BEFORE THE
SURFACE TRANSPORTATION BOARD

PETITION OF THE ASSOCIATION OF AMERICAN RAILROADS TO INSTITUTE A RULEMAKING PROCEEDING TO REINTRODUCE INDIRECT COMPETITION AS A FACTOR CONSIDERED IN MARKET DOMINANCE DETERMINATIONS FOR COAL TRANSPORTED TO UTILITY GENERATION FACILITIES	)	Docket No. EP 717

REPLY OF THE CONCERNED CAPTIVE COAL SHIPPERS

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In accordance with 49 C.F.R. § 1104.13 and the Board's decision in this proceeding served December 3, 2012, the Concerned Captive Coal Shippers ("Concerned Coal Shippers") hereby reply in opposition to the Petition that the Association of American Railroads ("AAR") filed in this proceeding on November 19, 2012 ("Petition"). The Concerned Coal Shippers respectfully request that the Board determine under 49 C.F.R. § 1110.2(f) that the Petition "does not contain adequate justification for opening a rulemaking proceeding."

In its Petition, the AAR proposes the reintroduction of product and geographic competition as factors that may be considered in qualitative market dominance analyses for complaints involving the transportation of coal to coal-fired electric generation facilities. The AAR's Petition misstates the nature of the market dominance standard and mischaracterizes and/or ignores the Board's various decisions in

Market Dominance Determinations – Product and Geographic Competition, Ex Parte No. 627. In addition, the AAR fails to address the subject of existing railroad rate levels and wrongly claims that evidence of product and geographic competition would be both "simple" and "practical" for parties to develop and would be "easily assessed" by the Board.

As the Concerned Coal Shippers demonstrate herein, there are many independent and valid reasons for denying the AAR's Petition. By way of introduction, however, it is sufficient to consider what supposed harm or danger the AAR is attempting to prevent. Reduced to its essence, the AAR's 163-page Petition asks the Board to protect the AAR's Class I railroad members from the risk that an electric utility whose coal-fired generation is being substantially displaced by natural gas-fired generating resources will invest millions of dollars in legal and consulting fees to litigate a maximum rate reasonableness case that is likely to take several years to complete under a set of rules that is more complex than at any time in the history of the agency (and certainly vastly more complex than as of the date of the Board's 1998 *Market Dominance* decision), all while the shipper pays whatever common carrier rate the railroad elects to set in anticipation of that litigation.[1]

[1] In this regard, the AAR claims that a rulemaking is necessary because "a large shipper might reasonably bring and hope to prevail in a rate case even when indirect competition already is effectively constraining its rates *to levels that barely exceed the jurisdictional floor*." AAR Petition at 10 (emphasis added).

Rather than face this supposed "risk," the AAR demands that the Board modify its market dominance procedures in order to permit Class I railroads to charge coal-burning utilities in such situations rail transportation rates that are completely free of any regulatory scrutiny. The suggestion that the Board should dedicate its limited resources to a rulemaking proceeding geared toward achieving this dubious end result is entirely unavailing.

IDENTITY AND INTEREST

The Concerned Coal Shippers include the following nine entities: (1) Alliant Energy Corporation; (2) Dairyland Power Cooperative; (3) Duke Energy Corporation; (4) Grand River Dam Authority; (5) Intermountain Power Project; (6) Seminole Electric Cooperative, Inc.; (7) South Carolina Public Service Authority (Santee Cooper); (8) South Mississippi Electric Power Association; and (9) Wisconsin Electric Power Company (d/b/a We Energies). Each entity consumes large volumes of coal to generate electricity and each relies upon rail carriers to transport that coal. Accordingly, each member of the group, by virtue of its circumstances, has a strong interest in the subject matter of this proceeding.

A more detailed summary of the identity and interest of each CCCS member appears in Exhibit No. 1 to this reply.

BACKGROUND

In its November 19, 2012 Petition, the AAR argues that dramatic changes in the wholesale power and natural gas markets warrant a reversal of the Board's prior decision to exclude consideration of product and geographic competition. In particular, the AAR claims that "[t]he limiting effect of . . . indirect competition – particularly the often head-to-head competition between natural gas and coal as fuel for wholesale power generation – is so profound today, and for the foreseeable future, that it simply is too important a factor to ignore in the market dominance analysis." AAR Petition at 1.

Faced with the adverse precedent of the Board's 1998, 1999, and 2001 decisions in Ex Parte No. 627, the AAR claims that access to new data sources will eliminate any concerns associated with the burden of presenting and analyzing data regarding the operation of the electric utility grid. The AAR insists that "in contrast to the situation more than a decade ago, when this Board concluded that analysis of indirect competition had proven too burdensome and time consuming, developments in the wholesale electric power and natural gas markets and in *public access to readily available data* now make it relatively simple and inexpensive to identify the limiting effect of indirect competition exercised in the wholesale power markets on coal transportation rates in those circumstances where it exists – and to identify as well those circumstances where it does not." AAR Petition at 1 (emphasis added).

In support of its Petition, the AAR presents the Verified Statement of Dr. David A. Reishus, an economist with Compass Lexecon, which is the economic consulting subsidiary of FTI Consulting. Dr. Reishus presents extensive testimony on the subject of downstream wholesale power markets, and identifies "two alternative forms of analysis of indirect competition on rail rates for transportation of coal exerted in the wholesale power markets that could be applied broadly using only readily available data and information." Verified Statement of David A. Reishus ("Reishus V.S.") at 66-67. Specifically, Dr. Reishus suggests that the Board could look to: (i) changes in coal-fired and natural gas-fired generation output; or (ii) wholesale power supply and capacity factor curves in order to determine whether market dominance exists. Ultimately, however, Dr. Reishus states that his two examples "do not represent specific proposals for the implementation of definitive screens for indirect competition exerted by the wholesale electric power markets." *Id*. at 71. Accordingly, despite a 163-page filing that includes an 87-page witness statement regarding the supposed simplicity of evaluating evidence of product and geographic competition in a new era of widespread public data availability, the AAR fails even to present an actual proposal for the Board's consideration.

Moreover, on the critical issue of whether indirect forms of competition "effectively" constrain railroad rates to reasonable levels, Dr. Reishus is largely silent. In fact, his most direct statement regarding this central issue is to concede candidly that "a number of factors *have so far muted the effect of the displacement of coal-fired generation on railroads and rail pricing*." *Id*. at 64 (emphasis added). Dr. Reishus' concession is both accurate and profoundly consequential. Despite all of the factors that

Dr. Reishus identifies regarding natural gas prices and the operation of the electric power markets, those indirect factors have not – by the AAR's own admission – "effectively" constrained railroad rates to reasonable levels.

ARGUMENT

The Board should deny the AAR's Petition. The AAR bases its Petition on a faulty interpretation of the market dominance standard that completely ignores the question of whether competitive factors effectively constrain railroad rates to "reasonable" levels. It is evident that the downstream market analyses described in the AAR's Petition are entirely irrelevant to the question of whether a given railroad's rates are reasonable.

The AAR also mischaracterizes the Board's prior decisions regarding indirect competition, wrongly suggesting that the Board had implicitly recognized that it "should" consider indirect competition and that the Board had engaged in a long search for a methodology that would allow it to achieve that goal. A review of the actual history shows that the Board repeatedly and emphatically rejected the AAR's many prior efforts to require consideration of indirect competition.

In addition, the AAR Petition claims that it would be simple and efficient to consider evidence of indirect competition. The analyses that the AAR identifies are patently irrelevant to the true market dominance standard, and offer only simplistic measures of the workings of complex power markets. Any railroad arguments based upon these crude analyses inevitably would require shippers to prepare extensive responsive testimony and would embroil the Board in complex disputes regarding the many additional factors that impact the electric power market; disputes that would unduly burden utility coal shipper complainants, strain the resources of the Board, and go far beyond the area of the Board's principal expertise as an administrative agency.

I. **The AAR Bases its Petition on a Faulty <u>Interpretation of the Market Dominance Standard</u>**

The AAR bases its Petition on a faulty interpretation of the market dominance standard; namely, an interpretation that ignores any measure of railroad rate reasonableness or railroad costs and instead is geared toward allowing the railroad to capture all of the economic rents associated with sales of coal-fired electric generation into the wholesale power market (and depriving the utility coal plant owners of the ability to capture profits that rightly should be theirs when coal plants can be run profitably at reasonable coal transportation rates). *See*, *e.g.*, AAR Petition at 2 (some coal-fired generation resources "run much less frequently, and sometimes rarely if at all, because of increased head-to-head competition from other generation resources. . . . Under these circumstances a railroad cannot have market dominance . . . ."). Similarly, the AAR wrongly suggests that railroad rates must be at "competitive levels" if the utility can no longer sell its coal-fired generation. *Id*. at 13 ("The resulting displacement of coal-fired generation by natural gas-fired generation is compelling evidence that indirect competition for rail transportation of coal for electric power generation *is effectively constraining rates for such transportation to competitive levels* . . . .") (emphasis added).

Accordingly, the fundamental premise of the AAR's Petition is the suggestion that when a railroad's rates are so high that the shipper's coal-fired generation can no longer compete in the downstream power sales market, the railroad's rates should be immune from regulatory scrutiny. Stated differently, the AAR implicitly bases its request for relief on the faulty premise that "effective competition" only means some market factor that theoretically could prevent a railroad from further increasing its rate to a given shipper (at least at certain times during the year) regardless of the present level of that rate. This premise is improper and warrants a decision from the Board denying the AAR's Petition. Competition in a shipper's downstream market does not constitute "effective competition" for purposes of Title 49.

A. A Proper Analysis of "Effective" Competition Necessarily Must Consider Whether Railroad Rates are Constrained to "Reasonable" Levels

Section 10707 of Title 49 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." 49 U.S.C. § 10707(a) (emphasis added).[2]

[2] The AAR's Petition ignores the substantial history associated with the statutory phrase "for the transportation to which a rate applies." *See, e.g.*, *Ass'n of American Railroads v. STB*, 237 F.3d 676, 679-80 (D.C. Cir. 2001) ("*AAR 2001*"); *Atchison, T. & S.F. Ry. v. ICC*, 580 F.2d 623, 634 (D.C. Cir. 1978). The AAR likewise ignores the fact that the Board previously rejected the AAR's argument that the Board must consider product and geographic competition. *See Market Dominance – Product and Geographic Competition*, 3 S.T.B. 937, 945-46 (1998) ("*Market Dominance 1998*"). The Board's interpretation of the market dominance statutory language received approval from the D.C. Circuit. *See AAR 2001*, 237 F.3d at 679-80.

Railroad rates that exceed "reasonable" levels are not constrained by effective competition.

While indirect forms of competition theoretically can constrain a railroad's coal rates at some upper limit, this does not mean that such competition is "effective" in constraining the carrier's rates to reasonable levels. As the Board and the ICC have held on numerous occasions, the mere existence of an alternative is not enough to establish a lack of market dominance; the alternative must constitute an *effective* constraint on the incumbent railroad's pricing power. *See, e.g.*, *West Texas Utilities Co. v. Burlington N. R.R.*, 1 S.T.B. 638, 646 (1996) ("[W]e look not just at whether there is an alternative, but at whether it constitutes an effective competitive constraint so as to prevent an exercise of undue market power."); *Metropolitan Edison Co. v. Consolidated Rail Corp.*, 5 I.C.C.2d 385, 410 (1989) ("We look to see if there are any alternatives sufficiently competitive (alone or in combination) to bring market discipline to Conrail's pricing.").

In short, competition is effective only "if it constrains rates to reasonable levels, so that regulatory scrutiny of them is unnecessary." *Amstar Corp. v. Atchison T. & S.F. Ry.*, NOR 37478, 1987 WL 99931, at *2 (ICC decided Nov. 23, 1987) ("*Amstar Corp*"); *see also M&G Polymers USA, LLC v. CSX Transp., Inc.*, NOR 42123, slip op. at 11 (STB served Sept. 27, 2012) ("*M&G Polymers*") ("[I]n rate cases the Board looks to see if there are any alternatives sufficiently competitive . . . to bring market discipline to the carrier's pricing – *i.e.*, whether there is effective competition *adequate to restrain rates at or below a maximum reasonable level*.") (emphasis added).

Contrary to the implication of the AAR's Petition, the possibility that the carrier might lose some volume of traffic if its rates are increased beyond a certain level does not mean that it faces effective competition. As the ICC held in its *Amstar Corp.* decision:

> All rates are constrained by market forces. *Even monopolists find that, if they raise prices too high, customers decrease their purchases to such an extent that profits begin to fall*. Thus, the fact that motor carrier rates constrain rail rates at some arbitrary level does not necessarily indicate that an effective competitive constraint is in place.

Amstar Corp., 1987 WL 99931 at *6 n.11 (emphasis added).

Similarly, in its 1997 *Arizona Public Service* decision, the Board quoted the D.C. Circuit's 1984 determination that the effective competition standard necessarily must be tied to the concept of rate reasonableness:

> "At the core of the 'effective competition' standard is the idea that there are competitive, market pressures on the railroads deterring them from charging monopoly prices for transporting goods. *Of course, any such effective competition will always be relative to a particular price that the railroads charge*. At some point the availability of an alternative such as the horse and buggy or even people carrying oil in buckets theoretically prevents railroads from raising their rates beyond an outer bound. But the mere existence of some alternative does not in and of itself constrain the railroads from charging rates far in excess of the just and reasonable rates that Congress thought the existence of competitive pressures would ensure."

Arizona Pub. Serv. Co. v. Atchison, T. & S.F. Ry., 2 S.T.B. 367, 378 n.30 (1997) ("*Arizona Public Service*") (quoting *Arizona Public Service Co. v. United States*, 742 F.2d 644, 650-51 (D.C. Cir. 1984) (emphasis in original)); *see also M&G Polymers*, slip op. at 12 ("Again, as M&G correctly observes,[] at some point even a monopolist could price its services so high that even patently ridiculous transportation alternatives would eventually serve to constrain rates."). As a result, the critical issue thus is not whether potential substitutes exist, but whether they are *effective* – that is, whether they can be relied upon to limit rail rates to *reasonable* levels. It is insufficient simply to consider – as the AAR proposes – whether a railroad's rates are so high that a shipper can no longer make use of its coal-fired generation facilities due to competition in its downstream market.[3]

Notably, the Board has addressed the necessary linkage between the concepts of effective competition and rate reasonableness in its various decisions in Ex Parte No. 627, *Market Dominance Determinations – Product and Geographic Competition*. Specifically, in its 1999 decision denying the AAR's petition for reconsideration, the Board emphasized that "railroad rates are constrained either by market forces or by regulation, and the rates must be *reasonable* regardless of which force constrains them." *Market Dominance Determinations – Product and Geographic Competition*, 4 S.T.B. 269, 281-82 (1999) ("*Market Dominance 1999*") (emphasis

[3] The D.C. Circuit previously has addressed the question of whether the agency may rely upon downstream market caps when attempting to discern whether regulation is necessary to protect shippers from an abuse of market power. Specifically, in *Coal Exporters Ass'n of the United States, Inc. v. United States*, 745 F.2d 76, 98-99 (D.C. Cir. 1984) ("*Coal Exporters*"), the D.C. Circuit vacated the ICC's determination that it was appropriate to rely upon the world price of coal (*i.e.*, a downstream market factor) as a basis for concluding that the agency should exempt the domestic rail transportation of export coal from regulation.

added). Moreover, the Board added that "the market dominance provision does not shield unreasonably high rates; it merely directs the agency's limited resources to those rates that are not constrained by readily apparent competitive markets." *Id*., 4 S.T.B. at 282.

Likewise, in its 1997 *Arizona Public Service* decision, the Board confirmed that it is appropriate to consider changes in the defendant carrier's profit levels when attempting to determine whether market dominance exists. *See Arizona Public Service*, 2 S.T.B. at 378-79. In this case, the defendant carrier had argued "that the fact that its rates have remained the same in constant (inflation-adjusted) dollars [over a period of twelve years] indicates lack of market dominance." *Id*., 2 S.T.B. at 378. The Board disagreed, explaining that the proper "yardstick" for evaluating market dominance issues is railroad profit levels:

> *The proper yardstick is the change in the relationship of rates to costs for the traffic*, not the change in rate levels alone. Under Arizona's estimate of the revenue/variable cost (R/VC) percentages for 1982-1994, the percentages have steadily increased over this period, rising from approximately 290% in 1982 to 490% in 1994.[] In other words, while the rates have decreased in real terms, costs have decreased in real terms by an even greater percentage. *The continually increasing profits earned by Santa Fe over a 12-year interval do not reflect competitive constraints*.

Id., 2 S.T.B. at 378-79 (emphasis added).

Accordingly, it is insufficient and improper for the AAR to purport to address the question of indirect evidence of market dominance absent a showing that the indirect factors are constraining railroad rates to reasonable levels. *Accord Market*

Dominance 1998, 3 S.T.B. at 948 ("a rate level that is constrained by effective competitive alternatives would doubtless be found *reasonable*, as AAR acknowledges.") (emphasis added).

B. The AAR's Petition Does Not Provide Any Suggestion that Indirect Competition Constrains Railroad Rates to Reasonable Levels

Despite its length, the AAR's Petition lacks any suggestion that indirect competition has constrained railroad rates on coal traffic to "reasonable" levels. Instead, the AAR discusses the subject of limits on further increases to members' existing rates. *See*, *e.g.*, AAR Petition at 12. In particular, the AAR contends that the "crucial factor is the accurate identification of competitive alternatives that *constrain a profitable increase* in rail transportation rates above competitive limits . . . ." *Id*. (emphasis added).

The question of whether a rail carrier can implement a further "profitable increase" in its rates is irrelevant for market dominance purposes if the existing level of that rate already vastly exceeds the Board's jurisdictional threshold. In its Petition, the AAR never addresses the question of whether rail carriers' existing rates substantially exceed the Board's jurisdictional threshold. In fact, as noted above, the AAR's Dr. Reishus concedes that "a number of factors *have so far muted the effect of the displacement of coal-fired generation on railroads and rail pricing*." Reishus V.S. at 64 (emphasis added). Under the Board's longstanding interpretation of the market dominance standard, the absence of any demonstration that indirect competition constrains railroad rates on coal traffic to reasonable levels is sufficient to warrant denial of the AAR's request. *See, e.g.*, *Market Dominance 1999*, 4 S.T.B. at 281-82 ("railroad rates are constrained either by market forces or by regulation, and the rates must be *reasonable* regardless of which force constrains them.") (emphasis added).

C. Union Pacific Has Publicly Stated that it Will Not Reduce its Coal Transportation Rates in Response to Downstream Market Factors

At the same time the AAR was engaged in the preparation of its Petition, one of its members publicly proclaimed that it would not reduce its rates on coal transportation, and instead, would keep rates at high levels even if it would mean that the railroad would lose certain customers' business.

In particular, Union Pacific Railroad Company's ("UP") CEO Mr. Jack Koraleski explained with striking candor during UP's third quarter 2012 earnings call that downstream market factors would have no impact whatsoever on UP's pricing for coal transportation service:

> Union Pacific's business strategy with regard to shipping rates – be it coal, intermodal or anything else – remains effective, and the approach will be maintained going forward, according to company CEO Jack Koraleski.
>
> The method by which the railroad sets its rates might rankle customers from time to time, but it has helped keep UP profitable, and there is no reason to consider a change, Koraleski said during the company's recent third quarter earnings call.
>
> It's difficult to argue with such a stance when considering UP recorded its best-ever quarterly results, including earnings per share improvement of 18 percent, operating revenues of \$5.3 billion and operating income of \$1.8 billion (up 13 percent).

> "*We have a number of customers that come to us and say 'If you don't lower your coal rates we will go out of business.'" Koraleski said. "Unfortunately if their business is dependent on the value of their transportation contract and not on the intrinsic product that they are producing, they will probably go out of business anyway. And we also have to be sensitive to all of our other coal customers, so we take a very pragmatic approach*."
>
> "I can tell you we are not straying away from our strategy, which is to price to re-investable levels, and if we can't get to re-investable levels *we will walk away from the business*. We have stayed strong with that, and it has paid a great benefit for us. That's where our head is. We will win some, and we will lose some. . . ."
>
> "*In the event you see us lose business, you can assume from that we could not meet the criteria and we were prepared to walk away because our franchise gives us plenty of opportunities to fill the gap and take advantage of the capacity to move other freight with other customers*."

"Word from UP: Don't expect rate relief designed to keep companies in business," *Coal & Energy Price Report*, October 19, 2012 (emphasis added). This pricing attitude constitutes the exact opposite of what would be expected from a carrier subject to effective indirect competition. Instead, this earnings call reflects the attitude of a carrier that is sufficiently confident in its pricing power that it is willing to divert its transportation assets to other lines of business rather than to accept profit margins on utility coal traffic that do not satisfy its aspirations.

D. The AAR's Approach is Directly Contrary to the Cost-Based Approach the Board Invoked to Resolve Market Dominance in the *M&G Polymers* Case

The AAR contends that there are objective measures through which the Board can resolve the "qualitative" question of whether railroad rates to a given coal-fired generating station are subject to effective competition. Although the AAR ultimately insists that it is not making any specific proposals, the Petition suggests that the Board could find an absence of market dominance because of changes in the generating output of the station (relative to the generating output of some subset of gas-fired units selling power into the market) or because of the position of the station's units on a dispatch curve for a subset of the overall electric power market. Essentially, these two approaches represent efforts to apply a "quantitative" standard to the Board's "qualitative" market dominance determinations.

Notably, the AAR filed its Petition shortly after the Board adopted a "quantitative" approach to resolve the complex qualitative market dominance issues in the *M&G Polymers* case, but the AAR's Petition is diametrically opposed to the Board's *M&G Polymers* approach. In *M&G Polymers*, the Board first calculated a limit price for each movement (*i.e.*, "the highest price CSXT theoretically could charge M&G without causing a significant amount of the issue traffic on a particular movement to be diverted to any particular competitive alternative). *Id*., slip op. at 3-4. Second, the Board calculated a "'limit price R/VC ratio' by comparing the limit price to CSXT's variable costs of providing the service at issue." *Id*., slip op. at 4. Finally, the Board compared

CSXT's most recent Revenue Shortfall Allocation Method ("RSAM") figure to the limit price R/VC ratio. *Id*.

If the limit price R/VC ratio exceeded CSXT's most recent RSAM figure, the Board concluded that the alternative could not exert competitive pressure sufficient to effectively constrain the rate at issue. Conversely, if the limit price R/VC ratio fell below the RSAM figure, the Board preliminarily concluded that the competitive alternative effectively constrained the rate at issue.

In summarizing its market dominance approach *M&G Polymers*, the Board again emphasized that it is essential to consider objective measures of railroad rate reasonableness (*e.g.*, revenue-to-variable cost levels) in determining whether effective competition actually exists:

> We believe this refined approach to market dominance provides objective guidance in gauging whether or not a particular feasible alternative is effectively constraining the railroad's pricing. For example, if a feasible alternative prevents the railroad from charging rates above 190% of variable costs, it would appear that the marketplace is capable of disciplining the carrier's behavior. *In contrast, if that same alternative serves only to prevent the railroad from charging rates above 500% of variable costs, then it is equally clear to us that the marketplace is not placing sufficient discipline on the carrier's behavior and that Congress would have intended for the Board to investigate the reasonableness of those rates*.

Id., slip op. at 17 (emphasis added).

The Concerned Coal Shippers object to the use of the RSAM value as a gauge of whether a particular form of direct competition is effective. Nevertheless, the

Concerned Coal Shippers note that the AAR's Petition contemplates a qualitative market dominance analysis that is diametrically opposed to the Board's approach in *M&G Polymers*. In particular, the Board's *M&G Polymers* decision looked to railroad variable cost levels to gauge the effectiveness of purported competition. Conversely, the AAR Petition contemplates an analysis of the electric generating markets that is entirely devoid of any consideration of railroad costs, railroad profitability, or railroad contribution. Under the AAR's "downstream market-based" approach, a railroad charging rates above the 500% R/VC level that the Board identified in *M&G Polymers* could be found to lack market dominance.

In fact, the type of market dominance analysis that the AAR contemplates in its Petition ironically is *more* likely to indicate that a particular generating station's output is subject to displacement by gas-fired generation if the rail transportation rate at issue greatly exceeds the Board's 180% R/VC jurisdictional threshold. In other words, a higher railroad rate is more likely to create a situation in which the shipper will face competition in its downstream market since the higher rate will make the plant's generation less competitive in the downstream market. Accordingly, rather than identifying railroad rates that are effectively constrained to reasonable levels, the AAR's Petition instead contemplates a market dominance standard that is the exact opposite of both the governing statute and the Board's *M&G Polymers* approach.

E. The Board is Entirely Justified in Looking to Rate Reasonableness Issues in Deciding Whether to Engage in Optional, Non-Jurisdictional Review of Indirect Competition

In its 1998 decision in Ex Parte No. 627, the Board relied upon the fact that the continuing consideration of indirect competition evidence would have little practical benefit because, *inter alia*, rates that were constrained by effective competitive alternatives would be found reasonable. *See Market Dominance 1998*, 3 S.T.B. at 948 ("[A] rate level that is constrained by effective competitive alternatives would doubtless be found reasonable, as AAR acknowledges.") (citing AAR Opening Comments, Kalt/Willig V.S. at 17).

In its 2012 Petition, the AAR contends that this "rationale alone would not suffice, because a finding of market dominance is a jurisdictional predicate to any investigation into the reasonableness of a railroad's rates." AAR Petition at 9 n.5 (citing *Coal Trading Corp. v. B&O R.R.*, 6 I.C.C.2d 361, 372 n.11 (1990)). The AAR's argument is unavailing, however, because the AAR improperly confuses: (i) the jurisdictional nature of the market dominance standard itself; with (ii) the decidedly non-jurisdictional question of whether the Board elects to consider evidence of product and geographic competition in making its market dominance determinations.

It is certainly correct that the Board must make a finding of market dominance in order to find a given rate to be unreasonable. *See* 49 U.S.C. § 10707(c) ("When the Board finds in any proceeding that a rail carrier proposing or defending a rate for transportation has market dominance over the transportation to which the rate applies, it may then determine that rate to be unreasonable if it exceeds a reasonable maximum for that transportation.").

Significantly, however, the Board and the courts have found that the Board need not consider evidence of indirect competition in making market dominance determinations. *See Market Dominance Determinations – Product and Geographic Competition*, 5 S.T.B. 492, 495 (2001) ("*Market Dominance 2001*") ("The court agreed with our finding that the market dominance provisions of the statute do not on their face require consideration of product and geographic competition.") (citing *AAR 2001*, 237 F.3d at 679-80). Accordingly, the "jurisdictional predicate" argument that AAR raises in its Petition applies only to the Board's market dominance finding itself, not to the Board's optional consideration of indirect competition. The Board was entirely free – when deciding whether to consider an entirely discretionary line of evidence – to rely upon the fact that rates constrained by effective indirect competition would be found to be reasonable through a SAC case.

The Board's conclusion that the consideration of indirect competition would have little practical value is entirely valid. Any railroad rate subject to effective competition should be reasonable, and the preclusion of indirect competition evidence therefore would not have any impact on the ultimate determination of whether the rate is excessive. *See Market Dominance 2001*, 5 S.T.B. at 498 n.17 ("As we also explained earlier, and in the *1998 Decision*, at 98 & n.60, the railroads' own expert witnesses agreed that 'the application [of our market-based rate standards] tends to yield results not substantially different from rates set by competitive markets.'").

II. The AAR Mischaracterizes the Board's Rationale for Terminating Further Consideration of Indirect Competition

In its Petition, the AAR mischaracterizes the Board's rationale for terminating its consideration of product and geographic competition to create the mistaken impression that the Board did so only grudgingly or with substantial uncertainty about the merits of its decision. For example, the AAR claims that the Board had "concluded that while product and geographic competition *should* be considered, it *would not do so until* a practical manner for the submission and evaluation of evidence of such competition could be found." AAR Petition at 4 (emphasis added). Likewise, the AAR comments that Dr. Reishus' market evaluation approaches "would apply to a meaningful number of cases, providing the efficient and expeditious process to consider indirect competition *that the Board has long sought . . . .*" *Id*. at 5 (emphasis added). The AAR also attempts to read between the lines of the Board's *Market Dominance 1998* decision to discern that "[t]he Board's analysis *implicitly* recognized that, if evidence of indirect competition could be considered without burdensome threshold litigation, *then it should be*." *Id*. at 8 (emphasis added).

A review of the extensive actual history of Ex Parte No. 627 demonstrates that the AAR's musings about the Board's "implicit" recognition that indirect competition "should" be considered, and the Board's supposedly "long search" for a way to consider indirect competition, etc., are simply incorrect. In fact, the Board repeatedly and unequivocally explained in response to the AAR's arguments in Ex Parte No. 627 that it was firmly convinced that precluding evidence on the subject of indirect competition was essential and that the balance of interests tilted unquestionably in favor of the Board's decision. Throughout the lengthy history of Ex Parte No 627, the AAR repeatedly challenged the Board's authority to exclude consideration of indirect competition, downplayed the burdens associated with litigating market dominance issues, and proposed measures that supposedly would have transformed the consideration of indirect competition into a straightforward exercise.

Time and time again, the Board rejected the AAR's arguments, finding that the decision to preclude consideration of indirect competition was "necessary and appropriate," and that there was "no question" that the "scale tilt[ed] heavily in favor" of the Board's decision. The Board rejected the arguments that the AAR raised in its May 29, 1998 Comments and its June 29, 1998 Reply Comments, and the Board denied the AAR's January 11, 1999 Petition for Reconsideration and its February 21, 2001 Petition to Reopen on Remand. The individual Board members issued candid commenting opinions reiterating that a shipper with effective competition would not file a rate case, and explicitly questioning the AAR's actual views when making arguments in support of the consideration of indirect competition.

A. ***Review of Rail Access and Competition Issues***

In April of 1998, the Board conducted public hearings in response to a request from Senator John McCain, Chairman of the Senate Committee on Commerce, Science, and Transportation, and Senator Kay Bailey Hutchison, Chairman of the Subcommittee on Surface Transportation Board and Merchant Marine. *See Review of Rail Access and Competition Issues*, 3 S.T.B. 92 (1998) ("*Ex Parte No. 575*"). The purpose of the two-day hearing was to examine issues of rail access and competition in the railroad industry. *Id.*, 3 S.T.B. at 92.

The Board explained in its decision in *Ex Parte No. 575* that at the hearing, shippers had expressed continuing concerns with the inclusion of product and geographic competition in the market dominance standard, and that "[b]ased on more than a decade of experience," it would reconsider whether the ICC's original decision to preclude evidence of indirect competition was the better approach:

> Another area of continuing concern for rail-dependent shippers involves the difficulties associated with seeking rate relief from the Board, especially those difficulties posed by the components of our market dominance standards relating to product and geographic competition. . . . Shippers complain that the examination of possible product and geographic competition unduly complicates the market dominance determination and places an enormous litigation obstacle to a shipper's ability to pursue a rate complaint.

Id., 3 S.T.B. at 98-100.

The Board added that "[p]lainly, the zealous use of the discovery process may be partly to blame for the heavy burdens associated with the inquiry" but the Board suggested that the problems associated with consideration of product and geographic competition went beyond discovery. *Id*., 3 S.T.B. at 99. Specifically, the Board found that "[w]hile our action to curb discovery abuses may alleviate some of the shippers' concerns, we believe that it is also time to consider removing product and geographic competition altogether from the market dominance analysis." *Id*. As the Board noted, the ICC initially "concluded that these issues complicate rate proceedings unduly . . . [and] [b]ased on more than a decade of experience, we should now reconsider whether the ICC's initial conclusion was the better one." *Id*., 3 S.T.B. at 99-100.

The Board thereupon issued its "Notice of Proposal to Eliminate Product and Geographic Competition From Consideration in Market Dominance Determinations" in Ex Parte No. 627. *See Market Dominance Determinations – Product and Geographic Competition*, EP 627, slip op. at 3-4 (STB served April 29, 1998) ("At the Ex Parte 575 hearings, shippers complained about the difficulties associated with seeking rate relief from the Board today, particularly the complexity and burden of litigating issues of product and geographic competition, issues that they charge have transformed the threshold market dominance phase of a rail rate complaint into a full-blown antitrust-style case of its own.").

B. ***Market Dominance 1998***

Both coal shippers and the AAR submitted extensive comments and reply comments in Ex Parte No. 627.[4] The AAR's opening Comments strongly opposed the Board's proposal, arguing first that the Board lacked the authority to discontinue the consideration of indirect competition. *See* Comments of the Association of American Railroads, at 5-9 (May 29, 1998) ("AAR Comments"). The AAR's Comments included many of the same points that the AAR advances in its 2012 Petition (*e.g.*, claims that indirect competition is effective, promises that there are simple ways in which the Board could consider indirect competition, and efforts to downplay the burdens faced by shippers in litigating market dominance issues). *Id*. at 12-30. The AAR's Comments included expert statements from Dr. Joseph P. Kalt, Dr. Robert D. Willig, and Dr. Robert L. Sansom, and written testimony from senior marketing executives of each of the four largest railroads regarding the supposedly effective nature of indirect competition.

In its June 29, 1998 Reply Comments, the AAR largely dismissed the shippers' suggestion that there was any burden associated with the consideration of product and geographic competition, and the AAR insisted that any legitimate concerns about the burden of litigating product and geographic competition issues could be addressed through procedural changes. *See* Reply Comments of the Association of

[4] Coal shippers submitting May 29, 1998 comments in Ex Parte No. 627 included the Western Coal Traffic League, the National Mining Association, Texas Municipal Power Agency, City Utilities of Springfield, Missouri, and Salt River Project Agricultural Improvement and Power District.

American Railroads, at 15 (June 29, 1998) ("AAR Reply Comments"). The AAR also complained – perhaps without recognizing the irony of its argument – that no shipper had presented evidence of a meritorious rate complaint that had not been filed. *Id*. ("Almost every commenter relied on [the burden] argument, but not a single example was provided of a meritorious rate reasonableness claim that did not get brought because of the burden of demonstrating product and geographic competition.").

Finally, the AAR also suggested on reply that concerns about burden were improper because the issues of product and geographic competition were "straightforward" and do not "require excessive time and resources to litigate." *Id*., Reply Verified Statement of Dr. Robert L. Sansom ("Sansom Reply V.S.") at 2-3 ("I can say with some degree of confidence that, when assessed by reference to the standard types of issues that normally arise in any significant regulatory dispute . . . or in commercial litigation generally, the issues of product and geographic competition in rate reasonableness cases *are comparatively straight-forward, do not require excessive time and resources to litigate*, and are well within the competence of large corporate rail shippers (such as electric utilities) to address in evidentiary submissions.") (emphasis added).

Notwithstanding the AAR's claims that hybrid competition from the electric grid would constrain rail rates and that it would be possible to reduce any burdens associated with the consideration of indirect competition evidence, the Board found in its December 10, 1998 decision in Ex Parte No. 627 that it was appropriate to cease consideration of indirect competition. *See Market Dominance 1998*, 3 S.T.B. at 938. Contrary to the characterization of the 1998 decision in the AAR's Petition, the Board was unequivocal in finding that the consideration of product and geographic competition was improper: "As both the record here and many years of experience in rail rate cases demonstrate, consideration of product and geographic competition significantly impedes the efficient processing of such cases." *Id.*

In reaching its decision, the Board first found that "inclusion of product and geographic competition, although permissible (if it can be practicably considered), is not required." *Id*. at 946. The Board also relied heavily on the fact that shippers would be unlikely to pursue rate challenges where effective competition exists (*id*. at 948), and the Board emphasized its statutory directive to process rate cases expeditiously. *See id*. at 938 ("Accordingly, to comply with both the recent legislative directive to process rate complaints more expeditiously and the long-standing Congressional intent that market dominance be a practical determination made without delay, we will limit the evidence that can be considered to only that required by the statute, *i.e.*, competition 'for the transportation to which a rate applies.'").

Finally, the Board found that "there can be no question" that the consideration of indirect competition "imposes substantial burdens on both the parties and this agency" (*see id*. at 946) and the Board concluded that it can "more expeditiously, efficiently and effectively carry out our mandated functions by limiting the market dominance inquiry to the scope expressly required by the statute." *Id*. at 948.

C. *Market Dominance 1999*

On January 11, 1999, the AAR sought reconsideration of the Board's 1998 decision in Ex Parte No. 627, arguing that the Board had "mischaracterized the parties' and the agency's actual experience in considering product and geographic competition in prior cases." AAR Petition for Leave to File Appendix to Petition for Reconsideration, at 2 (filed January 11, 1999); *see also id.* ("[T]he Board has mischaracterized the facts of the specific cases on which the Board's present findings of burden and delay are based."). The AAR also accused the Board of "flout[ing] congressional intent," "inexplicably dispens[ing] with the kind of careful balancing that has been a hallmark of its decisionmaking," and "decid[ing] to put its thumb down on one side of the scale . . . ." AAR Petition for Reconsideration, at 2, 12 (filed January 11, 1999).

By decision served July 2, 1999, the STB denied the AAR's Petition, again emphasizing that its decision was sound based upon the Board's many years of experience dealing with litigation involving indirect competition. See, e.g., *Market Dominance 1999*, 4 S.T.B. at 274 ("AAR's claim that the burdens associated with consideration of product and geographic competition have not been excessive[] stands in sharp contrast to our own experience as well as the overwhelming evidence and argument submitted by the shipping community."). According to the Board, the AAR attempted to "downplay the documented burdens by focusing on the time it took to complete discovery,[] to compile the evidentiary record, or to issue decisions in individual cases,[]

and by counting the number of pages in particular decisions[] that address product and geographic competition." *Id*., 4 S.T.B. at 274-75.

Rejecting this AAR effort, the Board observed that "the prospect of confronting massive discovery requests and engaging in substantial discovery disputes clearly could dissuade (and we believe has dissuaded) some potential complainants." *Id*., 4 S.T.B. at 275. The Board added that "[t]he very heavy burden on shippers from contending with product and geographic competition issues extends well beyond discovery," and that "[c]ontrary to AAR's contention, the record is replete with testimony from shippers that the burden of preparing evidentiary presentations in response to allegations of effective product and geographic competition is quite substantial." *Id*., 4 S.T.B. at 275-76; *see also id.*, 4 S.T.B. at 276 ("Product and geographic competition issues often involve non-transportation aspects of a shipper's business and, because the agency lacks extensive expertise in non-transportation industries, the burden on a shipper to fully educate the Board on its industry and its operations can be very great.").

In addition, the Board found that the consideration of indirect competition "place[d] a heavy burden on this agency." *Id*. In response to the AAR's claim that the Board is "quite capable" of resolving indirect competition issues, the Board explained that the consideration of indirect competition severely taxed the Board's limited resources:

> We are not afraid to tackle complex and difficult issues, and we recognize that, with enough time and resources, we can educate ourselves on the nuances surrounding a particular shipper's business, but such analyses are seldom simple (as

> the recently tendered evidence in the *FMC* case demonstrates once again[]) and they severely tax our limited resources. Thus, consideration of product and geographic competition makes it difficult for us to comply with the statutory directive to expedite rate cases.

Id., 4 S.T.B. at 276-77.

In reaching its decision to deny reconsideration, the Board placed its greatest emphasis on the fact that product and geographic competition issues were discouraging shippers from filing legitimate cases:

> Ultimately, the most troubling aspect of including an examination of product and geographic competition involves the widespread claims that captive shippers with legitimate concerns about the level of their rates are deterred from availing themselves of their statutory right to challenge those rates. While those claims cannot be documented, we do not doubt them, given the complexity and cost that consideration of these factors introduces into a proceeding. . . .
>
> *Notwithstanding the obvious substantial burdens on shippers and the agency* of considering product and geographic competition in the market dominance determination, and the chilling effect on captive-shipper rate complaints, AAR contends that such factors are not entitled to any weight. AAR would have us accord paramount importance to the statutory policy favoring reliance on market-set rates where there is effective competition.[] But "this [policy] must be read in conformity with the other provisions and policies of the Act."[] Congress has also called for the market dominance determination to be a practical test,[] for rate cases to be handled and resolved expeditiously,[] and for shippers without competitive alternatives to have reasonable access to the rate complaint process.[]

Id., 4 S.T.B. at 277-78 (emphasis added) (citing *Coal Exporters*, 745 F.2d at 98; 49 U.S.C. § 1(5) (1976); 49 U.S.C. §§ 10101(15) and 10704(d), which were affirmatively added by Congress in the ICC Termination Act of 1995; and 49 U.S.C. § 10101(6)).

The Board concluded that it was "confident" that it had "struck an appropriate balance" in *Market Dominance 1998*, and explained that its decision would not harm railroads:

> We do not believe that the relatively modest burden placed on the carriers by our revised policy – the burden of litigating a potentially frivolous case – outweighs the substantial burdens on the administrative process of continued consideration of product and geographic competition. *Specifically, we are not persuaded that our revised policy will result in railroads having to defend rates where competition is effective and the resulting rate is reasonable*.[] Disaffected shippers are not likely to pursue a rate complaint when faster, less costly and more effective self-help is available in the marketplace. . . .
>
> Thus, we believe that our revised policy should lead to additional rate complaints only where captive shippers have been deterred from challenging rates on market dominant traffic by the prospect of burdensome and protracted antitrust-style litigation.

Id., 4 S.T.B. at 278 (emphasis added).

The Board also rejected the AAR's suggestions that alternative measures existed through which the Board could reduce the burden associated with the consideration of product and geographic competition. *Id.*, 4 S.T.B. at 279. The Board "fail[ed] to see how either [AAR] proposal [to reduce burdens] would simplify the processing of rate cases substantially or remove the existing deterrent to the filing of rate complaints by captive shippers." *Id.*; *see also id.*, 4 S.T.B. at 279 n.48 ("AAR misses the central point . . . ."); *id*., 4 S.T.B. at 280 ("Again, rather than simplifying the market dominance inquiry, [the proposal of] a case-by-case approach would further complicate the process by requiring threshold litigation on whether the issues of product and geographic competition sought to be introduced would lead to an antitrust-type inquiry.").

Summarizing its decision, the Board explained its reasoning in a manner that runs counter to the language of the AAR's 2012 Petition:

> After considering the arguments raised by the railroad interests and again reviewing the law on the issue, we reaffirm our prior conclusion that we possess discretion as to what form of competition we will consider in our market dominance determinations, in view of the modest objective of the market dominance determination, the need for practicality, and the Congressional directive to expedite the rail rate complaint process. *Our decision to no longer consider indirect competition (whether product competition, geographic competition, or some hybrid of the two) is necessary and appropriate*, based on the record and years of experience, to remove the undue burdens and obstacles that their consideration imposes on the filing and processing of rate complaints by captive shippers. While we have tried some, and the railroads have suggested other, more limited modifications to our market dominance procedures, we do not believe that these alternatives would adequately address our concerns.

Id., 4 S.T.B. at 283 (emphasis added).

Further insight into the Board's rationale in deciding to prohibit consideration of indirect competition appears in two separate commenting opinions written by Chairman Morgan and Commissioner Burkes. In her commenting opinion, Chairman Morgan emphasized that the issue in Ex Parte No. 627 was not an issue of substantive policy (as to which she explained that different views were possible), but instead, pertained to the question of access to a fundamental statutory remedy:

> Indeed, of the various concerns that were raised during last year's [EP 575] hearings, in many ways the one that concerns me most is the one that we address here. *That is because, rather than presenting an issue of substantive policy (as to which I see room for differing views), this case principally concerns our administrative process – more specifically, procedural access to a fundamental statutory remedy*. The statute provides that a shipper required to pay an unreasonable rate may come to the Board for relief. *As the agency administering that statute, we must do all within our power to ensure that our procedures in fact provide shippers with real access to the relief that Congress has made available*.
>
> Of course, the market dominance threshold inquiry is designed to free railroads from having to litigate cases where the shipper can exercise self-help by using available alternatives. *But where the market dominance inquiry discourages the filing of meritorious complaints and frustrates the rate relief process set up by Congress, we must correct our procedures*. Here, as the record amply demonstrates, even where a shipper is willing to file a complaint, the seemingly endless discovery process followed by a detailed analysis of product and geographic competition issues can tie up the Board's processes.
>
> The railroads argue that we acted rashly here by adopting an extreme measure; if discovery is a problem, the railroads say, we can fix it with narrowly tailored rather than broad relief. Discovery clearly has been used as an offensive weapon and has created an uneven playing field. But even without discovery, litigation relating to product and geographic competition can be overbearing. . . .
>
> *In the end, eliminating product and geographic competition from the market dominance analysis does not take away the railroads' ability to show that the rates at issue are reasonable. I am thus convinced that the broader action*

> *we are taking here is necessary* to ensure a level playing field for all parties in accordance with the policies embodied in the law.

Id., 4 S.T.B. at 284-85 (Chairman Morgan, commenting) (emphasis added).

Commissioner Burkes likewise emphasized that the Board's decision was a matter of "economic fairness," was mandated by the statutory definition of market dominance itself, and was a matter that would not harm the railroads since a shipper with effective competition would not file a rate case. He also questioned whether the AAR genuinely doubted the Board's discretion or the fact that its decision was judicially sustainable:

> I commend the Board for bringing a sense of balance and finality to what has become, over the years, an issue difficult to get a handle on. But today we bring a degree of closure to an odyssey that began as early, at least, as 1976. . .
>
> . . . Congress entrusted both the ICC and the Board with the broad discretion to develop useful yet meaningful methods of determining Market Dominance and rate reasonableness. *And try as they may, the petitioners cannot really doubt in this instance that such discretion, no matter how exercised, is by statutory design, and is judicially sustainable.*
>
> I believe that now the Board has finally got it right, not just in terms of the construction and application of the law, but more important, in terms of economic fairness. Specifically, ICCTA defines Market Dominance as "an absence of effective competition from other rail carriers or modes of transportation for the transportation to which a rate applies." *To me, with respect to statutory construction, logic suggests that the words "for the transportation to which a rate applies" would exclude the consideration of traffic beyond that for which the rate applies, i.e., the transportation of other products and/or from other locations.*

> On the other hand, with respect to economic fairness, I have difficulty embarking upon consideration of factors, such as product and geographic competition, that in effect brings unnecessary scrutiny of a shipper's manufacturing, marketing, and industrial decisions. Why require a shipper to do this? *Why position such a road block making it difficult, costly, and time consuming for a shipper to make its case, when the existence of such competition on its face will likely not produce a rate challenge in the first place*. In other words, when weighing the equities of excluding geographic and product competition as a carrier defense, I find it hard to conclude that carriers will be significantly harmed, because *the existence of such competition will, if effective, have already constrained rates, perhaps below even the statutory jurisdictional threshold, preventing a shipper from bringing a rate case in the first place*.

Id., 4 S.T.B. at 286-87 (emphasis added). This language stands in sharp contrast to the AAR's 2012 suggestion that in Ex Parte No. 627, the Board believed that it "should" consider indirect competition and that it had "long sought" a practical measure of doing so.

D. *Market Dominance 2001*

On review, the D.C. Circuit rejected the AAR's argument that Section 10707(a) requires the Board to consider indirect competition in determining market dominance, but the court concluded that the Board had failed to address the statutory rail transportation policy ("RTP") to "'allow, to the maximum extent possible, competition and the demand for services to establish reasonable rates for transportation by rail.'" *AAR 2001*, 237 F.3d at 679-80 (quoting 49 U.S.C. § 10101(1)).

In response to the court's remand order, the AAR filed a petition to reopen the administrative record in Ex Parte No. 627. *See Market Dominance Determinations 2001*, 5 S.T.B. at 495. In its petition, the AAR requested that it "be afforded yet another opportunity to 'advance specific proposals for the development and presentation of evidence of product and geographic competition, including limitations on discovery.'" *Id*. The AAR also requested that the Board direct the shipper and railroad interests "'to negotiate compromise rules governing the development of evidence on product and geographic competition.'" *Id*., 5 S.T.B. at 495-96.

In its April 2001 decision on remand, the Board rejected the AAR's petition to reopen the record and provided its analysis regarding 49 U.S.C. § 10101(1). *Id*., 5 S.T.B. at 496 (explaining that it had "no reason to believe that taking additional comments would provide new insight on the issues involved" and "no reason to believe that any negotiations now would be fruitful"); *id*., 5 S.T.B. at 498 ("Having now considered the matter again in response to the court's remand, we specifically conclude that excluding product and geographic competition from consideration in the market dominance analysis is not inconsistent with RTP-1.").

The Board also emphasized the same points from its earlier decision regarding the fact that shippers with effective competition are not likely to bring rate complaints. *See id*. ("[A] competitive rate is unlikely to be challenged[] and, even if challenged, is unlikely to be disturbed."); *id*., 5 S.T.B. at 498 n.16 ("As we explained in the *1999 Decision*, at 277, shippers are not likely to pursue a rate complaint when faster, less costly and more effective self-help is available in the marketplace.").

Finally, the Board also discussed other aspects of the RTP and emphasized that the balance of interests "tilt[ed] heavily" in favor of excluding consideration of indirect competition:

> [E]xperience has shown that consideration of product and geographic competition has a demonstrable negative effect on other relevant RTP goals. As the court recognized, 237 F.3d at 680, the complications and delays resulting from consideration of product and geographic competition are contrary to the Congressional directive that the administrative market dominance procedures be easily administrable (4R Act § 202(d)) so that the processing of rate cases can be expedited in accordance with the policy of 49 U.S.C. 10101(2) (RTP-2) and 49 U.S.C. 10101(15) (RTP-15) to resolve disputes expeditiously. *See also* 49 U.S.C. 10704(c), (d).
>
> Moreover, we must take into account the policy of 49 U.S.C. 10101(6) (RTP-6) that rates be limited to reasonable levels in the absence of competition. Shippers must have practical, not merely nominal, access to the rate review process to give real meaning to that policy. As we explained in the *1999 Decision*, at 277, a railroad need not be able to prevail on its product and geographic competition arguments for the costs of antitrust-type litigation – in terms of time, money, and other resources – to act as a substantial, potentially insurmountable, barrier to rate complaints. Procedures that thwart a shipper's ability to pursue a valid complaint are clearly inconsistent with RTP-6.
>
> Accordingly, we again conclude that, considering all of the relevant policy goals of the statute, *the scale tilts heavily in favor of excluding product and geographic competition in rail rate cases*. Because exclusion of these factors should have little effect on a railroad's ability to set rates in a competitive environment (the goal of the RTP-1),

> but should significantly advance the equally important goals of expediting cases (the goal of RTP-2 and RTP-15) and ensuring reasonable rates in instances where effective competition is absent (the goal of RTP-6), we continue to believe that this is the most appropriate administrative course of action. Moreover, we are satisfied that our determination here balances and accommodates all the relevant statutory policy directives.

Id., 5 S.T.B. at 498-99 (emphasis added).

The AAR again sought appellate review of the Board's decision. In its decision in *Ass'n of American Railroads v. STB*, 306 F.3d 1108, 1112 (D.C. Cir. 2002) ("*AAR 2002*"), the D.C. Circuit denied the AAR's petition. *Id*. ("Petitioner is not only asking us to substitute our policy wisdom for that of the Board, but is also essentially requesting that we overrule our prior determination that the Board's decision to exclude evidence of indirect competition from the market dominance analysis was not arbitrary or capricious. We are not in either business.").[5]

*   *   *

By way of summary, the AAR's Petition substantially misstates and/or ignores key aspects of the history of the Board's consideration of product and geographic

[5] In its 2012 Petition, the AAR claims that that the court was "openly skeptical" of the Board's argument that shippers will not bring rate claims where indirect competition genuinely exists. *See* AAR Petition at 9 (citing *AAR 2002*, 306 F.3d at 1111). The AAR neglects to mention, however, that in the same paragraph of its opinion in which it addressed this argument, the D.C. Circuit also explained that the AAR itself had "conceded that market forces will compel carriers to offer reasonable rates where there is effective competition." *AAR 2002*, 306 F.3d at 1111. The court also emphasized in this same portion of its opinion that "it is reasonable to presume that if Congress had wanted indirect competition to be a mandatory consideration in the market dominance inquiry, it would have stated so directly." *Id.*, 306 F.3d at 1112.

competition. The AAR brushes this history aside and instead attempts to cultivate the faulty impression that the Board desperately had hoped to find some means of preserving its inquiry into indirect competition issues.

The actual history of the case shows otherwise; namely, that the Board emphatically rejected the AAR's repeated efforts to require consideration of indirect competition over the course of approximately four years. The Board's language was unequivocal and at times sharply pointed. The Board's understanding of its governing statute and the Board's many years of experience unsuccessfully attempting to "rein in" the railroads' use of discovery "as a litigation weapon," and its experience attempting to resolve complex evidentiary questions regarding indirect competition left if with "no question" that it was appropriate to exclude evidence of indirect competition. *See Market Dominance 1999*, 4 S.T.B. at 279 n.48; *Market Dominance 1998*, 3 S.T.B. at 946.

III. The AAR is Wrong to Contend that the Consideration of Indirect Competition Would Not be Complex and Burdensome

In its Petition, the AAR identifies two analyses that it claims would indicate "whether and to what extent rail rates for a particular coal-fired generation resource are constrained by indirect competition exerted in the wholesale power market." AAR Petition at 26. First, the AAR argues that "[t]he most straight-forward evidence of indirect competition exerted in the wholesale power markets on an individual coal-fired generation resource is evidence of changes in the generation output of that resource in response to changes in market conditions." *Id*. Second, the AAR suggests that "[a] second simple indicator of the existence and effectiveness of indirect competition exercised in the wholesale power markets on an individual coal-fired generation resource is the wholesale power supply curve, a commonly-employed graphical representation of the short-run marginal costs of the alternative generation resources available in a particular wholesale power market . . ." *Id*. at 29.

The AAR contends that recent changes in the availability of data regarding the bulk power markets will alleviate the burdens associated with the consideration of evidence regarding indirect competition under these analyses.[6] In this regard, the AAR argues that "[t]he sample analyses provided by Dr. Reishus demonstrate that simple indicators that rely on publicly available information can accurately distinguish between situations in which indirect competition exerted in wholesale power markets can competitively discipline rail rates for coal delivered for coal-fired power generation, and those in which regulatory oversight remains appropriate." AAR Petition at 33.

In carefully chosen language regarding only those burdens that pre-date the filing of a complaint (rather than the burdens of actual litigation before the Board), the

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[6] In 1998, the AAR made a similar (unsuccessful) argument that recent changes in public access to data would relieve shippers' litigation burden. *See Market Dominance 1998*, 3 S.T.B. at 945 (noting that AAR had agreed in Ex Parte No. 627 that substantial data was available in the public domain to permit the crafting of elaborate arguments as to the existence of indirect competitive pressures) (citing AAR Reply Comments at 12 and Sansom Reply V.S. at 10). In his Reply Statement, Dr. Sansom had testified that the burden of litigating disputes regarding indirect competition may be alleviated somewhat because "a greater amount of information that is relevant to the issue of product competition is becoming publicly available" and "[t]o cite but one example, just in the past year, hourly market clearing prices for electricity sales have become publicly available (on the Internet) . . . ." Sansom Reply V.S. at 10.

AAR adds that "[i]t would be a straight-forward, quick, and inexpensive exercise *for shippers considering a rate challenge* to undertake such an analysis of indirect competition exercised in the wholesale power markets *before filing a complaint* with the Board." *Id*. at 34 (emphasis added).

As noted above, the principal defect in the AAR's Petition is that it completely misstates the market dominance standard and presents no evidence whatsoever that power market competition is constraining railroad rates to "reasonable" levels, as measured by railroad costs and/or contribution. Consequently, even if it were possible for some market evaluation to determine when a rail carrier's pricing demands had reached the point where the shipper could no longer afford to burn coal, that demonstration would be entirely irrelevant to the question of whether market dominance exists.

Nevertheless, it is evident that the AAR is wrong to claim that the parties can litigate (and the Board can resolve) indirect competition issues without substantial burdens. Examination of indirect competition in the wholesale power market is an extremely complex endeavor. Any proposed "simple" analysis that purports to answer the question of whether the indirect competition will constrain railroad rates to reasonable levels necessarily must be so overly simplistic that it is of no value whatsoever.[7]

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[7] It is noteworthy that the AAR emphasizes that it is *not* proposing the two "sample" analyses that it identified in its Petition. This refusal to submit a formal proposal suggests that the AAR recognizes the defects in the simplistic analyses that it presented. In addition, the fact that the AAR's Petition consumes 163 total pages,

If a defendant carrier were to present such a simplistic analysis to the Board as evidence of supposedly effective indirect competition, the complaining shipper would be required to engage in a protracted analysis and demonstration of the many factors that undermine the railroad's arguments. Stated differently, there is little value in the AAR's claim that it would be entirely straightforward for railroad defendants to present simplistic charts purporting to demonstrate that substantially aggregated statistics show some vague response in coal-fired generation or capacity factor to changes in gas prices.

The litigation burden still would fall heavily upon the shipper to show that the defendant's analysis failed to account for multiple factors that undermine the railroad's unsophisticated argument. An additional burden likewise would fall upon the Board to sift through arguments regarding each of the various generating resources in a given power pool to determine whether factors other than purportedly effective competition may be responsible for changes in a given generating unit's output or capacity factor.

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including an 87-page witness statement, itself demonstrates that the AAR's claimed simplicity is illusory.

A. Each of the AAR's Sample Analyses Would Lead to Complex Litigation Necessary to Overcome the Simplistic Nature of the Defendant's Evidence

1. Actual Changes in Coal-Fired and Natural Gas-Fired Generation Output

Dr. Reishus' first analysis relates to changes in coal-fired generation output relative to changes in natural gas prices and natural-gas fired generation output. He claims that "some low-cost, coal-fired power plants may continue to run as baseload plants even in the presence of low natural gas prices, while, as has clearly been the case in many wholesale power markets in recent years, other coal-fired plants will see their generation output displaced by natural gas-fired generation output." Reishus V.S. at 72. From this premise, he argues that "an analysis of a change in generation output by a coal-fired power plant as natural gas prices and natural gas-fired generation output change may provide evidence that demonstrates the competitive constraint on rail transportation rates exerted by competition between a particular coal-fired plant and other generation resources . . . ." *Id*.

Using publicly available data, Dr. Reishus purports to show the effect of falling natural gas prices during one twelve month period relative to the prior twelve month period:

> Figure 20 shows the monthly pattern of electric power production for Plant ABC in the a [sic] recent twelve-month period relative to nameplate capacity and to the previous base twelve-month period. Due to the lower relative price of natural gas to coal, the more recent twelve months has been one of strong competition from natural gas-fired generation to

> coal-fired generation at least in some regions and for some plants. As such it provides a good natural experiment to examine whether natural gas-fired generation has displaced generation output from Plant ABC. If a significant reduction has occurred, then it is a good indicator that a significant increase in the relative delivered cost of coal for Plant ABC would also result in reduced generation output from Plant ABC.

Id. at 73. Dr. Reishus concludes that "[a]n analysis that shows that Plant ABC adjusts its coal consumption in response to relative fuel and electric power prices demonstrates that such competition provides an effective constraint on rail transportation pricing." *Id*. at 75.

The AAR's suggestion in this regard is improper and contrary to the Board's historic interpretation of market dominance. In particular, the AAR is arguing that an "effective constraint" on railroad pricing exists for service to any coal-fired plant if the overall generation output of that plant for a given year is lower than its overall generation output in a prior year in which natural gas prices were higher. Even ignoring the complete absence of any linkage to the reasonableness of the subject railroad's rates, the implications of the AAR's presentation in this regard are profound. The AAR is arguing that coal shippers should be prohibited from seeking rate relief if their aggregate generating output declines any time gas prices decline. The AAR does not identify any amount by which the generation output must fall, either in raw terms or as a percentage of prior output; the AAR does not identify the standard that it would use to gauge the amount by which gas prices must fall in order to show that its highly aggregated "overall output" measure would have value; and the AAR does not address the fact that natural gas prices vary on a daily basis.

The AAR does not describe what method the Board should follow to determine whether one year's daily gas prices should be deemed to be higher or lower than the prior year's prices. Should the Board rely on a simple count of the number of days on which gas prices are below the prior year on a year-over-year basis for each day? Should the Board calculate some blended average of gas prices for the two twelve-month periods? Should the Board factor in any cost considerations regarding delivered natural gas prices to the individual gas-fired units in the subject power pool or should the Board simply rely on reported spot prices? Is the Board to merely "eyeball" the two curves that Dr. Reishus presents in his Figure 20 or is to apply some specific measurement to that data?[8] In that regard, should the Board be concerned that the 2011-2012 output curve in Figure 20 actually is higher than (or at least comparable to) the 2009-2010 curve for four months out of the twelve presented? The AAR does not answer any of these questions.

Tellingly, however, the AAR's witness Dr. Reishus does concede that "the approach displayed in Figure 20 is simple," and he explains that "there are other ways of looking at the pattern of generation output from a coal-fired power plant in response to potential competition from natural gas-fired generation, such as monthly generation

[8] The D.C. Circuit previously faulted the Board for attempting to resolve technical issues on the basis of "nothing more than an estimation measured by a cursory glance" at a chart. *See AEP Tex. N. Co. v. STB*, 609 F.3d 432, 442-43 (D.C. Cir. 2010) (faulting the STB for the absence of "any apparent rigor in its [comparative] analysis").

output, hours run, generation output at different hours of the day, and the like." *Id*. at 75. In other words, the AAR's witness regarding the supposedly simple nature of the analysis of indirect competition acknowledges that his crude charts do not capture all of the detail that could be considered – and certainly would have to be addressed by shippers and the Board – if the Board were to grant the relief that the AAR seeks.

2. Wholesale Power Supply Curves

Dr. Reishus next describes an approach for identifying supposedly effective indirect competition that involves wholesale power supply curves for a complainant's entire electric generating region. Although he first concedes that "[t]he supply curve represents the marginal cost of production and may not capture other aspects of a generator's operations that may affect its dispatch into the grid," Dr. Reishus nevertheless argues that the supply curve shows "where a particular generation resource's marginal costs fall among potential competitors, and for a coal-fired power generator, whether there appears to be substantial natural gas-fired generation in the same range along the supply curve." *Id*. at 75-76.

According to Dr. Reishus, "[i]f a particular coal-fired generator is along the 'flat' portion of the supply curve over which load fluctuates and for which small changes in short-run marginal costs can result in large shifts along the supply curve, this implies that the price elasticity of supply is high and the coal-fired generator risks a reduction in generation output and lost sales in response to an increase in its delivered cost of coal." *Id*. at 76. Dr. Reishus presents a power supply curve for a single day (*i.e.*, September 3,

2012) for a given plant's geographic region. *Id*. at 77 (Figure 21). Dr. Reishus contends that "at current natural gas prices, a modest change in the delivered coal of coal for Plant ABC would substantially shift its location on the supply curve, and could easily result in substantial lost sales to natural gas-fired or alternative coal-fired generation." *Id*. at 76; *see also id.* ("Output sensitivity to input prices can provide an effective constraint on important input providers such as railroads.").

As in the case of Dr. Reishus' prior example regarding aggregate annual generating output, this second example also completely ignores the question of whether a given railroad's rates are subject to competition that effectively limits the rates to reasonable levels. Accordingly, his example again is entirely irrelevant, and once again, his example ignores substantial complexity that shippers and the Board would be required to address if railroads were permitted to present this type of simplistic analysis in rate cases.

Specifically, Dr. Reishus has selected a single day's power supply curve. The Board would need to consider whether other days may be more representative of the actual competitive situation experienced by the shipper. Likewise, the Board would be required to consider any timing issues associated with the fact that natural gas prices change on a daily basis but coal shippers maintain coal inventories sufficient to cover weeks or months of generating load (and may face issues associated with long-term coal supply contracts). Moreover, the AAR does not provide any explanation of how much precision the Board must use – other than "eyeballing" the middle section of the power supply curve – to determine whether the defendant carrier supposedly is subject to effective competition on any given day. Must the plant fall exactly in the middle of the power supply curve? How should the Board interpret shifts in the plant's position on the power supply curve from day to day or from month to month? Are there seasonal trends (or any other factors) that would explain a plant's location on the power supply curve for a given day other than the price of natural gas? [9] Again, the AAR answers none of these questions and instead argues that public information would make the analysis of indirect competition quick and efficient.[10]

B. Changes in the Spot Price for Natural Gas Demonstrate that the Board Should Not Rely Upon the Commodity Market as a Means of Making Market Dominance Determinations

The AAR bases much of its Petition on the fact that natural gas prices have fallen in recent years. Significantly, however, the natural gas market is highly fluid and gas prices fluctuate widely over short periods of time. The AAR does not address the subject in its filing, but the reintroduction of indirect competition would embroil the Board in monitoring of the natural gas commodity market, a market which has shown substantial upward change even within the last several months. If the Board were to

[9] The AAR also does not address the possibility that, in certain situations, a railroad may determine that it can maximize its contribution by substantially increasing rail rates where that increase leads only to a marginal reduction in the volume of coal to be transported (*e.g.*, a 10% railroad rate increase leading to a 5% volume reduction).

[10] Dr. Reishus' capacity factor curves similarly raise more questions than they answer. *See* Reishus V.S. at 76-87. A year-over-year reduction in overall capacity factor coinciding with a reduction in spot gas prices does not provide any relevant information as to whether a railroad's rates are effectively constrained to reasonable levels.

reintroduce indirect competition, it may find that one set of rules should govern when gas prices are low and that an entirely different set of rules should govern when gas prices trend upward.

By way of background, on December 10, 1998, *i.e.*, the date of the Board's decision in *Market Dominance 1998*, the Henry Hub Gulf Coast Natural Gas Spot Price was $1.59 per MMBtu. *See* http://www.eia.gov/dnav/ng/hist/rngwhhdd.htm. (A copy of the Energy Information Administration's record of this data appears in Exhibit No. 2 to this Reply). That same price repeatedly rose to over $10.00 per MMBtu in the intervening years. *Id*.

On April 20, 2012, the spot price of gas fell to its lowest level in more than a decade. The price on that date was $1.82 per MMBtu. *Id*. As of the November 19, 2012 date on which the AAR filed its Petition, however, that price had climbed to $3.63 per MMBtu (*i.e.*, an increase of 99.5% above its April 20, 2012 level).

It is therefore evident that the Board would be inviting substantial regulatory uncertainty if it were to adopt an approach to evaluating indirect competition that relied upon the impact of short-term changes in spot prices of natural gas.

IV. Neither the Removal of Indirect Competition in 1998 Nor Any Recent Change in Electricity Market Dynamics Led to the Filing of a Large Number of Maximum Rate Reasonableness Cases

In its *Ex Parte No. 627* decisions, the Board predicted that the removal of indirect competition from the market dominance evaluation would not lead to a substantial increase in the number of maximum rate cases filed before the Board. *See*, *e.g.*, *Market Dominance 1999*, 4 S.T.B. at 278 ("[W]e believe that our revised policy should lead to additional rate complaints only where captive shippers have been deterred from challenging rates on market dominant traffic by the prospect of burdensome and protracted antitrust-style litigation."); *Market Dominance 1998*, 3 S.T.B. at 949 ("[W]e expect the primary result of our action here, giving shippers real access to relief, will be to encourage more private-sector resolutions of disputes between captive shippers and the railroads serving them."). The Board's predictions have proven to be accurate.

In the more than fourteen years since the Board's original 1998 decision, coal shippers have filed only twenty-three maximum rate complaints at the Board, or roughly 1.6 cases per year:

Coal Rate Cases Filed Since December 10, 1998				
	Docket	**Dated filed**	**Complainant**	**Defendant**
1	42038	12/30/1998	MN Power	DMIR
2	42051	12/30/1999	WPL	UP
3	42054	7/6/2000	PPL	BNSF
4	42056	10/3/2000	TMPA	BNSF
5	42057	12/20/2000	Xcel	BNSF
6	42058	12/29/2000	AEPCO	BNSF/UP
7	42059	1/26/2001	NSP	UP
8	42069	12/19/2001	Duke	NS
9	42070	12/19/2001	Duke	CSXT
10	42071	1/2/2002	Otter Tail	BNSF
11	42072	2/1/2002	CPL	NS
12	42077	1/30/2003	APS	BNSF
13	41191	8/11/2003	AEP Texas	BNSF
14	42088	10/19/2004	WFA	BNSF
15	42091	12/17/2004	APS	BNSF
16	42095	10/12/2005	KCPL	UP
17	42110	10/3/2008	Seminole	CSXT
18	42111	11/7/2008	OG&E	UP
19	42113	12/30/2008	AEPCO	BNSF/UP
20	42122	5/18/2010	NRG	CSXT
21	42127	12/22/2010	IPA	UP
22	42128	12/28/2010	SMEPA	NS
23	42136	5/30/2012	IPA	UP

Source: www.stb.dot.gov/stb/industry/Rate_Cases.htm. Complaint filing dates are drawn from the STB's on-line filing records and/or its decisions issued in each cited proceeding.

It is also instructive to look more closely at the particular timing of these twenty-three complaints. Specifically, the foregoing chart shows that in the first five years following the *Market Dominance 1998* decision (*i.e.*, December 10, 1998 through December 9, 2003), coal shippers filed thirteen complaints at the Board. In the next five years (*i.e.*, December 10, 2003 through December 9, 2008), coal shippers filed only five complaints, and in the more than four years since December 10, 2008, coal shippers again have filed only five maximum rate complaints. Stated differently, coal shippers have filed an average of only about one maximum rate complaint per year for the past decade.

Contrary to the AAR's contention that it is now urgent for the Board to act to prevent coal shippers with effective grid competition from filing maximum rate cases, it is evident that the recent history of complaint filing at the Board provides no indication whatsoever that the railroads are experiencing any burden associated with a sudden deluge of meritless rate complaints. Again, in light of this history, it is reasonable to conclude that no legitimate purpose would be served by granting the AAR's Petition.

CONCLUSION

For the reasons set forth above, the Concerned Coal Shippers request that the Board deny AAR's Petition.

Respectfully submitted,

CONCERNED CAPTIVE COAL SHIPPERS

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Dated: January 14, 2013

CERTIFICATE OF SERVICE

I hereby certify that this 14th day of January, 2013, I caused copies of the foregoing to be served via first-class mail, postage-prepaid, upon the parties of record to this proceeding.

/s/ Andrew B. Kolesar III
Andrew B. Kolesar III

IDENTITY AND INTEREST

(1) Alliant Energy Corporation. Alliant Energy Corporation is an investor-owned public utility holding company headquartered in Madison, Wisconsin. Through its operating subsidiaries, Alliant provides service to approximately one million electric customers in more than 1,300 communities throughout Iowa, Wisconsin, and Minnesota. Alliant Energy's generation division produces electricity at more than 30 power plants across the upper Midwest, with a total generating capacity over 4,000 megawatts (MW). Alliant's coal-fired Edgewater plant is captive to the Union Pacific Railroad Company and was the subject of successful maximum rate litigation before the STB in *Wisconsin Power and Light Co. v. Union Pac. R.R.*, 5 S.T.B. 955 (2001).

(2) Dairyland Power Cooperative. Dairyland is a generation and transmission cooperative that is headquartered in La Crosse, Wisconsin. Dairyland provides wholesale energy for 25 electric distribution cooperatives and 19 municipal utilities in Wisconsin, Minnesota, Iowa, and Illinois. Dairyland's 44,500-square mile service encompasses 62 counties in four states (Wisconsin, Minnesota, Iowa and Illinois). Dairyland's coal-fired generating stations include the 400-MW J.P. Madgett Station, the 379-MW Genoa Station #3, and the 210-MW Alma Station. Dairyland's coal-fired units are located in western Wisconsin and their coal requirements must be transported over substantial distances.

(3) Duke Energy Corporation. Duke Energy is the largest electric power company in the United States, supplying and delivering energy to approximately 7 million U.S. customers. Duke Energy is headquartered in Charlotte, North Carolina and

has approximately 58,000 megawatts of electric generating capacity in the Carolinas, the Midwest, and Florida. Duke Energy's service area covers approximately 104,000 square miles in the Southeast and Midwest. Duke Energy's fleet of power plants generates electricity from a variety of fuel sources – from hydroelectric to coal, oil and natural gas to nuclear. Many of the electric generating stations that Duke Energy owns and operates are served by only a single rail carrier and are captive to that carrier for the delivery of coal.

(4) <u>Grand River Dam Authority</u>. The Grand River Dam Authority ("GRDA") is an agency of the state of Oklahoma, created by the Oklahoma Legislature in 1935. GRDA operates coal-fired electric generating facilities located near Chouteau, Mayes County, Oklahoma known as the "Coal-Fired Complex." This 1,010-MW facility receives shipments of Powder River Basin coal via BNSF Railway Company and Union Pacific Railroad Company in interline service. Union Pacific is the only rail carrier that serves the Coal-Fired Complex. GRDA transmits and delivers wholesale electricity across its 24-county service area in Northeast Oklahoma to three customer classes: municipals, electric cooperatives and industries.

(5) <u>Intermountain Power Project</u>. Intermountain Power Agency ("IPA"), a political subdivision of the State of Utah, is the owner of the Intermountain Power Project ("IPP"). IPP is located in the great basin of western Utah near Lynndyl, Millard County, Utah. The project generates more than 13 million megawatt hours of energy each year from its two coal-fired units and serves approximately 2 million

customers. The units have a total capacity of 1,900 MW Gross. IPP's generating station is served only by the Union Pacific Railroad Company.

(6) Seminole Electric Cooperative, Inc. Headquartered in Tampa, Florida, Seminole Electric Cooperative, Inc. is one of the largest non-profit generation and transmission (G&T) cooperatives in the United States. Seminole and its Member distribution cooperatives serve nearly 900,000 metered residential and business consumers in 45 of Florida's 67 counties. The primary energy resource serving Seminole's Member systems is the Seminole Generating Station (SGS). This 1,300 megawatt, coal-fueled facility is located in Northeast Florida in Putnam County, on the St. Johns River, about 50 miles south of Jacksonville. SGS is served exclusively by CSXT.

(7) South Carolina Public Service Authority (Santee Cooper). Santee Cooper is South Carolina's state-owned electric and water utility, and the state's largest power producer, supplying electricity to more than 163,000 retail customers in Berkeley, Georgetown, and Horry counties, as well as to 31 large industrial facilities, the cities of Bamberg and Georgetown, and the Charleston Air Force Base. Santee Cooper also generates the power distributed by the state's 20 electric cooperatives to more than 685,000 customers in all 46 counties. Approximately 2 million South Carolinians receive their power directly or indirectly from Santee Cooper. Santee Cooper's coal-fired generating stations are served exclusively by CSXT.

(8) South Mississippi Electric Power Association ("SMEPA"). SMEPA is a rural electric power association formed for the purposes of generating and

transmitting electric energy. SMEPA is headquartered in Hattiesburg, Mississippi, and provides wholesale electric energy to eleven member-owners. The member-owners, in turn, are each rural electric distribution cooperatives which sell power through more than 411,000 meters to homes, farms, and businesses in 56 of the 82 counties in Mississippi. SMEPA owns and operates multiple generating stations, including an electric generating facility at Richburg, Mississippi known as the Morrow Station. This 400 MW facility consists of two coal-burning electric generating units. Rail transportation is the only economical means of delivering large volumes of coal to the Morrow Station, and rail access to the Morrow Station is exclusively over the lines of NS. As such, SMEPA is captive to NS, and SMEPA has no other current transportation option for delivering its coal purchases.

(9) Wisconsin Electric Power Company (d/b/a We Energies). Wisconsin Electric Power Company d/b/a We Energies ("We Energies") is a subsidiary of Wisconsin Energy Corporation and is headquartered in Milwaukee, Wisconsin. We Energies currently serves more than one million electric customers in Wisconsin and Michigan's Upper Peninsula. We Energies owns and operates six coal fueled electric generating plants, two of which are served at destination only by the Union Pacific Railroad Company. These two plants have a dependable capability of approximately 2,365 MW. Rail service is the only practical means of transporting the high volumes of coal that We Energies consumes. We Energies receives coal by rail from the Powder River Basin coal seam of Wyoming and Montana, and also receives coal by rail from Pennsylvania.

Exhibit No. 2

U.S. Energy Information Administration

NATURAL GAS

OVERVIEW | DATA | ANALYSIS & PROJECTIONS | GLOSSARY › | FAQS ›

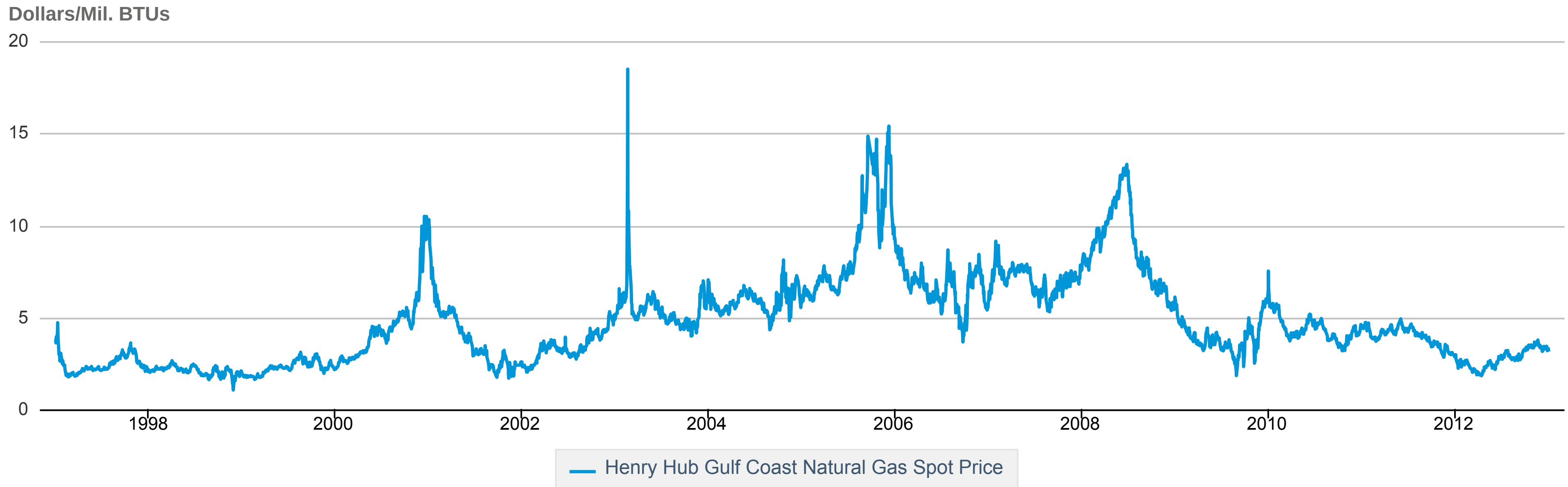
View History: Daily Weekly Monthly Annual

Download Data (XLS File)

Chart Tools

no analysis applied

Henry Hub Gulf Coast Natural Gas Spot Price



Source: U.S. Energy Information Administration

Henry Hub Gulf Coast Natural Gas Spot Price (Dollars/Mil. BTUs)

Week Of	Mon	Tue	Wed	Thu	Fri
1997 Jan- 6 to Jan-10		3.82	3.80	3.61	3.92
1997 Jan-13 to Jan-17	4.00	4.01	4.34	4.71	3.91
1997 Jan-20 to Jan-24	3.26	2.99	3.05	2.96	2.62
1997 Jan-27 to Jan-31	2.98	3.05	2.91	2.86	2.77
1997 Feb- 3 to Feb- 7	2.49	2.59	2.65	2.51	2.39
1997 Feb-10 to Feb-14	2.42	2.34	2.42	2.22	2.12
1997 Feb-17 to Feb-21		1.84	1.95	1.92	1.92
1997 Feb-24 to Feb-28	1.92	1.77	1.81	1.80	1.78
1997 Mar- 3 to Mar- 7	1.80	1.87	1.92	1.82	1.89
1997 Mar-10 to Mar-14	1.95	1.92	1.96	1.98	1.97
1997 Mar-17 to Mar-21	2.01	1.91	1.88	1.88	1.87
1997 Mar-24 to Mar-28	1.80	1.85	1.85	1.84	
1997 Mar-31 to Apr- 4	1.84	1.95	1.85	1.87	1.91
1997 Apr- 7 to Apr-11	1.99	2.01	1.96	1.97	1.98
1997 Apr-14 to Apr-18	2.00	2.00	2.02	2.08	2.10
1997 Apr-21 to Apr-25	2.09	2.10	2.22	2.11	2.16
1997 Apr-28 to May- 2	2.10	2.09	2.16	2.19	2.21
1997 May- 5 to May- 9	2.23	2.25	2.34	2.33	2.30
1997 May-12 to May-16	2.27	2.18	2.22	2.25	2.19
1997 May-19 to May-23	2.25	2.22	2.21	2.22	2.20
1997 May-26 to May-30		2.29	2.34	2.29	2.23
1997 Jun- 2 to Jun- 6	2.20	2.11	2.19	2.18	2.19
1997 Jun- 9 to Jun-13	2.19	2.16	2.16	2.14	2.15
1997 Jun-16 to Jun-20	2.20	2.20	2.22	2.23	2.25
1997 Jun-23 to Jun-27	2.29	2.32	2.32	2.23	2.17
1997 Jun-30 to Jul- 4	2.17	2.16	2.14	2.11	
1997 Jul- 7 to Jul-11	2.13	2.13	2.16	2.15	2.16
1997 Jul-14 to Jul-18	2.18	2.21	2.24	2.29	2.26
1997 Jul-21 to Jul-25	2.17	2.18	2.20	2.24	2.22
1997 Jul-28 to Aug- 1	2.19	2.23	2.19	2.23	2.24
1997 Aug- 4 to Aug- 8	2.26	2.33	2.38	2.50	2.38
1997 Aug-11 to Aug-15	2.53	2.56	2.45	2.57	2.53
1997 Aug-18 to Aug-22	2.56	2.61	2.62	2.45	2.47
1997 Aug-25 to Aug-29	2.53	2.58	2.51	2.57	2.69
1997 Sep- 1 to Sep- 5		2.82	2.86	2.73	2.67
1997 Sep- 8 to Sep-12	2.67	2.74	2.74	2.78	2.86
1997 Sep-15 to Sep-19	2.88	2.83	2.75	2.84	2.94
1997 Sep-22 to Sep-26	2.98	3.09	3.03	3.05	3.24
1997 Sep-29 to Oct- 3	3.09	2.96	3.08	2.97	2.91
1997 Oct- 6 to Oct-10	2.96	2.81	2.80	2.80	2.78

1997 Oct-13 to Oct-17	2.87	2.84	2.84	2.94	2.97
1997 Oct-20 to Oct-24	3.05	3.13	3.24	3.34	3.29
1997 Oct-27 to Oct-31	3.46	3.61	3.45	3.34	3.22
1997 Nov- 3 to Nov- 7	3.23	3.15	3.18	3.20	3.05
1997 Nov-10 to Nov-14	3.20	3.26	3.28	3.27	3.25
1997 Nov-17 to Nov-21	3.10	3.00	2.97	2.77	2.59
1997 Nov-24 to Nov-28	2.63	2.51	2.50		
1997 Dec- 1 to Dec- 5	2.52	2.61	2.53	2.48	2.42
1997 Dec- 8 to Dec-12	2.30	2.35	2.45	2.30	2.30
1997 Dec-15 to Dec-19	2.25	2.29	2.38	2.37	2.39
1997 Dec-22 to Dec-26	2.36	2.24	2.06		2.18
1997 Dec-29 to Jan- 2	2.33	2.27	2.27		2.16
1998 Jan- 5 to Jan- 9	2.05	2.16	2.13	2.11	2.09
1998 Jan-12 to Jan-16	2.01	2.03	2.05	2.07	2.11
1998 Jan-19 to Jan-23		2.12	2.09	2.10	2.14
1998 Jan-26 to Jan-30	2.09	2.06	2.09	2.07	2.09
1998 Feb- 2 to Feb- 6	2.23	2.27	2.23	2.31	2.35
1998 Feb- 9 to Feb-13	2.25	2.18	2.21	2.20	2.22
1998 Feb-16 to Feb-20		2.18	2.19	2.22	2.20
1998 Feb-23 to Feb-27	2.20	2.19	2.21	2.28	2.23
1998 Mar- 2 to Mar- 6	2.26	2.24	2.19	2.12	2.10
1998 Mar- 9 to Mar-13	2.17	2.25	2.25	2.23	2.21
1998 Mar-16 to Mar-20	2.20	2.20	2.21	2.25	2.28
1998 Mar-23 to Mar-27	2.33	2.29	2.33	2.29	2.26
1998 Mar-30 to Apr- 3	2.32	2.34	2.45	2.43	2.51
1998 Apr- 6 to Apr-10	2.51	2.51	2.65	2.61	
1998 Apr-13 to Apr-17	2.52	2.42	2.48	2.48	2.40
1998 Apr-20 to Apr-24	2.40	2.46	2.46	2.35	2.31
1998 Apr-27 to May- 1	2.29	2.27	2.29	2.18	2.11
1998 May- 4 to May- 8	2.10	2.19	2.12	2.16	2.11
1998 May-11 to May-15	2.19	2.23	2.24	2.18	2.18
1998 May-18 to May-22	2.19	2.17	2.18	2.11	2.02
1998 May-25 to May-29		2.10	2.10	2.04	2.10
1998 Jun- 1 to Jun- 5	2.10	2.20	2.13	2.04	2.01
1998 Jun- 8 to Jun-12	2.00	2.01	1.98	1.99	2.01
1998 Jun-15 to Jun-19	2.08	2.10	2.05	2.14	2.20
1998 Jun-22 to Jun-26	2.35	2.35	2.40	2.39	2.40
1998 Jun-29 to Jul- 3	2.36	2.39	2.46	2.36	
1998 Jul- 6 to Jul-10	2.38	2.35	2.39	2.38	2.32
1998 Jul-13 to Jul-17	2.30	2.23	2.21	2.15	2.15

1998 Jul-20 to Jul-24	2.18	2.09	2.00	2.00	1.97
1998 Jul-27 to Jul-31	2.00	1.97	1.99	1.95	1.85
1998 Aug- 3 to Aug- 7	1.84	1.90	1.91	1.85	1.82
1998 Aug-10 to Aug-14	1.87	1.87	1.85	1.83	1.83
1998 Aug-17 to Aug-21	1.93	1.94	1.96	1.90	1.93
1998 Aug-24 to Aug-28	1.90	1.89	1.83	1.76	1.66
1998 Aug-31 to Sep- 4	1.61	1.84	1.72	1.71	1.71
1998 Sep- 7 to Sep-11		1.81	1.78	1.88	1.86
1998 Sep-14 to Sep-18	1.86	1.94	2.15	2.12	2.27
1998 Sep-21 to Sep-25	2.18	2.29	2.19	2.17	2.38
1998 Sep-28 to Oct- 2	2.23	2.06	2.22	2.33	2.14
1998 Oct- 5 to Oct- 9	2.09	2.01	2.05	2.02	1.80
1998 Oct-12 to Oct-16	1.75	1.70	1.80	1.75	1.64
1998 Oct-19 to Oct-23	1.74	1.95	2.04	1.95	1.84
1998 Oct-26 to Oct-30	1.92	1.85	1.70	2.00	2.00
1998 Nov- 2 to Nov- 6	1.84	2.10	2.11	2.26	2.25
1998 Nov- 9 to Nov-13	2.28	2.30	2.33	2.21	2.21
1998 Nov-16 to Nov-20	2.19	2.12	2.10	2.10	2.07
1998 Nov-23 to Nov-27	2.02	2.08	2.13		
1998 Nov-30 to Dec- 4	1.63	1.41	1.40	1.21	1.05
1998 Dec- 7 to Dec-11	1.44	1.79	1.64	1.59	1.55
1998 Dec-14 to Dec-18	1.80	1.86	1.95	2.02	2.02
1998 Dec-21 to Dec-25	2.05	1.96	1.88	1.89	
1998 Dec-28 to Jan- 1	1.79	1.82	1.81	1.95	
1999 Jan- 4 to Jan- 8	2.10	2.05	2.04	1.91	1.90
1999 Jan-11 to Jan-15	1.83	1.82	1.87	1.77	1.78
1999 Jan-18 to Jan-22		1.77	1.81	1.85	1.82
1999 Jan-25 to Jan-29	1.76	1.73	1.75	1.75	1.83
1999 Feb- 1 to Feb- 5	1.75	1.78	1.80	1.79	1.81
1999 Feb- 8 to Feb-12	1.81	1.82	1.80	1.78	1.82
1999 Feb-15 to Feb-19		1.79	1.79	1.80	1.79
1999 Feb-22 to Feb-26	1.77	1.75	1.73	1.64	1.63
1999 Mar- 1 to Mar- 5	1.65	1.67	1.68	1.72	1.74
1999 Mar- 8 to Mar-12	1.87	1.86	1.94	1.87	1.81
1999 Mar-15 to Mar-19	1.75	1.75	1.75	1.75	1.73
1999 Mar-22 to Mar-26	1.74	1.80	1.79	1.80	1.83
1999 Mar-29 to Apr- 2	1.80	1.89	2.02	1.95	
1999 Apr- 5 to Apr- 9	2.03	1.98	2.03	2.07	2.10
1999 Apr-12 to Apr-16	2.06	2.14	2.11	2.14	2.14
1999 Apr-19 to Apr-23	2.10	2.18	2.17	2.24	2.23

1999 Apr-26 to Apr-30	2.23	2.32	2.31	2.37	2.25
1999 May- 3 to May- 7	2.23	2.32	2.36	2.32	2.25
1999 May-10 to May-14	2.25	2.29	2.19	2.21	2.28
1999 May-17 to May-21	2.31	2.30	2.27	2.26	2.21
1999 May-24 to May-28	2.19	2.18	2.22	2.27	2.29
1999 May-31 to Jun- 4		2.34	2.36	2.35	2.31
1999 Jun- 7 to Jun-11	2.41	2.38	2.39	2.37	2.30
1999 Jun-14 to Jun-18	2.29	2.28	2.28	2.24	2.24
1999 Jun-21 to Jun-25	2.22	2.23	2.25	2.26	2.27
1999 Jun-28 to Jul- 2	2.25	2.33	2.34	2.29	2.26
1999 Jul- 5 to Jul- 9		2.29	2.20	2.19	2.17
1999 Jul-12 to Jul-16	2.12	2.14	2.16	2.12	2.18
1999 Jul-19 to Jul-23	2.20	2.24	2.25	2.32	2.42
1999 Jul-26 to Jul-30	2.55	2.55	2.58	2.67	2.55
1999 Aug- 2 to Aug- 6	2.51	2.61	2.64	2.69	2.69
1999 Aug- 9 to Aug-13	2.73	2.77	2.79	2.73	2.71
1999 Aug-16 to Aug-20	2.73	2.70	2.75	2.87	2.97
1999 Aug-23 to Aug-27	2.95	3.01	3.10	2.97	2.87
1999 Aug-30 to Sep- 3	2.85	2.84	2.71	2.56	2.47
1999 Sep- 6 to Sep-10		2.56	2.66	2.75	2.84
1999 Sep-13 to Sep-17	2.80	2.66	2.52	2.47	2.45
1999 Sep-20 to Sep-24	2.49	2.33	2.30	2.45	2.54
1999 Sep-27 to Oct- 1	2.51	2.52	2.57	2.31	2.39
1999 Oct- 4 to Oct- 8	2.49	2.45	2.48	2.49	2.35
1999 Oct-11 to Oct-15	2.53	2.65	2.81	2.70	2.66
1999 Oct-18 to Oct-22	2.82	2.89	2.90	2.99	3.00
1999 Oct-25 to Oct-29	2.98	2.96	3.02	2.97	2.76
1999 Nov- 1 to Nov- 5	2.73	2.81	2.82	2.75	2.62
1999 Nov- 8 to Nov-12	2.59	2.44	2.39	2.38	2.16
1999 Nov-15 to Nov-19	2.33	2.23	2.24	2.22	2.16
1999 Nov-22 to Nov-26	2.05	1.99	1.96		
1999 Nov-29 to Dec- 3	2.25	2.22	2.17	2.18	2.16
1999 Dec- 6 to Dec-10	2.19	2.16	2.23	2.20	2.27
1999 Dec-13 to Dec-17	2.35	2.49	2.54	2.52	2.55
1999 Dec-20 to Dec-24	2.67	2.59	2.45	2.42	
1999 Dec-27 to Dec-31	2.36	2.32	2.34	2.30	
2000 Jan- 3 to Jan- 7		2.16	2.17	2.18	2.19
2000 Jan-10 to Jan-14	2.20	2.23	2.25	2.29	2.28
2000 Jan-17 to Jan-21		2.35	2.40	2.53	2.55
2000 Jan-24 to Jan-28	2.55	2.66	2.73	2.76	2.84

2000 Jan-31 to Feb- 4	2.69	2.81	2.91	2.85	2.78
2000 Feb- 7 to Feb-11	2.81	2.60	2.62	2.65	2.65
2000 Feb-14 to Feb-18	2.61	2.61	2.65	2.66	2.65
2000 Feb-21 to Feb-25		2.55	2.50	2.52	2.51
2000 Feb-28 to Mar- 3	2.60	2.65	2.71	2.80	2.72
2000 Mar- 6 to Mar-10	2.76	2.78	2.74	2.69	
2000 Mar-13 to Mar-17	2.79	2.83	2.76	2.84	2.81
2000 Mar-20 to Mar-24	2.73	2.74	2.78	2.76	2.82
2000 Mar-27 to Mar-31	2.82	2.94	2.92	2.83	2.88
2000 Apr- 3 to Apr- 7	2.92	2.87	2.86	2.98	2.99
2000 Apr-10 to Apr-14	2.97	2.98	3.05	3.05	3.11
2000 Apr-17 to Apr-21	3.13	3.12	3.12	3.07	
2000 Apr-24 to Apr-28	3.12	3.18	3.12	3.06	3.09
2000 May- 1 to May- 5	3.16	3.20	3.18	3.09	3.11
2000 May- 8 to May-12	3.12	3.25	3.20	3.37	3.35
2000 May-15 to May-19	3.37	3.45	3.49	3.73	3.76
2000 May-22 to May-26	3.95	3.85	3.94	4.18	4.29
2000 May-29 to Jun- 2		4.35	4.52	4.39	4.21
2000 Jun- 5 to Jun- 9	4.17	4.48	4.23	3.96	4.14
2000 Jun-12 to Jun-16	4.22	4.27	4.16	4.38	4.45
2000 Jun-19 to Jun-23	4.38	4.02	4.14	4.44	4.42
2000 Jun-26 to Jun-30	4.37	4.55	4.44	4.25	4.36
2000 Jul- 3 to Jul- 7	4.36		4.24	4.02	4.00
2000 Jul-10 to Jul-14	4.19	4.17	4.29	4.08	4.17
2000 Jul-17 to Jul-21	4.13	3.99	4.07	3.86	3.88
2000 Jul-24 to Jul-28	3.74	3.63	3.59	3.75	3.89
2000 Jul-31 to Aug- 4	3.75	3.78	4.05	4.23	4.25
2000 Aug- 7 to Aug-11	4.39	4.46	4.48	4.43	4.44
2000 Aug-14 to Aug-18	4.42	4.24	4.24	4.35	4.38
2000 Aug-21 to Aug-25	4.60	4.80	4.67	4.53	4.55
2000 Aug-28 to Sep- 1	4.62	4.60	4.61	4.76	4.70
2000 Sep- 4 to Sep- 8		4.81	4.89	4.85	4.74
2000 Sep-11 to Sep-15	4.85	4.96	5.06	5.10	5.28
2000 Sep-18 to Sep-22	5.06	5.22	5.24	5.16	5.16
2000 Sep-25 to Sep-29	5.12	5.28	5.34	5.20	5.10
2000 Oct- 2 to Oct- 6	5.24	5.29	5.22	5.21	5.04
2000 Oct- 9 to Oct-13	5.09	5.16	5.10	5.54	5.43
2000 Oct-16 to Oct-20	5.34	5.27	5.36	5.04	4.84
2000 Oct-23 to Oct-27	4.82	4.84	4.64	4.61	4.48
2000 Oct-30 to Nov- 3	4.56	4.37	4.40	4.50	4.64

2000 Nov- 6 to Nov-10	4.60	4.68	4.92	5.34	5.24
2000 Nov-13 to Nov-17	5.59	5.81	5.95	5.94	5.62
2000 Nov-20 to Nov-24	6.23	6.35	6.30		
2000 Nov-27 to Dec- 1	6.24	5.90	5.93	6.31	6.53
2000 Dec- 4 to Dec- 8	7.41	8.03	8.75	8.48	8.13
2000 Dec-11 to Dec-15	9.96	8.58	7.80	7.48	8.03
2000 Dec-18 to Dec-22	9.28	9.11	9.95	10.49	10.48
2000 Dec-25 to Dec-29		10.23	9.58	9.22	10.48
2001 Jan- 1 to Jan- 5		9.97	9.71	9.45	10.03
2001 Jan- 8 to Jan-12	10.31	9.95	9.91	8.95	8.75
2001 Jan-15 to Jan-19		8.16	7.85	7.09	7.61
2001 Jan-22 to Jan-26	7.70	7.02	6.81	6.81	7.00
2001 Jan-29 to Feb- 2	6.76	5.96	5.83	5.82	6.76
2001 Feb- 5 to Feb- 9	6.15	5.59	5.67	6.24	6.24
2001 Feb-12 to Feb-16	5.74	5.58	5.89	5.35	5.57
2001 Feb-19 to Feb-23		5.17	5.20	5.11	5.05
2001 Feb-26 to Mar- 2	5.07	5.07	5.25	5.25	5.06
2001 Mar- 5 to Mar- 9	5.32	5.27	5.22	5.25	5.13
2001 Mar-12 to Mar-16	4.98	5.08	4.99	5.27	5.27
2001 Mar-19 to Mar-23	5.27	5.27	5.16	5.16	5.16
2001 Mar-26 to Mar-30	5.23	5.47	5.60	5.31	5.35
2001 Apr- 2 to Apr- 6	5.25	5.25	5.24	5.27	5.33
2001 Apr- 9 to Apr-13	5.45	5.55	5.45	5.32	
2001 Apr-16 to Apr-20	5.48	5.36	5.15	5.06	5.00
2001 Apr-23 to Apr-27	5.09	5.13	4.98	4.92	4.83
2001 Apr-30 to May- 4	4.73	4.55	4.54	4.46	4.50
2001 May- 7 to May-11	4.33	4.22	4.15	4.17	4.25
2001 May-14 to May-18	4.28	4.46	4.46	4.20	4.15
2001 May-21 to May-25	4.14	4.04	4.11	4.12	3.83
2001 May-28 to Jun- 1		3.86	3.66	3.73	3.70
2001 Jun- 4 to Jun- 8	3.98	3.93	3.76	3.68	3.62
2001 Jun-11 to Jun-15	3.91	4.05	4.13	3.92	3.86
2001 Jun-18 to Jun-22	3.91	3.96	3.83	3.69	3.68
2001 Jun-25 to Jun-29	3.56	3.46	3.39	3.20	2.91
2001 Jul- 2 to Jul- 6	2.92	3.00		3.09	2.99
2001 Jul- 9 to Jul-13	3.10	3.20	3.21	3.29	3.15
2001 Jul-16 to Jul-20	3.08	3.14	3.15	3.01	2.97
2001 Jul-23 to Jul-27	3.02	3.00	3.06	3.26	3.06
2001 Jul-30 to Aug- 3	3.28	3.31	3.27	3.15	3.06
2001 Aug- 6 to Aug-10	3.07	3.16	3.11	3.10	2.99

2001 Aug-13 to Aug-17	3.00	3.05	3.15	3.46	3.24
2001 Aug-20 to Aug-24	3.17	3.18	3.20	2.87	2.77
2001 Aug-27 to Aug-31	2.61	2.57	2.46	2.47	2.15
2001 Sep- 3 to Sep- 7		2.23	2.34	2.43	2.36
2001 Sep-10 to Sep-14	2.38	2.38	2.44	2.39	2.41
2001 Sep-17 to Sep-21	2.36	2.18	2.13	2.06	2.04
2001 Sep-24 to Sep-28	1.99	1.94	1.88	1.90	1.80
2001 Oct- 1 to Oct- 5	1.74	1.83	1.97	2.13	2.11
2001 Oct- 8 to Oct-12	2.02	2.11	2.22	2.41	2.28
2001 Oct-15 to Oct-19	2.26	2.51	2.61	2.39	2.31
2001 Oct-22 to Oct-26	2.61	2.82	2.67	3.15	3.06
2001 Oct-29 to Nov- 2	3.21	3.11	3.07	2.99	2.93
2001 Nov- 5 to Nov- 9	2.87	2.72	2.73	2.68	2.61
2001 Nov-12 to Nov-16	2.45	2.38	2.29	1.99	1.69
2001 Nov-19 to Nov-23	2.08	2.55	1.91		
2001 Nov-26 to Nov-30	1.79	1.87	2.30	2.19	1.83
2001 Dec- 3 to Dec- 7	2.10	2.00	1.89	1.81	2.11
2001 Dec-10 to Dec-14	2.28	2.58	2.57	2.40	2.40
2001 Dec-17 to Dec-21	2.40	2.40	2.40	2.40	2.40
2001 Dec-24 to Dec-28			2.40	2.40	2.40
2001 Dec-31 to Jan- 4	2.40		2.55	2.58	2.58
2002 Jan- 7 to Jan-11	2.58	2.39	2.31	2.32	2.32
2002 Jan-14 to Jan-18	2.32	2.32	2.38	2.40	2.28
2002 Jan-21 to Jan-25		2.28	2.28	2.13	2.03
2002 Jan-28 to Feb- 1	2.03	2.03	2.28	2.28	2.28
2002 Feb- 4 to Feb- 8	2.28	2.28	2.14	2.17	2.21
2002 Feb-11 to Feb-15	2.22	2.39	2.37	2.26	2.18
2002 Feb-18 to Feb-22		2.32	2.41	2.40	2.40
2002 Feb-25 to Mar- 1	2.40	2.46	2.49	2.49	2.51
2002 Mar- 4 to Mar- 8	2.66	2.63	2.52	2.73	2.82
2002 Mar-11 to Mar-15	2.90	2.94	2.97	2.78	2.99
2002 Mar-18 to Mar-22	3.15	3.33	3.29	3.20	3.57
2002 Mar-25 to Mar-29	3.46	3.59	3.35	3.18	
2002 Apr- 1 to Apr- 5	3.43	3.72	3.68	3.56	3.31
2002 Apr- 8 to Apr-12	3.36	3.25	3.25	3.14	3.07
2002 Apr-15 to Apr-19	3.27	3.44	3.40	3.50	3.40
2002 Apr-22 to Apr-26	3.58	3.63	3.53	3.46	3.32
2002 Apr-29 to May- 3	3.44	3.65	3.79	3.65	3.71
2002 May- 6 to May-10	3.61	3.50	3.74	3.72	3.70
2002 May-13 to May-17	3.62	3.75	3.60	3.45	3.41

2002 May-20 to May-24	3.44	3.33	3.39	3.38	3.21
2002 May-27 to May-31		3.18	3.30	3.33	3.15
2002 Jun- 3 to Jun- 7	3.18	3.31	3.29	3.29	3.11
2002 Jun-10 to Jun-14	3.14	3.11	3.15	3.04	3.13
2002 Jun-17 to Jun-21	3.34	3.23	3.24	3.33	3.18
2002 Jun-24 to Jun-28	3.33	3.49	3.92	3.22	3.20
2002 Jul- 1 to Jul- 5	3.28	3.17	3.08		
2002 Jul- 8 to Jul-12	3.06	2.97	3.04	2.85	2.87
2002 Jul-15 to Jul-19	2.83	2.89	2.97	2.85	2.95
2002 Jul-22 to Jul-26	3.01	2.95	2.91	3.05	2.94
2002 Jul-29 to Aug- 2	3.07	2.97	3.02	3.07	2.90
2002 Aug- 5 to Aug- 9	2.81	2.80	2.73	2.75	2.83
2002 Aug-12 to Aug-16	2.91	3.01	3.03	2.92	3.10
2002 Aug-19 to Aug-23	3.10	3.25	3.22	3.36	3.48
2002 Aug-26 to Aug-30	3.51	3.47	3.31	3.25	3.12
2002 Sep- 2 to Sep- 6		3.10	3.13	3.20	3.39
2002 Sep- 9 to Sep-13	3.24	3.35	3.33	3.22	3.37
2002 Sep-16 to Sep-20	3.45	3.46	3.80	3.90	3.95
2002 Sep-23 to Sep-27	3.87	4.00	3.76	3.61	3.76
2002 Sep-30 to Oct- 4	4.09	4.41	4.27	4.23	3.86
2002 Oct- 7 to Oct-11	3.77	3.86	3.91	3.93	3.80
2002 Oct-14 to Oct-18	4.19	4.19	4.10	4.10	4.11
2002 Oct-21 to Oct-25	4.23	4.20	4.24	4.30	4.12
2002 Oct-28 to Nov- 1	4.16	4.20	4.34	4.39	4.07
2002 Nov- 4 to Nov- 8	3.94	3.90	3.92	3.90	3.76
2002 Nov-11 to Nov-15	3.83	3.83	3.83	3.90	3.92
2002 Nov-18 to Nov-22	4.18	4.25	4.27	4.24	4.32
2002 Nov-25 to Nov-29	4.34	4.23	4.19		
2002 Dec- 2 to Dec- 6	4.23	4.35	4.24	4.35	4.39
2002 Dec- 9 to Dec-13	4.32	4.40	4.63	4.81	5.05
2002 Dec-16 to Dec-20	5.31	5.13	4.98	5.14	5.05
2002 Dec-23 to Dec-27	5.03	5.03		4.98	4.81
2002 Dec-30 to Jan- 3	4.74	4.59		4.93	5.13
2003 Jan- 6 to Jan-10	4.94	4.89	5.07	5.05	5.19
2003 Jan-13 to Jan-17	5.23	5.25	5.21	5.50	5.66
2003 Jan-20 to Jan-24		5.47	5.72	6.55	5.91
2003 Jan-27 to Jan-31	5.91	5.52	5.61	5.76	5.58
2003 Feb- 3 to Feb- 7	5.71	6.26	6.22	6.08	6.30
2003 Feb-10 to Feb-14	6.35	6.19	6.19	5.81	5.88
2003 Feb-17 to Feb-21		6.09	6.10	6.38	6.73

2003 Feb-24 to Feb-28	11.98	18.48	10.47	8.42	10.81
2003 Mar- 3 to Mar- 7	8.51	7.71	7.80	7.57	7.42
2003 Mar-10 to Mar-14	6.78	6.25	5.80	5.71	5.17
2003 Mar-17 to Mar-21	5.32	5.13	5.20	5.20	5.05
2003 Mar-24 to Mar-28	5.07	5.07	4.90	4.87	5.06
2003 Mar-31 to Apr- 4	5.01	4.90	4.89	4.91	4.86
2003 Apr- 7 to Apr-11	4.98	5.21	5.11	5.18	5.28
2003 Apr-14 to Apr-18	5.29	5.53	5.62	5.54	
2003 Apr-21 to Apr-25	5.55	5.58	5.58	5.46	5.39
2003 Apr-28 to May- 2	5.30	5.12	5.25	5.32	5.24
2003 May- 5 to May- 9	5.36	5.64	5.49	5.65	5.73
2003 May-12 to May-16	5.91	5.98	6.17	6.24	5.96
2003 May-19 to May-23	6.08	5.93	6.08	6.09	5.92
2003 May-26 to May-30		5.84	5.71	5.76	5.99
2003 Jun- 2 to Jun- 6	6.22	6.25	6.40	6.17	6.25
2003 Jun- 9 to Jun-13	6.25	6.08	6.06	5.86	5.44
2003 Jun-16 to Jun-20	5.45	5.66	5.53	5.53	5.68
2003 Jun-23 to Jun-27	5.89	5.84	5.64	5.49	5.19
2003 Jun-30 to Jul- 4	5.31	5.22	5.05	4.96	
2003 Jul- 7 to Jul-11	5.20	5.40	5.56	5.40	5.22
2003 Jul-14 to Jul-18	5.15	5.17	5.00	4.96	5.01
2003 Jul-21 to Jul-25	5.11	5.04	4.88	4.86	4.68
2003 Jul-28 to Aug- 1	4.68	4.72	4.68	4.63	4.71
2003 Aug- 4 to Aug- 8	4.81	4.71	4.74	4.85	5.02
2003 Aug-11 to Aug-15	5.08	5.06	5.17	5.10	4.83
2003 Aug-18 to Aug-22	4.94	4.99	5.03	5.14	5.24
2003 Aug-25 to Aug-29	5.26	5.09	5.11	4.94	4.86
2003 Sep- 1 to Sep- 5		4.62	4.68	4.70	4.76
2003 Sep- 8 to Sep-12	4.82	4.70	4.78	4.85	4.66
2003 Sep-15 to Sep-19	4.66	4.67	4.61	4.52	4.33
2003 Sep-22 to Sep-26	4.38	4.51	4.58	4.55	4.42
2003 Sep-29 to Oct- 3	4.57	4.66	4.47	4.42	4.34
2003 Oct- 6 to Oct-10	4.40	4.66	4.84	4.78	4.92
2003 Oct-13 to Oct-17	4.96	4.84	4.93	4.92	4.53
2003 Oct-20 to Oct-24	4.30	4.64	4.89	4.90	4.78
2003 Oct-27 to Oct-31	4.56	4.45	4.51	4.40	3.98
2003 Nov- 3 to Nov- 7	4.12	4.01	4.46	4.74	4.48
2003 Nov-10 to Nov-14	4.42	4.52	4.77	4.60	4.62
2003 Nov-17 to Nov-21	4.49	4.35	4.46	4.35	4.15
2003 Nov-24 to Nov-28	4.57	4.49	4.86		

2003 Dec- 1 to Dec- 5	5.02	5.45	5.45	5.70	6.27
2003 Dec- 8 to Dec-12	6.06	6.52	6.67	6.56	6.73
2003 Dec-15 to Dec-19	6.63	6.58	6.56	6.98	6.92
2003 Dec-22 to Dec-26	6.32	5.58	5.50		
2003 Dec-29 to Jan- 2	5.46	5.96	5.76		
2004 Jan- 5 to Jan- 9	6.28	7.04	6.61	6.41	6.91
2004 Jan-12 to Jan-16	6.29	6.26	5.73	6.02	5.43
2004 Jan-19 to Jan-23		6.15	6.26	6.03	5.82
2004 Jan-26 to Jan-30	5.70	5.87	6.04	5.99	5.80
2004 Feb- 2 to Feb- 6	5.51	5.69	5.74	5.54	5.38
2004 Feb- 9 to Feb-13	5.44	5.49	5.34	5.35	5.62
2004 Feb-16 to Feb-20		5.43	5.33	5.28	5.19
2004 Feb-23 to Feb-27	5.10	5.08	5.10	5.13	5.27
2004 Mar- 1 to Mar- 5	5.17	5.37	5.34	5.17	5.32
2004 Mar- 8 to Mar-12	5.42	5.34	5.33	5.33	5.52
2004 Mar-15 to Mar-19	5.59	5.60	5.61	5.63	5.49
2004 Mar-22 to Mar-26	5.46	5.36	5.35	5.22	5.16
2004 Mar-29 to Apr- 2	5.25	5.40	5.63	5.82	5.69
2004 Apr- 5 to Apr- 9	5.81	5.70	5.76	5.84	
2004 Apr-12 to Apr-16	5.85	5.92	5.73	5.68	5.62
2004 Apr-19 to Apr-23	5.57	5.46	5.52	5.59	5.53
2004 Apr-26 to Apr-30	5.60	5.81	5.80	5.78	5.81
2004 May- 3 to May- 7	5.80	6.21	6.09	6.22	6.18
2004 May-10 to May-14	6.14	6.24	6.41	6.42	6.43
2004 May-17 to May-21	6.41	6.28	6.18	6.44	6.35
2004 May-24 to May-28	6.48	6.73	6.70	6.51	6.45
2004 May-31 to Jun- 4		6.45	6.51	6.44	6.15
2004 Jun- 7 to Jun-11	6.09	6.19	6.04	6.00	
2004 Jun-14 to Jun-18	6.15	6.35	6.38	6.57	6.48
2004 Jun-21 to Jun-25	6.42	6.29	6.30	6.41	6.28
2004 Jun-28 to Jul- 2	6.13	6.02	6.03	5.95	5.88
2004 Jul- 5 to Jul- 9		6.16	6.27	6.19	5.89
2004 Jul-12 to Jul-16	5.95	5.85	5.91	5.92	5.77
2004 Jul-19 to Jul-23	5.75	5.80	5.90	5.85	5.98
2004 Jul-26 to Jul-30	5.94	5.87	5.77	5.93	6.03
2004 Aug- 2 to Aug- 6	5.86	5.77	5.70	5.54	5.42
2004 Aug- 9 to Aug-13	5.58	5.78	5.64	5.46	5.27
2004 Aug-16 to Aug-20	5.34	5.27	5.36	5.34	5.39
2004 Aug-23 to Aug-27	5.34	5.23	5.32	5.19	5.05
2004 Aug-30 to Sep- 3	5.05	5.04	5.02	4.75	4.32

2004 Sep- 6 to Sep-10		4.41	4.69	4.57	4.57
2004 Sep-13 to Sep-17	5.12	5.15	5.17	4.82	4.95
2004 Sep-20 to Sep-24	5.22	5.43	5.58	5.58	5.41
2004 Sep-27 to Oct- 1	5.22	5.45	6.26	6.36	5.38
2004 Oct- 4 to Oct- 8	5.72	6.07	6.00	6.24	5.59
2004 Oct-11 to Oct-15	5.63	5.63	5.38	5.76	5.64
2004 Oct-18 to Oct-22	5.64	6.13	7.27	7.35	7.11
2004 Oct-25 to Oct-29	7.75	7.78	8.12	6.80	6.43
2004 Nov- 1 to Nov- 5	6.98	6.88	7.25	7.40	6.08
2004 Nov- 8 to Nov-12	6.62	5.79	6.12	6.19	5.90
2004 Nov-15 to Nov-19	6.02	6.57	6.06	5.59	4.81
2004 Nov-22 to Nov-26	5.24	5.24	5.01		
2004 Nov-29 to Dec- 3	6.76	6.79	6.78	6.69	6.04
2004 Dec- 6 to Dec-10	6.05	6.03	5.98	6.04	6.29
2004 Dec-13 to Dec-17	6.89	7.10	7.04	6.88	7.26
2004 Dec-20 to Dec-24	7.14	6.83	7.05	6.98	
2004 Dec-27 to Dec-31	6.57	6.27	6.18	6.02	
2005 Jan- 3 to Jan- 7	5.53	5.71	5.84	5.79	5.82
2005 Jan-10 to Jan-14	6.21	5.96	5.89	6.06	6.45
2005 Jan-17 to Jan-21		6.69	6.19	6.27	6.43
2005 Jan-24 to Jan-28	6.41	6.44	6.44	6.50	6.23
2005 Jan-31 to Feb- 4	6.14	6.28	6.38	6.32	6.12
2005 Feb- 7 to Feb-11	6.02	5.95	6.20	6.21	6.02
2005 Feb-14 to Feb-18	5.95	6.01	6.10	6.05	5.88
2005 Feb-21 to Feb-25		5.92	6.02	6.33	6.24
2005 Feb-28 to Mar- 4	6.62	6.63	6.61	6.71	6.51
2005 Mar- 7 to Mar-11	6.66	6.81	6.99	6.91	6.73
2005 Mar-14 to Mar-18	6.86	7.16	7.08	7.25	7.12
2005 Mar-21 to Mar-25	7.16	7.24	7.11	7.07	
2005 Mar-28 to Apr- 1	6.94	6.93	7.18	7.46	7.57
2005 Apr- 4 to Apr- 8	7.80	7.44	7.46	7.50	7.26
2005 Apr-11 to Apr-15	7.17	7.34	7.07	7.02	6.95
2005 Apr-18 to Apr-22	6.95	6.95	7.10	6.93	7.06
2005 Apr-25 to Apr-29	7.27	7.08	7.10	6.67	6.64
2005 May- 2 to May- 6	6.50	6.61	6.49	6.65	6.67
2005 May- 9 to May-13	6.56	6.67	6.63	6.62	6.47
2005 May-16 to May-20	6.45	6.41	6.50	6.39	6.36
2005 May-23 to May-27	6.33	6.45	6.33	6.30	6.22
2005 May-30 to Jun- 3		6.31	6.36	6.63	6.65
2005 Jun- 6 to Jun-10	7.05	7.13	7.22	7.05	7.09

2005 Jun-13 to Jun-17	7.08	7.32	7.39	7.41	7.61
2005 Jun-20 to Jun-24	7.80	7.46	7.39	7.51	7.45
2005 Jun-27 to Jul- 1	7.29	7.04	7.08	7.01	7.01
2005 Jul- 4 to Jul- 8		7.38	7.69	7.62	7.87
2005 Jul-11 to Jul-15	7.35	7.79	7.78	7.99	8.02
2005 Jul-18 to Jul-22	7.77	7.70	7.75	7.64	7.41
2005 Jul-25 to Jul-29	7.38	7.45	7.52	7.69	7.76
2005 Aug- 1 to Aug- 5	8.03	8.38	8.75	8.55	8.60
2005 Aug- 8 to Aug-12	8.93	8.70	8.82	9.29	9.59
2005 Aug-15 to Aug-19	9.53	9.66	9.99	9.38	9.09
2005 Aug-22 to Aug-26	9.44	9.96	10.02	9.77	9.86
2005 Aug-29 to Sep- 2	9.86	12.36	12.69	11.36	11.75
2005 Sep- 5 to Sep- 9		11.56	11.03	10.92	11.03
2005 Sep-12 to Sep-16	10.68	10.71	10.80	11.24	11.25
2005 Sep-19 to Sep-23	11.99	12.76	14.26	14.84	
2005 Oct- 3 to Oct- 7					13.67
2005 Oct-10 to Oct-14	13.29	13.67	13.77	13.48	12.80
2005 Oct-17 to Oct-21	13.89	13.41	13.52	13.24	12.73
2005 Oct-24 to Oct-28	12.95	13.90	14.68	13.90	13.10
2005 Oct-31 to Nov- 4	12.18	10.80	10.85	10.79	9.67
2005 Nov- 7 to Nov-11	8.77	9.15	9.31	9.66	9.20
2005 Nov-14 to Nov-18	9.15	9.21	11.03	11.92	10.01
2005 Nov-21 to Nov-25	10.48	11.15	11.02		
2005 Nov-28 to Dec- 2	11.01	11.17	11.73	12.58	12.95
2005 Dec- 5 to Dec- 9	14.27	13.57	13.95	14.25	15.02
2005 Dec-12 to Dec-16	14.82	15.39	14.81	14.07	13.36
2005 Dec-19 to Dec-23	13.73	13.79	13.56	13.03	11.17
2005 Dec-26 to Dec-30		10.22	9.90	10.07	9.52
2006 Jan- 2 to Jan- 6		9.90	9.25	9.24	9.30
2006 Jan- 9 to Jan-13	8.79	8.60	8.55	8.70	8.50
2006 Jan-16 to Jan-20		8.82	8.86	8.21	8.80
2006 Jan-23 to Jan-27	8.29	8.27	8.50	7.86	8.19
2006 Jan-30 to Feb- 3	8.36	8.73	8.71	8.01	8.01
2006 Feb- 6 to Feb-10	8.24	7.74	7.88	7.55	7.57
2006 Feb-13 to Feb-17	7.36	7.03	7.31	7.16	7.39
2006 Feb-20 to Feb-24		7.40	7.55	7.23	7.39
2006 Feb-27 to Mar- 3	6.97	6.69	6.62	6.69	6.59
2006 Mar- 6 to Mar-10	6.50	6.53	6.47	6.31	6.40
2006 Mar-13 to Mar-17	6.77	7.15	7.10	7.12	7.17
2006 Mar-20 to Mar-24	7.00	6.83	7.06	7.16	7.43

2006 Mar-27 to Mar-31	7.05	7.15	7.16	7.19	6.98
2006 Apr- 3 to Apr- 7	7.08	7.04	6.89	7.06	6.81
2006 Apr-10 to Apr-14	6.83	6.99	6.78	6.64	
2006 Apr-17 to Apr-21	7.22	7.60	7.72	7.95	7.65
2006 Apr-24 to Apr-28	7.73	7.37	7.17	6.94	6.64
2006 May- 1 to May- 5	6.53	6.68	6.56	6.47	6.80
2006 May- 8 to May-12	6.54	6.55	6.50	6.80	6.35
2006 May-15 to May-19	5.92	5.99	6.15	5.79	5.77
2006 May-22 to May-26	5.91	6.27	6.01	5.85	5.78
2006 May-29 to Jun- 2		6.20	5.97	6.25	6.23
2006 Jun- 5 to Jun- 9	6.40	6.16	5.82	5.84	6.10
2006 Jun-12 to Jun-16	6.02	5.95	6.08	6.43	7.03
2006 Jun-19 to Jun-23	6.71	6.62	6.50	6.51	6.14
2006 Jun-26 to Jun-30	5.89	5.97	6.04	6.09	5.84
2006 Jul- 3 to Jul- 7			5.70	5.28	5.18
2006 Jul-10 to Jul-14	5.32	5.51	5.66	5.92	6.28
2006 Jul-17 to Jul-21	6.27	6.02	5.89	6.14	5.90
2006 Jul-24 to Jul-28	6.33	6.78	6.71	7.03	7.24
2006 Jul-31 to Aug- 4	8.04	8.66	8.65	7.61	7.44
2006 Aug- 7 to Aug-11	6.97	7.06	7.60	7.95	7.56
2006 Aug-14 to Aug-18	6.89	6.90	7.01	6.73	6.66
2006 Aug-21 to Aug-25	6.72	6.86	7.19	7.22	7.48
2006 Aug-28 to Sep- 1	6.51	6.24	6.40	5.80	5.24
2006 Sep- 4 to Sep- 8		5.45	5.70	5.64	5.31
2006 Sep-11 to Sep-15	5.29	5.57	5.40	5.09	4.40
2006 Sep-18 to Sep-22	5.02	4.99	4.87	4.65	4.47
2006 Sep-25 to Sep-29	4.31	4.36	4.35	4.15	3.66
2006 Oct- 2 to Oct- 6	4.11	4.01	4.38	4.69	4.41
2006 Oct- 9 to Oct-13	5.06	5.16	5.66	5.17	4.30
2006 Oct-16 to Oct-20	5.13	6.26	6.07	6.77	6.88
2006 Oct-23 to Oct-27	7.29	7.13	7.20	7.91	7.41
2006 Oct-30 to Nov- 3	6.99	6.64	7.15	7.32	7.43
2006 Nov- 6 to Nov-10	6.72	6.59	7.39	7.35	7.16
2006 Nov-13 to Nov-17	7.26	7.42	7.45	7.59	7.23
2006 Nov-20 to Nov-24	7.79	7.57	7.42		
2006 Nov-27 to Dec- 1	7.58	7.61	7.74	8.32	8.42
2006 Dec- 4 to Dec- 8	7.84	7.32	7.32	7.61	7.45
2006 Dec-11 to Dec-15	6.81	6.93	7.21	7.26	6.82
2006 Dec-18 to Dec-22	6.62	6.27	6.43	6.09	5.88
2006 Dec-25 to Dec-29		5.72	5.54	5.63	5.50

2007 Jan- 1 to Jan- 5		5.40	5.47	5.60	5.52
2007 Jan- 8 to Jan-12	6.02	6.15	6.42	6.09	5.97
2007 Jan-15 to Jan-19		6.82	6.57	6.29	6.40
2007 Jan-22 to Jan-26	7.20	7.53	7.58	7.18	6.95
2007 Jan-29 to Feb- 2	7.35	7.32	7.76	7.93	8.17
2007 Feb- 5 to Feb- 9	9.14	8.29	7.90	8.06	8.16
2007 Feb-12 to Feb-16	7.78	8.09	8.90	8.91	8.45
2007 Feb-19 to Feb-23		7.34	7.51	7.47	7.53
2007 Feb-26 to Mar- 2	7.73	7.44	7.23	7.07	7.22
2007 Mar- 5 to Mar- 9	7.36	7.55	7.50	7.14	7.05
2007 Mar-12 to Mar-16	6.81	6.78	6.86	7.02	6.84
2007 Mar-19 to Mar-23	6.70	6.81	6.82	7.07	7.16
2007 Mar-26 to Mar-30	7.15	7.15	7.47	7.34	7.50
2007 Apr- 2 to Apr- 6	7.62	7.57	7.46	7.53	
2007 Apr- 9 to Apr-13	7.65	7.65	7.97	7.95	7.93
2007 Apr-16 to Apr-20	7.66	7.50	7.54	7.54	7.32
2007 Apr-23 to Apr-27	7.24	7.57	7.60	7.56	7.44
2007 Apr-30 to May- 4	7.71	7.64	7.64	7.58	7.82
2007 May- 7 to May-11	7.69	7.50	7.46	7.63	7.53
2007 May-14 to May-18	7.85	7.68	7.62	7.69	7.87
2007 May-21 to May-25	7.66	7.60	7.51	7.56	7.47
2007 May-28 to Jun- 1		7.51	7.71	7.80	7.57
2007 Jun- 4 to Jun- 8	7.73	7.83	7.83	7.89	7.52
2007 Jun-11 to Jun-15	7.42	7.45	7.60	7.48	7.58
2007 Jun-18 to Jun-22	7.69	7.46	7.39	7.24	7.04
2007 Jun-25 to Jun-29	6.77	6.85	6.74	6.79	6.40
2007 Jul- 2 to Jul- 6	6.24	6.37		6.30	6.15
2007 Jul- 9 to Jul-13	6.39	6.44	6.66	6.26	6.27
2007 Jul-16 to Jul-20	6.32	6.34	6.23	6.50	6.46
2007 Jul-23 to Jul-27	6.00	5.66	5.56	5.83	5.77
2007 Jul-30 to Aug- 3	6.31	6.53	6.19	6.34	6.11
2007 Aug- 6 to Aug-10	6.10	6.38	6.24	6.45	6.57
2007 Aug-13 to Aug-17	7.15	6.86	7.30	6.96	7.14
2007 Aug-20 to Aug-24	6.47	5.92	5.84	5.73	5.69
2007 Aug-27 to Aug-31	5.34	5.56	5.64	5.54	5.49
2007 Sep- 3 to Sep- 7		5.30	5.80	6.02	5.53
2007 Sep-10 to Sep-14	5.56	5.98	6.13	6.27	6.23
2007 Sep-17 to Sep-21	6.38	6.42	6.25	6.02	5.96
2007 Sep-24 to Sep-28	6.12	6.54	6.47	6.38	6.15
2007 Oct- 1 to Oct- 5	6.07	6.55	6.96	6.91	6.77

2007 Oct- 8 to Oct-12	6.69	6.63	6.79	6.85	6.46
2007 Oct-15 to Oct-19	7.09	7.29	7.12	7.11	6.91
2007 Oct-22 to Oct-26	6.63	6.30	6.11	6.49	6.43
2007 Oct-29 to Nov- 2	6.66	6.99	7.28	7.09	6.63
2007 Nov- 5 to Nov- 9	6.71	7.20	7.42	6.81	6.59
2007 Nov-12 to Nov-16	6.83	7.22	7.28	7.35	7.29
2007 Nov-19 to Nov-23	7.38	6.81	6.67		6.67
2007 Nov-26 to Nov-30	7.53	7.42	7.51	7.45	7.29
2007 Dec- 3 to Dec- 7	6.97	7.27	7.04	7.29	7.04
2007 Dec-10 to Dec-14	6.98	7.12	7.22	7.46	7.09
2007 Dec-17 to Dec-21	7.06	7.16	7.18	7.19	7.03
2007 Dec-24 to Dec-28	7.03		6.94	6.80	7.11
2007 Dec-31 to Jan- 4	7.11		7.83	7.84	7.51
2008 Jan- 7 to Jan-11	7.61	7.59	7.89	7.96	8.13
2008 Jan-14 to Jan-18	8.45	8.43	8.23	8.10	8.42
2008 Jan-21 to Jan-25		7.97	7.84	7.85	7.80
2008 Jan-28 to Feb- 1	7.87	8.10	8.17	8.10	7.88
2008 Feb- 4 to Feb- 8	7.56	7.80	7.94	7.99	8.06
2008 Feb-11 to Feb-15	8.38	8.37	8.35	8.50	8.73
2008 Feb-18 to Feb-22		8.91	9.08	8.90	8.65
2008 Feb-25 to Feb-29	9.15	9.21	9.21	9.11	9.10
2008 Mar- 3 to Mar- 7	9.07	9.21	9.37	9.70	9.82
2008 Mar-10 to Mar-14	9.59	9.85	9.69	9.74	9.84
2008 Mar-17 to Mar-21	9.59	9.10	9.11	8.54	
2008 Mar-24 to Mar-28	8.99	9.28	9.25	9.30	9.36
2008 Mar-31 to Apr- 4	9.86	9.92	9.60	9.68	9.36
2008 Apr- 7 to Apr-11	9.48	9.78	9.88	10.18	10.07
2008 Apr-14 to Apr-18	10.03	10.16	10.11	10.27	10.08
2008 Apr-21 to Apr-25	10.50	10.56	10.33	10.58	10.72
2008 Apr-28 to May- 2	10.95	10.94	10.81	10.66	10.37
2008 May- 5 to May- 9	10.77	11.09	11.08	11.33	11.29
2008 May-12 to May-16	11.38	11.18	11.52	11.41	11.31
2008 May-19 to May-23	11.10	10.94	11.40	11.57	11.56
2008 May-26 to May-30		11.85	11.60	11.81	11.43
2008 Jun- 2 to Jun- 6	11.80	12.27	12.17	12.49	12.71
2008 Jun- 9 to Jun-13	12.71	12.72	12.49	12.51	12.51
2008 Jun-16 to Jun-20	12.73	12.87	12.93	13.09	12.76
2008 Jun-23 to Jun-27	12.92	12.96	12.76	12.70	13.10
2008 Jun-30 to Jul- 4	13.19	13.28	13.31	13.00	
2008 Jul- 7 to Jul-11	12.96	12.47	12.10	11.83	12.15

2008 Jul-14 to Jul-18	11.58	11.79	11.15	11.43	10.54
2008 Jul-21 to Jul-25	10.58	10.16	9.88	9.70	9.34
2008 Jul-28 to Aug- 1	9.26	9.17	9.01	9.26	9.05
2008 Aug- 4 to Aug- 8	9.20	8.66	8.70	8.77	8.22
2008 Aug-11 to Aug-15	8.18	8.23	8.11	8.15	7.82
2008 Aug-18 to Aug-22	7.74	7.73	8.02	8.04	7.98
2008 Aug-25 to Aug-29	7.63	8.02	8.54	8.36	8.24
2008 Sep- 1 to Sep- 5		8.24	7.26	7.24	7.40
2008 Sep- 8 to Sep-12	7.68	7.28	7.65	7.83	8.02
2008 Sep-15 to Sep-19	8.02	7.76	7.72	8.26	7.79
2008 Sep-22 to Sep-26	7.66	7.84	8.15	7.63	7.42
2008 Sep-29 to Oct- 3	7.13	7.17	7.41	7.64	7.16
2008 Oct- 6 to Oct-10	6.87	6.74	6.58	6.69	6.52
2008 Oct-13 to Oct-17	6.62	6.74	6.64	6.65	6.76
2008 Oct-20 to Oct-24	6.98	6.76	6.94	6.77	6.29
2008 Oct-27 to Oct-31	6.27	6.40	6.58	6.75	6.18
2008 Nov- 3 to Nov- 7	6.45	6.79	6.94	7.04	6.60
2008 Nov-10 to Nov-14	7.07	7.02	6.65	6.31	6.33
2008 Nov-17 to Nov-21	6.55	6.74	6.76	6.76	6.56
2008 Nov-24 to Nov-28	6.85	6.71	6.43		6.43
2008 Dec- 1 to Dec- 5	6.48	6.68	6.48	6.55	5.99
2008 Dec- 8 to Dec-12	5.73	5.57	5.67	5.86	5.56
2008 Dec-15 to Dec-19	5.75	5.75	5.79	5.63	5.66
2008 Dec-22 to Dec-26	5.39	5.37	5.44		5.44
2008 Dec-29 to Jan- 2	5.81	5.71	5.63		5.41
2009 Jan- 5 to Jan- 9	5.83	6.10	5.89	5.96	5.60
2009 Jan-12 to Jan-16	5.59	5.70	5.47	5.27	5.09
2009 Jan-19 to Jan-23		4.86	4.87	4.72	4.75
2009 Jan-26 to Jan-30	4.62	4.76	4.84	4.71	4.77
2009 Feb- 2 to Feb- 6	4.48	5.04	5.01	4.84	4.67
2009 Feb- 9 to Feb-13	4.76	4.84	4.68	4.73	4.60
2009 Feb-16 to Feb-20		4.35	4.35	4.46	4.21
2009 Feb-23 to Feb-27	4.23	4.21	4.20	4.08	4.04
2009 Mar- 2 to Mar- 6	4.36	4.43	4.23	4.22	3.93
2009 Mar- 9 to Mar-13	3.86	3.88	3.92	3.87	3.90
2009 Mar-16 to Mar-20	3.78	3.78	3.75	3.68	3.99
2009 Mar-23 to Mar-27	4.17	4.13	4.13	4.16	3.73
2009 Mar-30 to Apr- 3	3.63	3.58	3.56	3.69	3.66
2009 Apr- 6 to Apr-10	3.74	3.60	3.50	3.59	
2009 Apr-13 to Apr-17	3.46	3.59	3.60	3.54	3.47

2009 Apr-20 to Apr-24	3.55	3.43	3.48	3.46	3.31
2009 Apr-27 to May- 1	3.19	3.29	3.43	3.25	3.30
2009 May- 4 to May- 8	3.47	3.62	3.67	3.96	4.16
2009 May-11 to May-15	4.24	4.41	4.42	4.10	4.05
2009 May-18 to May-22	4.02	3.99	3.75	3.77	3.41
2009 May-25 to May-29		3.35	3.49	3.55	3.92
2009 Jun- 1 to Jun- 5	3.86	4.05	3.81	3.58	3.51
2009 Jun- 8 to Jun-12	3.53	3.53	3.56	3.51	3.54
2009 Jun-15 to Jun-19	3.80	4.16	3.99	4.19	4.04
2009 Jun-22 to Jun-26	4.01	3.91	3.80	3.82	3.81
2009 Jun-29 to Jul- 3	3.88	3.72	3.63	3.49	
2009 Jul- 6 to Jul-10	3.24	3.30	3.22	3.36	3.24
2009 Jul-13 to Jul-17	3.17	3.29	3.37	3.21	3.39
2009 Jul-20 to Jul-24	3.49	3.48	3.49	3.66	3.37
2009 Jul-27 to Jul-31	3.46	3.49	3.41	3.34	3.34
2009 Aug- 3 to Aug- 7	3.43	3.53	3.61	3.78	3.57
2009 Aug-10 to Aug-14	3.55	3.54	3.36	3.34	3.18
2009 Aug-17 to Aug-21	3.11	3.12	3.03	3.03	2.78
2009 Aug-24 to Aug-28	2.69	2.85	2.76	2.76	2.52
2009 Aug-31 to Sep- 4	2.42	2.36	2.25	2.06	1.83
2009 Sep- 7 to Sep-11		2.43	2.72	2.68	2.94
2009 Sep-14 to Sep-18	2.84	3.21	3.28	3.50	3.21
2009 Sep-21 to Sep-25	3.35	3.37	3.43	3.56	3.61
2009 Sep-28 to Oct- 2	3.54	3.30	3.25	2.91	2.32
2009 Oct- 5 to Oct- 9	2.89	3.23	3.70	4.24	3.92
2009 Oct-12 to Oct-16	3.96	4.03	3.82	3.88	3.94
2009 Oct-19 to Oct-23	4.22	4.60	4.80	4.98	4.88
2009 Oct-26 to Oct-30	4.52	4.52	4.59	4.11	4.11
2009 Nov- 2 to Nov- 6	4.32	4.33	4.49	4.30	3.95
2009 Nov- 9 to Nov-13	3.78	3.76	3.59	3.24	2.51
2009 Nov-16 to Nov-20	2.65	3.47	3.74	3.57	3.09
2009 Nov-23 to Nov-27	3.79	3.63	3.32		3.32
2009 Nov-30 to Dec- 4	4.41	4.30	4.67	4.57	4.53
2009 Dec- 7 to Dec-11	4.78	5.10	5.27	5.02	5.21
2009 Dec-14 to Dec-18	5.41	5.53	5.57	5.65	5.87
2009 Dec-21 to Dec-25	5.79	5.56	5.55	5.75	
2009 Dec-28 to Jan- 1	5.91	6.01	5.78	5.82	
2010 Jan- 4 to Jan- 8	6.09	6.19	6.47	7.51	6.56
2010 Jan-11 to Jan-15	5.77	5.57	5.61	5.77	5.66
2010 Jan-18 to Jan-22		5.51	5.54	5.52	5.67

2010 Jan-25 to Jan-29	5.76	5.61	5.42	5.32	5.26
2010 Feb- 1 to Feb- 5	5.30	5.47	5.51	5.47	5.61
2010 Feb- 8 to Feb-12	5.73	5.54	5.48	5.53	5.48
2010 Feb-15 to Feb-19		5.65	5.47	5.40	5.10
2010 Feb-22 to Feb-26	4.92	4.91	4.91	4.84	4.76
2010 Mar- 1 to Mar- 5	4.83	4.78	4.76	4.78	4.56
2010 Mar- 8 to Mar-12	4.47	4.51	4.44	4.47	4.35
2010 Mar-15 to Mar-19	4.29	4.38	4.27	4.19	4.01
2010 Mar-22 to Mar-26	4.02	4.08	4.02	4.01	3.92
2010 Mar-29 to Apr- 2	3.83	3.79	3.93	3.72	
2010 Apr- 5 to Apr- 9	3.93	4.16	4.08	3.92	3.90
2010 Apr-12 to Apr-16	4.04	3.97	4.15	4.16	3.97
2010 Apr-19 to Apr-23	4.02	3.93	3.96	3.95	4.07
2010 Apr-26 to Apr-30	4.23	4.18	4.19	4.24	3.94
2010 May- 3 to May- 7	3.86	3.96	4.00	3.97	3.91
2010 May-10 to May-14	4.08	4.15	4.18	4.26	4.27
2010 May-17 to May-21	4.34	4.42	4.28	4.12	4.12
2010 May-24 to May-28	4.08	4.08	4.19	4.22	4.31
2010 May-31 to Jun- 4		4.39	4.32	4.46	4.60
2010 Jun- 7 to Jun-11	4.67	4.89	4.75	4.68	4.68
2010 Jun-14 to Jun-18	4.94	5.11	5.13	5.14	5.17
2010 Jun-21 to Jun-25	5.15	4.87	4.90	4.88	4.84
2010 Jun-28 to Jul- 2	4.85	4.68	4.53	4.54	4.72
2010 Jul- 5 to Jul- 9		4.85	4.76	4.61	4.36
2010 Jul-12 to Jul-16	4.42	4.46	4.39	4.43	4.68
2010 Jul-19 to Jul-23	4.56	4.59	4.70	4.67	4.69
2010 Jul-26 to Jul-30	4.65	4.72	4.75	4.80	4.81
2010 Aug- 2 to Aug- 6	4.94	4.78	4.77	4.84	4.67
2010 Aug- 9 to Aug-13	4.52	4.43	4.38	4.42	4.35
2010 Aug-16 to Aug-20	4.37	4.28	4.35	4.29	4.19
2010 Aug-23 to Aug-27	4.12	4.07	3.99	3.85	3.75
2010 Aug-30 to Sep- 3	3.77	3.80	3.73	3.74	3.74
2010 Sep- 6 to Sep-10		3.82	3.81	3.79	3.79
2010 Sep-13 to Sep-17	3.83	3.98	4.06	4.09	4.11
2010 Sep-20 to Sep-24	4.01	3.95	4.02	4.08	3.97
2010 Sep-27 to Oct- 1	3.80	3.80	3.81	3.85	3.67
2010 Oct- 4 to Oct- 8	3.56	3.51	3.56	3.62	3.36
2010 Oct-11 to Oct-15	3.43	3.40	3.58	3.58	3.47
2010 Oct-18 to Oct-22	3.36	3.36	3.46	3.46	3.19
2010 Oct-25 to Oct-29	3.18	3.28	3.37	3.36	3.36

2010 Nov- 1 to Nov- 5	3.42	3.20	3.35	3.53	3.47
2010 Nov- 8 to Nov-12	3.49	3.76	4.00	3.73	3.50
2010 Nov-15 to Nov-19	3.56	3.66	3.77	3.89	3.79
2010 Nov-22 to Nov-26	4.02	3.93	3.82		3.82
2010 Nov-29 to Dec- 3	4.12	4.16	4.21	4.28	4.23
2010 Dec- 6 to Dec-10	4.47	4.48	4.47	4.52	4.37
2010 Dec-13 to Dec-17	4.55	4.35	4.22	4.19	3.99
2010 Dec-20 to Dec-24	4.10	4.17	4.01	4.08	
2010 Dec-27 to Dec-31	4.05	4.10	4.19	4.22	4.22
2011 Jan- 3 to Jan- 7	4.54	4.61	4.52	4.49	4.42
2011 Jan-10 to Jan-14	4.49	4.42	4.55	4.48	4.38
2011 Jan-17 to Jan-21		4.52	4.48	4.57	4.72
2011 Jan-24 to Jan-28	4.72	4.46	4.40	4.41	4.27
2011 Jan-31 to Feb- 4	4.42	4.42	4.55	4.69	4.48
2011 Feb- 7 to Feb-11	4.32	4.24	4.22	4.11	3.96
2011 Feb-14 to Feb-18	3.89	3.92	3.93	3.90	3.84
2011 Feb-21 to Feb-25		3.89	3.83	3.83	3.81
2011 Feb-28 to Mar- 4	3.93	3.93	3.79	3.75	3.70
2011 Mar- 7 to Mar-11	3.73	3.83	3.81	3.87	3.78
2011 Mar-14 to Mar-18	3.90	3.81	3.86	3.85	3.98
2011 Mar-21 to Mar-25	3.99	4.05	4.18	4.27	4.13
2011 Mar-28 to Apr- 1	4.35	4.27	4.25	4.32	4.32
2011 Apr- 4 to Apr- 8	4.21	4.22	4.17	4.12	4.05
2011 Apr-11 to Apr-15	4.05	4.08	4.14	4.12	4.21
2011 Apr-18 to Apr-22	4.23	4.19	4.33	4.33	
2011 Apr-25 to Apr-29	4.37	4.32	4.35	4.38	4.51
2011 May- 2 to May- 6	4.60	4.60	4.59	4.49	4.24
2011 May- 9 to May-13	4.28	4.19	4.23	4.10	4.09
2011 May-16 to May-20	4.21	4.25	4.15	4.10	4.05
2011 May-23 to May-27	4.27	4.37	4.36	4.37	4.36
2011 May-30 to Jun- 3		4.63	4.62	4.64	4.72
2011 Jun- 6 to Jun-10	4.83	4.83	4.83	4.92	4.72
2011 Jun-13 to Jun-17	4.75	4.59	4.53	4.54	4.39
2011 Jun-20 to Jun-24	4.33	4.37	4.42	4.31	4.20
2011 Jun-27 to Jul- 1	4.25	4.34	4.40	4.28	4.33
2011 Jul- 4 to Jul- 8		4.40	4.34	4.25	4.19
2011 Jul-11 to Jul-15	4.35	4.38	4.43	4.42	4.49
2011 Jul-18 to Jul-22	4.60	4.60	4.64	4.58	4.46
2011 Jul-25 to Jul-29	4.45	4.43	4.46	4.41	4.26
2011 Aug- 1 to Aug- 5	4.29	4.30	4.26	4.20	4.00

2011 Aug- 8 to Aug-12	4.00	4.06	4.09	4.06	4.17
2011 Aug-15 to Aug-19	4.05	4.03	3.98	3.98	3.99
2011 Aug-22 to Aug-26	3.97	4.01	4.10	4.01	3.96
2011 Aug-29 to Sep- 2	3.93	3.85	3.97	4.18	4.12
2011 Sep- 5 to Sep- 9		3.93	3.96	3.99	3.96
2011 Sep-12 to Sep-16	3.92	3.96	4.01	4.04	3.84
2011 Sep-19 to Sep-23	3.78	3.84	3.78	3.72	3.74
2011 Sep-26 to Sep-30	3.80	3.92	3.88	3.77	3.68
2011 Oct- 3 to Oct- 7	3.57	3.56	3.63	3.49	3.40
2011 Oct-10 to Oct-14	3.41	3.52	3.54	3.42	3.49
2011 Oct-17 to Oct-21	3.72	3.63	3.59	3.61	3.54
2011 Oct-24 to Oct-28	3.61	3.62	3.65	3.59	3.63
2011 Oct-31 to Nov- 4	3.66	3.49	3.39	3.39	3.44
2011 Nov- 7 to Nov-11	3.35	3.42	3.55	3.48	3.29
2011 Nov-14 to Nov-18	3.17	3.12	3.11	3.11	3.01
2011 Nov-21 to Nov-25	2.94	3.06	2.84		2.84
2011 Nov-28 to Dec- 2	3.09	3.39	3.53	3.49	3.35
2011 Dec- 5 to Dec- 9	3.38	3.43	3.45	3.42	3.29
2011 Dec-12 to Dec-16	3.13	3.12	3.08	3.05	3.01
2011 Dec-19 to Dec-23	3.03	3.06	3.05	3.08	2.97
2011 Dec-26 to Dec-30		3.09	3.07	3.03	2.98
2012 Jan- 2 to Jan- 6		2.97	2.96	2.91	2.85
2012 Jan- 9 to Jan-13	2.89	2.97	2.81	2.70	2.67
2012 Jan-16 to Jan-20		2.51	2.49	2.36	2.23
2012 Jan-23 to Jan-27	2.39	2.60	2.61	2.68	2.59
2012 Jan-30 to Feb- 3	2.71	2.51	2.32	2.30	2.40
2012 Feb- 6 to Feb-10	2.46	2.60	2.48	2.50	2.51
2012 Feb-13 to Feb-17	2.42	2.48	2.54	2.47	2.67
2012 Feb-20 to Feb-24		2.63	2.60	2.68	2.60
2012 Feb-27 to Mar- 2	2.55	2.44	2.44	2.45	2.38
2012 Mar- 5 to Mar- 9	2.31	2.30	2.24	2.24	2.21
2012 Mar-12 to Mar-16	2.17	2.15	2.13	2.07	2.01
2012 Mar-19 to Mar-23	2.14	2.19	2.21	2.19	2.07
2012 Mar-26 to Mar-30	2.16	2.09	2.05	2.02	2.00
2012 Apr- 2 to Apr- 6	1.88	1.94	2.06	1.98	
2012 Apr- 9 to Apr-13	1.99	1.99	1.91	1.87	1.87
2012 Apr-16 to Apr-20	1.88	1.89	1.87	1.85	1.82
2012 Apr-23 to Apr-27	1.89	1.97	1.99	2.10	2.05
2012 Apr-30 to May- 4	2.10	2.29	2.31	2.29	2.30
2012 May- 7 to May-11	2.30	2.27	2.36	2.36	2.37

2012 May-14 to May-18	2.41	2.38	2.50	2.60	2.56
2012 May-21 to May-25	2.60	2.55	2.60	2.66	2.56
2012 May-28 to Jun- 1		2.50	2.39	2.34	2.24
2012 Jun- 4 to Jun- 8	2.32	2.39	2.41	2.33	2.22
2012 Jun-11 to Jun-15	2.22	2.17	2.18	2.20	2.44
2012 Jun-18 to Jun-22	2.45	2.59	2.60	2.48	2.50
2012 Jun-25 to Jun-29	2.70	2.70	2.87	2.81	2.74
2012 Jul- 2 to Jul- 6	2.73	2.78		2.90	2.94
2012 Jul- 9 to Jul-13	2.79	2.87	2.72	2.83	2.88
2012 Jul-16 to Jul-20	2.92	2.83	2.84	2.99	3.03
2012 Jul-23 to Jul-27	3.05	3.16	3.19	3.13	3.10
2012 Jul-30 to Aug- 3	3.14	3.20	3.20	3.16	2.91
2012 Aug- 6 to Aug-10	2.90	2.99	2.97	2.89	2.84
2012 Aug-13 to Aug-17	2.77	2.79	2.82	2.78	2.70
2012 Aug-20 to Aug-24	2.75	2.80	2.80	2.81	2.81
2012 Aug-27 to Aug-31	2.80	2.71	2.64	2.72	2.72
2012 Sep- 3 to Sep- 7		2.81	2.87	2.85	2.73
2012 Sep-10 to Sep-14	2.66	2.82	2.96	3.01	2.94
2012 Sep-17 to Sep-21	2.83	2.74	2.70	2.76	2.76
2012 Sep-24 to Sep-28	2.82	2.84	2.92	3.01	3.08
2012 Oct- 1 to Oct- 5	3.19	3.21	3.21	3.23	3.26
2012 Oct- 8 to Oct-12	3.18	3.18	3.26	3.28	3.38
2012 Oct-15 to Oct-19	3.35	3.27	3.24	3.28	3.43
2012 Oct-22 to Oct-26	3.49	3.34	3.43	3.39	3.38
2012 Oct-29 to Nov- 2	3.40	3.42	3.50	3.50	3.40
2012 Nov- 5 to Nov- 9	3.34	3.41	3.47	3.45	3.33
2012 Nov-12 to Nov-16	3.40	3.57	3.66	3.63	3.46
2012 Nov-19 to Nov-23	3.63	3.62	3.59		3.59
2012 Nov-26 to Nov-30	3.75	3.77	3.71	3.61	3.46
2012 Dec- 3 to Dec- 7	3.44	3.38	3.41	3.48	3.33
2012 Dec-10 to Dec-14	3.35	3.39	3.33	3.27	3.15
2012 Dec-17 to Dec-21	3.20	3.29	3.25	3.35	3.42
2012 Dec-24 to Dec-28	3.30		3.35	3.31	3.40
2012 Dec-31 to Jan- 4	3.43		3.30	3.19	3.20
2013 Jan- 7 to Jan-11	3.30	3.21	3.14		

- = No Data Reported; -- = Not Applicable; NA = Not Available; W = Withheld to avoid disclosure of individual company data.

Release Date: 1/9/2013
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Referring Pages:

- Natural Gas Futures Prices (NYMEX)