's Asbestos Liabilities, October 2000 8
6.1. Forecasted Indemnity for OC Claims Pending on October 5, 2000 8
6.1.1. Calculations within Disease Categories 8
6.1.2. Imputation for Unknown Disease Claims 9
6.1.3. Calculation of Indemnity for Pending Claims 12
6.2. Projections of Number And Timing of Future Claims 13
6.2.1. The Incidence of Asbestos-Related Cancers 14
6.2.2. Accuracy of Epidemiological Projections 15
6.2.3. Propensities to Sue OC 17
6.2.4. Projection of Future Nonmalignancy Claims 22
6.2.5. Forecasted Number of Future Claims 27
6.2.6. Estimating Liability for Forecasted Future Claims 27
7. OC's Total Asbestos Liability, October 5, 2000 28
8. Estimation of Fibreboard's Asbestos Liabilities, October 2000 30
8.1. Forecasted Indemnity for Fibreboard Claims Pending on October 5, 2000 30
8.1.1. Calculations within Disease Categories 31
8.1.2. Imputation for Unknown Disease Claims 31
8.1.3. Calculation of Indemnity for Pending Claims 33
8.2. Projections of Number And Timing of Future Claims 35
8.2.1. Propensities to Sue Fibreboard 35
8.2.2. Projection of Future Nonmalignancy Claims 40
8.2.3. Forecasted Number of Future Claims 44
8.2.4. Estimating Liability for Forecasted Future Claims 44
9. Fibreboard's Total Asbestos Liability, October 2000 45
10. Alternative Assumptions and Sensitivity Analyses 47
10.1. Response to Credit Suisse First Boston Criticism 47
10.1.1. Problems with the Friedman Report 48
10.1.2. Problems with the Gitlin Article 52
10.1.3. The Credit Suisse Motion Raises No Credible Forecasting Issues 54
10.2. Dr. Vasquez Forecasts for OC and Fibreboard 54
10.2.1. Dr. Vasquez Ignores OC's and Fibreboard's Increased Claims Filings 56
10.2.2. Dr. Vasquez's Incidence Model Further Reduces His Forecasts 58
10.2.3. Dr. Vasquez Inappropriately Values Future Claims by NSP Values 59
10.2.4. Dr. Vasquez Makes Arbitrary and Unsupported Reductions in His Second Valuation Model 59
10.3. Sensitivity Analyses 62
10.3.1. Definition of Sensitivity Variations 63

10.3.2. Sensitivity Analysis Results 65
11. Rule 26 Disclosures and Signature 71
APPENDIX A A-1
APPENDIX B B-1

Figures

Figure 1: Annual 1990-2000 Settlement Averages for Mesothelioma 3
Figure 2: Claim Filings, 1990-2003 4
Figure 3: Distribution of Indemnity Amounts for Pending Claims, by Disease 13
Figure 4: Nicholson Cancer Projections 15
Figure 5: Epidemiological Projections Confirmed by SEER's Mesothelioma Counts 16
Figure 6: Number of Cancer Filings Against OC 19
Figure 7: Nicholson Meso Incidence Forecasts vs OC Actual Claims 20
Figure 8: Nicholson Meso Forecasts and OC Projections 22
Figure 9: Annual Nonmalignant Claims 23
Figure 10: Comparison of Nonmalignant and Cancer Claim Counts 24
Figure 11: Actual And Projected Filings (No Increase) 26
Figure 12: Actual And Projected Filings (Increases) 27
Figure 13: Distribution of PV of Total Liability, by Disease: Future Increase Model 30
Figure 14: Distribution of Indemnity Amounts for Pending Claims, by Disease 34
Figure 15: Number of Cancer Filings Against Fibreboard 37
Figure 16: Nicholson Meso Incidence Forecasts vs Fibreboard Actual Claims 38
Figure 17: Nicholson Meso Forecasts vs Fibreboard Projections 40
Figure 18: Annual Nonmalignant Claims 41
Figure 19: Comparison of Nonmalignant and Cancer Claim Counts 42
Figure 20: Actual And Projected Filings (No Increase) 43
Figure 21: Actual And Projected Filings (Increases) 44
Figure 22: Distribution of PV of Total Liability, by Disease: Future Increase Model 47

Tables

Table 1: Trends in Disposition Amounts for OC and Three Other Defendants 3
Table 2: Numbers and Amounts of Plaintiff Verdicts, By Year 5
Table 3: Claim and Payment Distributions for Pending and Resolved Claims 9
Table 4: Unknowns Are More Frequent Among Pending than Resolved Claims 10
Table 5: OC Experience in Evaluating Alleged Disease, 1991-2000 Filings 11
Table 6: Derived OC Transition Matrix for Pending Cases 11
Table 7: Distributions of Pending and Resolved Claims After Allocation 11
Table 8: Number and Average Value of Pending Claims 12
Table 9: Forecast of Indemnity for Pending Claims 12
Table 10: Number of Filings Against OC, By Filing Year and Disease 18
Table 11: Propensities to Sue OC, by Disease: 1990-2000 21
Table 12: Number of Forecasted Claims Filed After October 5, 2000 27
Table 13: Forecast Indemnity for Future Claims after October 5, 2000 28
Table 14: Present Value (PV) of Future Claims as of October 5, 2000 28
Table 15: OC's Total Liability for Indemnity as of October 2000 29
Table 16: PV of OC's Total Liability for Indemnity : October 5, 2000 29
Table 17: October 5, 2000 Pending Claims 31
Table 18: Fibreboard Experience in Evaluating Alleged Disease, 1991-2000 Filings 32
Table 19: Derived Fibreboard Transition Matrix for Pending Cases 32
Table 20: Distributions of Pending and Resolved Claims After Allocation 33
Table 21: Number and Average Value of Pending Claims 33
Table 22: Forecast of Indemnity for Pending Claims 34
Table 23: Number of Filings Against Fibreboard, By Imputed Filing Year and Disease 36
Table 24: Propensities to Sue Fibreboard, by Disease: 1990-2000 39
Table 25: Number of Forecasted Claims Filed After October 5, 2000 44
Table 26: Forecast Indemnity for Future Claims after October 5, 2000 45
Table 27: Present Value (PV) of Future Claims as of October 5, 2000 45
Table 28: Fibreboard's Total Liability for Indemnity as of October 2000 46
Table 29: PV of Fibreboard's Total Liability for Indemnity October 5, 2000 46
Table 30: Cumulative Effect of Assumptions on Dr. Vasquez' Estimates of Filings and Liability 56
Table 31: Alternative Lengths of Base Period for Sensitivity Analyses 63

Table 32: Propensity to Sue Alternatives 64
Table 33: Payment Value Change Calculations 64
Table 34: Changes to Resolution Amounts if Ohio Legislation Expands Nation-Wide 65
Table 35: Comparison of Epidemiological Models 66
Table 36: Comparison of Base Period Effects 66
Table 37: Effect of Propensity to Sue Alternatives 67
Table 38: Effect of Assuming Increases in Values of Claims Above Inflation 68
Table 39: Forecast Indemnity for Future Claims after October 5, 2000 69
Table A1: Annual Indemnity and Defense Costs (Millions of Year 2000$) A-1
Table A2: Forecasts of OC and Fibreboard Defense Costs (Billions of Year 2000$) A-1
Table B1: Nicholson Epidemiological Projections B-2
Table B2: KPMG Epidemiological Projections B-2
Table B3: OC Forecasts as of October 5, 2000, Increasing Propensities to Sue B-3
Table B4: OC Forecasts as of October 5, 2000, No Increase in Propensities to Sue B-4
Table B5: Fibreboard Forecasts as of October 5, 2000, Increasing Propensities to Sue B-5
Table B6: Fibreboard Forecasts as of October 5, 2000, No Increase in Propensities to Sue B-6

1. Overview of Report

This report summarizes results of analyses to estimate the liabilities of Owens Corning Corporation ("OC") and Fibreboard Corporation ("Fibreboard") for asbestos personal injury claims that had been filed and were unresolved ("pending claims") and claims that would be filed in the future ("future claims") as of the date of OC's bankruptcy petition, October 5, 2000. The report's estimates of the number of future asbestos claims and the indemnity values of OC's and Fibreboard's pending and future asbestos claims are all forecast based on assumptions that extend into the future the pattern of past claim filings and indemnity payments for the two companies. These estimates are based on forecasting methods first developed over twenty years ago for insurance companies that have been used regularly since then to derive forecasts of asbestos liabilities and that have become a standard method for making such forecasts. As described in the next section of this report, I have used these methods in engagements for a wide range of parties and have testified in court many times as to forecasts based on these methods.

The report first discusses Owen Corning's and Fibreboard's corporate activities that led to their asbestos liabilities and discusses the data and methods used to estimate liabilities for both companies. The report then presents estimates of Owens Corning's liability as of October 5, 2000 for pending and future claims. Next the report presents similar estimates for Fibreboard. The report then discusses alternative assumptions about matters affecting liability forecasts for OC and Fibreboard and presents sensitivity analyses that show how the liability estimates would change with changes in key assumptions used in the estimation analyses. The report includes an appendix estimating OC's and Fibreboard's likely costs for defending and administering asbestos claims and an appendix with selected tables of inputs and results.

Based on the analyses and information described in this report, it is my opinion that the present value of liability for asbestos bodily injury claims (pending and future) as of October 5, 2000 is at least $11 billion for OC and at least $7 billion for Fibreboard.

2. Dr. Peterson's Qualifications

For over twenty years I have studied, written about and participated as an expert in asbestos litigation and other mass tort litigation. I am a lawyer, a graduate of Harvard Law School and a recognized scholar on asbestos and other mass tort litigation. I have a doctorate in social psychology from the University of California, Los Angeles. For over twenty years I conducted research on asbestos and other mass tort litigation as a founding member of the RAND Corporation's Institute for Civil Justice. I have published many scholarly, peer-reviewed articles on asbestos litigation, mass torts, and workers compensation including articles on how asbestos and other mass tort claims arise, how the values of asbestos bodily injury claims are determined by medical and legal issues, evaluations of claims facilities used for paying asbestos and other mass tort claims, and other subjects related to asbestos litigation. I have taught courses on mass torts at UCLA Law School and the RAND Graduate Institute. My resume is attached to this report as Exhibit 1.

I am an expert on claim values, claims procedures and estimations of liabilities for fifteen asbestos trusts. I am a trustee of the Fuller Austin Settlement Trust, an asbestos trust, and a director of TSI, a nonprofit corporation that administers the trust distribution procedures for seven asbestos trusts. I have worked as an expert on asbestos litigation for judges, defendants, insurance companies, actuarial firms, other businesses, law firms and claimants' committees in bankruptcy.

I have worked for four U. S. District and Bankruptcy Courts as the Court's expert on how

asbestos claims are valued and on asbestos claims procedures and trusts. As the Special Advisor to U.S. District Court Judge Jack B. Weinstein and U.S. Bankruptcy Court Judge Burton Lifland I helped the courts and parties to restructure the Manville Trust, establishing the Manville Trust Distribution Procedures that became a model used in subsequent bankruptcy cases and by later-created trusts to process, evaluate and pay the hundreds of thousands of asbestos claims that they have received so far.

I have been an expert in more than twenty other bankruptcies and class actions in different cases working for parties with divergent interests: defendant asbestos companies, insurance companies, claimants' committees, and court-appointed representatives for future claimants. In each of these cases I have provided descriptions and quantitative forecasts of pending and future asbestos bodily injury claims using the standard forecasting methods that I describe and use in this report. I have testified in court twenty times about my forecasts of asbestos liabilities. My forecasts and analyses have been accepted and used as the court's basis for findings of aggregate asbestos liabilities in the bankruptcy proceedings of Eagle-Picher, National Gypsum, Babcock and Wilcox, Armstrong World Industries, Western Asbestos, H. K. Porter, E. J. Bartel, and Raymark.

I have been recognized by courts as an expert on all areas that I address in this report and the descriptions and analyses in this report come from my scholarship and work as an expert on asbestos litigation.

I have been retained by the Owens Corning Official Committee of Asbestos Personal Injury Claimants ("ACC") as an expert for purposes of estimating asbestos liabilities and providing testimony on those matters. This report has been prepared as part of that engagement.

3. Bases of OC's and Fibreboard's Asbestos Liabilities

OC manufactured and sold a variety of asbestos containing products between 1938 and the early 1990s including cements, mastics, roofing and other coating materials, but its primary asbestos containing product and the source of most of its claims arose from Kaylo, a solid pipe and block insulation material that was about 15 percent asbestos. Kaylo was made and sold by OC in every state, the District of Columbia and foreign countries between 1953 and 1973. Kaylo was distinctively marked and has been readily recalled by exposed workers. As a result of its wide distribution and ready identification, OC has received large numbers of asbestos claims and has paid the largest settlement values of any asbestos defendant (see, e.g. Figure 1).

Plaintiffs who assert claims against OC and Fibreboard typically allege one or more of the standard set of asbestos related diseases identified in Table 1. These diseases include three groups of cancers all of which have been shown to be caused by exposures to asbestos: malignant mesothelioma, a rare cancer of the pleural tissue surrounding the lungs and that separates the abdominal and chest cavities, whose only known cause is from exposure to asbestos; lung cancer; and several gastrointestinal cancers. A substantial majority of plaintiffs claimed a nonmalignant disease: either asbestosis, a disease characterized by scarring and fibrosis of the lung tissue, or pleural disease, involving scarring of the pleura resulting in pleural plaques and pleural thickening. Table 1 shows that the settlement averages paid by OC prior to its bankruptcy substantially exceeded those of three other major asbestos defendants who also sought bankruptcy protection during 2000 or 2001.

Table 1: Trends in Disposition Amounts for OC and Three Other Defendants

	Disease															
	Meso				Lung				Othc				Nonm			
Settle Year	Armstr	B&W	T&N	OC	Armstr	B&W	T&N	OC	Armstr	B&W	T&N	OC	Armstr	B&W	T&N	OC
1990	$9,479	$8,550	$3,714	$59,682	$4,779	$4,203	$1,735	$25,332	$2,402	$3,617	$915	$13,596	$1,423	$2,985	$564	$10,294
1991	19,691	11,054	8,221	73,887	8,534	6,065	3,368	30,730	3,808	5,355	1,574	6,729	2,262	3,294	940	7,669
1992	24,251	19,323	16,183	80,757	12,603	7,146	7,344	33,716	7,617	4,858	4,296	15,736	3,873	3,300	2,004	8,507
1993	25,833	33,993	22,009	63,769	10,776	13,788	9,056	29,867	4,952	9,415	4,238	14,533	2,769	4,183	2,215	9,062
1994	24,510	42,022	21,154	64,278	9,942	13,613	6,721	26,864	5,152	10,240	3,238	15,890	2,662	4,216	1,915	8,268
1995	27,606	52,129	26,720	74,382	10,754	16,990	8,004	27,509	6,636	11,141	3,615	13,427	2,599	4,675	1,461	6,794
1996	31,857	54,708	22,290	95,467	9,842	18,809	6,218	26,300	4,993	13,208	2,592	13,449	3,095	4,907	1,721	8,077
1997	34,597	59,484	24,568	126,942	11,891	20,431	7,853	24,228	6,032	11,068	3,327	9,614	3,600	4,517	2,528	7,676
1998	44,017	62,889	26,217	132,430	11,687	25,314	6,676	32,120	5,382	15,721	2,845	14,252	1,798	4,960	1,054	8,598
1999	52,374	70,899	35,983	149,310	11,522	20,774	7,088	41,253	5,838	12,500	3,161	18,327	3,054	5,973	1,885	6,250
2000	87,557	67,829	54,142	195,055	16,033	24,359	9,969	45,567	6,705	11,534	4,370	13,542	3,575	4,508	2,317	6,282

Note: Payments are adjusted for inflation using actual historic CPI and stated in year 2000 dollars. From publicly available data. OC entries exclude verdicts.

Like other major asbestos defendants, OC saw substantial increases during the 1990s both in the amount that it had to pay to resolve asbestos claims, particularly for cancers, (Figure 1) and in the number of new asbestos claims that it faced (Figure 2).

Figure 1: Annual 1990-2000 Settlement Averages for Mesothelioma

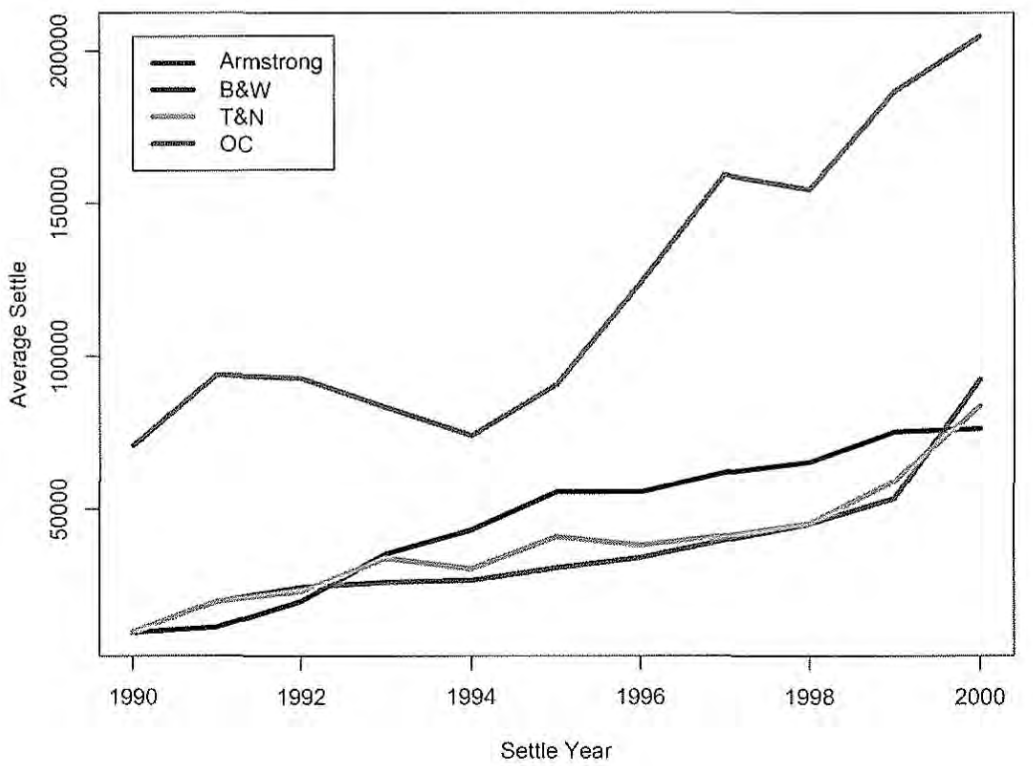
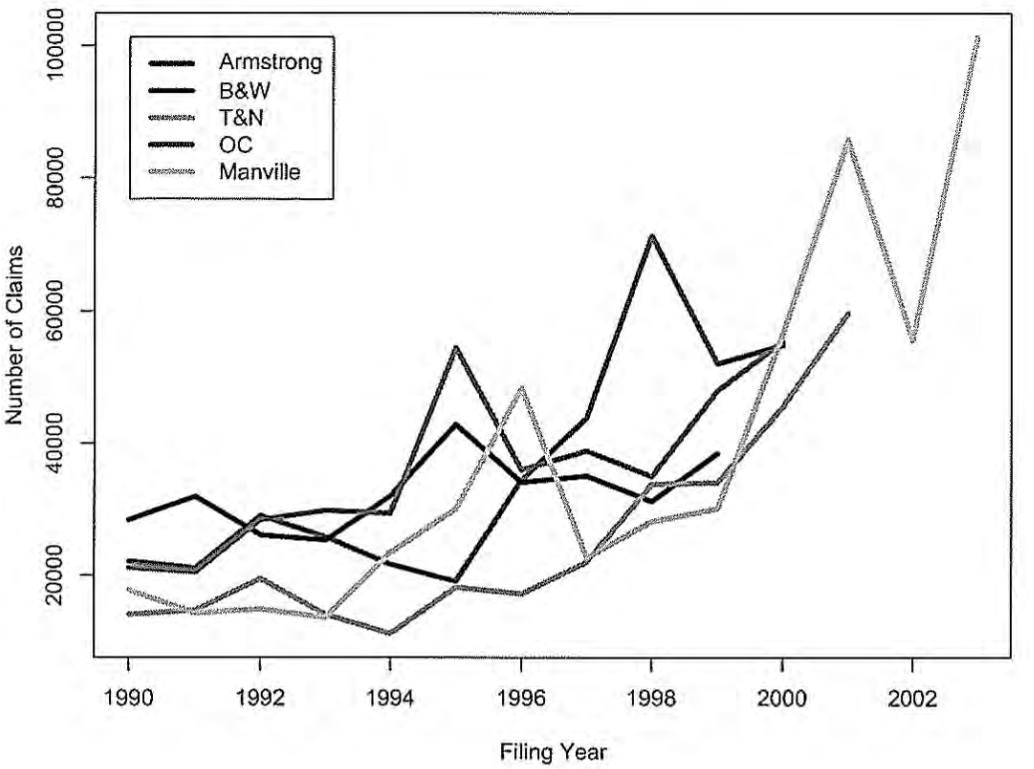


Figure 2: Claim Filings, 1990-2003



OC's approach to its asbestos liabilities changed over time. Between 1985 and 1988 OC was a member of the Asbestos Claims Facility (ACF), a consortium of asbestos defendants and their insurers formed to provide common administration and defense of asbestos claims. The ACF disbanded in 1988 and most defendants who had been members of ACF formed a new consortium, the Center for Claims Resolution (CCR). OC did not join the CCR, but rather addressed its asbestos liabilities independently. OC was known for its aggressive defense against asbestos bodily injury claims. It tried to deflect liability to other asbestos manufacturers by widely distributing an exhibit book of packaging, trademarks and trade names of asbestos-containing products manufactured by others so that plaintiffs lawyers could show the book to their clients and add other manufacturers as defendants. As part of this aggressiveness OC tried more asbestos law suits than any other defendant, a strategy that backfired after defense costs totaled a half billion dollars in just three years (1990-1992) and 1,000 plaintiffs obtained compensatory verdicts totaling $714 million between 1988 and 1999, plus another $207 million in punitive damages (Table 2).

Table 2: Numbers and Amounts of Plaintiff Verdicts, By Year

Verdict Year	Number of Verdicts		OC Verdict Amounts		
	Compens	Punit	Compens	Punit	Total
1988	12	0	$0.6	$0.0	$0.6
1989	55	5	21.2	7.2	28.3
1990	69	45	15.0	14.1	29.1
1991	111	2	136.5	5.2	141.8
1992	88	4	34.7	6.9	41.6
1993	156	37	90.6	29.2	119.8
1994	259	44	132.1	53.0	185.1
1995	134	22	94.6	29.8	124.4
1996	228	9	68.2	10.9	79.1
1997	119	19	83.4	50.2	133.7
1998	77	1	36.4	0.4	36.7
1999	4	1	1.0	0.3	1.3
Total	1,312	189	$714.3	$207.2	$921.5

Note: Dollar amounts in millions of dollars adjusted for inflation and shown as year 2000 dollars. Amounts represent OC's share of verdict. The table does not include 61 plaintiffs who received verdicts but for whom OC's share was zero dollars.

Source: "Owens Corning Reorganization OC Verdicts" Data Extracted: 09/10/2004, Owens Corning Corporation.

In the late 1990s OC turned to its National Settlement Program (NSP) to try to limit and control its asbestos litigation. Beginning in 1998 OC negotiated inventory settlements with several plaintiffs' law firms that had litigated effectively against the company, then added new agreements so that by 2000 OC had NSP agreements with law firms representing most plaintiffs who had filed past claims against OC. The NSP agreements established amounts that OC would pay for each disease, the timing of payments and criteria for payment for clients of the law firm who accepted the NSP agreement (terms that differed among law firms). Although the NSP agreements ran between OC and law firms, not individual claimants, most pending claimants accepted the NSP terms. While OC was better able to control its asbestos litigation through the NSP agreements and, importantly, halt the hemorrhage of adverse trial verdicts, this new strategy did not prevent the company's bankruptcy. By October 2000 OC had paid or faced the prospect to paying "239,337 Initial Claims that had been settled or that were subject to settlement under the NSP" plus another 42,000 pending claims that were not in the NSP (Report of Mark W. Mayer on Owens Corning's Pre-Petition Asbestos Personal Injury and Wrongful Death Claims, May 21, 2002, pp.3-4) and had little assurance that the NSP would let it control future costs of asbestos litigation.

The NSP agreements established terms for paying future plaintiffs represented by the law firm but could not bind future claimants. Under the NSP agreements, plaintiffs' law firms agreed to recommend that clients who retained the firm in the future accept terms of the NSP agreement, but the NSP agreement committed neither the law firm nor its future clients to the agreement. OC agreed that future claimants could be processed outside of the NSP agreements and OC's only recourse, should too many future claimants reject the NSP, was to abrogate NSP agreements. Moreover the NSP agreements left uncertain the amounts to be paid to future clients, which were fixed only for claims filed through 2003 and could then be renegotiated. The most critical contractual term--how much OC would pay and how much claimants would receive--remained

unspecified.

Fibreboard Corporation, which was acquired as a subsidiary by OC in 1997, had its own liability for asbestos containing cements, pipe coverings and other insulation products that it manufactured and sold between 1930 and 1973. Fibreboard's asbestos litigation history since 1990 is more complicated than OC's. In the early 1990s Fibreboard reached two related class action settlements. In one, Fibreboard entered into a settlement (the Ahearn settlement) with its insurance carriers and a class of future claimants which provided a $1.5 billion trust to pay future asbestos claims that would be channelled to the trust by an injunction. The other class action settlement (the Rudd settlement) was a "back-up" agreement that created a $2 billion fund for the payment of asbestos claims, but which would only become effective in the event that the Ahearn settlement was rejected by the courts. The Rudd settlement, unlike Ahearn, did not preclude future claimants from suing Fibreboard and did not cap Fibreboard's liability (I testified about future forecasts of Fibreboard's asbestos liabilities during the 1993 Ahearn fairness hearing as an expert for Fibreboard's settling insurance companies). From the time of the filing of the Ahearn class action and settlement in 1993 until the U.S. Supreme Court rejected that settlement in June 1999, Fibreboard was protected from asbestos claims by an injunction entered in the Ahearn litigation. Following the Supreme Court decision, Fibreboard received over 200,000 asbestos claims in two years, including many claims that had accrued during the six year stay in claim filings. As a result of the Ahearn class action, Fibreboard resolved few claims during the mid-1990s. Only exigent claims, mostly for mesothelioma, or claims that had reached the trial docket against other defendants were resolved under the provisions of the Ahearn class action agreement.

After it lost the protection of the Ahearn injunction, Fibreboard also began participating in the NSP. The terms and effects of this program were similar to those for OC, although claims values were typically 60 percent of the OC values. Again, the NSP was not a solution to Fibreboard's asbestos liability. First, the NSP established a large immediate liquidated obligation for asbestos claims. At the time of OC's bankruptcy petition Fibreboard had paid 61,679 NSP claims, but faced another 146,170 NSP claims including 41,717 that had already been approved for $222 million of payments. (Report of Mark W. Mayer on Fibreboard Corporation's Pre-Petition Asbestos Personal Injury and Wrongful Death Claims, May 21, 2002, p. 5). Second, like OC and for the same reasons, Fibreboard had little assurance that the NSP would let it control future claims.

OC and Fibreboard, like the other companies whose claims experiences are shown on Figures 1 and 2, filed for bankruptcy in 2000. OC's and Fibreboard's bankruptcy petitions protected them from the continuing increases both in claims filings and in average payments that were the continuing experience of other asbestos defendants who, unlike OC and Fibreboard, continued in asbestos litigation after October 5, 2000. Had OC and Fibreboard not filed for bankruptcy protection their filings and payment levels would likely have continued to increase, a matter that must be reflected in forecasts of post-petition and future claim filings and liabilities against the two companies.

4. Data for asbestos bodily injury claims

We received OC's primary data files, its "Oracle" database, on August 2, 2002. This is the primary database for our analyses. The Oracle data were derived from OC's earlier "iCMS" database, which was maintained until July 2001 and then shut down. The Oracle database reflected substantial work by OC to clean up and derive consistent variables. It included information on alleged disease, current claim status, claim value, and amounts paid. OC identified duplicate claims that were filed by the same claimant attaching a claimant identification variable that allowed us to consolidate information across duplicated claims.

Our analysis in this report is based on individual claimants, some of whom filed more than one claim. Using information provided in the Oracle database we consolidated the information from duplicate claims into a single record for each claimant who made duplicate filings. In rare instances we observed claimants with "come-back" claims, who first filed a claim for asbestosis or pleural disease and later filed a second claim for an asbestos-related cancer. In such cases we retained data for just the cancer claims, conservative step that eliminated fewer than 1,000 claims.

Before receiving the Oracle database we had received the iCMS in January 2002. iCMS included some information not on the Oracle database (including evaluated disease, filing state, filing year) which we linked to the Oracle data to use the additional information where necessary.

5. Estimating Liabilities for Asbestos Bodily Injury Claims

Forecasts of asbestos liabilities are needed and have become commonplace in many different circumstances. Asbestos defendants estimate their present and likely future liabilities both for their own corporate planning and also as part of financial reporting. Insurance companies forecast asbestos liabilities to create reserves for specific insureds. Insurance rating organizations forecast liabilities of insurance companies. Financial analysts forecast liabilities of specific asbestos defendants and insurance companies. Businesses forecast liabilities of other companies that face asbestos liabilities in order to determine whether or not to engage in business activities with the companies that face such liabilities. Asbestos trusts are required to forecast their liabilities in order to determine how much money must be reserved for future claimants and what amount can be paid to claimants with presently pending claims, forecasts that are required by the U. S. Bankruptcy Code. Parties to bankruptcy proceedings forecast liabilities in order to draft reorganization plans and disclosure statements. Bankruptcy courts estimate the asbestos liabilities of debtors. Other courts estimate the asbestos liabilities of particular defendants in the course of class action, insurance coverage or other litigation.

These forecasts have been done in many ways, with highly varying quality and credibility. Credible forecasts of an asbestos defendant's liability must look together at several sources of information. First, forecasts must draw upon data about the defendant's past and current experience with asbestos claims--counts of claim filings, distributions of asbestos diseases, resolutions of claims both with and without payment, trends for all of these elements of liability. The forecast should consider developments and the state of asbestos litigation at the time of the forecast and reasonable expectations about future developments. The forecast must reflect the epidemiology of asbestos related diseases, trends in the incidence of asbestos related disease both past trends and reasonable forecasts of future trends as well as expected trends in filings of claims for those diseases and trends in the amounts paid to indemnify those claimants.

6. Estimation of OC's Asbestos Liabilities, October 2000

For each company its asbestos liability is a sum of its liability for pending claims and its liability for future claims (we report estimates of OC's and Fibreboard's costs for administering and defense in Appendix A). I describe the steps of the liability analysis for OC in the following sections leading to the forecast of OC's total liability for present and future asbestos bodily injury claims. Then in Sections 8 and 9 I apply those same methods to forecast asbestos liabilities for Fibreboard.

6.1. Forecasted Indemnity for OC Claims Pending on October 5, 2000

On October 5, 2000 when it filed for bankruptcy protection OC had 180,842 pending asbestos bodily injury claims. The following formula is the basis for estimating the total indemnity that OC would pay to resolve these pending claims:

Number of Claims x Average Resolution Cost = Forecast Indemnity

Here, counts of claims are drawn from OC's database and average resolution costs are based on OC's historic experience in resolving claims. The average claim resolution cost used in valuing the liabilities in this report are the mean per claim costs to resolve all claims including both claims that are resolved without payment as well as those that receive an indemnity payment. This is the mathematical equivalent of multiplying the average settlement for claims that receive payment times the percent of claims that have received payment (Table 3). As a hypothetical example, if the average settlement for claims that received a payment is $10,000 and 85 percent of all resolved claims receive a payment, then the average claim resolution cost is $8,500.

6.1.1. Calculations within Disease Categories

For better precision, the formula above should be carried out separately for each asbestos disease. For OC and for every asbestos defendant settlement values and resolution costs vary among different asbestos related diseases (Table 3). OC paid far more on average to resolve mesothelioma claims than any other disease. Resolution costs differed among all other diseases. Because the mix of diseases among pending claims may differ from the mix of diseases among claims previously resolved by OC, we cannot assume that OC's overall historic average resolution cost among all claims will be appropriate for estimating the average value of pending claims. For example, if mesothelioma claims represent a greater percentage of pending than resolved claims, then use of OC's overall historic average would underestimate the company's liability for pending claims. By applying the formula above separately for claims within each disease category, we control for differences in disease distributions between pending and resolved claims.

Table 3: Claim and Payment Distributions for Pending and Resolved Claims

	Disease					
Description	Meso	Lung	Othc	Nonm	Unsp	Total
Number Pending	3,817	7,947	3,148	142,607	23,323	180,842
Number Resolved	11,061	18,581	6,259	238,133	59,388	333,422
Avg Settlement	$208,358	$43,920	$19,133	$7,573	$8,114	NA
Percent Paid	89.011	93.086	91.314	93.492	18.075	NA
Avg Resolution	$185,462	$40,883	$17,471	$7,080	$1,467	NA

Note: Average resolution amounts are expressed in year 2000 dollars and calculated across all claims resolved (both with and without payment) that were filed after 1990 and resolved between 1996 and 2000. Average settlements are calculated only among claimants who received some payment. Percent paid represents the percent of resolved claims that results in some payment. Average resolution is the product of average settlement times percent paid.

6.1.2. Imputation for Unknown Disease Claims

To use information about disease from the OC database we must impute specific diseases for some recently filed claims and pending claims that have no specific disease noted in OC's claims database. In many states plaintiffs' complaints need allege only general descriptions of disease, such as "asbestos related disease" or "asbestos lung disease" without alleging a specific type of disease. As a result defendants, including OC and Fibreboard, frequently do not know the specific disease for many claims for some time until the disease is identified through discovery or discussion with the claimant's lawyer.

Specific diseases are unknown for about 30 percent of claims filed in the last year but the percent of claims with unknown disease decreases as OC learned specific diseases among claims filed in earlier years. Across claims filed in all years OC's database categorizes disease as unspecified for only 16 percent of claims, a very low rate of unspecified claims among asbestos defendants that is indicative of the high quality of OC's data.

As is common among asbestos defendants, OC never identified specific diseases among some claims that it resolved. As Table 3 shows, OC resolved 59,388 claims for which the OC database categorized claimants' disease either as "unknown" or "none." Again like other defendants, OC made payments in only a small fraction of those claims that were resolved where it did not know a specific disease category and paid modest amounts to resolve those claims, a $1,467 average in 1996-2000 across claims closed with payment and without.

To be consistent with OC's historic experience, we assume that the company will resolve some of its pending claims without determining a specific disease for those claims. We assume further that pending claims resolved without specified diseases will receive no payment (a conservative assumption since history shows a $1,467 average cost to resolve such claims). Based on OC's experience for claims resolved since 1998 when the percent of claims resolved without a specified disease fell to 4.5 percent, we assume that OC will determine specified diseases for 95.5 percent of pending claims and 4.5 percent will have have an unspecified category. Although we expect that only 4.5 percent of pending claims will have unspecified diseases by the time that those claims are resolved by OC, the OC database currently lacks specific diseases for 12.9 percent of pending claims (Table 4).

Table 4: Unknowns Are More Frequent Among Pending than Resolved Claims

Claim Status	Percent of Claims					Total
	Meso	Lung	Othc	Nonm	Unsp	
Number Pending	2.1	4.4	1.7	78.9	12.9	180,842
Resolved 1998-2000	2.8	4.7	1.4	86.5	4.5	100,295

While OC's experience shows that most of the unspecified diseases in its database would change to specific diseases in time, its data cannot reflect knowledge that would be gained in the future. Therefore we must estimate how many claims in the OC database with unspecified disease would come to have a specific disease and what would be the diseases among these now unspecified disease claims. In making this estimate, we do not assume that every claim will have a specified disease. We do not change the unspecified disease categories among resolved claims. Again we assume that 4.5 percent of pending claims will always have unspecified disease categories.

We used OC's own claims experience both to impute diseases when unspecified and also to adjust the diseases claimed by plaintiffs. Through litigation OC made its own assessment of what disease, if any, was presented by each claim both among claims when the disease was initially unspecified and among claims where the plaintiff alleged a disease. Because it is likely that the amount paid by OC for each claim is more closely related to its assessment of disease than to the plaintiff's allegation, we base our forecasts of future claims on OC's disease assessments rather than plaintiffs' allegations.

We used two data fields in OC's claims database to derive a transition matrix that we use both to impute diseases when unspecified and also to estimate OC's determinations of disease from data about plaintiffs' allegations. For 193,008 claims, the database shows both the plaintiff's alleged disease and OC's determined disease. From these 193,008 claims we derived a cross tabulation of the categories of diseases as alleged by plaintiffs to the categories as determined by OC.

We use this cross tabulation as a matrix to transform both unspecified and alleged disease categories in the OC database to the OC determined disease category that we use for the forecasts. Table 5 shows this cross tabulation that summarizes OC's experience for claims filed after 1990. Most claims stay in the alleged category, but the net effect of OC's disease determinations is to maintain or increase the number of claims in each specific disease category. Claims for which the OC database provides no specific alleged disease (i.e. "none" and "unknown") split about equally between those that OC determined as nonmalignant claims and that remain unspecified, although OC determined that 3 percent were cancer claims.

Table 5: OC Experience in Evaluating Alleged Disease, 1991-2000 Filings

Alleged Disease	Evaluated Disease					Tot
	Meso	Lung	Othc	Nonm	Unsp	
Meso	5,606	92	7	106	118	5,929
Lung	27	8,630	55	245	140	9,097
Othc	7	56	2,117	233	33	2,446
Nonm	77	620	355	128,814	2,010	131,876
None	0	1	1	57	175	234
Unkn	201	797	333	21,650	20,445	43,426
Total	5,918	10,196	2,868	151,105	22,921	193,008

While this was the experience in the 1990's as a whole, we looked to the recent experience of OC regarding the fraction of closed claims allocated to unspecified disease to calibrate this transition matrix. During 1998 or later, OC was allocating just 4.5 percent of unknowns to unspecified disease. We reduced the contribution proportionately to the unspecified disease category for every claimed disease, producing the following transition matrix (Table 6).

Table 6: Derived OC Transition Matrix for Pending Cases

Alleged Disease	Evaluated Disease					Tot
	Meso	Lung	Othc	Nonm	Unsp	
Meso	95.6	1.6	0.1	1.8	0.9	100.0
Lung	0.3	95.7	0.6	2.7	0.7	100.0
Othc	0.3	2.3	87.2	9.6	0.6	100.0
Nonm	0.1	0.5	0.3	98.5	0.7	100.0
None	0.0	1.1	1.1	63.9	33.8	100.0
Unkn	0.7	2.7	1.1	74.1	21.3	100.0

Note: Based on cross tabulation of Table 5 calibrated to produce 4.5 percent unspecified among pending claimants equaling OC's experience for claims resolved during 1998-2000.

We then transitioned all open claims using this matrix. The resulting distributions of open and closed claims are compared in Table 7.

Table 7: Distributions of Pending and Resolved Claims After Allocation

Claim Status	Percent of Claims					Total
	Meso	Lung	Othc	Nonm	Unsp	
Number Pending	2.2	4.9	1.9	86.5	4.5	180,842
Resolved 1998-2000	2.8	4.7	1.4	86.5	4.5	100,295

6.1.3. Calculation of Indemnity for Pending Claims

Table 8, below, shows the number of pending claims in each disease category after imputation of diseases along with OC's average resolution cost for each disease during the period 1996 to October 2000 among claims filed after 1990. The resolution cost is the average payment by OC calculated across all claims resolved by OC during the five year period, averaging across both claims that received payment and those that were resolved without payment. The Unspecified ("Unsp") disease category includes claims that were categorized either as "unknown" or "none" in the OC claims database. These claims were conservatively assumed to have no value even though those OC paid $1,467 on average to resolve such claims.

Table 8: Number and Average Value of Pending Claims

	Disease					
Description	Meso	Lung	Othc	Nonm	Unsp	Total
Realloc Number Pending	3,911	8,909	3,409	156,433	8,181	180,842
Avg Resolution	$185,462	$40,883	$17,471	$7,080	$0	NA

Notes: After imputation of diseases. Average resolution amounts are expressed in year 2000 dollars and calculated across all claims resolved by OC (both with and without payment) that were filed after 1990 and resolved between 1996 and 2000.

We use these numbers and values to complete the formula for deriving the values of pending claims as shown in Table 9. As that table shows, OC's liability for the indemnity of claims pending on October 5, 2000 was $2.26 billion in year 2000 dollars--the conservative value of asbestos bodily injury claims that were pending against OC at the time of its bankruptcy petition.

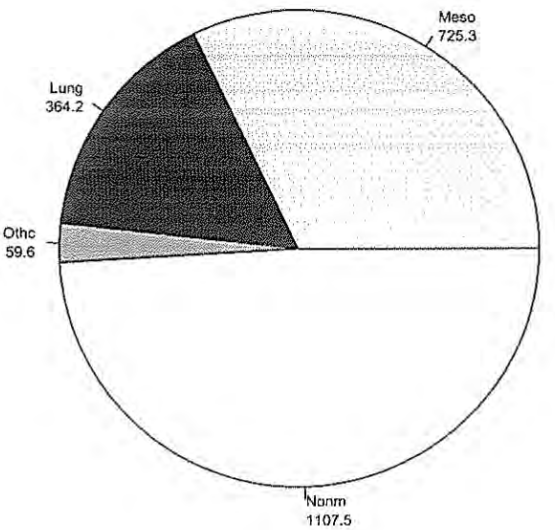
Table 9: Forecast of Indemnity for Pending Claims

Disease	Number of Reallocated Claims	Average Resolution	Indemnity ($millions)
Meso	3,911	$185,462	$725.3
Lung	8,909	40,883	364.2
Othc	3,409	17,471	59.6
Nonm	156,433	7,080	1,107.5
None	8,181	0	0.0
Total	180,842	NA	$2,256.6

Note: Average resolution amounts and indemnity are expressed in year 2000 dollars. Average resolution amounts are calculated across all resolved claims (both with and without payment).

Figure 3 compares graphically the total value of claims for each type of asbestos disease.

Figure 3: Distribution of Indemnity Amounts for Pending Claims, by Disease



Our calculations of OC's expected indemnity for pending claims include all claims that are categorized as open in the OC claims database. These include both unliquidated claims and claims that have been liquidated but that have not been paid in full. OC has disaggregated these two groups of claims calculating that there are 64,411 unpaid liquidated claims that have a total liquidated value between $679 million and $695 million of which $102 million has already been paid and that there are 117,350 unliquidated pending claims which OC estimates have a total value between $844 million and $1.15 billion (Report of Mark W. Mayer on Owens Corning's Pre-Petition Asbestos Personal Injury and Wrongful Death Claims, May 21, 2002, p.3). We have not attempted to disaggregate these two groups of pending claims which together represent OC's expected indemnity payments for claims that have been filed but not yet fully resolved. Our estimates of the total values of all pending claims, liquidated or unliquidated is 30 percent above the upper end of OC's range for the sum of liabilities for unpaid-liquidated and unliquidated claims ($2.257 billion / $1.736 = 1.30), but OC's analysis is based on questionable assumptions. OC inappropriately uses Dr. Friedman's study of an unrepresentative sample of OC claims (Section 10.1, below) to estimate severity among nonmalignant claims and OC uses values of asbestos claims that are substantially lower than its actual resolutions of similar claims just before it filed for bankruptcy protection (OC also used unreliable valuation assumptions made by its consultant Dr. Vasquez. See Section 10.2.4).

6.2. Projections of Number And Timing of Future Claims

The number, timing and types of future claims will depend upon the number of people in each future year who develop diseases that are asbestos-related (the incidence of diseases) and the fraction of those people who will pursue claims (the propensity to sue).

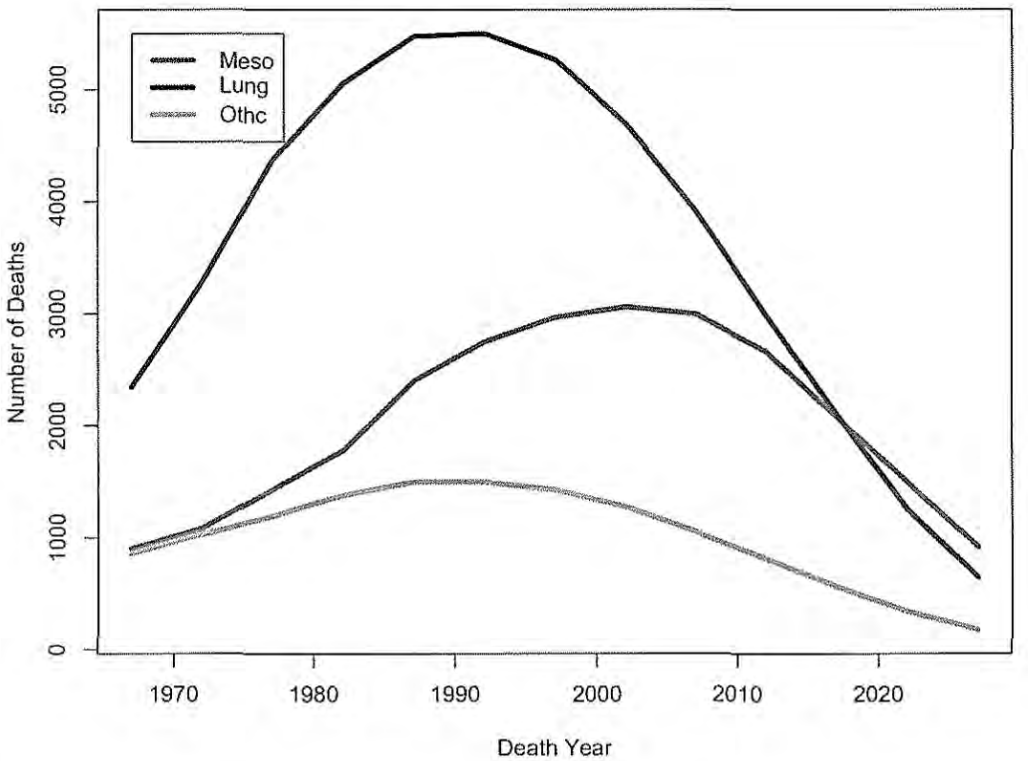
This Section describes how forecasts of the incidence of asbestos-related cancer deaths and historic data on the number of cancer claims filed against OC can be used together to calculate the historic propensity to sue OC for cancer and then to forecast future cancer claims.

6.2.1. The Incidence of Asbestos-Related Cancers

Medical research by epidemiologists provides projections of the incidence of asbestos-related cancers. Projections differ among epidemiologists, but most agree on the relative changes in cancer deaths over time--increasing until late in the twentieth century followed by a slow decrease in the following years. Because of this general agreement on changes over time, projections of future claims will be generally similar even when based on differing projections of disease incidence.

Figure 4 shows epidemiological projections of the annual number of deaths between 1967 and 2027 from each of three asbestos-related cancers--mesothelioma, lung cancer and other (primarily gastro- intestinal) cancers--among workers exposed before 1980 in major asbestos-using industries. The figure represents the results of work by Nicholson, Perkel and Selikoff (1982) which is generally recognized as the most comprehensive and reliable forecast of asbestos-related cancer deaths (Appendix B, Table B1). The peak year of forecasted deaths differs among the three types of cancers because the latency periods, i.e. the time from first asbestos exposure to the occurrences of cancer, differ among the three diseases. Because the latency period is longest for mesothelioma, the risk of that disease increases for a longer period and the incidence of mesothelioma peaks later than for other asbestos-related cancers. The patterns of asbestos diseases among exposed workers and, therefore, the patterns of legal claims, have been changing over time as the relative incidences of each type of cancer have changed. In past years lung cancer has been the most frequent cancer among occupationally exposed workers and the most frequently claimed cancer. However, in the future workers will face equivalent risks for mesothelioma and lung cancer.

Figure 4: Nicholson Cancer Projections



6.2.2. Accuracy of Epidemiological Projections

Epidemiologists' projections, like those of Nicholson, et. al., have their own uncertainties, but can be tested by comparing projections for past years with data on mesothelioma deaths in those same years collected by the National Cancer Institute's SEER (Surveillance, Epidemiology and End Results) cancer registry. The SEER program collects comprehensive data on the incidence, treatment and end results (including deaths) for all types of cancers at fourteen different sites in the United States. SEER generates cancer rates from these sites that can then be used to estimate the incidence of each type of cancer for the United States as a whole. The SEER program is highly sophisticated and recognized as the state of the art for such programs throughout the world and its results are widely used in medical research and planning.

Because SEER collects data continually, its results include estimates of the annual national incidence of each type of cancer over many years. The annual SEER estimates of the national incidence of mesothelioma provide a means to test epidemiological forecasts of mesothelioma deaths. Because asbestos is the only recognized cause of mesothelioma, epidemiologists' forecasts of asbestos-related mesothelioma deaths should tend to correspond to the annual SEER national incidence estimates for all mesotheliomas. While the SEER national incidence measures are themselves estimates based on the sample of SEER sites with their own uncertainties, over many years an accurate epidemiological forecast of mesothelioma deaths should track trends in the SEER estimates of actual mesothelioma deaths.

In fact, as Figure 5 shows, the Nicholson et. al. forecasts correspond remarkably well to SEER estimates of actual mesothelioma deaths. Nicholson and his colleagues published their forecasts in 1982. Since then and through the most recent years of data, the Nicholson forecasts closely

track the SEER estimates of annual mesothelioma deaths.

Because lung cancer and the other asbestos-related cancers have causes other than asbestos exposure, the SEER estimates of those cancer deaths will exceed and cannot be used to test the epidemiological forecasts for those other cancers. But because Nicholson's forecasts for all types of cancers are based on the same methods and the same estimates of the number of exposed workers and the extent of their asbestos exposures, the strong confirmation of Nicholson's forecast for mesothelioma provides confidence for Nicholson's epidemiological forecasts for each type of cancer.

Figure 5: Epidemiological Projections Confirmed by SEER's Mesothelioma Counts

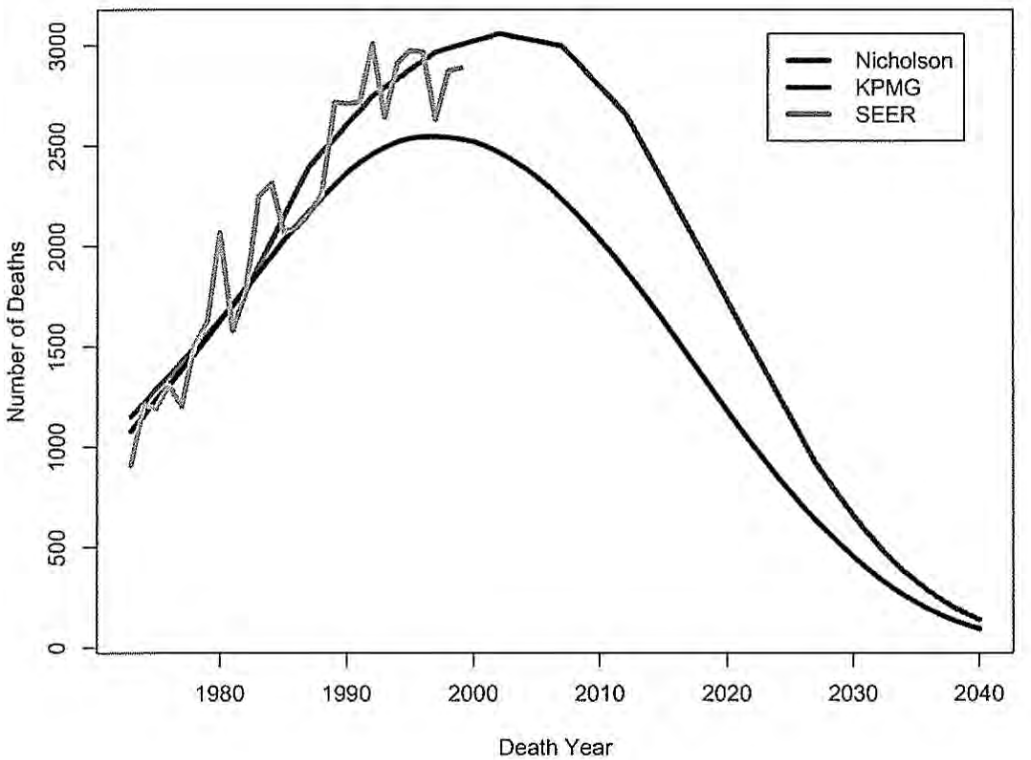


Figure 5 also shows a second forecast of asbestos-related mesothelioma deaths made by analysts at KPMG-Peat Marwick in 1992 as part of their work as experts in the bankruptcy proceedings of National Gypsum. Dr. Thomas Vasquez and his colleagues at KPMG-Peat Marwick attempted to update the 1982 forecasts made by Nicholson, et. al., using more recent U.S. Labor Department statistics on the populations of workers in asbestos exposed industries, more recently formulated medical models of the risk of mesothelioma and lung cancer from asbestos exposure and several alternative assumptions (KPMG's annual forecasts are reproduced in Appendix B, Table B2). As Figure 5 illustrates, the KPMG forecasts are very similar to those made by Nicholson et. al. a decade previously and, as a result, claims forecasts that are based on the two alternative epidemiological forecasts are only slightly different. Figure 5 also shows that between the two, the original Nicholson more closely fits the SEER estimates of actual mesothelioma deaths and, therefore, provides a superior basis for forecasting future asbestos claims.

6.2.3. Propensities to Sue OC

Data and forecasts of the incidence of asbestos-related diseases describe the potential for liability against OC. As long as asbestos-related cancers occur, it is likely that some claims will be filed. Data on OC's past claims show how much of this potential for asbestos cancer claims was directed against the company: Among all the potential asbestos-related cancer claims in the country what fraction resulted in OC claims? OC's claims data also show trends in claiming against the company, whether the level of claiming had increased, decreased or stabilized in recent years.

Table 10 shows the annual number of asbestos bodily injury claims filed against OC for each type of asbestos related disease after the imputation of diseases, as described above. OC's claims increased steadily from the early 1990s reaching a peak in 2000 when the company received 41,604 claims during the nine months preceding its bankruptcy, an annualized rate of over 55,000 claims. The large number of 1995 filings does not contradict the conclusion that OC's claims have been increasing steadily prior to its bankruptcy petition. Increased filings in that year resulted from two large, national class actions of future asbestos claims against members of the Center for Claims Resolution (CCR) and against Fibreboard Corporation that were negotiated and filed during 1992-1993. Almost all defendants (other than CCR members and Fibreboard who had injunctive protection from filings) saw greater filings in 1995 than during the preceding or following years for reasons related to the CCR's Georgine class action and Fibreboard's Ahearn class action. Filings in 1995 were increased by the notoriety of each class action, the extensive national notice campaigns for each and acceleration of claims filings when lawyers first sped-up filings against CCR members and Fibreboard and then later against OC and other defendants.

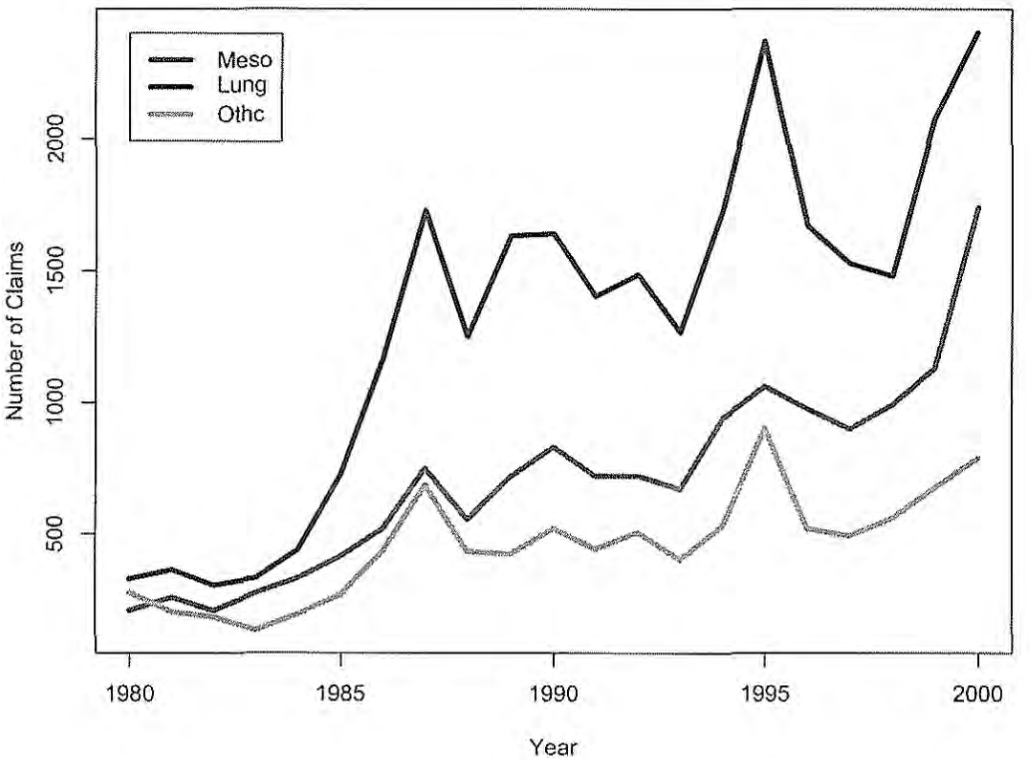
Table 10: Number of Filings Against OC, By Filing Year and Disease

Filing Year	Disease					Total
	Meso	Lung	Othc	Nonm	Unsp	
Unkn	306	526	155	7,747	2,307	11,040
1971	0	1	0	3	2	6
1972	0	0	0	2	0	2
1973	2	3	0	5	0	10
1974	4	0	0	13	2	19
1975	2	5	2	42	3	54
1976	13	10	2	151	16	192
1977	18	26	5	307	26	382
1978	42	38	17	612	86	795
1979	100	161	92	1,580	201	2,134
1980	209	330	279	3,671	512	5,001
1981	260	365	204	4,199	331	5,359
1982	209	306	185	3,895	284	4,878
1983	277	334	138	3,810	333	4,893
1984	332	440	199	4,595	283	5,848
1985	414	724	267	8,045	746	10,196
1986	519	1,163	434	14,176	1,118	17,409
1987	749	1,728	685	15,012	1,705	19,879
1988	554	1,250	433	17,011	1,753	21,001
1989	717	1,632	424	17,512	1,736	22,021
1990	830	1,640	521	17,183	1,023	21,197
1991	720	1,403	443	16,405	1,538	20,509
1992	721	1,485	506	23,707	1,978	28,396
1993	671	1,267	403	21,600	5,876	29,818
1994	940	1,731	530	22,269	3,946	29,416
1995	1,061	2,369	902	40,184	9,957	54,472
1996	976	1,670	521	27,350	5,445	35,963
1997	900	1,528	493	24,959	10,938	38,818
1998	991	1,479	561	25,002	6,970	35,003
1999	1,132	2,075	677	39,965	4,115	47,963
2000	1,304	1,801	590	33,555	4,340	41,590
[Ann00]	1,739	2,401	787	44,740	5,787	55,454
Total	14,973	27,490	9,668	394,567	67,570	514,264

Notes: After allocation to disease categories. Entries for 2000 are filings through October 5, 2000. Annualized filings for 2000 are shown in the "Ann00" row. Totals are based on 2000 filings through October 5. The unspecified category ("Unsp") includes both of OC's categories "none" and "unknown."

Figure 6 provides graphic representations of the increasing trends in OC filings for each of the three types of cancers (data annualized in 2000). OC's trend in annual pattern of claim filings is shared with other asbestos defendants: (1) steady increases in claims since the early 1990s; (2) biggest increases in the most recent years; and (3) interruption by an unusually large number of claim filings in 1995.

Figure 6: Number of Cancer Filings Against OC



Forecasts of future mesothelioma claim filings are based on a calculation of the relationship between past claims to the past incidence of the disease. This calculation, known as the "propensity to sue", is derived by dividing the number of claims for mesothelioma in a year by the number of mesothelioma deaths projected for that same year, and establishes the historic claiming rate for mesothelioma against OC. Propensities to sue OC for lung cancer and for other cancers are calculated similarly, by dividing the number of claims for each type of cancer in a year by the Nicholson forecast of the number of asbestos-related deaths from that cancer in the same year.

Figure 7 compares Nicholson's forecast of mesothelioma deaths between 1990 and 2000 with the number of mesothelioma claims filed against OC in those years (2000 annualized).

Figure 7: Nicholson Meso Incidence Forecasts vs OC Actual Claims

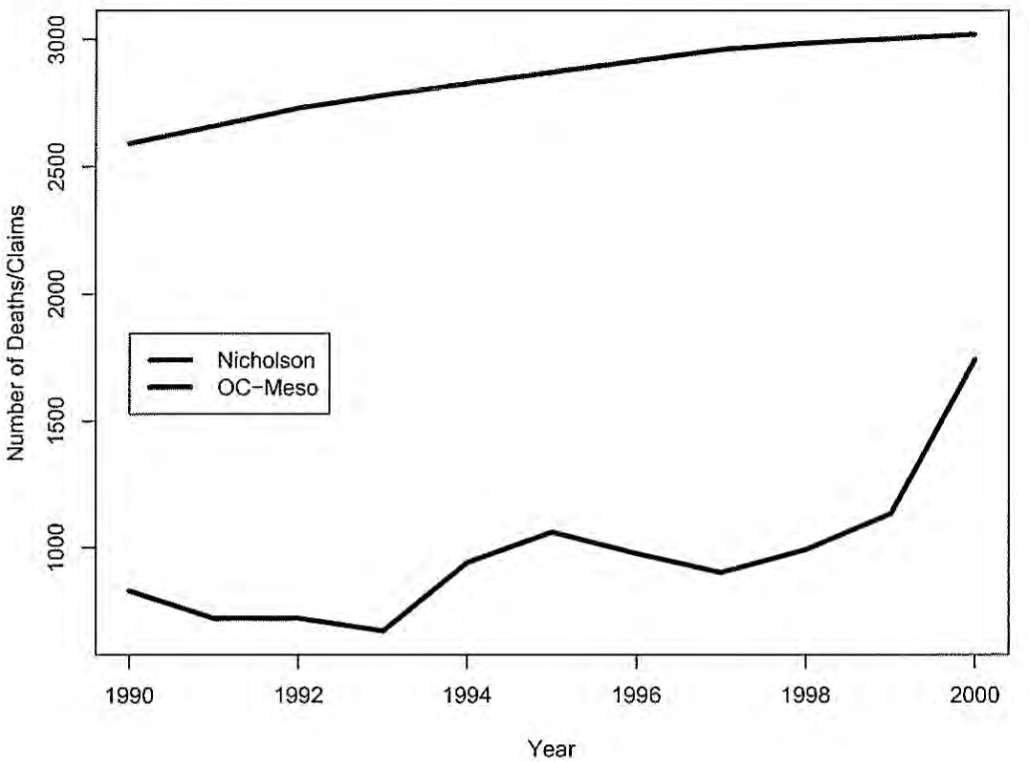


Table 11 below shows the annual propensities to sue calculated for each of the three types of asbestos-related cancers for each year since 1990. From the early 1990s propensities to sue increased steadily for each cancer (taking into account the exceptional nature of 1995 filings) as the number of cancer filings increased. This pattern is shown again and again among asbestos defendants (again with the exception of Fibreboard and CCR members who were protected by injunctions related to their two class actions).

We used OC's claims experience during the almost five year period from January 1996 through September 2000 to forecast future claims that would be filed against OC after October 5, 2000. This 4.75 year "base period" represents OC's most current claims experience, the years immediately preceding OC's petition date that marks the beginning of the forecast period.

Reasonable forecasts of future OC claims must take two matters into account: (1) the most recent level of claiming shown by the propensities to sue during years preceding OC's bankruptcy filing and (2) the fact that cancer filings and propensities to sue had increased across recent for each cancer, sharply in 2000. Together these matters not only establish a starting point for forecasting future OC cancer claims based on the most recent propensity to sue, but also suggest that propensities to sue OC would likely continue their increase, exceeding the levels of the base period.

Table 11: Propensities to Sue OC, by Disease: 1990-2000

Filing Year	Type of Cancer		
	Meso	Lung	Othc
1990	31.8	29.9	34.9
1991	26.9	25.5	29.6
1992	26.2	27.0	33.8
1993	24.0	23.3	27.2
1994	33.2	32.0	36.1
1995	36.8	44.2	62.1
1996	33.4	31.5	36.2
1997	30.3	29.1	34.6
1998	33.2	28.7	40.2
1999	37.7	41.2	49.6
2000	57.5	48.8	58.9

The number of claims forecast for each type of cancer in each future year is derived by multiplying the number of deaths projected by Nicholson for that year by the likely propensity to sue for that cancer. The calculations that are used first to derive propensities to sue and second to forecast future claims based on these propensities to sue are stated below:

Calculation of Propensity to Sue:

$$\frac{\text{Number of Claims}}{\text{Incidence}} = \text{Propensity to Sue}$$

Forecasting Future Claims from Propensity to Sue:

$$\text{Propensity to Sue} \times \text{Incidence in Future Year} = \text{Projected Claims in Future Year}$$

We forecast the number of OC cancer filings for the first future year, the year following its petition for bankruptcy protection, using the propensities to sue from the base period. In other words we assume that the percent of cancer victims who would have filed claims against OC immediately after its bankruptcy would have been the same as the percent in the five years preceding its bankruptcy. Again, this is a conservative assumption. Rather than starting our forecasts at the level of OC claim filings in 2000, the most recent year, we start at the lower level derived from OC's experience over the last five years.

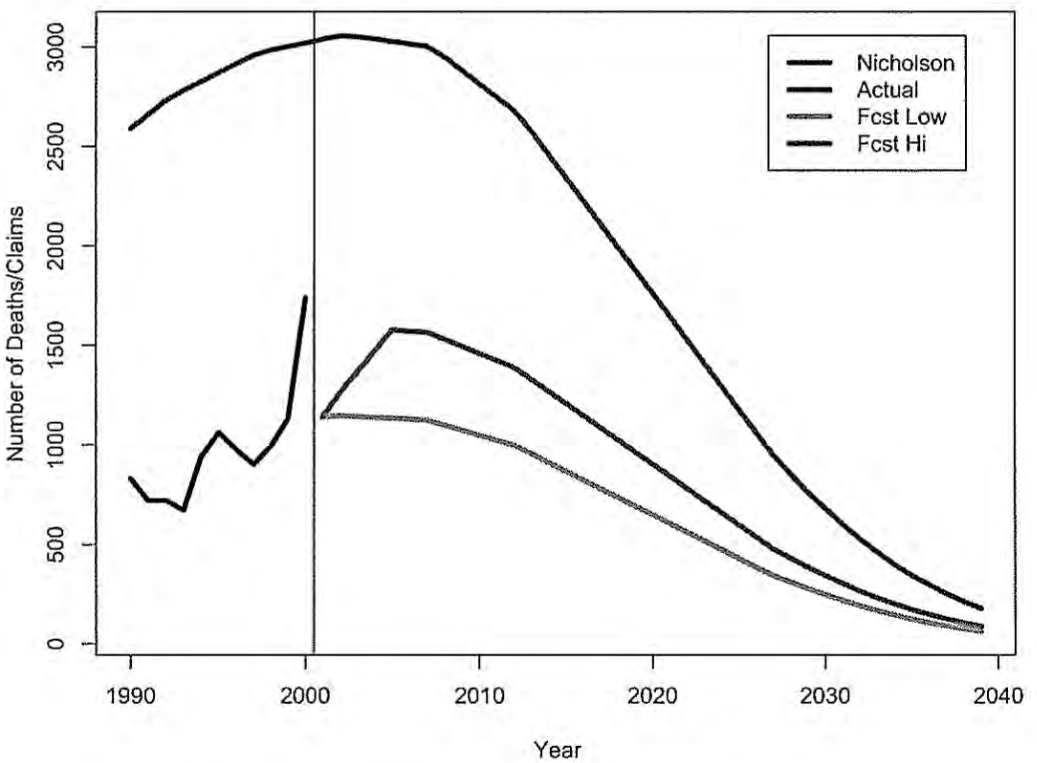
We have two alternative models to forecast future claims:

- One model, the "Increasing" model, assumes that the increase in propensities that we observed in OC claims prior to the bankruptcy would have continued for five more years and then the propensities to sue would increase no further but would remain for all further years at the level reached in the fifth future year. The rates of increase in the propensity to sue would be the same as rates of increase in those measures observed generally among asbestos defendants during the 1990s. This model is the most plausible in that it represents continuation of the increasing claims that OC had experienced up to the date of its bankruptcy petition.

- The second model, the "No Increase" model, assumes that propensities to sue in all future years would remain at the levels of OC's propensities to sue during the base period. Because this model does not accurately reflect OC's experience of increasing claims at the time of its bankruptcy petition, it is not plausible. It is provided only as an illustration showing what would be OC's future liability if the level of its future claims could have been frozen at the levels during the five years prior to its bankruptcy, an implausible proposition.

Figure 8 illustrates the forecast for mesothelioma claims, showing (a) the Nicholson forecast of nationwide mesothelioma deaths for all years from 1990 through 2039 (Nicholson's forecasts stop in 2030, but we extrapolated them forward through 2039), (b) annual mesothelioma claims against OC through 2000 and (c) the two alternative forecasts of future mesothelioma claims through year 2039. Illustrations of forecasts for lung cancer and other cancer claims would be similar to those in Figure 8.

Figure 8: Nicholson Meso Forecasts and OC Projections



6.2.4. Projection of Future Nonmalignancy Claims

The trend in annual filings of nonmalignant claims against OC is similar to its trends for cancer claims (Table 10). Figure 9 shows annual filings of nonmalignant claims against OC since 1980 (annualized for 2000). To facilitate comparison of trends in cancer and nonmalignant claim filings, Figure 10 shows annual filings in each year from 1980 through 2000 using different scales for cancer claims and for nonmalignant claims. As Figure 10 demonstrates, throughout twenty years of its asbestos litigation the trends in annual filings of cancer and nonmalignant claims filed against OC have been almost identical, both year by year and as trends across the twenty years. While there is some year to year variation in trends for cancer and nonmalignant claim filings,

trends for both types of diseases are highly similar since 1980.

Figure 9: Annual Nonmalignant Claims

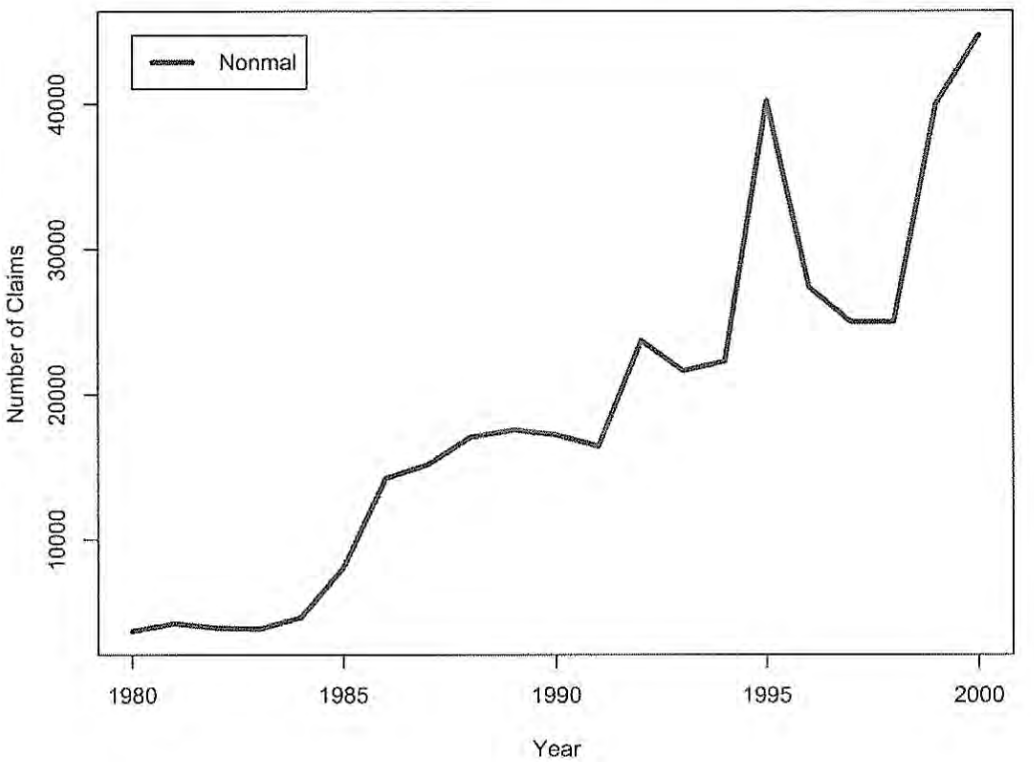
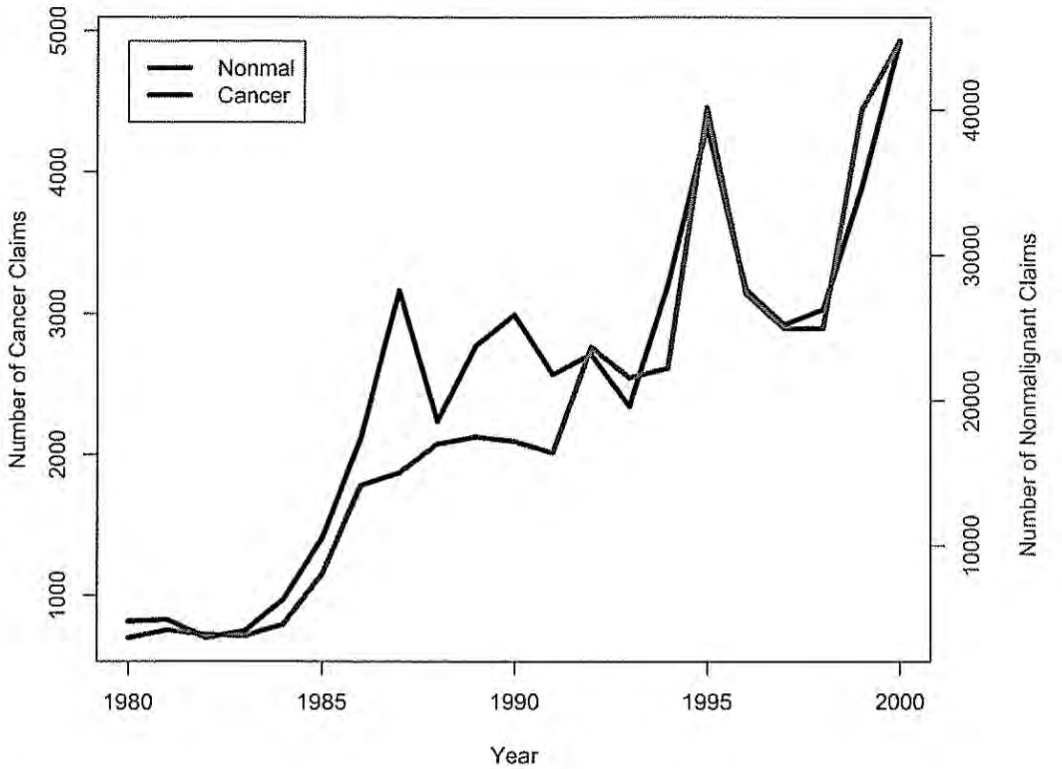


Figure 10: Comparison of Nonmalignant and Cancer Claim Counts



To forecast the number of nonmalignant claims that will be filed against OC in future years we do not use the same method that we use to forecast OC's future cancer claims. First, there are no published, peer-reviewed epidemiological projections for the incidence of nonmalignant asbestos-related diseases that have been validated by actual data on incidence as have the Nicholson cancer forecasts. Second, the disease processes for asbestos related cancers and asbestos related nonmalignant diseases differ. Unlike the asbestos related cancers, which become known to victims abruptly through the rapid onset of symptoms and diagnoses, nonmalignant diseases are insidious. Asbestosis and pleural diseases are progressive diseases that develop gradually over time with the accumulation of scarring of the lungs or pleura. Because dyspnea (shortness of breath) and other effects of these diseases typically increase slowly over time, victims of these diseases may be unaware of the earliest onset of symptoms or may attribute breathing problems to their increasing age or other possible causes. So unlike the asbestos related cancers, which become known to victims by a signal event--the diagnosis of a grave disease--that will be most likely to trigger claim filing, victims of nonmalignant asbestos diseases may become aware of their diseases gradually or they may be made aware by a medical diagnosis of asbestosis or pleural disease that could be made early or later in the progression of the disease. Consequently, filings of claims for asbestosis and pleural disease cannot be predicted from epidemiological evidence in the same manner as can filings of asbestos related cancers.

But in fact filing trends for nonmalignant and malignant asbestos claims are proportionally related because those filings are generated by similar sets of social, institutional and behavioral determinants. As Figure 10 demonstrates filings of asbestos nonmalignant claims in a year can be predicted well from filings of cancer claims. This close correspondence of filings of cancer and nonmalignant claims is one of the most striking patterns in asbestos litigation, not only for OC

but for other asbestos defendants as well. We use this stable relationship between cancer and nonmalignant claims filings to project future nonmalignancy claims based on the historic ratio of nonmalignancy to cancer claims against OC. We call the ratio of nonmalignant to cancer claims the "nonmalignant multiplier." In our forecasts for OC, we calculate the nonmalignant multiplier over the same 4.75 year base period ending September 2000 that we used to forecast future cancer claims, calculating the ratio of nonmalignant claim filings to cancer claim filings during those years. We then estimate the number of nonmalignancy claims that will be filed in a future year by multiplying our projection of cancer claims for that year by the nonmalignant multiplier or ratio of nonmalignant to cancer claims.

Again the projection for the first year after OC's bankruptcy starts with an assumption that the ratio of filings between nonmalignancy and cancer claims will continue to be the same as during the base period. Historically during the base period the number of nonmalignancy claims filed against OC has been approximately nine times as many as cancer filings. This means that initially nonmalignancy claims will be about nine times the number of cancer claims, i.e. 90% of all filings.

We then use two alternative assumptions about how this ratio of nonmalignancy cancer claims will change over time, assumptions that correspond to our two alternative assumptions about future changes in propensities to sue for cancer. The "Increasing" assumption, which is used together with the "Increasing" model of propensities to sue for cancers, assumes that the ratio of nonmalignancy to cancer claims will increase slightly over the next five years and by the end of five years will be about 11% greater than the ratio during the base period. Thereafter, the ratio of nonmalignancy to cancer claims will remain unchanged. This 11% increase represents the general experience among asbestos defendants during the 1990s and was calculated from the actual filing experience of the Manville Trust and the UNR Trust. The second, "No Increase" assumption, which accompanies the "No Increase" model of propensities to sue for cancers, assumes that the ratio of nonmalignant to cancer claims observed during the base period will remain unchanged in all future years.

Figure 11 and Figure 12 illustrate these alternative models of future nonmalignant claims. Both figures show the number of claims filed against OC annually prior to the bankruptcy separated into cancer and nonmalignant claims: cancer claims appear at the bottom and nonmalignant claims appear above. For purposes of illustration Figure 11 shows the implausible "No Increase" model, with no future increase in either the propensity to sue or the nonmalignant multiplier. Figure 12 shows the preferred "Increase model," with increases between 2002 and 2005 in the cancer propensities to sue and the nonmalignant multiplier.

Figure 11: Actual And Projected Filings (No Increase)

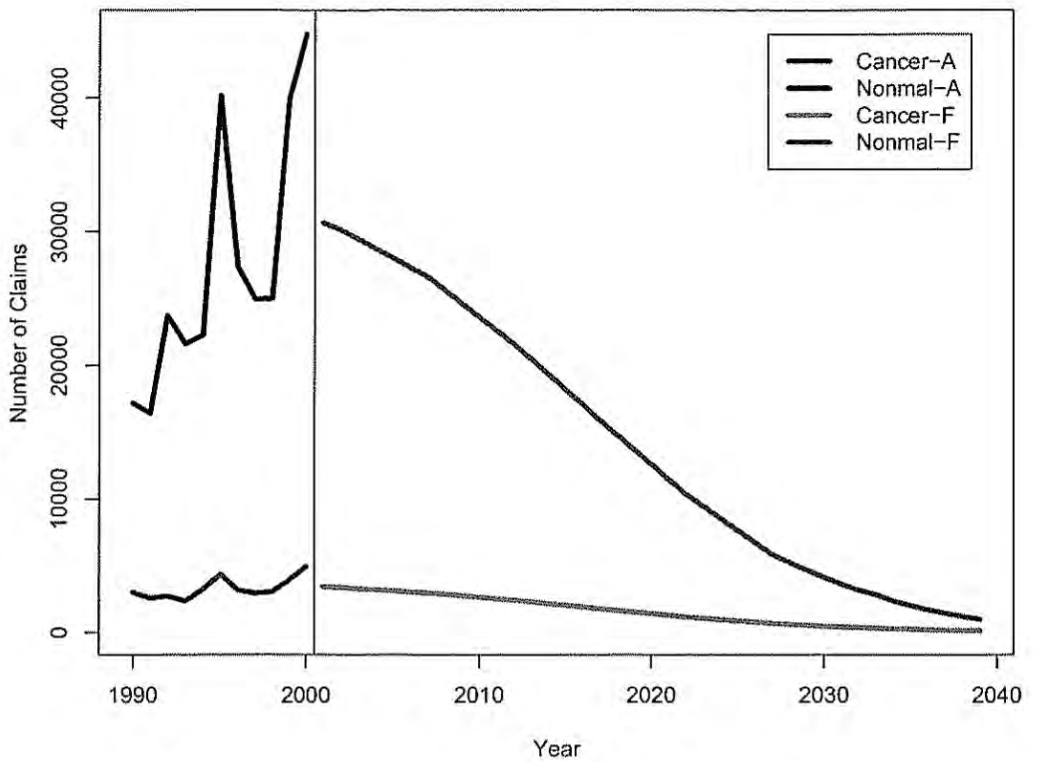
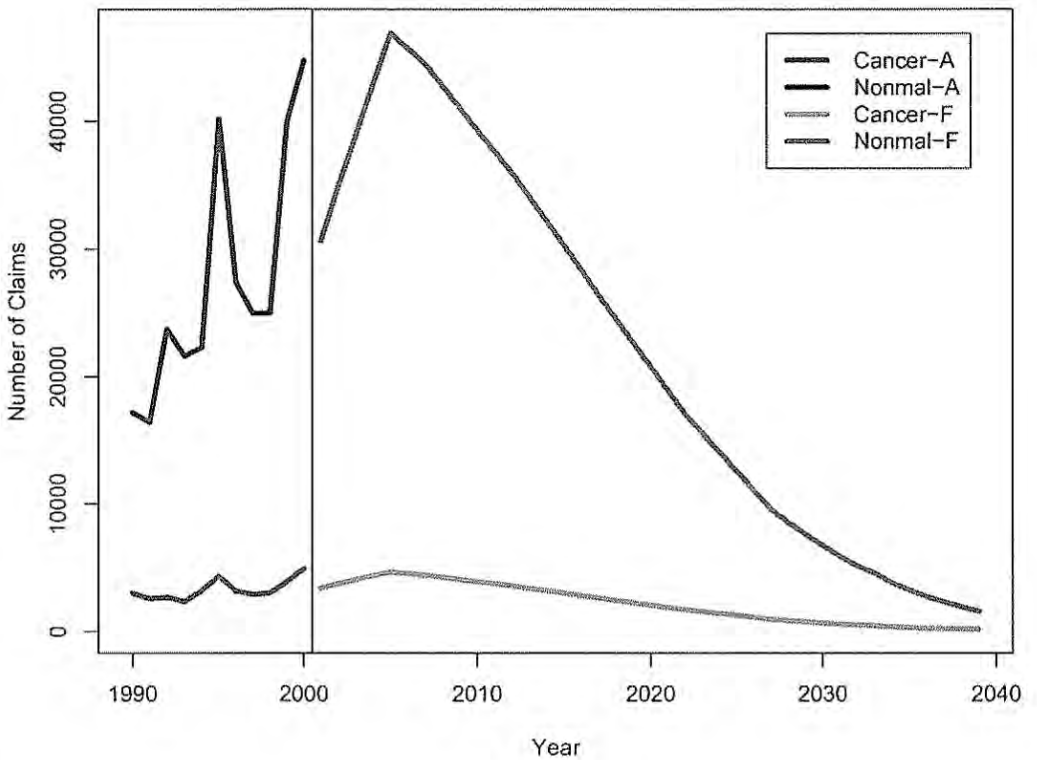


Figure 12: Actual And Projected Filings (Increases)



6.2.5. Forecasted Number of Future Claims

Table 12 shows the results of the forecasts for each of the two models, the preferred "Increasing" models and the "No Increasing" model which is included only to show future liability should the rate of claiming be implausibly frozen in time. Appendix B Tables B3 and B4 show the forecasted filings for each disease for each year from the last quarter of 2000 to 2039.

Table 12: Number of Forecasted Claims Filed After October 5, 2000

	Disease				
Model	Meso	Lung	Othc	Nonm	Total
Increasing	33,856	37,921	14,796	860,204	946,777
No Increase	25,206	26,942	8,926	551,626	612,700

6.2.6. Estimating Liability for Forecasted Future Claims

To value future claims we used the same values that we used for valuing pending claims, the average amount paid by OC during the 5 years in October 2000 to resolve claims for each type of disease (see Table 8, above).

Even though amounts paid by OC in settlements have been increasing at rates far greater than inflation, we forecast conservatively that the values of future claims will remain constant in real

terms, increasing only by the projected rate of future monetary inflation, 2.5 percent per year (we use the actual rate of inflation during 2001 through 2003, which are "future" years for our forecasts). This rate was obtained from the forecasts of future inflation by the Congressional Budget Office. Table 13 shows the value of future claims based on the preferred Increasing model and the illustrative No Increase models of the rate of filing of future claims.

Table 13: Forecast Indemnity for Future Claims after October 5, 2000

	Disease				
Model	Meso	Lung	Othc	Nonm	Total
Increasing	$9.4	$2.2	$0.4	$8.9	$20.9
No Increase	7.0	1.6	0.2	5.6	14.4

Notes: Billions of Year 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year.

The results in Table 13 estimate the value that we forecast for future claims in terms of the dollars of the year when claims are allowed--these represent the amounts of allowances in each future year. However, these do not represent the present value of OC's liabilities. Since these liabilities will mostly arise in future years, OC would not need to put aside this entire amount to pay these future claims. Rather any non-insurance assets held by OC would presumably earn income. To the extent of such earnings, OC could reserve fewer assets to pay these claims. Table 14 shows the estimated present value of these liabilities, based on a discount rate of 6% provided by L. Tersigni Consulting, financial advisors to the Asbestos Claimants Committee.

Table 14: Present Value (PV) of Future Claims as of October 5, 2000

	Disease				
Model	Meso	Lung	Othc	Nonm	Total
Increasing	$3.9	$1.0	$0.2	$3.9	$9.0
No Increase	2.9	0.7	0.1	2.5	6.3

Notes: Billions of Year 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 6%.

7. OC's Total Asbestos Liability, October 5, 2000

To estimate OC's full obligations for present and future asbestos claims, we added its forecasted indemnity for pending claims and for future claims. Table 15 shows these calculations based on using the preferred Increasing model and the illustrative No Increase model of the number of future claims.

Table 15: OC's Total Liability for Indemnity as of October 2000

Type of Expense	No Future Increase	Future Increase
Indemnity, Pending Claims	$2.4	$2.4
Indemnity, Future Claims	14.4	20.9
Total Liability	$16.8	$23.3

Notes: Billions of Year 2000 dollars. Pending claims are assumed to average 2 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Pending and future claims are both inflation adjusted.

Table 16 shows the present value of OC's forecasted obligations for indemnity to asbestos claims as of October 2000, using the discount rate assumptions described above.

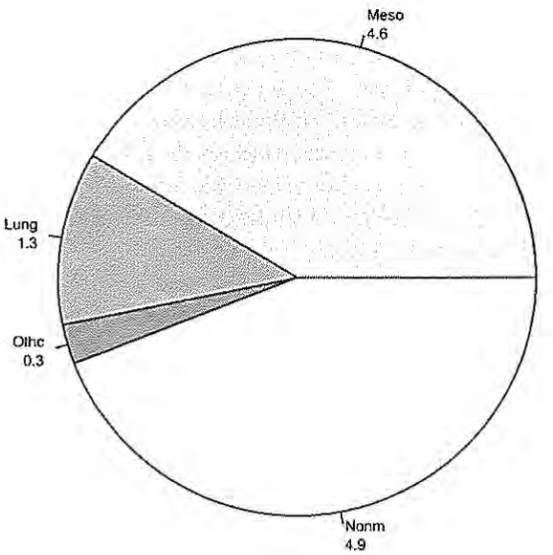
Table 16: PV of OC's Total Liability for Indemnity : October 5, 2000

Type of Expense	No Future Increase	Future Increase
Indemnity, Pending Claims	$2.1	$2.1
Indemnity, Future Claims	6.3	9.0
Total Liability	$8.4	$11.1

Notes: Billions of Year 2000 dollars. Pending claims are assumed to average 2 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 6%. Pending and future claims are both inflation adjusted and discounted.

Figure 13 shows how the present values of OC's obligations are distributed among the different types of diseases for the future increase (preferred) model.

Figure 13: Distribution of PV of Total Liability, by Disease: Future Increase Model



8. Estimation of Fibreboard's Asbestos Liabilities, October 2000

8.1. Forecasted Indemnity for Fibreboard Claims Pending on October 5, 2000

On October 5, 2000 when OC filed for bankruptcy protection Fibreboard had 147,250 pending asbestos bodily injury claims. We used the same formula for estimating the total indemnity that Fibreboard would pay to resolve these pending claims:

Number of Claims x Average Resolution Cost = Forecast Indemnity

Here, counts of claims are drawn from the Fibreboard claims in OC's database and average resolution costs are based on the amounts that Fibreboard paid historically averaged across claims that were resolved without payment as well as those that received an indemnity payment.

Analyses of Fibreboard's asbestos liabilities are complicated by the company's litigation history. The injunction in the Ahearn litigation prevented filings that would otherwise have been made in those years and resulted in a concentration of filings in 1999 and 2000. The OC database provides a simple and reasonable solution for this problem. To estimate years in which these claims would have been filed against Fibreboard we identified claims that filed against both OC and Fibreboard and used the year in which the plaintiff filed the claim against OC as the "filing" year for Fibreboard. The injunction also prevented resolutions of most claims until late 1999, followed by a great number of resolutions. In the year between lifting of the Ahearn injunction and OC's petition date, Fibreboard resolved 116,395 claims. However, unlike data on filings we cannot reasonably assume that the year that these Fibreboard claims would have been resolved is

the same year in which OC had resolved a particular plaintiff's claim. So we have no ability to examine trends in settlement averages for Fibreboard.

Fibreboard claims data has also been complicated by the company's history. Fibreboard was acquired by OC in 1997 and only after that date could OC begin to incorporate Fibreboard data into OC's database. Before Fibreboard had several different databases compiled by different entities--its insurers, its coordinating counsel, the Fibreboard Interim Trust--covering sometimes different and sometimes overlapping time periods. These earlier databases are less ambitious and sophisticated than the data recently compiled by OC. Often these earlier databases lack critical elements like disease, filing dates or dates when claims were resolved. Fortunately for the most part claims in these earlier databases pertain to earlier years of litigation, mostly before the Ahearn class action had been filed, and have little relevance to the current filings levels, legal events and claim values that exist today and will likely exist in the future. After reviewing available data about these claims, we essentially agree with OC's analysis that identified 383,000 of these earlier Fibreboard claims from these pre-OC databases that OC describes as "Legacy Claims" and that OC regards as resolved, duplicate or inactive claims. (Mayer, Fibreboard, p. 3).

8.1.1. Calculations within Disease Categories

Like OC, Fibreboard's resolution costs varied among different asbestos related diseases (Table 17). Fibreboard has somewhat fewer claims pending than does OC and historically paid less to resolve claims for each disease.

Table 17: October 5, 2000 Pending Claims

	Disease					
Description	Meso	Lung	Othc	Nonm	Unsp	Total
Number Pending	3,156	6,684	2,337	121,407	13,666	147,250
Number Resolved	10,622	19,013	5,813	254,326	89,405	379,178
Avg Settlement	$147,084	$32,141	$15,167	$4,754	$6,290	NA
Percent Paid	88.540	87.661	87.375	88.469	40.000	NA
Avg Resolution	$130,229	$28,175	$13,252	$4,206	$2,516	NA

Note: Average resolution amounts are expressed in year 2000 dollars and calculated across all claims resolved (both with and without payment) that were filed after 1990 and resolved between 1999 and 2000. Average settlements are calculated only among claimants who received some payment. Percent paid represents the percent of resolved claims that results in some payment. Average resolution is the product of average settlement times percent paid.

8.1.2. Imputation for Unknown Disease Claims

Among Fibreboard claims that have filing dates in OC's database (i.e. that excludes many of the Legacy Claims), disease is unspecified for 21.9 percent of claims, categorized almost always as "unknown" rather than "none." This rate of unspecified claims is inflated because it includes many of the poorly documented Legacy Claims. In fact, the diseases among Fibreboard claims are well documented. Looking only at recently filed claims (1996-2000 filing dates for Fibreboard), less than 11 percent of claims have an unspecified disease, mostly claims filed in 2000 (with a rate of 27.8 percent unspecified) giving Fibreboard little opportunity to discover specific diseases. There are almost no unspecified diseases among claims that Fibreboard settled in the last two years. Among the 116,395 claims that Fibreboard resolved in 1999 and 2000 or it

knew a specific disease for all but 500 of those claims: only 0.4 percent had an unspecified disease.

As with our forecast for pending OC claims, we imputed diseases among pending Fibreboard claims both to transform alleged disease into diseases as Fibreboard would determine and also to eliminate almost all unspecified diseases. We retained the unspecified disease category for 0.5 percent of pending claims, the same rate that obtained among recently resolved Fibreboard claims. Again, these imputations were based on a transition matrix derived from the OC data fields for alleged disease and determined disease among Fibreboard claims. Table 18 shows this matrix derived from Fibreboard claims.

Table 18: Fibreboard Experience in Evaluating Alleged Disease, 1991-2000 Filings

Alleged Disease	Evaluated Disease					Tot
	Meso	Lung	Othc	Nonm	Unsp	
Meso	1,811	37	1	57	24	1,930
Lung	11	3,655	27	142	19	3,854
Othc	1	31	1,059	158	8	1,257
Nonm	40	332	203	79,197	661	80,433
None	0	0	1	41	13	55
Unkn	51	289	130	11,795	204	12,469
Total	1,914	4,344	1,421	91,390	929	99,998

During 1998 or later, Fibreboard cases settling by Fibreboard or OC were being allocated at just .5 percent to unspecified disease. This meant that the transition matrix adjustment would not have much of an effect, but we elected to perform it for comparability with our OC methods. Thus, we reduced the contribution proportionately to the unspecified disease category for every claimed disease, producing the following transition matrix (Table 19).

Table 19: Derived Fibreboard Transition Matrix for Pending Cases

Alleged Disease	Evaluated Disease					Tot
	Meso	Lung	Othc	Nonm	Unsp	
Meso	95.0	1.9	0.1	3.0	0.1	100.0
Lung	0.3	95.3	0.7	3.7	0.0	100.0
Othc	0.1	2.5	84.8	12.6	0.0	100.0
Nonm	0.1	0.4	0.3	99.2	0.0	100.0
None	0.0	0.0	2.4	96.5	1.2	100.0
Unkn	0.4	2.4	1.1	96.1	0.1	100.0

Note: Based on cross tabulation of Table 18 calibrated to produce .5 percent unspecified among pending claimants equaling OC's experience for claims resolved during 1998-2000.

We then transformed all open claims using this matrix. The resulting distributions of open and closed claims are compared in Table 20.

Table 20: Distributions of Pending and Resolved Claims After Allocation

	Percent of Claims					
Claim Status	Meso	Lung	Othc	Nonm	Unsp	Total
Number Pending	2.1	4.9	1.7	90.7	.5	147,250
Resolved 1998-2000	2.4	4.7	1.7	90.7	.5	118,799

8.1.3. Calculation of Indemnity for Pending Claims

Table 21, below, shows the number of pending claims in each disease category after imputation of diseases along with Fibreboard's average resolution cost for each disease during 1999 and 2000. The resolution cost is the average payment by OC calculated across all claims resolved by OC during this period, averaging across both claims that received payment and those that were resolved without payment. The Unspecified ("Unsp") disease category includes claims that were categorized either as "unknown" or "none" in the OC claims database. These claims were assumed to have no value but are so few in number as to not affect the forecast.

Table 21: Number and Average Value of Pending Claims

	Disease					
Description	Meso	Lung	Othc	Nonm	Unsp	Total
Realloc Number Pending	3,148	7,219	2,478	133,626	780	147,250
Avg Resolution	$130,229	$28,175	$13,252	$4,206	$0	NA

Notes: After imputation of diseases. Average resolution amounts are expressed in year 2000 dollars and calculated across all claims resolved (both with and without payment) that were filed after 1990 and resolved between 1999 and 2000.

We use these numbers and values to complete the formula for deriving the values of pending claims as shown in Table 22. As that table shows, Fibreboard's liability for the indemnity of claims pending on October 5, 2000 was $1.2 billion (in year 2000$).

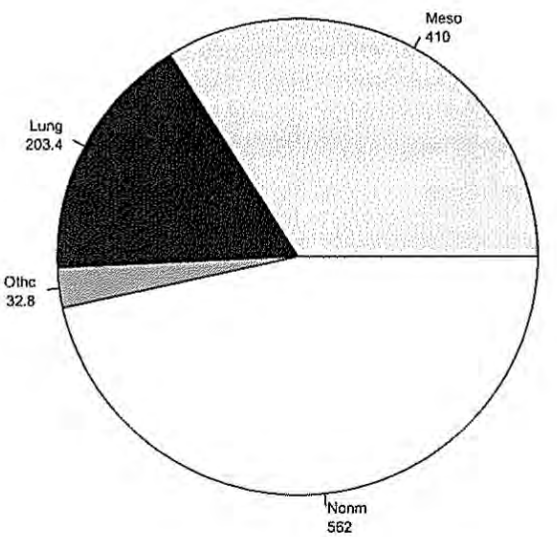
Table 22: Forecast of Indemnity for Pending Claims

Disease	Number of Reallocated Claims	Average Resolution	Indemnity ($millions)
Meso	3,148	$130.229	$410.0
Lung	7,219	28.175	203.4
Othc	2,478	13.252	32.8
Nonm	133,626	4.206	562.0
None	780	0.000	0.0
Total	147,250	NA	$1,208.2

Note: Average resolution amounts and indemnity are expressed in year 2000 dollars. Average resolution amounts are calculated across all claims resolved in 1999 or 2000 (both with and without payment).

Figure 14 compares graphically the total value of bankruptcy claims pending on the petition date for each type of asbestos disease.

Figure 14: Distribution of Indemnity Amounts for Pending Claims, by Disease



Our calculations of Fibreboard's expected indemnity for pending claims include all claims that are categorized as open in the Fibreboard claims database. These include both unliquidated claims and claims that have been liquidated but that have not been paid in full. OC has disaggregated these two groups of Fibreboard claims calculating that there are 61,344 unpaid

liquidated claims that have a total liquidated value between $427 million and $442 million of which $46 million has already been paid and that there are 86,241 unliquidated pending claims which OC estimates with a total value of $390 to $472 million (Report of Mark W. Mayer on Fibreboard Corporation's Pre-Petition Asbestos Personal Injury and Wrongful Death Claims, May 21, 2002, p.3). We have not attempted to disaggreggate these two groups of pending claims which together represent Fibreboard's expected indemnity payments for claims that have been filed but not yet fully resolved. Our estimates of the total values of all pending claims, liquidated or unliquidated is 39% greater than the upper end of OC's estimate of Fibreboard's summed liabilities for unpaid-liquidated and unliquidated claims, OC's analysis is based on questionable assumptions. OC inappropriately uses Dr. Friedman's study of an unrepresentative sample of OC claims (Section 10.1, below) to estimate severity among nonmalignant claims and OC uses values of asbestos claims that are substantially lower than its actual resolutions of similar claims just before it filed for bankruptcy protection (OC used unreliable valuation assumptions made by its consultant Dr. Vasquez. See Section 10.2.4).

8.2. Projections of Number And Timing of Future Claims

To forecast the number, disease distribution and filing years of future Fibreboard claims we use the same standard methods used for our OC forecasts, but we first address distortion in annual claim filings that resulted from the Ahearn injunction. While the Ahearn class action was sub judice, most potential plaintiffs were enjoined from suing Fibreboard. An interim trust established by the Ahearn settlement did receive and process exigent and trial calendar claims. No other claims were permitted. As a result most Fibreboard claims that would have been filed between 1993 into 1999 could only accrue, remaining unfiled. Then after the Ahearn injunction was lifted in 1999 Fibreboard received over 200,000 claims including both accrued and newly arising claims. This pattern of actual claim filings cannot be used directly to forecast likely future claims against Fibreboard. Clearly Fibreboard will not continue to receive future claims at the annual rates of the last two years. To forecast future claims, we identified claims that filed against both OC and Fibreboard and approximated what would have been Fibreboard's likely annual claim filings by using the years of filing against OC.

8.2.1. Propensities to Sue Fibreboard

Table 23 shows the annual number of asbestos bodily injury claims received by Fibreboard for each type of asbestos related disease after the imputation of diseases, as described above. The patterns and trends for Fibreboard filings are highly similar to those for OC and for other asbestos defendants. Fibreboard's claims increased steadily from the early 1990s reaching a peak in 2000 when the company received 40,806 claims during the nine months preceding its bankruptcy, an annualized rate of over 54,000 claims. The large number of claims actually filed against Fibreboard in 1993 resulted from its Ahearn class action for future claims. Many plaintiffs' law firms accelerated the filings of Fibreboard claims so that their clients could participate in large group settlements that Fibreboard was negotiating before filing its class action and also to protect clients from the delay in payments that might result from the Ahearn class action settlement process. The large number of 1995 filings reflect the large number of OC filings in that year. Because Fibreboard had few actual settlements between 1994 and 1998, the filings in those years reported in Table 23 show that the plaintiffs actually filed against OC in those years. So the trends for Fibreboard that we saw above for OC in Table 10 will reappear here.

Figure 15 provides graphic representations of the increasing trends in Fibreboard filings for each of the three types cancers, using the imputed diseases shown in Table 23. Fibreboard's trend in annual pattern of claim filings is shared with other asbestos defendants: (1) steady increases in claims since the early 1990s (2) with biggest increases in the most recent years (3) interrupted by an unusually large number of claim filings in 1995.

Table 23: Number of Filings Against Fibreboard, By Imputed Filing Year and Disease

Filing Year	Disease					Total
	Meso	Lung	Othc	Nonm	Unsp	
No Info	2	14	1	64	155,788	155,869
Unkn	612	1,157	300	17,159	3,847	23,075
1970	0	0	0	0	2	2
1971	0	0	0	1	5	6
1972	0	0	0	1	4	5
1973	0	0	0	0	6	6
1974	2	0	0	9	17	28
1975	0	0	0	2	41	43
1976	0	0	0	3	104	107
1977	4	3	0	19	237	263
1978	4	7	1	64	1,002	1,078
1979	9	12	7	62	2,053	2,143
1980	20	33	18	215	3,373	3,659
1981	28	55	35	443	3,490	4,051
1982	68	130	59	1,223	4,056	5,536
1983	90	167	76	1,278	4,473	6,084
1984	124	238	105	1,596	3,436	5,499
1985	223	461	165	4,342	3,913	9,104
1986	364	1,003	344	9,662	4,456	15,829
1987	567	1,426	464	11,244	3,535	17,236
1988	535	1,211	327	11,733	4,936	18,742
1989	548	1,242	364	12,131	5,704	19,988
1990	681	1,468	456	13,552	4,383	20,540
1991	688	1,162	265	13,946	2,189	18,250
1992	718	1,462	399	23,275	3,626	29,480
1993	606	1,108	287	18,721	23,558	44,281
1994	828	1,542	455	22,458	3,797	29,080
1995	1,259	2,697	1,109	49,276	7,335	61,676
1996	1,081	1,852	567	30,634	1,916	36,050
1997	1,016	1,638	517	28,922	1,040	33,132
1998	1,053	1,476	554	29,479	1,617	34,179
1999	1,143	2,024	671	39,938	2,731	46,508
2000	1,507	2,123	605	34,345	2,189	40,768
[Ann00]	2,009	2,831	807	45,793	2,919	54,357
Total	13,778	25,697	8,150	375,733	103,071	526,428

Notes: After allocation to disease categories. 155,869 claims with unknown filing dates are from records with a claim category of "OTHER" and effectively no disease or settlement information, which we assume are not compensable claims. Entries for 2000 are filings through October 5, 2000. Annualized filings for 2000 are shown in the "Ann00" row. Totals are based on 2000 filings through September and exclude the "no information" claims. The unspecified category (Unsp) includes both of Fibreboard's categories "none" and "unknown."

Figure 15: Number of Cancer Filings Against Fibreboard

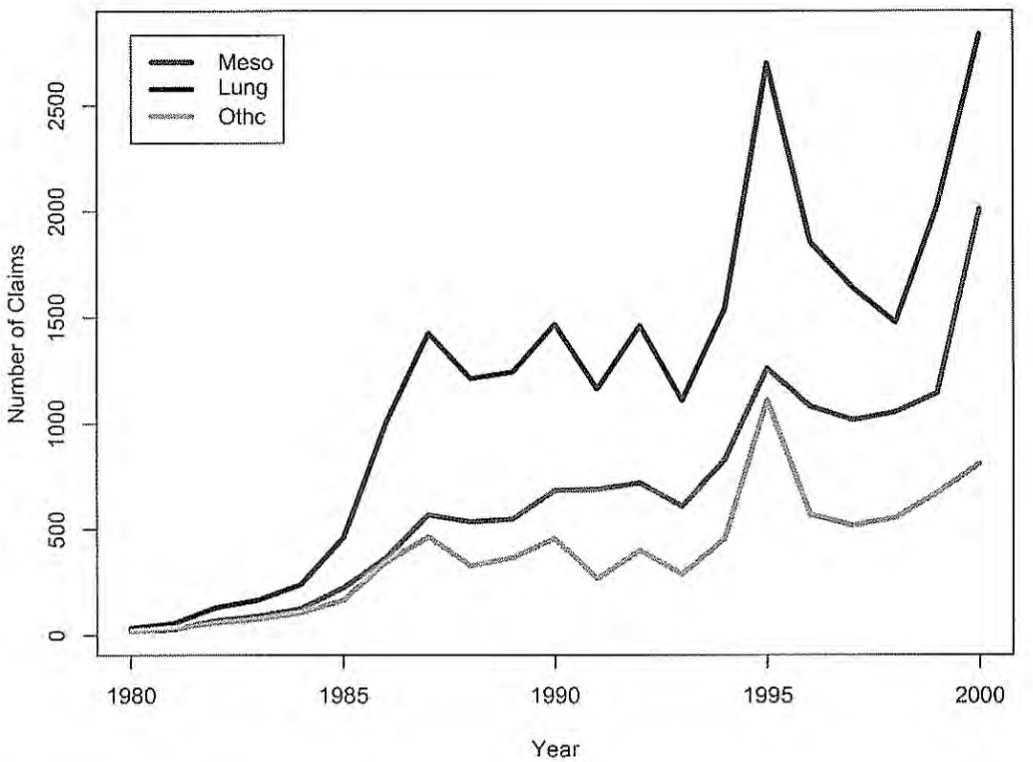


Figure 16 compares Nicholson's forecast of mesothelioma deaths between 1990 and 2000 (2000 filings annualized) with the number of mesothelioma claims filed against Fibreboard in those years.

Figure 16: Nicholson Meso Incidence Forecasts vs Fibreboard Actual Claims

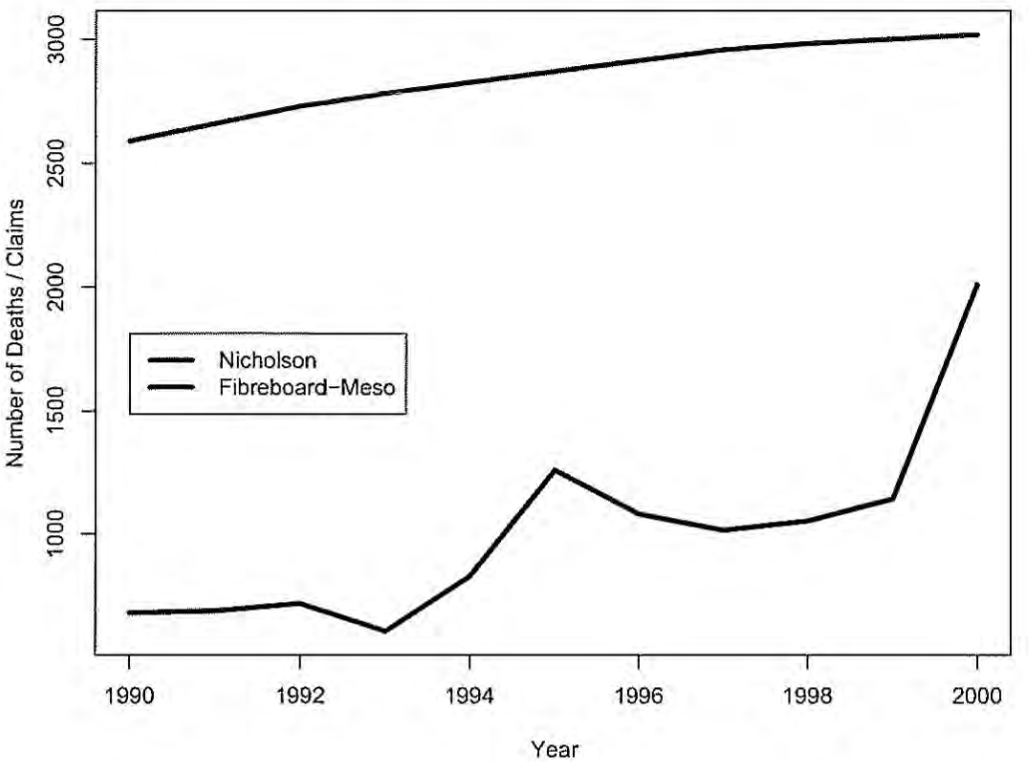


Table 24 below shows the annual propensities to sue calculated for each of the three types of asbestos-related cancers for each year since 1990. From the early 1990s propensities to sue increased steadily for each cancer (taking into account the exceptional nature of 1995 filings) as the number of cancer claims filings increased. This pattern is shown again and again among asbestos defendants (again with the exception of Fibreboard and CCR members who were protected by injunctions related to their two class actions).

We used Fibreboard's claims experience during the almost five year period from January 1996 through September 2000 to forecast future claims that would be filed against Fibreboard after October 5, 2000. This five year "base period" represents Fibreboard's most current claims experience, the years immediately preceding the date of forecast.

Forecasts of future Fibreboard claims must take two matters into account: (1) the most recent level of claiming shown by the propensities to sue during years preceding Fibreboard's bankruptcy filing and (2) the fact that cancer filings and propensities to sue had increased over this period for all cancers, increasing sharply as of October 2000. Together these matters not only establish a starting point for forecasting future Fibreboard cancer claims based on the most recent propensity to sue, but also suggest that propensities to sue Fibreboard would likely continue their increase, exceeding the levels of the base period.

Table 24: Propensities to Sue Fibreboard, by Disease: 1990-2000

Filing Year	Type of Cancer		
	Meso	Lung	Othc
1990	26.1	26.8	30.5
1991	25.7	21.2	17.7
1992	26.1	26.6	26.7
1993	21.7	20.3	19.4
1994	29.2	28.5	31.1
1995	43.7	50.4	76.3
1996	37.0	34.9	39.4
1997	34.2	31.1	36.3
1998	35.3	28.7	39.7
1999	38.0	40.2	49.1
2000	66.4	57.5	60.5

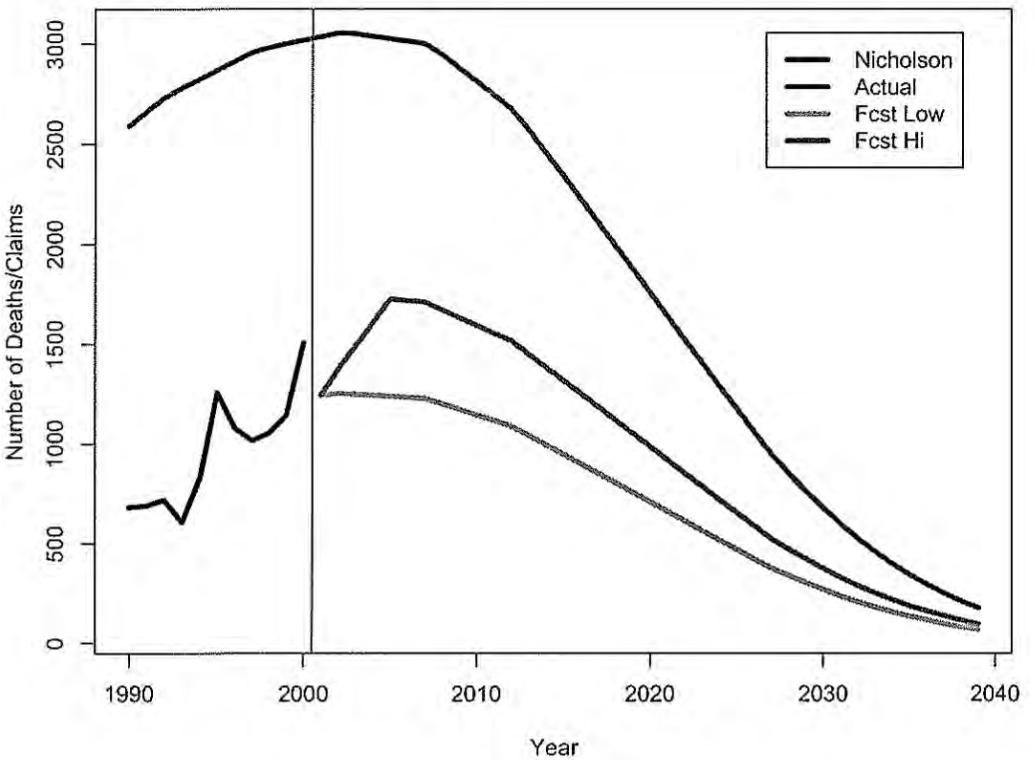
We forecast the number of Fibreboard cancer filings for the first future year, the year following its petition for bankruptcy protection, using the propensities to sue from the base period. In other words we assume that the percent of cancer victims who would have filed claims against Fibreboard immediately after its bankruptcy would have been the same as the percent in the five years preceding its bankruptcy. Again, this is a conservative assumption. Rather than starting our forecasts at the level of Fibreboard's claim filings in 2000, the most recent year, we start at the lower level derived from Fibreboard's experience over the last five years.

Again, as with OC we have two alternative models about what would happen next:

- One model, the "Increasing" model, assumes that the increase in propensities that we observed in Fibreboard claims prior to the bankruptcy would have continued for five more years and then the propensities to sue would increase no further but would remain for all further years at the level reached in the fifth future year. The rates of increase in the propensity to sue would be the same as rates of increase in those measures observed generally among asbestos defendants during the 1990s. This model is the most plausible and represents continuation of the increasing claims that OC had experienced up to the date of its bankruptcy petition.
- The second model, the "No Increase" model, assumes that propensities to sue in all future years would remain at the levels of OC's propensities to sue during the base period. Because this model does not accurately reflect Fibreboard's experience at the time of its bankruptcy petition, it is not plausible. It is provided only as an illustration showing what would be Fibreboard's future liability if the level of its future claims could have been frozen at the levels during the five years prior to its bankruptcy, an unreasonable proposition.

Figure 17 illustrates the forecast for mesothelioma claims, showing (a) the Nicholson forecast of nationwide mesothelioma deaths for all years from 1990 through 2039 (Nicholson's forecasts stop in 2030, but we extrapolated them forward through 2039), (b) annual mesothelioma claims against Fibreboard through 2000 and (c) the two alternative forecasts of future mesothelioma claims through year 2039. Illustrations of forecasts for lung cancer and other cancer claims would be similar to those in Figure 17.

Figure 17: Nicholson Meso Forecasts vs Fibreboard Projections



8.2.2. Projection of Future Nonmalignancy Claims

The trend in annual filings of nonmalignant claims against Fibreboard is similar to its trends for cancer claims (Table 23). Figure 18 shows annual filings of nonmalignant claims against Fibreboard since 1980. To facilitate comparison of trends in cancer and nonmalignant claim filings, Figure 19 shows annual filings in each year from 1980 through 2000 using different scales for cancer claims and for nonmalignant claims. As Figure 19 demonstrates, throughout twenty years of its asbestos litigation the trends in annual filings of cancer and nonmalignant claims filed against Fibreboard have been almost identical, both year by year and as trends across the twenty years. While there is some year to year variation in trends for cancer and nonmalignant claim filings, trends for both types of diseases are highly similar since 1980.

Figure 18: Annual Nonmalignant Claims

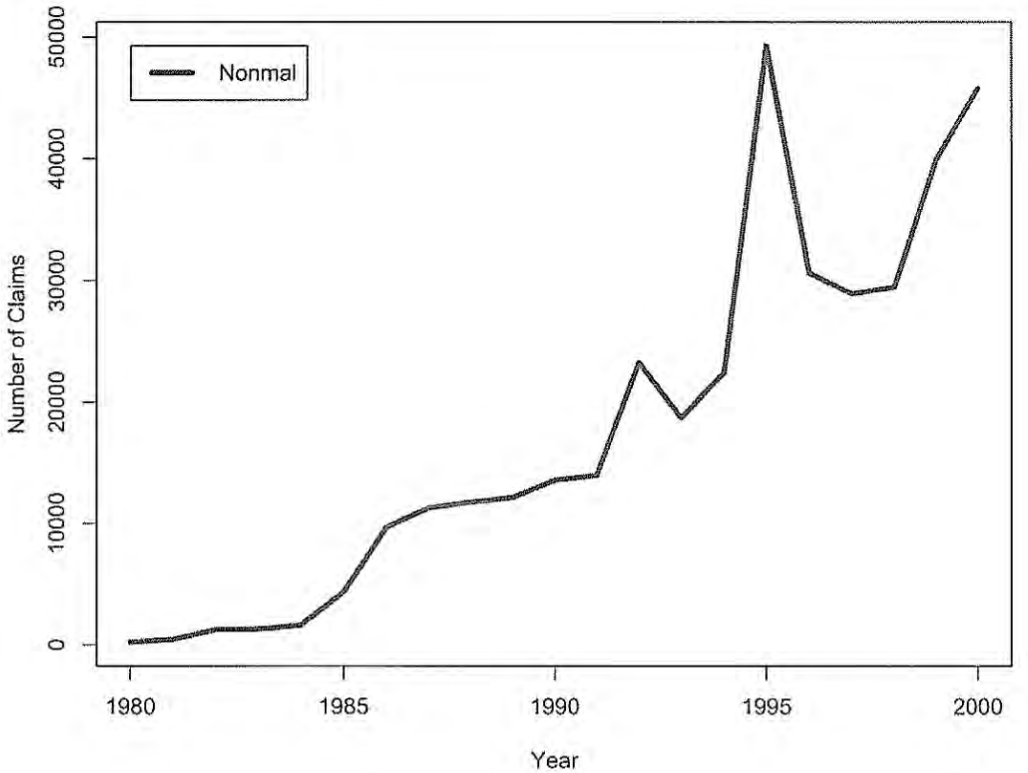
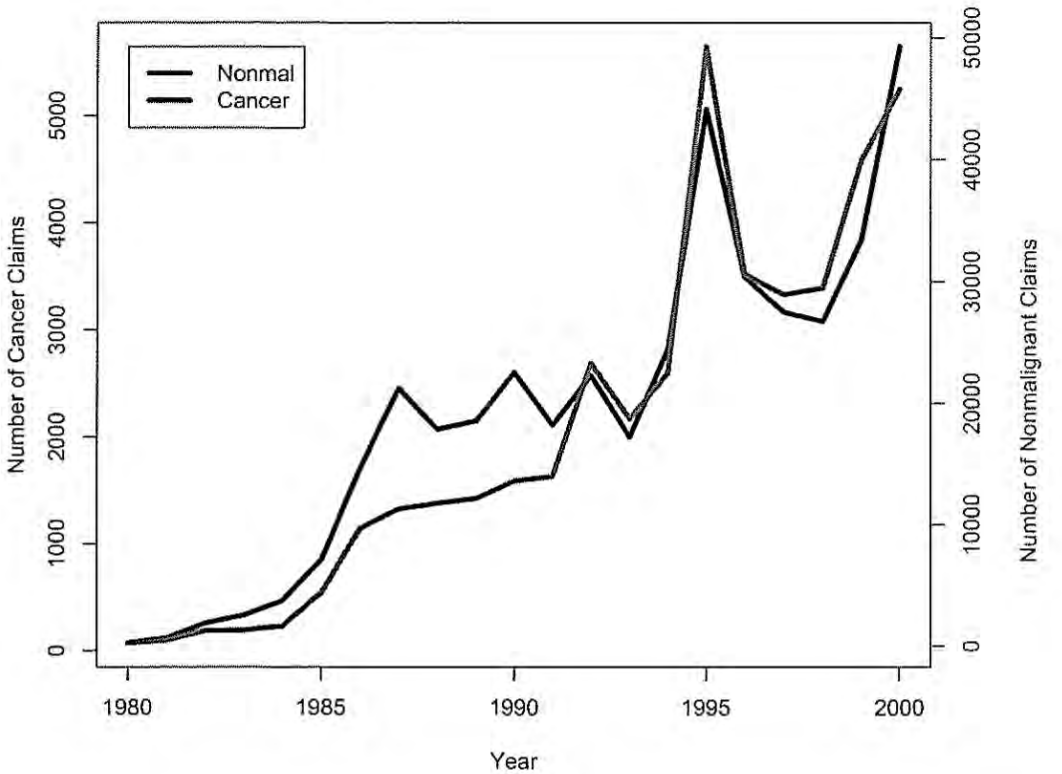


Figure 19: Comparison of Nonmalignant and Cancer Claim Counts



In our forecasts for Fibreboard, we calculate the nonmalignant multiplier over the same 5 year period ending October 5, 2000 that we used to forecast future cancer claims, calculating the ratio of nonmalignant claim filings to cancer claim filings during those years. We then estimate the number of nonmalignancy claims that will be filed in a future year by multiplying our projection of cancer claims for that year by the nonmalignant multiplier or ratio of nonmalignant to cancer claims.

Again the projection for the first year after Fibreboard's bankruptcy starts with an assumption that the ratio of filings between nonmalignancy and cancer claims will continue to be the same as during the base period. Historically during the base period the number of nonmalignancy claims filed against Fibreboard has been approximately nine times as many as cancer filings. This means that initially nonmalignancy claims will be about nine times the number of cancer claims, i.e. 90% of all filings.

We then use two alternative assumptions about how this ratio of nonmalignancy cancer claims will change over time, assumptions that correspond to our two alternative assumptions about future changes in propensities to sue for cancer. The "Increasing" assumption, which is used together with the "Increasing" model of propensities to sue for cancers, assumes that the ratio of nonmalignancy to cancer claims will increase slightly over the next five years and by the end of five years will be about 11% greater than the ratio during the base period. Thereafter, the ratio of nonmalignancy to cancer claims will remain unchanged. This 11% increase represents the general experience among asbestos defendants during the 1990s and was calculated from the actual filing experience of the Manville Trust and the UNR Trust. The second, "No Increase" assumption, which accompanies the "No Increase" model of propensities to sue for cancers,

assumes that the ratio of nonmalignant to cancer claims observed during the base period will remain unchanged in all future years.

Figure 20 and Figure 21 illustrate these alternative models of future nonmalignant claims. Both figures show the number of claims filed against Fibreboard annually prior to the bankruptcy separated into cancer and nonmalignant claims: cancer claims appear at the bottom and nonmalignant claims appear above. For purposes of illustration Figure 20 shows the implausible "No Increase" model, with no future increase in either the propensity to sue or the nonmalignant multiplier. Figure 21 shows the preferred "Increase model," with increases between 2002 and 2005 in the cancer propensities to sue and the nonmalignant multiplier.

Figure 20: Actual And Projected Filings (No Increase)

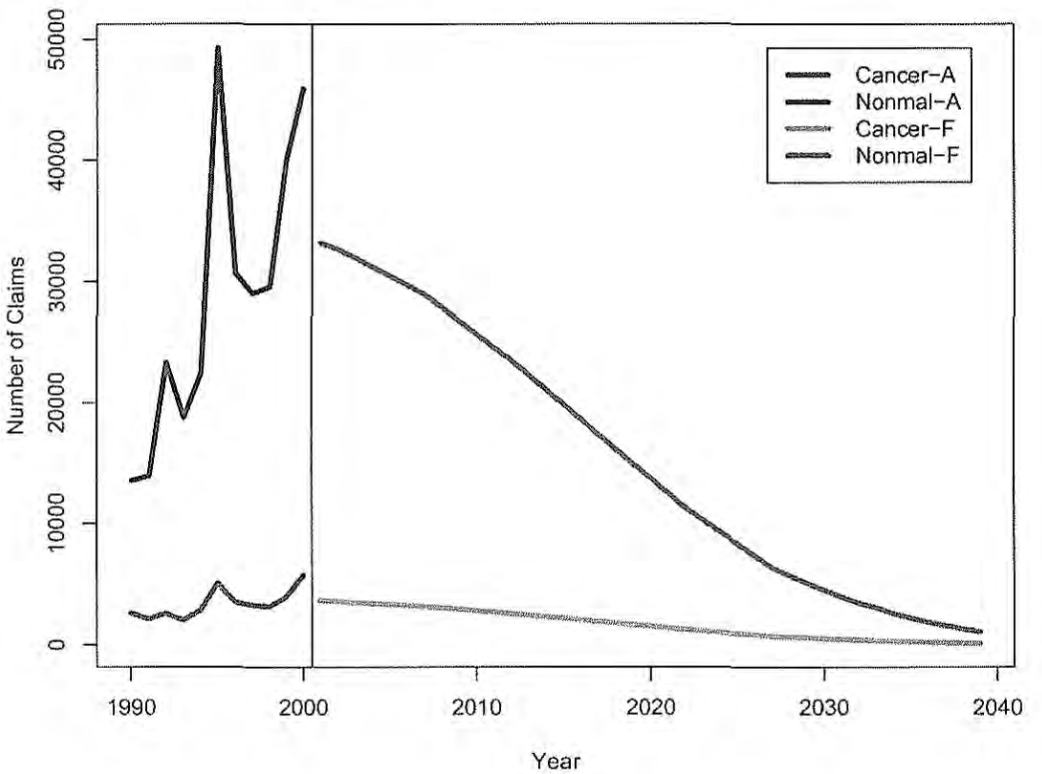
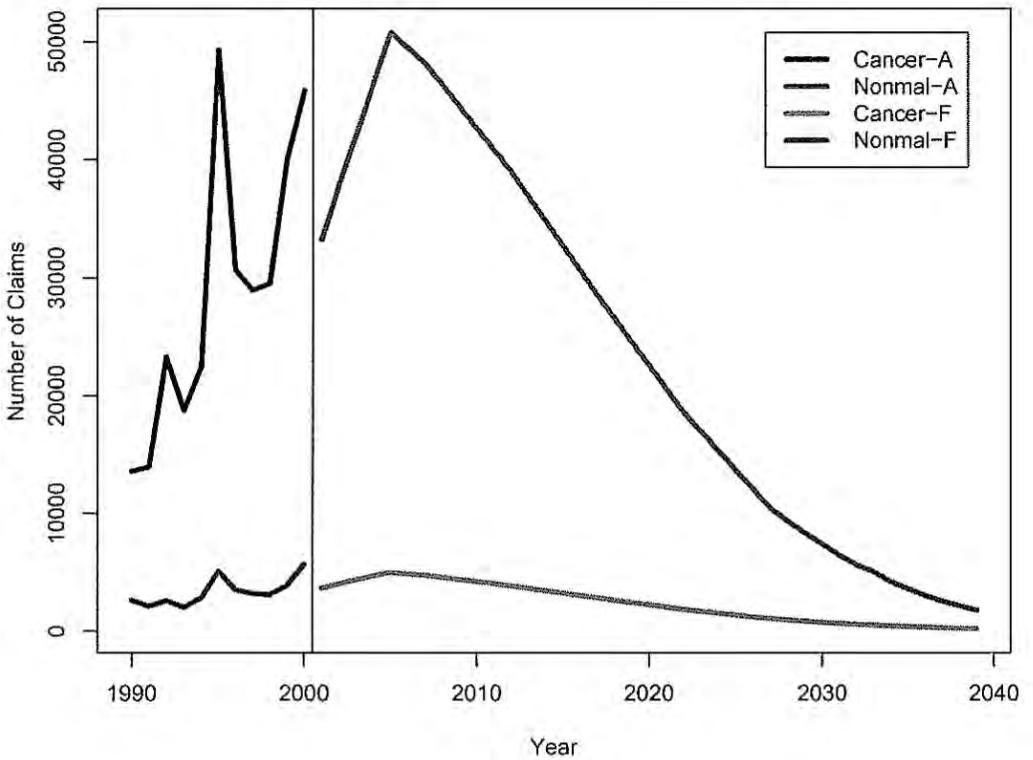


Figure 21: Actual And Projected Filings (Increases)



8.2.3. Forecasted Number of Future Claims

Table 25 shows the results of the forecasts for each of the two models, the preferred "Increasing" models and the "No Increasing" model which is included only to show future liability should the rate of claiming be implausibly frozen in time. Appendix B Tables B5 and B6 show the forecasted filings for each disease for each year from the last quarter of 2000 to 2039.

Table 25: Number of Forecasted Claims Filed After October 5, 2000

	Disease				
Model	Meso	Lung	Othc	Nonm	Total
Increasing	37,033	40,402	15,167	933,221	1,025,823
No Increase	27,568	28,699	9,152	599,341	664,760

8.2.4. Estimating Liability for Forecasted Future Claims

To value future claims we used the same values that we used for valuing pending claims, the average amount paid by Fibreboard during the 4.75 years in October 2000 to resolve claims for each type of disease (see Table 17, above).

In forecasting the values of future claims, we assumed that payments would be adjusted for future inflation at a rate of 2.5 percent per year. This rate was obtained from the forecasts of the

Congressional Budget Office. Table 26 shows the value of future claims based on each of our two alternative assumptions about the rate of filing of future claims, using values obtained from recently resolved claims adjusted for future inflation.

Table 26: Forecast Indemnity for Future Claims after October 5, 2000

	Disease				
Model	Meso	Lung	Othc	Nonm	Total
Increasing	$7.3	$1.6	$0.3	$5.7	$14.9
No Increase	5.3	1.1	0.2	3.6	10.3

Notes: Billions of Year 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year.

The results in Table 26 estimate the value that we forecast for future claims in terms of the dollars of the year when claims are allowed--these represent the amounts of allowances in each future year. However, these do not represent the present value of Fibreboard's liabilities. Since these liabilities will mostly arise in future years, Fibreboard would not need to put aside this entire amount to pay these future claims. Rather any non-insurance assets held by Fibreboard would presumably earn income. To the extent of such earnings, Fibreboard could reserve fewer assets to pay these claims. Table 27 shows the estimated present value of these liabilities, based on a discount rate of 6% provided by L. Tersigni Consulting, financial advisors to the Asbestos Claimants Committee.

Table 27: Present Value (PV) of Future Claims as of October 5, 2000

	Disease				
Model	Meso	Lung	Othc	Nonm	Total
Increasing	$3.0	$0.7	$0.1	$2.5	$6.4
No Increase	2.3	0.5	0.1	1.6	4.5

Notes: Billions of Year 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 6%.

9. Fibreboard's Total Asbestos Liability, October 2000

To estimate Fibreboard's full obligations for present and future asbestos claims, we added its forecasted indemnity for pending claims and for future claims. Table 28 shows these calculations based on using each of the two alternative estimates of the number of future claims.

Table 28: Fibreboard's Total Liability for Indemnity as of October 2000

Type of Expense	No Future Increase	Future Increase
Indemnity, Pending Claims	$1.3	$1.3
Indemnity, Future Claims	10.3	14.9
Total Liability	$11.6	$16.2

Notes: Billions of Year 2000 dollars. Pending claims are assumed to average 2 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year.

Table 29 shows the present value of Fibreboard's forecasted obligations for indemnity for asbestos claims as of October 2000, using the discount rate assumptions described above.

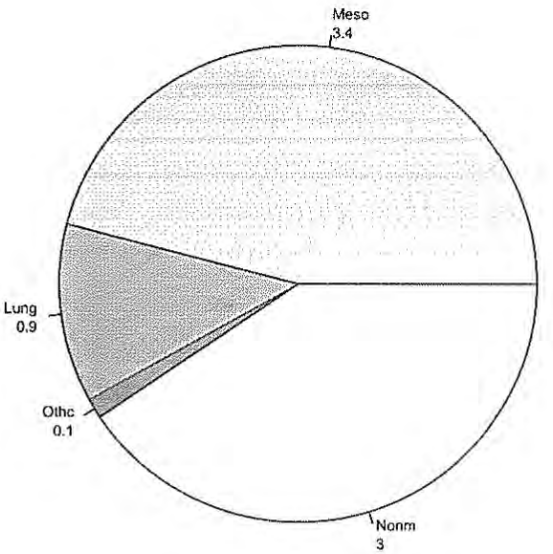
Table 29: PV of Fibreboard's Total Liability for Indemnity October 5, 2000

Type of Expense	No Future Increase	Future Increase
Indemnity, Pending Claims	$1.1	$1.1
Indemnity, Future Claims	4.5	6.4
Total Liability	$5.6	$7.5

Notes: Billions of Year 2000 dollars. Pending claims are assumed to average 2 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 6%.

Figure 22 shows how the present values of Fibreboard's obligations are distributed among the different types of diseases for the future increase (preferred) model.

Figure 22: Distribution of PV of Total Liability, by Disease: Future Increase Model



10. Alternative Assumptions and Sensitivity Analyses

In this Section I review criticisms and alternatives to the assumptions that we used for our forecasts of asbestos liabilities for OC and Fibreboard. First, I discuss criticisms and assumptions raised by Credit Suisse First Boston ("Credit Suisse") in its motion to obtain a sample of medical records. Then I discuss and evaluate key assumptions made by Dr. Thomas E. Vasquez in his analysis of liabilities for the Debtors. Finally, to assess uncertainties in our forecasts I identify and discuss other assumptions that might have raised or lowered our estimates of liabilities had we used those alternatives.

The arguments raised by Credit Suisse and some of the assumptions made by Dr. Vasquez must be rejected as technically unsound or unsupported or inappropriate for the process of estimating aggregate values of the claims by asbestos bodily injury creditors in this bankruptcy for reasons that I discuss in detail in this Section. For other alternatives that have some plausibility I describe in Section 10.3 results of sensitivity analyses in which we reran our forecast analyses. These sensitivity analyses show the significance of potential criticisms and alternative assumptions by examining how assumptions affect our liability forecasts. Although none of these alternative assumptions are as strong as those that we used in deriving our estimates of OC's and Fibreboard's aggregate liabilities, the sensitivity analyses permit the Court and parties to understand how our forecasts would have changed had we used these alternatives.

10.1. Response to Credit Suisse First Boston Criticism

Credit Suisse criticizes forecasts of OC and Fibreboard asbestos liabilities that I "will likely" make based on their attribution to me of an assumption that I do not in fact make (and never have

made), which they claim is shown to be "false and unsupportable" by "the Friedman and Hopkins reports." Credit Suisse misstates my work and misrepresents both the Friedman report for OC and what it calls the "Hopkins report" (a recent article by Gitlin, Cook, Linton and Garrett-Mayer in an on-line journal *Academic Radiology*), two flawed studies that do not speak to the estimation of OC's and Fibreboard's asbestos liabilities.

Credit Suisse falsely asserts that "Dr. Peterson's method of estimation makes the assumption that, because the Debtors paid a very high percentage of all nonmalignant claims submitted in the past, such claims must have been valid" (Credit Suisse, p. 6). Credit Suisse misrepresents my forecasts. Under our legal system, determinations about the "validity" of claims are conclusions reached only by triers of fact after trials. I do not forecast such determinations and I certainly do not assume that "because the Debtors paid ... nonmalignant claims ... such claims must have been valid." For both plaintiffs and defendants the settlement process represents compromise and efficiency. Both sides settle claims in order to avoid the cost and trouble of fully developing and trying cases. For both sides the settlement is a hedge on the bet about what a trial would produce. In settling a claim the Debtors do not necessarily accept that the claim is valid, rather they settle because a settlement saves them money: the settlement avoids litigation costs and it avoids the risk that the plaintiff would prevail at trial. Some of the cases that OC and Fibreboard settled presented them with great litigation risks and received large settlements; others were cases that presented small litigation risks and received small settlements. Credit Suisse recognized these differences in noting that a "firms' inventory might consist of claims of varying severity" (Footnote 3, page 2).

My forecasts estimate what OC and Fibreboard will pay on claims that arise in and are resolved through the actual asbestos litigation process. As I state in the first paragraph of this report, the forecasts are "based on assumptions that extend into the future the pattern of past claim filings and indemnity payments" that the Debtors have made. As part of this past process that I assume would continue for purposes of making my forecasts, OC and Fibreboard refused to pay some claims and paid others minimal amounts. For example, as Credit Suisse noted in its motion, OC refuses to accept and pay claims based on medical reports from two of the doctors criticized in Dr. Friedman's report (Footnote 13, p. 15). In short, my forecasts are based on assumptions about the behavior of OC and Fibreboard in paying claims. They do not need to and make no assumptions about claim validity, as Credit Suisse uses the term. Credit Suisse asserts that asbestos claims are "valid" only if the medical and exposure evidence is not subject to dispute. This definition is at odds with how claims are evaluated, valued and resolved in our legal system. If only undisputed claims are "valid," the metric of value would then be OC's average verdict history (see, Section 10.3.2.6 below), not its far lower resolution averages which are based on resolving both strong and weak cases.

More generally, because of their fundamental flaws, neither the Friedman nor Gitlin reports used by Credit Suisse to criticize my forecasts provide any reliable information about nonmalignant claims against OC and Fiberboard. Both studies have sampling errors that make them useless for generalization and the Gitlin article is so deficient in describing its research methods as to fail basic requirements of science or publishability in a reputable journal.

10.1.1. Problems with the Friedman Report

Dr. Friedman's undated report to OC described his review of some medical documents for 1,691 asbestos injury claims submitted to the company. Dr. Friedman's report provides information about the 1,691 claims that he reviewed, finding that most of those claims did not present asbestos-related impairments, thereby confirming what plaintiffs said about their medical conditions and what OC paid in resolving those claims.

The 1,691 asbestos claims reviewed by Dr. Friedman do not represent the universes of asbestos

injury claims submitted to OC or Fibreboard or of nonmalignant asbestos claims submitted to either. They resulted from a three-stage sampling process:

- select 22,578 claims from the universe of all OC claims (unclear whether OC or Dr. Vasquez selected these 22,578 claims from the over 500,000 OC claims) ;
- select a stratified random sample of 2,000 claims from the 22,578 (selection done by Dr. Vasquez);
- review medical records 1,691 of these 2,000 claims for which impairment assessments could be made.

As I show below, the results of Dr. Friedman's study have no application because Stage 1 introduced a striking and insurmountable bias into the sample and because Stages 2 and 3 required analytic steps that neither Dr. Friedman nor Dr. Vasquez nor anyone else has ever performed. Due to these biases and failures the results of Dr. Friedman's study simply have no application to any OC or Fiberboard claims other than the 1,691 claims that Dr. Friedman actually examined.

10.1.1.1. Stage 1 Sampling Introduces Large Biases

The group of 22,578 claims was not randomly drawn to represent all OC claims, but rather targeted certain types of claims, medical facilities and law firms. Most claimants (85%) in the 22,578 sample were from one state, Texas. Most claimants (81%) in the 22,578 sample were represented by only three law firms in Texas. Virtually all (99%) of these 22,578 claims were drawn from only 13 of OC's 42 categories of plaintiff's alleged diseases. The 22,578 claims included only 34 out of 256,097 claims that OC had evaluated as "nonmalignant condition," "moderate asbestosis," "asbestos related nonmalignant" or simply "asbestosis," one hundredth of one percent of these claims (i.e one in ten thousand). Because the group of claims from which Dr. Friedman's sample was drawn included no meaningful volume of these important disease categories, his results can say nothing about medical documentation for those claims. Because the 22,578 claims were so unrepresentative of all OC claims, Dr. Friedman's conclusions could not be meaningfully applied to all OC claims even if he had examined every one of the 22,578 claims.

Detailed information about the 1,691 claims examined by Dr. Friedman further confirms the unrepresentativeness of the 22,578 claims. Over 1,500 of the 1,691 claims examined by Dr. Friedman came from Texas; only one claim came from New York, one from Ohio, none from New Jersey, none from California--all states submitted large number of claims against OC and Fibreboard. Again, Dr. Friedman's study can say nothing about claims from these and other states that had no meaningful inclusion in his sample claims.

Data about their characteristics show that the sample of 1,691 claims given to Dr. Friedman for his review was not designed to give information generally about the universe of all OC or Fibreboard claims. Instead Dr. Friedman's 1,691 sample and the 22,578 claims from which his sample was drawn concentrated on a handful of medical facilities and doctors that OC had previously challenged. One third of the 1,691 claims given to Dr. Friedman for examination presented pulmonary function tests from four facilities that he criticized at length (Health Screen, Inc.; Industrial Health Council; Pulmonary Testing Services, Inc.; Respiratory Testing Services, Bessemer, AL) (because 282 claims did not provide pulmonary function test results, these four facilities represented over 40 percent of facilities providing such reports among the 1,691 claims). While these four facilities dominated the sample given Dr. Friedman and his conclusions about impairment, only 5 percent of all claims submitted to the Manville Trust include medical reports from one of these facilities.

Again, reflecting the biases in the 22,578 sample, 80 percent of the 1,691 claims selected by Dr. Friedman relied on medical reports from just five pulmonologist "B" readers of x-rays, with one pulmonologist, Dr. Raymond Harron, supplying medical reports in 46 percent of these claims. Again, this concentration was artificial. Manville data show that 10.7 percent of all claims included a medical report from Dr. Harron, 4.2 percent included a medical report by Dr. Segarra and 2.3% included a medical report by Dr. Kuebler, the three B readers identified by Credit Suisse. Instead, the concentration was created by OC and its consultant, Dr. Vasquez, in their selection of the 22,578 claims from which Dr. Friedman's sample was drawn. OC directed Dr. Friedman to examine primarily those doctors that it had so heavily criticized that OC had already refused to accept further medical reports from two of five doctors, as Credit Suisse pointed out (Footnote 13, p. 15).

10.1.1.2. Stage 2 Sampling Requires Adjustment for Stratification

As Dr. Friedman notes, the 2,000 claims derived in Stage 2 are a stratified random sample drawn from the 22,578 claims. Stratification is a technical term used in scientific sampling that means that sampled claims have different probabilities of being sampled. Stratification is a method that preserves the overall randomness needed for meaningful sampling while permitting an oversampling of certain important but infrequent items (e.g. claims from a small, high paying jurisdiction) so that enough of those infrequent items can be included for examination. A stratified random sample is not a simple random sample where all members of a population have equal probabilities of being sampled. Whereas the results of a simple random sample can be applied directly to the population from which the sample was taken (subject to uncertainties and missing responses), results of a stratified random sample cannot be directly applied. Rather, the results for each sampled item (here each sampled claim) must be multiplied by the inverse of its sampling probability in order to apply the results to the underlying sampled population. If, for example, claims from a particular small, high-paying jurisdiction are oversampled so that each claim from that state has a 10 times greater probability of being sampled than claims in other states, then results for those claims from this small, high-paying state that are included in the sample must be multiplied by one-tenth in order to derive conclusions that can be applied to the overall population of claims from which the sample is drawn.

Here, Dr. Friedman notes that the sample given him had "12 stratifications" (p. 2). Because it is not a simple random sample, the results of Dr. Friedman's study cannot be applied to the 22,578 claims from which the stratified sample was drawn unless the results are adjusted for the differing selection probabilities for each stratification. Both Credit Suisse and Dr. Vasquez incorrectly assert that the results of Dr. Friedman's study apply directly to larger populations of OC claimants without correcting for the sampling weights that Dr. Vasquez used in drawing the stratified sample.

10.1.1.3. Stage 3 Sampling Requires Adjustment for Missing Cases

Dr. Friedman had data for 1,691 claims, but this was not the entire stratified random sample of 2,000 claims drawn by Dr. Vasquez. We do not know why 309 claims were missing; perhaps their medical reports were unavailable. But the absence of these 309 claims defeats the sample, which is no longer random and which is no longer true to the sampling weights used to draw claims. Because this type of drop-out is not uncommon in sampling, various techniques are used to save samples that experience drop-out. A sampling researcher can identify in advance a back sample with substitutes for each sampled claim should data for an originally sampled claim be unavailable. Or the researcher can look at characteristics of cases from which claims were drawn and those that dropped out in order to infer possible effects of the lost cases. Here, no attempt has been made to determine the effect of losing over 15 percent of the stratified sample, nor has any attempt been made to correct for biases that might have resulted. We simply do not know the

effect of this drop-out. Neither Dr. Friedman, nor Dr. Vasquez, nor Credit Suisse can deny the possibility that if these missing claims had been present the rate of impaired claims found by Dr. Friedman might have doubled.

10.1.1.4. Conclusions about Friedman Report

Because the claims in Dr. Friedman's study were not selected to be representative of all OC claims, but rather were selected to concentrate on certain medical professionals and on claims from three Texas law firms, results of Dr. Friedman's study cannot be applied to all OC claimants. Assertions by Credit Suisse in its motion and Dr. Vasquez in his liability forecast that Dr. Friedman's conclusions apply to all OC claims are wrong and misrepresent the results of the study. Credit Suisse and Dr. Vasquez could not even properly assert that Dr. Friedman's conclusions about the 1,691 claims apply to the 22,578 claims from which they were drawn.

For all of these reasons, the results of Dr. Friedman's study can be meaningfully applied only to the 1,691 unrepresentative cases that he directly examined. These results do not show any great surprises about asbestos claims or litigation. They certainly do not demonstrate "widespread fraud that drove Owens Corning into bankruptcy" (Credit Suisse motion. p. 6). Dr. Friedman found that most of the 1,691 claimants for whom he had data did not provide medical reports showing impairment, but most of these 1,691 claimants did not allege impairment in the first place according to OC's claims database. In fact, Dr. Friedman agreed with claimants' assertions of impairment in 70 percent of cases: Of 1,671 where we could assess both the claimants allegation and Dr. Friedman's conclusion, in 279 cases Dr. Friedman agreed with an allegation of impairment and in 882 cases he agreed with with plaintiff's failure to allege impairment. Dr. Friedman found impairment among 40 percent of claimants who claimed to have impaired asbestosis or pleural disease and among 5 percent of claimants who did not claim impairment. The low rate of impairment among claimants not asserting impairment is appropriate and not surprising. The 40 percent rate of impairment that Dr. Friedman found for claimants asserting impairment is also not surprising, given that OC concentrated Dr. Friedman's review on those medical facilities of which it was highly suspicious. There is no reason to believe that these low rates would apply to other, more credible facilities.

Furthermore, rather than demonstrating a capricious system of asbestos litigation, Dr. Friedman's study highlights how that litigation responds to issues of integrity of medical information. First, OC's resolutions of claims is generally consistent with the conclusions that Dr. Friedman reached after extensive review of the 1,691 claims. Among the claimants that Dr. Friedman found to have no impairment, 74% have received $1,000 or less. Among those claimants that Dr. Friedman found to have impairment 82 percent received more than $5,000 in settlement. Second, both asbestos defendants and plaintiffs' law firms respond to the problems of integrity that Dr. Friedman found among certain medical facilities. As Credit Suisse observed, OC quit accepting medical reports from two of the pulmonologists that were criticized by Dr. Friedman (Footnote 13, p. 15). The Manville Trust, the Fuller Austin Settlement Trust and presumably other asbestos defendants and trusts have similarly stopped accepting documentation from questionable facilities. Plaintiffs' law firms, in turn, have dropped the use of problematic medical laboratories and B-readers. Among the four pulmonary function facilities criticized by Dr. Friedman and identified above, no plaintiff has submitted a claim to the Manville Trust in the last three years supported by a report from Pulmonary Testing Services, only 43 have submitted reports from Respiratory Testing Services in the last seven years and only one claim has submitted a report from any of the four facilities in 2004. Law firms want their claims paid, they do not want disputes and refusals by asbestos defendants.

In summary, Credit Suisse, Dr. Vasquez and Dr. Friedman all misrepresent the generality and significance of Dr. Friedman's conclusions about the claims he examined. Dr. Friedman

incorrectly implies more generality to the cases that he examined as "a snapshot of claims filed in the 1990s" (p. 33 and p. 36) and incorrectly states that he "evaluated a representative sampling of claims alleging asbestos related diseases," but he did not understand the limited and biased source from which his data were drawn. He states "I had no involvement in the selection of cases .... The identify of all plaintiff firms was redacted from all documents and represented by an assigned code. I was blinded as to the identify of the law firms." (p. 2) Perhaps for this reason he stated incorrectly that his data, which in fact were almost entirely from three Texas law firms, were about "claims ... submitted by numerous different plaintiff firms from various geographic locations" (p.2).

10.1.2. Problems with the Gitlin Article

Credit Suisse also refers to an "explosive" study by Dr. Joseph Gitlin and others (Comparison of "B" Readers' Radiographic Interpretations of Chest Radiographs for Asbestos Related Changes," Academic Radiology 2004, 11: 843-856) (the "Gitlin article") that, in its view, casts doubt on the validity of medical documentation supporting many of the claims against OC. The Gitlin article was accompanied by a guest editorial that in its title alone suggests the possibility of widespread abuse (Janower, M. L. and L. Berlin, "B" Readers' Radiographic Interpretations in Asbestos Litigation: Is Something Rotten in the Courtroom?," Academic Radiology 2004, 11: 841-842). The basic article and accompanying editorial have been widely quoted and used by asbestos defendants to lobby against asbestos plaintiffs and to support the call for legislative reform.

In making these arguments, Credit Suisse ignores two vital pieces of information. First, Dr. Gitlin himself does not attempt to generalize beyond his sample to a general population, and explicitly says you cannot do that. Second, any attempts to generalize from his article to a general population would have no scientific basis.

The "Discussion" Section of Dr. Gitlin's article makes clear what can and cannot be learned from the study. Direct quotes are:

- "The authors had no basis for determining how this group of workers represented the universe of asbestos claimants"
- "Additional studies incorporating scientific sample selection and the use of demographic factors would be desirable in developing more objective measures for adjudication of individual claims."
- "Despite these limitations, the results of this study can contribute to the design of subsequent efforts to obtain reliable information about asbestosis, including the optimum number of consultant readers needed to to provide sufficient data points to support reasonable analysis and consultations."

So, Dr. Gitlin was focused on questions like how much interobserver variation there was in the interpretation of X-rays, what kinds of data gathering procedures one would need, and what sorts of statistical methods might be used to determine a given individual's status in the presence of multiple X-ray readings.

But the Gitlin article stops well short of drawing inferences about the population of asbestos claimants. It is Credit Suisse that has drawn those inferences. In doing so, Credit Suisse has ignored the fact that the article does not satisfy standards for generalization in the scientific literature. Credible scientific research must:

- start with the explicit identification of a target population to which the research conclusions would apply (e.g., the population of alive exposed workers, or claimants filing claims in

recent years, or claimants filing non-malignant claims in recent years),

- select a sample in a way that the relationship between the sample and target population is fully explained so that others can understand the sampling process, and
- use statistical methods to examine biases in the sample for which data are complete so that adjustments (e.g., reweighting) can be made if necessary in generalizing from the sample back to the target population
- subject sampled claims to unbiased analyses that do not predetermine results simply because of how claims were reviewed or who did the reviewing and then fully explain the review and who did it so that that others can understand the analytic process.

None of this is done in the article. All that we know is that "the results presented in this article are based on a reading trial the authors conducted for a group of defense attorneys" suggesting that the research was done for partisan reasons rather than for objective science. How Dr. Gitlin's cases were selected and who reviewed them means everything--the study involves nothing other than these two processes which Dr. Gitlin fails to describe. In order to generalize to populations beyond the sampled claims, Dr. Gitlin would have to start, as he does not, by describing both the population of defense attorneys, the population of X-rays from which the sample was drawn and how the X-rays possessed by these defense lawyers are representative in some way to a broader population. Without such explanations, we must be skeptical about the generality of the examined X-rays: defense lawyers typically have X-rays for only a small and unrepresentative sample of all asbestos plaintiffs. Dr. Gitlin would then have to explain how the X-rays in his study were sampled from all X-rays possessed by these defense lawyers, a step that he again fails to explain. Again, we must be skeptical (the scientific method requires skepticism, an approach that is even more incumbent here given the interested sponsorship of the research and the high economic stakes of its conclusions). Here, where defense attorneys both sponsored the study and also supplied the sampled X-rays, Dr. Gitlin would have to make a compelling explanation of a fair, random selection process. Dr. Gitlin would need to rule out adverse selection procedures that have the effect of generating conclusions of interest to the sponsoring lawyers. For example, defense attorneys may have selected from the minority of asbestosis law suits that were rejected by courts or refused payments. Or, defense attorneys might have screened the X-rays to identify claims that a defense doctor had already assessed as having no X-ray evidence of asbestos-related disease. Because Dr. Gitlin's inferences about his sampled cases are so extreme (only 4.5% of the cases have ILO 1/0 or higher), these are the plausible hypotheses for the cases selected and reviewed here.

Having failed to explain how the sponsors of his research selected the claims that he examined, Dr. Gitlin then fails to describe who reviewed these claims. Credible past research has already shown enormous variability among B-readers in their conclusions about X-rays; Dr. Gitlin does not attempt to plow new ground here. See, for example, 'B-Readers' and Asbestos Medical Surveillance. Ducatman, Yand and Forman,. Journal of Occupational Medicine, Volume 20, pp. 644-647 (1988). B-readers who serve as litigation consultants for asbestos defendants differ markedly in their readings from those who serve as consultants for asbestos plaintiffs and both differ from those B-readers who do not participate in litigation. Again, without Dr. Gitlin's explanation about how his "test" B-readers were selected and what, if any, experience they have in asbestos litigation, we must be skeptical. If Dr. Gitlin's B-readers include consultants to asbestos defendants, the results are an expectable reflection of biases among such B-readers.

Established and reputable health services journals like the Journal of the American Medical Association or the New England Journal of Medicine determine the standards that have to be followed for publication. One cannot accept a series of medical cases with completely unknown origin as the basis for a study, as Credit Suisse would suggest. Credit Suisse has not done its own

analysis here, but has simply jumped on a partisan bandwagon of asbestos defendants who cite this study done on behalf of their lawyers.

10.1.3. The Credit Suisse Motion Raises No Credible Forecasting Issues

Nothing in Credit Suisse's motion raises issues affecting reasonable forecasting of the asbestos liabilities of OC or Fibreboard. Credit Suisse does not criticize my forecasts or assumptions either in this case or in my previous forecasts in other cases, but rather raises a straw man argument that falsely asserts that I make a forecasting assumption that I do not in fact make. Credit Suisse then relies on the Friedman report and Gitlin article, two studies that provide no reliable information about OC and Fibreboard asbestos claims, both to criticize my forecasts and also to argue for an expensive and unworkable process for reviewing detailed medical records for thousands of OC claims. Neither the Freidman report nor the Gitlin article either support their criticisms of my forecasts or evidence a need for Credit Suisse's expensive discovery process. Credit Suisse provides no useful comments about uncertainties in our forecasts and no help in identifying issues that would be appropriate for examination through sensitivity analyses.

10.2. Dr. Vasquez Forecasts for OC and Fibreboard

The undated "Forecast of Future Asbestos Claims and Idemnity: Owens Corning and Fibreboard" by Dr. Thomas E. Vasquez provides independent estimates of asbestos liabilities for each company. Dr. Vasquez employs the same basic forecasting approach that I have used in this report, the standard and widely used "Nicholson Method" so named because of its use of the signal epidemiological forecasts by Nicholson, Perkel and Selikoff to forecast future claim filings. While using the same basic method, Dr. Vasquez employs far different and often unsupported assumptions which individually and in combination serve to minimize his forecasts of future liabilities. I review some of Dr. Vasquez's significant assumptions in this Section and present sensitivity analyses of Dr. Vasquez's forecasts to show how each reduces Dr. Vasquez's forecasts.

Dr. Vasquez's forecasts have two basic problems: First, as I describe in detail below, he uses a series of unusual and questionable assumptions each of which has the effect of reducing his forecasted liability. The forecasts are not balanced but rather combine questionable assumptions that minimize estimated values of asbestos bodily injury claims. Second, Dr. Vasquez's forecasts of values for OC and and Fibreboard asbestos claims are muddled amalgams based sometimes on values in tort litigation and at other times values that might be paid by a bankruptcy trust created in these procedings.

Dr. Vasquez starts his valuation with amounts paid to asbestos claimants in the past by OC and Fibreboard as settlements in tort litigation, which would be an appropriate approach for estimating values of bankruptcy claims for asbestos bodily injuries if the approach had been implemented correctly. But Dr. Vasquez then subverts this approach by repeatedly replacing amounts actually paid by OC and Fibreboard in past tort litigation with his speculation about how claims would be paid by a trust created in these bankruptcy proceeding:

- Relying on the flawed Friedman study, Dr. Vasquez assumes that most claimants alleging asbestosis or pleural disease will have no impairment and will have values that he sets arbitrarily at $1,000 for OC and $700 for Fibreboard because "consistent with post-bankruptcy asbestos trusts, it was assumed that a nominal amount would be paid even to unimpaired claimants" (Vasquez, pp. 21 and 71).
- In calculating historic payments, Dr. Vasquez disregards OC's compensatory damage trial verdicts "since future Owens Corning and Fibreboard claims will be settled through a settlement trust" which he assumes would not be subject to trial verdicts (Vasquez, p. 69).

- Dr. Vasquez forecasts administrative and defense costs that would be paid by an asbestos trust not what OC and Fibreboard would pay in continuing litigation (Vasquez, pp. 32 and 90).

It is not clear just what liabilities Dr. Vasquez attempts to forecast, those of an asbestos trust or those for OC and Fibreboard in a continuation of tort liability, although he states that he prepared his forecasts because "the forecast of indemnity for the two companies is required under Section 524(g) of the Bankruptcy Code" (p. 4), requirements placed on asbestos trusts to assure their ability to pay future claimants. In any event, Dr. Vasquez's forecasts do not seem intended to and do not in fact estimate the values of OC and Fibreboard asbestos bodily injury bankruptcy claims in terms of the civil laws and procedures that apply to those claims. His forecasts do not seem pertinent to the current estimation process.

Dr. Vasquez's report makes many assumptions that determine the amounts he forecasts as OC's and Fibreboard's liabilities for future asbestos claims. Some of these assumptions are troubling or implausible. Table 30 lists seven particular assumptions made by Dr. Vasquez that I discuss in this section. Table 30 also shows results of our sensitivity analyses that quantify the impact of each assumption on Dr. Vasquez's forecasts of liability for each company. We start by attempting to replicate the forecasts by Dr. Vasquez that use all of his assumptions and his "Method 2" disease payment values. We were able to closely replicate Dr. Vasquez's forecasts for OC (the first two rows of Table 30), producing identical forecasts for the present value. We did not precisely replicate his forecasts for Fibreboard, perhaps because we use a different, more recent database than that used by Dr. Vasquez. We reach slightly higher forecasted liability values, a difference that I adjust in the next paragraph in discussing the full results of the sensitivity analysis. We then change each of the seven problematic Vasquez assumptions one at a time, showing the cumulative effects of these changes on Table 30. For example, when we extend the base period that Dr. Vasquez uses to forecast future claim filings from the 1995-1998 period he uses to 1995-2000, the present value forecasts increase about 22 percent for OC ($3.9 billion / $3.2 billion = 1.22%) and about 19 percent for Fibreboard ($3.2 billion / $2.7 billion = 1.19%; we start with with our approximate replication of Dr. Vasquez's results before and after this sensitivity adjustment rather starting with his precise forecast results). When we change the second Vasquez assumption, changing his assumption of no increase in future propensities to an assumed increase, the effects of both of these changes now increase Dr. Vasquez's present value forecast for OC from the $3.2 billion he started with to $5.6 billion, an increase of 175 percent. We continue adding the effects of each changed assumptions to the previous changes showing the cumulative effects of all seven changes by the end of Table 30.

Table 30: Cumulative Effect of Assumptions on Dr. Vasquez' Estimates of Filings and Liability

Ref Section	Condition	Liability		Present Value	
		OC	FB	OC	FB
	Vasquez "Method 2" Results	$6.9	$5.1	$3.2	$2.3
	LAS Replication of Vasquez Results	7.1	6.0	3.2	2.7
10.2.1	Include 1999-2000 in Base Period	8.5	7.0	3.9	3.2
10.2.1	Increase Propensity to Sue	12.8	10.5	5.6	4.6
10.2.2	Use Nicholson Epidemiology	13.9	11.4	6.1	5.0
10.2.4	Use Constant Dollars (2000$)	14.5	11.7	6.4	5.1
10.2.4	Restore Verdicts	16.9	11.7	7.4	5.1
10.2.4	Use Actual Settlement Values	19.0	13.1	8.3	5.7
10.2.4	Remove Age Adjustment	20.6	14.2	8.8	6.1

Notes: Table shows alternative forecasts of the present value of liabilities for future claims in billions of year 2000 dollars. Discount rate is 6%. Inflation rate varies among the alternatives.

As Table 30 shows replacement of each of the seven Vasquez assumptions that I criticize below with more plausible assumptions has the effect of increasing the liability forecasts for each company (the changed assumption of restoring verdicts did not affect the Fibreboard forecast because that company had no recent verdicts). Together substitution of all seven Vasquez assumptions with alternatives that I show below to be more plausible results in a great increase Dr. Vasquez's forecasts. His present value forecast of future claims for OC increases from $3.2 billion to $8.8 billion. His present value forecast for Fibreboard increases from $2.3 billion to $5.2 billion, (obtained by increasing Dr. Vasquez's $2.3 billion forecast by 226 percent which is the percent increase we observe from our $2.7 approximate replication of his Fibreboard forecast to Fibreboard's $6.1 billion liability after the seven adjustments: $6.1 billion / $2.7 billion = 2.2593; 2.2593 x $2.3 billion = $5.196 billion). These differences represent changes in only seven of the troubling assumptions. Dr. Vasquez's forecasts would have increased further with more comprehensive changes.

10.2.1. Dr. Vasquez Ignores OC's and Fibreboard's Increased Claims Filings

Future forecasts should look to a company's history of past claims which provide information about the actual level of filings for each asbestos related disease and trends in such filings. Forecasters look to the most recent period of filings against a defendant under the assumption that conditions that will determine filings in the future are most similar to the most proximate time period, here the months and years immediately preceding OC's bankruptcy filing. For both OC and Fibreboard, claim filings had increased throughout the 1990s and over the five years preceding the petition date, reaching their highest level immediately before the bankruptcy (47,980 claims against OC in nine months of 2000, 55,439 annualized, Table 10, Section 6.2.3; 46,532 claims against Fibreboard in the same period, 54,272 annualized, Table 23, Section 8.2.1.). Only a one-year increase in filings in 1995 broke this overall trend and that increase was the result of the two nationwide class action of future claimants that shifted filings that would have otherwise occurred before and after 1995 into that year (see discussion in Section 6.2.3.). Both Dr. Vasquez and I testified about this process of "accelerated" claimings during the fairness hearing for Fibreboard's Ahearn class action, one of the two class actions that caused the 1995 increase for accelerated filings against OC and other defendants, and I presented data in the Babcock and Wilcox confirmation hearing about a similar acceleration of filings against that company in 1995.

Contrary to general practices in forecasting asbestos liabilities and his own forecasts in other cases, Dr. Vasquez did not use OC's and Fibreboard's most recent and timely experience in claim filings to forecast future claims, but rather used an earlier period, 1996-1998, during which annual filings against OC were only 71 percent of their most recent level during January 1999 through September 2000 (36,597 average annual filings during 1996-1998; 51,709 average annual filings 1999-September 2000: 36,597 / 51,709 = 70.8 percent) and Fibreboard's were only 68 percent of their most recent level (34,455 annual filings during 1996-98; 50,402 annual filings 1999-September 2000: 34,344 / 50,402 = 68.4 percent). As a result Dr. Vasquez forecasts that OC's and Fibreboard's future filings would start at only 70 percent of the annual level of filings for each averaged over the most recent five years preceding OC's bankruptcy petition. Then, although both companies were experiencing a continuing increase in filings, an increase which was and continues to be the experience of other asbestos defendants as well (Figure 2, Section 3.), Dr. Vasquez forecasts that the direction of future filings would change, sharply decreasing from his starting points that were already well below each company's actual claim filing experience at the time of its bankruptcy.

Dr. Vasquez rejected the most current data on OC's and Fibreboard's claim filings and his own practices in other cases arguing that the increased 1999 and 2000 filings were caused by the new NSP settlements that encouraged plaintiffs to accelerate their filings in order to be included in the initial NSP agreements. Dr. Vasquez offers no evidence at all to support his speculation that plaintiffs accelerated the timing of their filings or that the large 1999 and 2000 increase in OC filings resulted from accelerated filing of claims. The evidence is contrary. Asbestos claim filings increased broadly across many other asbestos defendants in these years (Figure 2, Section 3.), increases that could have nothing to do with the NSP settlement programs of OC and Fibreboard. The increased use of the internet, both among asbestos cancer victims and by plaintiffs' law firms seeking clients, contributed to the increased filings against OC, Fibreboard and other defendants.

In particular, Dr. Vasquez is not persuasive in arguing that the sharp increases in 1999-2000 cancer filings resulted from cancer victims' earlier, accelerated filings so that they could be included immediately in the NSP agreements. NSP qualification requirements and payment amounts were typically similar for initial and future cancer claimants, so there would be little reason for cancer claimants to speed their filings. Undoubtedly cancer claimants desired the earliest possible payment, but those desires were not generated or affected by the NSPs. Indeed because of their desire for early payments most cancer claimants typically file shortly after their diagnoses, which means there would have been little opportunity to observe the accelerated filings that Dr. Vasquez presumes. Consequently, empirical support for accelerated filings among asbestos claimants in other cases, the 1992-1993 increases in Fibreboard's filings before its Ahearn class action and the 1995 peak in filings against Babcock and Wilcox (similar to the 1995 peak for OC), found earlier filings primarily among victims of nonmalignant diseases rather than among cancer claimants.

Particularly for his forecasts of future cancer claims, Dr. Vasquez has provided no reason for rejecting OC's and Fibreboard's higher claim filings during 1999 and 2000 or for using only the lower filing levels from previous years At the time of OC's bankruptcy petition, (1) claim filings for both OC and Fibreboard were much greater than Dr. Vasquez forecasts for the future, (2) filing trends for both companies were increasing at the time and (3) other, similar defendants found that asbestos claims continued to rise in number after the date of OC's bankruptcy filing. Reasonable forecasts of future asbestos claims carry into the future a company's experience at the time of its bankruptcy and, where possible, look to what has happened to similar companies since a debtor entered bankruptcy. Here, Dr. Vasquez should have forecast far more claims for the period immediately after OC's bankruptcy filing and he should have forecast a continuing

increase in claim filings against both OC and Fibreboard. Failing to make these assumptions, Dr. Vasquez's forecasts of future filings for OC and for Fibreboard are too low.

The first two adjustments of our sensitivity analyses assume, as Dr. Vasquez does not, continuation of OC's and Fibreboard's claim filing experience at the time of its bankruptcy filings. First we extend the period for calculating propensities to sue right up to the time of OC's banruptcy petition, adding 1.75 years during 1999 and the first nine months of 2000. Second, we assume that the rate in claims filings that OC and Fibreboard had experienced over the 1990s would continue and would not sharply reverse as Dr. Vasquez assumed.

10.2.2. Dr. Vasquez's Incidence Model Further Reduces His Forecasts

Another of Dr. Vasquez's assumptions that lower his forecast of the number of future claims is his choice of the epidemiological model that he uses in making his forecast. As Dr. Vasquez notes, forecasts of the incidences of asbestos related cancers that he uses in his liability forecasts were derived from an original peer-reviewed study by Nicholson, Perkel and Selikoff published in 1982. Ten years later Dr. Vasquez and his colleagues at KPMG-Peat Marwick derived another set of incidence forecasts based on the Nicholson study (the "KPMG" study). In making his liability forecasts for OC and Fibreboard, Dr. Vasquez could have used either the incidence forecasts that he and his colleagues derived or the original Nicholson incidence forecasts. Both are routinely used to forecast future asbestos liabilities and I have used both.

But the Nicholson forecasts are preferable for three reasons. First, Nicholson provides epidemiological forecasts for all cancers, mesothelioma, lung and other cancer sites. The KPMG incidence forecasts do not include asbestos-related deaths for other cancers. Second, Nicholson's study was conducted by medical doctors and epidemiologists and was peer reviewed. KPMG's is not. Third and most important, the Nicholson forecasts of mesothelioma deaths have been closely confirmed by the National Cancer Institute's SEER program, which Dr. Vasquez correctly notes is the test for validity of these models. KPMG's forecasts of mesothelioma deaths also compares well with the SEER data, but it does not predict the number of mesothelioma deaths as well as the Nicholson forecasts (Figure 5, Section 6.2.2.). KPMG's forecast model regularly undercounts the number of mesothelioma deaths among all Americans, male and female. Nicholson's forecasts correspond remarkably closely to the SEER data since their publication in 1982. Dr. Vasquez's report presents Figure 1 showing that the KPMG incidence forecast lies between the SEER count of all cancer deaths, male and female, and the SEER count only among males. The comparison with the "SEER-Male" data is not a proper test. Both Nicholson and, therefore, KPMG forecast cancer deaths among all workers occupationally exposed to asbestos, male or female making the SEER total count across gender the proper test of the models' validity. Further, Dr. Vasquez's comparison of his incidence forecasts to SEER in Figure 1 is misleading, since the KPMG model can be properly tested only for the years when it forecasts future mesothelioma deaths, the years after the 1992 development of the KPMG model. For prior years, KPMG was not predicting then unknown mesothelioma deaths, but rather was simply creating an equation that fit this already known data.

Dr. Vasquez ran and reported OC and Fibreboard forecasts based only on the KPMG incidence model. Because both the Nicholson and KPMG incidence models are well established and appropriate bases for forecasting asbestos claims, it is most useful to run and report forecasts using each of the two incidence models so that courts and parties can understand how the liability forecasts are affected by use of one or the other model. My routine practice is to run and report both models and we present both in our sensitivity analyses (Section 10.3). As I typically find among asbestos forecasts, use of the Nicholson model would have increased forecasts of OC's and Fibreboard's future liability by 10 percent compared to use of the KPMG incidence model. The number of future claims forecasted with the Nicholson model would be about 5 percent

greater than using the KPMG incidence forecasts and, consequently, defense costs would also be about 5 percent greater (forecasted liabilities increase more than forecasted claims because the Nicholson incidence model produces a slightly different distribution of diseases with a relative increase in the high-valued mesothelioma claims). Because of its stronger empirical confirmation the Nicholson incidence model should be regarded as the preferred basis for forecasting future asbestos claims that provides the better forecasts of liabilities for such claims.

Our third change in our sensitivity analysis of Dr. Vasquez forecasts uses the Nicholson epidemiological forecast of incidence of asbestos related cancers instead of the KPMG incidence forecasts.

10.2.3. Dr. Vasquez Inappropriately Values Future Claims by NSP Values

For one of his two alternative valuation models, Dr. Vasquez values future OC and Fibreboard claims based on averages from NSP agreements. These NSP agreements are inapplicable to future claimants. Future claimants are not a party to these agreements. Values of their claims cannot be determined by agreements to which they are not party. Moreover, by their terms the NSPs are indefinite and do not specify values that would apply to future claimants who might choose to accept those agreements.

Dr. Vasquez recognizes the inapplicability of the NSP agreements to future claimants. Although the NSPs would provide no payment for nonmalignant claimants who do not meet the NSP definitions of impairment, Dr. Vasquez nevertheless recognizes that future nonmalignant claims must be given values whether or not the NSPs provide for payment. Dr. Vasquez assigns arbitrary values for nonmalignant claims that do not meet NSP requirements, $1,000 for claims against OC and $700 for claims against Fibreboard.

10.2.4. Dr. Vasquez Makes Arbitrary and Unsupported Reductions in His Second Valuation Model

The derivation of the "Six Year Historical Averages" used in Dr. Vasquez's second valuation model is obscured by contradictions. Dr. Vasquez's report states that this second valuation model is based only on non-NSP settlements since 1995, but further documentation from Dr. Vasquez's company, ARPC, indicate that these "Historic Average Indemnity Amounts" were calculated across all settlements both under the NSPs and outside the NSPs. Second, Dr. Vasquez could not have calculated "Six Year Historical Averages" for Fibreboard as he claims. Fibreboard participated in few settlements between 1995 and late 1999 because the Ahearn injunction allowed only settlements of exigent cancer and trial calendar claims in those years. Dr. Vasquez provides data indicating many Fibreboard settlements, including many nonmalignant settlements, during the 1995-1999 period while the injunction was in place, but these settlement dates cannot be accurate. Apparently Dr. Vasquez treated Fibreboard settlements like Fibreboard filings, attributing to Fibreboard the dates on which OC settled with each plaintiff who also have a Fibreboard claims even though Fibreboard could only have settled these claims in late 1999 and 2000 after the injunction was lifted. Claims that Fibreboard actually settled during 1999 and 2000 cannot be regarded as having settled in prior years even if OC's settlements occurred earlier.

These changes in Fibreboard settlement dates call attention to one particular omission in Dr. Vasquez's calculations of historic averages, his failure to adjust for inflation that occurred between 1995 and 2000. Because of inflation the value of the dollar was changing over the six year period; a 1995 dollar was different in real value from a 2000 dollar just as the value of U.S. dollars differ from Canadian or Panamanian dollars. Just as one cannot meaningfully average values of payments made in different currencies, U.S., Canadian or Panamanian dollars, one cannot meaningfully average 1995 settlement dollars with settlements achieved in other years when the U.S. dollar had different values. Rather, the dollar settlements for each year must be

adjusted for inflation so that they are then expressed in the same monetary unit, all in year 2000 dollars for example. Because Dr. Vasquez failed to make this inflation adjustment, his multiyear averages underestimate the actual multiyear averages in terms of current (i.e. now inflated) dollars. Dr. Vasquez's use of the dates when OC settled claims to replace Fibreboard's actual settlement dates prevents meaningful adjustments for inflation.

Our fourth change in our sensitivity analysis of Dr. Vasquez's forecast adjusted for inflation during the periods used to derive the historic settlement averages for each company and stated these derived averages in year 2000 dollars, the year of OC's bankruptcy petition.

As I describe next, Dr. Vasquez made several other problematic assumptions that lowered his estimate of the values of asbestos claims against OC and Fibreboard and, therefore, lowered his forecasts of company's liability for future asbestos claims. First, in calculating the values of past resolutions for each company Dr. Vasquez excluded verdicts, justifying these exclusions because "future Owens Corning and Fibreboard claims will be settled through a settlement trust" (p. 69). This step renders Dr. Vasquez's calculations inappropriate as estimates in bankruptcy of the aggregate values of asbestos claims against each company.

As for all creditors, the values of asbestos bodily injury claims in bankruptcy are determined by their values under applicable civil law. Just as bankruptcy creditors who hold contract claims against OC will have the values of their claims determined by contract laws that obtain outside of bankruptcy, asbestos injury creditors must have the values of their claims determined under tort laws relevant to their claim. Both OC and Fibreboard have extensive histories of how they have resolved past claims under the relevant tort laws and these histories provide means for estimating the values of present and future asbestos claims. OC's historic liability for asbestos injury claims includes both the amounts that it paid in settlements and the amounts it paid as the result of trial verdicts (because of Ahearn Fiberboard has no recent history of trials). Particularly given OC's years of using an aggressive litigation strategy, its liability and, conversely, the average historic values of OC asbestos claim must be calculated from the total of both settlements and verdicts. Because OC paid substantial amounts in verdicts to asbestos injury claimants, Dr. Vasquez significantly underestimates OC's asbestos liabilities and the average values of asbestos claims by excluding verdicts from his calculations.

Our fifth change in our sensitivity analysis of Dr. Vasquez's forecast included both OC's settlements and its verdicts in calculating the company's historic level of payments to asbestos claimants.

Next in calculating OC's historic payment averages Dr. Vasquez decreased the actual settlement amounts paid to almost all claimants by one-eighth, because (a few) different plaintiffs had received verdicts for punitive damages against OC. Dr. Vasquez assumed that punitive damage awards should not be included in calculating the historic payment levels he used for his forecasts. But Dr. Vasquez did not simply omit the actual amounts that OC paid in punitive damages in calculating its historic payments levels. Rather he estimated that 12.5 percent of all past OC settlements represented a "punitive component" of those settlements that should be excluded in calculating the average values of claims, even though that claimant had not received a punitive damage award or settlement. There are multiple problems with this reduction. Dr. Vasquez gives absolutely no rationale or reason why one-eighth of the amounts paid by OC to hundreds of thousands of settling claimants should be disregarded because a few, different plaintiffs were paid punitive damages. He gives no rationale or reason why future claimants should have the estimated values of their claims reduced below the amounts actually paid in the past to settle claims that did not involve any punitive damage award, because some other plaintiffs in the past were paid punitive damages. Dr. Vasquez does not simply exclude the actual amount of punitive damages paid to past plaintiffs in calculating the average values of future claims, he further

reduces the historic settlements paid by OC by another 12.5 percent in order to exclude what he claims is the "punitive component" of past settlements.

Dr. Vasquez's derivation of the 12.5 percent reduction comes from a misuse of multiple regression analysis. Dr. Vasquez claims to have identified seven states which "historically ... did not award punitive damages" (p. 155). He does not report how he identified these states: Were they the only states in which he believes no punitive damages were in fact awarded against OC (which would be historically inaccurate)? Does he represent that the seven states are the only states in which laws do not permit punitive damages for asbestos claims? If so, how did he identify these states? What expertise does Dr. Vasquez have to assess the nature of punitive damage laws across states? He is an economist not a lawyer or legal scholar. Dr. Vasquez then ran a multiple regression analysis that attempted to determine how much of the variation in settlement payments to different claimants was determined by a series of variables taking into account the effects on settlements of all other variables in the analysis. Among these were "dummy" variables that separated Dr. Vasquez's seven non-punitive damage states from the other 43 states that he apparently concluded did award punitive damages. The multiple regression analyses found that for each type of disease settlements differed between his non-punitive damage states and the other states, with lower settlements in the non-punitive damage states. From this Dr. Vasquez concluded that these differences in settlements between the two groups of states occurred solely because of the availability of punitive damages in some states but not the others and he reduced the values of settlements in the 43 punitive damage states to the levels of settlements in the 7 states he believes are non-punitive damage states.

There are numerous problems with this analysis. First, we do not know the basis of Dr. Vasquez's identification of punitive damage and non-punitive damage states; he has given no explanation that his identification of states makes sense. Second, Dr. Vasquez has not demonstrated that punitive damages were awarded in each of his punitive damage states. He treats Wyoming, for example, as a punitive damage state, but he has not demonstrated that punitive damages were ever awarded against OC or any asbestos defendant in Wyoming. If no punitive damages have been awarded there, why would OC settlements with Wyoming plaintiffs have been inflated because punitive damages might have been awarded in other states with different laws, different judges and different juries? Third, Dr. Vasquez does not take timing into account. If punitive damages have any effect on settlements values of other cases, those effects would occur only after punitive damages were awarded. Fourth and most obviously, Dr. Vasquez's analysis is extremely aggressive in concluding that all differences in settlement values between his two groups of states are attributable to whether or not the state "historically ... award(ed) punitive damages." Dr. Vasquez's seven non-punitive damage states include Massachusetts, Nebraska and New Hampshire--states that have low settlement values for reasons wholely unrelated to the availability of punitive damages. Asbestos claims in Massachusetts, for example, have had low settlement values because plaintiffs can rarely get trial settings. The values of asbestos settlements are closely tied to the pendency of trial. In states where trials are readily available, values are greater. In states like Massachusetts where plaintiffs have little chance in getting to trial, defendants can force lower settle values. Essentially, Dr. Vasquez's analysis is an example of naive misuse of multiple regression analyses, in which he observes some differences in settlement values between two groups of states and then assumes that those differences resulted from only the one factor that he is examining in his analysis, the one of the many ways in which the groups of states differ. This conclusion is unsound as a scientific and statistical inference.

Dr. Vasquez takes this unsound analysis to drop historic OC settlement averages by 12.5 percent and then goes further, extending this 12.5 percent reduction to historic Fibreboard settlements even though there have been no recent trials in which punitive damages have been awarded to any Fibreboard plaintiff.

Our sixth change in our sensitivity analysis of Dr. Vasquez's forecast used actual historic settlement values for OC and Fibreboard, restoring the 12.5 percent "punitive component" reduction that Dr. Vasquez had made to historic settlement values.

Dr. Vasquez also progressively reduces the values of future claims, assuming that settlement values will decrease for future claimants who are older and who will tend to have been exposed in later years. This reduction is unsupported. Dr. Vasquez merely states without referencing any supporting evidence that "historically, both of these factors reduce average settlement amounts" (Vasquez, p. 74). The regression analyses that Dr. Vasquez used to calculate his "punitive component" do not support his assertion. And again the history of asbestos litigation contradicts Dr. Vasquez: as asbestos plaintiffs ages and exposures years have increased over the past decade, the settlements they received have increased, not decreased (Table 1 and Figure 1, p. 3). Dr. Vasquez makes this reduction by lowering his measure of future monetary inflation from the expected 2.5 percent to 2.0 percent. This adjustment takes effect immediately, so that claimants will who fill in 2005 will have their claims valued in amounts that are 2.5 percent less than Dr. Vasquez's calculation of the current values of claims. Claimants filing in 2010 will receive 5.1 percent less.

Our seventh change in our sensitivity analysis of Dr. Vasquez's forecast used the Congressional Budget Office forecast of a future inflation rate of 2.5 percent, restoring the 0.5% reduction that Dr. Vasquez made.

10.3. Sensitivity Analyses

Forecasts of asbestos liabilities are inherently uncertain. While our forecasts have strong bases--epidemiological forecasts of asbestos diseases that have been tested and confirmed by twenty years of SEER counts of mesothelioma deaths, OC's and Fibreboard's own recent claims history--forecasts of OC's and Fibreboard's future liability would differ somewhat if we had made different assumptions about epidemiology, propensities to sue, or payment amounts in future years. This Section examines how forecasts would have differed under different assumptions.

This process of studying how predictions change with changes in key assumptions is known as sensitivity analysis and is a primary way for examining and understanding scientific forecasting. In this Section, we report on the results of systematically varying five types of parameters:

- The choice of epidemiological projections: Nicholson vs. KPMG (see below for a discussion of the KPMG model);
- Alternative base periods for determining propensities to sue and the values of asbestos claims;
- Use of propensities to sue that increase and those with no increase. Alternative assumptions about rates of decline for nonmalignancy claims;
- Use of dollar amounts that change according to the experiences of other defendants;
- Changes in filings and settlements that would result if national legislation were passed that would treat most nonmalignant claims as noncompensable.

We first define these alternatives, then we present some results from systematically varying them. Since each of these sensitivities affect only our forecasts of future claims, our analyses and reported results present the alternative forecasts of future liabilities based on the alternative assumptions examined in the sensitivity analyses.

We conclude our sensitivity analyses conclude by considering how OC's and Fibreboard's liabilities would change if the companies were to undertake a radically different strategy, replacing their historic methods of addressing asbestos liability with an aggressive strategy of refusing to settle disputed cases and trying those cases to verdict.

10.3.1. Definition of Sensitivity Variations

10.3.1.1. Alternative Epidemiological Models

In 1992 the consulting firm KPMG-Peat Marwick adjusted the Nicholson epidemiological forecasts as part of their engagement in the bankruptcy proceedings of National Gypsum. KPMG retained most of elements of the Nicholson forecasts but used more recent Labor Department data and alternative medical models to estimate the probabilities of mesothelioma and lung cancer. As shown in Figure 5, above, the KPMG forecasts are a reasonable, although less preferable alternative to the original Nicholson forecasts of asbestos related cancer deaths. The Nicholson forecasts are preferable because they have been more closely confirmed by subsequent SEER data on annual mesothelioma deaths. To examine the effects of using the specific Nicholson epidemiological forecasts of future cancer deaths, we also forecast future claims and liabilities using the KPMG forecasts.

10.3.1.2. Alternative Base Period Variations

For our forecasts we calculated propensities to sue over the five years (actually, 4.75 years) ending October 2000 and also used OC's settlements over the same period to estimate the values of pending and future claims. Fibreboard's settlements were constrained to 1999 and 2000, the only period during that time when they were settling claims because of the Ahearn injunction. We have described the reasons for selecting these periods in previous sections of the report.

To see how these choices of base periods might have affected our forecasts, we made alternative forecasts using shorter base and dollar valuation periods, as shown in Table 31.

Table 31: Alternative Lengths of Base Period for Sensitivity Analyses

	Years for Propensities		Years for $Valuation	
Company	Selected	Short	Selected	Short
OC	1996-2000	1999-2000	1996-2000	1999-2000
Fibreboard	1996-2000	1999-2000	1999-2000	1999-2000

Note: The shorter valuation period for Fibreboard reflects that only exigent and trial calendar settlements were being made by Fibreboard prior to the lifting of the Ahearn injunction in 1999.

10.3.1.3. Propensity to Sue Variations

Throughout this report we have presented forecasts for two alternative assumptions about future propensities to sue: (1) that propensities to sue would increase for five years in the future and would remain unchanged thereafter and (2) that propensities to sue would remain at the level of the base period for all future years. Of these, the increasing model is far more plausible, reflecting both the history of claims experience against OC and Fibreboard as well as among other asbestos defendants in recent years and also the likely increase in claims against OC and Fibreboard resulting from the bankruptcy filings by other major asbestos defendants during 2000 and 2001.

Our sensitivity analyses test a third and fourth alternative. The third is that cancer propensities to sue will increase but the nonmalignant multiplier will remain steady. The fourth is that cancer propensities to sue will increase but that the nonmalignant multiplier will decline to 90 percent of its present value in five years.

Table 32 shows the propensity to sue multipliers for each of the four alternatives.

Table 32: Propensity to Sue Alternatives

Filing Year	Meso				Lung				Othc				Nonm			
	Alt1	Alt2	Alt3	Alt4	Alt1	Alt2	Alt3	Alt4	Alt1	Alt2	Alt3	Alt4	Alt1	Alt2	Alt3	Alt4
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.098	1.098	1.098	1.000	1.123	1.123	1.123	1.000	1.198	1.198	1.198	1.000	1.028	1.000	0.975
2003	1.000	1.196	1.196	1.196	1.000	1.245	1.245	1.245	1.000	1.396	1.396	1.396	1.000	1.056	1.000	0.950
2004	1.000	1.294	1.294	1.294	1.000	1.368	1.368	1.368	1.000	1.593	1.593	1.593	1.000	1.085	1.000	0.925
2005	1.000	1.392	1.392	1.392	1.000	1.490	1.490	1.490	1.000	1.791	1.791	1.791	1.000	1.113	1.000	0.900
2006	1.000	1.392	1.392	1.392	1.000	1.490	1.490	1.490	1.000	1.791	1.791	1.791	1.000	1.113	1.000	0.900
2029	1.000	1.392	1.392	1.392	1.000	1.490	1.490	1.490	1.000	1.791	1.791	1.791	1.000	1.113	1.000	0.900

10.3.1.4. Changing Dollar Amounts Variations

Figure 1 shows average settlement amounts during the 1990s for three defendants with publicly available data: Armstrong, Babcock and Wilcox, and Turner and Newall. We computed averages for the three-year intervals 1995-1997 and 1998-2000, and examined their rates of change between those intervals (Table 33). Mesothelioma settlement costs uniformly went up, from 23 to 81 percent. Lung cancer settlements went up for two defendants and dipped slightly for a third. Other cancer and nonmalignant settlement amounts went slightly down.

We adopted a changing settlement costs variation as part of our sensitivity analysis, using as multipliers the averages of the percent increases or decreases for each disease, as shown in the last columns of Table 33. We assume these multiples will change in even steps from 1.0 to their final values from 2001 through 2004.

Table 33: Payment Value Change Calculations

Defendant	SetYear Range	Average Settlement Value				Change Ratio			
		Meso	Lung	Othc	Nonm	Meso	Lung	Othc	Nonm
Armstrong	1995-1997	$34,584	$11,545	$6,502	$3,202				
Armstrong	1998-2000	62,477	13,191	6,098	2,802	1.81	1.14	0.94	0.88
B&W	1995-1997	57,828	19,789	12,284	4,761				
B&W	1998-2000	70,887	24,193	14,173	5,846	1.23	1.22	1.15	1.23
Turner-Newall	1995-1997	40,104	13,220	7,080	3,806				
Turner-Newall	1998-2000	63,335	12,438	5,689	2,816	1.58	0.94	0.80	0.74
Overall Change						1.54	1.10	0.96	0.95

10.3.1.5. Tort Reform Variation

Ohio recently passed legislation which will prevent unimpaired nonmalignancies from getting compensated in that state. We estimate that this change in Ohio would only slightly reduce OC's and Fibreboard's overall liability.

Some have speculated about national legislation similar to Ohio's. We employ a variation here that assumes similar legislation on a national level. We assume first that 60 percent of the nonmalignant claims will get zero value (claims will still be filed, so our forecasts of the number of filings will not change--certain claims will just not be paid). Because the legislation is intended to eliminate the least severe nonmalignant claims, we assume that will affect the 60 percent of nonmalignants who previously received the lowest values, i.e. the 60th percentile and

below. Those nonmalignant claimants who continue to receive compensation are the claimants who were in the top 40 percent of historic settlement values among nonmalignant claimants. We also assume an attorney behavioral change will occur: without the lesser-valued nonmalignant claims, attorneys will devote more money and effort on the cancer claims and so resolution values for cancers will increase by 10 percent. The net change in resolution amounts is described in Table 34. We apply these resolution amounts to our base forecasts below.

Table 34: Changes to Resolution Amounts if Ohio Legislation Expands Nation-Wide

Company	Disease	Average $Resolution	Net Change	Adjusted $Resolution
OC	Meso	$185.462	+10.0%	$204.008
OC	Lung	40.883	+10.0%	44.971
OC	Othc	17.471	+10.0%	19.218
OC	Nonm	7.080	-21.8%	5.537
Fibreboard	Meso	$130.229	+10.0%	$143.252
Fibreboard	Lung	28.175	+10.0%	30.992
Fibreboard	Othc	13.252	+10.0%	14.577
Fibreboard	Nonm	4.206	-38.2%	2.603

Notes: Nonmalignant resolution averages decrease because 60 percent of nonmalignant claimants who historically received the lowest settlement values would now receive no payment. This results in an average resolution that is 22 percent lower for OC and 38 percent lower for Fibreboard.

10.3.2. Sensitivity Analysis Results

10.3.2.1. Alternative Epidemiological Model Results

Because the KPMG epidemiological models forecast a more rapid decline in the incidence of asbestos related cancers in future years, forecasts based on that model produce fewer future claims than forecasts based on use of the Nicholson epidemiological model. This can be seen by in Table 35. The number of filings is reduced by about 5.5 percent. Liability and present value declines are around 8 percent.

Table 35: Comparison of Epidemiological Models

Company	Outcome	Epidemiological Model		KPMG Percent Decline
		Nicholson	KPMG	
OC	Filings	946,777	895,227	5.4%
OC	Liability	$20.9	$19.2	8.1%
OC	PV	$9.0	$8.3	7.8%
Fibreboard	Filings	1,025,823	968,849	5.6%
Fibreboard	Liability	$14.9	$13.6	8.7%
Fibreboard	PV	$6.4	$5.9	7.8%

Notes: Table shows alternative forecasts of the present value of liabilities for future claims in billions of year 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 6%.

10.3.2.2. Alternative Base Period Results

As shown in Table 36, total liability forecast increase by about 33 percent for OC and 25 percent for Fibreboard from use of a shorter propensity to sue base period, which increases the forecasted number of OC and Fibreboard filings. The shorter base period for historic resolution values had a small negative effect for OC: the absence of verdicts for OC in 1999 and 2000 led to a drop in mesothelioma resolution values, and nonmalignant values declined during this period as well. We used only one base period to calculate historic settlement values of Fibreboard, 1999-2000, because the Ahearn injunction limited settlements during 1996-1998.

Table 36: Comparison of Base Period Effects

Company	Outcome	1996-2000 P2Sue		1999-2000 P2Sue Short	
		1996-2000 $	1999-2000 $	1996-2000 $	1999-2000 $
OC	Filings	946,777	946,777	1,264,555	1,264,555
OC	Liability	$20.9	$20.0	$26.9	$25.6
OC	PV	$9.0	$8.5	$11.5	$10.9
Fibreboard	Filings	NA	1,025,823	NA	1,284,767
Fibreboard	Liability	NA	$14.9	NA	$18.5
Fibreboard	PV	NA	$6.4	NA	$7.9

Notes: Table shows alternative forecasts of the present value of liabilities for future claims in billions of year 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 6%.

10.3.2.3. Propensity to Sue Results

These alternatives present a sensitivity test about what will happen with future propensities to sue. Because of the importance of assumptions about propensities to sue and their uncertainty, we chose to present the results for two alternatives throughout the report above, the Increasing model that best forecasts future claims and the No Increase models that does not present a likely forecast but is presented solely for illustration to show the number of future claims should the levels of OC and Fibreboard claiming levels be frozen at their rates before the bankruptcy. We include

forecasts using these and two additional alternatives in Table 37, Alternative 3 that increases propensities for cancers (like the preferred model) and assumes no increases for nonmalignancies and Alternative 4 that increases propensities for cancers (like the preferred model) and assumes decreases for nonmalignancies.

Table 37: Effect of Propensity to Sue Alternatives

Company	Outcome	Disease	No Inc	Increase	Alt3	Alt4
OC	Filings	Meso	25,206	33,856	33,856	33,856
OC	Filings	Lung	26,942	37,921	37,921	37,921
OC	Filings	Othc	8,926	14,796	14,796	14,796
OC	Filings	Nonm	551,626	860,204	782,008	713,014
OC	Filings	Total	612,700	946,777	868,581	799,587
OC	Liability	Meso	$7.0	$9.4	$9.4	$9.4
OC	Liability	Lung	1.6	2.2	2.2	2.2
OC	Liability	Othc	0.2	0.4	0.4	0.4
OC	Liability	Nonm	5.6	8.9	8.1	7.3
OC	Liability	Total	$14.4	$20.9	$20.1	$19.4
OC	PV	Meso	$2.9	$3.9	$3.9	$3.9
OC	PV	Lung	0.7	1.0	1.0	1.0
OC	PV	Othc	0.1	0.2	0.2	0.2
OC	PV	Nonm	2.5	3.9	3.5	3.2
OC	PV	Total	$6.3	$9.0	$8.6	$8.3
Fibreboard	Filings	Meso	27,568	37,033	37,033	37,033
Fibreboard	Filings	Lung	28,699	40,402	40,402	40,402
Fibreboard	Filings	Othc	9,152	15,167	15,167	15,167
Fibreboard	Filings	Nonm	599,341	933,221	848,368	773,506
Fibreboard	Filings	Total	664,760	1,025,823	940,970	866,108
Fibreboard	Liability	Meso	$5.3	$7.3	$7.3	$7.3
Fibreboard	Liability	Lung	1.1	1.6	1.6	1.6
Fibreboard	Liability	Othc	0.2	0.3	0.3	0.3
Fibreboard	Liability	Nonm	3.6	5.7	5.2	4.7
Fibreboard	Liability	Total	$10.3	$14.9	$14.4	$13.9
Fibreboard	PV	Meso	$2.3	$3.0	$3.0	$3.0
Fibreboard	PV	Lung	0.5	0.7	0.7	0.7
Fibreboard	PV	Othc	0.1	0.1	0.1	0.1
Fibreboard	PV	Nonm	1.6	2.5	2.3	2.1
Fibreboard	PV	Total	$4.5	$6.4	$6.1	$6.0

Notes: Table shows alternative forecasts of the number of future claims, nominal liabilities for future claims in billions of dollars of the year when paid and the present values of future claims in of liabilities for future claims in billions of year 2000 dollars. Indemnity is inflation adjusted at 2.5%. Discount rate is 6%. No_Inc=no increase; Increase=1990s increase for Manville and UNR, the most likely forecast; Alt3=1990s increase for cancers only; Alt4=1990s increase for cancers with a 10% drop in nonmalignants.

These alternatives show that the main effect is between no increase and increases in the cancer propensity to sue. Variations in the numbers of nonmalignant claims seems only to have minor

effects.

10.3.2.4. Changing Dollar Amount Results

Table 48 shows the effects of assuming that dollar amounts will change from 2001 to 2004, up or down depending on disease, based on generally observed changes in settlement averages paid by defendants over the recent three year periods with midpoints 1996 and 1999. These alternatives show that when we assume that OC's and Fibreboard's future resolution averages will continue to follow these recent trends total liability and PV estimates increase by about 20 to 25 percent.

Table 38: Effect of Assuming Increases in Values of Claims Above Inflation

Company	Outcome	Disease	$No Change	$Change
OC	Liability	Meso	$9.4	$14.3
OC	Liability	Lung	2.2	2.4
OC	Liability	Othc	0.4	0.4
OC	Liability	Nonm	8.9	8.5
OC	Liability	Total	$20.9	$25.6
OC	PV	Meso	$3.9	$5.8
OC	PV	Lung	1.0	1.1
OC	PV	Othc	0.2	0.2
OC	PV	Nonm	3.9	3.7
OC	PV	Total	$9.0	$10.8
Fibreboard	Liability	Meso	$7.3	$11.0
Fibreboard	Liability	Lung	1.6	1.8
Fibreboard	Liability	Othc	0.3	0.3
Fibreboard	Liability	Nonm	5.7	5.5
Fibreboard	Liability	Total	$14.9	$18.5
Fibreboard	PV	Meso	$3.0	$4.5
Fibreboard	PV	Lung	0.7	0.8
Fibreboard	PV	Othc	0.1	0.1
Fibreboard	PV	Nonm	2.5	2.4
Fibreboard	PV	Total	$6.4	$7.8

Notes: Table shows alternative forecasts of the nominal liabilities for future claims in billions of dollars of the year when paid and the present values of future claims in of liabilities for future claims in billions of year 2000 dollars. Indemnity is inflation adjusted at 2.5%. Discount rate is 6%. $Change model is based on 1990s increase for Manville and UNR settlements.

10.3.2.5. Tort Reform Results

The results in Table 39 estimate the value that we forecast, given the dollar values shown in Table 34, which reflect our assumption of average resolution amounts if national legislation were to be adopted that precluded compensation to nonmalignant claimants who do not meet medical standards. The base model results are take from tables in Sections 6 and 9. The national legislation models assume 60 percent of the nonmalignant claimants would not be paid, but that average payments to cancer claimants would increase. These changes reduce forecasted liabilities by about 5 percent for OC, 9 percent for Fibreboard.

Table 39: Forecast Indemnity for Future Claims after October 5, 2000

Company	Outcome	Variation	Disease				Total
			Meso	Lung	Othc	Nonm	
OC	Liability	Base Model	$9.4	$2.2	$0.4	$8.9	$20.9
OC	Liability	Natl Legis	10.3	2.4	0.4	7.0	20.1
OC	PV	Base Model	$3.9	$1.0	$0.2	$3.9	$9.0
OC	PV	Natl Legis	4.3	1.1	0.2	3.1	8.7
Fibreboard	Liability	Base Model	$7.3	$1.6	$0.3	$5.7	$14.9
Fibreboard	Liability	Natl Legis	8.0	1.8	0.3	3.5	13.6
Fibreboard	PV	Base Model	$3.0	$0.7	$0.1	$2.5	$6.4
Fibreboard	PV	Natl Legis	3.3	0.8	0.1	1.5	5.7

Notes: Table shows alternative forecasts of the nominal liabilities for future claims in billions of dollars of the year when paid and the present values of future claims in of liabilities for future claims in billions of year 2000 dollars. Indemnity is inflation adjusted at 2.5%. Discount rate is 6%.

10.3.2.6. Liability That Would Result from Aggressive Litigation

The final sensitivity analysis considered how much OC would have to pay were it to reject its settlement strategy and resort solely to litigation, aggressively pursuing pretrial dismissals of law suits and then trying those law suits that survived its motions to dismiss. This strategy has sometimes been asserted by debtors or creditor groups in bankruptcies of asbestos manufacturers. Credit Suisse asserts a version of this strategy in this case by arguing the the court should mandate extensive discovery for a sample of claims followed by litigation about medical issues in those cases with its hope that many claims would be dismissed. Whatever the success in eliminating some asbestos claims, the strategy proposed by Credit Suisse and similar proposals in other bankruptcies would still require valuation of claims that survived aggressive pretrial litigation over the qualification of claims. Historic settlement values could not be used to value these surviving claims, both because claims that survive aggressive pretrial litigation will be stronger than average settled claims and also because these surviving claims will have answered all liability challenges in contrast to settled claims where issues of liability were uncertain and compromised. The surviving claims could only be valued through trials of damages issues or else estimated by looking to values that have been placed historically on claims that have prevailed in litigation about liability, i.e. the amounts of past verdicts.

To understand how pursuit of an aggressive litigation strategy would effect estimation of OC and Fibreboard asbestos bodily injury claims, I estimated how much OC might have to pay pending asbestos claimants as the result of employing such a strategy. I made the exceptionally conservative assumption that OC could eliminate 90 percent of its pending claims through aggressive challenges to the medical conditions and great success in its legal challenges. I have no reason to expect such success extraordinary success under an aggressive litigation strategy, but use the 90 percent rate to illustrate what would be an exceptionally good outcome of OC under the strategy. This would still leave OC with 18,084 pending asbestos claims that now have legally verified injuries and liability, claims that are analogous to plaintiffs who won the first stage of a bifurcated trial with the amount of damages being the only remaining issue.

To determine values of such claims we looked to OC's actual trial history. The average verdict received by the 1,373 plaintiffs against OC in trials since 1988 is $544,607 in year 2000 dollars

(an average of $1,100,887 among cancer claims and $272,465 among nonmalignancy claims). But to provide an even more conservative analysis, we used OC's $297,842 average verdict over all 2,397 plaintiffs in trials with verdicts, both verdicts won by OC and those won by the plaintiff (an average of $688,654 among cancer claims and $140,375 among nonmalignancy claims). This results in an estimated liability of $5.4 billion in year 2000 dollars (18,084 x $297,842 = $5,386,174,728).

Even if the OC could be successful in eliminating 94.3 percent of all of its pending claims (assumed 90 percent pretrial plus another 4.3 percent based on OC's historic percent of trials with verdicts of OC) through aggressive litigation like that proposed by Credit Suisse it would face liability of $5.4 billion simply for claims that were pending against OC at the time of its bankruptcy petition. Under these conservative assumptions OC's liability would increase 2.5 times over its liability based on the practices it actually used to resolve asbestos claims prior to the bankruptcy. We forecast that OC faces a $2.4 billion liability to pending claims based on its historic practices (Table 15). An aggressive litigation posture would add almost $3 billion more.

11. Rule 26 Disclosures and Signature

DATA CONSIDERED: In reaching the opinions and conclusions set forth in this Report, I have considered the following information: my background, training, experience and knowledge of the asbestos litigation developed over the past 20 years, the items of data explicitly identified in the report, the reports, articles and documents specifically identified in the report, publicly available sources of information concerning inflation rates, publicly available documents about Owens Corning and Fibreboard, various settlement agreements between Owens Corning and law firms representing asbestos plaintiffs, various settlement agreements between Fibreboard and law firms representing asbestos plaintiffs, the materials stored on the eight cdroms produced to the parties in connection with this report, discount rates provided to me by Loreto Tersigni, CPA, and a summary table prepared by counsel for Owens Corning showing the calculations of annual indemnity and defense/administrative costs.

EXHIBITS: The exhibits which summarize my opinions are included in the graphics and tables in the report and in the appendices to the report.

QUALIFICATIONS: My qualifications to perform this analysis and provide expert testimony are set forth in my C.V., a copy of which is attached as Exhibit 1.

PUBLICATIONS: Any publications I have authored within the past ten years are set forth in my C.V.

COMPENSATION: My compensation for services rendered in this case is set forth in the fee applications Legal Analysis Systems files on a regular basis with the Bankruptcy Court. At present, my hourly rate is $600.

PRIOR TESTIMONY: A listing of all cases in which I have testified as an expert at either trial or deposition within the past four years is attached as Exhibit 2.

I reserve the right to modify this report as new information becomes available between now and the time of trial. I anticipate that I will review the expert witness reports of opposing expert(s) and offer my opinions about their analyses and conclusions in rebuttal testimony.

/s/ Mark A. Peterson

Mark A. Peterson, J.D., Ph.D.
LEGAL ANALYSIS SYSTEMS

Appendix A - OC and Fibreboard Defense Costs

By its bankruptcy petition date, OC and its insurers had spent $5.1 billion on indemnity defense of asbestos bodily injury claims (nominal). Over all years of its asbestos litigation, costs to administer and defend these claims amounted to $28 dollars for every $100 spent on indemnity. OC became more efficient as it shifted from a strategy of aggressive litigation to a strategy of large block settlements. Table A1 lists OC's total costs for indemnity and defense for the last five years preceding its bankruptcy. During this period OC's defense costs fell to 13.9 percent of its indemnity costs.

Table A1: Annual Indemnity and Defense Costs
(Millions of Year 2000$)

Year	Total Indemnity	Total Defense
1996	$234.013	$52.932
1997	259.499	56.771
1998	385.631	82.760
1999	797.557	86.935
2000	631.254	41.443
Total	$2,307.954	$320.841

To forecast future defense costs for OC and Fibreboard, we assume that this ratio will continue. We forecast defense costs by multiplying our forecasts of indemnity costs of present and future claims for each company by .139. Table A2 shows both our forecasts of total indemnity costs for each company and our forecasts of defense costs.

Table A2: Forecasts of OC and Fibreboard Defense Costs
(Billions of Year 2000$)

	OC		Fibreboard	
Outcome	Indemnity	Defense	Indemnity	Defense
Nominal	$23.3	$3.24	$16.2	$2.25
Present Value	11.1	1.54	7.5	1.04

Appendix B - Year by Disease Projections

This appendix provides the year by disease projections of Nicholson and KPMG (cancer incidences) and LAS (OC and Fibreboard filings as of October 5, 2000).

Table B1: Nicholson Epidemiological Projections

Death Year	Disease			Total Cancers	Death Year	Disease			Total Cancers
	Meso	Lung	Othc			Meso	Lung	Othc	
1970	1,010	2,909	963	4,882	2005	3,023	4,230	1,143	8,396
1971	1,046	3,098	998	5,142	2006	3,011	4,075	1,099	8,185
1972	1,082	3,286	1,034	5,402	2007	2,999	3,921	1,055	7,975
1973	1,151	3,502	1,065	5,718	2008	2,931	3,734	1,006	7,672
1974	1,219	3,719	1,096	6,034	2009	2,864	3,547	958	7,369
1975	1,288	3,935	1,128	6,351	2010	2,796	3,361	909	7,066
1976	1,356	4,152	1,159	6,667	2011	2,729	3,174	861	6,763
1977	1,425	4,368	1,190	6,983	2012	2,661	2,987	812	6,460
1978	1,495	4,505	1,227	7,228	2013	2,545	2,811	762	6,119
1979	1,565	4,643	1,264	7,472	2014	2,429	2,635	713	5,778
1980	1,635	4,780	1,302	7,717	2015	2,314	2,460	663	5,436
1981	1,705	4,918	1,339	7,961	2016	2,198	2,284	614	5,095
1982	1,775	5,055	1,376	8,206	2017	2,082	2,108	564	4,754
1983	1,900	5,138	1,400	8,438	2018	1,965	1,937	519	4,421
1984	2,024	5,222	1,424	8,670	2019	1,847	1,766	474	4,088
1985	2,149	5,305	1,447	8,901	2020	1,730	1,596	430	3,755
1986	2,273	5,389	1,471	9,133	2021	1,612	1,425	385	3,422
1987	2,398	5,472	1,495	9,365	2022	1,495	1,254	340	3,089
1988	2,468	5,477	1,495	9,440	2023	1,379	1,132	307	2,819
1989	2,538	5,482	1,495	9,515	2024	1,264	1,011	274	2,549
1990	2,608	5,487	1,494	9,589	2025	1,148	889	242	2,279
1991	2,678	5,492	1,494	9,664	2026	1,033	768	209	2,009
1992	2,748	5,497	1,494	9,739	2027	917	646	176	1,739
1993	2,792	5,449	1,480	9,722	2028	827	575	157	1,558
1994	2,836	5,402	1,466	9,705	2029	740	508	138	1,386
1995	2,881	5,354	1,453	9,687	2030	657	446	122	1,225
1996	2,925	5,307	1,439	9,670	2031	579	388	105	1,072
1997	2,969	5,259	1,425	9,653	2032	507	336	92	935
1998	2,987	5,146	1,395	9,528	2033	443	316	79	837
1999	3,005	5,033	1,365	9,403	2034	383	246	67	696
2000	3,024	4,919	1,334	9,277	2035	332	208	57	596
2001	3,042	4,806	1,304	9,152	2036	282	174	47	503
2002	3,060	4,693	1,274	9,027	2037	240	144	38	423
2003	3,048	4,539	1,230	8,817	2038	201	117	32	351
2004	3,036	4,384	1,186	8,606	2039	169	94	26	290

Note: Nicholson's projections run through 2030. LAS extended those to 2039 using the year by disease rates of decline derived from the KPMG projections, below.

Table B2: KPMG Epidemiological Projections

Death Year	Disease Meso	Lung	Othc	Total Cancers	Death Year	Disease Meso	Lung	Othc	Total Cancers
1970	861	3,234	1,196	5,291	2005	2,347	3,638	990	6,975
1971	931	3,592	1,130	5,653	2006	2,294	3,474	945	6,713
1972	1,003	3,721	1,171	5,895	2007	2,234	3,311	900	6,445
1973	1,079	3,846	1,211	6,136	2008	2,173	3,149	857	6,179
1974	1,157	3,974	1,251	6,382	2009	2,105	2,989	813	5,907
1975	1,237	4,147	1,305	6,689	2010	2,034	2,831	769	5,634
1976	1,308	4,278	1,165	6,751	2011	1,960	2,674	728	5,362
1977	1,386	4,428	1,204	7,018	2012	1,880	2,520	686	5,086
1978	1,465	4,577	1,246	7,288	2013	1,798	2,371	644	4,813
1979	1,545	4,728	1,287	7,560	2014	1,713	2,224	604	4,541
1980	1,628	4,897	1,333	7,858	2015	1,627	2,083	566	4,276
1981	1,708	5,042	1,371	8,121	2016	1,538	1,942	528	4,008
1982	1,789	5,158	1,403	8,350	2017	1,447	1,808	492	3,747
1983	1,869	5,261	1,432	8,562	2018	1,357	1,677	457	3,491
1984	1,949	5,338	1,452	8,739	2019	1,269	1,553	422	3,244
1985	2,030	5,401	1,469	8,900	2020	1,180	1,434	390	3,004
1986	2,102	5,431	1,478	9,011	2021	1,094	1,317	358	2,769
1987	2,173	5,441	1,480	9,094	2022	1,009	1,206	328	2,543
1988	2,242	5,441	1,480	9,163	2023	928	1,101	300	2,329
1989	2,306	5,433	1,478	9,217	2024	850	998	272	2,120
1990	2,367	5,410	1,472	9,249	2025	775	902	245	1,922
1991	2,418	5,362	1,458	9,238	2026	703	811	221	1,735
1992	2,459	5,293	1,440	9,192	2027	634	724	197	1,555
1993	2,493	5,218	1,420	9,131	2028	571	643	175	1,389
1994	2,521	5,135	1,397	9,053	2029	510	567	154	1,231
1995	2,538	5,037	1,370	8,945	2030	452	497	136	1,085
1996	2,546	4,928	1,341	8,815	2031	398	431	117	946
1997	2,547	4,807	1,307	8,661	2032	348	373	101	822
1998	2,543	4,682	1,273	8,498	2033	303	346	87	736
1999	2,534	4,550	1,238	8,322	2034	262	271	74	607
2000	2,522	4,414	1,201	8,137	2035	226	228	62	516
2001	2,497	4,265	1,159	7,921	2036	192	190	51	433
2002	2,469	4,110	1,117	7,696	2037	163	157	42	362
2003	2,433	3,955	1,076	7,464	2038	136	127	35	298
2004	2,393	3,798	1,033	7,224	2039	114	102	28	244

Table B3: OC Forecasts as of October 5, 2000,
Increasing Propensities to Sue

Filing Year	OC					Fibreboard				
	Meso	Lung	Othc	Nonm	Total	Meso	Lung	Othc	Nonm	Total
[2000]	285	423	141	7,657	8,505	311	450	144	8,296	9,202
2001	1,138	1,690	562	30,629	34,020	1,245	1,801	576	33,186	36,807
2002	1,259	1,844	655	34,903	38,661	1,377	1,965	671	37,804	41,817
2003	1,366	1,978	737	38,945	43,026	1,494	2,107	755	42,172	46,528
2004	1,472	2,099	811	42,941	47,323	1,610	2,236	831	46,492	51,169
2005	1,577	2,206	878	46,874	51,535	1,725	2,350	900	50,747	55,722
2006	1,570	2,126	844	45,661	50,201	1,718	2,265	866	49,449	54,298
2007	1,564	2,045	811	44,449	48,869	1,711	2,179	831	48,151	52,872
2008	1,529	1,948	773	42,739	46,989	1,672	2,075	793	46,308	50,848
2009	1,494	1,850	736	41,029	45,109	1,634	1,971	755	44,466	48,826
2010	1,458	1,753	699	39,319	43,229	1,595	1,867	716	42,623	46,801
2011	1,423	1,655	661	37,609	41,348	1,556	1,764	678	40,780	44,778
2012	1,388	1,558	624	35,899	39,469	1,518	1,660	640	38,938	42,756
2013	1,327	1,466	586	33,987	37,366	1,452	1,562	601	36,869	40,484
2014	1,267	1,375	548	32,074	35,264	1,386	1,464	562	34,800	38,212
2015	1,207	1,283	510	30,161	33,161	1,320	1,367	522	32,732	35,941
2016	1,146	1,191	471	28,248	31,056	1,254	1,269	483	30,663	33,669
2017	1,086	1,099	433	26,335	28,953	1,188	1,171	444	28,594	31,397
2018	1,025	1,010	399	24,478	26,912	1,121	1,076	409	26,583	29,189
2019	963	921	365	22,620	24,869	1,054	982	374	24,572	26,982
2020	902	832	330	20,762	22,826	987	887	338	22,561	24,773
2021	841	743	296	18,904	20,784	920	792	303	20,549	22,564
2022	780	654	261	17,046	18,741	853	697	268	18,538	20,356
2023	719	591	236	15,549	17,095	787	629	242	16,913	18,571
2024	659	527	211	14,051	15,448	721	562	216	15,287	16,786
2025	599	464	186	12,553	13,802	655	494	190	13,662	15,001
2026	539	400	160	11,056	12,155	589	427	164	12,037	13,217
2027	478	337	135	9,558	10,508	523	359	139	10,411	11,432
2028	431	300	120	8,563	9,414	472	319	123	9,329	10,243
2029	386	265	106	7,609	8,366	422	282	108	8,290	9,102
2030	343	233	94	6,729	7,399	375	248	96	7,332	8,051
2031	302	202	81	5,884	6,469	330	215	83	6,412	7,040
2032	264	175	70	5,132	5,641	289	187	72	5,593	6,141
2033	231	165	60	4,588	5,044	252	176	62	4,999	5,489
2034	200	128	52	3,820	4,200	219	137	53	4,164	4,573
2035	173	109	43	3,268	3,593	189	116	45	3,564	3,914
2036	147	91	36	2,753	3,027	161	97	37	3,003	3,298
2037	125	75	30	2,315	2,545	137	80	30	2,525	2,772
2038	105	61	25	1,922	2,113	115	65	26	2,097	2,303
2039	88	49	20	1,585	1,742	96	52	21	1,730	1,899
Total	33,856	37,921	14,796	860,204	946,777	37,033	40,402	15,167	933,221	1,025,823

Note: The entries for 2000 are for 1/4 of a year.

Table B4: OC Forecasts as of October 5, 2000,
No Increase in Propensities to Sue

Filing Year	OC					Fibreboard				
	Meso	Lung	Othc	Nonm	Total	Meso	Lung	Othc	Nonm	Total
[2000]	285	423	141	7,657	8,505	311	450	144	8,296	9,202
2001	1,138	1,690	562	30,629	34,020	1,245	1,801	576	33,186	36,807
2002	1,147	1,643	547	30,132	33,469	1,254	1,750	560	32,657	36,221
2003	1,142	1,589	528	29,433	32,692	1,249	1,693	541	31,907	35,390
2004	1,137	1,535	509	28,734	31,915	1,244	1,635	522	31,158	34,559
2005	1,133	1,481	490	28,035	31,139	1,239	1,577	503	30,408	33,727
2006	1,128	1,427	471	27,335	30,361	1,234	1,520	483	29,658	32,895
2007	1,124	1,373	453	26,636	29,586	1,229	1,462	464	28,908	32,063
2008	1,098	1,307	432	25,628	28,465	1,201	1,393	443	27,820	30,857
2009	1,073	1,242	411	24,621	27,347	1,174	1,323	421	26,732	29,650
2010	1,048	1,176	390	23,613	26,227	1,146	1,253	400	25,644	28,443
2011	1,022	1,111	369	22,605	25,107	1,118	1,184	379	24,556	27,237
2012	997	1,046	348	21,597	23,988	1,090	1,114	357	23,468	26,029
2013	954	984	327	20,457	22,722	1,043	1,048	335	22,233	24,659
2014	910	923	306	19,317	21,456	996	983	314	20,998	23,291
2015	867	861	285	18,177	20,190	948	917	292	19,763	21,920
2016	823	799	263	17,037	18,922	901	852	270	18,527	20,550
2017	780	738	242	15,897	17,657	853	786	248	17,292	19,179
2018	736	678	223	14,786	16,423	805	722	228	16,087	17,842
2019	692	618	204	13,675	15,189	757	659	209	14,882	16,507
2020	648	559	184	12,564	13,955	709	595	189	13,677	15,170
2021	604	499	165	11,453	12,721	661	531	169	12,472	13,833
2022	560	439	146	10,342	11,487	613	468	150	11,268	12,499
2023	517	396	132	9,440	10,485	565	422	135	10,286	11,408
2024	474	354	118	8,537	9,483	518	377	121	9,304	10,320
2025	430	311	104	7,634	8,479	471	332	106	8,323	9,232
2026	387	269	90	6,731	7,477	423	286	92	7,341	8,142
2027	344	226	76	5,828	6,474	376	241	77	6,359	7,053
2028	310	201	67	5,224	5,802	339	214	69	5,700	6,322
2029	277	178	59	4,644	5,158	303	189	61	5,068	5,621
2030	246	156	52	4,107	4,561	269	166	54	4,483	4,972
2031	217	136	45	3,593	3,991	237	145	46	3,923	4,351
2032	190	118	39	3,135	3,482	208	125	40	3,422	3,795
2033	166	111	34	2,802	3,113	181	118	35	3,059	3,393
2034	144	86	29	2,335	2,594	157	92	30	2,550	2,829
2035	124	73	24	2,000	2,221	136	78	25	2,184	2,423
2036	106	61	20	1,686	1,873	116	65	21	1,842	2,044
2037	90	51	16	1,419	1,576	98	54	17	1,550	1,719
2038	75	41	14	1,178	1,308	82	44	14	1,287	1,427
2039	63	33	11	973	1,080	69	35	12	1,063	1,179
Total	25,206	26,942	8,926	551,626	612,700	27,568	28,699	9,152	599,341	664,760

Note: The entries for 2000 are for 1/4 of a year.

Table B5: Fibreboard Forecasts as of October 5, 2000,
Increasing Propensities to Sue

Filing Year	OC					Fibreboard				
	Meso	Lung	Othc	Nonm	Total	Meso	Lung	Othc	Nonm	Total
[2000]	275	412	137	7,444	8,268	301	439	140	8,065	8,945
2001	1,100	1,649	547	29,776	33,072	1,203	1,757	562	32,260	35,782
2002	1,201	1,789	634	33,665	37,289	1,314	1,906	650	36,459	40,329
2003	1,298	1,925	716	37,599	41,538	1,419	2,051	734	40,706	44,910
2004	1,389	2,044	789	41,377	45,599	1,519	2,178	809	44,788	49,294
2005	1,472	2,145	853	44,959	49,429	1,610	2,286	875	48,658	53,429
2006	1,439	2,049	815	43,262	47,565	1,573	2,183	835	46,831	51,422
2007	1,401	1,953	776	41,527	45,657	1,532	2,080	795	44,961	49,368
2008	1,363	1,857	739	39,809	43,768	1,490	1,978	757	43,108	47,333
2009	1,320	1,763	701	38,050	41,834	1,444	1,878	719	41,210	45,251
2010	1,276	1,669	663	36,283	39,891	1,395	1,779	680	39,305	43,159
2011	1,229	1,577	628	34,530	37,964	1,344	1,680	643	37,411	41,078
2012	1,179	1,486	591	32,748	36,004	1,289	1,583	606	35,486	38,964
2013	1,128	1,398	555	30,983	34,064	1,233	1,490	569	33,579	36,871
2014	1,074	1,312	521	29,229	32,136	1,175	1,397	534	31,681	34,787
2015	1,020	1,228	488	27,521	30,257	1,116	1,309	500	29,834	32,759
2016	964	1,145	455	25,794	28,358	1,055	1,220	467	27,965	30,707
2017	907	1,066	424	24,113	26,510	992	1,136	435	26,145	28,708
2018	851	989	394	22,465	24,699	931	1,054	404	24,360	26,749
2019	796	916	364	20,872	22,948	870	976	373	22,634	24,853
2020	740	846	336	19,327	21,249	809	901	345	20,961	23,016
2021	686	777	309	17,813	19,585	750	827	316	19,321	21,214
2022	633	711	283	16,359	17,986	692	758	290	17,744	19,484
2023	582	649	259	14,983	16,473	636	692	265	16,252	17,845
2024	533	589	234	13,637	14,993	583	627	240	14,794	16,244
2025	486	532	211	12,361	13,590	532	567	217	13,411	14,727
2026	441	478	191	11,159	12,269	482	510	195	12,108	13,295
2027	398	427	170	10,000	10,995	435	455	174	10,851	11,915
2028	358	379	151	8,931	9,819	392	404	155	9,693	10,644
2029	320	334	133	7,914	8,701	350	356	136	8,590	9,432
2030	283	293	117	6,977	7,670	310	312	120	7,573	8,315
2031	250	254	101	6,080	6,685	273	271	103	6,601	7,248
2032	218	220	87	5,282	5,807	239	234	89	5,735	6,297
2033	190	204	75	4,717	5,186	208	217	77	5,121	5,623
2034	164	160	64	3,901	4,289	180	170	65	4,237	4,652
2035	142	134	53	3,315	3,644	155	143	55	3,601	3,954
2036	120	112	44	2,780	3,056	132	119	45	3,021	3,317
2037	102	93	36	2,323	2,554	112	99	37	2,525	2,773
2038	85	75	30	1,914	2,104	93	80	31	2,081	2,285
2039	71	60	24	1,567	1,722	78	64	25	1,704	1,871
Total	29,484	37,699	14,698	813,346	895,227	32,246	40,166	15,067	881,370	968,849

Note: The entries for 2000 are for 1/4 of a year.

Table B6: Fibreboard Forecasts as of October 5, 2000,
No Increase in Propensities to Sue

Filing Year	OC					Fibreboard				
	Meso	Lung	Othc	Nonm	Total	Meso	Lung	Othc	Nonm	Total
[2000]	275	412	137	7,444	8,268	301	439	140	8,065	8,945
2001	1,100	1,649	547	29,776	33,072	1,203	1,757	562	32,260	35,782
2002	1,086	1,578	524	28,791	31,979	1,187	1,681	537	31,200	34,605
2003	1,070	1,518	505	27,937	31,030	1,170	1,618	517	30,280	33,585
2004	1,052	1,458	484	27,051	30,045	1,151	1,554	497	29,326	32,528
2005	1,032	1,397	464	26,132	29,025	1,129	1,488	476	28,334	31,427
2006	1,009	1,334	443	25,162	27,948	1,103	1,421	454	27,288	30,266
2007	982	1,271	422	24,167	26,842	1,074	1,354	433	26,215	29,076
2008	955	1,209	402	23,181	25,747	1,045	1,288	412	25,150	27,895
2009	926	1,148	381	22,170	24,625	1,012	1,223	391	24,056	26,682
2010	894	1,087	361	21,154	23,496	978	1,158	370	22,958	25,464
2011	862	1,027	341	20,142	22,372	943	1,094	350	21,863	24,250
2012	827	967	322	19,112	21,228	904	1,031	330	20,748	23,013
2013	791	910	302	18,092	20,095	865	970	310	19,644	21,789
2014	753	854	283	17,075	18,965	824	910	290	18,542	20,566
2015	715	800	265	16,083	17,863	782	852	272	17,467	19,373
2016	676	746	248	15,080	16,750	740	794	254	16,379	18,167
2017	636	694	231	14,101	15,662	696	740	237	15,318	16,991
2018	597	644	214	13,141	14,596	653	686	220	14,276	15,835
2019	558	596	198	12,213	13,565	610	635	203	13,270	14,718
2020	519	551	183	11,312	12,565	567	587	188	12,291	13,633
2021	481	506	168	10,429	11,584	526	539	172	11,332	12,569
2022	444	463	154	9,579	10,640	485	493	158	10,410	11,546
2023	408	423	141	8,775	9,747	446	450	144	9,536	10,576
2024	374	383	128	7,989	8,874	409	408	131	8,683	9,631
2025	341	346	115	7,244	8,046	373	369	118	7,874	8,734
2026	309	311	104	6,541	7,265	338	332	106	7,110	7,886
2027	279	278	92	5,863	6,512	305	296	95	6,374	7,070
2028	251	247	82	5,239	5,819	275	263	84	5,696	6,318
2029	224	218	72	4,644	5,158	245	232	74	5,050	5,601
2030	199	191	64	4,095	4,549	217	203	65	4,453	4,938
2031	175	165	55	3,571	3,966	191	176	56	3,884	4,307
2032	153	143	47	3,104	3,447	167	153	49	3,376	3,745
2033	133	133	41	2,772	3,079	146	142	42	3,015	3,345
2034	115	104	35	2,294	2,548	126	111	36	2,496	2,769
2035	99	88	29	1,951	2,167	109	93	30	2,123	2,355
2036	84	73	24	1,637	1,818	92	78	25	1,783	1,978
2037	72	60	20	1,370	1,522	78	64	20	1,491	1,653
2038	60	49	16	1,129	1,254	65	52	17	1,229	1,363
2039	50	39	13	925	1,027	55	42	13	1,008	1,118
Total	21,566	26,070	8,657	508,467	564,760	23,585	27,776	8,878	551,853	612,092

Note: The entries for 2000 are for 1/4 of a year.