United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 5, 2008 Decided May 20, 2008

No. 06-1372

BNSF RAILWAY COMPANY,
PETITIONER

v.

SURFACE TRANSPORTATION BOARD AND
UNITED STATES OF AMERICA,
RESPONDENTS

WESTERN COAL TRAFFIC LEAGUE, ET AL.,
INTERVENORS

Consolidated with
06-1373, 06-1374, 06-1398, 06-1399, 06-1401, 06-1404,
06-1409, 06-1421

On Petitions for Review of an Order of the
Surface Transportation Board

John H. LeSeur argued the cause for Shipper Petitioners. With him on the briefs were *Christopher A. Mills*, *William L. Slover*, *Kelvin J. Dowd*, *C. Michael Loftus*, *Andrew B. Kolesar III*, and *Peter A. Pfohl*.

Samuel M. Sipe, Jr. and *Michael L. Rosenthal* argued the cause for Railroad Petitioners. With them on the briefs were *Richard E. Weicher*, *Anthony J. LaRocca*, *Peter J. Shudtz*, *Paul R. Hitchcock*, *George A. Aspatore*, *John M. Hemmer*, *Louise A. Rinn*, *Terence M. Hynes*, *G. Paul Moates*, and *Paul A. Hemmersbaugh*.

Raymond A. Atkins, Associate General Counsel, Surface Transportation Board, argued the cause for respondents. With him on the brief were *Robert B. Nicholson* and *John P. Fonte*, Attorneys, U.S. Department of Justice, and *Ellen D. Hanson*, General Counsel.

Richard E. Weicher, *Samuel M. Sipe, Jr.*, and *Anthony J. LaRocca* were on the brief for intervenor BNSF Railway Company.

C. Michael Loftus, *Andrew B. Kolesar III*, and *Peter A. Pfohl* were on the brief for intervenor Western Coal Traffic League.

Before: GINSBURG, ROGERS, and KAVANAUGH, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* KAVANAUGH.

KAVANAUGH, *Circuit Judge*: In a recent rulemaking, the Surface Transportation Board changed aspects of its rail rate-setting methodology. Railroads and shippers both petition for review – railroads arguing that certain changes improperly benefit shippers and shippers arguing that certain changes improperly benefit railroads. We conclude that the Board's

changes are reasonable and reasonably explained. We therefore deny the petitions.

I

Since Congress enacted the Interstate Commerce Act in 1887, the Federal Government has regulated the rates of interstate railroads. Until 1995, the Interstate Commerce Commission regulated the rates; since then, the Surface Transportation Board has done so. *See* ICC Termination Act of 1995, Pub. L. No. 104-88, §§ 101, 201, 109 Stat. 803, 804, 933-34.

Under federal law, a party may file a complaint with the Board challenging a railroad's rate. *See* 49 U.S.C. § 10704(b). After receiving a complaint, the Board first must determine whether it has jurisdiction over the challenged rate. The Board's jurisdiction covers only those railroads that possess "market dominance." *See* §§ 10701(d)(1), 10707(b)-(c). To have market dominance, a railroad must have revenue that meets or exceeds 180 percent of its variable costs for the traffic to which the rate applies. *See* §10707(d)(1)(A). (Variable costs are those costs that increase as traffic over the railroad increases – for example, the cost of fuel.)

After the Board determines that it has jurisdiction over a challenged rate, the Board must decide whether the rate is reasonable. *See* § 10701(d)(1). If the Board finds the rate unreasonable, it sets the maximum rate the railroad may charge. *See* §10704(a)(1). In setting that rate, the Board must permit the railroad to cover its costs "plus a reasonable and economic profit or return (or both) on capital employed in the business." §10704(a)(2).

Part of what makes railroad rate regulation complex is that a railroad incurs many costs that cannot be attributed to

any one shipper – costs that the Board has appropriately termed "unattributable costs." *See Rate Guidelines – Non-Coal Proceedings*, 1 S.T.B. 1004, at 2-5 (1996) (*Non-Coal Guidelines*). For example, how does the railroad allocate the cost of a railroad terminal shared by multiple shippers? Allocation is difficult, moreover, because railroads serve a mix of "competitive" shippers and "captive" shippers – competitive shippers can secure alternative transportation relatively cheaply but captive shippers cannot. *See id.* Therefore, a railroad cannot simply charge each shipper a *pro rata* share of the unattributable costs without the risk of losing competitive shippers to other carriers. *See id.*

In 1985, the Board promulgated guidelines to calculate rates for shipping coal. *See Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1985) (*Guidelines*). The *Guidelines* approach, which has since been extended to non-coal rates, established certain principles to resolve rate disputes. Those principles sought to approximate "Ramsey pricing," which sets rates for individual shippers in inverse proportion to those shippers' demand elasticities. *See Non-Coal Guidelines*, at 2-5. Ramsey pricing enables a railroad to collect a higher share of unattributable costs from captive shippers than from competitive shippers. Because captive shippers have inelastic demand, the railroads can charge them higher rates with a lower risk of losing their business.

Recently, however, the Board decided that the *Guidelines* approach had become increasingly complex and costly, and in some respects contrary to congressional intent. To address those problems, it began a rulemaking proceeding in early 2006. The Board completed the rulemaking later that year, changing how to determine its jurisdiction and how to evaluate rate reasonableness. Both railroads and shippers

filed timely petitions for review challenging various aspects of those changes.

We review Board decisions under the deferential standards of the Administrative Procedure Act. As relevant here, we will set aside a Board decision if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). The Board may depart from its own precedent, moreover, so long as it provides a reasoned explanation. *PPL Mont., LLC v. STB*, 437 F.3d 1240, 1246 (D.C. Cir. 2006). In the rate-making area, our review is particularly deferential, as the Board is the expert body Congress has designated to weigh the many factors at issue when assessing whether a rate is just and reasonable.

II

We first consider the Board's new method for determining whether it possesses jurisdiction over a challenged rate.

As a general matter, the Board has jurisdiction over a rate if the railroad's ratio of revenue to variable costs (R/VC) for the traffic to which that rate applies is at least 180 percent. Therefore, to determine whether it has jurisdiction, the Board must have a method to calculate variable costs. The statute requires that the Board use a method called the Uniform Rail Costing System, referred to as URCS, or an adequate substitute. *See* 49 U.S.C. § 10707(d)(1)(B); *Adoption of the Uniform R.R. Costing Sys.*, 5 I.C.C.2d 894 (1989). The railroad submits various data to the Board, and the Board, via a computer program, plugs the data into URCS to produce a figure for system-wide average variable costs. *See generally* Surface Transp. Bd., Industry Data – Economic Data: URCS,

http://www.stb.dot.gov. The amount of revenue from the relevant traffic is then divided by a figure incorporating the system-wide average variable costs and a number of operating characteristics of the shipment to arrive at the R/VC ratio. If the R/VC ratio is less than 180 percent, the Board has no jurisdiction.

In the past, the Board has permitted parties to propose "movement-specific adjustments" to the average variable costs figure produced by URCS. In other words, parties could argue that a higher or lower figure better reflected the variable costs of a particular movement. Shippers, of course, propose adjustments that would lower the variable-costs figure, because that would result in higher R/VC ratios and thus make Board review more likely. Railroads favor adjustments that would raise the variable-costs figure, thereby lowering R/VC ratios and making Board review less likely.

In the rulemaking at issue here, the Board eliminated the ability of parties to suggest movement-specific adjustments. Both the railroads and the shippers challenge that change as an unreasonable departure from agency precedent. The Board acknowledged that permitting movement-specific adjustments has been its "longstanding practice," but nevertheless concluded that "these adjustments may not serve a useful public purpose." *Major Issues in Rail Rate Cases*, STB Ex Parte No. 657, at 48 (Oct. 30, 2006). The Board gave seven interrelated reasons for the change:

> *First*, the analysis of proposals for movement-specific adjustments is complex, expensive, and time consuming. *Second*, the Board believed that Congress intended, in adopting the 180% R/VC limitation on Board rate review, to create an administratively quick and easy-to-determine

> regulatory safe harbor for the railroads. *Third*, the URCS program already tailors the variable cost calculation to the movement at issue. *Fourth*, disallowing movement-specific variable cost adjustments would eliminate substantial uncertainty in the current rail rate adjudication process. *Fifth*, railroads do not consistently keep certain types of information that shippers have relied on for favorable movement-specific adjustments. *Sixth*, adjustments to URCS may not provide more reliable results than using the system-average expenses. *Finally*, piecemeal or incomplete adjustments to URCS are suspect.

Id. (emphases added). The Board ultimately concluded that it "must balance the costly burden and complexity created by movement-specific adjustments against any improvements in the resulting variable cost," and it found that "notwithstanding [its] past allowance of these adjustments, such expense and complexity are not justified." *Id.* at 50.

The railroads, except BNSF, challenge the Board's decision on statutory grounds. Section 10707 of Title 49 directs that "variable costs for a rail carrier shall be determined only by using such carrier's unadjusted costs, calculated using the Uniform Rail Costing System cost finding methodology . . . with adjustments specified by the Board." 49 U.S.C. § 10707(d)(1)(B). The railroads claim that the last phrase – "with adjustments specified by the Board" – means that the Board may not eliminate *all* movement-specific adjustments. We disagree. To begin with, the railroads did not raise this argument before the Board, so it is forfeited. *See Univ. of D.C. Faculty Ass'n v. D.C. Fin. Responsibility & Management Assistance Auth.*, 163 F.3d 616, 625 (D.C. Cir. 1998). In any event, it is

meritless. The statute does nothing more than broadly delegate to the Board the *authority* to make reasonable adjustments to the variable-costs figures produced by URCS. It does not *require* the Board to adopt any adjustments. The Board's interpretation is therefore consistent with the statutory text.

The railroads also claim that the Board did not give adequate consideration to alternative proposals that would allow the Board to take into account certain categories of adjustments. We reject that argument as well. The Board explained that it had considered the alternatives and found none of them preferable in light of the seven considerations listed above. The Board said that the elimination of movement-specific adjustments would save up to $1 million per party, per case. Moreover, the Board cited its years of experience in dealing with those adjustments as the basis for concluding that they are not especially accurate. In short, the Board made a policy judgment that the cost savings and increase in predictability of the Board's jurisdiction, among other factors, outweigh any gains in accuracy from the railroads' or shippers' adjustment proposals. That kind of judgment call, which balances inherently incommensurable costs and benefits, falls within the expertise of the agency, and we will not disturb it. *Cf. Central & Southern Motor Freight Tariff Ass'n v. United States*, 757 F.2d 301, 321-22 (D.C. Cir. 1985) ("Deference is particularly appropriate when – as here – the delegation of . . . power is very broad and necessarily involves the administrative weighing of the costs and benefits of regulation.").

For the same reason, we reject the shippers' arguments that the Board's decision to eliminate movement-specific adjustments was unjustified. The shippers contend that the Board placed too much emphasis on the expense of litigating

movement-specific adjustments and that the Board underestimated the increase in accuracy effected by those adjustments. Again, the Board possesses the responsibility to balance those kinds of competing considerations. The shippers have not demonstrated that the Board's decision was unreasonable or unsupported by substantial evidence.

The fact that both the railroads and shippers contest the Board's elimination of movement-specific adjustments is not enough to persuade us that the Board's decision was arbitrary and capricious. The Board has an institutional interest in reducing the cost for parties litigating rate cases. And the Board has discretion to consider the interests of the railroads and shippers that could not afford to participate in the rulemaking proceeding.

III

We turn now to petitioners' challenges to the changes in the Board's rate-evaluation methodology. To provide necessary context for our discussion, we begin with a brief overview of how the Board evaluates railroad rates.

As we have said, railroads serve a mix of competitive and captive traffic. Because of the varying demand elasticities of the different shippers, a railroad has no interest in apportioning costs evenly among the shippers for facilities or services that the shippers share. If it imposes a *pro rata* share of unattributable costs on each shipper, competitive shippers with lower-cost transportation alternatives may opt for those alternatives, and the railroad would lose revenue. Despite that problem, the railroads cannot go too far in the other direction and overload captive shippers with excessively high rates. Even though captive shippers do not have practical access to alternative carriers, they do have access to Board review, and

the Board has a statutory duty to ensure that their rates are reasonable.

The Board's solution to the railroads' problem, adopted in *Guidelines*, has been the principle of Constrained Market Pricing. *See Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1985) (*Guidelines*). Constrained Market Pricing sets three constraints on a railroad's rates, including the Stand-Alone-Cost constraint, which ensures that a captive shipper does not pay for services that provide it no benefits – in other words, that it does not cross-subsidize other shippers. *See BNSF Ry. Co. v. STB*, 453 F.3d 473, 476-77 (D.C. Cir. 2006); *Guidelines*, 1 I.C.C.2d at 523-24.

To determine whether a complaining captive shipper is paying for only those services that benefit it, the Board uses an approach called the Stand-Alone-Cost test. The Stand-Alone-Cost test posits a hypothetical railroad that serves a subset of the movements in the railroad's network, including the route used by the complaining shipper. That hypothetical railroad is called a Stand-Alone Railroad, known as a SARR, and it is designed to be optimally efficient. The Stand-Alone-Cost test determines the rate that the shippers using the SARR (the "traffic group") would be charged by taking into account the costs of running the SARR, including a reasonable return on investment, (the "Stand-Alone Costs"). *See PPL Mont., LLC v. STB*, 437 F.3d 1240, 1242 (D.C. Cir. 2006). The amount of those costs becomes the maximum amount that the railroad may collect from the traffic group. *See id.*

The underlying logic is that there are cost savings when the portion of the railroad that constitutes the SARR is combined with the rest of the real railroad; therefore, the costs of that segment as part of the real railroad could never *exceed* the costs of that segment if it stood alone. With a Stand-

Alone-Cost ceiling, "no shipper (or shipper group) subsidizes others, at least in a strict sense of the term: though some bear a higher share of fixed costs than others, they still pay no more than what they would for a facility designed to serve only them." *Burlington Northern R.R. Co. v. ICC*, 985 F.2d 589, 596 (D.C. Cir. 1993).

The Board's rulemaking changed various aspects of the Stand-Alone-Cost test. Petitioners challenge three of those changes: (i) the method the Board uses to determine maximum reasonable rates; (ii) the degree to which productivity gains are taken into account when forecasting the SARR's operating expenses; and (iii) the allocation of revenue to the SARR from shippers that use both the SARR and other, off-SARR facilities. Shippers also challenge the Board's application of its new revenue-allocation rule to a case that was pending when the Board issued its notice for proposed rulemaking.

A

We first address the Board's change to its method of determining a complaining shipper's maximum reasonable rate.

Under the Stand-Alone-Cost test, if the hypothetical SARR's total revenue from the Stand-Alone-Cost traffic group exceeds the Stand-Alone Cost, then the traffic group in real life is covering more of the costs of the real railroad than are attributable to it, and the rates of the shippers in the traffic group are reduced. Once the Board decides to reduce the rates of the traffic group (for purposes of the test), it then must determine how to allocate that reduction among various members of the traffic group to set maximum reasonable

rates. In the rulemaking, the Board changed the way that it performs that allocation.

In the past, the Board reduced the excessive rates in a relatively straightforward way. Using the Percent Reduction Method, the Board would reduce the rate of each shipper in the traffic group by the same percentage: the percentage by which the revenue from the traffic group exceeded the Stand-Alone Costs. Thus, if revenue exceeded the Stand-Alone Costs by 20 percent, the Board lowered the rate of each shipper, including the complaining shipper, by 20 percent. The rationale for that approach was that it maintained the same proportion of rates among members of the traffic group. For example, if one shipper initially paid twice the rate of another shipper, that would continue to be true after the reduction. The underlying assumption was that the existing rate structure reflected the varying demand elasticities among members of the traffic group. Under the Ramsey pricing principle discussed above, which sets shippers' rates in inverse proportion to their demand elasticities, the Board thought it important to maintain that rate structure – even though the rates are entirely within the control of the railroad. The railroads, of course, favor that assumption: In their view, the Board should assume that the rates they set adequately reflect differences in demand between the complaining captive shipper and the other shippers.

In recent Stand-Alone-Cost cases, however, the Board realized that railroads can easily manipulate the Percent Reduction Method. In particular, a railroad can game the system by initially setting an exceedingly high rate for a captive shipper. If the shipper then challenges the rate and the Board uses the Percent Reduction Method to reduce it, the new rate will still be a function of the initial rate; the higher the initial rate, the higher the final rate.

To prevent "gaming," the Board adopted a new method to correct excessive rates: the Maximum Markup Methodology. Rather than requiring an across-the-board cut for every shipper, this new methodology lowers only the rates of those shippers that make excessive revenue contributions relative to the variable costs that they impose on the railroad. And it requires that those shippers' ratios of revenue to variable cost be the same. The railroads cannot manipulate this methodology because the higher they set the initial rate of a captive shipper, the higher that shipper's revenue contribution relative to the variable costs it imposes on the railroad – and the bigger the percentage cut for that shipper.

The railroads argue that the Board failed to sufficiently explain what it meant by "gaming." We, however, have no trouble understanding the Board's concern: A railroad could charge any rate, including an inefficient monopoly rate, simply by setting the rate incrementally higher than the rate it wanted prior to the SAC proceeding.

The railroads further argue that the Board's decision is arbitrary and capricious because there is no evidence of gaming by railroads. They cite our decision in *National Fuel Gas Supply Corp. v. FERC*, which vacated a prophylactic rule aimed at preventing market manipulation. *See* 468 F.3d 831 (D.C. Cir. 2006). In that case, FERC had specifically relied on a supposed record of abuse to justify a rule, yet FERC had not produced any evidence of abuse. *See id.* at 841. The Court's order instructed FERC to either compile the record of abuse or "try to support [its rule] by setting out its best case for relying *solely* on a theoretical threat of abuse." *Id.* at 844. In this case, the Board reasonably explained that the undetectable nature of the problem plainly justifies the Board's reliance on the theoretical threat. To discern whether an initial rate is set because it reflects a railroad's perception

of relative demand or a railroad's effort to game the system would require the Board to either divine the motives of the railroad in setting the challenged rate or undertake the costly task of estimating the railroad's marginal costs and the complaining shipper's demand elasticity. The Board reasonably concluded that either endeavor would be utterly impracticable.

In addition to the anti-gaming rationale, the Board offered another justification for adopting the Maximum Markup Methodology: By statute, railroads must maximize revenue from competitive shippers before increasing captive shippers' rates. *See* 49 U.S.C. § 10701(d)(2)(B); *Guidelines*, 1 I.C.C.2d at 539 (Under Constrained Market Pricing, "a carrier must charge its competitive traffic as much of the unattributable costs as the demand will permit."). According to the Board, this "reflects a Congressional directive" that captive shippers "not bear a differentially larger share of the joint and common expenses" until the railroad has charged its competitive shippers "as much of the unattributable costs as demand will permit." STB Ex Parte No. 657, at 18. The Board determined that the Maximum Markup Methodology better implemented that statutory directive: Unlike the Percent Reduction Method, it allows captive shippers, which tend to contribute more revenue relative to the variable costs they impose on railroads, to receive a disproportionately higher share of a rate reduction.

The railroads counter that giving a disproportionately higher share of a rate reduction to captive traffic runs directly counter to the Ramsey pricing principle that the *Guidelines* approach adopted. Those principles instruct that rates should be set in inverse proportion to shippers' demand elasticities. The railroads argue that once the rate structure has been established in that way, it should be maintained. The Percent

Reduction Method preserved the rate structure because the Board would reduce the rates of all shippers in the traffic group by the same percentage when it would conclude that a railroad was receiving excessive revenue.

The Board's Maximum Markup Methodology is not a departure from Ramsey pricing principles as reflected in *Guidelines* unless one assumes that railroads set the initial rate structure in inverse proportion to the shippers' demand elasticities. The Board's conclusion that rate structures are susceptible to gaming rejects that assumption. Moreover, the Maximum Markup Methodology preserves demand-based differential pricing to a significant degree: Shippers that pay low rates relative to the variable costs attributable to them will still bear considerably less of the railroad's unattributable costs than shippers that pay high rates relative to the variable costs attributable to them.

There is therefore no contradiction between the Maximum Markup Methodology and the Board's goal under *Guidelines*: Under both approaches, the objective is for railroads to "ensure that competitive traffic contributes as much as possible toward [unattributable] costs," which includes ensuring that competitive traffic does not leave the railroad for transportation alternatives. 1 I.C.C.2d at 524. As the Board put it, "Congress envisioned that captive shippers would be the residual suppliers of capital, but only where the competitive traffic cannot provide a sufficient share of the contribution needed to support the rail infrastructure that it uses." STB Ex Parte No. 657, at 18. The Board has simply changed its mind about how best to achieve that goal. It no longer assumes that whenever it finds a railroad to be receiving excessive revenue in a Stand-Alone-Cost case, every shipper's rate is too high and the railroad must lower all of its shippers' rates by the same percentage to maximize

revenue from competitive traffic. Now the Board believes that it makes the most sense to lower the rates of only those shippers that are paying a high rate relative to the variable costs attributable to them. The Board has license to change how it implements its statutory duties, "either with or without a change in circumstances," so long as it supplies "a reasoned analysis." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 57 (1983) (internal quotation marks omitted). The Board has met that requirement here, and we find no reason to overturn its decision.

Finally, the railroads argue that the Maximum Markup Methodology violates this Court's decision in *Burlington Northern Railroad Co. v. ICC*, 985 F.2d 589 (D.C. Cir. 1993). But that decision addressed a substitute for the *entire* Stand-Alone-Cost analysis, not a different method of reducing rates after performing the Stand-Alone-Cost test. We found multiple defects in the approach at issue in *Burlington*, including a flaw that deprived the ICC's approach of "any glimmer of supporting principle or intellectual coherence." *Id.* at 597. By contrast, the Board here responded to a flaw in its existing Percent Reduction Method, and adopted the Maximum Markup Methodology to correct the problem. This new methodology, as explained above, furthers the Board's goals under *Guidelines* and § 10701(d)(2)(B). Therefore, we are satisfied that the Board's decision is consistent with *Burlington*.

B

We next address the Board's change to its method for forecasting the SARR's future operating expenses.

To calculate the costs that the hypothetical SARR would likely incur over the 10-year Stand-Alone-Cost analysis

period, the Board must estimate the operating expenses that the SARR would face. Since 1980, the Board has used some form of the "Rail Cost Adjustment Factor," established by statute, as an index to track changes in railroad costs. Before this rulemaking, the Board's operating-expense forecasts did not take into account the possibility that the SARR could experience productivity gains – gains in efficiency that would reduce operating expenses. The Board figured that, because "the SARR is designed to be an efficient replacement for the railroad, it would not be able to realize the same productivity gains as the rest of the industry, particularly in the early years." STB Ex Parte No. 657, at 40. In its Stand-Alone-Cost tests, the Board thus had used the Rail Cost Adjustment Factor-U index, which measures "the change in the prices of inputs, such as labor and fuel, used to produce railroad services," but does not factor in anticipated industry-wide productivity gains. *Id.* at 39. A separate index, the Rail Cost Adjustment Factor-A index, takes into account the industry's productivity gains. Shippers have urged the Board to adopt that index because, if there are productivity gains, then operating expenses will be lower. And the lower the forecasted operating expenses of the SARR, the lower the revenue needed to cover the SARR's costs, and the lower the maximum permissible rate for shippers. The railroads, by the same logic, have favored the status quo.

In the rulemaking, the Board settled on a hybrid approach. Based on its special expertise in rail regulation, the Board posited that a new hypothetical railroad would not immediately experience the same level of productivity growth as the anticipated industry average: "[A] SARR is presumed to begin the analysis period at a higher productivity level than the industry as a whole," and as a result, in the early years, it would not have as much room to increase productivity in certain areas. *Id.* at 43. For example, "railroads realize

productivity gains in locomotives as they replace old locomotives with newer technologies. The SARR would not experience those same productivity gains in the short term, because it would begin its operations with all new locomotives." *Id.* at 40. The Board, however, concluded that a SARR would experience some productivity increases "where gains derive from more efficient use of existing assets such as improved management techniques, more flexible work rules and learning by doing." *Id.* at 43. Also, the SARR could experience productivity gains for "short-lived assets" whose replacement would "introduce the latest available technology." *Id.*

The Board posited that, within 20 years, the SARR's productivity growth rate would match that of the industry because at that time the SARR would have about the same mix of old and new assets as the industry generally. "[A]s the SARR approaches the industry's vintage of technology over time, both the productivity level and the rate of growth for the industry and the SARR would converge." *Id.* at 44. Therefore, the Board decided to phase in the Rail Cost Adjustment Factor-A index – the measure of costs that takes into account productivity gains – into its operating-expense forecast gradually over a 20-year span. To accomplish this, the Board calculates operating expenses based solely on the Rail Cost Adjustment Factor-U index (no productivity gain) for year 1 and factors in the Rail Cost Adjustment Factor-A index (full productivity gain) at a rate of 5 percent per year until it is fully phased in at year 20.

Unsurprisingly, both the shippers and the railroads object to the Board's hybrid approach, with each favoring an opposite end of the spectrum. The shippers argue that the Board ignored "substantial evidence of record before the STB demonstrating the rapid rate at which the railroad industry

renews its assets and its technology." Shippers' Br. 36. The shippers note that the average age of rail assets in 2002 was only seven years. For their part, the railroads argue that "there was no evidence that any [productivity] improvements would occur in equal amounts over a 20-year period." Railroads' Br. 34. The railroads believe that most productivity gains would not be realized until many years in the future. As a result, the railroads argue, even if the Board is correct that the SARR would converge with the industry in 20 years, because the Stand-Alone-Cost analysis period covers only the first 10 years, underestimating productivity gains in years 11 through 20 will not balance out the inaccuracy created by overestimating productivity gains in years 1 through 10.

We decline to enter this hyper-technical fray. "It is well established that an agency's predictive judgments about areas that are within the agency's field of discretion and expertise are entitled to particularly deferential review, so long as they are reasonable." *Wis. Pub. Power, Inc. v. FERC*, 493 F.3d 239, 260 (D.C. Cir. 2007) (internal quotation marks omitted); *see also Nuvio Corp. v. FCC*, 473 F.3d 302, 306 (D.C. Cir. 2007) (We owe "substantial deference [to an agency's] predictive judgments."). That maxim is especially true here, where we are reviewing the Board's predictive judgment about *hypothetical* railroads. The agency has adopted a straight-line, phase-in approach that is routinely used to estimate the depreciation of assets, and we cannot conclude that the approach is unreasonable. Although the parties have submitted evidence that they claim supports their conflicting views on how a SARR would experience productivity gains, "[p]articularly where, as here, an agency issues a regulation reflecting reasoned predictions about technical issues, logic suggests that the record may well contain evidence sufficient to support more than one possible outcome." *Ass'n of Pub.-*

Safety Communications Officials-Int'l Inc. v. FCC, 76 F.3d 395, 398 (D.C. Cir. 1996). And as for the railroads' claim that imperfections in the 20-year phase in may inure to the benefit of the shippers, at some point simplicity outweighs accuracy, and the Board "is free to make reasonable trade-offs between the quality and cost of possible regulatory approaches." *Burlington Northern*, 985 F.2d at 597.

C

We now consider the Board's change to its method of allocating to the SARR the revenue from shippers that use both the SARR and other, off-SARR parts of the railroad.

As we have said, the Stand-Alone-Cost analysis posits a hypothetical railroad – the SARR – that would serve the route that the complaining shipper uses. The Stand-Alone-Cost analysis then determines the total costs that the SARR would incur – the Stand-Alone Costs – and what percentage of those costs is attributable to the complaining shipper. If the total revenue that the railroad collects from the SARR's services (calculated based on the real-world rates that the railroad charges the traffic group that uses the SARR) exceeds the Stand-Alone Costs, then the rate of the complaining shipper may be lowered in accordance with the Maximum Markup Methodology discussed above.

In determining the total revenue that a SARR generates, a problem arises: Unlike the complaining shipper, the other shippers do not necessarily use only the SARR. In the real world, other shippers may use both on-SARR and off-SARR parts of the railroad. For those shippers, the Board must allocate to the SARR only a portion of the revenue that they contribute in the real world. If the Board attributed all of their revenue contribution to the SARR, it would overestimate the

SARR's revenue because some of those shippers' revenue contributions go to covering off-SARR costs. The Board has termed the traffic that uses both on-SARR and off-SARR facilities "cross-over traffic."

In this rulemaking, the Board changed the way that it allocates the revenue of cross-over traffic between on-SARR and off-SARR facilities. The Board previously allocated revenue based essentially on the percentage of miles the shipper used the SARR. Thus, if 60 percent of a shipper's route was on-SARR and 40 percent was off-SARR, roughly 60 percent of its revenue contribution would be allocated to the SARR.

Although the old approach had the virtue of simplicity, it had a critical flaw, which we identified in *BNSF Railway Co. v. STB*, 453 F.3d 473 (D.C. Cir. 2006). The mileage-based approach did not take into account "economies of density" – the principle that the more traffic on a given stretch of rail, the lower the average cost (and hence the lower the cross-over-traffic revenue that should be attributed to it).

To take an example, imagine a toll road that five drivers use. If the annual upkeep for the road costs $100, each driver would need to contribute $20 annually. If those drivers pay $40 per year in taxes, then 50 percent of their tax contribution is attributable to the road. Now imagine that 50 drivers use the road – that is, that its density has increased tenfold. Each driver would need to contribute only $2 annually. Of their $40 tax liability, only five percent would be attributable to the road. The same logic applies here. For cross-over traffic, the higher the density of the on-SARR facilities, the smaller the proportion of their overall revenue contribution should be attributed to the SARR. In other words, more of their revenue

contribution must be going to cover costs for off-SARR facilities.

In *BNSF*, the complaining railroad proposed a method of allocating revenue from cross-over traffic that would have taken into account economies of density. We concluded, however, that the Board had reasonably declined to adopt that alternative because the proposal ignored the diminishing nature of economies of density – that is, the fact that at some point, higher density no longer results in lower average costs. *See id.* at 483-84. As the Board summarized the principle, "the railroad industry is characterized by economies of density, meaning the average total cost for a network of a given size initially decreases with increases in output. But economies of density also diminish with higher output and at some point are exhausted." STB Ex Parte No. 657, at 26.

Although we were not convinced in *BNSF* that the Board had acted unreasonably in rejecting the incomplete alternative proposed by the railroad, we stated that "[w]ere the Board presented with a model that took account both of the economies of density and of the diminishing returns thereto, a decision to adhere to [the old] model would be on shaky ground indeed. But that day is yet to come." *BNSF Ry.*, 453 F.3d at 484.

In this rulemaking, the Board determined that the day had arrived. It adopted an approach that takes into account both economies of density and their diminishing nature. The Board's new approach – called the Average-Total-Cost method – allocates revenues based partly on the average total cost of a segment rather than just on mileage. Because average total cost for a given segment of rail decreases as density increases (up to a point), basing the revenue allocation in part on average total costs solves the problem that we

identified in *BNSF*. As the Board recognizes, our decision in *BNSF* strongly suggested that the Board would be required to adopt an appropriate density-based approach if one were presented to it. The Average-Total-Cost method "takes account of both economies of density and diminishing returns." STB Ex Parte No. 657, at 34. The Board thus concluded that continued use of the mileage-based approach "would be on shaky ground." *Id.*

The shippers nonetheless claim that the Board's new revenue-allocation formula arbitrarily departs from *Guidelines*. Their argument can be summarized in the following syllogism: *Guidelines* does not permit the Board, when setting rates, to allocate a percentage of fixed costs to a given shipper, but rather requires the Board to set rates on the basis of shipper demand. The new revenue-allocation formula for cross-over traffic, which is a fundamental component of the Stand-Alone-Cost analysis, is based on the average total costs of the on-SARR and off-SARR segments, not shipper demand. Therefore, the cost-based, revenue-allocation formula violates *Guidelines*.

We do not agree that the Board's change to the Average-Total-Cost method was unreasonable or contrary to precedent. We have already held that the Board may allocate revenue between on-SARR and off-SARR facilities without taking into account shipper demand. In *BNSF*, we upheld the mileage-based approach because the Board had reasonably assumed that "average costs are a continuous function of distance." *BNSF Ry.*, 453 F.3d at 483 (internal quotation marks omitted). The new method simply refines that approach by taking into account economies of density. Although *Guidelines* may favor a demand-based approach generally for setting rail rates, the Board has acted reasonably in using a cost-based approach, for the Stand-Alone-Cost test,

to estimate the costs that cross-over traffic imposes on the SARR. "The pursuit of precision in rate proceedings, as in most things in life, must at some point give way to the constraints of time and expense, and it is the agency's responsibility to mark that point. Our role is limited to determining whether the balance it struck is arbitrary." *Id.* at 482. In this case, it follows from our decision in *BNSF* that the Board's action was reasonable.

D

The shippers contend that the Board's application of the Average-Total-Cost method to a case that was pending when the Board issued its notice for proposed rulemaking was impermissibly retroactive and otherwise arbitrary and capricious. *See Western Fuels Ass'n, Inc. v. BNSF Ry. Co.*, 2007 WL 2590251 (STB Sept. 7, 2007). The shippers argue that the Board should not have applied its new Average-Total-Cost revenue-allocation formula because they had relied on the mileage-based approach in incurring significant costs to design and defend a SARR for the Stand-Alone-Cost analysis.

We reject the shippers' argument. "A new rule may be applied retroactively to the parties in an ongoing adjudication, so long as the parties before the agency are given notice and an opportunity to offer evidence bearing on the new standard, and the affected parties have not detrimentally relied on the established legal regime." *Consol. Edison Co. v. FERC*, 315 F.3d 316, 323 (D.C. Cir. 2003) (internal citations omitted). Here, there was no *established* legal regime on which the parties litigating before the Board could have reasonably relied: They were on notice that the Board had not settled on any one method for allocating the revenue contribution of cross-over traffic. As we said in *BNSF*, "[t]he appropriate allocation of revenue from cross-over traffic is a perennial

issue in [Stand-Alone-Cost] proceedings and one the Board even now [in 2006] has not resolved definitively." 453 F.3d at 483; *see also, e.g.*, *Duke Energy Corp. v. Norfolk Southern Ry. Co.*, 2003 WL 22673026, at *10 (STB Nov. 5, 2003) ("The Board has long recognized, however, that this methodology may not work in all cases, and it has been open to suggestions for other methods to allocate cross-over revenues."). The shippers do not respond to the Board's argument that, before adopting the Average-Total-Cost method, the Board had repeatedly warned that it sought to adopt a methodology that would take density into account. As the Board made clear both in the rulemaking and in *Western Fuels*, the shippers had no basis for relying on the prior revenue-allocation formula. *See* STB Ex Parte No. 657, at 75; *Western Fuels*, 2007 WL 2590251, at *20. Nevertheless, the Board gave the shippers an opportunity to redesign or defend their SARR using the new formula. *See Western Fuels*, 2007 WL 2590251, at *20.

Moreover, given that the new methodology was "designed in large part to improve the reliability of [the Stand-Alone-Cost] analysis, and given the possibility of rate prescriptions of nearly 20 years," it was reasonable for the Board to immediately discard the flawed procedure and apply its new rule to pending cases when the parties were on notice of the potential change. STB Ex Parte No. 657, at 76.

* * *

For the reasons stated above, we deny the petitions for review.

So ordered.