

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

M&G POLYMERS USA, LLC)		
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)		
Complainant,)		ENTERED
)		Office of Proceedings
v.)	Docket No. 42123	November 28, 2012
)		Part of
CSX TRANSPORTATION, INC.)		Public Record
)		
Defendant.)		
)		

**COMMENTS OF *AMICUS CURIAE*
WESTERN COAL TRAFFIC LEAGUE**

WESTERN COAL TRAFFIC LEAGUE

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**COMMENTS OF *AMICUS CURIAE*
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The Western Coal Traffic League (“WCTL” or “League”)¹ submits the following comments as *amicus curiae*² in response to the Board’s decisions in this proceeding served on September 27, 2012 (“*September Decision*”) and on October 25, 2012 asking the parties and any interested non-parties to provide their views on the “refined qualitative market dominance methodology” (“refined approach”) set forth in the Board’s *September Decision*.³ In support of these comments, the League submits the

¹ WCTL is a voluntary association, whose membership is composed of organizations that purchase and ship by rail more than 140 million tons of coal annually from origins west of the Mississippi River.

² WCTL has separately filed an accompanying Motion to Participate as *Amicus Curiae*.

³ WCTL is not a party to this proceeding and it takes no position on whether CSXT Transportation, Inc. (“CSXT”) exerts market dominance over the issue M&G Polymers USA, LLC traffic. WCTL notes, however, that it strains credibility that rates at the levels set by CSXT in this case reflect any effective competition.

attached Verified Statement of Curtis M. Grimm, Ph.D., the Charles A. Taff Chair of Economics and Strategy at the University of Maryland.

PREFACE AND SUMMARY

In this maximum rate case, the Board introduces a new, assertedly “refined” approach to determine “market dominance.” This approach was not addressed, or sought, by either party to the proceeding. The statutory market dominance inquiry employs a two-step analysis: a quantitative review and a qualitative review. The refined approach is ostensibly focused on the second, “qualitative” portion of the market dominance analysis. Under this new approach, in cases where the Board finds that a shipper has “feasible” transportation alternatives, the Board proceeds to compare what it calls a “limit price” rate-to-variable cost (“R/VC”) ratio to the defendant carrier’s Revenue Shortfall Allocation Method (“RSAM”) ratio for purposes of making a “preliminary conclusion” of whether the “feasible” alternative is providing “effective” competition. This new approach has significant legal and economic flaws.

First, the refined approach is fundamentally flawed at its core, as it is based on a five-year average “RSAM” – *i.e.* the average amount a carrier would need to charge all its captive traffic (traffic priced above 180% of variable costs) in order to be determined “revenue adequate.” However, where effective competition exists, rates are driven down towards marginal costs, not up to average carrier RSAM ratios that currently run from 2.5 to 3 times variable service costs. Second, the Board’s refined approach conflicts with the Board’s statutory directives: Congress has set the quantitative R/VC

ratio for market dominance purposes at 180%, not RSAM. Finally, the refined approach improperly introduces forms of geographic competition into the Board's market dominance analysis.

For these reasons, WCTL respectfully submits that the refined approach, as currently constituted, should not be utilized by the Board in future cases.

I.

COMMENTS

49 U.S.C. § 10701 provides that the STB has jurisdiction to establish maximum rates only where the involved rail carrier “has market dominance over the transportation to which a particular rate applies.” 49 U.S.C. § 10701(d)(1). The term “market dominance” is defined at 49 U.S.C. § 10707(a) as “an absence of effective competition from other rail carriers or modes of transportation for the transportation to which a rate applies.” *Id.* 49 U.S.C. § 10707(d)(1)(A) further provides that the STB may not find market dominance if the involved “rail carrier proves that the rate charged results in a revenue-variable cost percentage for such transportation that is less than 180 percent.” The statutory market dominance provisions include a quantitative standard (the 180% standard), as well as a separate qualitative standard (absence of effective competition standard).⁴

⁴ See, e.g., *U.S. Magnesium, L.L.C. v. Union Pac. R.R.*, STB Docket No. 42114 (STB served Jan. 28, 2010) at 4-5; *Ariz. Elec. Power Coop., Inc. v. BNSF Ry. & Union Pac. R.R.*, STB Docket No. 42113 (STB served Nov. 22, 2011) at 3.

The essential components of the market dominance test, first established 36 years ago as part of the Revitalization and Regulatory Reform Act of 1976,⁵ as amended in the Staggers Rail Act of 1980,⁶ have been:

(i) market dominance exists where there is “an absence of *effective competition* from other rail carriers or modes of transportation *for the transportation to which a rate applies*”⁷; and

(ii) if the challenged rate “results in a revenue-variable cost percentage . . . that is less than 180 percent,” the Board is precluded from finding market dominance exists.⁸

Additionally, while in the 4R Act Congress intended the market dominance standard to limit the ICC’s prior maximum rate jurisdiction, which extended to all rail rates, Congress also clearly intended that the agency, and parties to maximum rate cases, be able to access relief in the absence of “truly competitive markets”:

The major innovation of this section, is that Commission regulation of maximum rate levels will apply only when the railroad or railroads publishing a rate increase set market dominance over the service involved. Otherwise, *in truly competitive* markets, the railroads will have freedom, absent discrimination and prejudice, to raise prices as they choose.

S. Rep. No. 94-499, at 47 (1975), *reprinted in* 1976 U.S.C.C.A.N. 14, 61 (emphasis added). The Board’s refined approach must be reviewed in accordance with this governing criteria.

⁵ Section 202, Pub. L. No. 94-210, 90 Stat. 31 (1976) (“4R Act”).

⁶ Section 202, Pub. L. No. 96-448, 94 Stat. 1895.

⁷ *See* 49 U.S.C. § 10707(a) (emphasis added); Verified Statement of Curtis M. Grimm (“V.S. Grimm” at 3).

⁸ *See* 49 U.S.C. § 10707(d)(1)(A); V.S. Grimm at 3.

A. The Board's Refined Approach Is Fundamentally Flawed Because RSAM Cannot Be Used As the Dividing Line Between Competitive and Non-Competitive Rates

The Board's refined approach is aimed at the "qualitative" part of the market dominance test. *September Decision* at 4. It uses a new formulaic approach in reaching a "preliminary conclusion" whether a proposed "feasible" transportation alternative is providing effective competition. *Id.* This preliminary conclusion is based on whether the "limit price" R/VC ratio of the feasible alternative is greater than the carrier's RSAM R/VC ratio. *Id.* at 13-14; V.S. Grimm at 4. However, the refined approach is fundamentally flawed at its core, as it is based on a five-year average "RSAM" – *i.e.* the average amount a carrier would need to charge all its captive traffic (traffic priced above 180% of variable costs) in order to be determined "revenue adequate." V.S. Grimm at 8.

RSAM was established by the Board as one benchmark to be considered in setting maximum rates in a simplified rate case.⁹ RSAM was not intended to, and does not, provide any meaningful dividing line between rates that reflect, or do not reflect, effective competition. As Dr. Grimm confirms, "basic tenants of competition theory hold that where there is effective competition in a competitive market, prices converge downward toward incremental/marginal costs." V.S. Grimm at 7. However, the RSAM R/VC ratios relied upon in the STB's refined market dominance approach are "vastly higher than marginal costs." *Id.* As Dr. Grimm further confirms:

⁹ *Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646 (Sub-No. 1) (STB served Sept. 5, 2007) at 16-22.

[T]he RSAM R/VC ratios that the Board is relying on in order to determine whether an alternative transportation provider (or combination of providers) provides “effective” competition to the issue traffic are vastly higher than marginal costs. More specifically, the STB “rel[ies] on variable costs produced by the URCS formula as [a] proxy for LRMC [Long Run Marginal Cost].” Thus, in markets where there is effective competition, rates should be set at or near URCS variable costs, not at or near RSAM levels which, as noted above, currently run from 2.5 to 3 times the defendant carrier’s variable costs. Using the RSAM ratio as a dividing line between competitively and non-competitively priced traffic is economically irrational as it assumes that rates that are vastly above marginal costs – but are below RSAM levels – are set in competitive markets, a presumption that flatly contradicts basic principles of economics.

Id. at 7-8 (internal citation omitted). See *Atchison, Topeka & Santa Fe Ry. v. ICC*, 580 F.2d 623, 635 n.25 (D.C. Cir. 1978) (Court reviews an ICC explanation that “rates will tend to be close to variable costs in competitive situations, and will tend to increase relative to variable costs in noncompetitive situations”).

The Board’s *September Decision* highlights the fact that RSAM “provides for differential pricing and a railroad’s need to earn adequate revenues” on its captive traffic. *September Decision* at 15. However, the need of carriers to differentially price says nothing about the existence of any actual, effective competition.

B. The Refined Approach Is Fundamentally Flawed Because It Impermissibly Conflicts with the Statutory Quantitative Market Dominance Test

As discussed, the Board’s refined approach, while applied in the *qualitative* analysis phase, establishes a new *quantitative* test, based on RSAM. However, Congress has already established a quantitative cut-off point: a railroad does not have market

dominance if the rate it charges produces revenues less than 180% of its variable costs of providing the service. 49 U.S.C. § 10707(d)(1)(A); V.S. Grimm at 8. The Board's use of RSAM conflicts with the statutory 180% standard. As Dr. Grimm confirms:

Rates at 180% of variable costs are well above the levels in truly competitive markets, and reflect Congress' intent to allow carriers to engage in substantial demand-based differential pricing before their rates are subject to the STB's regulatory jurisdiction. The Board's proposed new *M&G* quantitative test conflicts with that established statutory test (although the new test is to be conducted in the "qualitative stage") by employing a new quantitative test using RSAM ratios that far exceed the 180% jurisdictional threshold levels.

Id. at 8-9.

The Board's *September Decision* asserts that while in the past the STB has been "reluctan[t]" to rely on quantitative ratios "standing alone" in determining effective competition qualitative market dominance issues, the qualitative analysis "do[es] not exclude the application of quantitative analysis as well." *Id.* at 16. However, if the Board is going to use a quantitative standard as part of its qualitative market dominance review, it must use a standard that reflects an economically meaningful measure of the absence of effective competition and one that comports with the Board's Congressional directives.

The Board's refined approach fails to meet these standards. RSAM, which currently runs from 2.5 to 3 times variable costs, fails because it is not an economically valid dividing line between rates set in competitive and non-competitive markets. V.S.

Grimm at 7-8. Moreover, in markets where competition is effective, rates should be set below 180% of the defendant carrier's variable costs. *Id.*¹⁰

C. The Refined Approach Is Fundamentally Flawed Because It Improperly Introduces Geographic Competition into the Market Dominance Analysis

The Board's refined approach also proposes a standard that improperly injects geographic competition into the Board's market dominance analysis. In particular, one of the examples provided by the Board in its *September Decision* (hypothetical 2) considers whether competition exists from locations other than between the traffic origin and destination to which the challenged rate applies. *September Decision* at 19. This approach violates the Board's governing statute¹¹ and longstanding precedent set forth in the Board's *Product & Geographic Competition*¹² and *Minnesota Power*¹³ decisions. *See also* V.S. Grimm at 9.

¹⁰ Also, any permissible "refined approach" must conform to the Congressional directive set forth at 49 U.S.C. § 10707(d)(2)(A), which provides: "[a] finding by the Board that a rate charged by a rail carrier results in a revenue-variable cost percentage for the transportation to which the rate applies that is equal to or greater than 180 percent does not establish a presumption that - (A) such rail carrier has or does not have market dominance over such transportation."

¹¹ *See* 49 U.S.C. § 10707(a) defining market dominance as "an absence of effective competition from other rail carriers or modes of transportation *for the transportation to which a rate applies*" (emphasis added).

¹² *Market Dominance Determinations – Product & Geographic Competition*, 3 S.T.B. 937 (1998), as clarified, 5 S.T.B. 492 (2001) ("*Product & Geographic Competition*").

¹³ *Minn. Power, Inc. v. Duluth, Missabe & Iron Range Ry.*, 4 S.T.B. 64 (1999) ("*MP I*") and 4 S.T.B. 288 (1999) ("*MP II*") (collectively "*Minnesota Power*").

Minnesota Power involved a movement from Montana and Wyoming coal mines, served exclusively by Burlington Northern and Santa Fe Railway Company (“BNSF”), to Minnesota Power’s Laskin Energy Center (“Laskin”), situated near Colby, MN. BNSF transported the coal under contract with Minnesota Power to Keenan Yard, MN, where the trains were interchanged with the Duluth, Missabe and Iron Range Railway (“DMIR”) for a short movement (approximately 30 miles) to Laskin, a station served exclusively by DMIR. Upon the expiration of its contract with DMIR, Minnesota Power filed a maximum rate case at the STB on December 30, 1998, challenging the reasonableness of DMIR’s common carrier rates for the move from Keenan Yard to Laskin. *MP I*, 4 S.T.B. at 64.

During the discovery phase of the case, DMIR took the position that it did not possess market dominance over the Keenan Yard to Laskin service because, it alleged, Minnesota Power had a viable marketplace alternative that effectively constrained DMIR’s pricing on that movement. The alternative put forth by DMIR consisted of a routing where BNSF would transport the coal from mine origin to Minnesota Power’s Boswell station, located 60 miles west of the Keenan Yard, where the coal would be transloaded and trucked to Laskin. *Id.*, 4 S.T.B. at 66. DMIR then sought discovery concerning this asserted competitive routing.

Minnesota Power objected to BNSF’s discovery on grounds of relevancy. Minnesota Power pointed out that under the Board’s market dominance standards, as

modified by the Board in 1998,¹⁴ the Board’s market dominance inquiry is limited to whether a shipper has effective transportation alternatives for the movement between the origin and the destination to which the challenged rate applies. *MP I*, 4 S.T.B. at 66. It argued that since it had a contract with BNSF for transportation from mine origin to the Keenan Yard, the Board’s market dominance determination was limited to a review of whether it had any competitively effective transportation options to move coal over the regulated bottleneck segment – Keenan Yard to Laskin. The Board agreed with Minnesota Power holding that the Board’s market dominance inquiry is “limited . . . to an examination of the intra- and intermodal transportation alternatives between the points to which the rate applies.” *Id.* The Board further clarified:

Under 49 U.S.C. 10707, our market dominance inquiry is limited to whether there are effective competitive alternatives “for the transportation to which [the rate at issue] applies.” In the *Bottleneck* decisions, the Board concluded that, where there is a contract over the non-bottleneck segment of a through movement, a rate challenge must necessarily be confined to the bottleneck segment. Thus, the transportation to which the separately challengeable bottleneck-segment rate applies is not the full through movement (from the mines to Laskin), but rather only DMIR’s movement (from Keenan to Laskin). Accordingly, under the circumstances presented here, the fact that the coal MPI receives at Laskin comes from the Montana and Wyoming mines served by BNSF is irrelevant. Because the transportation to which the rate at issue applies is limited to the movement between Keenan and Laskin, transportation alternatives involving service to or from other points would [not be considered].

¹⁴ See *Product & Geographic Competition*.

MP II, 4 S.T.B. at 292 (footnotes omitted). Based on this ruling, the Board denied DMIR's discovery requests concerning transportation options other than those between Keenan and Laskin – the destination bottleneck segment in the *Minnesota Power* case. *MP I*, 4 S.T.B. at 66; *MP II*, 4 S.T.B. at 291-93.

The Board's hypothetical 2 violates *Minnesota Power* and *Product & Geographic Competition*, in cases where upstream or downstream transportation is provided under contract, by introducing into the market dominance test geographic competition. In the hypothetical, the challenged rate involves shipments from Tucson, AZ to Oklahoma City, OK. However, the Board's hypothetical examines whether effective competition from an alternative carriers exists, not "for the transportation to which a rate applies" (49 U.S.C. § 10707(a)) between Tucson and Oklahoma City, but by instead examining possible alternative traffic movements originating in Los Angeles. Under *Minnesota Power*, "[b]ecause the transportation to which the rate at issue applies is limited to the movement between [Tucson] and [Oklahoma City], transportation alternatives involving service to or from other points [should not be considered]." *MP II*, 4 S.T.B. at 292.

CONCLUSION

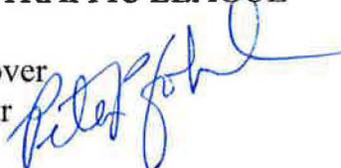
For the reasons set forth herein, WCTL respectfully submits that the Board's refined approach, and should not be applied in any future cases.

WESTERN COAL TRAFFIC LEAGUE

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Dated: November 28, 2012

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CERTIFICATE OF SERVICE

I hereby certify that this 28th day of November, 2012, I have caused copies of the forgoing Comments of *Amicus Curiae* Western Coal Traffic League to be served via first-class mail, postage prepaid upon all parties of record to this case.


Stephanie M. Archuleta

Verified Statement
of
Curtis M. Grimm, Ph.D.

VERIFIED STATEMENT OF
CURTIS M. GRIMM, Ph.D.

INTRODUCTION

My name is Curtis M. Grimm. I am an economist and the Charles A. Taff Chair of Economics and Strategy at the University of Maryland, my employer since 1983. My academic, research, and employment career has centered on transportation public policy, with an emphasis on the railroad industry as well as regulatory and market competition issues. I have a Ph.D. in Economics from the University of California, Berkeley, with an emphasis on industrial organization, transportation and econometrics/statistics.

Appended to this Statement is a copy of my *curriculum vitae*, including more detailed information on my qualifications, employment, and scholarly research and publications. I have been asked by Western Coal Traffic League to address the “refined qualitative market dominance methodology” proposed to be adopted by the Board in its decision in *M&G Polymers USA, LLC v. CSXT Transportation, Inc.*, STB Docket No. 42123 (served Sept. 27, 2012) (*M&G*) on which the agency has asked for comment. The purpose of my statement is to address this new methodological approach.¹

I. THE UNDERLYING FRAMEWORK

Under the Board’s governing statute, the STB has jurisdiction to establish maximum rates only where the involved rail carrier “has market dominance over the transportation to which a particular rate applies.”² In order to properly assess the

¹ This statement does not attempt to address whether CSXT actually possesses market dominance in the *M&G* rate case, or any of the evidence in that case.

² 49 U.S.C. §10701(d)(1).

proposed new *M&G* market dominance standards, it is important to briefly consider the underlying statutory regime.

A. THE MARKET DOMINANCE TEST

The existing, threshold market dominance test applied in rate cases was first introduced by Congress in Section 202 of the “4R Act.”³ Under the 4R Act, market dominance was defined by Congress as “an absence of effective competition for the traffic or movement to which a rate applies from other carriers or other modes of transportation.”⁴ The Staggers Rail Act of 1980 retained this basic standard, while adding a new quantitative threshold for the Commission’s maximum rate regulation jurisdiction.⁵ The ICC Termination Act of 1995⁶ also retained the basic market dominance test as revised by the Staggers Act,⁷ with the test now appearing in Section 10707 of Title 49.

Today, Section 10707 provides that “‘market dominance’ means an absence of effective competition from other rail carriers or modes of transportation for the transportation to which a rate applies.”⁸ Section 10707 also provides that if “the rate

³ Railroad Revitalization and Regulatory Reform Act of 1976, Pub. L. 94-210 (codified at former Section 10709(a) of Title 49).

⁴ *Ibid.*

⁵ Section 202 of the Staggers Rail Act of 1980, Pub. L. 96-448 (codified at former Section 10709(d) of Title 49). The Staggers Act also created a temporary scheme to allow railroads to recover increased costs due to inflation without any opportunity for challenge by rail shippers as specified at former Section 10707a(b)(1) and (2).

⁶ Pub. L. 104-88.

⁷ See H.R. Rep. No. 104-311, p. 97 (1995) (the legislation “retains the basic Staggers Act standards for evaluating reasonableness of rail rates, including criteria related to market dominance (the absence of effective competition)”).

⁸ 49 U.S.C. §10707(a).

charged results in a revenue-variable cost percentage for such transportation that is less than 180 percent,” the Board is precluded from finding that market dominance exists.⁹

The two parts of this test established by the Board first examine the quantitative threshold issue (*i.e.*, whether the rate-to-cost (R/VC) ratio for the challenged rate is < 180%). If that quantitative threshold is met, then the analysis turns to qualitative market dominance factors, under which the Board determines whether there exists any “effective competition” by examining any direct intra- or intermodal transportation alternatives that exist between the same origin and destination points to which the challenged rate applies that effectively constrain the rates.¹⁰

B. THE TEST’S ESSENTIAL COMPONENTS

As outlined in the above section, since the market dominance concept was first introduced into the railroad rate regime process by Congress in 1976, the test, as amended in 1980 and 1995, consists of two essential components:

- 1) The Board must find “an absence of effective competition from other rail carriers or modes of transportation for the transportation to which a rate applies”; and
- 2) The Board is precluded from finding market dominance exists if the challenged rate “results in a revenue-variable cost percentage . . . that is less than 180 percent.”

In determining whether effective competition exists, the Board focuses on the existence of transportation competition between the issue traffic origin and destination. The Board does not consider evidence of product or geographic competition.¹¹

⁹ 49 U.S.C. §10707(d)(1)(A).

¹⁰ *Market Dominance Determinations – Product and Geographic Competition*, 5 S.T.B. 492 (2001).

¹¹ *Ibid.*

II. THE PROPOSED *M&G* “REFINED” MARKET DOMINANCE TEST CONTAINS METHODOLOGICAL FLAWS AND IS AT ODDS WITH THE UNDERLYING STATUTORY REGIME

A. THE PROPOSED *M&G* TEST

The Board states in *M&G* that its proposed market dominance standards are directed at the qualitative part of the market dominance test.¹² The refined approach consists of two steps. In step one, the Board determines whether a proposed transportation alternative is “feasible.”¹³ In step two, the Board determines whether a “feasible” alternative provides an “effective constraint” on the defendant carrier’s pricing of the issue traffic.¹⁴

In step two, the Board explained that it will “preliminarily conclude” that a feasible alternative is an “effective constraint,” if the “limit price” R/VC on the feasible alternative is less than the “Revenue Shortfall Allocation Method (RSAM)” R/VC ratio and “preliminarily conclude” that a feasible alternative is not an effective constraint if the “limit price” R/VC ratio on the feasible alternative is greater than the RSAM R/VC ratio.¹⁵ Either preliminary conclusion could then be overcome using “intangible” evidence.¹⁶

The “R” in limit price R/VC ratio is “the price” charged by the feasible alternative carrier or carriers to replace the defendant carrier’s services.¹⁷ The “VC” in the feasible

¹² *M&G* at 4.

¹³ The Board explained that in determining whether a transportation alternative is feasible, “the Board considers many factors, including, for example, whether and to what extent such alternatives might involve potentially prohibitive transportation distances, product integrity concerns, capacity/infrastructure constraints, and presence of any transportation requirements imposed by the complaining shipper.” *Ibid.* at 12.

¹⁴ *Ibid.*

¹⁵ *Ibid.* at 13-14.

¹⁶ *Ibid.* at 14.

¹⁷ *Ibid.*

alternative R/VC ratio is the defendant carrier's "variable costs of providing the service at issue."¹⁸ The RSAM R/VC ratio is the average mark-up over variable costs that a carrier needs to charge on all of its traffic with R/VC ratios at or above 180% in order to obtain revenue adequacy.¹⁹ The Board publishes RSAM calculations for each major railroad annually. The Board's most recent RSAM R/VC ratios range from a low of 253% (BNSF) to a high of 309% (Canadian National/Grand Trunk Corporation).²⁰

The Board provides two hypothetical examples of how its "limit price" calculations work in the context of the examples. The Board's first example develops a limit price R/VC ratio for a feasible alternative of 425% and a hypothetical RSAM of 311%. Since the limit price R/VC ratio is greater than the RSAM R/VC ratio, the Board would preliminarily conclude that the feasible alternative is not an effective competitive restraint, subject to its review of intangible factors, and its final determination.²¹ The Board's second hypothetical example uses different figures to develop a limit price R/VC ratio that is less than RSAM.²² The Board's second example is based on the following hypothetical movement:

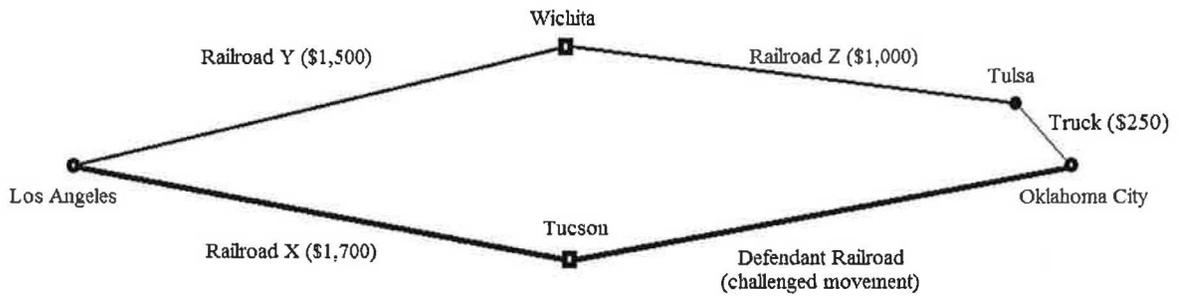
¹⁸ *Ibid.*

¹⁹ *Ibid.* at 14-15

²⁰ *Simplified Standards for Rail Rate Cases – 2010 RSAM & R/VC > 180 Calculations*, Docket No. EP 689 (Sub-No. 3) (served Feb. 27, 2012) at 3, Table I, "RSAM Mark-up Percentages 2007-2010."

²¹ *M&G* at 18.

²² *Ibid.* at 19.



The second example assumes that a movement of goods originates in Los Angeles on Railroad X. Railroad X interchanges the goods with the Defendant Railroad in Tucson for final delivery to Oklahoma City. The shipper is challenging the Defendant Railroad's rates from Tucson to Oklahoma City.

The second example also assumes that the Defendant Railroad faces a feasible alternative in the form of the movement of the same goods over Railroad Y from Los Angeles to Wichita, where the cars are interchanged with Railroad Z for a movement to Tulsa, where the goods are transloaded into trucks for movement to Oklahoma City.

The Board proceeds to determine if the feasible alternative routing is providing an effective competitive constraint using the following assumed inputs:

Defendant Railroad Challenged Rate:	\$1,500
Defendant Railroad Variable Costs:	\$500
Defendant Railroad R/VC Ratio:	300% (\$1,500/\$500)
Total Price for Rail/Truck Alternative:	\$2,750
Railroad X Price:	\$1,700
Total Railroad X/Challenged Rate:	\$3,200 (\$1,500 + \$1,700)
Limit Price:	\$1050 (\$2,750 - \$1,700)
Limit Price R/VC Ratio:	210% (\$1050/\$500)
RSAM:	311%

Using these inputs, the Board makes a preliminary conclusion that the alternative rail/truck route exerts effective competitive pressure on the Defendant Railroad because the Limit Price R/VC Ratio (210%) is below RSAM (311%). Also, in this second

example, the Board considers whether competition exists, not just between the traffic origin and destination points on the defendant rail carrier to which the rate being challenged applies, but from other points to destination.

B. THE PROBLEMS WITH THE *M&G* REFINED TEST

On review of the Board's *M&G* decision, the second step in the new standard the Board is proposing to apply appears to have fundamental methodological flaws and conflicts in several important respects with the underlying statute.

First, basic tenants of competition theory hold that where there is effective competition in a competitive market, prices converge downward toward incremental/marginal costs. Prices higher than marginal costs in a competitive market will attract entry into the market until prices are driven down to marginal costs. Thus, the long-run competitive equilibrium in the market requires that prices equal long-run marginal costs.²³

However, the RSAM R/VC ratios that the Board is relying on in order to determine whether an alternative transportation provider (or combination of providers) provides "effective" competition to the issue traffic are vastly higher than marginal costs. More specifically, the STB "rel[ies] on variable costs produced by the URCS formula as [a] proxy for LRMC [Long Run Marginal Cost]."²⁴ Thus, in markets where there is effective competition, rates should be set at or near URCS variable costs, not at or near RSAM levels which, as noted above, currently run from 2.5 to 3 times the defendant carrier's variable costs. Using the RSAM ratio as a dividing line between competitively

²³ See, for example, C. R. Thomas and S.C. Maurice, *Managerial Economics*, 11th Edition, McGraw-Hill Irwin, New York, 2011, Chapter 14, "Managerial Decisions in Competitive Markets."

²⁴ *Rate Guidelines – Non-Coal Proceedings*, 1 S.T.B. 1004, 1027 (1996).

and non-competitively priced traffic is economically irrational as it assumes that rates that are vastly above marginal costs – but are below RSAM levels – are set in competitive markets, a presumption that flatly contradicts basic principles of economics.

Moreover, RSAM was not designed or intended by the Board to be used as a measure of effective competition.²⁵ As discussed above, RSAM is the across-the-board, uniform markup above variable cost that a carrier needs to charge its > 180% R/VC ratio customers in order to achieve revenue adequacy (as defined by the Board). RSAM has nothing to do with actual, competitive rates that an alternative carrier(s) might apply. Instead, by definition, the RSAM is a benchmark that addresses potential, not actual rates that might be paid by demand inelastic customers with rates > 180% R/VC. RSAM does not address rates actually paid by competitive customers that might place downward pressure on a rail carrier's rates.

Second, as discussed above, in the Staggers Rail Act, Congress introduced the “quantitative” component of the market dominance test. Under current law, the STB cannot find market dominance if the challenged rate is less than 180% of the defendant carrier's variable service costs. Rates at 180% of variable costs are well above the levels in truly competitive markets, and reflect Congress' intent to allow carriers to engage in substantial demand-based differential pricing before their rates are subject to the STB's regulatory jurisdiction. The Board's proposed new *M&G* quantitative test conflicts with that established statutory test (although the new test is to be conducted in the “qualitative

²⁵ RSAM was developed by the Board as benchmark to be used to evaluate the maximum reasonableness of rates on market dominant traffic in small value rate cases (*Rate Guidelines – Non-Coal Proceedings*, 1 S.T.B. 1004, 1011 (1996)), and is currently used for that purpose (*Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646 (Sub-No. 1) (served Sept. 5, 2007)).

stage”) by employing a new quantitative test using RSAM ratios that far exceed the 180% jurisdictional threshold levels.

Third, as illustrated in the Board’s second hypothetical pricing example, the Board proposes to examine whether effective competition exists from possible points other than the traffic origin and destination points of the challenged movement rate.²⁶ This examination directly contradicts the Board’s *Product and Geographic Competition* decision²⁷ and other governing Board precedent.²⁸

CONCLUSION

The Board’s market dominance test was designed as a threshold test to the bringing of a rate case. While the objective of having a streamlined test to help decide complex market dominance disputes is reasonable, the Board should refrain from adopting new standards with significant methodological flaws that are at odds with the underlying statutory regime.

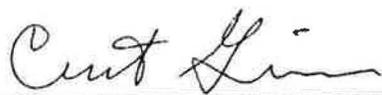
²⁶ *M&G* at 19.

²⁷ *Market Dominance Determinations – Product and Geographic Competition*, 5 S.T.B. 492 (2001).

²⁸ *Minnesota Power, Inc. v. Duluth, Missabe & Iron Range Ry. Co.*, 4 S.T.B. 64 (1999), 4 S.T.B. 288 (1999).

VERIFICATION

I, Curtis M. Grimm, verify that I have read the foregoing Statement, know the contents thereof, and that the same are true as stated to the best of my knowledge, information and belief. Further, I certify that I am qualified and authorized to file this statement.


Curtis M. Grimm

Executed on November 27, 2012

11/12

CURTIS M. GRIMM

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PRESENT POSITION

Charles A. Taff Chair of Economics and Strategy; Robert H. Smith School of Business; University of Maryland; College Park, MD 20742; Named as a University of Maryland Distinguished Scholar-Teacher, 2010-2011.

(Appointed as Assistant Professor, August, 1983; promotion to Associate Professor, August, 1989; promotion to Full Professor, August, 1993; promotion to Dean's Professor, July 2003; promotion to Chaired Professor, September 2012)

Served as Department Chair from December 1994-July 2003.

EDUCATION:

<u>Institution</u>	<u>Degree</u>	<u>Date</u>	<u>Field</u>
University of California, Berkeley	Ph.D.	6/83	Economics
Major Areas:	Industrial Organization, Transportation and Econometrics/Statistics.		
Ph.D. Dissertation:	Strategic Motives and Competitive Effects in Railroad Mergers (Ted Keeler, Advisor)		
Freiburg University, Freiburg, West Germany	—	9/76-7/77	International Studies
Recipient of Rotary International Fellowship			
University of Wisconsin, Madison	B.A.	5/75	Economics (with honors)

Recipient of Dean's Prize for Outstanding Scholastic Achievement, awarded to the two top College of Letters & Science graduates

PREVIOUS EMPLOYMENT:

Visiting Scholar, Institute for Business Innovation, Haas School of Business, University of California, Berkeley, Oct-Dec 2010.

Visiting Research Fellow, Bureau of Transport and Communication Economics, Canberra, Australia, July 1991 - January 1992.

Economist, Office of Policy and Analysis, Interstate Commerce Commission, Washington, D.C., January 1981 - December 1981.

Assistant to the Chief of Intercity Transport Development, Planning Division, Wisconsin Department of Transportation, Madison, October 1977 - August 1978 and November 1975 - July 1976.

AIESEC (International Association of Students in Economics and Commerce) Trainee, Swedish State Power Board, June 1975 - September 1975.

PUBLICATIONS:

Books

1) C. Winston, T. Corsi, C. Grimm and C. Evans, The Economic Effects of Surface Freight Deregulation, Brookings Institution, Washington, D.C., 1990.

2) Smith, K., C. Grimm and M. Gannon, The Dynamics of Competitive Strategy, Sage Publishing, Newbury Park, CA, 1992.

3) Grimm, C. and K. Smith, Strategy as Action: Industry Rivalry and Coordination, West's Strategic Management Series, West Publishing Company, 1997.

4) Grimm, C., H. Lee and K. Smith, Strategy as Action: Competitive Dynamics and Competitive Advantage, Oxford University Press, New York, 2006.

Articles in Refereed Journals

5) Grimm, C. and R. Harris, "Structural Economics of the U.S. Rail Freight Industry: Concepts, Evidence, and Merger Policy

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11) Grimm, C., "Excess Branch Line Capacity in the U.S. Railroad Industry: A Simulation Model Approach," Logistics and Transportation Review Vol. 22-3, 1986, pp. 223-240.

12) Barbera, A., C. Grimm, K. Phillips, and L. Selzer, "Railroad Cost Structure - Revisited," Journal of the Transportation Research Forum Vol. 28, No. 1, 1987, pp. 237-244.

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17) Kling, J. and C. Grimm, "Microcomputer Use in Transportation

and Logistics: A Literature Review with Implications for Educators," Journal of Business Logistics Vol. 9, No. 1, 1988, pp. 1-18 (also published in the Proceedings of the 1987 Transportation and Logistics Educators Conference).

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23) Corsi, T. and C. Grimm, "ATLFs: Driving Owner-Operators into the Sunset," Journal of the Transportation Research Forum Vol. 29, No. 2, 1989, pp. 285-290.

24) Grimm, C. and T. Corsi and J. Jarrell, "U.S. Motor Carrier Cost Structure under Deregulation," Logistics and Transportation Review Vol. 25, No. 2, Sept 1989, pp. 231-250.

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26) Corsi, T. and C. Grimm, "Strategies and Performance in the Truckload General Freight Segment Before and After Deregulation," Journal of the Transportation Research Forum Vol. 30, No. 1, 1989, pp. 92-97.

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1990, pp. 201-210.

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- 68) Cheng, L. and C. Grimm, "The Application of Empirical Strategic Management Research to Supply Chain Management," Journal of Business Logistics Vol. 27, No. 1, 2006, pp. 1-56.
- 69) Basdeo, D., K. Smith, C. Grimm, V. Rindova and P. Derfus, "The Impact of Market Actions on Firm Reputation" Strategic Management Journal Vol. 27, No. 12, December 2006, pp. 1205-1219.
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74) Han, C., T. Corsi, and C. Grimm, "Why Do Carriers Use Owner Operators in the U.S. For-Hire Trucking Industry?" Transportation Journal, Vol. 47, No. 3, Summer 2008, pp. 22-35.

75) Grimm, C., "The Application of Industrial Organization Economics to Supply Chain Management Research," Journal of Supply Chain Management, Volume 44, No. 3, 2008 (invited note).

76) Cantor, D., T. Corsi and C. Grimm, "Do Electronic Logbooks Contribute to Motor Carrier Safety Performance?" Journal of Business Logistics, Vol. 30, No. 1, 2009.

77) Cantor, D., T. Corsi, C. Grimm and K. Ozpolat, "A Driver Focused Truck Crash Prediction Model" Transportation Research Part E: Logistics and Transportation Review, Vol. 46, 2010, pp. 683-692.

78) Britto, R., T. Corsi and C. Grimm, "The Relationship between Motor Carrier Financial Performance and Safety Performance," Transportation Journal, Vol. 49, No. 4, Fall 2010, pp. 42-51.

79) Bridoux, F, K. Smith and C. Grimm, "The Management of Resources: Temporal Effects of Different Types of Actions on Performance," Journal of Management (forthcoming).

80) Corsi, T., C. Grimm, D. Cantor and D. Sienicki, "Safety Performance Differences Between Unionized and Non-Union Motor Carriers," Transportation Research Part E: Logistics and Transportation Review Vol. 48, No. 4, 2012, pp. 807-816.

81) Cheng, L., D. Cantor, M. Dresner, and C. Grimm, "The Impact of Contract Manufacturing on Inventory Performance: An Examination of United States Manufacturing Industries," Decision Sciences Journal (forthcoming).

Articles in Edited Volumes

82) Grimm, C., "Horizontal Competitive Effects in Railroad Mergers," Research in Transportation Economics, Vol. 2, Theodore E. Keeler, editor, JAI Press, 1985, pp. 27-53.

83) Harris, R. and C. Grimm, "Revitalization of the U.S. Rail Freight Industry: An Organizational Perspective," International Railway Economics, K.J. Button and D.E. Pitfield eds., Gower Publishing Company, 1985, pp. 49-84.

- 84) Grimm, C. and J. Holcomb, "Choices Among Encompassing Organizations: Business and the Budget Deficit," Business Strategy and Public Policy, David Beam, Al Kaufman, and Alfred Marcus, eds., Quorum Books, New York, 1987, pp. 105-118.
- 85) Smith, K., C. Grimm, and M. Gannon, "Competitive Moves and Responses Among High Technology Firms," Handbook of Business Strategy: 1989-1990, Harold E. Glass, ed., Warren, Gorham and Lamont, N.Y., N.Y., 1990, pp. 31-1 through 31-11.
- 86) Grimm, C. and G. Rogers, "Liberalization of Railroad Policy in North America," Transportation Deregulation: An International Perspective, K. Button and D. Pitfield, eds., Macmillan, London, 1991.
- 87) Grimm, C. and R. Harris, "Access and Competition Policy in the U.S. Rail Freight Industry: Potential Applications to Telecommunications," Sustaining Competition in Network Industries through Regulating and Pricing Access, D. Gabel and D. Weiman, eds., Kluwer Publishing, Boston, 1998.
- 88) Grimm, C. and R. Windle, "Regulation and Deregulation in Surface Freight, Airlines and Telecommunications," in Regulatory Reform and Labor Markets, J. Peoples, ed., Kluwer Academic Publisher, Boston, 1998.
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- 92) Grimm, C. "Merger Analysis in the Post-Staggers Railroad Industry," chapter in Competition Policy and Merger Analysis in Deregulated and Newly Competitive Industries, P. Carstensen and B. Farmer, eds., Edgar Elgar Publishing, Northampton, MA 2008.

Articles in Journals with Internal Review Boards

93) Grimm, C. and R. Harris, "The Financial Performance and Prospects of Railroads in the South and Southwest," Texas Business Review 56 (6), November/December 1982, pp. 257-262.

94) Grimm, C. and R. Harris, "Vertical Foreclosure in the Rail Freight Industry: Economic Analysis and Policy Prescriptions," ICC Practitioners' Journal 50 (5), July/August 1983, pp. 508-531.

95) Corsi, T. and C. Grimm, "Transportation Education in the 1980's: An Examination of Teaching Materials," Transportation Practitioners' Journal 52 (1), Fall 1984, pp. 27-39.

96) Grimm, C. and J. Kling, "Integrating Microcomputers into a Transportation and Logistics Curriculum," Defense Transportation Journal Vol. 44, No. 5, October 1988, pp. 14-22.

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97) Grimm, C., "Public Interest Evaluation of Recent Rail Mergers," 1981 Eastern Transportation Law Seminar Papers and Proceedings, Association of ICC Practitioners, Washington, D.C., pp. 171-176.

98) Grimm, C., "Promoting Competition in the Railroad Industry: A Public Policy Analysis," Transportation Research Forum Proceedings, 1984, pp. 222-227.

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101) Corsi, T., C. Grimm and R. Smith, "Motor Carrier Strategies in a Changing Environment: An Empirical Analysis," Transportation Research Forum Proceedings, 1986, pp. 177-180.

102) Grimm, C., K. Smith and R. Blankinship, "Railroad Strategies and Performance: An Exploratory Study," 1987 Eastern Academy of Management Proceedings, pp. 25-28.

103) Smith, E., M. Gannon, C. Grimm and G. Young, "Competitive Advantage in Diverse Industries," Proceedings of the Second Biennial High Technology Conference, University of Colorado, Boulder, Colorado, January 1990.

104) Grimm, C., "The Impact of Entry and Concentration in

Australian Aviation: A Test of Contestability Theory," Transportation Research Forum Proceedings, 1992.

105) Sapienza, H. and C. Grimm, "The Importance of Founder, Start-Up Process, and Structural Variables in Entrepreneurial Firms: A Study of the Shortline Railroad Industry," Frontiers of Entrepreneurship Research, 1994.

Other Publications, Reports and Monographs

Grimm, C., "Combining Scholarly Research with Public Policy Evaluation," ITS Review, Vol. 5, No. 2, Institute of Transportation Studies, University of California, February 1982.

Grimm, C., "Strategic Motives and Competitive Effects in Railroad Mergers: A Public Policy Analysis," Dissertation Series, Institute of Transportation Studies, University of California, August 1983 (UCB-ITS-DS-83-1).

Grimm, C., "Preserving and Promoting Rail Competition," Report to the National Industrial Transportation League, 1984.

Grimm, C., "Econometric Techniques to Estimate Rail Costs," Report to the Railroad Accounting Principles Board, General Accounting Office, Washington, D.C., October 1985.

Roberts, M., T. Corsi and C. Grimm, "Benefit-Cost Analysis of Weight Limit Exemption for Vehicles Carrying International Freight in the Route 50 Corridor," Study Prepared for the State Highway Administration, State of Maryland, February 1988.

Deregulation of Domestic Aviation: The First Year, Bureau of Transport and Communication Economics, Australian Government Publishing Service, Canberra, Australia, 1991 (lead author).

Cambridge Systematics; Leeper, Cambridge and Campbell; T. Corsi, and C. Grimm, "A Guidebook for Forecasting Freight Transportation Demand," NCHRP Report 388, National Academy Press, Washington, D.C. 1997.

CONTRACTS, GRANTS, AND AWARDS:

Co-Principal Investigator, U.S. DOT Federal Motor Carrier Safety Administration cooperative research agreement, 2005-present.

Smith School Summer Research Award, 2005, 2006, 2007, 2008, 2009.

Course Development Grant, Joint MS Program in Telecommunications.

University of Maryland Center for International Education and Research (CIBER) Research Award, 1991.

University of Maryland Dingman Center for Entrepreneurship Research Award, 1990.

Small Business Administration, Small Business Development Center, University of Maryland. From 1985 - 1989, Ken Smith, Martin Gannon and I received funding to establish Center for the counseling and training of small business managers. We also conducted research on strategic management of small businesses, including travel agencies and electronic firms. (Amount: \$200,000)

Department of Education Business and International Education Program. During 1988 and 1989, I was part of a team which received a two-year grant for curriculum development, research and professional outreach. The program involves collaboration with the Maryland Port Authority on research, outreach and internships. (Amount: \$110,000).

Maryland Department of Transportation. During 1987/88 I worked with Tom Corsi and Merrill Roberts on a contract to study the impact of exempting Eastern Shore export container traffic from the 80,000 pound highway weight limitation. (Amount: 35,000).

University of Maryland Grant to Integrate Computer Use into the Classroom, 1985.

University of Maryland General Research Board Summer Research Award, 1984.

PAPER PRESENTATIONS:

"Public Interest Evaluation of Recent Rail Mergers," presented at the 11th Association of ICC Practitioners' Eastern Transportation Law Seminar, October 1981.

"Stand-Alone Costs: Use and Abuse in Railroad Maximum Rate Determination," presented at the Eastern Economics Association Annual Meeting, March 1984 (with Philip Fanara).

"Promoting Competition in the Railroad Industry," presented at the Transportation Research Forum Annual Meeting, October 1984.

"The Politics of the Budget Deficit and the Role of Political Interest Groups," presented at the Annual Meeting of the

Association for Public Policy Analysis and Management, October 1984 (with John Holcomb).

"Impact of the Staggers Act on Rates and Shipper Quality: Role of Shipper Size and Competition," presented at the American Economics Association/Transportation and Public Utilities Group Annual Meeting, December 1984 (with Ken G. Smith).

"The Effects of Railroad Mergers on Industry Performance and Productivity," Transportation Research Board Conference on Rail Productivity, University of Illinois, June 1985, (with Robert G. Harris).

"Environmental Variation, Strategic Change and Firm Performance: A Study of Railroad Deregulation," presented at the Annual Meeting of the Academy of Management, August 1985 (with Ken G. Smith).

"Management Characteristics, Strategy, and Strategic Change," presented at the Strategic Management Society Annual Meeting, Barcelona, Spain, October 1985 (with Ken G. Smith).

"Impact of Deregulation on Railroad Strategies and Performance," presented at the Transportation Research Forum Annual Meeting, November 1985 (with Ken G. Smith).

"ICC Exemptions of Rail Services: Summary and Evaluation," presented at the Transportation Research Forum Annual Meeting, November 1985 (with Thomas M. Corsi and Robert Lundy).

"Excess Branchline Capacity in the Railroad Industry," presented at the Transportation Research Board Annual Meeting, January 1986.

"The Economics of Coal Transportation: Implications for Railroad Shipper Strategies," presented at the Transportation Research Board Annual Meeting, January 1986 (with Les Selzer and Kent Phillips).

"The Organization as a Reflection of its Top Managers: An Empirical Test," presented at the Annual Meeting of the Academy of Management, August 1986 (with Ken G. Smith).

"Motor Carrier Strategies in a Changing Environment: An Empirical Analysis," presented at the Transportation Research Forum Annual Meeting, September, 1986 (with Thomas M. Corsi and Raymond Smith).

"Shifts in Use of Owner-Operators Among LTL General Freight Carriers Since the Motor Carrier Act of 1980," presented at the Transportation Research Forum Annual Meeting, September, 1986 (with Thomas M. Corsi).

"Environmental Variation, Decision Comprehensiveness and

Performance," presented at the Strategic Management Society Annual Meeting, Singapore, October, 1986 (with Ken G. Smith, Martin Gannon, and Terence Mitchell).

"Gambit and Repartee: A Theory of Competitive Action and Responses," presented at the Annual Meeting of the Academy of Management, August 1986 (with Ken G. Smith).

"The Impact of the Environment on Personnel Policies: Management Characteristics in the U.S. Railroad Industry," presented at the Annual Meeting of the Academy of Management, August 1987 (with James Guthrie and Ken G. Smith).

"Mobility Barriers in the Motor Carrier Industry," presented at the Transportation Research Forum Annual Meeting, November 1987 (with Thomas M. Corsi).

"Railroad Cost Structure - Revisited" presented at the Transportation Research Forum Annual Meeting, November 1987 (with Tony Barbera, Kent Phillips and Les Selzer).

"The Impact of Rail Rationalization on Traffic Densities: A Test of the Feeder Line Theory," presented at the Transportation Research Board Annual Meeting, January 1988 (with Les Selzer and Kent Phillips).

"Porter's Generic Strategies and Organizational Size," presented at the Strategic Management Society Annual Meeting, October 1988 (with Ken Smith).

"Predictors of Competitive Responses in the Domestic Airline Industry," presented at the Strategic Management Society Annual Meeting, October 1988 (with Ken Smith and Martin Gannon).

"ATLFs: Driving Owner-Operators into the Sunset," presented at the Transportation Research Forum Annual Meeting, November 1988 (with Thomas M. Corsi).

"Competitive Strategic Interaction: Action Characteristics as Predictors of Response," presented at the Annual Meeting of the Academy of Management, August 1989 (with Ming-Jer Chen and Ken G. Smith).

"Strategies and Performance in the Truckload General Freight Segment Before and After Deregulation," presented at the Transportation Research Forum Annual Meeting, October 1989 (with Thomas M. Corsi).

"Rivalry in the U.S. Domestic Airline Industry," presented at the Strategic Management Society Annual Meetings, October 1989 (with Ken Smith and Martin Gannon).

"Building Competitive Advantage in Diverse Industries," presented at the Boulder, Colorado Conference on the Management of the High Technology Firm, January 1990 (with Greg Young, Ken Smith, and Martin Gannon).

"Economic Effects of Surface Freight Deregulation," presented at the Transportation Research Board Annual Meeting, January 1990 (with Cliff Winston and Thomas Corsi).

"Strategies of Challenging Airlines at Hub-Dominated Airports," presented at the Transportation Research Forum Annual Meeting, October 1990 (with James Kling and Thomas M. Corsi).

"Size, Strategy, and Performance: LTL Motor Carriers," presented at the Transportation Research Board Annual Meeting, January 1991 (with Raymond Smith and Thomas Corsi).

"The Role of Firm Reputation in Competitive Interaction," presented at the Annual Meeting of the Academy of Management, August 1991 (with Leith Wain, Martin Gannon and Ken G. Smith).

"The Advantage of Size in the U.S. Trucking Industry," presented at the Transportation Research Forum Annual Meeting, November 1991 (with Carol Emerson and Thomas M. Corsi).

"The Impact of Entry and Concentration in Australian Aviation: A Test of Contestability Theory," presented at the Transportation Research Forum Annual Meeting, October 1992.

"Reevaluating Returns to Scale in Transportation," presented at the Transportation Research Forum Annual Meeting, October 1993 (with K. Xu, R. Windle and T. Corsi).

"Access and Competition Policy in the US Rail Freight Industry: Potential Applications to Telecommunications," presented at a conference on Sustaining Competition in Network Industries through Regulating and Pricing Access, CITI, Columbia University, November 1993 (with R. Harris).

"Engaging Competitors," presented to the Whitmore Conference, Dartmouth College, New Hampshire, September 1994, (with G. Young and K. Smith).

"Engaging a Rival for Competitive Advantage: Firm Resources and the Competitive Environment as Predictors of Competitive Firm Activity," presented at the Annual Meeting of the Academy of Management, August 1994 (with G. Young, A. Schomburg and K. Smith).

"David and Goliath: Strategies for Challenging the Dominant

Rival," presented at the Annual Meeting of the Academy of Management, August 1994 (with K. Smith, T. Corsi and J. Kling).

"Wealth Effects of New Product Rivalry," presented at the 14th annual international conference of the Strategic Management Society, Paris, September 1994 (with H. Lee, K. Smith, and A. Schomburg).

"Business Distress and a Firm's Propensity to be Rivalrous," presented at the 14th annual international conference of the Strategic Management Society, Paris, September 1994 (with C. MacFhionnlaoich and K. Smith).

"Industrial Organization Economics, Resource-Based Theory, and Schumpeterian Perspectives on Competitive Advantage: Toward an Action-Based Model of Advantage," presented at the Annual Meeting of the Academy of Management, August 1995 (with K. Smith).

"Strategic Groups and Rivalrous Firm Behavior: Towards a Reconciliation," presented at the Annual Meeting of the Academy of Management, August 1995 (with K. Smith and G. Young).

"Shareholder Wealth Effects of New Product Rivalry," presented at the Annual Meeting of the Academy of Management, August 1995 (with H. Lee and K. Smith).

"Creative Destruction and Competitive Dynamics: An Action-Based Study of Industry Dethronement and Market Share Erosion," presented at the Annual Meeting of the Academy of Management, August 1996 (with W. Ferrier and K. Smith).

"The Rate of International Alliance Formation: The Role of Firm Resources, Strategy, and Industry Structure," presented at the Annual Meeting of the Academy of Management, August 1996 (with G. Young and K. Smith).

"An Assessment of the Validity of Competitive Dynamics Research," presented at the Annual Meeting of the Academy of Management, August 1996 (with G. Young, M. Becerra and K. Smith).

"The Rate of International Alliance Formation: The Role of Firm Resources, Strategy, and Industry Structure," presented at the 16th annual international conference of the Strategic Management Society, Tempe, Arizona, October 1996 (with G. Young and K. Smith).

"Performance Implications of Market and Non-Market Actions," presented at the Annual Meeting of the Academy of Management, August 1997 (with T. Quasney and B. Shaffer).

"Multimarket Contact, Resource Heterogeneity, and Rivalrous Firm

Behavior," presented at the Annual Meeting of the Academy of Management, August 1997 (with G. Young and K. Smith).

"Performance Implications of Market and Non-Market Actions," presented at the Annual Meeting of the Academy of Management, August 1997 (with T. Quasney and B. Shaffer).

"Techniques of Transportation Analysis: Costs," discussant at Transport Policy and Economics Conference in Honor of John R. Meyer, Kennedy School of Government, Harvard University, September 1997.

"A Conceptual Model of Supplier-Reseller Satisfaction Perceptions in Distribution Channels," Academy of Marketing Science, Coral Gables, Florida, 1997 (with C. Emerson and R. Krapfel).

"The Impact of Financial Condition on Competitive Behavior: Towards a Reconciliation of Competing Views," presented at the Annual Meeting of the Academy of Management, August 1998 (with C. MacFhionnlaoich, W. Ferrier and K. Smith).

"Competitive Effects of Railroad Mergers," Transportation Research Forum Annual Meetings, Philadelphia, October 1998 (with J. Plaistow).

"The Canadian Experience with Competitive Access," Transportation Research Board Annual Meeting, January 1999.

"Predicting Order and Timing of New Product Moves: The Role of Top Management," presented at the Annual Meeting of the Academy of Management, August 1999 (with A. Srivasta, H. Lee and K. Smith).

"Competition in the Deregulated Railroad Industry: Source, Effect and Policy Issues," presented at the AEI-Brookings conference on Deregulation of Network Industries, December, 1999.

"Future of Rail Regulation," presented at the Alliance for Rail Competition Second Annual Rail Customer Forum, Washington, D.C., March 1, 2000.

"The State of Railroad Research," presented at the Transportation Research Forum Annual Meeting, Annapolis, November 2000.

"Investigating the Action Dilemma: Untangling the Relationships Between Firm Activity, Rival Activity, and Firm Performance," presented at the Annual Meeting of the Academy of Management, August 2001 (with P. Derfus and K. Smith).

Discussant, Workshop on Airline and National Strategies for Dealing with Airport and Airspace Congestion, College Park, March 2001.

Participant, Federal Railroad Administration and Surface Transportation Board Joint Roundtable on Rail Freight Industry, June 2002.

"A Schumpeterian Perspective on Innovation," presented at the Leading Through Innovation Research Conference, College Park, January 2003.

"The Role of Conduct in the Structure, Conduct, Performance Relationship," presented at the Annual Meeting of the Academy of Management, August 2003 (with P. Maggitti, P. Derfus and K. Smith).

"The Impact of Market Actions on Firm Reputation," presented at the Annual Meeting of the Academy of Management, August 2003 (with D. Baseo, V. Rindova, P. Derfus and K. Smith).

"Merger Analysis in the Post-Staggers Railroad Industry," presented at a conference on Competition Policy and Merger Analysis in Deregulated and Newly Competitive Industries, Madison Wisconsin, June 2005.

"Firm Action, Rival Action and Firm Performance: Understanding the Effect of Competitive Interdependence," presented at the Annual Meeting of the Academy of Management, August 2005 (with P. Maggitti, P. Derfus and K. Smith).

"Electronic Logbooks and Motor Carrier Safety Performance," presented at the Federal Motor Carrier Safety Administration, June 2007 (with T. Corsi and D. Cantor).

"Reflexive and Selective Organizational Learning," presented at the Annual Meeting of the Academy of Management, August 2009 (with D. Major, P. Maggitti and K. Smith).

"Interactive Effects of firm resources and actions on performance," presented at the Annual Meeting of the Strategic Management Society, October 2009 (with D. Major, K. Smith, and R. D'Aveni).

"Multimarket Contact and Performance under Imperfect Observability," presented at the Annual Meeting of the Academy of Management, August 2010 (with W. Guo).

"The Impact of Culture on Contractual Buyer-Supplier Relationships," presented at the Annual Meeting of the Academy of Management, August 2010 (with D. Ribbink).

"Digging at Discourse: Examining the Effects of Novelty, Reputation, and Competitive Intensity on Market Discourse,"

presented at the Annual Meeting of the Strategic Management Society, October 2010 and the Israel Strategy Conference, December 2010 (with S. Livengood, K. Smith, and W. Guo).

"New Product Novelty and Market Discourse in the U.S. Cell Phone Industry," to be presented at the Annual Meeting of the Academy of Management, August 2011 (with S. Livengood, K. Smith, and W. Guo).

"The Impact of Culture Differences in Contractual Buyer-Supplier Relationships," presented at the Annual Meeting of CSCMP, October 2011 (with D. Ribbink).

"Examining the Direct and Mediating Effects of Market Discourse on Performance," presented at the Annual Meeting of the Strategic Management Society, October 2011, (with S. Livengood, K. Smith, and W. Guo).

"The Impact of Cultural Differences on Contract Clauses in Buyer-Supplier Relationships," presented at the Annual Meeting of the Decision Sciences Institute, November 2011 (with D. Ribbink).

RESEARCH AWARDS AND INFORMATION:

Citations: 3975; H-Index: 31 (Google Scholar, 1/12).

University of Maryland Distinguished Scholar-Teacher Award for 2010-2011.

Journal of Management 2004 best paper award, for the paper determined to be the best published in 2003 in the *Journal of Management*.

Academy of Management 2000 best paper award, for the paper determined to be the best published in 1999 in the *Academy of Management Journal*.

Award for best paper, marketing channels track, Academy of Marketing Science conference, Coral Gables, Florida, 1997.

Award for the best airline paper and best paper overall, 1990 Transportation Research Forum Conference.

Plowman Award for the best paper, 1987 Transportation and Logistics Educators Conference.

Regular Common Carrier Conference Award for the best motor carrier paper, Transportation Research Forum Annual Meeting, September, 1986.

EDITORIAL AND REVIEWING ACTIVITIES:

Editorial Review Board, Strategic Management Journal (2010-present).

Associate Editor, Journal of Business Logistics (2010-present).

Associate Editor, Journal of Supply Chain Management (2010-present).

Editorial Review Board, Transportation Journal (2008-present).

Editorial Review Board, Journal of Transportation Management (1993-present).

Editorial Review Board, Transportation Research - Part E (2001-present).

Advisory Editorial Committee, Journal of Law, Transportation and Policy (2011-present).

Editorial Review Board, Journal of the Transportation Research Forum (2001-2010).

Consulting Editor (1991-1993) Journal of the Transportation Research Forum.

Frequent referee activity for numerous journals.

TEACHING AND ADVISING:

Courses Taught

BMGT 298 (Sophomore Fellows Seminar)

BMGT 370 (Introduction to Transportation: also served as course coordinator)

BMGT 372 (Introduction to Logistics Management)

BMGT 476 (Computer Models in Transportation and Logistics)

BMGT 495 (Business Policy)

BMGT 670 (Economic Environment of Business)
BMGT 671 (Managerial Economics)
BUSI 683 (Global Economic Environment; also served as course coordinator)
BMGT 770 (Transportation Theory and Analysis)
BMGT 798 (Field Studies in Industry and Competitor Analysis)

BMGT 808 (Seminar in Industrial Organization and its Application to Strategic Management; Seminar in Supply Chain Management Research)

ENTS 631 (Telecommunications Policy)

Teaching Awards

Allen J. Krowe Award for Teaching Excellence, College of Business and Management, 1988 and 2011; Krowe Award nominee 2005, 2006, 2007 and 2009.

Selected as one of the top 15% teachers in the College of Business and Management (18 times, most recently in 2010).

Named as a University of Maryland Distinguished Scholar-Teacher for 2010-2011.

Member of the Following Ph.D. Dissertation Committees:

Anupam Kumar (chair)
Pamela Donovan (co-chair)
Dina Ribbink (chair)
David Cantor (co-chair)
Victor Cheng (co-chair)
Tom Quasney (chair)
Kirk Patterson (co-chair)
Wally Ferrier (co-chair)
August Schomburg (co-chair)
Greg Young (co-chair)
Hun Lee (co-chair)
Carol Emerson (chair)
Cormac Mac Fhionnlaoich (co-chair)
Pam Derfus (co-chair)
Jian-yu Ke
Zuozheng Wang
Adams Steven
Dave Major
John McDonald
Ayesha Malhotra

Ming Zhou
Stephanie Head
Chris Lin
Constantinos Christou
Chul Moon
Deborah Lyons
Jane Feitler
Laura Power
Ming-Jer Chen
Harry Sapienza
Jack Scarborough
James Kling
Robert Trempe
George Rubenson
Ven Sriram
Raymond Smith
Ritu Lohtia
Jason Chang
Douglas Meade
Barbara Houchen
Leith Wain
John Burgess
Douglas LaBahn
Ker-Tsung Lee
Yeon Myung Kim
Steven Chien
Chad Syverson
Eungcheol Kim
Radu Paun
Helena Schweiger
Koray Ozpolat
Jeta Menkulasi
Rodrigo Britto
Antoine Gervais

SERVICE:

Chair, Faculty Council, 2011-present.

Member, Master's Program Committee, 2012-present.

Member, Associate Dean of MBA-MS Programs Search Committee, 2012.

Chair, Smith School's Junior APT Committee, 2011-present.

Chair, Senior Director of Custom Programs Search Committee, 2011.

Chair, Academic and Faculty Integrity Committee, 2009-2011.

Member, Provost's Committee to establish a university faculty club, 2011-2012.

Faculty Advisor, Net Impact, 2008-present. Net Impact is an active organization of MBA students focusing on corporate social responsibility and related issues.

Department Chair, Transportation/Logistics, Business and Public Policy (December 1994-July 2003).

Member, Smith School Dean search committee, 2007-2008.

Member, Committee to evaluate the Smith School strategy area, 2008.

Chair, Teaching Enhancement Committee, 2004-2009.

Member, APAC (Campus level committee, chaired by the Provost, charged with advising the Provost on strategic and programmatic matters) 2000-2003.

Member, Vice President for Administrative Affairs search committee (2002-2003).

Member, Committee to Critique MBA Program Report, 2005.

Member, Ad Hoc committee to design an EMBA program (2001-2002).

Member, MBA director search committee (2001)

Member, Provost's Committee to conduct five year review of Dean Howard Frank (2001).

Chair of Search Committee, Executive Director of the Center for Knowledge and Information Management, 1999.

Member, CRC T&P Committee, Don Riley (1998), Samer Faraj (2004), and Josh Newberg (2004); Gil Souza (2005); P.K Kannon and Wilbur Chung, 2006; Wedad Elmaghraby, 2007; Leigh Anenson and Anand Gopal(2008); Rachelle Sampson (2009). Also frequent ARC chair.

Chair, Extra Merit Step for Non-Exempt Employees Committee, 1999.

Member, MBA 4th Track Committee (subcommittee of executive committee) (1996-1998).

Member, Strategic Planning Committee (subcommittee of executive committee) (1996-1998).

College Workload coordinator (responsible for attending meetings with Provost and reps re: workload requirements and taking lead on filling out compliance forms) (1996-2003).

Member, Executive Committee, Middlestates Accreditation Committee, University (Dan Fallon/Nelson Markley, Chair), Dec. 1995-1997.

Member, Faculty Composition and Development Section, AACSB Accreditation committee (1995).

Lead College Member on Campus Committee to form and fund a Global China Institute (1995).

Chair of Search Committee for Faculty Positions (1994-5, 1995-6, 1996-7, 1997-8, 1998-9, 1999-2000, 2009-2010).

Member, College Strategic Planning Committee (drafted section on MBA program), 1994-5.

Chair, MBA Oversight Committee, College of Business and Management (May 1994-Jan. 1995).

Member, MBA Oversight Committee, College of Business and Management (1992-1994).

Chair, ELM Coordinator's Committee, College of Business and Management, (1993-1994).

Member, External Communications Committee, College of Business and Management, 1994.

Chair, PR on Academic Quality Committee, 1993.

Member Technology Advancement Program Business Screening Panels (1986-1990).

Member, Faculty Grievance Hearing Board, College Park Campus (1991).

Member, College Budget Committee (1990-1991).

Member, Strategic Planning Steering Committee, and Chair, MBA Subcommittee, College of Business and Management (1989-1990).

Member, General Committee on Faculty Affairs, College Park Campus Senate (1984-1986, 1987-1988).

Elected Representative to the College Park Campus Senate (1988-1991).

Member, Graduate Committee, College of Business and Management (1987-1988).

Chairman, MBA Case Competition Subcommittee of the Graduate Committee (1987).

Faculty Assistant Coordinator, MBA/Rutgers Invitational Case Tournament (1986-1987).

Faculty Judge, MBA Case Competition, College of Business and Management (1989).

Member, Undergraduate Committee, College of Business and Management (1987-1988).

Faculty Co-Advisor, University of Maryland Transportation and Logistics Club (1985-1990).

Member, International Task Force, College of Business and Management (1986-1987).

Member, Dean's Computer Integration Task Force, College of Business and Management (1986-1988).

Participant in Planning Session for External Activities, College of Business and Management, Wye Woods (Sept. 1987).

Member of Multiple Faculty Search Committees (1985-present).

In November 1995, I presented testimony before the United States Senate and House Committees on Small Business at a joint hearing on "Railroad Consolidation: Small Business Concerns."

In March 2004, I presented testimony to the U.S. House of Representatives Committee on Transportation and Infrastructure regarding railroad competition legislation.

In October 2005, I provided testimony to the Surface Transportation Board on the 25th Anniversary of the Staggers Rail Act of 1980.