

Docket No. F.D. 30400-10/15/84- Pages=1993 ~ 2051

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BEFORE THE

INTERSTATE COMMERCE COMMISSION

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In the Matter of: :

SANTA FE SOUTHERN PACIFIC CORPORATION : Finance Docket

-- CONTROL -- : 30400 et al.

SOUTHERN PACIFIC TRANSPORTATION :

COMPANY :

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Hearing Room A

12th & Constitution, N.W.

Washington, D.C.

Monday, October 15, 1984

The hearing in the above-entitled matter was convened, pursuant to notice, at 9:30 a.m.

BEFORE:

JAMES E. HOPKINS,

Administrative Law Judge

00150000

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C O N T E N T S

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<u>WITNESS</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
Paul Webster MacAvoy				
By Mr. Weicher	1996			
By Mr. Leary		1998		
By Mr. Kharasch		2093		
By Mr. Livingston		2187		
By Mr. White		2206		
By Ms. Kooperstein		2212		
By Mr. Solander		2252		
By Mr. Weigher			2253	

E X H I B I T S

<u>Exhibit No.</u>	<u>IDENTIFIED</u>	<u>RECEIVED</u>
DRGW-C-16	2031	2257
DRGW-C-15	2118	2257
MKT-C-20	2135	2257

P R O C E E D I N G S

1
2 JUDGE HOPKINS: Let's go on the record.

3 MR. WEICHER: Good morning, Your Honor. My
4 name is Richard Weicher for applicants. I have made an
5 appearance with the reporter.

6 I would like to call our next witness, Dr.
7 Paul MacAvoy.

8 Whereupon,

9 PAUL WEBSTER MAC AVOY
10 was called as a witness, and having been first duly
11 sworn, took the stand, was examined, and testified as
12 follows:

DIRECT EXAMINATION

13
14 BY MR. WEICHER:

15 Q Please state your name and address for the
16 record.

17 A My name is Paul Webster MacAvoy, and my
18 address is 1550 Clover Street, Rochester, New York.

19 Q Can you identify the verified statement of
20 Paul MacAvoy in a volume designated SFSP-18 as your
21 testimony?

22 A Yes, I can.

23 Q Do you have any changes or corrections at this
24 time you would like to make in that statement?

25 A I have four corrections beginning on Page 16.

1 Line 19, which is five lines from the bottom, there have
2 been changes in the two numbers on that line, so rather
3 than reading "in 633 out of 1,252," it should read "in
4 589 out of 1,212."

5 On Page 27, Line 18, which again is five lines
6 from the bottom, the number 220 million should be 218
7 million.

8 On Page 33, Line 4, the words beginning with
9 "or 31 percent" for the rest of that line should be
10 deleted, and on the next line, the words "million total
11 system tons" should also be deleted.

12 Further down on that page, at Line 10, I would
13 wish to insert in the parentheses before 2 percent the
14 word "approximately," so that it reads "Only three
15 million (or approximately 2 percent of total system
16 traffic)."

17 Those are the only changes.

18 Q Dr. MacAvoy, with those changes in the errata
19 previously filed, is this testimony true and correct to
20 the best of your knowledge and belief?

21 A Yes, it is.

22 MR. WEICHER: The witness is available for
23 cross examination.

24 JUDGE HOPKINS: Thank you.

25 Who is going to start? Mr. Leary?

CROSS EXAMINATION

BY MR. LEARY:

Q Professor MacAvoy, my name is Tom Leary. I am with the firm of Hogan and Hartson, representing the Rio Grande Railroad in this proceeding. With me is Susan DeSanti at my right.

I just thought I would reassure you up front that before I moved to Washington, I lived in Detroit, so I am in a very good mood this morning, and I think we are going to get along just fine.

Can you describe for us what you did in order to prepare for your testimony?

A To prepare for this testimony, I carried out a series of readings which involved the preliminary drafts of the testimonies provided to this forum related to the cost savings that are predicted to follow from the proposed merger and related to the various potential impacts that might occur on rate setting behavior following from the merger.

That is, I read the testimonies in very rough draft form of approximately half a dozen witnesses, including, for example, Mr. Anderson and others, as they were being prepared, and began to conduct at that stage my own investigation leading to an overall assessment of the competitive and efficiency impacts of this merger.

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1 Q Can you be more specific in telling us which
2 witness statements you read in preliminary draft form?

3 A They are listed as footnotes in my own text.

4 Q In other words, the statements that you read
5 and relied upon are all listed as footnotes in your
6 text?

7 A That is correct.

8 Q Did you read any of the statements as the
9 drafts progressed toward final form?

10 A I don't believe I read follow-on drafts that
11 followed my draft. I worked with first draft
12 materials.

13 Q Were there any other factual materials on
14 which you relied?

15 A Well, I think, Mr. Leary, you can see from my
16 references that I rely on current economic and legal
17 research literature on the behavior of the
18 transportation industries to provide a frame of
19 reference within which to assess the efficiency and
20 competitive impacts of the merger.

21 Q Are there any factual materials which provided
22 the background for your testimony that are not cited in
23 your text?

24 A Not that I recall.

25 Q Were there any materials which you requested

1 from the applicants here which for one reason or another
2 were not available to you?

3 A I don't recall making any requests that were
4 not fulfilled. Absolutely not.

5 Q Do you have any materials of your own which
6 you consulted in the preparation of this statement?

7 A Not that go beyond the economic monograph and
8 journal article literature that sits on my shelves in my
9 office at the university. That is, there may have been
10 30, 40, 50 other pieces of the current academic and
11 Commission research which I went through in the process
12 but didn't find direct reference to the topics on which
13 I was working.

14 So, they are just in the pile.

15 Q Can we assume, then, that you did not make any
16 independent factual inquiries in preparation of your
17 statement?

18 A That is a correct assumption.

19 Q You mentioned on Page 1 of your statement that
20 you were once co-chairman of the President's Task Force
21 on Regulatory Reform.

22 Is that right?

23 A That is correct.

24 Q Was that the task force which you co-chaired
25 with Ed Schmalz?

1 A That is correct.

2 Q Was there any material related to your work on
3 that task force which you consulted in preparation of
4 this testimony?

5 A Those files have long since disappeared, Mr.
6 Leary.

7 Q Are there any materials relating to other
8 consulting assignments which you may have consulted in
9 connection with your testimony?

10 A No. There were not other such files.

11 Q You mentioned you saw these statements in
12 preliminary draft form before they were put in final
13 form. Did you have, and I am asking only in a general
14 way, did you have any input into the further refinement
15 of those drafts?

16 A No, I did not.

17 Q In other words, you didn't indicate what kinds
18 of facts or categories of facts were necessary to
19 support your opinion?

20 A That issue did not come up. I took from the
21 vast record that is being compiled in this case in the
22 draft testimony the material that was available in that
23 testimony.

24 I didn't encounter a situation in which I felt
25 a need for additional material from those witnesses.

1 Indeed, I did not meet with those witnesses for any such
2 purpose.

3 It seemed to me that the record was complete
4 enough for me to conduct the study that is reported in
5 my testimony.

6 Q When you say you didn't meet with those
7 witnesses for any such purpose, again, I am asking you a
8 general question. Did you meet with him for any other
9 purpose?

10 A I had meetings with Temple, Barker, and Slocane
11 that were helpful to me in explaining to me how this
12 work at TBS was conducted.

13 I had some difficulties with preliminary draft
14 in understanding exactly what the procedure of
15 determination of, for example, common points was.

16 This was explained to me orally, and this
17 education session -- it was a single session -- was part
18 of my early preparation. But it did not extend to an
19 interchange in which I made any proposals that they do
20 something for me or for someone else to complete their
21 record.

22 Q Were there any discussions you had with any
23 other witnesses in this proceeding?

24 A Not that I recall.

25 Q Did you have any discussions of your testimony

1 here with any people who are not part of the applicant's
2 litigation team, like colleagues at the university or
3 people that you have dealt with in previous consulting
4 assignments?

5 A I was assisted on the preparation of data,
6 compilations from the sources given in my testimony by
7 two professional economists, Dr. Bruce Stangle and Dr.
8 Michael Koehn, K-o-e-h-n, of the firm entitled Analysis
9 Group, Incorporated, in Belmont, Massachusetts.

10 And in the process of preparation of my
11 various drafts, they served as senior research
12 assistants on the compilation of tables under my
13 direction throughout.

14 I did not, as I recall, discuss this in more
15 than passing with any of my university colleagues.
16 Certainly no seminar or formal discussion was ever held,
17 but I might have said something in the corridors.

18 Q Thank you.

19 You stated, did you not, on page 4 of your
20 sworn statement that this merger is analogous to the
21 recent merger of Union Pacific, Westarr Pacific, and
22 Missouri Pacific?

23 A That is correct.

24 Q Have you read the Commission's opinion in the
25 Union Pacific case?

1 A I did at the time it was published as part of
2 my current reading to stay abreast of policy
3 developments in transportation.

4 Q Did you review it again in preparation for
5 your testimony here?

6 A No, I did not.

7 Q I will read to you a quote from that opinion
8 and ask if you will recall it. On Page 504, and I guess
9 it is 366. ICC, the Commission opinion reads as
10 follows: "At the margin, motor carriers are unlikely to
11 be direct substitutes for rail transportation in the
12 markets affected by the proposed transactions. In such
13 circumstances a rise in rail rates would not necessarily
14 result in a significant amount of traffic shifting
15 between modes, and the railroad could effectively
16 increase its profit by raising its rates absent other
17 competitive factors.

18 "Our treatment of rail freight transportation
19 is consistent with cases decided under Clayton Section
20 7, where it is rare to group technically different
21 products or services in the same product market."

22 Do you recall reading any language like that
23 when you studied these?

24 A Yes, I recall reading it. I didn't agree with
25 it at the time, nor do I agree with it now as a good

1 economic analysis of markets for transportation in the
2 western part of the country.

3 Q Let me read you a quotation from a Commission
4 opinion one month old in the Milwaukee Road case. Have
5 you read that?

6 A No.

7 Q "The Commission concludes in that case for
8 purposes of this proceeding we agree with the DOJ" --
9 that is the Department of Justice -- "and therefore
10 conclude that the relevant product market for CNW" --
11 that is the Chicago North Western -- "as well as for
12 GTC" -- that is the Grand Trunk Company -- "and so is
13 rail freight transportation."

14 I gather you disagree with that statement as
15 well.

16 A I haven't the slightest idea, Mr. Leary,
17 because I haven't read the case or the record, and there
18 may be conditions there where intermodal competition,
19 quite different from the western part of the country,
20 may not be prevalent, and it is an entirely different
21 context, and has nothing to do with anything I have done
22 in research for this case, and could be on a different
23 planet as far as I am concerned.

24 Q Well, then you state that you disagree with
25 the Commission's treatment in the UP case, which you say

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1 is analogous.

2 A With respect to that part of the decision that
3 you just read back to me, that is a piece of economic
4 analysis as to how to define a market, and I don't agree
5 that that is a workable or accurate definition with
6 respect to the condition of sales or supply of Union
7 Pacific services today, nor would I agree if anyone were
8 to suggest that that is a proper definition of the
9 market in this proceeding.

10 Now, I recall at the time of the Union Pacific
11 decision that even though the Commission defined the
12 market incorrectly, they came to the right decision, so
13 you can do the right thing for the wrong reasons, and
14 that is what I believe happened in that case.

15 Q The Commission in that case permitted the
16 merger with conditions, did it not?

17 A That is correct.

18 Q You stated in your testimony, have you not,
19 that the SPSF merger is "an attempt to improve
20 efficiency and in turn gain a more favorable competitive
21 position vis-a-vis competing megarails and other modes
22 of transportation?"

23 A That is my conclusion, Mr. Leary, on Page 4.

24 Q Isn't it true that corporate executives almost
25 always claim that they are going to improve efficiency

1 when they want to do something?

2 A No, I don't think that is a correct general
3 statement.

4 Q Aren't they apt to claim that the contemplated
5 action will improve their competitive posture or improve
6 their profitability or improve their efficiency?

7 A Those are some of the reasons, but if I recall
8 from my memory various rationale given for bank mergers,
9 mergers of other kinds of financial institutions,
10 including brokerage houses, arguments stated more
11 strongly and effectively include improvements in the
12 quality of service, diversification for purposes of
13 reducing the risk of investment, improvement in profit
14 opportunities, the generation of additional net cash
15 flow in order to subsidize existing services, synergy,
16 which covers a multitude of positive attributes as well
17 as a multitude of sins are all reasons that are given
18 for mergers.

19 And in order to be emphatic and convincing on
20 a specific rationale for a merger, one usually has to
21 have some basic proof for using one of those arguments
22 versus the other.

23 Q In your experience, do you believe that
24 business executives are usually better at predicting the
25 impact of their actions than outsiders like lawyers and

1 Commissioners?

2 MR. WEICHER: Your Honor, I object. The
3 witness has not dealt with the motivations of
4 executives. He is not an executive. He is not
5 appearing as an executive. It is beyond the scope of
6 his testimony.

7 JUDGE HOPKINS: Overruled.

8 THE WITNESS: Business executives have to be
9 better at predicting the consequences of changes in
10 business policy than are lawyers or particularly
11 economists, simply because our livelihood depends upon
12 the accuracy of their forecast.

13 BY MR. LEARY: (Resuming)

14 Q You state on Page 4 of your testimony that
15 increasing competition from the new megarailroads and
16 from other modes appears to threaten the viability of
17 these two transportation companies. Is that correct?

18 A That is correct.

19 Q Are you expressing a personal concern there
20 about the viability of these companies, or are you
21 relying on what you have been told?

22 A You will find later in my testimony that I use
23 currently available public data to evaluate recent
24 profit returns and margins of the megarailroads versus
25 the Santa Fe and Southern Pacific which go to providing

1 a foundation for this summary statement related to
2 Section 3 here on Page 4.

3 My statement on Page 4, which is, of course,
4 repeated in Section 3 of the testimony, is my conclusion
5 from having done a broad survey of conditions of
6 profitability of this firm, this industry versus
7 competitive investment opportunities elsewhere in the
8 economy for investors.

9 Q Have you read any of the communications which
10 the managements of these companies mail to their
11 shareholders discussing the future prospects of their
12 businesses?

13 A No, I have not.

14 Q Have you read any presentations which these
15 managers made to security analysts about the future
16 prospects of their businesses?

17 A No, I have not.

18 Q You recognize, don't you, that the Southern
19 Pacific and the Santa Fe aren't the only carriers which
20 have to compete against these "megarails?"

21 A Mr. Leary, the railroads compete with other
22 investment opportunities throughout the economy. There
23 is no limit to the competition for capital investment
24 funds in the American economy, so I don't stop with the
25 SFSF versus the Union Pacific or railroads or telephone

1 companies, for that matter.

2 Q Well, that, I am afraid, was not my question.
3 Let me ask you again.

4 Do you recognize that the Southern Pacific and
5 the Santa Fe aren't the only carriers which have to
6 compete against these megarails? I am not talking
7 about --

8 A Oh, I thought you were talking about financial
9 investment competition.

10 Q No, sir. I am talking about whether or not
11 you recognize there are other carriers which also have
12 to compete against these megarails.

13 A Yes. I recognize that.

14 Q Do you recognize that a carrier like the Rio
15 Grande has to compete with the new megarailroads?

16 A To a more limited extent than SFSP, because of
17 the limited trackage locations of that railroad compared
18 to the two systems at hand.

19 Q And to the extent that it does compete it will
20 have to compete with yet another megarailroad after this
21 merger is approved. Is that correct, if it is
22 approved?

23 A That is correct.

24 Q On Page 7 of your statement, you say "For the
25 vast majority of products shipped, no significant cars

1 or qualitative differences exist between one
2 transportation mode and another. Each provides a
3 constraint on the other's pricing behavior."

4 Do you see that language?

5 A Yes, I do.

6 Q Do you mean that for the vast majority of
7 products, the possibility of shipping by truck or by
8 other mode rather than by rail provides a constraint on
9 rail pricing that is just as good as that of competing
10 railroads?

11 A No, I do not mean that.

12 Q Would your judgment about the degree of
13 constraint which is imposed by truck competition be
14 affected by the share of a particular commodity movement
15 which is carried by truck?

16 A As long as the share carried by truck is large
17 enough to lead me to imply that there is a substantial
18 infrastructure of truck service offerings, then any
19 share from that minimum level over a range to 100
20 percent is equally indicative of the extent of
21 competition as any other share.

22 That is, if, just for example, trucking
23 services provided equal to 5 percent of total traffic
24 were sufficient to establish loading ramps and receiving
25 warehouses, and a systemwide communication and

1 dispatching operation, then any share from 5 percent to
2 99 percent would be equally competitive.

3 If, however, the share went below my
4 hypothetical 5 percent, so that service was
5 significantly more infrequent, and the infrastructure
6 were not there, then that share would be qualitatively
7 different from the others that I have mentioned.

8 Q Are you saying that 5 percent is the
9 applicable threshold, or is that just the number that
10 you are using as a hypothetical example?

11 A That is the number I am using as a
12 hypothetical example, because it would vary from market
13 to market, and product type to product type that is
14 involved in the transportation.

15 Q Are you familiar with studies which show, for
16 example, that truck market shares are lower for long
17 distance movements?

18 A Yes, I am generally familiar with that factual
19 statement.

20 Q And a shipment, say, from California to one of
21 the midwest gateway cities is a long distance movement,
22 is it not?

23 A Yes, but for the purposes of answering your
24 previous question, the critical issue is whether the
25 shipment is large enough to establish an infrastructure,

1 not what the market share happened to be at any
2 particular time.

3 Q The answer is yes. Is that correct?

4 A I think so. I am having trouble understanding
5 that question.

6 Q Well, I will ask the question again then, if
7 there is any doubt about it. I didn't ask you about a
8 market share. I simply asked you whether you would
9 consider a shipment from California to the midwest
10 gateway cities a long distance shipment.

11 A Oh, I am sorry. Yes, I would consider that a
12 long distance shipment.

13 Q You state in fact that "there are numerous
14 markets for varied transportation services," are there
15 not?

16 MR. WEICHER: Could counsel specify where that
17 is?

18 MR. LEARY: Yes, that is on Page 7.

19 THE WITNESS: Yes, I do state that.

20 BY MR. LEARY: (Resuming)

21 Q In analyzing traffic flows in these various
22 markets, you rely on the testimony of the witnesses Carl
23 Liba and Randall Reyff.

24 A Yes.

25 Q Do you not?

1 A I do.

2 Q And these witnesses have broken down traffic
3 flows into four separate product categories for
4 analysis, haven't they?

5 A Yes, they have.

6 Q And the tabulations which relate to these
7 categories are set forth in SFSP-19 and SFSP-20. Is
8 that right?

9 A That is correct.

10 Q Have you made any independent inquiries to
11 check whether these groupings are appropriate, or do you
12 just rely on the opinion of Lita and Reyff?

13 A I have made an independent inquiry to
14 determine whether these breakdowns are appropriate for
15 my utilization of their results to establish a general
16 pattern of postmerger concentration. That is, they have
17 divided traffic into four categories for the purposes
18 that are manifest in their testimony.

19 The question I have to ask is whether that
20 breakdown is appropriate for determining possible
21 implications from concentration consequent from the
22 proposed merger.

23 Q Are there recognized tests which an economist
24 might apply in order to decide whether products listed
25 within a given category really belong together?

1 A There is no specific numerical or other
2 mechanical criterion that I am aware of for doing
3 that.

4 Q Do you just rely on seaman's eye?

5 A Seaman's eye?

6 Q Informed judgment.

7 A You rely on informed judgment for the purpose
8 of determining whether the breakdown conforms to
9 economic definitions of markets.

10 Q Would you be interested in finding out whether
11 the freight rates, for example, for various products in
12 a particular commodity group are at roughly the same
13 level?

14 A No.

15 Q Would you be interested in knowing whether
16 freight rates for various products in a particular
17 commodity group seem to move in lock step?

18 A That would be more interesting, but it
19 wouldn't be a characteristic by itself that allows you
20 to determine whether this breakdown is a rough economic
21 market classification.

22 Q I gather that apart from applying your
23 informed judgment, you did not undertake any specific
24 analysis of the various commodities in the four
25 groupings in SFSP-20.

1 A That is correct.

2 Q Would you turn now to Page 11 of your sworn
3 statement, which contains a table?

4 To your knowledge, does that table include all
5 the commodities now carried by rail, or have they been
6 selected?

7 A The source is Keeler's Brckings study
8 entitled Railroads, Freight, and Public Policy. I
9 recall from that study that this is approximately
10 comprehensive, but I don't recall whether there may have
11 been specific types of commodity not covered in the
12 table.

13 Q In other words, you don't know whether there
14 is another other that would fall under the other
15 category at the bottom there?

16 A That's the idea, Mr. Leary. I believe that is
17 reasonably comprehensive, but there may have been a
18 footnote that said a particular product was left out
19 because of lack of data or some such.

20 Q In determining whether rail or truck options
21 are competitive, do you believe it is necessary to look
22 at comparative costs?

23 A In some situations, it is critical to look at
24 comparative cost, but I can conjure up important
25 conditions in which these are not the determinant of

1 competition.

2 Q Well, apart from those examples that you can
3 conjure up, do you believe that in applying the informed
4 judgment that you have discussed, that it is appropriate
5 to look at comparative costs?

6 A In the following strict sense, that if, of
7 course, costs of the two modes, in this case truck and
8 rail, are the same, then with available infrastructure
9 one would expect that both would be providing service,
10 and any attempt on the part of one mode or a supplier in
11 one mode to raise prices significantly above long run
12 marginal costs would be followed by a substantial supply
13 increase of the services of the other at comparable
14 costs, so that there is extensive intermodal competition
15 likely to follow from the same level of costs.

16 If one mode is more expensive than the other,
17 for example, suppose that rail costs were 15 or 20
18 percent higher than truck costs, that does not preclude
19 the existence of an effective market in which both modes
20 participate, because any attempt on the part of a
21 trucking supplier to raise truck rates 15 or 20 percent
22 above truck long run marginal costs would be followed by
23 an extensive increase in the supply of rail services so
24 as to cap that potential increase at the rail level of
25 marginal cost.

1 That is to say, there can be varied cost
2 levels across the modes that can still indicate
3 extensive intermodal applications of service in a
4 transportation market.

5 Q The table indicates on its face, does it not,
6 that rail appears to have a fairly clear cost advantage
7 for some commodity categories?

8 A That is correct, and also that truck has a
9 clear cost advantage in other categories. Take, for
10 example, waste and soap, where rail costs are 9.8 cents
11 per ton mile and truck costs are 2.7 cents.

12 Q Can you identify for us the commodities for
13 which rail appears to have a substantial cost
14 advantage?

15 MR. WEICHER: Your Honor, is counsel asking
16 the witness to read the table? It just speaks for
17 itself.

18 MR. LEARY: No, he can read from his own
19 statement on Page 10 if he would like.

20 MR. WEICHER: Perhaps he would ask the
21 question again in terms of what exactly he is looking
22 for.

23 BY MR. LEARY: (Resuming)

24 Q All right. You have stated, have you not,
25 that the commodities coal, chemicals, nonmetallic

1 minerals, and petroleum seem to be ones which show a
2 rail cost advantage over truck competition?

3 A No, I say rail had little or no cost advantage
4 over truck transportation with respect to those items.

5 Q No. Table 1 adopted from that study shows
6 that for all commodities except coal, chemicals,
7 nonmetallic minerals, and petroleum, rail has little or
8 no cost --

9 A That is right, but it is not the same thing as
10 saying in your terms that rail has a substantial cost
11 advantage in those areas.

12 Q I didn't mean to mischaracterize you. I am
13 sorry.

14 A The real question, Mr. Leary, is what you mean
15 by substantial. Do you mean so large that the cap
16 placed by truck marginal cost over rail costs is so
17 loose that a wide range of rail rates above rail
18 marginal costs could be set without generating
19 intermodal competition?

20 Q Is that what you mean by substantial?

21 A Well, what I mean by substantial is what is
22 indicated on the face of your table. Let's look at
23 coal. Actual rail cost cents per mile, 2.2; estimated
24 truck cost, depending on the loading you have got here,
25 is either 3.9 or 4.3.

1 A Now, that might suggest, then, that if these
2 were current numbers, and accurately determined that the
3 cap that could be provided by intermodal competition on
4 rail rates would be about 1.7 cents on large shipments
5 above rail marginal costs.

6 Q About 70 percent above rail marginal costs.
7 Isn't that more accurate?

8 A Well, I don't know what that particular
9 percentage means. I would rather put it in terms of a
10 cent per ton mile. Now, if we are talking about 20,000
11 tons or 40,000 tons for 50 miles, the cost advantage may
12 not be significant in terms of capping, in terms of the
13 ability of trucks to cap competition.

14 But if we are talking about 1,000 miles or
15 2,000 miles, that would be significant.

16 Q Fair enough. Have you ever calculated what
17 percentage of the overall rail ton miles the four
18 commodities that you have identified account for?

19 A No, I have not.

20 Q Would you accept my statement that those four
21 commodities account for over 50 percent of the total
22 which is shown there on Page 11?

23 MR. WEICHER: Your Honor, is counsel referring
24 specifically to this table? Could he explain his
25 calculation, and what we are talking about?

1 JUDGE HOPKINS: Go ahead.

2 BY MR. LEARY: (Resuming)

3 Q Well, yes, 1977 rail ton miles are given in
4 the billions. And what we have done is simply totalled
5 up the billions of ton miles for coal, nonmetallic
6 minerals, chemical products, and petroleum products, and
7 they seem to account for 53 percent of the traffic in
the table overall.

9 JUDGE HOPKINS: You are saying directly taken
10 from the table?

11 MR. LEARY: Directly taken from the table. No
12 mystery behind them.

13 THE WITNESS: I accept your calculation.

14 BY MR. LEARY: (Resuming)

15 Q Would you look at the footnote on Page 11,
16 where Mr. Keeler, the man who compiled these tables,
17 states, "They," the tables, "publicly understate rail's
18 advantage on high density routes and overstate it on low
19 density routes based as they are on gross truck weight
20 of 80 to 90,000 pounds. They may understate truck costs
21 on all but the heavier duty highways, because some
22 highways in the country are not built to withstand such
23 heavy weights."

24 Do you notice that footnote?

25 A Yes. It is there.

1 Q Do you have any reason to doubt the accuracy
2 of Mr. Keeler's observation?

3 A Not with respect to conditions in the middle
4 to late 1970's. I do not doubt his accuracy. This is a
5 careful study, but I don't have any reason to believe
6 that this accounts well for relative costs in the middle
7 1980's.

8 Q Do you have any reason one way or the other
9 for that opinion?

10 A Well, truck weights have increased. There
11 have been substantial productivity gains in the trucking
12 industry. Subsequent to the Trucking Act of 1980 and
13 the implications that has had for restructuring of
14 routes and systems, that can very well have changed
15 these numbers radically, particularly on larger
16 shipments from what were conditions in the middle
17 1970's.

18 Remember, now, the date of the source is
19 1978. The date of the actual compilation of the data
20 probably was in the middle 1970's. Those were years of
21 regulation and inflation and productivity decline in the
22 transportation industry, now no longer being
23 experienced.

24 Q Do you have any better statistics which might
25 reflect comparable rail and truck costs in today's

1 environment.

2 A Because those statistics are not yet available
3 in detail, and I have not recompiled Keeler on the basis
4 of partial statistics, I have had to make the judgment
5 that this is illustrative of conditions in the 1970's,
6 but if I had to judge that this could correctly indicate
7 the magnitude of the rail cost differences at the
8 present time, I would not.

9 I believe those differences have declined over
10 time from my general knowledge of what is going on in
11 these two industries.

12 Q Do you know whether these tables do not
13 differentiate between high density and low density
14 routes, do they?

15 A They do not.

16 Q It is an overall average.

17 A That is correct.

18 Q Do you know whether the routes of the
19 applicant carriers in this case are generally high
20 density or low density routes?

21 A I believe they are both.

22 Q Let me read to you from the same source you
23 cited, Mr. Keeler, on Page 53. He stated, "Similarly,
24 Friedlander and Spady found that for main line
25 operations of a number of large, high density railroads,

1 almost all costs, 95 to 100 percent, were variable.
2 (Firms for which they found this to be true include the
3 Santa Fe, the Missouri Pacific, the Southern Pacific,
4 the Southern, and the Union Pacific.)"

5 Do you see that?

6 A I don't have the book, Mr. Leary.

7 MR. WEICHER: Would counsel show the section
8 to him?

9 JUDGE HOPKINS: Do you have the book, Mr.
10 Leary?

11 MR. LEARY: Oh, I am sorry. I thought you
12 said I don't have to look, and I wondered if you had
13 memorized it.

14 BY MR. LEARY: (Resuming)

15 Q There you are. It is on Page 53.

16 A It is at the bottom of the page? Okay. I see
17 the quotation you read from Keeler. I have great
18 difficulty understanding the context. I don't know, for
19 example, whether all costs were variable within the
20 context of a year or five years or ten years.

21 Q I will put you at ease on that variable cost
22 thing. I am not really concerned with the estimate of
23 variable cost. I am just concerned with Mr. Keeler's
24 observation that the applicant railroads in this case
25 are high density routes.

1 A Well, that quote doesn't say that. It says
2 that Friedlander and Spady did regression analysis of a
3 data set from a number of large high density railroads
4 and then provides as for example that the Santa Fe,
5 MoPac, SP, Southern, and Union were in that sample.
6 Some of those are more high density than others.

7 A That is correct.

8 A But I don't even know whether Friedlander and
9 Spady's original data set was confined to large, high
10 density railroads or whether Keeler is characterizing
11 the regression analysis in that way himself.

12 Q I see. All right. Well, would you turn
13 then --

14 A It is not a very precise definition at all.

15 Q Perhaps an ambiguously written paragraph.

16 Would you turn to page 55, which purports to
17 be a table showing freight densities of major railroads
18 from 1969 to 1980?

19 MR. WEICHER: Do you have another copy of the
20 book?

21 MR. LEARY: We have this only in light of the
22 answer. We did not intend to introduce as an exhibit
23 this page, but in light of the answer, I would like to
24 refer to this page, and if you would, rather than take
25 up the time now of the witness to ask him a question

1 about a page which shows what it shows, Your Honor, if
2 it is appropriate, I would like to have these pages
3 reproduced during the recess, and use them as an exhibit
4 in the next number.

5 MR. WEICHER: Your Honor, I object. The
6 witness is subject to cross examination on his sources,
7 as to his understanding of them. We are not introducing
8 -- I don't understand counsel is introducing Professor
9 Keeler as a witness in this proceeding or any of the
10 other sources here. It is pure hearsay. The
11 questioning should be limited to the witness's
12 understanding of the materials upon which he relied.
13 Beyond that, it is hearsay.

14 MR. LEARY: Well, Professor Keeler is an
15 authority on whom he did rely.

16 JUDGE HOPKINS: I am going to allow him to do
17 that.

18 MR. LEARY: What is the next number? If it is
19 appropriate, Your Honor, if we could just pass that
20 number, and we will take care of this later on.

21 BY MR. LEARY: (Resuming)

22 Q All right, Professor MacAvoy, why don't we
23 move on?

24 Referring again to the Keeler tabulations on
25 Page 11, these tabulations aren't broken down by length

1 of haul, either, are they?

2 A That is correct.

3 Q And I apologize if this is repetitious, but
4 are you aware of studies or of testimony in this case
5 which indicate that rail costs are relatively lower for
6 long distance shipments?

7 A Total costs of rail service are not reduced by
8 increasing the length of the shipment. It costs more
9 resources to go farther distance.

10 Q I say are rail costs relatively lower in
11 comparison with other modes if they are long distance
12 shipments, if you know?

13 A The general academic research indicates
14 roughly that rail costs are not increasing proportionate
15 to distance in total. So that if another mode is
16 experiencing linear cost distance changes, that is,
17 costs are going up to twice the level for twice the
18 distance, then your statement that relative rail costs
19 are less for longer distance is correct.

20 Q Do you know whether truck costs increase more
21 in a linear mode than rail costs do?

22 A Well, there is controversy on that. I would
23 make a judgment on that controversy to the effect that
24 you are probably correct, but I am not sure.

25 Q In addition to the four commodity types which

1 you have mentioned on Page 11, can you identify some
2 others for which the cost estimates appeared to be very
3 close, even without any particular adjustment for, say,
4 density of traffic, or length of haul?

5 A For shipments of stone, clay, and glass
6 products, the estimated rail costs are 2.8 cents per ton
7 mile, and the estimated truck costs are 2.7 cents per
8 ton mile. Those are relatively close, without taking
9 account of density or distance.

10 Q How about farm products?

11 A For farm products, the estimated costs are the
12 same. They are both 2.7 cents per ton mile, without
13 taking account of density and distance.

14 Q Lumber and wood?

15 A For lumber and wood, the estimated Keeler rail
16 cost is 2.9 cents, and for trucking transportation it is
17 2.6 cents per ton mile, again, without accounting for
18 particular characteristics of shipments in a market.

19 Q I don't want to waste your time, but primary
20 metals are pretty close, too, aren't they?

21 A I am sorry to waste your time. I find
22 metallic minerals, nonmetallic minerals, primary metals
23 is very close, too. That is correct.

24 Q And will you accept my representation that
25 that is an additional 23 percent of the products in

1 terms of ton miles?

2 A Again, you have added up the ton miles and
3 divided that number by the total to determine that 23
4 percent is the sum of those items?

5 Q Yes.

6 A I accept your mathematics.

7 Q Well, is there something inappropriate with
8 using that kind of a mathematical procedure to estimate
9 what percentage of the ton miles we are talking about?

10 A No, I am not inferring that there is anything
11 acceptable about that.

12 Q Incidentally, have you ever examined the
13 commodity categories on the table on Page 11 to see how
14 they correspond with the four broad commodity groupings
15 that are used in Mr. Reyff's study?

16 A No, I have not.

17 Q Would you turn for a moment to Table 2 on Page
18 13 of your statement? The source for that table is
19 listed as the Association of American Railroads,
20 Railroads Facts, September, 1983, is that correct?

21 A Yes, but in the errata submitted to the
22 Commission some weeks ago, Mr. Leary, we also added the
23 additional source of Transportation Policy Associates,
24 Transportation in America, 1983.

25 Q Do you know whether the table on Page 13

1 appears in the form there displayed in the issue of
2 Railroad Facts on which you relied?

3 A No, I had this table compiled from that source
4 under my direction.

5 Q This table then was prepared for you by this
6 associate of the firm?

7 A Yes.

8 Q Did you give the associate firm any
9 instructions on the way you wanted the information
10 displayed?

11 A I told him to do it the way it is now printed
12 in the text.

13 Q I see. The way it is printed in the text, it
14 doesn't show the actual share of total shipments at all,
15 does it?

16 A Share of particular mode of total shipments?

17 Q Correct.

18 A It does not show the share of a particular
19 mode. It shows the rate of growth of ton miles of each
20 mode separately against the rate of growth of the total
21 ton miles.

22 Q And those rates of growth are all expressed in
23 relation to different bases, are they not?

24 A They are expressed with respect to the ton
25 miles in the initial 1950 year for that mode.

1 Q And the ton miles for each of those modes in
2 the year 1950 are different, are they not?

3 A That is correct.

4 MR. LEARY: Your Honor, I would like to have
5 marked for identification at the next number, which
6 would be 16 -- if you will bear with me for a second
7 here --

8 JUDGE HOPKINS: It will be marked for
9 identification.

10 (The document referred to
11 was marked for
12 identification as Exhibit
13 Number DRGW-C-16.)

14 BY MR. LEARY: (Resuming)

15 Q Mr. MacAvoy, this is a page from the actual
16 1983 edition of Railroad Facts, and since you may not
17 have seen this page yourself, I will represent to you
18 that we performed the calculations necessary to
19 transform a table of this kind into the format you show
20 on Page 13, and it appears to be the source for that
21 calculation, because the index numbers come out the
22 same.

23 This table shows, does it not, that rail
24 shares, revenue, freight ton miles in 1975 were 36.7
25 percent. Is that right?

1 A That is correct.

2 Q And in 1982 was 36.3 percent. Is that right?

3 A That is correct.

4 Q And looking at the truck shares for the same
5 revenue freight ton miles you see in 1975 a truck share
6 of 22 percent. Is that right?

7 A Yes.

8 Q And in 1982, you see a truck share of 22.7
9 percent. Is that correct?

10 A That is correct.

11 Q If it were shown that during this period rail
12 rates increased considerably more than truck rates on an
13 overall basis, would you expect a more substantial
14 decrease in rail shares relative to truck if they really
15 were competitive?

16 A You are talking about 1981 and 1982?

17 Q 1975 to 1982.

18 A Would you repeat the question, please?

19 Q Yes, sir. If it were shown that during this
20 period of time, that is, 1975 to 1982, rail rates
21 increased considerably more than truck rates on a
22 relative basis, would you expect a more substantial
23 decrease in rail shares relative to truck shares if they
24 really were competitive?

25 A No.

1 Q You would not?

2 A Because so many things are happening between
3 1975 and 1982 that the simple comparison you were
4 seeking to make, Mr. Leary, is illegitimate. Between
5 1975 and 1980, there were vast changes made in process
6 or partial deregulation, and the rate setting system of
7 both of these modes of transportation.

8 In 1980, the passage of the Staggers Act and
9 the Trucking Act made even more fundamental changes in
10 rate setting behavior and in licensing of entry in
11 trucking and in the awarding of routes that have caused
12 dynamic restructuring of service offerings that have not
13 worked through to provide the simple equilibrium
14 argument that you have stated for what would appear to
15 be an eight-year period of quiescence.

16 You can't do what you just said based upon the
17 changes in demands and costs placed upon these systems
18 by changes in regulatory policy and indeed the economic
19 conditions of two massive recessions in that intervening
20 period.

21 I wouldn't consider that legitimate economic
22 analysis for a minute.

23 Q You have just stated, have you not, that there
24 have been during that period of time substantial charges
25 arising in both rail and truck transportation modes?

1 A That is correct. So you have a moving target
2 in both of those industries, and to make a statement
3 like you made about relative rates and relative shares
4 is about as helpful as aggregating all the western
5 world's economies for the same period and determining
6 what happened as a result of a change in a price index.

7 Q You think that my characterization of relative
8 shares is simpleminded, then?

9 A Not simpleminded, Mr. Leary. Simplistic.

10 Q Is it any more simplistic than your table on
11 Page 13?

12 A Well, this table just tries to do a very
13 simple thing, which is to look at the rates of growth of
14 service as measured by freight tons miles for three
15 modes of transportation. I don't say anything about
16 relative rates, and I am not trying to do a complicated
17 cross ratio of demand and pricing that is implicit in
18 your statement.

19 Q We shouldn't read too much into this table
20 then. Is that right?

21 A You should not read too much into Table 2. It
22 tries to do a very modest thing indeed, much more modest
23 than what you are trying to do in your statement.

24 Q All right. Fine. Thank you.

25 Turn to Page 16, will you, please?

1 You have testified, have you not, that the
2 Reekie data and summary table is appropriate for
3 analyzing the competitive effects of this merger? Is
4 that correct?

5 MR. WEICHER: Would counsel specify where he
6 is reading from?

7 BY MR. LEARY: (Resuring)

8 Q The very, very top, top line.

9 A Yes, I see that. That is correct.

10 Q And that data is tabulated in SFSP-19 and
11 SFSP-20. Is that correct?

12 A Yes, it is.

13 Q Focusing on SFSP-20 for the moment -- and by
14 the way, do you know the difference between SFSP-19 and
15 SFSP-20?

16 A SFSP-20, as I recall, has been modified to
17 reflect the impact on shipment shares that would be
18 consequent upon the merger of the two lines.

19 Q The merger of two lines being?

20 A Santa Fe and Southern Pacific.

21 MR. LEARY: Your Honor, can I go off the
22 record for just a second?

23 JUDGE HOPKINS: Off the record.

24 (Whereupon, a discussion was held off the
25 record.)

1 JUDGE HOPKINS: On the record.

2 MR. WEICHER: For the benefit of the witness,
3 the exhibit SFSP-20, as now in the replacement volumes,
4 reflects in general the differences in traffic handling
5 in the computer model showing what happened when the
6 MP-UP merger was consummated, whereas SFSP-19 is
7 basically more raw data.

8 That is a very generalized explanation, but if
9 that is sufficient for --

10 MR. LEARY: SFSP-19 is based, I take it, on
11 actual data where SFSP-20 is data adjusted by a computer
12 model to reflect --

13 MR. WEICHER: That's correct. Witnesses Liba
14 and Reyff will be available for cross-examination on the
15 exact details, but in general that's correct.

16 MR. LEARY: Are we on the record?

17 JUDGE HOPKINS: We're on the record.

18 BY MR. LEARY: (Resuming)

19 Q SFSP-20 sets out market shares for various
20 transportation flows broken down by origin and
21 destination, and further broken down by the four
22 commodity categories which we have discussed.

23 Is that right?

24 A That is correct.

25 Q And SFSP-20 includes truck traffic in the

1 universe in each case, doesn't it?

2 A It does; yes.

3 Q It would be a very easy calculation to
4 recompute those market shares with truck traffic left
5 out, wouldn't it?

6 MF. WEICHER: This witness has not sponsored
7 those exhibits and isn't in a position to be
8 cross-examined on what it would take to calculate or
9 recalculate that volume.

10 JUDGE HOPKINS: Mr. Leary, why are you asking
11 this?

12 MF. LEARY: Well, the witness may be able to
13 answer it. If it's more complicated than I think it is,
14 then --

15 JUDGE HOPKINS: Can you answer?

16 THE WITNESS: It would appear to me to be a
17 straightforward calculation to simply leave the truck
18 ton mileage out of the numerator and denominator of the
19 percentage share statistics.

20 BY MR. LEARY: (Resuming)

21 Q That's what I thought. Did you ever try,
22 yourself, to determine what the percentages looked like
23 with the trucks left out?

24 A No, I didn't.

25 Q Did you ever consider grouping the origin and

1 destination points any other way?

2 A In the sense that I had to determine whether
3 the grouping provided in the studies were useful for an
4 economist to evaluate potential changes in competition,
5 and I thought long and hard about regroupings. I did
6 not agree with some of the geographical specifications
7 of the regions over which competition would take place
8 if I used their groupings.

9 But I decided that overall, the Beebie data
10 was good for or satisfactory for analyzing the
11 competitive facts of the merger. I had a choice of
12 either finding this useful or dispensing with it
13 entirely because I didn't have the resources necessary
14 to redo that study in the detail you imply, Mr. Leary.
15 And I didn't find it hard to make that choice that these
16 were appropriate if in some cases, rough and ready,
17 given that I was going to use the whole data set.

18 I gather from that answer that you were not
19 prepared to say it would be wrong if someone else were
20 to break down or aggregate these traffic flows in other
21 ways.

22 A Well, it's possible for a very large number of
23 restudies to be done by various authorities. I'd have
24 to evaluate the regrouping on the same standards as I
25 just espoused. Are they good for making tests of the

1 extensiveness of competitor?

2 Q I understand that, but --

3 A There's no law against regrouping. It was out
4 of my realm in terms of expenditures of time and
5 resources to do that. But if another railroad were to
6 do that, I'd take them on the same grounds. The merit
7 is indicated by what kind of results you got.

8 Q The merit is indicated by what kind of results
9 you got, or what kind of methods you employ? Are you
10 suggesting that a regrouping would be wrong if it came
11 out with a different ultimate conclusion than you come
12 out with?

13 A No. The word "results" implies more than I
14 meant. Results in terms of were the new groupings, on
15 their face, a better description of markets than the
16 grouping. That's what I mean by results in the
17 groupings.

18 Then, once you've got the definitions of the
19 market, you look at the impact that the proposed merger
20 has on market structure to produce final evaluations of
21 the economic effects.

22 That's a different matter.

23 Q Fine.

24 You've stated in your testimony, have you not,
25 that approximately 10 percent of the -- I have 1,250,

1 but it's now 1,212 markets -- involve the merged
2 company's share of over 50 percent, have you not?

3 A That is correct.

4 Q And the merged company will have at least a 50
5 percent share in those markets, even if truck shares are
6 included, will they not?

7 A That is correct.

8 Q Did you check to see what areas will have that
9 overlap of 50 percent, plus?

10 A Well, the 10 percent of traffic flows are 120
11 out of the 1,212 cells, and they're all over the place.

12 Q They're scattered all over the United States?

13 A No, all over the combined system. There are
14 none in Massachusetts or --

15 Q That's for sure.

16 A Or the District of Columbia.

17 Q What I'm asking you -- and I'm not again
18 trying to ask you to be precise off the top of your head
19 more than you can -- but did you check to see whether
20 those areas, 120 or so, fall into any particular
21 geographical location in the United States?

22 A I did not receive any particular geographic
23 location when I scanned that list of traffic flow cells
24 having the 10 percent, in the 10 percent of the
25 markets.

1 Q Beyond scanning the list, did you make any
2 kind of a tabulation and study the tabulation of where
3 those origin/destination points --

4 A No, I did not. But there didn't seem to be
5 any critical pattern.

6 Q Did you feel it was unnecessary to do that?

7 A Yes, because I didn't see any characteristic
8 that made these stand out from other than a random
9 distribution.

10 Q Do you feel that a more careful analysis of
11 geographical locations than you felt it necessary to do
12 might be useful for someone who was considering some
13 limited relief for a particular competitive problem?

14 A Not based upon the Reebie data? I don't think
15 that's worthwhile.

16 Q All right.

17 A I think it would be grinding the data to fine
18 dust or sand, because as you note on that page of my
19 testimony, I am fairly careful early on to use the word
20 "market" in quotations, since there is not one-to-one
21 confirmation between a cell of Reebie traffic flow data
22 in a real economic market.

23 And if you get down and put your fingernails
24 into that cell and start to rip it out, you're going to
25 find that market characteristics are quite different

1 from what the concentration index indicates in that
2 cell.

3 As long as you're working at the aggregative
4 level of 10 percent or 20 percent or 5 percent of 1,212
5 markets in the aggregate, I believe the Reebie data is
6 roughly useful for evaluating the overall impact of the
7 merger. But I do not believe that you can use a Reebie
8 traffic flow cell as a sound, specific definition of a
9 single transportation market.

10 Q And you, in fact, haven't attempted to do that
11 in your affirmative statement anywhere, have you?

12 A No, I have not.

13 Q What does the term "elasticity of demand" mean
14 that you use on page 34?

15 A It is a technical index, widely used in
16 economics, to measure the percentage change and the
17 quantity demanded of a particular good or service,
18 divided by the percentage change in price that has been
19 experienced in that good or service.

20 Q If, for example, the elasticity of demand were
21 1, would that mean that a 1 percent increase in price by
22 the seller would result in a 1 percent decrease in units
23 sold?

24 A That's is correct.

25 Q And he could raise prices by 1 percent or 2

1 percent or 5 percent and still receive the same overall
2 revenue, could he not?

3 A That is correct. One of the implications of
4 an index value of 1 is that over the range that value
5 holds, then there's no change in total receipts from a
6 price change.

7 Q Would you turn now to your testimony on page
8 22? Second sentence, first full paragraph, you make
9 the statement: "Economic welfare is measured by the sum
10 of consumer plus producer's surplus."

11 Do you see that?

12 A That is correct.

13 Q I'd like to be a little more clear about what
14 these terms mean, if you will bear with me. I'm not
15 disputing at all the accuracy of your definition of
16 consumer's surplus, but I find it very difficult to
17 follow.

18 Let me give you a hypothetical and see if you
19 agree with it. Suppose the going price for ice cream
20 cones in this town is about a dollar, and I am
21 particularly fond of ice cream cones, and I'd be willing
22 to pay \$1.50 for one.

23 Does the consumer's surplus measure more or
24 less the increase benefit or the benefit that I get and
25 a lot of other people like me get who would be willing

1 to pay more for the product than the going market price
2 -- the sum total of our added satisfaction?

3 A No. I think you've got that wrong, Mr.
4 Leary. The correct example, and probably a more
5 dangerous one for you because it involves eating five or
6 six or seven ice creams, generating additional poundage
7 at a rapid rate, is one in which over lunch you decide
8 that the main course is inadequate and you order an ice
9 cream cone and consume it, and then you order a second
10 one, and then a third one and a fourth one.

11 The decision to order the fourth one was made
12 at a critical point where you discovered that the price
13 is still a dollar and the marginal value to you of that
14 fourth is really awful close to a dollar. You've got
15 other uses for that dollar, and you're beginning to feel
16 some pain.

17 So that you make the decision critically at
18 that moment: "Well, I think I'll go for the fourth, but
19 I'm not really going to get anything extra special out
20 of this one."

21 Assuming that that was correct on the fourth,
22 and observing your behavior where you marched up to that
23 counter with alacrity and zeal on the previous three, it
24 is fair to imply that on the first and second and third,
25 you did achieve a gain over and above the dollar you

1 paid for those, because the price is always the same, no
2 matter who you are and how many you consume, which is
3 the consumer's surplus.

4 But, given a choice that day, I'm standing at
5 the counter, and I say to you, "Mr. Leary, you have a
6 choice. You pay me \$9 for ice creams or you go
7 without." You would do that, because you have made that
8 calculation from having had lunch there the last nine
9 days in a row, and repeated the ceremony, and have come
10 out with a conclusion that you gain on the first one \$3,
11 and on the second one \$2, and \$1 on the third one, above
12 what you have to pay for each, which is \$1.

13 So the all or nothing choice indicates the
14 full value of that consumption of that product from zero
15 to your marginal level of four ice creams. That all or
16 nothing value, over and above the market price, is that
17 gain consumers get for having to buy only at the price
18 of the marginal consumer, the one with the aching
19 stomach.

20 Q All right.

21 And that consumer's surplus, it might be a
22 roll on me, but it's a triangle on your chart up at the
23 top. Is that right?

24 A That's right. There's nothing specific about
25 the triangle. I would draw it your way at will.

1 Q the line could be shaped under a curve or
2 something like that?

3 A Yes. As long as it has a downward slope, then
4 that's all that counts.

5 Q And you say producer's surplus is defined as
6 total revenue received by a producer, less total
7 production costs?

8 A Yes.

9 Q Is that roughly the same thing as a profit.?

10 A Yes, that is correct. As long as you include
11 in production cost the payment that you have to make for
12 the capital, including the payment for equity capital.

13 Q Over and above the cost of capital?

14 A Over and above the full cost of capital. Then
15 that would be profit. It might also be rent. It might
16 be, in other industries, the return on land, rather than
17 the return on capital. So it's been called a number of
18 different things, but certainly it's profit in the
19 instance that you gave.

20 Q Now, will you look at the diagram on page 25?
21 What I'm going to do is take you through that diagram a
22 bit, and part of the problem I've had in reading it is
23 that your explanation is one page and the diagram itself
24 is on another page. And if you'll bear with me for a
25 minute, I'd like to just take you through it.

1 Your initial assumption in that diagram is
2 that the price is at capital B on the lefthand margin
3 there; is that right?

4 A That is the case A, market A.

5 Q That is correct.

6 A That is correct.

7 Q And the consumer's surplus, then, is the
8 entire triangle above the horizontal line, B.

9 A That is correct.

10 Q And that includes rectangle small a, triangle
11 small b, and a big triangle up at the top that doesn't
12 have any letter in it?

13 A That is correct.

14 Q and your initial assumption is that the
15 producer's costs are at capital C.

16 A Yes.

17 Q So the producer's surplus or profit is
18 measured by the sum of rectangles, small c and small d;
19 is that right?

20 A Yes.

21 Q And if a merger creates additional market
22 power which enables the producer to raise prices to
23 capital A --

24 A Yes?

25 Q This surplus or profit is increased by the

1 difference in the area of rectangle small a. He picks
2 up rectangle small a, but he loses rectangle small d
3 because the quantity produced is cut back. Is that
4 correct?

5 A That is correct.

6 Q And the consumer's surplus is decreased by the
7 rectangle a and the triangle small b; is that correct?

8 A Both the a and the b in the last part of your
9 statement are small.

10 Q Yes, that's correct. I'm sorry. Rectangle
11 small a and triangle small b. That is what the
12 consumer's surplus decreases by; right?

13 A That is correct.

14 Q So producer's surplus increase by area small a
15 minus small d, and the consumer's surplus decreases by
16 area small a plus small b.

17 A Right.

18 Q And the transfer of the surplus measured by
19 rectangle a from the consumer to the producer is a wash;
20 is that correct?

21 A That is correct.

22 Q So the net decline in welfare is measured, if
23 you work this out algebraically, by the sum of
24 rectangles b plus d; is that right?

25 A Of triangle b plus rectangle d.

1 Q I'm sorry.

2 A That's correct.

3 Q And you would say that this results in a net
4 loss of welfare.

5 A Yes.

6 Q Under this approach, what you do is you draw a
7 balance between the increase in producer's surplus or
8 profit which is a social benefit, and a decrease in
9 consumer's surplus which is a social loss; is that right?

10 A That washes out.

11 Q And the balance is dollar for dollar?

12 A Correct.

13 Q A dollar of producer's surplus or profit is
14 weighed equally with a dollar of consumer's surplus.

15 A That is correct.

16 Q In other words, the theory ignores any
17 transfer effects; is that right?

18 A The basic proposition in theoretical welfare
19 economics is an efficiency proposition which implies
20 that the losses of consumer and producer's surplus not
21 gained elsewhere in the economy are to be those that are
22 valued.

23 No attempt is made in the theory itself to
24 specifically find a value, a net value for a dollar
25 taken away from a producer and given to a consumer or a

1 dollar taken away from a consumer and given to a
2 producer.

3 Otherwise, we would be in the business of
4 valuing area C as some amount different from the
5 rectangle or area A at some amount different from that
6 rectangle, both in its initial position and final
7 position. And the theory does not attempt to do that,
8 because that's entirely subjective.

9 Q Fine.

10 Now you have assumed, your next case, that as
11 a result of the merger, efficiencies are created and
12 costs fall to B. Is that right?

13 A That is correct.

14 Q And this means that additional producer's
15 surplus or profit is generated; is that right?

16 A Yes, of the area, rectangle f.

17 Q The measure of that increase is rectangle
18 small f; is that right?

19 A That is correct.

20 Q And then, as you have said in your testimony
21 on page 24: "If the increase in producer's surplus in f
22 outweighs the increment to welfare loss in areas d plus
23 b, there is a net gain to society; is that right?"

24 A That is correct.

25 Q And under this approach, isn't it so that a

1 firm may have market power and charge
2 higher-than-competitive prices and still there's a net
3 gain to society if the increase in its profit is big
4 enough to tilt the balance?

5 A I think that's not correct.

6 Q It's not correct?

7 A You have only identified rectangle small f as
8 income to the producer, and it was revealed as income to
9 the producer by the direct process of elimination of
10 cost of resources equal to the same amount.

11 So that what we have in rectangle f is not a
12 simple income transfer, but a saving of resources to the
13 society as a whole. That whole rectangle can be
14 released to produce shoes and ice cream cones.

15 So then what happens as a consequence of this
16 two-part effect, that is, a reduction in costs brought
17 about a consolidation and a hypothetical increase in
18 prices brought about by the same consolidation, is that
19 society saves resources equal to that huge rectangle f
20 and loses only the little triangle small b and the
21 little rectangle small d.

22 Q I don't think that you followed my question.
23 Let me go back again.

24 I'm not trying to argue with you whether or
25 not producers are good people or bad people who do or do

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1 not do worthy things with their income. I am simply
2 asking you, is it not an adequate restatement of what you
3 have said in your own testimony that under this
4 approach, a firm may have market power and charge
5 higher-than-competitive prices and still there's a net
6 gain to society if the increase in its profit is big
7 enough to surpass the decrease in consumer's surplus.

8 Is that correct?

9 A That is not correct, Mr. Leary. I insist that
10 you designate area f not as an income transfer which you
11 insist, time and again, that you do in your statement,
12 but as a saving of resources because it's only relevant
13 -- area f is only relevant as a reduction in the
14 economy's use of resources.

15 Now, I insist that if you are restating my
16 testimony, you state it the way it should be done in
17 economic theory, which is that area f is the saving of
18 resources.

19 Q I don't want to argue with you, but your
20 statement, sir, on page 24, says that if the increase in
21 producer's surplus in f outweighs the increment to
22 welfare loss in areas d plus b, there is a net gain to
23 society.

24 Is that not right?

25 A That is what I state.

1 Q That is your statement.

2 A But I would wish to amend that statement
3 because it is more correct, indeed that is received by
4 the producer, but I don't want to leave the impression
5 on the Commission that because it was received by the
6 producer it is a gain to society. It is a gain to
7 society because it's a reduction in cost to society as a
8 whole.

9 And I state that very clearly on the preceding
10 two pages.

11 Q The calculation which you have made here and
12 the diagram which you have presented do not depend upon
13 the use to which the producer subsequently puts that
14 additional income it receives, does it?

15 A That is correct.

16 Q All right. Would you turn to page 28,
17 please? Page 28, right at the bottom of the page, you
18 make the statement that "Shippers who divert their
19 traffic to the consolidated rail" -- that is the merged
20 entity, I gather?

21 A Yes.

22 Q -- "Are doing so in response to an implicit
23 quality adjusted rate reduction."

24 And on the next page you refer to "benefits
25 which relate to extended single line rail service." Is

1 you see those statements?

2 MR. WEICHER: Would counsel point out the
3 second statement, please?

4 MR. LEARY: Yes. It's at the end of the first
5 full paragraph.

6 MR. WEICHER: On page 29?

7 MR. LEARY: On page 29.

8 THE WITNESS: It is the sentence beginning
9 with, "According to A. T. Kearney"?

10 BY MR. LEARY: (Resuming)

11 Q Yes.

12 I just wanted to show you the language to
13 orient you to what the next few questions are going to
14 be about.

15 A I see. I see both of those statements.

16 Q Do you believe that surface improvements are
17 the only ways by which a railroad can divert traffic to
18 its own single line service?

19 A No, it's not the only way.

20 Q A railroad could, in some cases, divert
21 traffic to its own single line by simply refusing to
22 cooperate with another carrier on a shared route,
23 couldn't it?

24 A That's a possibility when there are end-to-end
25 connections, but it's not a possibility when what is at

1 issue is side-by-side service and diversion from one to
2 the other, both providing the same service in parallel.

3 Q I understand. But there may be a situation
4 where the merged entity is an end-to-end connection for
5 a carrier that, in part, provides side-to-side service;
6 is that not true?

7 A That is correct.

8 Q And in that circumstance, is it not true that
9 the merged carrier could in some cases, if it wanted to,
10 divert traffic to its own long line by simply refusing
11 to cooperate with the carrier on the end-to-end
12 connection.

13 Is that true?

14 A It's your hypothetical, Mr. Leary. It sounds
15 irrational to me, but if you assume all brands of
16 irrational behavior are included by implication in your
17 instance, then that is correct.

18 Q That kind of behavior just doesn't fit your
19 theory; is that right?

20 A No. That kind of behavior doesn't fit a
21 pattern of rational behavior on the part of a
22 corporation. Corporations don't go around refusing to
23 deal with other corporations. They try to make deals.
24 Transactions are the business of railroads or airlines
25 or grocery stores.

1 And what you have implied is some irrational
2 act by which someone turns his back on a potential
3 source of revenue. You made it up.

4 Q Does your theory of rational behavior admit
5 the possibility that two railroads might collude in
6 order to enhance the profits.

7 A There is a possibility that that is the case.

8 Q In fact, is it not true that the enhanced
9 possibility of collusion, either overt or tacit, is the
10 basic reason why many economists are concerned about
11 mergers that substantially increase concentration?

12 A That is absolutely correct.

13 Q Is the division of markets one of the things
14 that two carriers might profitably collude about?

15 A There are conditions in which that is the
16 profitable method by which to establish joint profit
17 increases. That is correct.

18 Q Let me put to you a hypothetical. Suppose
19 this merger is approved without conditions. Suppose,
20 further, that the UP and the merged Santa Fe Southern
21 Pacific undertake to collude by market division; the
22 deal is that the UP will concentrate on traffic in the
23 central corridor, and the Southern Pacific Santa Fe will
24 concentrate on traffic in the southern corridor.

25 In this situation, is it possible that the

1 merged carrier might refuse to cooperate with, say, the
2 Rio Grande in the central corridor for reasons other
3 than efficiency in handling a particular move?

4 MR. WEICHER: Your Honor, could counsel
5 restate the hypothetical? I want to make sure if there
6 are any other assumptions with respect to other
7 competition included or excluded from the hypothetical.

8 JUDGE HOPKINS: Go ahead.

9 BY MR. LEARY: (Resuming)

10 Q Suppose this merger is approved without
11 conditions. The UP and the merged Santa Fe Southern
12 Pacific decide to collude by market division.

13 The deal is that the UP will concentrate on
14 traffic in the central corridor and the Santa Fe
15 Southern Pacific will concentrate on traffic in the
16 southern corridor.

17 In this situation, isn't it possible that the
18 merged Santa Fe Southern Pacific might refuse to
19 cooperate with the Rio Grande in the central corridor
20 for reasons other than efficiency in handling a
21 particular movement.

22 A Am I allowed, Mr. Leary, to question some of
23 the assumptions in the hypothetical?

24 Q No. I'd rather you answer the question as
25 put. I think I'm entitled to ask an expert a

1 hypothetical question.

2 JUDGE HOPKINS: Go ahead. Try and answer it
3 as it was put to you. If you want to go on afterwards,
4 I will let you do that.

5 THE WITNESS: Thank you very much, sir.

6 The establishment of a market-sharing cartel,
7 which of course is illegal under the Sherman Act and
8 subject to criminal prosecution --

9 BY MR. LEARY: (Resuming)

10 Q I said overt or tacit.

11 A You get caught, tacit, if you did what you
12 said. There's just no way that a low-ranking economist
13 is the Department of Justice staff would not find that
14 simply by reading the newspapers. So you're not going to
15 get away with that.

16 But you're running this cartel, Mr. Leary, and
17 I'm going to let you go to jail for doing it, because
18 you won't let me play with the assumptions.

19 If you got that far without going to jail,
20 that you divided the two territories, there is no
21 implication of doing that, that it would be necessary to
22 the efficient for-profit functioning of this cartel,
23 that you run a refusal to deal agreement in addition
24 against the other railroads.

25 As a matter of fact, if you were running this

1 cartel, and you were as good at it as you seem to be,
2 then I would expect that you would find it profitable to
3 continue to route traffic over joint rates with the
4 other railroads, even if there is a market sharing
5 agreement.

6 The key irrationality is your market share
7 agreement, which would get you caught for sure, is the
8 refusal to deal. That would be immediately noticeable,
9 and I would think that the treble damages would be in
10 the billions.

11 Q When parties are colluding, don't they
12 sometimes do things for their mutual benefit that are
13 not necessarily optimal from the standpoint of each one
14 alone?

15 A That is correct. That's the key --

16 Q Isn't that the hallmark when evidence is
17 equivocal on collusion, isn't that one of the things
18 that people would look for? That is, whether or not the
19 conduct makes sense from an individual point of view or
20 not.

21 A That is correct, but your exclusionary action
22 that you just described is not of that kind that it is
23 good for the cartel but not good for the two parties.
24 It's not good for the cartel to carry out that kind of
25 exclusionary act, first, because they will get caught

1 because that will immediately be recognized in the
2 bowels of the Antitrust Division; the second, because
3 it's always better to deal than to exclude.

4 Deals can be made by that cartel to share that
5 traffic so that the money is made on the part that's
6 kept within the company, and the joint rate reduces the
7 share of the follow-on traffic.

8 I can always write you an agreement. Hire me
9 as your consulting economist. If you want to run this
10 cartel and really make money, I can always do better for
11 you as a cartel by not refusing to deal.

12 Q Does not a refusal to deal make it easier for
13 colluding parties to satisfy themselves that a market
14 division is being adhered to?

15 A I can't conceive of circumstances where that
16 is the only mode by which to determine the compliance
17 with the agreement.

18 Q I understand. But you may be able to think in
19 your ingenuity of other and better ways to do it.

20 A Twenty other ways.

21 Q Let me ask the question again, okay?

22 Is it possible or isn't it true that a refusal
23 to deal provides a means by which the parties can
24 satisfy themselves that the market division cartel is
25 being adhered to?

1 A They provide one extremely suboptimal, highly
2 costly, and narrow means of inefficiently running their
3 agreement. And, Your Honor, he has now added so many
4 new subclasses to his hypothetical, that he's created a
5 world that doesn't exist.

6 JUDGE HOPKINS: Well, you stated it for the
7 record, so it's in there.

8 BY MR. LEARY: (Resuming)

9 Q If traffic is diverted to the merged carrier,
10 for whatever reason, is this likely to result in further
11 operating efficiencies for the merged carrier?

12 A There may be possibilities of increased
13 traffic sufficient to gain some additional economies of
14 density. If the volume were sufficient to take ton
15 mileage to a higher level, say 10, 15, 20 percent higher
16 than the combined ton mileage of the two previously
17 separable lines, then the same kind of gains that can be
18 made from consolidation could be extended to a higher
19 density system with some possibilities of reduced
20 marginal cost per ton mile.

21 Q Do you know whether efficiencies arising from
22 these diversions are included in the projected cost
23 savings to which you refer on page 27 of your
24 statement?

25 A My belief is that in an attempt to be

1 cautious, the projections of the cost savings did not
2 include the kind of density gains that I just
3 described.

4 JUDGE HOPKINS: Mr. Leary, I think it's time
5 for a break. We'll take 15 minutes.

6 (Recess.)
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1 JUDGE HOPKINS: Let's get back on the record.
2 Mr. Leary?

3 BY MR. LEARY: (Resuming)

4 Q Professor MacAvoy, are you willing to say that
5 a merger -- a market, excuse me, will always be
6 sufficiently competitive so long as there are three
7 railroads in it?

8 A I can't answer that question generically, Mr.
9 Leary, because you haven't told me whether these are the
10 only sources of supply in that market.

11 Q Well, assuming there may be some other sources
12 of supply present in the market, would you say that
13 three railroads are always sufficient competitive
14 alternatives?

15 A If intermodal competition of barge or truck
16 suppliers of transportation have put a cap on the
17 potential rail rate level equal to rail marginal long
18 run costs and there is a single rail line, one rail line
19 is sufficient to establish competition in that market.

20 Q Are you telling me you need some further
21 information to answer the question?

22 A I said that two questions ago, Mr. Leary.

23 Q All right, that's fine, that's fine.

24 MR. WHITE: In order to determine the traffic
25 that might be adversely affected by this merger, you

1 rely, don't you, on a study by Temple, Barker & Sloane?

2 A That is correct.

3 Q And with some exceptions, that study does not
4 give any consideration at all to areas in which there
5 will be three or more railroads after the merger, does
6 it?

7 A That is correct.

8 Q And in particular, that study doesn't give any
9 consideration at all to movements between California and
10 the midwest gateways so long as there are three or more
11 railroads there after the merger, correct?

12 MR. WEICHER: Your Honor, I object. This
13 witness is not sponsoring the TBS study. He is not
14 prepared to stand cross examination on its specific
15 contents

16 JUDGE HOPKINS: Mr. Leary?

17 BY MR. LEARY: (Resuming)

18 Q Do you rely on the TBS study for your
19 conclusions?

20 A My conclusions concerning what, Mr. Leary?

21 Q The conclusion as to the traffic which might
22 be adversely affected by this merger.

23 A I rely on that study for an illustrative case
24 of the highest conceivable size of traffic vulnerable to
25 potential postmerger rail rate increases.

1 Q You rely upon it in making the cost-benefit
2 calculation which represents your ultimate conclusion,
3 don't you?

4 A I rely on it to make an illustrative estimate
5 for the Market A case, but you don't -- you have not
6 even begun to discuss the Market B case.

7 Q I understand that, but what I'm asking you --

8 A So it is just one instance, and I do use the
9 Temple, Barker & Sloane study to attempt to find for
10 that illustrative case some tonnage estimates.

11 Q All right.

12 Now, I want to ask you this one question, and
13 I'm not trying to be unfair, and I don't intend to get
14 into the details of the TBS study. I just want to ask
15 you one question, and if you don't know, all you have to
16 say is you don't know.

17 The question is, in particular, that study
18 does not give any consideration to movements between
19 California and the midwest gateways as long as there are
20 three or more railroads potentially available after the
21 merger, does it?

22 A I don't think that's correct because the two
23 market areas provide substantial exceptions to that
24 statement you just made.

25 Q What two market areas?

1 A The two market areas. You recall that TBS had
2 two market areas, either two or three traffic flows, and
3 some 75 common points.

4 Q And you do not believe -- you believe that the
5 market areas which they considered include carriage from
6 California to the Midwest gateways, even though there
7 are three railroads postmerger, is that your statement?

8 MR. WEICHER: Your Honor, I am going to renew
9 my objection. He's trying to --

10 JUDGE HOPKINS: Overruled.

11 THE WITNESS: Mr. Leary, I believe that the
12 two market area studies included in the TBS studies are
13 significant contradictions to your general statement.

14 BY MR. LEARY: (Resuming)

15 Q All right.

16 A I may be wrong, but the first market area
17 involved the San Joaquin valley and the surrounding
18 region, cutage shipments of perishables to the midwest.
19 The second was the Kansas-Nebraska agricultural
20 production region cutage shipments elsewhere onto the
21 system, some of which may have gone to the west coast.
22 These are two very big regions insofar as the total
23 traffic moving in your statement.

24 Q Do I understand from the objection of counsel
25 that you have not made a detailed individual

1 verification of the TBS study yourself?

2 A That is correct.

3 Q Do I understand from your answer a few minutes
4 ago that you cannot say without additional information
5 that three railroads are always enough?

6 A No. You asked me whether three railroads was
7 enough in all cases.

8 Q That is correct.

9 A That's different from are three railroads
10 always --

11 Q I'm sorry. I asked you whether three
12 railroads are enough, and you said you needed more
13 information, is that correct?

14 A My response was sometimes two railroads and
15 one railroad are enough. But you have to tell me what
16 else is in that market.

17 Another question is, if there's nothing else
18 in that market, are three railroads always enough, and
19 that hypothetical is different from what the facts are
20 with respect to TBS, as far as I know those facts, but
21 that's a different question.

22 Q I'm sorry. We're talking at cross purposes.
23 Genuinely, I am not interested in mischaracterizing your
24 testimony, but I thought what you said a few minutes ago
25 in response to my question as to whether or not three

1 railroads are always enough, you said one railroad might
2 be enough, or two railroads or three railroads,
3 depending upon additional facts.

4 A That is correct.

5 Q So then the next question is you are unable to
6 say that three railroads are necessarily always enough,
7 are you?

8 A That doesn't follow.

9 Q It doesn't?

10 A No, it really doesn't.

11 Q Tell me where I fall through the cracks.

12 A You are asking a different question. If I now
13 have in front of me data you provide on market share
14 tonnages for a set of well-defined markets that have two
15 railroads, three railroads, four railroads, five
16 railroads, and no intermodal competition, you are asking
17 me is three railroads enough to establish a potential
18 for exacting competition, for effective competition. If
19 you put that in front of me, I would judge, based upon
20 my past experience, that three railroads is enough. But
21 I can't answer the previous question which is is two or
22 one enough unless I know something about intermodal
23 competition.

24 Q Unless you have that additional data, is that
25 correct?

1 A Yes. But you see, I was moving in that
2 direction and you were moving in the other direction.

3 Q Intermodally?

4 A No.

5 Q All right.

6 Let me try this another way. Since you cannot
7 state categorically that three railroads are always
8 adequate, the TBS study, if it relies on that
9 assumption, may have missed some markets which you would
10 consider anticompetitive, is that correct?

11 A A study of this nature, Mr. Leary, has to make
12 critical judgments in order to encompass and then work
13 with a part of a vast data base, literally thousands and
14 tens of thousands of markets, and the decision to cut
15 off the detailed analysis at the three-railroad case,
16 taking all three or below, is one that I support
17 judgmentally in my experience as an economist doing
18 research and teaching in transportation economics. I
19 believe that having to make a choice of cutting off two
20 railroads and studying only those, or three or four or
21 five, the three is an operational cut which did not --
22 which would not likely impair the overall quality of the
23 Anderson study. That's my judgment.

24 Q This is a judgment based on your general
25 experience again rather than any independent

1 verification which you attempted to perform yourself, is
2 that correct?

3 A When I looked at that part of the study and
4 saw what he had done in that step of his analysis, I
5 could approve that sufficient to go on to the next step,
6 but I did not look at the implications in detail in
7 those tens of thousands of markets.

8 Q All Right.

9 Now, the next step in relying on that study is
10 that you used the study to further reduce the areas of
11 potential concern, do you not, by looking at the amount
12 of intermodal competition that is present, is that
13 right?

14 A That's what Mr. Anderson did, yes, that's
15 correct.

16 Q And haven't you stated in your testimony on
17 page 32, and that is the second sentence, first full
18 paragraph, "The first and most important screen was to
19 identify traffic in specific commodities, distance
20 blocks and directions, which was at least equally served
21 by rail and truck or water carrier," is that correct?

22 A That is correct.

23 Q Did you make any independent evaluation of the
24 methodology which TBS used in making this
25 identification?

1 A I had to make an evaluation of my own as to
2 whether I could use the TBS study for my purposes of
3 assessing an outside potential consumer loss from rate
4 increases, but I did not re-research their techniques,
5 if that's what you mean.

6 Q Yes, that's my question.

7 A The answer to that question is no, I did not.

8 Q This was a judgment call again?

9 A It was a judgment call based upon their
10 detailed description of what they had done, and I am
11 very impressed by the impact that truck or water carrier
12 service has in setting a rate cap on railroads in
13 instances where, as I said before, there is a healthy
14 percentage share of tonnage going to these alternative
15 modes.

16 Q Do you know what commodity groupings are used
17 by TBS in calculating these intermodal shares that you
18 have just referred to?

19 A I don't recall. It has been some weeks since
20 I looked at that part of the report. I would be -- it
21 would help me if you would refresh my memory on those
22 commodity groupings. I once knew what they were.

23 Q They use 2-digit SIC codes, didn't they?

24 A That is correct. Yes, I had forgotten that.

25 Q And these are very broad commodity groupings,

1 aren't they?

2 A They are very broad compared to 3- or 4-digit
3 SIC classifications.

4 Q Correct.

5 Have you made any individual studies to
6 determine whether these groupings are appropriate for
7 market analysis?

8 A Well, I have to ask whether 2-digit is too
9 broad, and I recall at the time that I would have paused
10 on some of the groupings if it turned out that the
11 commodities included in that classification were not
12 easily substitutable in containers, that one didn't fit
13 and the other did. And again, from scanning and
14 reviewing the contents of the classifications, I
15 remembered there being some outliers which may have
16 appeared strange, but on the whole, those
17 classifications worked pretty well for the purpose of
18 determining whether there is extensive intermodal
19 competition. I think they are pretty good, Mr. Leary,
20 not perfect, but it's awful hard to do a study like this
21 and get your hands around the data in a way to generate
22 some overall assessments.

23 Q I think we will all stipulate to that.

24 A Thank you.

25 Q I am going to read you a question now that I

1 would like you to listen to a little carefully.

2 In analyzing the extent of intermodal
3 competition, do you believe it's appropriate to compare
4 the tonnage carried by rail into a particular area with
5 the tonnage carried by other modes into a geographically
6 larger area?

7 A It's appropriate to do that if the market
8 properly defined is the geographically larger area, but
9 if the market, as properly defined, is the smaller of
10 the two areas, you are making a mistake in
11 overestimating the tonnage of competitive transportation
12 supply from the other mode.

13 Q All right, thank you.

14 Let me ask you another question, kind of
15 slow.

16 In analyzing the extent of intermodal
17 competition, do you believe it's appropriate to compare
18 the tonnage of selected Santa Fe and Southern Pacific
19 rail customers with the truck carriage of all
20 commodities that happen to fall in this same 2-digit SIC
21 code?

22 A Yes, it is appropriate where that 2-digit SIC
23 code listings of commodities are all of the physical
24 nature that they could be transported as perfect
25 substitutes in a container, that it isn't the issue as

1 to what specifically that truck carried; it is the issue
2 as to the capacity of that truck to provide effective
3 alternative transportation, having the capacity and the
4 facilities for the commodity in question. So that's
5 entirely appropriate.

6 Q And have you made other than a judgmental
7 review that you already referred to, an analysis of
8 these particular commodities to determine whether the
9 qualification you just expressed obtains?

10 A I looked at them and I said, Mr. Leary, this
11 is better than nothing, and it is so far better than
12 nothing in terms of an inability to obtain perfectly
13 comparable data that this work is essentially not only
14 highly respectable, but it is the state of the art in
15 this kind of analysis in this country of ours. So they
16 did a good job with a mass of data which are not
17 perfectly comparable, and I was totally respectful of
18 those merging of data sets.

19 Econometricians can spend hours picking apart
20 small differences in data sets and walking away saying
21 you can't do that. Well, you can't do that, you have
22 nothing. And if you have nothing, you can't get to the
23 real questions we are faced with today which are can we
24 in any way assess the competitive and efficiency impacts
25 of this merger? And there ain't anything better than

1 what they did, and it is so far better than anything I
2 have ever seen of this nature that I thought they had
3 done very well.

4 Q Well, in due course you may have the
5 opportunity to see some additional methods.

6 A Competition is wonderful for our economy, and
7 I would be delighted if you enter on the supply side
8 with a better product, but don't advertise it before you
9 sell it.

10 Q I didn't advertise it. I just said you may
11 have the opportunity to look at it.

12 Incidentally, have you undertaken a comparison
13 of these groupings with the commodity groupings in
14 SFSP-20 on which you also rely?

15 A Well, the STCC groupings are roughly
16 comparable at the 2-digit levels, and much more detailed
17 at the 5-digit level. That's the problem you were just
18 referring to.

19 Q I think they are SIC groupings rather than
20 STCC groupings, but I'm willing to be corrected if
21 anyone will notice the difference.

22 A Could I ask my counsel?

23 MR. WEICHER: I'm not sure I understand the
24 question.

25 MR. LEARY: Let's defer all of this until we

1 get into detail on the TBS study, and I'm sure we will
2 have a lot of it.

3 BY MR. LEARY: (Resuming)

4 Q The answer, I gather, is that you did not
5 undertake a detailed comparison on your own to see
6 whether the commodity groupings used in TBS are
7 comparable to the commodity groupings used by Reebie, is
8 that right?

9 A They are slightly more disaggregated, that's
10 correct.

11 MR. WEICHER: Is counsel comparing the
12 four-way split with the 2-digit commodity?

13 I am not sure what we are talking about.

14 MR. LEARY: I'm asking whether or not he made
15 any --

16 THE WITNESS: TBS versus --

17 BY MR. LEARY: (Resuming)

18 Q Your ultimate conclusion, is it not, is that
19 it would be better to allow this merger than to deny
20 it?

21 A I'm sorry, I was listening to --

22 Q Is your conclusion that it would be better to
23 allow this merger than to deny it?

24 A My ultimate conclusion is that we have here a
25 potential for very significant economic resource cost

1 savings that will allow a merged carrier to compete
2 effectively, and that the prospects for any potential
3 anticompetitive effects are so slim that comparing the
4 potential benefits of this merger with the cost is an
5 order of magnitude comparison of at least 25 to one, and
6 that this is one of the important mergers in the
7 transportation industry for obtaining efficiency gains
8 for this country in the next decade.

9 Q Your opinion does not address the question of
10 whether it would be better to approve the merger with
11 some conditions, does it?

12 A That was not my charge, Mr. Leary, nor did I
13 do a detailed study of that nature. But I can't help
14 adding that I do believe strongly in the method of
15 analysis that I espouse in this testimony, and that
16 method of comparing costs and benefits has to be applied
17 to any proposals following hereafter for creating
18 trackage rights for other railroads. It is done,
19 however, in reverse. If trackage rights are to be
20 allowed, the cost of those rights imposed on the
21 consolidated system, the integrated system in terms of
22 the loss of the \$220 million cost saving, has to be put
23 against alleged benefits of rate reductions specific on
24 those trackage rights.

25 So I think if you are preparing new studies,

1 that's the first one you should do, and I'll help you
2 advertise it.

3 Q Do you feel that in conducting a cost-benefit
4 analysis of trackage rights you should also factor in
5 there the savings which may be affected by the carrier
6 that gets the trackage rights?

7 A Absolutely. That's part of the calculus.

8 Q That's part of the calculation as well.

9 A Right. The only thing I would leave out of
10 any attempt on your part to include in the rectangle
11 little a, gains of income for the one granted the
12 trackage rights.

13 Q That's fair enough.

14 You have stated, haven't you, that diversion
15 of traffic represents a public benefit even though you
16 haven't attempted to quantify it, is that right?

17 A That is correct.

18 Q If we were studying trackage right conditions,
19 would it be appropriate to consider the redirection, if
20 you want to call it, of traffic back to the carriers
21 that get conditions as a public benefit?

22 A That is correct. But you have to devise a
23 technique by which to value diversion in terms of the
24 welfare triangles and rectangles.

25 Q You didn't do that, did you?

1 A That is correct. I didn't do it because it's
2 extremely difficult to do.

3 MR. WEICHER: Your Honor, I object.

4 JUDGE HOPKINS: He's perfectly willing to
5 answer. I will allow it.

6 BY MR. LEARY: (Resuming)

7 Q I'm sorry. Because of that colloquy, I didn't
8 pick up the end of your answer.

9 A I said, Mr. Leary, if you want to value
10 diversion in the cost-benefit framework, you have to
11 find an equivalent rectangle or triangle for that. I
12 didn't propose to do that because it's very difficult to
13 get the net welfare effect of diversion from the gross
14 revenue diverted from one line to the other.

15 Q I understand it's very difficult.

16 A So if you want to include it in your study,
17 you had better solve that analytical problem.

18 Q All I'm asking you is whether or not on a
19 nonquantified basis it is appropriate to mention the
20 redirection of traffic back to the carriers that get
21 trackage rights as a public benefit.

22 A That is correct.

23 Q The basic question you've addressed in your
24 testimony, is it not, is whether "the benefits arising
25 from the consolidation significantly exceed the

1 potential social cost?"

2 I am referring to page 3.

3 A That is the basic question.

4 Q That is?

5 A Yes, it is, Mr. Leary.

6 Q And your overall calculation of the net
7 welfare effect of the merger is contained in your
8 footnote on page 35, is that right?

9 A I believe my concluding statement that is
10 equivalent to the statement on page 3 is in the text at
11 the bottom of page 34.

12 Q Oh, I understand, but the numbers that you use
13 in deriving your ultimate conclusion are spelled out in
14 the footnote on page 35, isn't that right?

15 A That is correct.

16 Q Does that footnote give us all the assumptions
17 which are necessary to support your calculation?

18 A I believe that it follows on from the
19 assumptions that are critical, which are those on pages
20 33 and 34, and also the text on pages 32 to 34. There
21 are half a dozen key assumptions which require estimates
22 of specific numbers that go into finding the rectangle
23 and triangles of welfare benefits, and if I left any
24 out, I am bereft. But that footnote by itself doesn't
25 give you all the assumptions. They are in the previous

1 footnotes and the text.

2 Q I don't want to leave you bereft, but let me
3 ask you just a question.

4 Do we have enough information in that footnote
5 and in the text to verify that a 12 percent price
6 increase which we postulate would be in your terms
7 profit maximizing?

8 A No, you do not.

9 Q What additional assumption is necessary to
10 support that conclusion?

11 A A specific assumption concerning the nature of
12 competition between the two merged firms before they
13 were merged.

14 Q You are basing that assumption on the
15 postulate that the number of effective competitors has
16 been reduced by the merger from four to three, isn't
17 that right?

18 A That is correct. But you have a price before
19 the merger and a price after the merger, and you have
20 other suppliers in the market in both cases. Now, for
21 the price to be profit maximizing before and after, you
22 have to have an assumption about competition from the
23 other suppliers that goes beyond the mere assumption of
24 elasticity, and the assumptions that are made here --
25 I'm sorry, I am bereft -- are essentially that both

1 before all the firms that are operating independently
2 acknowledge the existence of the supply of the other
3 firms but do not collude tacitly or overtly because I
4 did not want to conjure up an image like your earlier
5 hypothetical of a cartel in restraint of trade with
6 Justice Department people sitting in the last row here.

7 The assumption that is made is that they do
8 not collude.

9 After the merger, the combined firm, of
10 course, puts together the two parts and operates them as
11 a single entity but still faces the equivalent of two
12 other equal-sized firms, equal to the previous size.

13 Under those conditions, essentially the before
14 and after prices are profit maximizing, not joint profit
15 maximizing.

16 Q I understand.

17 If the number of effective competitors
18 postmerger were different than three, you might come up
19 with a different hypothetical optimal price increase,
20 would you not?

21 A I would ask Judge Hopkins if I could argue
22 with that hypothetical the way I did earlier in that --

23 JUDGE HOPKINS: You are arguing, but go
24 ahead.

25 BY MR. LEARY: (Resuming)

1 Q Don't read more into the question than I
2 intended, and I'm sorry if I am not phrasing it
3 properly.

4 A Your 12 percent is based in a sense on a
5 mathematical calculation, not assuming anything
6 sinister, that the number of competitors is reduced from
7 four to three. Isn't that what you said?

8 A Exactly.

9 Q Now, if the numbers were different, if you
10 went from, say, three to two, or two to one, or five to
11 four, you would come up with a different profit
12 maximizing price increase, would you not? That's all
13 I'm asking.

14 A You would mechanically come up with a
15 different price increase.

16 Q The mechanics of the calculation --

17 A There are many potential scenarios based upon
18 different assumptions as to the competitiveness among
19 suppliers of rail and truck and barge transportation
20 involved in that example. I chose the ones which I
21 thought were best.

22 Q I understand, I understand. But the mechanics
23 of the calculation would yield a different result had
24 there been a different assumption.

25 A That is correct. But I must warn you that if

1 you do this, you have to make certain that the
2 elasticity, the profit margin, the price increase and
3 the number of firms, those combinations are coherent or
4 logically consistent.

5 Q I appreciate your advice. Just don't send me
6 a bill.

7 You mentioned elasticity, by the way. Your
8 elasticity assumption is that "elasticity of demand
9 equals unity."

10 Is that right?

11 A That is correct.

12 Q And you have said that this elasticity
13 assumption is based on econometric results in the
14 literature, is that right?

15 A That is correct.

16 Q Would you clarify one point for me on page
17 34? There's a sentence here that I think possibly can
18 be read two ways. Look at the paragraph in the middle
19 of the page, and you get to the last sentence, "I will
20 also assume that premerger prices exceed total cost by
21 30 percent in the exposed areas of the merger and that
22 the elasticity of demand equals unity."

23 Do you see that sentence?

24 A Yes, I do.

25 Q It's not clear to me from that sentence

1 whether your assumption about elasticity of demand
2 applies only in the exposed areas of the merger or
3 applies across the board.

4 Q Can you tell me what you meant?

5 A Yes. For the purposes here, the elasticity
6 applies on only the exposed areas of the merger because
7 I only use it there.

8 Q I understand.

9 Q Do the econometric results on which you relied
10 apply only to areas and to commodity flows which you
11 have designated as exposed?

12 A No. They cover all types of traffic for
13 widely varying time periods and for different parts of
14 the country.

15 Q We've already discussed, haven't we, that a
16 market elasticity of demand measures the relationship
17 between price increases, or between price changes and
18 quantities demanded, is that right?

19 A That is correct.

20 Q And if the market elasticity of demand is
21 high, a small increase in price by all producers in the
22 market will lead to a proportionately large decrease in
23 quantity demand, is that right?

24 A That is correct.

25 Q In that situation, a producer might expect to

1 lose a substantial amount of sales to companies
2 producing close substitute for his products, is that
3 right?

4 A That is correct.

5 Q Conversely, if the elasticity of demand is
6 low, then a much larger increase in price would be
7 required before a producer would expect to lose an
8 equivalent number of sales, is that right?

9 A That is correct.

10 Q Does a low market elasticity of demand
11 indicate that there aren't a lot of close substitutes
12 for the products in the market?

13 A Elasticity follows directly from the
14 substitution effect in the way you are describing it.

15 Q All right.

16 Returning to your welfare calculation, if you
17 will, on the footnote on page 35, you hypothesize a
18 profit maximizing price increase under the assumptions
19 we have discussed of 12 percent, and you arrive, do you
20 not, at a total social loss of \$4 million while the
21 estimated gains are over \$220 million, is that right?

22 A That is right.

23 Q And this hypothetical gain is over 50 times as
24 great as the hypothetical loss under your method, is
25 that right?

1 A That is correct.

2 Q And under your method you have inferred, have
3 you not -- and I'm referring now to page 34 for a
4 moment -- that approximately 2 percent of total Santa
5 Fe-Southern Pacific system traffic could be exposed to
6 rate increase, is that right?

7 A I don't find that 2 percent.

8 Q Look right at the middle of the page, "In
9 addition" --

10 A That is correct. I found it, Mr. Leary.

11 Q Under your method, what would be the social
12 loss if, everything else being the same, if all of the
13 Santa Fe-Southern Pacific traffic were exposed to a rate
14 increase?

15 A Cf. 12 percent?

16 Q Yes.

17 A It would be 12 percent, the triangle which is
18 referred to as small letter b, would be 12 percent times
19 12 percent times 2, or seven-tenths of one percent of
20 total systemwide revenues, plus 12 percent times 1.3,
21 which is -- I'm sorry, times .3, which is 3 1/2
22 percent. So it would be slightly less than 5 percent of
23 total revenues.

24 Can you tell me what total revenues are that
25 you have in mind, Mr. Leary?

1 Q Let me see if we can do it more simply.

2 A You can do this in your head. I just did the
3 whole of b and D in my head.

4 Q But the problem is you are doing it a
5 different way than I did it.

6 A But my way always produces the exact answer in
7 your head.

8 Q See if you will accept it my way, all right?

9 You say that there is a social loss of \$4
10 million based on the assumption that 2 percent of the
11 traffic is exposed.

12 A That is correct.

13 Q Now, isn't it much simpler, much simpler
14 simply to say that if all of the traffic were exposed,
15 the social loss would be \$200 million?

16 A No. That is totally incorrect. Based upon 2
17 percent of the total traffic, we got \$4 million, all
18 right? That follows from a 12 percent rate increase on
19 just that portion of the traffic, and from a loss of a
20 profit margin of 30 percent in small area D, all right?

21 Now, if all of those conditions held
22 everywhere, you would be implying to me -- and this is a
23 slight footnote -- that the present profit margin across
24 all of Santa Fe and Southern Pacific consequent upon the
25 merger is going to be 30 percent. The Union Pacific

1 gets about 9 percent profit margin under present
2 conditions. You are saying that in place before the
3 merger, the entire company, the entire two companies,
4 Santa Fe and Southern Pacific, get a 30 percent profit
5 margin, and they are going to increase that to 42
6 percent on sales.

7 And in that case, that produces a loss of the
8 triangle and a loss of the small rectangle D equal to
9 about 5 percent of total revenue. So in that case this
10 shows how absurd any contest of this merger must be. In
11 that case you lose as much in consumer surplus as you
12 gain in the cost reduction consequent upon the merger.
13 It comes out exactly equal.

14 Q Are you saying then that --

15 A A total monopoly established by this
16 systemwide, that no -- that every ton is vulnerable,
17 would produce an incidence where Judge Hopkin would have
18 to decide by the flip of a coin as to whether this is a
19 good or bad merger.

20 Q You are saying, in other words, that if this
21 merger could create market power over all of the
22 commodities which the SP and the SP ship everywhere, you
23 would say it is a flip of a coin as to whether it should
24 be approved or not? Is that what you are telling us?

25 A Under your hypothetical.

1 Q This is your hypothetical.

2 A No, it isn't. My hypothetical is not that
3 systemwide that Santa Fe and Southern Pacific at the
4 present time can be assumed to be getting a 30 percent
5 profit margin on sales. That is totally absurd.

6 Q I understand.

7 A I am saying that with respect to 2 percent of
8 the traffic, it is not unreasonable to assume that the
9 profit margin on long run marginal cost, economic
10 definition of long run marginal cost, is now 30 percent
11 because this vulnerable traffic is vulnerable because
12 already there are not a large number of suppliers. Then
13 that profit margin goes to 42 percent, and consumers
14 lose potentially in the worst of all situations \$4
15 million.

16 You can't then take that hypothetical -- I
17 won't take that hypothetical and then assume that the
18 whole systemwide profit margin is going to be 42 percent
19 on sales. No railroad in the last 50 years has gotten
20 that, not even ConRail.

21 Q What would be the -- assuming a lower profit
22 margin for sales nationwide, and assuming a 12 percent
23 price increase --

24 A Okay.

25 Q Would the overall loss be greater or less than

1 \$200 million?

2 A Can't be greater than. It can't be greater.

3 Q It would be considerably less?

4 A \$200 million? It can't be 5 percent of \$200
5 million.

6 Q It would be considerably less, is that right?

7 A Yes.

8 Q All right.

9 Then let me take you back again to this
10 question.

11 Under the method you have used to estimate
12 costs and benefits with a lower going in price
13 assumption over the lower going in margin assumption,
14 would you say that even if there had been the creation
15 of market power over the entire nation or over the
16 entire system of the SP and the SF, it still would not,
17 the potential social loss would still not amount to what
18 you say is the gain?

19 A Mr. Leary, I would like to rephrase that.

20 Q Fine. I'm sorry if the question is garbled.

21 A It follows, to see if I understand it, the
22 magnitude of the cost savings that are likely to follow
23 from this merger is so great, is such a large percentage
24 of sales that over the range of conceivable or beyond
25 conceivable anticompetitive effects, it still is better

1 to have the merger.

2 Q It is still big enough, even if you were to
3 assume anticompetitive effects everywhere?

4 A It is extremely difficult to find any set of
5 reasonable assumptions that can generate potential
6 anticompetitive losses from this merger as great as \$220
7 million of real resource savings for the economy.

8 MR. LEARY: That's all I have.

9 JUDGE HOPKINS: Thank you.

10 Who is next?
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BY MR. KHARASCH:

Q Professor MacAvoy, let me ask you some preliminary questions.

A Would you be kind enough to tell me who you are?

Q It is a great pleasure. My name is Robert Kharasch, and I represent the MKT Railroad in this proceeding.

A Thank you very much, Mr. Kharasch.

Q When were you given the assignment in this case, the date?

A I don't recall the date in terms of time of the year. My recollection is that it was February of this year.

Q That you were given the assignment of preparing this testimony.

A I am speculating. Could I ask for counsel's help on a more precise date?

MR. WEICHER: I am not clear if Mr. Kharasch is referring to the specific preparation of written testimony or discussion, which I believe would stem from the fall of last year. Exactly what stage, I am not sure what he is referring to.

THE WITNESS: I would amend my response to say that we may have begun discussions as early as September

1 or October of last year.

2 BY MR. KHAFASCH: (Resuming)

3 Q And February is about the date you were given
4 the assignment of preparing this statement?

5 A I would say.

6 Q When did you see the preliminary result of the
7 TBS study?

8 A I don't recall.

9 Q January, February, March?

10 A I just don't recall.

11 Q Can you tell us how long it was between the
12 time that you received the preliminary results of the
13 TBS study and you prepared your statement?

14 A That must have been four, five weeks, four to
15 five weeks.

16 Q Prior to receiving the preliminary results of
17 the TBS study, did you talk to the TFS people?

18 A I had a preparatory session in which I asked
19 numerous questions about the steps that they were taking
20 to carry out their work in order to be able to
21 understand how this fitted into my potential project.

22 Q When did that session take place?

23 A Now, I remember being there when there were
24 still leaves on the trees in metropolitan Boston.

25 Q In 1983?

1 A Yes. 1983, in Boston.

2 Q And how long did you meet? How long was the
3 meeting with TBS?

4 A For a day.

5 Q Have you met Mr. Reyff, R-e-y-f-f?

6 A He introduced himself to me in the corridor
7 coming in this morning.

8 Q You did not see him before?

9 A Never.

10 Q How about Mr. Keyes, K-e-y-e-s?

11 A Never.

12 Q Who did you talk to at TBS at any time in
13 preparing your work here?

14 A I don't recall the names of the staff members
15 who were there, but I believe Mr. Anderson was there. I
16 do recall question and answer sessions with him, but
17 there may have been five, six, seven TBS staff members
18 in the room at the time.

19 Q Have you ever met with Southern Pacific or
20 Santa Fe officers other than lawyers?

21 A No.

22 Q I will ask you specifically, just so the
23 record is clear, have you ever met with Mr. McNear of
24 the Southern Pacific?

25 A Never.

1 Q Have you ever met with Mr. Cena of the SF?

2 A Never.

3 Q Mr. Fitzgerald of the Santa Fe?

4 A Never.

5 Q Mr. Edwards of the Southern Pacific?

6 A Never.

7 Q Were you ever informed of the existence of a
8 premerger study prepared for the board of directors of
9 the Santa Fe?

10 A Can you give me --

11 Q A 1983 dated study.

12 A -- the name of the author?

13 Q I don't know the author. Were you ever
14 informed of any study prepared for the board of
15 directors of Santa Fe?

16 A I don't recall, Mr. Kharash. That is a pretty
17 large order. The record in this case is huge, and full
18 of TBS and Feehie Associates and other studies, but one
19 specifically to the board of directors is not one that I
20 think I have ever heard of.

21 Q Have you ever looked at a study prepared for
22 the Santa Fe that discussed reasons for mergers and who
23 would be a good merger partner?

24 A No, I have never seen a study like that. It
25 is not the sort of thing an economist has anything to do

1 with.

2 Q So did you ask any Southern Pacific or Santa
3 Fe officer the reason for the merger?

4 A I have never found it valuable in any way to
5 ask businessmen that question, and I didn't depart --

6 Q Sir, you would benefit the record and me by
7 saying, if the answer is no, no.

8 A I did not depart from the general prescription
9 about what is relevant and irrelevant for economic
10 studies.

11 Q Let's turn to Page 11 of your statement. In
12 discussions with Mr. Leary, you made some mention that
13 these are pretty old data.

14 A That is correct.

15 Q Is it best practice in making an economic
16 study to be as current as possible?

17 A That is correct.

18 Q Would you also agree that these are highly
19 aggregated data in some respects?

20 A That is correct.

21 Q And is it best practice, if possible, in an
22 economic study to be disaggregated?

23 A If you can do better.

24 Q Did you ask anybody representing the Santa Fe
25 or the Southern Pacific to please supply you with the

1 rail costs of the Southern Pacific or the Santa Fe in
2 current years?

3 A I would not have considered that a substitute
4 for Table 1.

5 Q Sir, again, Your Honor, the question is a
6 simple one.

7 Did you ask anybody on the Southern Pacific or
8 the Santa Fe to provide you with their current cost of
9 rail transportation?

10 A No, I did not.

11 Q In your experience, sir, would you expect a
12 businessman and specifically a rail businessman to make
13 figures on his costs?

14 A It is too general a question to answer, Mr.
15 Kharasch.

16 Q Do you know whether any individual railroads
17 make studies of their own costs of providing services
18 they provide?

19 A It is my understanding that all the railroads
20 in the country have submitted cost statistics under the
21 uniform system of accounts to regulatory agencies for
22 almost now 100 years.

23 Q So you would assume that internally each
24 railroad has its own cost statistics?

25 A I am having the same trouble with that

1 question as I did the previous. Cost is a word that
2 encompasses in my experience more than 100 different
3 concepts of resource utilization. Which one are you
4 referring to?

5 Q Let's look at Page 11. Do you see on Page 11
6 a table headed Comparative Costs of Rail and Truck
7 Transportation?

8 A That is correct.

9 Q That table, may we assume, gives some meaning
10 to the word "costs?"

11 A These are measures of average variable plus a
12 portion of fixed cost that Dr. Keeler took from IAF
13 staff studies and have a rather narrow meaning within
14 the definition of the word "cost."

15 Q Now, in that narrow meaning of the definition
16 of the word "cost," did you request from the Santa Fe or
17 the Southern Pacific, your client, any information as to
18 current rail costs, either generally or their own?

19 A You are asking me if I asked them for a
20 substitute for Table 1?

21 Q Listen to my questions. They are stated as
22 precisely as I can.

23 Did you ask your client for any information
24 about their costs currently or the cost of railroads
25 generally currently?

1 A That is different from the question you just
2 asked me, which had to relate to ton mile costs as
3 collected from the Association of American Railroads.
4 Is that a different question?

5 Q I am not going to sit around and bandy words
6 back and forth. Let's restate the question. You listen
7 to it and see if you can answer the question.

8 Let me ask it more broadly first, and then we
9 will sharpen it down.

10 Q Did you ask that there be provided to you from
11 the Santa Fe or the Southern Pacific any current costs
12 of rail operation?

13 A I answered that question before as a no. My
14 answer is still no.

15 Q Now, in your experience, do businessmen keep
16 records of their own costs?

17 A Yes and no.

18 Q In your experience, do businessmen, to the
19 extent they can, try to determine what their
20 competitor's costs are?

21 A That question is impossible to answer
22 operationally at the firm level. In some cases, it is
23 illegal to do that. In other cases, it is impossible.
24 And in third cases, it is done with great effort.

25 Q You used the word "efficiency" quite a bit in

1 your statement. Would you define for the record,
2 please, what you mean by efficiency of a railroad's
3 operation?

4 A The ability of that railroad to operate with
5 the lowest costs for its mix of service is a measure of
6 that railroad's relative efficiency.

7 Q Have you examined efficiency of the Southern
8 Pacific or the Santa Fe in the years 1982 or 1983?

9 A No, I have not.

10 Q Have you examined the efficiency of any other
11 railroads in 1982 or 1983?

12 (Pause.)

13 A No, I have not.

14 Q From your general knowledge, do you have an
15 opinion as to whether all railroads have the same
16 efficiency or whether some railroads are more efficient
17 than others?

18 A It my opinion that some are more efficient
19 than others.

20 Q May management be a factor in producing that
21 efficiency?

22 A Yes, it could be.

23 Q While we are at a preliminary stage, let's see
24 if we can get a little sharper definition of another
25 term you used, which is "quality of service." You have

1 indicated in your statement that in general you believe
2 there are efficiencies of scale in the railroad
3 industry. Is that correct?

4 A To a measurable but not unlimited extent there
5 are economies of scale.

6 Q Can you offer us an opinion as to whether if
7 there were only one railroad in the United States, it
8 would be more efficient than the collection of railroads
9 we now have?

10 A There is no measurable base for such an
11 opinion, Mr. Kharasch. I can speculate that the
12 economies of scale would substantially be exhausted
13 before reaching the size of a single road.

14 Q Have you given -- well, excuse me. If I
15 understood from your previous testimony that you said
16 you had not examined the efficiencies of particular
17 railroads, have you made any study of the efficiencies
18 of smaller railroads as against larger railroads?

19 A Not direct research of my own, but spread
20 throughout the economics literature, there are
21 substantial findings to the effect that scale advantages
22 are causing relative decline of the small railroads
23 versus the top ten in size.

24 Q Relative decline. You mean there are fewer
25 small railroads?

1 A That they are growing as an aggregation at a
2 lower rate than the top ten.

3 Q At what point, if you have an opinion, do you
4 believe that the efficiencies of scale in the railroad
5 business cut off?

6 A The same kind of survivor test would have to
7 be applied to answering that question, and I have not
8 completed that work in detail. If I were, it would be
9 to compare the rates of growth within the top ten to see
10 whether there are subclasses with higher growth rates,
11 implying with those higher growth rates a higher level
12 of efficiency, and therefore gains from scale, as
13 compared to those with lower growth rates.

14 The way to do that would be to go back through
15 many of my cited references. I just don't recall here
16 at the time exactly how that comes out.

17 Q Professor MacAvoy, I want to read you a
18 statement of a description that is already in the record
19 in this case.

20 MR. WEICHER: Would counsel identify what he
21 is quoting from?

22 MR. KHARASCH: I could.

23 BY MR. KHARASCH: (Resuming)

24 Q I want to read that to you, and I want you to
25 listen to it and to tell us whether the factors that

1 that shipper is describing are factors that would be
2 included in your term "quality of service."

3 "One of Railroad X's primary assets is that it
4 is small enough to give personalized, fast attention and
5 fast attention can be extremely important in markets
6 that are as competitive as they are in the grain
7 business.

8 "This is very different from the situation
9 frequently encountered in dealing with big railroads.
10 We can work for a year with another railroad to get a
11 contract, and get cre in an hour with the specific
12 railroad.

13 "There is no situation involving the specific
14 railroad where every effort was not made to resolve any
15 problem raised, whether it be equipment, service,
16 demurrage, switching, or whatever. If it is
17 economically feasible to accomplish something, it will
18 be accomplished with the specific railroad."

19 Now, is what that person is talking about what
20 you mean, or is it included in your term about quality
21 of service?

22 MR. WEICHER: Your Honor, could counsel
23 identify the document he is reading from for the benefit
24 of the witness?

25 JUDGE HOPKINS: Why won't you identify the

1 document, Mr. Kharasch?

2 MR. KHARASCH: I said I could, Your Honor, and
3 at your direction I certainly would.

4 JUDGE HOPKINS: I would like to have you
5 identify the document.

6 MR. KHARASCH: That is the statement of
7 Bartlett Agri Enterprises, Page 14.

8 JUDGE HOPKINS: Thank you.

9 MR. KHARASCH: One of the grain shippers in
10 this case.

11 BY MR. KHARASCH: (Resuming)

12 Q Do you understand my question, sir?

13 A It is a very difficult question to answer, Mr.
14 Kharasch, because personalized quality is not generic
15 quality. What that person is describing is some good
16 feelings he has from fast response from the freight
17 agent he is dealing with, the GFA that is there.

18 That is sort of like my wife having good
19 feelings by buying a handmade cut of meat versus pulling
20 it off the shelf at the K-Mart, and she likes that
21 feeling, but there is a question of whether you can
22 obtain that quality of individual tailoring in large
23 volume, and whether it is worth it in terms of the
24 comparability of prices of those services being
25 offered.

1 Q I appreciate your answer, but I don't think
2 you are answering my question, which is whether the
3 shipper is describing a phenomenon that you would
4 include in your term "quality of service."

5 A That one shipper making that statement is
6 providing me with essentially nothing. I think that
7 statement is worthless.

8 Q That is very good, that you think it is
9 worthless, and you think that what the shipper is
10 describing, my question again, is what the shipper is
11 describing, fast attention, a factor that you include in
12 your definition of quality of service?

13 A The fast attention described in the context of
14 what you read me is anything from a free lunch to a
15 systematic difference in the turnaround time on a
16 boxcar, and you did not provide me with any concrete
17 information as to what that means, so that is nothing
18 but an opinion read out of context from a source I do
19 not know, and I just don't think it is worth anything.

20 Q That is very good, but you still are not
21 addressing yourself to my question.

22 A I am addressing myself to your question. I
23 answered your question.

24 Q Let's look at the details of what the shipper
25 says. The shipper says that he can get a contract in an

1 hour with the specific railroad he is talking about, and
2 it takes him a year to get a contract from another
3 railroad.

4 A For what volume?

5 Q For the volume of traffic that shipper wishes
6 to ship. I asked you whether in your definition of
7 quality of service, part of quality of service is giving
8 the shipper a contract rate quickly.

9 A Not for a single boxcar, it isn't.

10 Q Suppose the shipper is shipping --

11 MR. WEICHER: Your Honor, I object to this
12 line of questioning. Counsel is repetitively asking the
13 witness if he agrees with aspects of another witness's
14 testimony.

15 JUDGE HOPKINS: He is asking about quality of
16 service, as I understand it.

17 MR. KHARASCH: I am asking whether --

18 JUDGE HOPKINS: If it is within his definition
19 of quality of service. Now, that is a question that can
20 be answered yes or no.

21 MR. KHARASCH: I think so.

22 THE WITNESS: Judge Hopkins, quality of
23 service in the market for meat at retail is one thing if
24 you are buying 5,000 pounds a week, and it is another
25 thing if my wife is going down to get a steak.

1 JUDGE HOPKINS: That is why I say you could
2 say it doesn't fit within your definition of quality of
3 service.

4 THE WITNESS: It doesn't fit within my
5 definition because I have no idea whether this person is
6 looking for boutique type service for a single boxcar or
7 whether the person wants to ship 10,000 pounds of
8 grain.

9 JUDGE HOPKINS: Well, all you have to do is
10 make the statement that it doesn't fit within your
11 definition of quality of service. That is all you have
12 to do.

13 THE WITNESS: Thank you very much, Your
14 Honor.

15 JUDGE HOPKINS: Is that what your statement
16 is?

17 THE WITNESS: It doesn't fit within my
18 definition of the quality of service as given.

19 BY MR. KHAFASCH: (Resuming)

20 Q Now, suppose that the shipper is shipping
21 10,000 tons of grain.

22 A That is what I meant to say.

23 Q Does 10,000 tons of grain fit within your
24 definition of quality of service, fast response to
25 request for contract?

1 A That is correct.

2 Q It does fit within your definition?

3 A Yes.

4 Q At Page 30 of your statement, and I will skip
5 away from Page 11 for a moment, at Page 30 of your
6 statement, there is a reference to the parallel or
7 horizontal component of the merger. Let me give you a
8 description of some rail geography and see if that fits
9 within your definition of parallel.
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1 Draw a line across, and label that line
2 Railroad P.

3 A Horizontal?

4 Q It might as well be horizontal. Let me give
5 you the length of that. Assume the length of that line
6 is 200 miles. Parallel to that line and a little below
7 it, draw a line not touching from Railroad F.

8 A Does it connect with P at any point?

9 Q Not at the moment in the example.

10 A Is it the same length?

11 Q Yes. Let us look at the situation of
12 shippers. Let's say they are farmers who are located
13 between Railroad P and Railroad F. And farmers today
14 can move their product up to Railroad P or down to
15 Railroad F.

16 A I understand.

17 Q Is this parallel competition as you used the
18 term in your statement?

19 A I don't think I used that term. I used the
20 term "parallel component of a merger" at the beginning
21 of the last paragraph.

22 Q If Railroads P and Railroad F are going to
23 merge, is this segment we are looking at part of the
24 parallel component of the merger?

25 A That is correct.

1 Q I wish to add one other assumption, sir. In
2 this market that we are talking about, only rail is
3 used. There is no water around, so there is no barge
4 competition, and at the moment only rail is used because
5 trucks cost too much. Okay?

6 A If only rail is used today in terms of your
7 theory and your methodology, is the competition between
8 P and F socially beneficial today?

9 A Within the context of my testimony, this would
10 be a case similar to my Market A case, where if I
11 assumed no collusion, tacit or explicit, between these
12 two roads, the resulting rate might very well be lower
13 than if there were only one such road.

14 Q The reason, if I understand your general
15 testimony, that the lower rate is socially beneficial
16 is, the competition produces the most efficient resource
17 allocation in this society. Is that right?

18 A That is correct, but I have one problem that
19 is massively inhibiting me, Mr. Kharasch. You didn't
20 tell me the distance between those two roads. Is it
21 1,000 miles?

22 Q Twenty miles.

23 A Twenty miles. You just made that up?

24 Q It is easy for me.

25 A You know what would happen in this case.

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1 Q Tell me.

2 A All the grain within ten miles of each of the
3 roads would go separately to that road, so that those
4 within a rectangle ten miles in height around P would
5 provide grain to a single source of supply, Railroad P,
6 and those within a rectangle 200 miles long and ten
7 miles wide around F would go to the single source of
8 supply, which is F.

9 Q That is very interesting, Professor. How do
10 you know that would happen? What did you assume to make
11 your judgment that that would happen?

12 A I assumed that the conditions of competition
13 that I assumed would hold, that there would be no tacit
14 collusion, and that means that they would have to charge
15 the same rate --

16 Q P and F Railroad would charge the same rate?

17 A They charge the same rate, and therefore it
18 wouldn't pay a grain producer to go a longer distance
19 than ten miles, because he can get the rate at ten
20 miles.

21 Q That is right. And if P raised its rate today
22 up \$10 or 10 percent, let's say, if F raises its rate 10
23 percent, the shippers whose patronage he enjoyed would
24 just run down to F.

25 A Not all of them. Just those within a mile.

1 Q And if he raised it \$20?

2 A He would lose another mile, assuming that the
3 farms are spread out spatially equally across this
4 territory of yours 200 by 20 miles, so it is a very
5 strange kind of competition you have developed here.

6 Q Have you made any study of the rail layout of
7 the Santa Fe and the Southern Pacific?

8 A It is right over there, Mr. Kharasch, and it
9 doesn't look like your diagram.

10 Q You are not answering my question, Professor.
11 We will be here hours too long.

12 Have you made any study of the rail layout of
13 the Santa Fe and the Southern Pacific?

14 A I have looked at the map that is on the wall,
15 Mr. Kharasch, and that is the extent of my study. It
16 doesn't look like your hypothetical.

17 Q Turn back to Page 11, sir. Where is grain in
18 the table at the top of Page 11? Do you know?

19 A It is in farm products.

20 Q Look at the 1977 rail ton miles, sir, for farm
21 products.

22 I am on Page 11, Your Honor, at the top.
23 Table 1. You see farm products, and the number of ton
24 miles for farm products?

25 A Yes.

1 Q I suggest to you that the grain ton mileage is
2 enormously greater than that that is given for all farm
3 products there. Do you know whether that is so or not?

4 A No, I do not.

5 Q And if upon checking we should find that
6 grain, the grain ton mileage is enormously greater than
7 that for the farm products here, we would have to
8 conclude that grain has been left off this table,
9 wouldn't we?

10 A Whether Professor Keeler, in generating that
11 table, included some grain products in farm or excluded
12 them all still would be a matter for further research on
13 your part.

14 Q But you cannot tell us at the moment whether
15 he did or didn't?

16 A I have only the published work to go on, and
17 as I said earlier to Mr. Leary, I am not convinced that
18 this encompassed all products shipped by rail and truck,
19 that there were possible exceptions created by a lack of
20 data on one part or the other.

21 Keeler makes that fairly unclear in the pages
22 surrounding Page 76 of his Brookings book.

23 MR. KHARASCH: What is your wish, Your
24 Honor?

25 JUDGE HOPKINS: I think it is about time.

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Let's recess until 1:30.

(Whereupon, at 12:30 p.m., the hearing was recessed, to reconvene at 1:30 p.m. of the same day.)

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AFTERNOCN SESSION

(1:30 P.M.)

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3 JUDGE HOPKINS: Let's get back on the record.

4 We have a procedural matter before we start
5 with the witness again. Mr. Atkins?

6 MR. ATKINS: Yes, Your Honor. Nelson Atkins.
7 I represent the city of Compton, who has a direct
8 interest in at least a certain part of the merger as it
9 affects that particular city. I filed a petition to
10 intervene which is before Your Honor at this time, and I
11 have sent copies to the parties, at least for the
12 applicant.

13 I had a conversation with them prior to the
14 break, and I understand they have no objection to the
15 intervention of Compton inasmuch as our interest in this
16 case is rather small in light of the entire scenario.

17 JUDGE HOPKINS: Thank you. Mr. Smith, is
18 there any objection at all from the Southern Pacific? I
19 understand there wasn't any objection, but --

20 MR. WEICHER: Your Honor, they are not in the
21 room at the moment. I understand they had a
22 conversation before the break.

23 JUDGE HOPKINS: That is the only thing you can
24 confirm?

25 MR. WEICHER: That is the only thing I can

1 confirm, Your Honor. I am sorry.

2 JUDGE HOPKINS: Where is Mr. Smith?

3 MR. NELSON: He doesn't seem to be here right
4 now.

5 MR. ATKINS: And Doug Stephenson, I spoke to
6 him also.

7 JUDGE HOPKINS: I am looking for both of
8 them. They must have had a long lunch. Nobody else
9 gets a long lunch. Why should they? Here they come.

10 Mr. Atkins just indicated that he has filed a
11 petition to intervene. He had discussed it with you.
12 Do you have any objection? I understand there wouldn't
13 be an objection.

14 MR. SMITH: That is right. We agreed that it
15 would be okay for him to cross examine the operating
16 witnesses.

17 JUDGE HOPKINS: I will grant the petition to
18 intervene, and you can cross examine. You figured you
19 might have one or two witnesses you want to cross
20 examine?

21 MR. ATKINS: That is correct. I have no
22 questions of the present witness.

23 JUDGE HOPKINS: We have these time schedules
24 set up, and you don't think there would be any long
25 questioning?

1 MR. ATKINS: No, no, I don't think so.

2 JUDGE HOPKINS: I will grant the petition for
3 you to intervene and for you to participate in this
4 case.

5 MR. ATKINS: Thank you very much.

6 MR. LEARY: Your Honor, one preliminary
7 matter. The reporter reminded me that we don't have any
8 identification on the record of KCS-C-15, and that
9 consists of Pages 50 through 57 of a volume entitled
10 Keeler, K-e-e-l-e-r, Railroads, Freight, and Public
11 Policy.

12 JUDGE HOPKINS: Thank you. We will mark it
13 for identification.

14 MR. LEARY: I said KCS. It is Rio Grande
15 Exhibit 15. Sorry.

16 JUDGE HOPKINS: It will be marked for
17 identification.

18 (The document referred to
19 was marked for
20 identification as Exhibit
21 Number DRGW-C-15.)

22 MR. KHARASCH: The one-page exhibit previously
23 marked DRGW-C-15 is what?

24 JUDGE HOPKINS: That was marked as C-16. He
25 had left this one open for C-15.

1 MR. KHARASCH: One more preliminary matter.
2 Could we have a statement on the record what these pages
3 were that were supplied to us at the end of the morning
4 session that seemed to be relevant to Mr. Barg?

5 MR. SMITH: Your Honor, we have learned only
6 today that Witness Barg, he is the last witness for A.T.
7 Kearney testifying on the subject of, I believe,
8 petrochemicals or petroleum, I am not sure which, but he
9 has brought with him 35 pages of additional work papers
10 consisting of his interview notes, apparently, with
11 several of the shippers that he interviewed. He has
12 inadvertently not been included in the work paper
13 depository. So we are furnishing them now.

14 JUDGE HOPKINS: Thank you.

15 Are you ready to proceed?

16 MR. KHARASCH: Yes, sir.

17 Whereupon,

18 PAUL W. MAC AVOY,
19 the witness on the stand at the time of recess, having
20 been previously duly sworn, resumed the stand, and was
21 examined and testified further as follows:

22 CROSS EXAMINATION - RESUMED

23 BY MR. KHARASCH:

24 Q Let's go back to Page 11 of your statement.
25 In operations of a railroad, are there costs

1 that are called station costs?

2 A That is correct.

3 Q And in a railroad operation there are certain
4 costs at the origin station which are incurred in
5 getting the car in and getting the car out of the
6 station.

7 Is that correct?

8 A That is correct.

9 Q And similarly, at destination, there are such
10 costs?

11 A Yes.

12 Q And those costs are independent of the length
13 of haul, are they not?

14 A Yes, they are independent of the length of
15 haul.

16 Q And there are also some costs which vary with
17 the length of haul, such as the wear and tear on the car
18 and the fuel used for the engine, and the wear and tear
19 on the tracks, and so on?

20 A Yes.

21 Q As a result of there being costs that vary
22 with the length of haul and costs that do not vary with
23 the length of haul, would you agree that the longer the
24 haul, the lower the ton mile costs for railroads?

25 A I would agree that the longer the haul, the

1 more variable the ton mile costs, but after a certain
2 point, I would not agree that the ton mile costs keep
3 falling.

4 Q You mean after a certain length of haul, do
5 you mean?

6 A That is correct.

7 Q How long is the haul at which point you think
8 the ton mile costs don't fall any more?

9 A I don't know, but there is no reason to
10 believe in your statements that just because costs, some
11 cost elements vary with distance, that they always go
12 down in a ton mile conceptual framework with distance.

13 Q I think, and correct me if I am wrong, that in
14 your discussion with Mr. Leary, you indicated that the
15 truck costs and the rail costs shown in Table 1 on Page
16 11 of your statement is not disaggregated to show length
17 of haul.

18 A That is correct.

19 Q Is it also cost for the entire United States?

20 A Is it also --

21 Q Are the costs shown on Table 1 costs for the
22 entire United States?

23 A I believe that is the way that Dr. Keeler
24 carried out those calculations.

25 Q And that would mean they include costs in

1 official territory, western?

2 A That would be correct.

3 Q In a description of commodities, such as pulp
4 and paper, would there be high density paper and low
5 density paper mixed in?

6 A Mixed in in calculating the costs shown in
7 line 6?

8 Q Yes.

9 A I believe that would be correct.

10 Q And is it possible that the cost per ton mile
11 might vary with whether the pulp and paper was low
12 density or a high density item?

13 A That is possible.

14 Q Indeed, in certain types of paper, is it not
15 possible that a truck could not conceivably carry 90,000
16 pounds?

17 A I don't know.

18 Q Let's look down to the line about waste and
19 soap which you mentioned in your previous testimony. We
20 see there a rail cost of 9.8 cents per ton mile, do we
21 not?

22 A Yes, we do.

23 Q And truck costs which are markedly below that,
24 less than a third.

25 A That is correct.

1 Q Now, suppose that the rail cost is reduced by
2 5 percent.

3 A Yes.

4 Q Is that going to have any effect in your
5 opinion on the waste and soap rate charged to
6 shippers?

7 A It is very difficult to make such a
8 prediction, Mr. Kharasch, because you will note that on
9 that line, there are six billion rail ton miles of waste
10 and soap carried in the rail system.

11 MR. WEICHER: May I make a correction? I
12 think that soap may be a typographical error. I believe
13 that may be scrap.

14 THE WITNESS: That helps.

15 JUDGE HOPKINS: Thank you.

16 THE WITNESS: That makes a lot more sense.

17 MR. KHARASCH: I thought it was more fun being
18 soap.

19 JUDGE HOPKINS: Where were we?

20 THE WITNESS: We were transforming soap into
21 scrap, and I was beginning my answer by stating that
22 even with the rail-truck cost differences as great as
23 two-thirds in the cost for ton mile, six billion rail
24 ton miles were carried in 1977.

25 That meant that insofar as convenience to the

1 shipper is concerned, and assuming that rates cover
2 actual costs in both cases, it was still worthwhile to
3 carry a small proportion of the total by rail.

4 If that rate went down by four-tenths of a
5 cent in accordance with your assumption, Mr. Kharasch,
6 it could very well be that the rail ton miles would
7 increase from six million to a much larger number. I
8 don't know.

9 Q Now, that is one possibility. Let's explore
10 together, Dr. MacAvoy, whether there might be another
11 possibility within these figures. We have agreed, have
12 we not, that within a commodity classification there may
13 be a number of different commodities of different
14 densities.

15 A That is correct.

16 Q And assume this line, as counsel suggests, is
17 waste and scrap. There may be paper scrap and there may
18 be iron and steel scrap.

19 A Right.

20 Q And the rail cost is calculated as an average
21 for carrying both paper scrap and waste and iron and
22 steel scrap.

23 A Yes.

24 Q Similarly, there may be within the waste and
25 scrap line very short hauls and very long hauls.

1 A That's correct.

2 Q And the ton mile cost may vary, depending on
3 whether it is a short haul or a long haul?

4 A That is correct.

5 Q So in this table we are just looking at
6 overall aggregated average cost for a lot of different
7 commodities with different characteristics. Sir?

8 A Yes.

9 Q Therefore, in order to have an intelligent
10 discussion, let us hypothesize something. Let us
11 hypothesize that we are looking in the case of waste and
12 scrap at a movement between two points, and that is the
13 only movement, and that between those two points the
14 truck cost is 2.7 cents, we will say, and the rail cost
15 is 9.8 cents, and we don't know anything about whether
16 rail is carrying anything now. Okay?

17 A Okay.

18 Q In that particular market where we have these
19 costs, would a reduction in the rail cost of 5 percent
20 be particularly significant?

21 A It might be, and it might not be.

22 Q It might be in what cases?

23 A In the cases where the cost to the shipper of
24 collecting and loading the material for transport are
25 equivalent to 7.1 cents per ton mile on a rail or truck

1 basis. It might not be when there are no costs to the
2 shipper organizing and collecting material for
3 transportation, and the rail loading yard and the truck
4 platform are next door to each other, and bounding on
5 the perimeter of the shipper's facilities.

6 MR. WEICHER: Your Honor, could counsel
7 clarify one confusion? Are you referring to rate or
8 cost? Just for clarification on this line of
9 questions. The table, I believe, refers to cost, and I
10 am not sure that is what the question is referring to.

11 MR. KHARASCH: We will try to be precise in
12 our future usage.

13 JUDGE HOPKINS: Thank you.

14 BY MR. KHARASCH: (Resuming)

15 Q Do you believe, switching to rail
16 transportation generally, in the west of the United
17 States, that there are a lot of examples where rail is
18 preferred because of the gathering costs that you just
19 described?

20 A My knowledge of shipment west of St. Louis and
21 New Orleans and Chicago is that there is by industry
22 among these types of commodity shown in Table 1 a vast
23 degree of difference in how much collection takes place
24 before a shipment actually is transported out of state.

25 With respect to grain, for example, the

1 precollection by truck primarily to grain storage
2 facilities and the sorting and reconstitution of larger
3 scale shipments with a series of boxcars or with a
4 number of trucks may then take grain to a second storage
5 facility before it goes by barge or rail to a port of
6 entry for shipment to the Soviet Union.

7 With respect to stone, clay, and glass
8 products, particularly, for example, concrete building
9 materials, there is substantially no precollection. In
10 one case, trucks may have a substantial advantage, and
11 in the other case -- I am sorry, in reverse case, the
12 first case of grain, there may be some advantages once
13 the collection has taken place for rail
14 transportation.

15 But I don't think I can generalize across
16 these types of commodities to establish by technical
17 characteristics whether there is a degree of superiority
18 of one transportation mode over the other. That gets
19 worked out in the marketplace.

20 Q And there may be, if I understand your last
21 answer, in the marketplace places where rail has an
22 advantage that doesn't appear in the rail cost and cents
23 per ton mile, in that the shipper can save some money
24 shipping rail.

25 A That is correct.

1 Q Now, let's refine our hypothetical so that we
2 eliminate this precollection advantage or disadvantage.
3 Let's look at waste and scrap in one particular point to
4 point move where the trucks have a cost of 2.7 cents a
5 mile and the rails have a cost of 9.8 cents a mile, and
6 there are none of these precollection costs or
7 assembling costs.

8 Now, would you expect rail to participate in
9 that market at all?

10 A It depends on what kind of profit margins are
11 being earned above cost by the truckers. If they are
12 setting profit margins of 10 cents per ton mile, I would
13 expect rail to participate very substantially.

14 Q First, in this market we are talking about,
15 would you describe the railroad's potential competition
16 as a cap on the price the trucks could charge?

17 A If rail were to be priced at long run marginal
18 costs, and these are roughly 9.8 cents per ton mile,
19 that would be a cap on the conditions of rail
20 competition intermode and intramode on the limit to
21 which the truck rate could go.

22 Q Right. Now, is it not generally true that it
23 is rather easy to enter the truck market?

24 A It is generally true that there are no
25 substantial economic barriers to entry.

1 Q And is it not also generally true that there
2 are lots and lots of trucks available to move things?

3 A Lots and lots, Mr. Kharasch.

4 Q Very precise term I am using. There are many
5 trucking companies.

6 A Yes, sir.

7 Q The competition in this waste and scrap market
8 that we are talking about point to point between many
9 trucking companies if they are not colluding would tend
10 to drive the rate, the price charged the user, down
11 toward what level?

12 A Down toward the level of long-run marginal
13 costs which in this case, assuming that Keeler has done
14 his calculations accurately, is about 2.7 cents on
15 90,000 pound shipments per ton mile.

16 Q And under those circumstances of truck
17 competition, with the rail costs being 9.8 cents,
18 lowering the rail cost 5 percent would not have much
19 effect on the price being charged the customer by the
20 trucks, will it?

21 A Well, what is happening in your case, Mr.
22 Kharasch, is that there is a cap set by rail that is out
23 of sight of the actual rate behavior for the competitive
24 truckers, and rail, in order to survive, would set a 9.8
25 percent rate on rail, which would go down to 9.4 cents,

1 and no one would ship by rail. No one shipped by rail
2 before. No one ships by rail after, which makes the six
3 billion rail ton miles in the last column totally
4 hypothetical. It shouldn't exist.

5 Q Yes, but we are looking at -- I think one
6 might call it a submarket in the hypothetical where we
7 are just shipping one point to another point.

8 A That is right.

9 Q Where the carriers experience from A to B the
10 costs shown in the table.

11 A That is correct, and there would be no rail
12 ton miles before and after the cost reduction.

13 Q That is right. Those rail ton miles must be
14 in some other market, Q to R.

15 A I understand.

16 Q But our discussion has been pretty good about
17 the market we are assuming.

18 A The market we are assuming is not impacted by
19 the rate reduction by rail, given that the cap is so
20 high compared to the rail rate as to lie way above the
21 rail rate.

22 Q And without burdening the record with a
23 lengthy discussion, let's lock quickly at the coal
24 line. Do you see the coal line and the costs there?

25 A Yes.

1 Q And on the coal line, let's look at a market
2 from Point C to Point D where the carriers experience
3 the costs shown in your Table 1, and we will assume
4 today that the trucks have no share of the coal market
5 in our hypothetical C to D market.

6 Can you tell us what the price to shippers for
7 coal would be in that market?

8 A Well, if there is competition amongst rail
9 coal transporters, the rate for rail service would be
10 2.2 cents, and presuming that there are no special
11 conditions, then the truckers would continue to post a
12 3.9 cent per ton mile rate which no one takes up, so it
13 is all rail transport at 2.2 cents, rate levels
14 equivalent to long run marginal cost of 2.2 cents per
15 ton mile.

16 Q Thank you, sir. In your answer, you referred
17 to the existence of rail competition.

18 A Yes.

19 Q Suppose in this market there is only one
20 railroad. What will the price of the rail service be?

21 A It would lie somewhere between 2.2 and 3.9
22 cents per ton mile, whichever rate level is most
23 profitable to the monopoly rail line, as you presume in
24 your example.

25 Q And that 2.2 to 3.9 I calculate to be about 77

1 percent above 2.2; 3.9 is 77 percent more than 2.2.

2 A Well, what is 3.9? I don't understand what
3 you are doing? I said that the rate would lie between
4 2.2 and 3.9.

5 Q Right. If it got to 3.9, that would be 77
6 percent above 2.2.

7 A There is no reason to expect it to get to
8 3.9.

9 Q That is because you are assuming some
10 elasticity of demand in this market?

11 A That is right. The shipper may decide that
12 with a 3.9 rate, he can't compete landed in Bordeaux
13 with coal from Poland. It could be as low as 2.3.

14 Q Let's look at the effect in this market one
15 more minute if there is rail competition and no
16 collusion between the parties, the rail parties.

17 A Yes.

18 Q And you said the rate would go down to 2.2,
19 towards 2.2.

20 A Yes.

21 Q Would the reduction of the truck costs in that
22 market from the 3.9 to 3.6 cents per ton mile have any
23 effect on the rate being charged by the competing
24 railroads?

25 A In the strict case of perfect competition in

1 which rates are forced to 2.2, the 3.3 is still out of
2 sight as an alternative for shippers given that there is
3 still plenty of capacity available to take the shipper's
4 load at 2.2 cents per ton mile.

5 But I think I would want to hesitate at this
6 point, because perfect competition in this market, Mr.
7 Kharasch, is ten railroads or twelve railroads or twenty
8 railroads, and if we are going to bring this close to
9 reality at this time, we may have two, three, four,
10 maybe even as many as five railroads in the market of
11 Line 3, which means that there will be some margin even
12 with competition among the railroads between price and
13 marginal costs when there are three, four, or five
14 railroads.

15 That is assumed in my example, Scenario A. It
16 is assumed throughout that no railroads in this country
17 are going to survive under perfect competition in which
18 point to point, head to head prices are being forced to
19 marginal costs. Your railroad, Mr. Kharasch, can't
20 survive this hearing if that goes on for the rest of the
21 afternoon.

22 Q That is because of the cost of the transcript,
23 Mr. MacAvoy.

24 A These are severe overhead costs, Judge
25 Hopkins, that are hard to fit into an efficient firm,

1 but I don't need to go that far.

2 I just need to say that I don't want to be
3 forced in my responses to create the impression that in
4 the presence of intramodal competition and in the
5 absence of intermodal competition for the coal line, you
6 are going to get coal rates equal to marginal costs
7 everywhere in the country.

8 It just can't be. No firm will survive.

9 Q Incidentally, as you used the term "marginal
10 cost," you include capital costs, do you not?

11 A I include capital costs.

12 Q In your answer, you mention that there seems
13 to be a difference between ten competitors in the market
14 and three competitors in the market. Is that true? The
15 more the competitors, the more perfect the competition?

16 A That is a general line of argument to which I
17 subscribe for purposes of research.

18 Q May we for purposes of research inquire
19 whether going from three competitors to two competitors
20 has an effect on competition?

21 A What that does in the absence of collusion is
22 to cause the separate firms, each aware of the capacity
23 and production levels and sales of the other, to be
24 willing to raise his own rate level a very slight bit.
25 I think if you follow the general prescriptions for this

1 noncollusive operation of four firms versus three, three
2 versus two, two versus one, we are talking about living
3 competitively, offering a variety of service options,
4 and in the process, when the number of firms is slightly
5 less, that the competitive price, often called the
6 Cournot, C-c-u-r-n-o-t, price is increased by about 10
7 percent in that case.

8 Q From three to two?

9 A From three to two.

10 MR. KHARASCH: Could we have this exhibit that
11 has been distributed marked as MKT-C-20, Your Honor?

12 THE WITNESS: May I change that from memory to
13 17 percent, Mr. Kharasch?

14 MR. KHARASCH: Certainly.

15 THE WITNESS: Thank you very much.

16 JUDGE HOPKINS: This will be marked for
17 identification.

18 (The document referred to
19 was marked for
20 identification as Exhibit
21 Number MKT-C-20.)

22 BY MR. KHARASCH: (Resuming)

23 Q You indicated, I thought, in your previous
24 answers to me, sir, some knowledge of the movement of
25 grain. Is that correct?

1 A I produced a hypothetical for movement of
2 grain from production areas through to terminals, but I
3 didn't generate any statistics that I think are accurate
4 to describe present movements.

5 Q In preparing your testimony, did you look for
6 or did you refer to any figures about rail or truck or
7 barge share of grain transportation?

8 A The studies that are my sources for my
9 testimony include the Reebie studies and TBS studies as
10 well as the public sources that I indicate in these
11 various pages, and there is indeed a general description
12 of tonnage, transportation by rail and truck and barge
13 for grain throughout the United States in those
14 studies.

15 There is no specific detailed study of that
16 one commodity class by itself to which I referred.

17 Q Would you look at MKT-C-20?

18 Do you know whether or not these are correct
19 figures?

20 A No.

21 MR. WEICHER: Your Honor, if I could inquire
22 if the exhibit is going to be used, what the source
23 is?

24 MR. KHARASCH: The source will be provided.

25 MR. WEICHER: May I ask, Your Honor --

1 JUDGE HOPKINS: Are you looking for it now?

2 MR. WEICHER: Your Honor, if counsel --

3 MR. KHARASCH: If you would stop talking, I
4 will be able to make an inquiry.

5 (Pause.)

6 JUDGE HOPKINS: He will give you the source in
7 a moment. Put it on the record, since it was raised on
8 the record.

9 MR. KHARASCH: Your Honor, at your request, I
10 am pleased to identify the source of Exhibit MKT-C-20 as
11 "Kansas Grain Marketing and Transportation Data for 1982
12 Crop," published by the Kansas Crop and Livestock
13 Reporting Service, March, 1984.

14 The 19 -- the similar report published for the
15 previous year was in the work papers of applicants, Mr.
16 Rhodes.

17 JUDGE HOPKINS: Thank you.

18 MR. WEICHER: Could I inquire if the source is
19 presently in the record, and if so --

20 MR. KHARASCH: It is not presently in the
21 record. It is in the work papers, excuse me, of Temple,
22 Barker, and Sloane. I misspoke myself. The source
23 itself is not presently in the record. The testimony of
24 Mr. Dimmerman has a number of tables presented from that
25 source.

1 JUDGE HOPKINS: Thank you.

2 MR. WEICHER: Thank you.

3 BY MR. KHARASCH: (Resuming)

4 Q From your examination, Dr. MacAvoy, of the
5 material presented by Temple, Parker, and Sloane, is
6 there anything in that material that means this is --
7 the situation presented in MKT-C-20 is possible or not
8 possible?

9 A Very unlikely. To be an indication of what
10 goes on in the TBS market area of which Kansas is part,
11 you recall --

12 Q Excuse me. I want you to explain your
13 statement a little bit more precisely, and you can
14 surely finish it. It is very unlikely from the TBS data
15 that this could be true?

16 A That it is contradictory to the TBS findings
17 for the market area which was the second of their two
18 chosen market areas for intensive research. The only
19 explanation I can find for this statistic indicating 98
20 percent shipped by rail when TBS market studies showed a
21 preponderance of transportation by truck is that what
22 has been taken from the general area data is a subsample
23 of terminal elevators that offer only rail service.

24 So, this is not an indication of wheat shipped
25 in Kansas or wheat shipped by all sources in Kansas, but

1 it is an indication that 98 percent of the wheat shipped
2 from Kansas rail terminal elevators goes by rail.

3 Q Sir, is it possible that in the TBS data for
4 grain movements they included a lot of movements from
5 one farmer to another farmer by truck?

6 A I can't conceive of that as a realistic
7 option. Not likely.

8 Q It is not likely that they had wheat shipped
9 by one farmer to another by truck?

10 A Why would a farmer ship wheat to another
11 farmer?

12 Q For feeding.

13 A For fun?

14 Q For feeding.

15 A The first farmer, the farmer receiving the
16 wheat doesn't have enough feed?

17 Q My next question is, is it possible that
18 within the TBS data they had a great deal of short haul
19 hauling of wheat to elevators?

20 A That is critical to determining the extent of
21 the market area for wheat transportation.

22 Q Is the answer to my question yes?

23 A Yes, it is very important. It is critical.

24 Q The TBS data --

25 A It is germane.

1 Q The TBS data for rail and truck share would
2 include trucking into the elevators. Is that correct?

3 A Because that is an option to trucking through
4 the elevator out of state to a source of demand. That
5 is the only way you do a study like that.

6 Q I don't need the lectures there. The question
7 is rather simple.

8 MR. WEICHER: Your Honor, I object to his
9 arguing with the witness. He is asking very speculative
10 questions, and the witness is trying to answer.

11 JUDGE HOPKINS: Some of the questions could be
12 answered yes or no.

13 MR. KHARASCH: They are not speculative
14 questions.

15 JUDGE HOPKINS: Some of the questions can be
16 answered yes or no, so answer the questions when they
17 can be handled that way yes or no, please.

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1 BY MR. KHARASCH: (Resuming)

2 Q The question is about TBS data for market
3 share. Would the TBS data for market share include the
4 truck participation in the trucking to an elevator?

5 A It's my understanding, but I would have to be
6 checked to be absolutely accurate, that that would
7 correctly be the case if you are doing a market area
8 study.

9 Q And that trucking to an elevator might take
10 place from the farm to the elevator; is that correct?

11 A It might.

12 Q And now to ask a fairly obvious question which
13 I believe can be answered yes or no. Are there a lot of
14 farms with rail stations on them?

15 JUDGE HOPKINS: Many farms are you going to
16 say, or a lot of farms?

17 MR. KHARASCH: Many.

18 THE WITNESS: If there are lots and lots of
19 trucks, Mr. Kharasch, there ain't lots of farms with
20 elevator stations on them.

21 BY MR. KHARASCH: (Resuming)

22 Q Page 20 of your statement, Dr. MacAvoy, you
23 talk about economies of density. Does that mean in
24 general, the more traffic on the line, the lower the
25 unit cost?

1 A Up to capacity, that is correct, but not at or
2 beyond capacity.

3 Q And the other side of your equation is true
4 also that, in general, the less the traffic on the line,
5 the higher the unit cost?

6 A I think that contradicts your last statement.

7 Q I made no statement. I asked you a question.

8 You said the more the traffic, the less the
9 unit cost. And I said, does it also apply that the less
10 traffic, the higher the unit cost?

11 A I didn't say that. I corrected your statement
12 to say that cost curve with respect to density is
13 U-shaped, not falling throughout the range from zero to
14 infinity. And consequently, if you work the curve
15 backwards starting from high density to low density, the
16 cost curve is also U-shaped. Over one range the cost
17 falls as density falls; over the other range it rises.

18 Q In the place that costs begin to rise as
19 density increases, I believe you explained, is when you
20 are approaching the capacity of the line.

21 A That is correct.

22 Q So if we are below the capacity of the line,
23 the higher the density in general, the lower the unit
24 cost.

25 A That is correct.

1 Q That's the economy of density?

2 A That's correct.

3 Q And there is a diseconomy of lack of density.

4 A Yes.

5 Q Look at page 4 of your statement where you --
6 well, you don't have to look at it -- but on page 4, you
7 refer to the megarail mergers which are threatening the
8 two Applicants in this case.

9 A Yes.

10 Q Let's look at one merger such as the merger
11 that formed the Union Pacific or mergers that formed the
12 Union Pacific system.

13 Have those had an impact on the Southern
14 Pacific?

15 A I cannot answer that question. I have not
16 carried out the research necessary to determine impact
17 in this case.

18 Q Well, if you haven't carried out the research
19 necessary to determine impact, how do you know that the
20 megarailroads are threatening the viability of the
21 Applicant?

22 A I think we should read the text on page 4 to
23 see if I say what you just paraphrased. I say that
24 these two railroads have to realize greater operating
25 efficiencies in order to survive in a market region west

1 of Missouri in which other railroads have substantial
2 cost advantages.

3 That's a little different from measuring the
4 impact on this specific railroad, the Southern Pacific,
5 for example, of the Union Pacific merger. I nowhere on
6 that page tried to do that.

7 Q I believe you told me earlier, Dr. McAvey,
8 that you had no discussions with any officers of either
9 of the Applicants about the reasons for the merger.

10 A I did tell you that earlier.

11 Q Have you had any discussions with officers of
12 the Union Pacific or the Burlington Northern about their
13 reasons for merging?

14 A Over your objections, I said earlier that's
15 not a proper line of inquiry in economic analysis. And
16 you told me to say the answer is no.

17 This time I will say the answer is no.

18 Q I omitted to ask you a question about grain,
19 before we go on with this line.

20 A I am devastated.

21 Q I'll read you the following short statement:
22 "Grain shippers, however, are heavily dependent upon the
23 railroads serving their facilities." Excuse me. I read
24 the wrong statement. Strike that out, please.

25 "Direct access to shippers is very important

1 in order for effective competition to exist for grain
2 traffic." Do you agree or disagree with that
3 statement?

4 A Access where, Mr. Kharasch -- in the back 40
5 acres of the farm track, at the grain elevator, in the
6 switching yard, or in the New Orleans port of entry?

7 Q Direct access to shippers shipping grain by
8 railroads carrying grain is very important in order for
9 effective competition to exist for grain traffic.

10 A Now I am drawing a complete blank. I cannot
11 understand that sentence. Save me. I have -- who --
12 who are you reading from? Where is this coming from?

13 Q The Union Pacific case. Here you are. This
14 is page 366 ICC -- excuse me -- 366 ICC, page 567, from
15 the UP.

16 JUDGE HOPKINS: That's why it's so confusing.

17 BY MR. KHARASCH: (Resuming)

18 Q Look at the second new paragraph where the
19 Commission is discussing loss of competitive rail
20 service options available to grain shippers.

21 A Oh, the previous sentences are about trackage
22 rights for the MKT.

23 Q In that case, yes. But I'm not asking you
24 about that.

25 A But that explains what you mean by effective

1 competition and direct access for whom?

2 Q The railroad.

3 A This whole paragraph assumes that when you're
4 talking about competition, you're talking about what
5 goes on between two rail transporters in getting a
6 shipment, large shipment of grain to a port of entry,
7 where competition is a word used to describe who makes
8 that transaction, who makes that shipment -- the MKT or
9 the Union Pacific?

10 That's not market competition. That has
11 nothing to do with market competition. That's another
12 quite deviant use of the word "competition."

13 Where the issue is should the MKT get trackage
14 rights over the Union Pacific, and the benefits to the
15 MKT are described as competition, yes indeed, that's
16 competition. But that's not a statement that is correct
17 with respect to effective competition for grain traffic
18 among rail shippers, rail transporters, barge
19 transporters, and truck transporters in a well-defined
20 economic market for transportation.

21 The Commission didn't make a mistake. The
22 Commission wasn't talking about economic competition.

23 Q I see.

24 Let's talk about a loss of competitive rail
25 service options. Do you think the Commission's

1 statement is correct with respect to competitive rail
2 service options that directs access to shippers is very
3 important in order for competitive rail service options
4 to exist for grain traffic?

5 MR. WEICHER: Your Honor, is this question in
6 the context of an abstract proposition in the context of
7 the UP merger? Perhaps counsel can clarify in what
8 framework the witness is being asked to render an
9 opinion on these propositions.

10 JUDGE HOPKINS: What is it related to here?

11 MR. KHARASCH: It's related -- the statement
12 is. The Commission is stating what is necessary for
13 grain shippers in order for there to be effective rail
14 competition.

15 JUDGE HOPKINS: And you're asking this
16 gentleman whether he agrees?

17 MR. KHARASCH: Yes.

18 THE WITNESS: Well, I take it that what's
19 going on here is that as a consequence of the merger,
20 there is now at Topeka one rail carrier without regard
21 to competition from other sources, intermodal
22 competition from rail or whatever, and the MKT is trying
23 to argue, even though it doesn't go to Topeka, that it
24 ought to have trackage rights to Topeka to create a
25 second railroad.

1 And Mr. Kharasch is asking me whether that
2 increase is competitive service options.

3 My response would be, I would like to know
4 what happens to the MKT's offerings at Topeka of the
5 form of joint rates with the Union Pacific for follow-on
6 traffic beyond Kansas City.

7 BY MR. KHARASCH: (Resuming)

8 Q Sir, you're not answering the question I
9 asked.

10 A I am answering the question. If that is the
11 option --

12 MR. KHARASCH: He misstated the question, Your
13 Honor.

14 THE WITNESS: If that is the option, that MKT
15 is offering service at Kansas City, there is a
16 competitive service offering already. You can either
17 have a through rate or a joint rate. You can have a
18 contract rate or a through rate, or you can have a joint
19 rate.

20 BY MR. KHARASCH: (Resuming)

21 Q That's a subject we will get to, but you are
22 not answering my question.

23 A I insist to have the right to complete my
24 sentence. And the real question you're asking here is
25 whether or not you have to break through and create

1 those trackage rights from Kansas City to Topeka. And
2 that does not increase the number of options.

3 Q My question to you is whether you agree or
4 disagree with the statement, "Direct access to shippers
5 is very important in order for effective competition to
6 exist for grain traffic."

7 MR. WEICHER: Your Honor, the question has
8 been asked and answered.

9 JUDGE HOPKINS: No, it hasn't.

10 THE WITNESS: I've answered it in two parts.
11 First, I have said that that statement is untrue when it
12 ignores intermodal competition which is effective for
13 grain traffic.

14 With respect to the second part, it is also
15 untrue when it refers to just follow-on traffic and the
16 option of traffic rights on a joint rate.

17 So it is maybe true in one case out of three.
18 And the Commission realizes that because that sentence,
19 in context, only refers to the third case.

20 BY MR. KHAFASCH: (Resuming)

21 Q That's enough of the record on that question.
22 Turn to page 25, your triangle. Is this the
23 same triangle which is referred to at various places in
24 the literature as the Williamson triangle produced by
25 Oliver Williamson?

1 A I have never heard that reference.

2 Q Did Oliver Williamson talk about that
3 triangle?

4 A With reference to what article are you
5 considering, Mr. Kharasch?

6 Q I'm asking you whether Oliver Williamson is
7 the gentleman who was the first or maybe one of the
8 first people talking about this sort of triangle in
9 terms of welfare analysis.

10 A That triangle is found in the footnotes to
11 Alfred Marshall's Principles of Economics, which was
12 published, as I recall, in its seventh edition in 1909.

13 Q Do you know who Oliver Williamson is?

14 A Yes. He's a former colleague of mine who is
15 Tweedy professor of law and economics at Yale University
16 School of Organization and Management and the Yale Law
17 School in New Haven, Connecticut.

18 Q Is he one of the early people who wrote about
19 welfare analysis and merger policy?

20 A One of the early people? He has written about
21 it. I believe that he wrote in that vein in early to
22 middle 1960s. There were others. I'm having difficulty
23 with your use of the term "early."

24 Q Did Oliver Williamson term his model naive?

25 A No. He termed the model that he was replacing

1 naive. You haven't read far enough into that article,
2 Mr. Kharasch.

3 Q Has there been -- I move to strike the last
4 part.

5 JUDGE HOPKINS: I will grant the motion to
6 strike.

7 BY MR. KHARASCH: (Resuming)

8 Q Has there been considerable discussion in the
9 economic literature with the -- about the welfare
10 analysis method and theory that you describe in your
11 statement?

12 A With respect to the model formulation in my
13 Figure 1?

14 Q No. About the procedure for welfare analysis
15 that you followed in your statement. Has that been the
16 subject of considerable discussion in economic
17 literature?

18 A The procedure that I use, Mr. Kharasch, is
19 termed a subpart of benefit/cost analysis, and there may
20 well have been more publication and discussion of
21 benefit/cost analysis since 1950 than any of the other
22 parts of economics except stabilization policy.

23 So there perhaps are as many as 2,000 articles
24 and discussions in notes and journals and monographs of
25 benefit/cost analysis.

1 Q Now, as to the application of welfare analysis
2 to mergers and the policy that should be followed in
3 analyzing mergers, has there been considerable
4 discussion in the literature of that?

5 A Far less.

6 Q In the range of?

7 A Two dozen article.

8 Q Do all the people in those two dozen articles
9 agree with the application of the analysis as you have
10 done in your statement here in merger cases?

11 A There is not substantial disagreement with the
12 operation of this model and how to apply it insofar as I
13 can recall from my general familiarity with the articles
14 here.

15 I think I should try to explain what I mean by
16 substantial disagreement. It may be a fundamental split
17 in a field based upon contradictory theoretical concepts
18 or extreme difficulty in applying a single concept.
19 That split exists now in stabilization economics between
20 the followers of John Maynard Keynes and those of the
21 classic economists, of whom Milton Friedman is a
22 manifestation.

23 That split down the middle as to how to go
24 about predicting the future behavior of the economy, I
25 would consider to be substantial disagreement. There is

1 no such split of which I am aware with respect to my
2 diagram on page 25. This is consensus economics.

3 Q I didn't ask you about your diagram, sir. The
4 question is the use of the type of analysis that you
5 employed in your statement in merger cases.

6 Is there any disagreement with that?

7 A As I explained with respect to Keynesian and
8 classical economics, there are two possible sources of
9 split: theoretical and empirical. There is no
10 substantial theoretical, no empirical disagreement of my
11 knowledge on the application of the diagram that is
12 found on page 25 of my text.

13 Q Did you listen to my question?

14 A I did and I answered it.

15 Q I'm not talking about the diagram on page 25.

16 A I said the application of my diagram.

17 Q Have you referred to the -- do you have any
18 knowledge of the article by Alan Fisher and Robert
19 Landey, 1983 article in the California Law Degree?

20 A No, I do not.

21 Q All other things being equal, if competition
22 is missing any market, is it socially good to provide
23 it?

24 A It depends on the benefits and the costs.
25 Attempting to provide competition in the

1 telecommunications industry in this country in the last
2 five years has created enormous social disruption and
3 extreme costs for which there are no measurable
4 benefits, where there was previously --

5 Q Would you look at page 25 and tell me where in
6 your triangle items such as disruption or social costs
7 are found?

8 A The rectangle f is that categorization.

9 Q Excuse me. I think the rectangle f is
10 designated increase in producer's surplus from cost
11 reductions.

12 A Work the diagram backwards, Mr. Kharasch.
13 With respect to the existence in this hypothetical case
14 now -- and I am making this up -- of a monopoly in
15 telecommunications, say for example, the area f is the
16 cost savings that are inherent in that market
17 structure. There is one firm, and you get the cost
18 savings of density and distance from that single firm.

19 You give up areas b and d. You may not give
20 up b and d, simply because it may be possible for the
21 monopolist to so classify and categorize service that
22 everybody included in b and d gets a different rate, and
23 you might not even lose b and d.

24 That is, by discriminating among classes of
25 telecommunications users, company and individual, and

1 rural, long distance, and local, you might be able to
2 push monopoly output to f and capture b as well as a in
3 separate classifications of price increases.

4 So you start with that case, and then you come
5 in and make the market deliberately competitive by
6 fostering the development of what I might call
7 specialized common carriers.

8 These individuals so disrupt the integrated
9 telecommunications system in the country that they
10 destroy area f. They may or may not produce a reduction
11 in rates from a to b, depending upon where those costs
12 are imposed.

13 Q I see. What you're saying, then, and I urge
14 you to be a little sharper and quicker with your
15 answer --

16 MR. WEICHER: Your Honor, I object to the
17 characterization of the witness's response. He's trying
18 to answer complicated questions --

19 JUDGE HOPKINS: I'll grant a motion to
20 strike. Go ahead.

21 BY MR. KHARASCH: (Resuming)

22 Q Area f is indicated here as a cost saving
23 area. That's where the efficiencies of lower cost are
24 found on your diagram. Is that correct?
25

1 A That is correct.

2 Q And I think what you just said is if some
3 action causes such cost savings to be lost, area f
4 shrinks or disappears.

5 A I was much more precise than that, Mr.
6 Kharasch.

7 Q Let's not go into telecommunications anymore.

8 A No, I wasn't talking about
9 telecommunications. I said a very specific sentence,
10 which you did not hear, which was to the effect that
11 area f is inherent in the monopoly which you
12 presuppose. It can only be gotten by a monopoly.
13 That's a lot different from what you just said.

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1 Therefore, you can't play with Area F unless
2 you make the market competitive or monopolistic in your
3 example.

4 Q Let's suppose that the example is that there
5 is a monopoly, and let's stick to rail, if we could.
6 You have a rail monopoly in a market, and we are going
7 to put our trucks out of the market, so we can just talk
8 about the rail.

9 Now, are you saying that the rail monopolist
10 has the largest Area F?

11 A You have to make that part of the
12 hypothetical, Mr. Kharasch. If the monopoly follows
13 from economies of density and distance which are
14 technologically imbedded in the scale, that is an if,
15 and you know I said before that is not realistic with
16 respect to the national system in this country.

17 But in that hypothetical, if you have a
18 monopoly which has captured Area F as a cost saving, you
19 give up Area B and D to get it, unless you rate
20 regulate, and you said we are not going to rate
21 regulate, we are going to make this market competitive.

22 And if you do that, you destroy Area F, which
23 is a way sight larger than Areas B plus D. So I am not
24 sure you are doing this country any good in your
25 hypothetical.

1 Q Your statement is, if you have a monopoly that
2 -- if you have an industry in which there are economies
3 of scale, and they continue to the limit, and you have a
4 monopoly, it is not socially good to provide competition
5 to that monopoly.

6 A Where the cost of increasing the number of
7 firms due to the loss of the economies of scale, due to
8 the creation of diseconomies of scale, are greater than
9 the beneficial effects of price competition. That is
10 correct. But you have to measure Area F to determine
11 whether that is correct.

12 Q Now, in terms of diversions from this proposed
13 Southern Pacific-Santa Fe merger, you have in your
14 statement a statement, a report of \$220 million of rail
15 diversion, \$45 million from trucks.

16 Do you recall that, Page 29?

17 A That is correct.

18 Q Let's assume \$100 million of that comes from
19 the UP system. Now, the UP merger was a good thing
20 because it exploited economies of scale, and achieved
21 densities of traffic and enlarged Area F for the UP. Is
22 that right?

23 A That is what was proposed at the time of the
24 merger as I recall from public newspaper accounts of the
25 case.

1 Q Now, to the extent that the Santa Fe-Southern
2 Pacific merger takes \$100 million of traffic from the UP
3 system formed by its merger, hasn't there been a
4 decrease of Area F for the UP?

5 A No, because these diversions are not in Area
6 F. You completely misunderstand what is in Area F.
7 This is not in Area F, and this is not measured in any
8 of my rectangles or triangles, and is not valued in my
9 Market A case.

10 I do not give anything in that paragraph, any
11 dollar value in my assessment of this case.

12 Q In your assessment of this case, you are not
13 considering the effects of lowering density in other
14 carriers?

15 A No, I am not.

16 Q Let me ask you a more general question. Is it
17 your advice to the Commission that they should look to
18 see whether the proposed Santa Fe-Southern Pacific
19 merger would have an adverse effect on competition among
20 rail carriers in the affected region?

21 A No, it is not.

22 Q I am not sure of the answer. It is not your
23 advice to the Commission? Do you advise the Commission
24 to look to see whether the proposed Santa Fe-Southern
25 Pacific merger would have an adverse effect on

1 competition among rail carriers in the region affected?

2 A That is not a proper thing for the Commission
3 to do. The Commission is supposed to look at whether
4 there are adverse effects on competition in
5 transportation markets consequent upon the merger.

6 Q And they should not look then at -- well, all
7 right. I will leave it at that. It is not proper.
8 Were you informed by anyone prior to preparing your
9 statement of any of the current routing policies of
10 either of the applicants?

11 A I did not investigate operating policies of
12 the companies prior to the merger.

13 Q Have you been informed of the operating
14 policies with respect to routing of any of the
15 applicants?

16 A My degree of detail and knowledge of the
17 postmerger operations is limited to a reading knowledge
18 of the testimony, a limited number of witnesses dealing
19 with the cost savings before this Commission. I have
20 not discussed specific routing policies before, during,
21 or after the merger with anyone in the company.

22 Q I will read you a sentence.

23 A Are you going to tell me where it is from?

24 Q If the Judge tells me to, sure.

25 JUDGE HOPKINS: I would like you to tell him

1 where it is from.

2 MR. KHARASCH: Page 464 of the transcript in
3 this case.

4 JUDGE HOPKINS: Thank you.

5 BY MR. KHARASCH: (Resuming)

6 Q "The majority of most railroads' traffic is
7 involved in some sort of interconnection with another
8 carrier."

9 Do you agree with that?

10 MR. WEICHER: Will counsel also please
11 indicate the witness who so testified? Would counsel
12 please indicate the name of the witness he is quoting?
13 You gave us the page of the transcript.

14 JUDGE HOPKINS: There is no big problem, Mr.
15 Kharasch.

16 MR. KHARASCH: It is a question by Mr.
17 Kharasch.

18 JUDGE HOPKINS: Of whom?

19 MR. KHARASCH: Of Mr. McNear.

20 THE WITNESS: You are reading your own
21 question as a statement?

22 BY MR. KHARASCH: (Resuming)

23 Q I am asking you whether you agree or disagree
24 with the following statement.

25 JUDGE HOPKINS: He wants to see whether you

1 agree with the answer, not the question.

2 THE WITNESS: That is Mr. McNear's answer,
3 Your Honor?

4 BY MR. KHARASCH: (Resuming)

5 Q Look, Mr. Witness. I am reading you a
6 statement, and I want you to tell me whether you agree
7 or disagree with the statement.

8 MR. WEICHER: Your Honor, I object to the tone
9 of the question. If he is going to ask these
10 speculative questions, he can at least give a little
11 explanation to the witness of what he is talking
12 about.

13 JUDGE HOPKINS: Go ahead, Mr. Kharasch. You
14 can ask the question. Go ahead.

15 BY MR. KHARASCH: (Resuming)

16 Q Here is the statement: "The majority of west
17 railroad traffic is involved in some sort of
18 interconnection with another carrier."

19 Do you agree or disagree with that
20 statement?

21 JUDGE HOPKINS: If you know, or if you can
22 state it. You don't have to state something if you
23 don't particularly know.

24 THE WITNESS: It is true of Conrail. Whether
25 it is true of the Denver and Rio Grande, I haven't the

1 slightest idea.

2 BY MR. KHARASCH: (Resuming)

3 Q Do you have the previous sentence in mind?
4 "This factor is a key to understanding the consequence
5 of major rail consolidations as wherever possible the
6 combining carriers can be expected to reroute traffic
7 interchanged with unaffiliated companies to the new
8 combination."

9 Do you agree or disagree with that
10 statement?

11 MR. WEICHER: Your Honor, I object. The
12 witness has already stated that he has not had any
13 discussions with any traffic officers concerning
14 routing. His testimony does not deal with routing. It
15 goes far beyond the scope of his testimony.

16 JUDGE HOPKINS: Mr. Kharasch, you are going
17 quite far. I know this gentleman does testify as to --
18 let me finish. This gentleman does testify on a lot of
19 matters, and he goes further than he needs to go, but at
20 the same time he has indicated he hasn't talked to
21 anybody on this particular type of matter.

22 Why don't we take him at his word on that
23 particular thing? Otherwise, we will be here until next
24 week with this particular witness.

25 MR. KHARASCH: A horrible thought, Your

1 Honor. I stand admonished.

2 BY MR. KHARASCH: (Resuming)

3 Q Is there anywhere in your statement, Professor
4 MacAvoy, where you discuss the possible effects of the
5 merger in preventing rail competition that exists today,
6 which rail competition is provided by other than the
7 applicants?

8 A I am trying to determine whether at some point
9 in my testimony I deal with the impact on the Union
10 Pacific or Burlington Northern systems other than
11 through an approximate estimate of diversion?

12 I wouldn't call that diversion, preventing
13 competition, but the fruits of competition among the
14 three major rail systems originating on the west coast.
15 That is the limit of my discussion of side by side
16 competition among the three major systems.

17 Q Assume for one second here, please, that there
18 is an effect of the merger in that in addition to the
19 one that you considered, that it prevents rail
20 competition by some other carriers.

21 Do you have that assumption in mind?

22 A I don't understand it, but I will try to
23 continue.

24 Q The assumption is that merger will result in
25 preventing some rail operation in the future by someone

1 other than the applicants. Which rail operation exists
2 today?

3 A And this is a hypothetical railroad
4 terminating in San Francisco which is denied access to
5 shippers at the port of entry? Is this what you are
6 conjuring up?

7 Q Yes.

8 A Okay.

9 Q Not in San Francisco, but that would be a good
10 example of the sort of thing, that because of the
11 merger, some railroad that today operates to marketplace
12 X no longer can get to marketplace X.

13 Do you have that hypothetical in mind?

14 A (Nods affirmatively.)

15 Q To sharpen the previous question then, is
16 there anywhere in your statement where you consider such
17 possible effect?

18 A I don't understand the example, the
19 hypothetical example. If I have three railroads with
20 access to port of entry shipping in Oregon or California
21 or New Orleans, and you say that that is not the case,
22 there is some missing railroad, there is Railroad X that
23 isn't there, I don't understand how I can conjure up a
24 comparison with reality. It just doesn't make any sense
25 to me.

1 Q Let's take one example, and then we will
2 explore another. One example of where competition might
3 be destroyed after the merger would be if the merger
4 would have the effect of causing the bankruptcy of a
5 competitor.

6 A That is destroying a competitor. That is not
7 destroying competition. And there is a deep gulf in
8 antitrust policy between those two issues.

9 Q Now, have you considered anywhere in your
10 statement the effects of forcing the going out of
11 business of a railroad as a result of the merger?

12 A Only insofar as it affects the competitiveness
13 of markets, and I did not specify any names, of course,
14 because that is not germane.

15 Q And indeed, I believe you have reference in
16 your statement to something you call the survivor
17 principle, which says that it is not so bad if somebody
18 goes broke. That is the survival of the fittest.

19 A It doesn't say that.

20 Q Well, your survivor principle says that that
21 is a good thing, does it not?

22 A Where does it say that?

23 ME. WEICHER: Your Honor, the testimony speaks
24 for itself. Perhaps counsel could ask a specific
25 question on an aspect of the testimony.

1 JUDGE HOPKINS: I think counsel is trying to
2 find where it specifically says that. If you can point
3 out where it specifically says that, because Dr. MacAvoy
4 says he has never said that.

5 BY MR. KHARASCH: (Resuming)

6 Q Let's look at Page 20, so we will understand
7 the survival principle as we continue our discussion.
8 "The survivor principle states that competition causes
9 firms to move toward more efficient firm sizes and
10 eliminates the inefficient sizes."

11 A That is what the text says. That isn't what
12 you said.

13 Q Now, is the Southern Pacific today, looking at
14 it alone, of an inefficient size which seems to make it
15 the subject of the survival principle?

16 A The recent earnings performance relative to
17 other sources of transportation services indicate that
18 the Southern Pacific's margins are too low because its
19 costs are too high in a highly competitive market, and
20 if it does not succeed in reducing its costs so as to
21 increase its margins, it will be subject, I believe, to
22 long run capital attrition, which will require it to go
23 bankrupt and go out of business.

24 Q And that would in part be due to the creation
25 of the UP megamerger and the BN megamerger?

1 A I didn't say that.

2 Q Would it be so?

3 A I don't know. If it calls for too high
4 relative to the others, it is simply a matter that it
5 has to reduce its costs. I didn't attribute any reasons
6 to the other's costs being lower.

7 Q Help me with this problem, Dr. MacAvoy. Isn't
8 the economic behavior that you postulate of any railroad
9 or indeed of any industry, that that industry would wish
10 to lower its costs in order to gain more profit?

11 A Lower its costs in order to gain more profit,
12 in order to survive, because the profit rate is too low
13 for continued operation of the firm at the present
14 time.

15 Q Let's talk more generally. The behavior that
16 you postulate of any railroad would be to lower its cost
17 when it can and wherever it can in order to increase
18 that railroad's profit margin.

19 A That is correct. The profit motive is the
20 driving force to gaining economywide efficiencies.

21 Q And does, not today, independent of any
22 merger, does not the railroad I represent, or indeed any
23 railroad in the United States, have an incentive to
24 lower its costs and become more efficient because it
25 will make more money?

1 A I would hope so.

2 Q Now, what I don't understand in connection
3 with that point is your assertion, your discussion on
4 Page 29 about what you call the competitive response of
5 other carriers -- hold it. I think we have the wrong
6 page here.

7 (Pause.)

8 JUDGE HOPKINS: Are you looking for 28, Mr.
9 Kharasch?

10 MR. KHARASCH: Yes, thank you very much, Your
11 Honor.

12 BY MR. KHARASCH: (Resuming)

13 Q On 28, you are talking in the first new
14 paragraph about the anticipated competitive response of
15 other carriers to a consolidation, which you say also
16 advances the public interest. Do you see that
17 sentence?

18 A That's right.

19 Q Now, you say the merger will force other
20 carriers to take action to examine their operations,
21 improve their service, reduce their operating costs. Do
22 you see those three things?

23 A Yes.

24 Q Now, don't those competitors today in the
25 market have every incentive first to reduce their

1 operating costs?

2 A They have every incentive, Mr. Kharasch, but
3 not every pressure. The more competition there is, the
4 more likely that these cost saving procedures will be
5 put into effect.

6 Q That is what I am having trouble with.

7 A It is a matter of reality in our economy that
8 where you are producing dividends of 50 cents a share a
9 month, there is more room for charitable donations to
10 universities than where you are producing a loss of ten
11 cents a share a month, and university grants and gifts
12 have to be cut back.

13 Q You are saying that the keen bite of
14 adversity, the tooth of adversity will drive people to
15 try harder to reduce costs?

16 A That is my experience. I have had a lot of
17 recent experience with the keen bite of adversity.

18 Q Have you examined the behavior of the Southern
19 Pacific in response to the adversity that you note it
20 suffers?

21 A No, I have not.

22 Q I hate to use this word, but is there any way
23 of quantifying the expected amount of cost reduction
24 that someone will obtain simply because he wants to get
25 richer and the amount of cost reduction that someone

1 will obtain if they are really threatened by adversity?

2 A No one has attempted to calculate in recent
3 years the size of the bite as I recall, but I believe it
4 is fair from my experience as a corporate director that
5 I could point to adversity gains in the range of 10 to
6 20 percent from the bite, and gains from new technology
7 and investment of approximately the same size.

8 So, we are really talking about two rather
9 complimentary processes, one, a set of incentives to
10 develop capital formation for new technology, and a set
11 of incentives to get what my director calls lean and
12 mean, and I think that those have been roughly of the
13 same order of magnitude in the unregulated manufacturing
14 and mining sectors, as I understand them.

15 Q I see. Now, as a result of the Union Pacific
16 merger, the Union Pacific seems to be rather prosperous,
17 is it not?

18 A Coincident with completion of that merger, the
19 profit margins for Union Pacific have been raised
20 substantially to competitive levels.

21 Q And therefore the Union Pacific by merging has
22 lost the incentive to be mean and lean and reduce its
23 costs by 10 to 20 percent?

24 A Is that a question, Mr. Kharasch?

25 Q Yes.

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1 A I don't know. I believe that what was at
2 issue in that merger and what is at issue in this merger
3 are systems integration, advantages of density and scale
4 that have little to do with the bite or the bark,
5 whichever you prefer, but what is really at issue here
6 in these mergers is technological systems that allow for
7 savings.

8 In the Union Pacific case they claimed
9 something like \$40 to \$50 million a year. In this case,
10 I believe the record is replete with findings that they
11 could exceed \$200 million a year; \$200 million a year to
12 the bottom line of this combined railroad is four or
13 five times what they have earned in the last five
14 years.

15 And that means they can become competitive.

16 Q And they have lost --

17 A In the capital markets.

18 Q And they have lost the keen incentive from
19 being poor that causes people to improve service and cut
20 costs?

21 A I don't think you have to worry about that
22 until at least two weeks after the merger is
23 consummated.

24 Q That is about what I would give it, too.

25 MR. KHARASCH: Is this the breaking point,

1 Your Honor?

2 JUDGE HOPKINS: How many more questions do you
3 have, Mr. Kharasch?

4 MR. KHARASCH: A few. A half an hour.

5 THE WITNESS: If we are going to finish today,
6 Your Honor, I would rather just skip the break and go
7 right through.

8 JUDGE HOPKINS: Well, the reporter is speaking
9 into this mike all the time. She does need some time.

10 MR. KHARASCH: I will try to speed it up.
11 Maybe 20 minutes.

12 JUDGE HOPKINS: Off the record.

13 (Whereupon, a discussion was held off the
14 record.)

15 (Whereupon, a brief recess was taken.)

16 JUDGE HOPKINS: Let's get back on the record.
17 Mr. Kharasch?

18 MR. KHARASCH: Yes, Your Honor. I don't wish
19 to squash the time available for other witnesses. I
20 will proceed briskly to conclusion here.

21 BY MR. KHARASCH: (Resuming)

22 Q Do you know, Dr. MacAvoy, whether there are
23 many rail stations that are served exclusively by one
24 railroad?

25 A On the Santa Fe system, Mr. Kharasch, or is

1 this a question related to national transportation?

2 Q Let's talk first about the Santa Fe. On the
3 Santa Fe Railroad, are there many stations where the
4 Santa Fe is the only rail carrier?

5 A Without reference to the proposed merger?
6 This is as a separate system?

7 Q Yes.

8 A I don't know in detail the station by station
9 connection options, but it is my recollection that the
10 number of such stations as a percentage of the system is
11 relatively small.

12 Q And how about on the Southern Pacific? Are
13 there a number of stations on the Southern Pacific, do
14 you know, that are served only by the Southern Pacific?

15 A There are a number of stations served only by
16 the Southern Pacific.

17 Q Now let's talk about other western railroads
18 and other railroads west of the Mississippi. Are there
19 a number of stations that are served exclusively by
20 those railroads?

21 A I believe that is correct, but I have not with
22 me the information necessary to designate them in
23 detail.

24 Q I gather from your last answer, then, that you
25 have conducted no investigation of the amount of future

1 SFSP, giving that name to the whole merged carrier, the
2 amount of future SFSP traffic that would move to or from
3 stations that are exclusively on the SFSP?

4 A The Anderson study for Temple, Barker, and
5 Sloane attempts to determine the net increment of such
6 stations that is created as a consequence of the merger,
7 and to determine from that whether there are other
8 railroads available or other modes of transportation
9 available at those stations.

10 So, I have read and reflected on the Anderson
11 study to try to assess that indicator that you
12 describe.

13 Q Well, now, you have answered, I believe, as to
14 the increment of stations. Let's define that. Let's
15 define several parts of that.

16 First, if there are stations on the Santa Fe
17 that are exclusively served by the Santa Fe, and there
18 are stations on the Southern Pacific that are
19 exclusively served by the Southern Pacific, then the
20 SFSP will have a total of stations exclusively served by
21 the SFSP that is larger than either the SF station
22 exclusively served or the SP station exclusively
23 served. Is that correct?

24 A That is correct, but that is not what I meant
25 by an increment.

1 Q All right. What is the increment?

2 A The increment is the number of single source
3 stations where previously there had been both SF and SP
4 separately.

5 Q All right. Well, that is a second
6 classification, and that second classification was
7 studied by TBS.

8 A That is my understanding.

9 Q That is stations that formerly were not
10 exclusive because they were served by both of the
11 applicants?

12 A Right.

13 Q And now become exclusive?

14 A Those are what they call common point
15 classification I.

16 Q Now, my third question is, do you know or did
17 you study the amount of traffic moving from exclusive
18 SFSP stations?

19 A No, I did not.

20 Q One more question, Dr. MacAvoy. In describing
21 in your cross examination synergies given as reasons for
22 mergers, you said, I believe, that the synergies claimed
23 cover a number of sins. Would you explain what the
24 number of sins are that are covered by such claims of
25 synergy?

1 MR. WEICHER: Your Honor, is counsel
2 characterizing part of the witness's testimony?

3 MR. KHARASCH: No, I believe I am quoting
4 it.

5 JUDGE HOPKINS: I remember him saying it
6 myself.

7 THE WITNESS: I do, too, but I dearly wish I
8 had the context, because I have said so much today. Was
9 I talking about mergers or cost reductions? Where was I
10 at that particular moment?

11 BY MR. KHARASCH: (Resuming)

12 Q I believe the context that you were, Dr.
13 MacAvoy, is the context of people in industry generally
14 that wish to merge and give as a reason for the merger
15 synergies.

16 A I remember. I believe most of those synergies
17 one finds reference to in manufacturing and mining,
18 where I spend a great deal of my time, our
19 diversification gains, and the notion is that ups and
20 downs in demand and consequently sales in market 1 are
21 diversified away by contradictory ups and downs in sales
22 and market 2.

23 And the synergies come from a balanced supply
24 for the two markets from common production facilities,
25 sometimes called economies of scope, sometimes called

1 economies of diversification or integration.

2 And they cover a multitude of sins in that
3 many times the two markets are served by such different
4 technologies and management systems that the management
5 finds those incompatible when they are merged, and
6 consequently never gain full efficient managerial
7 control of the combination of firms, and consequently
8 turn out to produce synergistic performance like that
9 of, say, ITT, which generates no appreciable gain to the
10 stockholder whatsoever.

11 MR. KHARASCH: Thank you. That is it.

12 MR. BLEAKNEY: Your Honor, my name is Robert
13 Bleakney. My appearance is not yet on the record.
14 Robert G. Bleakney, B-l-e-a-k-n-e-y, Jr. I am with
15 Sullivan and Worcester, One Post Office Square, Boston,
16 Massachusetts, 02109, and I appear as counsel for Kansas
17 City Southern.

18 JUDGE HOPKINS: Thank you. Go right ahead.

19 BY MR. BLEAKNEY:

20 Q Dr. MacAvoy, I have a very few questions. I
21 would like first to refer to your testimony and your
22 cross examination concerning social benefits and social
23 costs of the proposed merger.

24 Now, first, am I correct in understanding that
25 you conclude that there are social benefits from cost

1 reductions in the order of \$220 million? Is that
2 correct?

3 A That is correct.

4 Q And can you tell me if you know whether those
5 benefits result from cost reductions in isolated
6 portions of the merged system, or are they spread
7 throughout the operating system of the merged entity?

8 A My understanding is that there are gains at
9 least in half from consolidation and new integrated
10 operations of the system as a whole. At least another
11 quarter is gains from more efficient utilization of cars
12 and other rolling stock throughout the system as a
13 whole.

14 So, these benefits should be spread widely
15 through to all consumers in the form of lower cost
16 service, which I believe under competition is likely to
17 result in lower rates, higher service quality pretty
18 much throughout the system.

19 Q Now, on the other side of the coin, am I
20 correct in understanding that based upon the TPS study,
21 you have used a figure of approximately 2 percent as the
22 total system traffic that would be exposed to rate
23 increases?

24 Is that correct?

25 A That is correct.

1 Q And that is the area that you would
2 characterize as the area of possible social loss.

3 A What I tried to do, Mr. Bleakney, is to take
4 an extreme example of the greatest conceivable
5 vulnerability to rate increases from reduction in the
6 number of sources of rail supply of service, and under
7 conceivably the worst possible competitive conditions I
8 generate an estimate that roughly two million tons -- I
9 am sorry, 2 percent of the total tonnage on the combined
10 system could be potentially at risk of a hypothetical
11 noncompetitive price increase.

12 So, it is just an example, Mr. Bleakney. I
13 didn't mean to redescribe my whole study. But that
14 sometimes when we zero in on Figure 1, and the numbers
15 that follow from it, there is a tendency to lock into
16 concrete that particular example when that is just
17 market A, a price increase which is one scenario that I
18 weight no highly -- not as highly as market B, where you
19 get under competitive conditions no price increase at
20 all.

21 Indeed, much of the cost saving and addition
22 consumer surplus flow through to the consumer, so I just
23 want to make sure that that is only one case.

24 Q And there could be others.

25 A Well, the other, the one that I think is more

1 likely, is the market B case, where under competition
2 caused by the new diversion the Union Pacific and the
3 Burlington Northern and the trucking companies force a
4 good part of the cost reductions onto the market as rate
5 reductions, and you get an increase in consumer surplus
6 by areas C, D, and E.

7 Q Now, coming back to your market A case, which
8 is what I was asking about, am I right or wrong that you
9 relied in making your estimate on the TB&S study?

10 A You are right.

11 Q And am I right or wrong that that estimate
12 related to traffic in relatively isolated areas of the
13 merged system?

14 A It relates to traffic in a set of different
15 areas in the system. The 2 percent is based upon
16 tonnage that is spread pretty much throughout the
17 system, some at common point I, some at common point II,
18 some in the market area. So, it is throughout the
19 system, but there are pockets of submarkets which are
20 under the most pessimistic assumptions, different in
21 degree of competitiveness with the rest of the system.
22 They are not any one place.

23 Q Well, let's assume the Commission has agreed
24 with everything that you and the others said,
25 nevertheless, imposed conditions designed to protect

1 competition in these submarkets. Isn't it correct that
2 a substantial part of your 220 million benefits would
3 not be affected under those circumstances?

4 MR. WEICHER: Your Honor, I am not sure I
5 understood the first part of the question.

6 MR. BLEAKNEY: Maybe the witness understands.
7 I think that is the important part.

8 JUDGE HOPKINS: Do you understand?

9 THE WITNESS: I think I do.

10 MR. WEICHER: If counsel is asking him to
11 speculate on the subject of conditions, I am going to
12 object.

13 JUDGE HOPKINS: He is not asking the
14 witness -- if you can answer the question, go ahead,
15 Doctor.

16 THE WITNESS: I think the answer is not known,
17 at least not to me, Mr. Bleakney, yet, until I go
18 through and determine the impact of the hypothetical
19 special conditions, those that you have in mind on the
20 cost savings from integrating the SESP separate
21 systems.

22 If the special conditions disrupt those cost
23 savings, it could have -- they could have, the special
24 conditions could have an adverse cost effect throughout
25 the system while having a limited price reducing, rate

1 reducing effect only in one point in the system. It
2 depends on how it was done.

3 But I think you have to do that kind of
4 analysis of looking at if somebody were to propose
5 trackage rights, for example, what are the costs of the
6 traffic rights in terms of eliminating potential cost
7 savings from the merger against the benefits of the
8 trackage rights in terms of eliminating potential
9 anticompetitive effects from the merger.

10 And the first are systemwide, while the second
11 are quite isolated.

12 Q And I take it you have made no such analysis?

13 A I have not. That has not been part of my work
14 to date.

15 Q Would the same degree of analysis be required
16 with respect to independent ratemaking authority as a
17 method of maintaining a degree of competition?

18 MR. WEICHER: Your Honor, I object unless the
19 counsel wants to define the term for the witness.

20 JUDGE HOPKINS: Do you understand what the
21 term means?

22 THE WITNESS: I think it would help me to
23 define the term.

24 MR. BLEAKNEY: If he doesn't understand it, I
25 am not going to pursue it, Your Honor, on that point.

1 That is all I need to know.

2 BY MR. BLEAKNEY: (Resuming)

3 Q I would like to turn to just one other very
4 limited area, Dr. MacAvoy, Footnote 2 on Page 8 of your
5 testimony. You state, and I am quoting, "Econometric
6 estimation has also shown there to be a clear pattern of
7 substitutability between rail and truck transportation,
8 i.e., a higher truck rate holding the rail rate
9 constant, will divert traffic to rail and vice versa."

10 Do you have that testimony?

11 A Yes, I do.

12 Q Would the same situation apply if the truck
13 rate were held constant and the rail rate were reduced?

14 A Yes, it would.

15 Q It is the relationship we are talking about,
16 isn't it?

17 A That is correct.

18 Q And you rely on Dr. Keeler's book for support
19 for this statement, do you not?

20 A Throughout the book. He has a series of
21 tables on cost substitution elasticities.

22 Q Can you refer me to specific pages and tables
23 you had in mind on that?

24 A I would have to borrow Mr. Leary's copy of the
25 book. I don't have one with me. I would have to go

1 through -- sit down and go all the way through it.

2 Q I won't ask you to do that at the moment.

3 A I have done it many times.

4 Q I would ask you to look at Page 82, the first
5 full paragraph, and particularly the last sentence. We
6 are going to have to share that if we need to discuss
7 it. After you have read it, I do have a question.

8 (Pause.)

9 A He says that, "Since rail service is inferior
10 to truck service, if the railroads raise their rates
11 above truck rates, the railroads will lose practically
12 all traffic to trucks. If, on the other hand, railroads
13 reduce their rates and truck rates remain constant, rail
14 will win little extra traffic."

15 That is true where the rail service is
16 inferior to truck service. I think that is a good
17 general statement of conditions in the economy.

18 Q And doesn't that general statement disagree
19 with your general statement in your footnote on Page 8?

20 A The vice versa part of my statement is not
21 accurate, and it should say that the elasticities of
22 substitution are lower when we are dealing with a
23 reduction in the rail rate rather than in the truck
24 rate.

25 I apologize for the words "and vice versa."

1 It is not as good as I can do.

2 Q Well, isn't in fact the earlier part, the
3 higher truck rate, holding the rail rate constant, we
4 already agreed is the same thing as a lower rail rate
5 holding the truck rate constant? You and I agreed with
6 that, and those are exactly Keeler's words. Isn't that
7 true?

8 A No, I think what Keeler is saying and what I
9 am doing is saying it is not reversible. It depends
10 upon which rate is higher at the start.

11 MR. BLEAKNEY: I have no further questions.

12 JUDGE HOPKINS: Thank you. Who will be next?
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1 MR. LIVINGSTON: Your Honor, I have not
2 previously appeared. My name is Bill Livingston. I'm
3 here for the Union Pacific.

4 BY MR. LIVINGSTON:

5 Q Professor MacAvoy, if you could look at page 3
6 of your testimony, you refer there in the first full
7 paragraph on the page, you state that the merger will --
8 and I paraphrase -- not result in market power in all
9 but a few service markets.

10 Do you see the reference to "all but a few
11 service markets"?

12 A Yes.

13 Q What are these service markets where this
14 merger will not face sufficient competition to constrain
15 its ability to raise rail rates?

16 A Well, Mr. Livingston, this is a prefatory
17 paragraph that attempts to summarize the rest of my
18 testimony as it begins. And the purpose of the
19 Market A/Market B scenarios that run from page 28 to 35
20 is to use the TBS study to determine, as best as I can,
21 where and to what extent there might be a possible rail
22 rate effect in a few service markets of an adverse
23 nature.

24 So the answer to the question is that the 2
25 percent of the total traffic that is in the Anderson

1 listing in his testimony for common points 1 and 2, the
2 traffic flows and the market area studies, is that set
3 which comprise what I call a few service markets.

4 Q My question was where are they? Is it
5 Phoenix? What commodities are involved? What corridor
6 is involved?

7 A The answer is available in Anderson's list of
8 those that do not succeed through the final filter.

9 Q And what is -- well, were you ever familiar
10 with what and where those markets were?

11 A I'm certainly familiar with them, yes.

12 Q Can you name any of them?

13 A I will go get the list. I didn't memorize the
14 list.

15 Q I'm not asking you to get the list. I'm
16 asking if you can name any of them.

17 A I haven't looked at it in a couple of weeks.

18 Q I didn't ask you that.

19 A I am familiar with them.

20 Q Can you name me one or two?

21 A I don't recall.

22 Q You can't name me any?

23 MR. WEICHER: Your Honor --

24 JUDGE HOPKINS: He said he can't recall.

25 BY MR. LIVINGSTON: (Resuming)

1 Q What are the characteristics of these markets
2 that will permit the merged system to raise rail rates
3 above competitive levels?

4 A In a well-defined market, those
5 characteristics would be that the succeeding carrier
6 would have control of the supply of transportation
7 services, sufficient to withstand upon a rate increase
8 initiated by him, increased entry and capacity of other
9 modes and other rail shippers and produce a level of
10 profitability substantially greater at the higher
11 price.

12 Q Would these be markets where, for physical
13 reasons, logistical reasons, other modes are unable to
14 compete on anything like equal terms with the railroad?

15 A That would be one condition which would be
16 conducive to achieving that rate setting power. It's
17 not necessary nor sufficient, but it could be the
18 condition in a single case.

19 Q And that would be a condition in which there
20 would not be ease of entry by the other modes for the
21 traffic in that service market?

22 A Well, there'd have to be more than that.
23 There would have to be a condition in which the costs of
24 providing service for the other mode is so much higher
25 that that mode cannot provide an effective cap on the

1 rate setting power of the first mode that you have in
2 mind.

3 Q In those service markets, after the merger,
4 and the rail rates are raised as a consequence of the
5 merger, why do you find it inconceivable that even these
6 isolated price increases could be sustained? And I'm
7 quoting from page 37 of your testimony.

8 A Now you're asking me questions about how
9 Anderson and TBS went about completing the final screen
10 of their research, and I am not an expert, and I cannot
11 testify on that in great detail.

12 But I can characterize it as being a screen
13 which is too easy to let through to the bottom line a
14 traffic flow, and characterize that traffic flow as
15 potentially vulnerable to noncompetitive rate increases;
16 that they were too lax in determining just how
17 competitive those few markets were. And if they had
18 taken account of potential entry and of the ability of
19 trucking firms to increase capacity, that the 3 million
20 tons would have fallen not to 1.1 million, but
21 essentially to zero.

22 Q I'm looking at your statement on page 37. Are
23 you telling me that I should read that as saying if one
24 accepts the TBS study, it is inconceivable that even
25 these isolated price increases could be sustained?

1 A That's what I'm saying.

2 Q That's the way it should be read.

3 A That the TBS study is not a properly defined
4 market, and it's inconceivable that those that filtered
5 through can sustain isolated price increases.

6 Q And you reached that judgment not on your
7 knowledge of the facts of these markets, but on what
8 they report in the TBS study?

9 A And my knowledge of how they conducted the
10 study from intensive questioning of those involved as to
11 how they made those critical decisions to include a
12 common point in the final list of those vulnerable, as
13 compared to excluding them from that final list.

14 Q Do you recognize -- take Phoenix, an Arizona
15 City, where two railroads serve the city today -- Santa
16 Fe and Southern Pacific.

17 Do you regard that city as likely to be a
18 service area where competitive problems will exist after
19 the merger?

20 MR. WEICHER: Your Honor, I object. This is
21 getting cross-examination on the direct testimony of
22 Witness Anderson who reviews these areas in great
23 depth. The witness has explained his understanding and
24 use of the Anderson study, but it is beyond the scope of
25 his testimony for cross-examination on the specific

1 analysis in Mr. Anderson's testimony.

2 JUDGE HOPKINS: Do you know any of the
3 individual cities that you could answer these questions
4 about?

5 THE WITNESS: I don't, Judge Hopkins. I don't
6 go to that level of detail. I take the text and
7 conclusions as to the vulnerable market areas from
8 Anderson directly.

9 JUDGE HOPKINS: Thank you. I will sustain the
10 objection on that basis.

11 BY MR. LIVINGSTON: (Resuming)

12 Q Turn to Table 11 in your testimony. I'm
13 referring there to the line for waste and scrap. I may
14 have misheard you, but I believe you said that despite
15 having a very much higher average cost, the rails were
16 able to achieve a small part of the market.

17 Is that what you said?

18 A The evidence is that 6 billion ton miles of
19 waste and scrap were carried by rail.

20 Q Did you characterize that as being a small
21 part of the waste and scrap market?

22 A I don't know whether that is small or large,
23 because I don't have the total carried by the two
24 together.

25 Q If it is the case?

1 A That it is small?

2 Q That rails carry, say, 75 percent waste and
3 scrap, despite having average costs three times as high
4 as trucks, what would explain that phenomenon?

5 A I would be very surprised, but I would expect
6 that what this would have to imply is that the
7 collection and loading costs of waste and scrap are
8 significantly higher for rail and the cost of
9 transporting waste and scrap in some kind of special
10 container imposed entirely on the shipper have caused
11 the 2.7 cents per truck mile ton to be an incorrect
12 measure of the cost by that mode.

13 Q That's another explanation, that the railroads
14 are carrying one kind of scrap, say iron and steel, and
15 that the trucks are carrying other kinds of scrap that
16 involve entirely different logistical considerations and
17 which can be handled by them at lower cost.

18 A Are you asking me a question?

19 Q Is that a possible explanation?

20 A That the commodity classification is putting
21 two different commodities together?

22 Q Yes.

23 A That's a possible explanation as well.

24 Q Have you done any checking to see whether
25 these commodity classifications on Table 1 or two-digit

1 STCC codes generally so group commodities which ought
2 not to be grouped?

3 A These are two different questions, Mr.
4 Livingston. I have not been able to delve behind
5 Theodore E. Keeler's table based upon the AAR staff
6 study data. That was taken from a public source. I've
7 not talked to Professor Keller about that table, so I
8 don't know whether he has paper waste and steel scrap,
9 for example.

10 With respect to the two-digit STCC and the
11 five-digit STCC, I suspect that those -- I know from my
12 general research in transportation economics, that those
13 do aggregate what appear to be, in many cases, quite
14 different commodities. Steel scrap and paper waste
15 don't look the same. But I have the impression that the
16 two-digit is a useful level of aggregation, and the
17 five-digit STCC is a more useful level of aggregation,
18 if what you want is specific commodity physical
19 characteristics.

20 What really counts is when you aggregate at
21 the two-digit level, are you putting together stuff that
22 can't be carried the same way in a mode of
23 transportation? Does paper waste have to be carried in
24 a different kind of container than steel scrap? And, to
25 the extent that that happens, then indeed they should

1 not be aggregated in that way.

2 My general understanding of the two-digit
3 level STCC is that that doesn't happen very frequently,
4 and therefore they don't mislead you along the lines
5 that you're proposing with waste and scrap in this
6 case.

7 Q You referred to truck rates as serving as a
8 cap on rail rates. And I believe you indicated that the
9 tightness of the cap depends on the extent to which the
10 costs of the two modes are comparable for carrying
11 traffic in the same market.

12 Have I correctly stated that?

13 A Yes, that is correct.

14 Q Other than Table 1 in your testimony on page
15 11, have you made any other direct look at comparative
16 rail truck costs?

17 A No, I have not. Not that is found in tables
18 and charts in this testimony. I'm sorry?

19 Q Are you aware of any cost comparisons between
20 truck and rail particularly applicable to the service
21 territories at issue in this case?

22 A Well, I have looked through, in the last few
23 years, so many transportation economic studies that I'm
24 certainly aware that there are breakdowns by section of
25 the county, by mode, by year, by two or five-digit level

1 SIC or STCC available in a wide variety of published and
2 unpublished Commission and university research
3 documents.

4 Mr. Livingston, to answer your question here
5 today, I would start by sitting down with 100, 150
6 pieces of literature, and go through it until I found
7 them. And I just don't know where they are right this
8 minute.

9 Q I take it you didn't arrange those or pull
10 them out in preparing this testimony?

11 A Well, I looked at these published sources at
12 the time, and I thought for the purposes that I attempt
13 to achieve on pages 10, 11, 12, that this was the best
14 table. I may be wrong, but I didn't put in a
15 second-best table. I put in the best table I could find
16 to achieve the understanding of the reader.

17 Q Do you have any rule of thumb as to how close
18 the rail and truck costs have to be in a particular
19 market in order to conclude that trucks will provide an
20 effective cap to rail rates?

21 A No, I do not.

22 Q Would you regard it as something that would
23 vary from service market to service market?

24 A That is correct, because of the --

25 Q If truck rates are -- excuse me -- if truck

1 costs are 40 percent higher than rail costs in a
2 particular service market, would that in any situation
3 be regarded by you as an effective cap?

4 A It would depend upon the density of the size
5 of the load. It would depend upon loading costs,
6 convenience of storage. It would depend upon how many
7 rail competitors there are, how many truck competitors
8 there are.

9 I think I have named four critical
10 determinants that cause me to hesitate on a rule of
11 thumb. I can give you examples where that difference is
12 not very great at all because of imposed cost of
13 collection, loading and storage in one mode versus the
14 other because the size of the mode is too -- the size of
15 the shipment is too great for that mode, because truck
16 rates are significantly above costs due to the lack of
17 competition, or rail rates are significantly above
18 costs.

19 Q If you said that under a principle of, I
20 think, Cournot pricing, when you went from three firms
21 to two firms, it would result in a price increase of 17
22 percent, what is the comparable figure, if you know,
23 when you go from two firms to one firm?

24 A No intermodal competition now. This is in an
25 authentic market which has only two sources of supply,

1 who are not colluding, and now you have a monopolist.
2 So that is really a serious case.

3 My guess is that you would get about a
4 one-third increase, maybe larger. I'm doing it off the
5 top of my head. You have to solve an equation to get
6 that. You see, you start in that case with a 30 percent
7 profit margin, and you go to about a 50 percent profit
8 margin with an elasticity of 1.

9 Q Looking at page 7 of your testimony, you state
10 in the first full paragraph, that for the vast majority
11 of products shipped --

12 A I'm sorry, I missed the page.

13 Q Page 7, first full paragraph. You state that,
14 "For the vast majority of the products shipped, no
15 significant gaps or qualitative differences exist
16 between one transportation mode and another. Each
17 provides a constraint on the other's pricing behavior."

18 I read that as saying that not only do trucks
19 cap the rail rates, but it works in reverse as well. Is
20 that what you mean to say?

21 A Yes, that is correct.

22 Q And that means that the rail costs would have
23 to be very close to the truck costs for the vast
24 majority of products shipped, wouldn't it?

25 A No, because of the other factors that I

1 mentioned. You can't do that with cost alone.

2 Q Maybe it's not another way of stating it, but
3 do you regard there as being a high degree of
4 cross-elasticity of demand between truck and rail?

5 A I believe that our knowledge in this area
6 indicates that the increase in demand for one mode for
7 most of the products being shipped, consequent upon an
8 isolated increase in the rates in the other mode, are at
9 least proportional.

10 Q What do you mean by proportional?

11 A That the cross-elasticities are in the range
12 of .8, 1.0 to 1.4, in that range.

13 Q In the unity range?

14 A Yes. There is disagreement on that, Mr.
15 Livingston. I don't want to leave you with the idea
16 that I pulled the number out of the literature which is
17 singular and a widespread consensus of all individuals
18 working on this.

19 Q Comparing the western United States
20 territories involved in this case --

21 JUDGE HOPKINS: Mr. Livingston, would you
22 speak up a little or take your hand away from your
23 mouth, because I can't hear you very well.

24 BY MR. LIVINGSTON: (Resuming)

25 Q Looking at the western part of the United

1 States, comparing it to the east, would you regard there
2 as being stronger cross-elasticities in the west than in
3 the east, more substitution between truck and rail?

4 A Well, if you describe the east as the
5 northeastern quadrant of the country, and the west as
6 the northwest and southwest, the characteristics of
7 commodity shipments is so much different in Conrail from
8 Union Pacific and Southern Pacific and Burlington
9 Northern.

10 We're talking about the mix being greater of
11 manufactured goods in the northeast quadrant, the mix of
12 mining and construction materials in the southeast being
13 far greater. Distances are different; densities are
14 different.

15 Q My question, I hope, was a fairly simple one.
16 Is there greater cross-elasticity, say, in the official
17 territory than there is in the west, if you know?

18 A I don't know.

19 Q You cited the Friedlaender and Spady work in
20 your testimony.

21 Q Right.

22 Q And have relied on it at various points.

23 A Yes.

24 Q Did you look at their studies of rail truck
25 cross-elasticities?

1 A Yes.

2 Q Do you agree with the methodology of their
3 studies and their conclusion?

4 A The methodology is good. The data are very
5 poor for our purposes at the present time.

6 Q Do you regard it as outdated?

7 A Substantially outdated, because the rates that
8 are used to pinpoint the cross-elasticities precede both
9 the Staggers Act and the Truck Deregulation Act of 1980
10 where, since then, rates on trucking shipments have
11 declined in absolute terms about 20 to 25 percent and on
12 rail shipments in absolute terms about 10 percent.

13 So we are on the demand functions for both of
14 these modes, transport at five different points, and
15 we're revealing a quite different set of switching
16 behavior with the new lower rate schedules.

17 Q Do you recall what the elasticities were that
18 were found by -- cross-elasticities that were found by
19 Friedlaender and Spady?

20 A Based on the 1975-76 data?

21 Q Based on their study that you cite.

22 A Based on their outmoded data, they were below
23 unitary.

24 Q Weren't they considerably below?

25 A I don't remember the standard errors.

1 Q Let me show you page 55 of the Friedlaender
2 book, the table at the bottom of the page. This book
3 that I've handed you, that is cited in your testimony,
4 isn't it?

5 A It is.

6 Q Look at the table there at the bottom of page
7 55. Doesn't that indicate that the cross-elasticities
8 in the west were always less than 2 percent between rail
9 and truck and generally less than 1 percent?

10 A I can't determine whether they're
11 statistically significantly different from one or the
12 other or not.

13 Q I refer you to the first full paragraph on
14 page 56 of the book.

15 MR. WEICHER: Your Honor, is counsel asking
16 the witness to simply read from the source?

17 JUDGE HOPKINS: No. He's asking him a
18 question, and he's pointing out probably where there is
19 a particular statement that might answer the question.

20 (Pause.)

21 THE WITNESS: So far, it says that the own
22 price elasticities are about unity.

23 BY MR. LIVINGSTON: (Resuming)

24 Q Keep reading.

25 (Pause.)

1 A Cross-price elasticities of demand are
2 positive, but uniformly low.

3 JUDGE HOPKINS: How much farther does he have
4 to read?

5 MR. LIVINGSTON: It's about five sentences,
6 Your Honor. He's on about the fourth one.

7 THE WITNESS: I think that is their summary
8 statement.

9 BY MR. LIVINGSTON: (Resuming)

10 Q Their summary statement is, instead of being
11 in the range of 1, as you said, it's about in the range
12 of 1/10 for the west, isn't it?

13 A No. They are more careful than that, Mr.
14 Livingston, because they don't -- if they say that it's
15 not in the range of 1, they have to go through a
16 hypothetical test to determine whether it is
17 statistically significantly different from 1. And they
18 don't have any of the measures of variance or standard
19 deviations required to do those tests.

20 So they don't say that. They say that they
21 are uniformly low. I don't know what sample size they
22 have here, I don't know how much variance they have in
23 the data. It could be that the standard deviation is
24 five times the size of the estimate.

25 So I would go along with you, I would go along

1 with Friedlaender and Spady when they say that the
2 cross-elasticities are positive but uniformly low. And
3 I will state again that these, based upon data from a
4 period when truck rates were 25 percent higher than they
5 now are, and you get down in the range we are now, I bet
6 you those cross-elasticities are much higher.

7 Q Do you know of any studies, econometric
8 studies, that is good or better than the Friedlaender
9 study that will prove your hunch?

10 A It would have to be a study that uses the data
11 from the early 1980s, and the only one carrying out
12 those studies is Professor Moore. And he reports in a
13 general way in the last Journal of Regulation, that rail
14 traffic has been subject in the west to extreme
15 competitive pressures from the falling truck rates.

16 So those are high cross-elasticities.

17 Q I think you said that the cells defined by
18 Reebie in this case do not necessarily constitute a
19 market.

20 A That is correct.

21 Q If one, as you said, I think, ripped apart
22 each cell, you would find lots of markets inside. Is
23 that right?

24 A No. If you ripped apart each cell, you would
25 find that the market definition implied by the Reebie

1 cell is way too narrow; that Reebie failed to take
2 account of intermodal and intramodal competition in a
3 larger geographic area than the 19; in many cases, that
4 he failed to take account of potential entry and
5 expansion of one mode or the other in the presence of a
6 hypothetical 5 percent rate increase, which is the way
7 you're supposed to define markets, according to the
8 Department of Justice.

9 He failed to take account of anything other
10 than the traffic that had recently appeared in a small
11 geographic region for one time period.

12 So those markets are too small. They are not
13 markets; they are sub-markets.

14 Q I think you indicated -- and correct me if I'm
15 wrong -- that these Applicants participate literally in
16 thousands of different markets.

17 A Well, I meant sub-markets. You have to
18 aggregate those sub-markets to determine the extent to
19 which one source of transportation service can be
20 substituted for another, until you come to the
21 geographic boundary. And those boundaries are much
22 broader. They encompass many Reebie or many of the
23 Reebie 19 areas.

24 They are not smaller; they are larger than
25 Reebie says. I thank you for correcting that terrible

1 misuse of the word "markets," because I meant
2 sub-markets at that point in my testimony.

3 Q Is it possible within sub-markets, as you used
4 that term, for a firm to have market power?

5 A Probably not. But, you see, I went ahead and
6 used the Peebie data anyway because since Reebie had
7 defined the market too narrowly, they are going to turn
8 up many more cases of high concentration than we can
9 possibly conceive of in real markets.

10 So if they turn up 10 percent of the traffic
11 flow areas having higher concentration at the end of the
12 study, we must know that it's some percentage less than
13 that, and that the amount of tonnage involved is really
14 very small in terms of the real impact on competition in
15 markets.

16 So I used it anyway because the bias in their
17 definitions was to the point of providing the most
18 cautious estimate possible about anticompetitive
19 effects.

20 MR. LIVINGSTON: I have no further questions.

21 JUDGE HOPKINS: Mr. White.

22 BY MR. WHITE:

23 Q My name is Charles White. I represent Texas
24 Mexican Railway.

25 Sir, do you know what the Texas Mexican

1 Railway is?

2 A Only in the most general terms.

3 Q Do you know it operates, what it does?

4 A I would have to have a map and I would have to
5 look in detail at that map, and it would take it ten
6 minutes to find it, Mr. White.

7 Q I'll save you that ten minutes, sir, and just
8 say that it runs from Corpus Christi to Laredo.

9 In your discussion with Mr. Livingston about
10 markets, you were happy to have the opportunity to
11 correct the statement about sub-markets. Would you, or
12 do you view Mexican international traffic as being an
13 identifiable market?

14 A I have not undertaken that study, Mr. White.
15 In order to determine origin/destination patterns
16 constituting a separate market, I would look at flows
17 from major Mexican terminals to major East and West
18 Coast cities, and internally through Texas to internal
19 locations, to see if I could determine all of the
20 alternative sources of significant transportation,
21 truck, rail, and over the ocean transportation
22 constituting what may be a dozen different markets.

23 Q Sir, does your model work equally well if you
24 could gather that data for the international Mexican
25 U.S. traffic?

1 Q Well, I would think that it would work equally
2 as well. We are dealing in that case with consumer
3 surpluses across two nations and the impact that these
4 have on balance of trade and exchange rates. It would
5 be much more complicated, but there's nothing that makes
6 benefit/cost analysis exclusive to domestic economic
7 policy.

8 Q Sir, from your own knowledge, do you have a
9 feel for what the commodity flows are across the border
10 to and from Mexico?

11 A No, I do not.

12 Q Sir, on page 1 of your testimony, you
13 indicated that you were co-chairman of the President's
14 Task Force on Regulatory Reform.

15 To what extent in your policymaking position,
16 policy advising position, did you view trucking
17 competition as a prerequisite for railroad rate
18 deregulation?

19 A This is now in the middle 1970s, Mr. White,
20 and we had very strict and systematic truck regulation
21 in the United States, both by state regulatory agencies
22 and the Interstate Commerce Commission.

23 The rates were very high in that period so
24 that the rate cap provided by trucking over rail was
25 much higher than it is at the present time. And I

1 recall in preparation of policy statements for the
2 president to consider on truck and rail regulation, that
3 we didn't give much credit at that time to the
4 possibility of a rate cap being an effective source of
5 competition to rail on a national average basis.

6 Q Today, sir, that has changed entirely, hasn't
7 it?

8 A The 25 percent reduction in truck rates since
9 1980 against something close to 20 percent inflation is
10 a massive change in location and severity of that cap on
11 rail rates.

12 Q Sir, may I ask you, from your judgment and not
13 from Mr. Anderson's list, whether you view the
14 international traffic into and out of Mexico as one of
15 the few service markets where competition will not
16 restrain rail rates, if you have a judgment?

17 A I don't know enough, Mr. White, to make that
18 judgment. I would, however, to begin research on that
19 issue, look very carefully at Mexican seaport to East
20 and West Coast port of entry into the United States
21 behavior to determine whether there is a very large
22 volume of traffic coming in and going out from that set
23 of sources.

24 Q Sir, before you took the stand today, did
25 counsel advise you that Mr. Fitzgerald testified that

1 trucking does not provide competition for grain moving
2 to Mexico by rail?

3 A I'm not aware of that, Mr. White.

4 Q If we could put it as a hypothetical question,
5 sir, if trucking is not available as a constraint for
6 grain moving to Mexico, would international Mexico-U.S.
7 traffic be one of the "few service markets" where no
8 competitive constraint is available to constrain rail
9 rates?

10 A It depends on whether there is sufficient
11 intramodel rail competition for traffic to the Great
12 Lakes and the Gulf of Mexico to establish at least two
13 or possibly three sources of supply at major railheads
14 of alternative transportation, using different ports of
15 exit and entry into Mexico for our grain.

16 I don't know the answer to that, but I would
17 certainly have to look to see whether Kansas grain can
18 go north and east and south and, if so, if there are not
19 enough sources of supply of rail transport to make that
20 competitive.

21 Q Sir, do you know what railroads serve Mexican
22 gateways?

23 MR. WEICHER: Your Honor, I object to the
24 continuing line of questioning. The witness has
25 explained his general understanding of how he would

1 analyze the situation and admitted he's not an expert in
2 this area, and hasn't tried to analyze --

3 JUDGE HOPKINS: Do you know?

4 THE WITNESS: What American railroads serve
5 Mexican gateways? I don't have the slightest idea.

6 JUDGE HOPKINS: Thank you.

7 BY MR. WHITE: (Resuming)

8 Q Let me ask you this question, sir. If
9 Southern Pacific and Santa Fe uniquely serve all of the
10 Mexican-U.S. gateways, with the exception of one --
11 Laredo -- would the merger of Santa Fe and Southern
12 Pacific eliminate competition between Santa Fe and
13 Southern Pacific over all of the Mexican gateways save
14 one?

15 A It would eliminate the competition between
16 Santa Fe and the Southern Pacific, but it wouldn't
17 eliminate competition in the market because --

18 Q Thank you, sir. That is responsive to my
19 question. You responded to it.

20 In your view, is the merger of the Santa Fe
21 and Southern Pacific to the Mexican border points, rail
22 border point crossings, a parallel or a vertical
23 end-to-end merger?

24 MR. WEICHER: Your Honor, I object.

25 MR. WHITE: He's an expert economist. He can

1 answer this.

2 MR. WEICHER: He has only general knowledge --

3 JUDGE HOPKINS: One of the problems I find is,
4 I don't think he even has any idea of how the lines run
5 down in that area, do you?

6 THE WITNESS: I would answer his question,
7 Judge Hopkins, in terms of I know the two systems, SF
8 and SP, well enough to know that in that area it is a
9 parallel merger. It is not a vertical merger.

10 But that doesn't have anything to do with the
11 way in which grain can be transported into Mexico by
12 other ports to enter Mexican East Coast seaports.

13 MR. WHITE: Your Honor, he answered my
14 question. That's all I have.

15 JUDGE HOPKINS: Who's the next one? Is there
16 anything left for you, Mr. Patner?

17 MR. PATNER: I'm not even going to ask the
18 questions, Your Honor.

19 BY MS. KOOPERSTEIN:

20 Q Good afternoon, Professor MacAvoy. My name is
21 Donna Kooperstein, and I represent the Department of
22 Justice.

23 A Good afternoon.

24 Q Could you estimate approximately how much time
25 you spent preparing your testimony?

1 A Twenty man-days.

2 Q Were you familiar with the companies at the
3 time you were hired to prepare this testimony?

4 A No more than is available from reading
5 university research monographs and the general economic
6 and engineering literature in transportation. I knew
7 where they went, I knew what they did, I knew their
8 aggregates. I read a couple of hundred annual reports
9 every year, so I'm generally familiar with their
10 participation in transportation markets as part of my
11 research.

12 But I did not know a great deal of detail
13 about their operations.

14 Q Did you meet with any shippers while you were
15 preparing your testimony?

16 A No, I did not.

17 Q Have you done any studies in the railroad
18 industry, and in particular rail mergers?

19 A Have I done any studies of the railroad
20 industry?

21 Q Yes.

22 A Could I refer you to my bibliography?

23 Q If it's just what's listed there, that's not
24 necessary.

25 JUDGE HOPKINS: Did you say with reference to

1 rail mergers?

2 THE WITNESS: With reference to rail mergers
3 in particular, no, I have not done studies specifically
4 on rail mergers.

5 BY MS. KOOOPERSTEIN: (Resuming)

6 Q You have not?

7 A I have not.

8 Q I assume from what you testified earlier that
9 you did not perform an analysis of the operating
10 efficiencies that could be achieved by the merger?

11 A I took the testimony provided by corporate
12 witnesses on the global magnitudes of the potential cost
13 savings.

14 Q Did you assist them in preparing their
15 estimates?

16 A I've never met with them.

17 Q And does the same go for the non-operating
18 efficiencies?

19 A That is correct.

20 Q I assume you also didn't analyze the
21 likelihood of the implementation of the claimed
22 efficiencies?

23 A I wouldn't know how to begin.

24 Q Did you analyze whether any of the
25 efficiencies could be achieved by means other than a

1 merger of the Santa Fe and Southern Pacific?

2 A There's no way that you could achieve
3 efficiencies of integration of the two systems without
4 the integration. That question doesn't make any sense
5 at all.

6 Q Could the Southern Pacific achieve
7 efficiencies by means other than merging with the Santa
8 Fe?

9 A Anybody can achieve efficiencies by means
10 other than merging with Santa Fe.

11 Q Did you study that?

12 A Anybody can achieve efficiencies other than
13 merging with the Santa Fe.

14 JUDGE HOPKINS: Dr. MacAvoy, I think she's
15 just asking you, did you study that?

16 THE WITNESS: Did I study whether or not there
17 are other kinds of efficiencies to be achieved by the
18 Southern Pacific besides those from the merger?

19 BY MS. KOCOPERSTEIN: (Resuming)

20 Q Let's start all over again, okay?

21 I don't think it needs to be this
22 contentious. Did you determine whether any of the
23 efficiencies that have been stated in the application
24 could be achieved by either of the railroads, other than
25 by merging with each other?

1 A I understand.

2 Q Can you answer that question?

3 A The sources of the efficiencies, as I
4 understand them from the merger, come from systems
5 integration which, without the integration of the two
6 systems, cannot be achieved.

7 Q The systems could merge with other railroads,
8 couldn't they?

9 A You mean merge the Southern Pacific with the
10 Burlington Northern and merge the Santa Fe with the
11 Union Pacific?

12 Q I just asked a general question. Southern
13 Pacific doesn't have to merge with Santa Fe, does it?

14 A I don't know. I have no basis on which to
15 predict that there would be \$220 million of cost savings
16 from merging the SP and the UP.

17 Q Thank you.

18 A No one has done that study.

19 Q Including you?

20 A Absolutely.

21 Q Could you turn to page 5 of your testimony,
22 please? You state in the bottom of the first paragraph
23 that too narrow a market definition will overstate the
24 market power of the merging firms.

25 Do you see that?

1 A That is correct.

2 Q Would you agree that the converse is equally
3 true? That a market defined too broadly will include
4 firms that don't constrain the merging firm's behavior,
5 and that the market share of the merging parties will
6 thus understate its market power?

7 A I agree, Ms. Kooperstein, but with
8 qualification. It doesn't apply to the sentence that I
9 have in the text.

10 For example, it is possible with too large a
11 market definition, to encompass, say, two railroads in
12 the same improperly, too broadly defined market that do
13 not compete. And therefore, if you consider the merger
14 of these two railroads, you incorrectly determine a
15 reduction of competition from the merger.

16 Now, I think that kind of error can be made by
17 defining a market too broadly.

18 Q But with that caveat, you would accept it?

19 A Yes.

20 Q Would you agree that if purchasers cannot turn
21 to a particular service for any reason, that should not
22 be included in the market of merging parties?

23 A That's part of the market definition, that you
24 include only those available alternatives.

25 Q Okay. I would just like to go down a few

1 factors, and I think we can probably do this really
2 quickly.

3 We have some consumers that are presently
4 using Santa Fe and Southern Pacific. To examine the
5 effects, we must determine who else can provide the
6 service to them; is that correct?

7 A That is correct.

8 Q If there are other firms providing similar
9 quality transportation services, but they have too far
10 away for the consumers to use at a cost close to the
11 premerger price of the merging firms, they shouldn't be
12 included in the market, should they?

13 A They should be included in the market if, as a
14 consequence from the merger, you were to consider under
15 the DOJ guidelines a 5 percent rate increase, and they
16 came in to take an increased market share under the
17 hypothetical 5 percent

18 Q I think my question was let's assume they
19 could not come in with a 5 percent.

20 A With a 5 percent cap, they wouldn't come in?

21 Q Right.

22 A Then I would conform in most cases with the
23 DOJ guidelines and put them outside the market.

24 Q If there are other firms near by, but the
25 services they provide are not of satisfactory quality

1 compared to the merging firms' services, these firms
2 should not be included in the market also. Is that
3 true?

4 A Well, what about potential entrants? If they
5 are providing services from the same technological base
6 and the quality they're now providing is not adequate,
7 again using your 5 percent hypothetical rate increase,
8 could they be potential entrants or not? If they could
9 be, I would want to include them

10 Q If they are unable to provide it, they
11 wouldn't be, would they?

12 A Technologically incapacitated at costs 50
13 percent higher, then they would not be.

14 Q We are just talking about service. You
15 understood that. If they were unable to provide the
16 service.

17 A That's correct.

18 Q If there are other firms nearby, but the price
19 they offer is not close to -- and we're using the 5
20 percent test -- the price offered by the merging firms,
21 they should not be included in the market either?

22 A If their price would not be dislodged by the 5
23 percent test, they should not be included either.
24 That's correct.

25 Q So I guess you would agree that price is a key

1 factor in considering whether a firm is in the market.

2 A That is correct.

3 Q Would you also agree that the reason price is
4 such a key factor is that firms that cannot offer
5 similar service at a price close to the premerger price
6 cannot effectively constrain the merging parties from
7 raising their prices?

8 A That's a non sequitur.

9 Q What problem do you have with it?

10 A The part of the sentence before the "because"
11 doesn't cause the "because." The sentence just doesn't
12 make any sense.

13 Q If a firm cannot offer a service at a price
14 close to the premerger price, then it cannot effectively
15 constrain the price charged by the merging parties, can
16 it?

17 A It depends on whether we apply the 5 percent
18 hypothetical DOJ guideline rule.

19 Q If they cannot come close to that 5 percent?

20 A Then I would exclude them from the market.

21 Q Have you adopted the approach of Mr. Beyff,
22 from Mr. Liba, which aggregates the commodities into
23 four groups?

24 A I report on their results as an illustration
25 in a couple of paragraphs of my testimony on the

1 potential concentration effects of the merger. I don't
2 adopt their approach for purposes of establishing any
3 significant conclusion in my study.

4 Q Do you or do you not believe that aggregation
5 was appropriate?

6 A Aggregation is always appropriate. You have
7 to aggregate. You cannot look at the individual
8 transaction in this economy and come to any conclusion
9 whatsoever. But their aggregations I use for a very
10 specific purpose, and for that purpose the aggregation
11 is a good rough and ready aggregation.

12 As I answered to Mr. Leary's questions for a
13 long period of time, if you use the Reelie study right,
14 that is, if you have very narrow uses in mind for that
15 study, that aggregation is rather helpful.

16 But I don't determine from there whether
17 there's an antitrust violation. That's not the purpose
18 that I have in mind for that study.

19 Q What purpose did you have in mind for the
20 study?

21 A I wanted to see whether I could get a
22 comprehensive grasp of the post-merger impact on
23 concentration in a very large number of traffic flows
24 sufficient to make a conclusion, assuming that traffic
25 flows are too narrowly defined a set of markets, about

1 the worst possible concentration impact that could come
2 from the merger, and I found that roughly 10 percent of
3 those traffic flows could have concentration levels
4 post-merger as much as 50 percent for the surviving rail
5 company.

6 And that led to the conclusion that is
7 obviously spelled out there, that this is a very small
8 percent of a very large number of traffic flows, all of
9 which are too narrowly defined to be a market. And,
10 consequently, I judge that the aggregative impact on
11 concentration in properly defined markets is incredibly
12 low in this case; that this would never be a guideline
13 case.

14 Q Might not the firms to which a shipper could
15 turn to transport its commodities vary by commodity,
16 even within these four groups?

17 A Might, might not.

18 Q You don't know?

19 A You don't know whether there's a false
20 positive error or a false negative error in that case on
21 the average.

22 Q You just don't know?

23 A Hypothetically, there may very well be such,
24 but there could be determinations in the opposite
25 directions. In the process of aggregating, the Beebe

1 organization had to make some critical decisions about
2 what level to go to in order to get ahold of the data.

3 Q I understand that

4 A And they knew they were going to make errors.

5 Q Is the answer to my question that you just
6 don't know?

7 A I presume they made some errors.

8 Q In regard to these commodity groups, can we
9 assume that a particular mode or service can hold any of
10 the commodities in the group, it can hold all of them at
11 a price and service comparable to what SFSP currently
12 does?

13 A I don't think you could ever assume that about
14 any study in economics; that everything is exactly done
15 right with respect to every aggregation. I think you
16 have to assume that globally, if you were to change
17 those definitions to, say, disaggregate to the 10
18 commodity level or the 20 or the 50 commodity level,
19 that you would not get new indications of significant
20 increases in concentration in a competitively -- I'm
21 sorry -- in an economically defined market that were
22 missed by the Beebe aggregation at the four commodity
23 level.

24 I judged, after having read what they did and
25 what they have done, that that level of aggregation does

1 not distort the general results, as I report them in my
2 testimony.

3 Q But I believe you have testified that you
4 haven't done the disaggregation.

5 A It was my judgment that if you disaggregated
6 one more level or two more levels, you're not going to
7 get significantly different results when you're
8 attempting to report on changes in concentration in
9 properly defined markets, because the elasticity of
10 supply within those four commodity groupings is
11 significantly high, that all that you would get is
12 smaller defined markets with so much more potential
13 entry, that the results are the same.

14 Q I don't think that you've answered my
15 question.

16 A Because the market definition problem -- you
17 know this, because it is done all the time over there --
18 the market definition problem is, you collapse the
19 market definition until you get a narrow geographic
20 area, you get a narrower product area, and you get more
21 potential competition.

22 So, if you define the market too narrowly, as
23 you would if you went to 8, or 10, or 20 aggregates,
24 there is too much elasticity of supply with respect to
25 potential entry from one commodity class to another.

1 Q Professor MacAvoy, I've asked you just a very
2 simple question. That was a nice speech, but you
3 haven't done the disaggregation, have you?

4 MR. WEICHER: Your Honor, I object. The
5 witness has repeatedly explained the limitations of the
6 data and his understanding.

7 JUDGE HOPKINS: She asked a simple question.
8 He can answer yes or no. You haven't done
9 disaggregation. Wasn't that it?

10 MS. KOOPERSTEIN: That's all I want to know.

11 THE WITNESS: I didn't have the opportunity to
12 do that. I have to decide whether the work is any good
13 or not. And it is good work, and it is done right.

14 BY MS. KOOPERSTEIN: (Resuming)

15 Q Isn't there significant economic literature
16 that recognizes the effectiveness of constraint imposed
17 by intermodal competition depends on the nature of the
18 commodity?

19 A No. It depends on the relative level of cost
20 and the relative level of rates and the degree of
21 competition and the potential for entry.

22 Or I could have answered that there is
23 insignificant economic literature.

24 Q Is that your answer?

25 A No. I prefer my first response, that you have

1 left out too many variables at that level of
2 aggregation.

3 Q Would you turn to page 8, please? Do you see
4 the first full sentence about the industrial traffic
5 mergers -- and I assume that is managers?

6 A Yes, that was changed in the 920 errata to
7 managers.

8 Q Have you talked to any traffic managers?

9 A To any managers? You mean with relation to
10 these two railroads, or generally?

11 Q With relation to these two railroads.

12 A No.

13 Q Would you turn to page 10, please? The last
14 paragraph, you talk about geographic and product
15 competition and you state that is of somewhat less
16 importance.

17 Do you see that?

18 A Yes.

19 Q Could you explain why it is of less
20 importance?

21 A I believe that it's a matter of fact, as I
22 understand the facts in this country now, that since
23 truck rail deregulation four years ago, the bite or cut
24 of intermodal competition has been much stronger than
25 these other two sources of competition to constrain rail

1 market power.

2 That is only true for as long as the facts
3 indicate that, and it's my judgment that it's especially
4 true at the present time.

5 Q Do you believe that these sources of
6 competition are less of a constraint because they are
7 less acceptable substitutes?

8 A I just believe it's a matter of fact that
9 you've got a cut of price cost margins that is now so
10 low that this dominates traffic competition,
11 particularly in the western half of the United States.

12 If we were back in 1975 and this was being
13 discussed with the DOJ representative on Interagency
14 Task Force, the facts would have been different at that
15 time.

16 Geographic competition might have been
17 stronger; product competition would depend upon what
18 commodity you're talking about; but this is now
19 dominated by the squeeze on rail profit margins from
20 this marvelously new competitive factor of a deregulated
21 trucking industry.

22 Q I believe you have testified that the Beebe
23 transportation flows are too narrow to be markets.

24 A That's correct.

25 Q And that Beebe didn't perform the tests set

1 forth in the merger guidelines.

2 A That's correct.

3 Q You haven't performed that test either;
4 right?

5 A No, but --

6 Q Thank you.

7 Q Now --

8 A It can't come out anymore than one way.

9 Q In your section on applying the merger
10 guidelines, which begins on page 15, you nonetheless use
11 the Reebie transportation flows.

12 A Because the markets are defined too narrowly,
13 so I can't make a mistake.

14 Q So you are using the Reebie transportation
15 flows as surrogates for markets in your analysis?

16 A So I get a downside estimate of competitive
17 forces.

18 Q Is the answer yes, you are using them as a
19 surrogate for markets?

20 A That's correct.

21 Q On the bottom of page 16 to 17, you talk about
22 the fact that only 10 percent of these markets for the
23 combined company had a share of over 50 percent.

24 Do you see that?

25 A Yes.

1 Q Is it your understanding that the guidelines
2 state in any place, the Department will not challenge a
3 merger unless the combined company would have a market
4 share of 50 percent or more?

5 A No. That isn't what the merger guidelines
6 state.

7 Q Thank you.

8 You also discuss the fact that in over 75
9 percent of the markets, the merged firm will have a
10 share of less than 35 percent. You are not suggesting
11 that there could not be economic harm, are you, if the
12 proposed firm has less than 35 percent share, are you?

13 A It depends on determining the substitutability
14 of capacity for the other 65 percent, the potential for
15 injury, and what happens as a result of the 5 percent
16 DOJ test.

17 So you get a properly defined market.

18 Q It depends on who else is in the market and
19 what their shares are; right?

20 A In the well-defined market. But the Beebe
21 markets are so narrow and they bias the results to
22 produce maximum levels of concentration, that all that
23 they can do at this point is be illustrative of some
24 areas to look at. And the numbers of areas is very
25 small. The amount of traffic is miniscule in these

1 areas.

2 Q Maybe we are talking at cross purposes. The
3 DOJ guidelines, the first task we have to do in applying
4 them is define the market properly; is that correct?

5 A Yes.

6 Q And we don't have that here; right?

7 A We have too narrow a definition of the market,
8 which means that all the estimates that follow are for
9 too high a level of concentration.

10 The guidelines, as I understand it, are meant
11 to initiate an investigation. And what I'm saying is
12 that you haven't even -- that I haven't even initiated
13 an investigation because I have so biased the results to
14 produce maximum levels of concentration to indicate to
15 you that we're talking about miniscule amounts of total
16 traffic here.

17 There is no way that a guideline test could
18 ever be passed in this case.

19 Q It's not your understanding, is it, that the
20 guidelines contain a balancing test, balancing the
21 markets with problems against those without?

22 A It is my problem that the guidelines published
23 by this Administration take direct account of efficiency
24 gains which balance against potential losses in terms of
25 higher prices to consumers.

1 Q I'm not talking about efficiency gains.

2 A That's a balancing.

3 Q I'm talking about markets where there are
4 competitive problems balancing those against markets
5 where there are not. Do the guidelines do that?

6 A If you apply the guidelines the way you say,
7 you could get an efficiency gain across all commodities
8 or across all services of a potential violative company
9 which is far greater than the losses in one or two
10 markets.

11 And the answer is yes. The guidelines have to
12 be done that way. You have to make balances across
13 products.

14 As I understand what the Attorney General said
15 six weeks ago, the answer is, unqualifiably, you have to
16 make that comparison, just as I'm making the comparison
17 here.

18 Q Before you get to looking at efficiencies in
19 the guidelines, you first analyzed the competitive
20 effects of the merger; is that correct?

21 A I don't know what you do first. You guys do
22 the work. I wouldn't do those first. I would do them
23 both at the same time. It's remarkable how the last two
24 drafts of the guidelines from your Administration have
25 so strongly emphasized just this comparison of

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1 efficiency gains against potential anticompetitive
2 losses.

3 Q Let's put the efficiency gains aside.

4 A You can't do that. The Attorney General of
5 the United States says you can't do that.

6 Q I'm asking the questions right now, not the
7 Attorney General of the United States, and I'd like
8 you to put efficiency gains aside.

9 A Is this a hypothetical question?

10 Q No. We're not putting them into the equation
11 at this moment.

12 JUDGE HOPKINS: Do you have a question?

13 MS. KCCPERSTEIN: Yes, I do.

14 BY MS. KCCPERSTEIN: (Resuming)

15 Q Is it your understanding, without looking at
16 efficiencies yet -- not yet --

17 A Okay, I'll hold my breath.

18 Q Can you do that? You take a look at the
19 markets and you identify the markets where there are
20 competitive problems.

21 A Yes.

22 Q Now, you don't balance those markets out
23 against the markets where there are no competitive
24 problems, do you?

25 A Yes, you do.

1 Q Are you balancing them out on the basis of
2 efficiencies?

3 A Yes, I am.

4 Q I have two questions based on statements you
5 made earlier about the antitrust laws. Is it your
6 position that we shouldn't worry about the likelihood of
7 explicit collusion because of the ever-present
8 Antitrust Division?

9 A I hope you didn't take umbrage from my remarks
10 along those lines, because in the hypothetical Mr. Leary
11 provided, the intent of my statement was to indicate
12 that you two would clearly see immediately with your
13 analytical capacities, Mr. Leary's cartel and would have
14 him indicted and in jail within a month.

15 In order for my statement to hold, you must be
16 eternally vigilant in the application of anti-cartel
17 principles in the Sherman Act; that Sherman I and II,
18 particularly Sherman II, is a bedrock of the free
19 enterprise system to which I owe my allegiance. And you
20 guys better not let down.

21 Q Okay, we promise not to. But is it your
22 position that the Commission shouldn't worry about the
23 likelihood of explicit collusion because of the
24 ever-present Antitrust Division?

25 A Well, I'll tell you honestly, Ms. Kooperstein,

1 I do not know what the Commission is responsible for in
2 that area. I don't know whether they have -- well, I'll
3 tell you even more candidly; I have studied the
4 Interstate Commerce Act. I have written a book on how
5 the act was enforced in the 1880s, another book on how
6 it was enforced in the 1950s and '70s, and I don't know
7 whether the Commission has responsibility for that.

8 Q Well, is it your position that in analyzing
9 the competitive effects of this merger, that the
10 Commission should not be concerned about the likelihood
11 of collusion because of the antitrust laws?

12 A Whenever one agency has to make assumptions
13 about how a corporation performs with respect to public
14 policy administered by other agencies, the first agency
15 has to assume, for proper policy administration, that
16 the others are doing their jobs.

17 I know of no other way of going about an
18 analysis.

19 Q Is the answer to my question yes or no?

20 A Well, I think the answer is if we assume that
21 collusion already existed between SF and SF, there are
22 no effects from this merger.

23 Q Should the Commission be concerned about a
24 situation that might create collusion, notwithstanding
25 the fact that -- should the Commission be concerned

1 about a situation that would increase the likelihood of
2 collusion, notwithstanding the fact that the Department
3 of Justice --

4 A Yes, they should, and it should be explicit in
5 the benefit/cost analysis as a proposed or likely rate
6 increase consequent upon the merger; that the
7 anticompetitive effects should include both monopoly and
8 oligopoly effects if you can produce a coherent argument
9 for predicting that those will occur.

10 And I believe those are in my study. That
11 moving from Cournot at 4, to 3, to 2 is in that vein.

12 Q Do you know how the market shares were
13 allocated in the Reebie data for interline moves?

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25

1 A Yes, I have a good idea.

2 Q Could you explain that?

3 A That's a different thing. It's a different
4 thing to explain it, but essentially, if there were two
5 lines using Mr. Kharasch's diagram on F, and the 200
6 miles were divided 100 and 100, then the traffic was
7 divided equally between the two lines. If they were
8 three lines, each one got a third of the total.

9 Q I would like to present a hypothetical. We
10 have traffic moving between two regions, A and B. Santa
11 Fe carries it in interline service with BN; Southern
12 Pacific carries it in interline service with UP.

13 Under this method of allocating, wouldn't each
14 be assigned 25 percent share?

15 A That is correct.

16 Q And that suggests that Santa Fe-Southern
17 Pacific controls 50 percent, doesn't it?

18 A These are all in a traffic flow cell in the
19 Reekie data?

20 Q Right.

21 A That is correct.

22 Q But wouldn't they in fact be one of the
23 carriers on all the movements postmerger?

24 A That is correct.

25 Q And there would be thus no way a shipper could

1 move any commodity without using the merger firm, would
2 there?

3 A That's incorrect.

4 Q Why is that incorrect?

5 A Because the other two lines have parallel
6 service all the way through, that there was a joint rate
7 indicated that they took advantage of interconnection,
8 but your conclusion would infer that the BN and the
9 Union Pacific could not provide through service in that
10 traffic flow, and they can, absolutely.

11 So that hypothetical is totally wrong.

12 Q Have you just added some facts to my
13 hypothetical? I think you have.

14 A You had two routes, and you had each one of
15 them, each of the four companies sharing the traffic
16 fifty-fifty on the two routes.

17 Q There are two routes: Santa Fe carries it in
18 interline with BN, or you can call it with X; Southern
19 Pacific carries it in interline with Y.

20 A Okay. Let's take Southern Pacific and Y. The
21 implication of giving SFSP as a consequence of the
22 merger 100 percent of the market, which is what you did,
23 is that the BN or the Union Pacific had been subject to
24 a bottleneck and could not carry that traffic all the
25 way through after the merger, and that's wrong. They

1 can carry it from A to B after the merger.

2 Q In my hypothetical they cannot carry it
3 through, and all I asked you was would there be any way
4 a shipper can move the commodity without using the
5 merged firm?

6 A If they can't carry it all the way through --
7 now I understand. If they cannot carry it all the way
8 through in both examples, the firm, the number of firms
9 declined from two to one.

10 Q Thank you.

11 Would you turn to page 20?

12 JUDGE HOPKINS: Do you have many more?

13 I'm trying to figure out what time we are
14 going to get through.

15 MS. KOOPERSTEIN: That all depends on the
16 answers, but --

17 JUDGE HOPKINS: You have quite a few?

18 MS. KOOPERSTEIN: About a half hour.

19 THE WITNESS: I object to the notion that the
20 answers determine the number of questions.

21 JUDGE HOPKINS: Well, sometimes they do.

22 And who is next? How much time do you have?

23 MR. SOLANDER: Probably about a minute, very
24 brief.

25 JUDGE HOPKINS: Is that the last one?

1 MR. KHARASCH: How about redirect?

2 MR. WEICHER: Your Honor, just two or three
3 very brief questions.

4 JUDGE HOPKINS: You've been taking so many
5 notes -- okay, let's go. Try to, if you can, shorten
6 it.

7 MS. KOOPERSTEIN: I have a limited amount of
8 questions.

9 JUDGE HOPKINS: I know you have. I have
10 watched you.

11 BY MS. KOOPERSTEIN: (Resuming)

12 Q Have you turned to page 20?

13 A Yes, I have.

14 Q Have you done any analysis that indicates that
15 the trend toward larger railroads indicates a drive for
16 greater efficiency?

17 A No, I have not.

18 Q Do you have any support for the fact that rail
19 mergers significantly enhance operating efficiencies for
20 the merging companies?

21 A Well, the support is found in my tables, Ms.
22 Kooperstein.

23 Q Support for Santa Fe-Southern Pacific merger,
24 that is?

25 A No, that the application of the survivor

1 principle is just backwards of what you just said, and
2 that if one finds relatively high rates of growth for a
3 class of firms by size, and widening profit margins for
4 specifically those, and not other firms of different
5 sizes, the only possible inference from that is that the
6 drive towards size is increasing efficiency.

7 Q Do you have any evidence that Santa Fe and
8 Southern Pacific are operating at less than a minimum
9 efficient scale?

10 A The relative profitability is significantly
11 below those of other lines in the same market region.

12 Q And that is your support?

13 A That is support.

14 Q Would you look at page 21?

15 I think you have discussed this earlier, and I
16 just want to clarify it.

17 Are you suggesting that Santa Fe and Southern
18 Pacific need to merge to compete with UP and BN?

19 A I don't think I'm being as specific as that.
20 My assertion, based on relative profitability, is that
21 if they were in an unmerged state, to continue under
22 normal economic conditions to earn 4 or 5 percent
23 returns on sales and 1 or 2 percent returns on capital,
24 they will proceed rapidly through Chapter 11 to
25 divestiture and elimination of service so that we will

1 be left with the other two lines in that region.

2 The alternative of a doubling of rates of
3 return or hopefully even better so that they get up to
4 capital costs, is the only route for survival of this
5 combined system.

6 Q But do they need to merge to compete with UP
7 and BN? Are they competing with them?

8 A They need to merge to compete in the capital
9 markets for replenishment of their existing capacity.

10 Q On page 21 and on the pages following that,
11 you used the term "social benefit," is that correct?

12 A That is correct.

13 Q Do you agree that a social benefit is different
14 from a private benefit?

15 A Social benefits are an aggregation of net
16 private benefits. They are not dichotomous.

17 Q Is a private benefit necessarily a social
18 benefit?

19 A No, but a social benefit is necessarily a
20 private benefit.

21 Q Fine, fine.

22 Then I take it that your definition of a
23 social benefit is that it is a benefit that increases
24 economic welfare?

25 A That is correct.

1 Q Private benefits don't always increase
2 economic welfare, do they?

3 A They do not.

4 Q Some private benefits are not efficiency
5 gains, are they?

6 A Some private benefits impose costs on others
7 that are in excess of the benefits to those that receive
8 them.

9 Q So some private benefits are not efficiency
10 gains.

11 A That is correct.

12 Q Okay.

13 I would like to try another hypothetical.

14 Company A pays company C \$5 to transport
15 certain products. Company A merges with company C, and
16 the material then moves at the rate for company
17 material, which happens to be \$3. If in both cases the
18 same amount of resources are expended to provide the
19 transportation, would you agree there is no social
20 benefit in this regard from the merger?

21 A I'm not sure because if Company A is a
22 competitor in a products markets and is the marginal
23 source of supply, this could reduce the price of
24 products.

25 What you have got from that merger, it is an

1 end-to-end or vertical merger, is a reduction of
2 transactions costs which presumably were passed on at a
3 lower rate, which will be passed on to consumers in
4 lower prices. So you are going to get a triangle of
5 area b, small letter b, as a consequence from your
6 case.

7 Q Well, leaving aside transaction costs and
8 other possible efficiencies from the merger, just in
9 this regard --

10 A You get a cost decline for a service that
11 company A was receiving, correct?

12 Q I said that, company -- that the material
13 moves at the rate for company material. I don't know
14 how it is selected, but it is assigned --

15 A Is it a lower rate than before the merger?

16 Q It's assigned a rate for \$3. For whatever
17 reason, that's what they say it is.

18 A That company in its cost of production got a
19 service for \$2 a ton less. I'm saying that in a
20 competitive market that would be passed on to consumers
21 in lower prices for the product of Company A.

22 So lower prices, you move down the demand
23 curve and you then cut new triangles of consumer
24 surplus, which is a social gain.

25 Q In this hypothetical, the same amount of

1 resources have been used in both cases to transport the
2 product.

3 A Then how did you get the lower price?

4 Q An accounting figure.

5 A Oh, I don't understand the hypothetical.

6 Q Would you agree -- let's put it this way. For
7 there to be a resource savings, they have to be moving
8 it at a lower cost, a lower economic cost?

9 A Including the transactions cost, that is
10 correct.

11 Q Let's try one more hypothetical.

12 Company A pays company C to perform certain
13 repairs. Company A merges with company B which performs
14 the work now. Company A merges with company B, and
15 company B now performs that work. Company C and company
16 B expended the same amount of resources in performing
17 the work, putting aside the transactions cost.

18 Would you agree that aside from transactions
19 cost there is no social benefit, merely a transfer of
20 resources from company C to company B?

21 A That is correct.

22 Q Did you evaluate whether any of the \$280
23 million in cost reductions are not cost reductions that
24 increase economic welfare?

25 A I did not carry out an independent

1 investigation into the testimony nor the sources of
2 these estimated cost reductions.

3 Q If part of the cost reductions which you cite
4 on page 27 do not represent actual resource savings,
5 would you have to then change your computation of the
6 social benefits of the merger?

7 A I would have to change my computation of the
8 cost savings that are attributed to the merger.

9 Q If the same benefit can be achieved either by
10 a merger or a nonmerger method and the cost to society
11 is the same under either method, would you agree society
12 is then indifferent as to the method?

13 A Correct.

14 Q If there are two ways to achieve the same
15 efficiency, and one of the methods imposes more costs on
16 society than the other, would you agree that society is
17 better off from a welfare perspective if the method of
18 imposing the least cost is chosen?

19 A These are hypotheticals from a beginning
20 economics textbook which bear no relation to this case,
21 but I agree with it.

22 Q Well, just humor me, okay?

23 A It's been a long day, Ms. Kooperstein.

24 Q Well, it has for all of us.

25 JUDGE HOPKINS: You are losing your humor. Is

1 that what you are saying?

2 BY MS. KOOPERSTEIN: (Resuming)

3 Q So in deciding what is the best way for
4 society to achieve efficiencies, would you agree that we
5 must compare the costs and benefits of the different
6 ways of achieving the efficiencies?

7 A You have reduced my beautiful text to a total
8 truism, and I am really chagrined.

9 Q Is the answer yes?

10 A If you asked Norman Mailer whether a five-word
11 version of his latest novel was correct, what would you
12 get?

13 The answer is yes, that is correct. I am
14 really disappointed.

15 Q If the merger results in net efficiencies of
16 ten.

17 A Ten what? Elephants?

18 Q Let's try dollars, and harms of three.

19 A Harms of what?

20 Q Three, while a nonmerger method results in net
21 efficiencies of \$8 and harms of \$.5, would you agree
22 that society is better off from a welfare perspective
23 using the nonmerger techniques to achieve the
24 efficiencies?

25 A Are these net present values?

1 Q Yes.

2 A Then your hypothetical is correct.

3 Q So would you agree that there can be
4 circumstances where society would be better off not
5 having a merger even though if viewed by itself the
6 merger looks beneficial?

7 A Not in this case.

8 Q Would you answer my question?

9 A In the hypothetical related to some other
10 tribunal in some other city and some other country at
11 some other time, that might be correct.

12 Q You didn't investigate whether these
13 efficiencies could be achieved.

14 A These efficiencies are integration
15 efficiencies. They can't be achieved any other way.

16 Q You didn't investigate whether they could be
17 achieved by -- through integrating with any other
18 company?

19 A I heard them described. If you move boxcars
20 around in the real world, Ms. Kooperstein, not in a
21 theoretical, diagrammatical exercise in the basement of
22 the Department of Justice, but move around real boxcars
23 in the real world now, then the savings that come in
24 boxcar utilization come from an integrated system, from
25 running one set of computers to logistically determine

1 the location of plant and equipment, and you can't do
2 that with other worldly contracts or merging the Santa
3 Fe with the Burlington Northern. It just can't be
4 done.

5 So that has nothing to do with my view of this
6 case. I did not look at a set of Kcsian contracts which
7 could somehow or other achieve integration efficiencies
8 from a subnational, single network that does the job of
9 getting this railroad back to competitive par. We've
10 got some big issues in this case.

11 Q I think you stated previously you didn't look
12 at other potential merger partners, did you?

13 A I just stated a minute ago that I did not look
14 at whether or not the Santa Fe should merge with the
15 Burlington Northern.

16 Q Are all of the \$218 million cost savings
17 associated with the merger efficiencies of integration?

18 A As far as I can determine, these are
19 efficiencies of integration. I understand how that
20 works, I understand what the witness has said, I
21 understand enough about corporate management, I work
22 assiduously every day as a corporate board member, and I
23 know how you get things done in this economy, and it is
24 not by two-dimensional diagrams on a blackboard in the
25 basement of the Department of Justice.

1 JUDGE HOPKINS: I think it is getting late in
2 the day. I don't think anything is accomplished either
3 by referring to these gentlemen and ladies in a certain
4 way either.

5 THE WITNESS: I'm sorry, Judge Hopkins. I
6 withdraw my remarks. They were uncalled for.

7 JUDGE HOPKINS: Thank you. I know we are all
8 tired.

9 THE WITNESS: I am exhausted.

10 JUDGE HOPKINS: Thank you.

11 Do you have many more?

12 MS. KOOPERSTEIN: Not that many more.

13 BY MS. KOOPERSTEIN: (Resuming)

14 Q You have concluded that there will be costs of
15 the merger, is that correct?

16 A I concluded that in the hypothetical market A
17 case, there is some potential for there being losses of
18 consumer surplus and producer surplus from potential
19 rate increasing proclivities following from the merger,
20 but my conclusion as to what the bottom line on it is is
21 better given on page 29 where I say that -- not 29 -- my
22 bottom line conclusion is the cost savings and service
23 improvement outweigh the potential for increase in
24 market power by a factor of 20 to 1. Given the ease of
25 entry by truck and barge. It is inconceivable that even

1 these isolated price increases could be sustained.

2 Q Have you determined whether the people that
3 might be harmed by the merger would be made whole by the
4 benefits of the merger?

5 A Even these isolated price increases could not
6 be sustained.

7 Q So you are saying there is zero harm to the
8 merger?

9 A My bottom line is I do not see any chance in
10 this dynamic society with the kind of quality
11 improvements in competition that we are getting with
12 intermodal transportation in the western half of the
13 country that you will be able to find any numbers that
14 indicate consumer loss. They will not appear. They are
15 not findable in this economy at this time.

16 Q Is your calculation that the 12 percent profit
17 maximizing price increase based on the assumption that
18 all of the four firms will have an equal market share,
19 have an equal market share?

20 A It is a model configuration, Ms. Kooperstein,
21 in which I treat the reduction of Cournot firms from
22 four to three as to what will occur as if the
23 concentration ratio and the Herfindahl index were the
24 same as that.

25 Q Is the answer yes?

1 A I think the answer is yes, but that's a model
2 configuration of a particular design. That is an
3 illustrative case.

4 Q Does it also assume that after the merger the
5 three remaining firms will have an equal market share?

6 A In the worst of all possible cases, I take no
7 account of the ability of the other firms to increase
8 their market share as a consequence of the price
9 increase presumed by the merger. That is not taken
10 account of in the TBS study, as you know.

11 Q Would the 12 percent figure change if
12 different share assumptions were used?

13 A Of course it will.

14 Q The 12 percent figure is also based on an
15 assumption that the price is 30 percent above cost, is
16 that true?

17 A The 30 percent margin, the 12 percent price
18 increase, and the elasticity of demand assumption, and
19 the number of Cournot firms assumption, those four
20 assumptions, Ms. Kooperstein, are internally consistent
21 because together they produce an endogenous set of price
22 increases from assuming profit maximizing under Cournot
23 conditions.

24 Q Would your 12 percent figure change if you
25 used a price other than 30 percent above cost?

1 A It would be lower.

2 Q Depending on what figure you used, right?

3 A No. If it were larger than 30 percent, it
4 would be lower. So you get less of a potential impact
5 from the merger if you started with a higher profit
6 margin.

7 Q And if it were lower?

8 A Then the profit margin -- if the profit margin
9 were lower, then the potential profit maximizing price
10 increase under Cournot assumptions with the one firm
11 reduction would be higher.

12 I have tried all those combinations, Ms.
13 Kooperstein, and they are reported in the text.

14 MS. KOOPERSTEIN: I don't have any further
15 questions.

16 JUDGE HOIKINS: Thank you.

17 Next?

18 MR. SOLANDER: Yes, Your Honor. I just have
19 one or two based on Footnote 35, the footnote on page 35.

20 BY MR. SOLANDER:

21 Q My name is O. J. Solander. I represent the
22 California Department of Transportation.

23 Our department is cooperating with the
24 California Public Utilities Commission in California,
25 and we are trading off asking the questions.

1 I think my question is basically a simple
2 one. I don't think it's been heard before, but that 12
3 percent increase, is that an average increase?

4 A Yes, that is, across the set that relates to
5 the 2 percent of total tonnage.

6 Q Does that mean that in some areas of the
7 exposed markets that there might be an increase greater
8 than 12 percent?

9 A In some areas there will be an increase
10 greater than 12 percent, in some areas it will be less
11 than 12 percent in order to establish the 12 percent
12 average, that is correct.

13 MR. SOLANDER: That's all I have.

14 JUDGE HOPKINS: Thank you very much.

15 Mr. Weicher, you said short and sweet now.

16 MR. WEICHER: Yes, Your Honor.

17 REDIRECT EXAMINATION

18 BY MR. WEICHER:

19 Q Dr. MacAvoy, in your discussion earlier today,
20 just now, of the number of firms underlying the
21 hypothetical 12 percent price increase, are those firms
22 in your analysis necessarily or solely railroads?

23 A The hypothetical case involving the 12 percent
24 is built on the notion that you can take as a clear
25 example a defined transportation market in which the SF

1 and SF are of equal size; there's a railroad, also a
2 third railroad of equal size, and the fourth provider of
3 transportation is a trucking company in that defined
4 market region of equal size to the railroad. That
5 example doesn't mean that there has to be a trucking
6 company on the west coast that has \$4 billion of
7 assets. It means that if you are talking about
8 transportation from Alpine to El Paso, then you are
9 talking about a trucking company and rail service that
10 has about the same capacity with three independent rail
11 companies and an independent trucking company.

12 If you take as your second hypothetical that
13 there are just the two railroads and no third railroad
14 but 75 trucking companies, each of whom before the
15 merger has less than 1 percent of the market, then that
16 creates a condition in which you are really dealing with
17 a case of going from five equal sized firms to four;
18 that is, the implied concentration and Herfindahl
19 indices are the same as if you moved from five to four.
20 So the hypothetical price increase in that case would
21 not be 12 percent but about 9 percent.

22 So I took a case in which I thought you had
23 the maximum concentration in the hypothetical market and
24 applied it to Anderson data where you didn't have that
25 level of concentration to produce the absolute maximum

1 indication of the potential consumer loss from the
2 subset that may be vulnerable to a rate increase.

3 Q In your analysis, I believe you have stressed
4 that you used the 2 percent figure from the TBS study
5 for the amount of traffic described as at risk, and this
6 afternoon you were questioned about the effect of
7 product and geographic competition. If you reflected
8 those factors, would that reduce the amount of traffic
9 at risk or affect your analysis?

10 A It would take the 2 percent down to less than
11 that amount. In fact, the Anderson study itself
12 determined after one further filter that potential
13 competition, both locational competition of a geographic
14 nature and potential entry could take that 2 percent
15 down to .9 percent, nine-tenths of one percent.

16 I didn't take that lower number but preferred
17 consistent with my other estimates in the Market A
18 example, to higher numbers of all of them to get a
19 maximum effort, a maximum estimate of the effect of rate
20 increases.

21 So I didn't use numbers that were in Anderson
22 which would have made the potential consumer losses a
23 half or a third of what I show.

24 Q One other thing, Dr. MacAvoy, just to
25 clarify.

1 When you said the ICC, I believe you made some
2 statement with respect to the ICC not considering rail
3 competition or shouldn't consider rail competition.

4 In what context did you mean that? Did you
5 mean they shouldn't consider solely rail competition?

6 A This was in answer to Mr. Kharasch's question,
7 and I recall the context was one in which he had
8 improperly defined the market, and he said rail
9 competition in a way that implied that that was all that
10 there was in that market that he was talking about, and
11 I said no, that was not sufficient.

12 What you have to do, as I have emphasized time
13 and again throughout my work, is you have to have a
14 properly defined market that takes full account of
15 intermodal competition and the potential entry of trucks
16 and barges when you put rail transportation services in
17 the appropriate context to measure anticompetitive
18 effects.

19 MR. WEICHER: I have no further questions.

20 JUDGE HOPKINS: Anything further?

21 MR. KHARASCH: Your Honor, I ask permission to
22 obtain a source here since I have been nice about
23 supplying sources.

24 JUDGE HOPKINS: Go right ahead.

25 MR. KHARASCH: Could we have the source for

1 the figure of 25 percent cut in truck rates since 1975?

2 THE WITNESS: I would be glad to leave you,
3 Mr. Kharach, with a copy of Mr. Moore's article.

4 MR. WEICHER: We will provide it.

5 JUDGE HOPKINS: That takes care of that,
6 Doctor. They will take care of that.

7 MR. WEICHER: I move for the admission into
8 evidence of Dr. MacAvoy's testimony.

9 JUDGE HOPKINS: Any objection?

10 Dr. MacAvoy's will be received in evidence.

11 MR. LEARY: Your Honor, I move the admission
12 of Rio Grande 15 and 16.

13 JUDGE HOPKINS: Any objection?

14 MR. KHARASCH: And I move the admission of MKT
15 whatever it is.

16 JUDGE HOPKINS: They will be received.

17 (The documents referred to,
18 previously marked Exhibit
19 DRGW-C-15 and DRGW-C-16 for
20 identification, were
21 received in evidence.)

22 JUDGE HOPKINS: MKT-C-20.

23 Any objection?

24 That would be received in evidence.

25 (The document referred to,

