In the United States Court of Federal Claims

No. 14-388L
(Filed: June 21, 2018)

WILLIAM C. HARDY & BERTIE ANN HARDY et al., Plaintiffs, v. THE UNITED STATES, Defendant.	Rails-to-Trails; Cross-Motions for Partial Summary Judgment; RCFC 56; RCFC 42; Just Compensation; Delay Damages; Appropriate Interest Rate; Prudent Investor Rule; Compounding Interest

Elizabeth A. Gepford McCulley, Kansas City, MO, for plaintiffs.

Amarveer Brar, United States Department of Justice, Washington, DC, for defendant.

OPINION AND ORDER

SWEENEY, Judge

In this Rails-to-Trails action, 112 plaintiffs contend that they own real property adjacent to a rail corridor in Newton County, Georgia. They assert that until 2013, the Central of Georgia Railroad Company and its predecessors held easements for railroad purposes that crossed their land. According to plaintiffs, defendant United States then authorized the conversion of the railroad rights-of-way into recreational trails pursuant to the National Trail Systems Act, conduct that resulted in a taking in violation of the Just Compensation Clause of the Fifth Amendment to the United States Constitution.

Currently before the court are the parties' cross-motions for partial summary judgment as to the appropriate interest rate necessary to provide just compensation. Plaintiffs argue that the Vanguard Balanced Index Fund ("VBINX") or, alternatively, the Moody's Composite Index of Yields on Aaa Long Term Corporate Bonds ("Moody's"), satisfies the Prudent Investor Rule and would supply the proper rate by which to calculate damages for the delay between the date of taking and the date of payment, i.e., delay damages. Defendant argues that delay damages should be calculated using the rate set forth in the Declaration of Takings Act ("DTA") or, alternatively, the five-year Treasury Inflation Protected Security ("TIPS") rate, compounded annually. For the reasons explained below, the court concludes that the Moody's rate is the appropriate benchmark by which to calculate delay damages in this case. Therefore, the court grants in part and denies in part plaintiffs' motion for partial summary judgment and denies defendant's cross-motion.

I. BACKGROUND

Detailed descriptions of the statutory and regulatory context of this case, initial acquisition of the land in question, and proceedings before the Surface Transportation Board are provided in the court's summary judgment ruling with respect to liability and need not be repeated herein. See Hardy v. United States, 127 Fed. Cl. 1, 5-7 (2016). In that ruling, the court determined that the Surface Transportation Board's issuance of a Notice of Interim Trail Use or Abandonment ("NITU") on August 19, 2013, constituted a taking with respect to property owners holding a cognizable Fifth Amendment property interest. Id. at 21-22. It further determined which plaintiffs held such an interest. Id. at 10-21. The court later reconsidered its ruling with respect to certain parcels, finding that additional plaintiffs held a cognizable Fifth Amendment property interest as of the date of taking. Hardy v. United States, 129 Fed. Cl. 513, 518 (2016).

On November 18, 2016, the Surface Transportation Board issued a public notice of correction of the NITU, modifying the NITU's description of the location of the eastern terminus of the portion of the rail line covered by the NITU—a modification that affected eleven plaintiffs owning twelve parcels. Hardy v. United States, 131 Fed. Cl. 534, 536-37 (2017). The court determined that the NITU's modification impacted the duration of the taking, not whether a taking had occurred, and that the eleven plaintiffs affected by the NITU's modification suffered a temporary taking from August 19, 2013, to November 18, 2016. Id. at 539-40.

The court then held an eight-day trial in Atlanta, Georgia from September 25, 2017, through October 4, 2017, to ascertain the value of the property interests that were found to have been taken. Six landowners, as well as experts for both sides, testified at trial. Posttrial briefing is ongoing, and closing arguments are scheduled for August 16, 2018. Plaintiffs filed the instant motion for partial summary judgment as to the appropriate interest rate during posttrial briefing, and defendant cross-moved for partial summary judgment. Both plaintiffs and defendant attached expert declarations to their filings. Plaintiffs submitted the declaration of Todd T. Milbourn and defendant submitted the declaration of Jonathan A. Neuberger. Plaintiffs also filed a response to defendant's cross-motion and a reply in support of their motion, and attached an expert rebuttal declaration. Defendant did not file a reply in support of its cross-motion. The court deems oral argument unnecessary, and the motions are now ripe for adjudication.[1]

[1] Defendant asserts that Rule 56(b) of the Rules of the United States Court of Federal Claims ("RCFC") generally precludes motions for summary judgment from being filed more than thirty days after the close of discovery, and notes that discovery closed on June 1, 2017. However, RCFC 56(b) is not an absolute bar on such motions; it provides that "[u]nless the court orders otherwise, a party may file a motion for summary judgment at any time until 30 days after the close of all discovery." Because both parties seek a ruling with respect to the proper rate of interest and attached expert declarations in support of their cross-motions, the court construes the parties' recent submissions as a joint motion to reopen discovery for the limited purpose of determining the appropriate interest rate, and grants the motion. In any event, this opinion serves as "order[ing] otherwise" for RCFC 56(b) purposes.

II. STANDARD OF REVIEW

Summary judgment is appropriate when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. RCFC 56(a); Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). A fact is material if it "might affect the outcome of the suit under the governing law." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). An issue is genuine if it "may reasonably be resolved in favor of either party." Id. at 250.

The moving party bears the initial burden of demonstrating the absence of any genuine issue of material fact. Celotex, 477 U.S. at 323. The nonmoving party then bears the burden of showing that there are genuine issues of material fact for trial. Id. at 324. Both parties may carry their burden by "citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for purposes of the motion only), admissions, interrogatory answers, or other materials" or by "showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact." RCFC 56(c)(1).

The court must view the inferences to be drawn from the underlying facts in the light most favorable to the nonmoving party. Matsushita Elec. Ind. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986). However, the court must not weigh the evidence or make findings of fact. See Anderson, 477 U.S. at 249 ("[A]t the summary judgment stage the judge's function is not himself to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial."); Contessa Food Prods., Inc. v. Conagra, Inc., 282 F.3d 1370, 1376 (Fed. Cir. 2002) ("On summary judgment, the question is not the 'weight' of the evidence, but instead the presence of a genuine issue of material fact . . . ."), abrogated on other grounds by Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665 (Fed. Cir. 2008) (en banc); Ford Motor Co. v. United States, 157 F.3d 849, 854 (Fed. Cir. 1998) ("Due to the nature of the proceeding, courts do not make findings of fact on summary judgment."); Mansfield v. United States, 71 Fed. Cl. 687, 693 (2006) ("[T]he Court may neither make credibility determinations nor weigh the evidence and seek to determine the truth of the matter. Further, summary judgment is inappropriate if the factual record is insufficient to allow the Court to determine the salient legal issues."). Entry of summary judgment is mandated against a party who fails to establish "an element essential to that party's case, and on which that party will bear the burden of proof at trial." Celotex, 477 U.S. at 322.

Further, RCFC 42 provides that separate proceedings, including trials, may be held for separate issues, and the court finds that determining the appropriate interest rate for delay damages is a separate issue from determining the value of the property interests that were found to have been taken. Other judges of this court have followed a similar approach. See, e.g., Adkins v. United States, Nos. 09-503L et al., 2014 WL 448428, at *1 (Fed. Cl. Feb. 4, 2014); cf. Textainer Equip. Mgmt. Ltd. v. United States, 99 Fed. Cl. 211, 223 (2011) (ruling on the appropriate interest rate before determining liability for the alleged taking). Accordingly, the parties' cross-motions for partial summary judgment and attached expert declarations are properly before the court.

In ruling on cross-motions for summary judgment, the court "must evaluate each motion on its own merits." First Commerce Corp. v. United States, 335 F.3d 1373, 1379 (Fed. Cir. 2003). If neither party meets its burden, then the court must deny both motions. Bubble Room, Inc. v. United States, 159 F.3d 553, 561 (Fed. Cir. 1998).

III. ANALYSIS

The Fifth Amendment to the United States Constitution prohibits the federal government from taking private property for public use without paying just compensation. When payment of just compensation is delayed, the property owner "is entitled to interest thereon sufficient to ensure that he is placed in as good a position pecuniarily as he would have occupied if the payment had coincided with the appropriation." Kirby Forest Indus., Inc. v. United States, 467 U.S. 1, 10 (1984), quoted in Otay Mesa Prop., L.P. v. United States, 779 F.3d 1315, 1328 (Fed. Cir. 2015). In other words, as defendant correctly observes, the delay damages should make a property owner indifferent to the timing of payment. See Otay Mesa Prop., 779 F.3d at 1328 ("[I]nterest must be added to the damages award in order to compensate for the time value of money and the potential opportunity the owner has lost to earn income on its damages award as a result of the taking."); Textainer, 99 Fed. Cl. at 222 ("[I]nterest is compensation for lost use of the takings award between the date of the taking and the date of the payment.").

A. The Prudent Investor Rule Applies

The "guiding principle" in determining the appropriate interest rate is the Prudent Investor Rule, which examines "how a reasonably prudent person would have invested the funds owed by the government to produce a reasonable return while maintaining safety of principal." Sears v. United States, 124 Fed. Cl. 730, 734-35 (2016) (internal quotation marks and alterations omitted). Defendant's argument that applying the Prudent Investor Rule would require the court to make individualized determinations for each plaintiff misses the mark. Courts do not "take[] into account the risk inherent in the property being taken" nor the "risk tolerance of the property owner" when determining the appropriate interest rate. Id. at 733 n.2. A reasonably prudent person is just that—a reasonably prudent person, not a specific person or entity; the number of plaintiffs and their individual characteristics are of no moment when applying the Prudent Investor Rule.

Defendant proffers two more reasons why the court should not apply the Prudent Investor Rule. First, defendant avers that the Prudent Investor Rule is a trusts concept applicable to fiduciaries. Although defendant is correct that the Prudent Investor Rule applies in the trusts setting, that fact does not prevent the rule's application in the Rails-to-Trails context. See, e.g., id. at 734 (discussing several prior takings actions in which the Prudent Investor Rule was applied), 736-37 (selecting an interest rate based on the Prudent Investor Rule). Second, defendant suggests that "an objective inquiry that focuses on the value of the property—and not the owner's lost investment opportunities—is appropriate" for determining just compensation and delay damages. Fed. Def.'s Resp. Pls.' Mot. Partial Summ. J. ("Def.'s Cross-Mot.") 22, ECF No. 202.[2] Defendant's reasoning is unpersuasive because (1) the Prudent Investor Rule is an inherently objective inquiry that applies uniformly to all plaintiffs and (2) the loss of investment opportunities is a fundamental component of delay damages. See United States v. 429.59 Acres of Land, 612 F.2d 459, 464-65 (9th Cir. 1980) ("It is assumed that a person who received the pecuniary value of his property as of the date of taking would invest these funds in a reasonably prudent manner."). Indeed, previous rulings from the United States Court of Federal Claims ("Court of Federal Claims") have rejected proposed interest rates that were not based on the Prudent Investor Rule. E.g., Textainer, 99 Fed. Cl. at 222.

In short, making a plaintiff whole—i.e., placing a plaintiff "in as good a position pecuniarily as he would have occupied if the payment had coincided with the appropriation," Kirby, 467 U.S. at 10—pursuant to the Fifth Amendment requires application of the Prudent Investor Rule.

B. The DTA Rate Is Inappropriate in This Case

The court now turns to the various interest rates proposed by the parties. Defendant first suggests that the "proper interest rate is set forth" in the DTA. Def.'s Cross-Mot. 2. Under the DTA, delay damages are pegged to the "weekly average one-year constant maturity Treasury yield . . . for the calendar week preceding the date of taking." 40 U.S.C. § 3116(a)(1) (2012). When the delay between the date of taking and the date of payment is greater than one year, at the beginning of each subsequent year (1) interest is compounded and (2) a new rate is applied using the "weekly average for the calendar week preceding the beginning of each additional year." Id. § 3116(a)(2).

However, the DTA rate is mandated only in direct condemnation actions instituted in federal district court. Id. § 3113; see also Vaizburd v. United States, 67 Fed. Cl. 499, 504 (2005) (describing the DTA rate as the rate that has been "approved for use in statutory condemnations"). Thus, by its own terms, the DTA does not extend to Rails-to-Trails actions in the Court of Federal Claims. As inverse condemnations, Rails-to-Trails takings are markedly different from eminent domain takings, i.e., direct condemnations. See Condemnation, Black's Law Dictionary (10th ed. 2014) (distinguishing between a condemnation effected by "the exercise of eminent domain" and inverse condemnations). Congress could have applied the DTA rate to inverse condemnation actions but did not do so. Accordingly, defendant's statement that the DTA "establish[ed] a uniform statutory rate of interest in eminent domain cases," Def.'s Cross-Mot. 8, while correct, does not advance its position. See Sears, 124 Fed. Cl. at 734 n.3 (remarking that the DTA applies in eminent domain cases but is "not binding on other types of Fifth Amendment takings cases, such as" Rails-to-Trails actions).

[2] Although defendant titled its filing as a response to plaintiffs' motion for partial summary judgment with respect to the appropriate interest rate, defendant indicated, at the outset of its response, that it also "cross-moves for partial summary judgment on the same issue." Def.'s Cross-Mot. 1.

Defendant asserts that the DTA rate applies in inverse condemnations just as it does in direct condemnations because "the standard for measuring 'just compensation' is the same" in both settings. Def.'s Cross-Mot. 13. Defendant unconvincingly attempts to equate direct and inverse condemnations by invoking the minority opinion in City of Monterey v. Del Monte Dunes at Monterey, Ltd. In Monterey, four justices of the United States Supreme Court observed that direct and inverse condemnations were substantively the same because the ultimate issue in both is determining the fair market value of the property taken on the date in question, which is the amount the property owner is entitled to recover. 526 U.S. 687, 734-35 (1999) (relying on Kirby, 467 U.S. at 10) (Souter, J., concurring in part and dissenting in part). However, defendant overlooks that the minority opinion in Monterey focused on the principal portion of the award, i.e., the "value of the property taken," id. at 735 (internal quotation marks omitted), and did not address delay damages.

Defendant—relying on Vaizburd, Textainer, and Waverley View Investors, LLC v. United States—further contends that "special proof" is necessary to deviate from the "DTA rates and methodology as the 'default' in takings cases." Def.'s Cross-Mot. 7. However, defendant's reliance on those decisions is misplaced.

In Vaizburd, another judge of this court stated that the DTA rate, with compounding, is used "[i]n the absence of special proof that a rate other than [the DTA rate] is appropriate." 67 Fed. Cl. at 504. However, Vaizburd is distinguishable from the instant case for three reasons. First, the taking in Vaizburd involved a physical invasion resulting from the accretion of sand on the plaintiffs' property. Id. at 500. Second, the time period in question was 1996 through 2005, before the Great Recession of the late 2000s and early 2010s (the importance of which is discussed below). Id. at 504. Third, "there was no presentation directed at the appropriate interest rate, or whether it should be compounded." Id. In the instant case, the taking involved issuance of a NITU that prevented the vesting of plaintiffs' reversionary interests in their land, the time period in question is 2013 through at least 2018 (after the Great Recession), and the parties have extensively briefed the issue of the appropriate interest rate and have submitted expert declarations in support of their contentions. In any event, the Vaizburd court recognized that determining the appropriate rate of interest is an issue "of fact, based on the particular circumstances of the case." Id. (relying on Dynamics Corp. of Am. v. United States, 766 F.2d 518, 520 (Fed. Cir. 1985)).

In Textainer, another judge of this court, as in Vaizburd, held that "[a]bsent special proof, the statutorily-set rate in the DTA shall apply." 99 Fed. Cl. at 223. Textainer concerned a dispute regarding whether the federal government was acting in a sovereign or proprietary capacity when it failed to return rented containers at the conclusion of a lease. Id. at 220. The court found that summary judgment with respect to liability was inappropriate given disputed material facts, noted that the parties had agreed on the valuation of the containers themselves, and observed that the parties disagreed on the issue of interest. Id. at 220-21. With respect to the latter issue, the plaintiffs argued for a 10.25% interest rate "to appropriately reflect the average rate of return on containers from 2005 through 2010," or a variation of the Moody's rate as an alternative, while the government supported application of the DTA rate. Id. at 221. The court remarked that there was "no consensus . . . with regard to the appropriate interest rate to be employed in just compensation cases" and that there was "precedent to support the use" of either the Prudent Investor Rule or the DTA rate. Id. at 222. Ultimately, the court sided with the government because the plaintiffs' suggested rate was not based on the Prudent Investor Rule (since the plaintiffs sought compensation for "lost use of the taken property" rather than "compensation for lost use of the takings award"), the plaintiffs "presented no evidence supporting application of the Moody's Corporate Bond Index rate," and use of the DTA rate "further[ed] the pursuit of uniform treatment of awardees in takings actions." Id. at 222-23. In the instant case, however, the plaintiffs base their proposed interest rates on the Prudent Investor Rule and have supplied evidence in support thereof.

In Waverley View, another judge of this court determined that the federal government was liable for a Fifth Amendment taking because the United States Army had installed gravel access roads and monitoring wells on the plaintiff's property.[3] 136 Fed. Cl. 593, 594 (2018), appeal docketed, No. 2018-1785 (Fed. Cir. Apr. 6, 2018). The discussion regarding the appropriate interest rate consisted of three sentences:

> The parties also disagree about the appropriate rate of interest. The court, however, consistently has determined that the appropriate interest rate in Takings Clause cases is the rate set forth in the [DTA]. Accordingly, Plaintiff is entitled to interest at the DTA rate from November 13, 2014 . . . to the date of payment.

Id. at 596-97 (citations omitted). Although the court relies on Textainer in support of its assertion that the Court of Federal Claims has "consistently . . . determined that the appropriate interest rate in Takings Clause cases is" the DTA rate, id., Textainer actually provides that "no consensus has emerged with regard to the appropriate interest rate to be employed in just compensation cases" and that "there is precedent to support the use of either" the Prudent Investor Rule or the DTA rate, 99 Fed. Cl. at 222 (internal quotation marks omitted). Textainer teaches that the DTA rate is, at most, the "default" rate in takings cases—and not the "appropriate" rate that should apply across the board in takings cases as determined in Waverley View—with the caveat that "special proof" can provide a basis for deviating from the default. Compare id. at 223, with Waverley View, 136 Fed. Cl. at 596-97.

In short, none of the decisions relied upon by defendant requires the use of the DTA rate to calculate delay damages. Although the Vaizburd and Textainer courts both concluded that the DTA rate was appropriate, those conclusions were (1) limited to the facts of each case and (2) recognized that the default DTA rate would not necessarily apply given the right circumstances (i.e., "special proof"). Additionally, the Waverley View court did not consider whether another rate besides the DTA rate would be proper, but instead simply stated that it would apply the DTA rate because doing so was appropriate.

[3] Vaizburd, Textainer, and Waverley View were all decided by different judges, none of which is the undersigned.

In any event, it is well established that "ascertainment of 'just compensation' is a judicial function." Langenegger v. United States, 756 F.2d 1565, 1569 (Fed. Cir. 1985). Indeed, the United States Court of Claims has stated:

> The determination of just compensation, including the proper rate of interest, is basically a question of fact. As such, the determination of just compensation under the fifth amendment is exclusively a judicial function. It does not rest with Congress to say what compensation shall be paid, or even what shall be the rule of compensation.

Miller v. United States, 223 Ct. Cl. 352, 399-400 (1980). That court acknowledged, however, that "the rate of interest set by a statute can be applied . . . if such rate is reasonable and judicially acceptable." Id. at 400.

Defendant also argues that departures from the DTA rate that may have been appropriate during the Great Recession are "no longer justifiable" because the "Federal Reserve has raised the targeted federal funds interest rate five times from December 2015 through December 2017." Def.'s Cross-Mot. 11. Defendant's argument is unfounded for two reasons. First, as of the end of 2017, the effective federal funds rate was approximately one-fourth of the rate in place just prior to the beginning of the Great Recession. Pls.' Reply Gov't Resp. Pls.' Mot. Partial Summ. J. ("Pls.' Reply") Ex. A ("Milbourn Rebuttal") ¶¶ 28-29, ECF No. 207-1. Second, the increases in the federal funds rate did not begin until well after the August 19, 2013 taking. Thus, even assuming (for the sake of argument) that the federal funds rate increases over the past two-and-one-half years had brought the interest rate to its pre-Great Recession levels, it would be of no moment. Because payment in Rails-to-Trails cases is often delayed for several years, see, e.g., Furlong v. United States, 132 Fed. Cl. 630, 631 (2017) (reflecting a fourteen-year delay between the date of taking and final approval of a settlement agreement), courts must consider the economic circumstances during the entire interval.

To the extent that it is necessary for plaintiffs to offer "special proof" that the DTA rate is insufficient to protect the value of their eventual award, plaintiffs have indeed come forward with such proof. In his declaration, plaintiffs' expert, Dr. Milbourn, compared the market yield on one-year Treasury securities with the inflation rate:

Year	**Market Yield on One-Year Treasury Securities**	**Inflation Rate**
2013	0.15%	1.50%
2014	0.13%	1.60%
2015	0.25%	0.10%
2016	0.54%	1.30%
2017	0.83%	2.20%

Pls.' Mot. Partial Summ. J. ("Pls.' Mot.") Ex. C ("Milbourn Decl.") at Ex. B Panel 1, ECF No. 193-3. The data provided by plaintiffs' expert reflects that the DTA rate has failed to keep pace with inflation in four out of five years over the relevant time period. The DTA rate also failed to keep pace with inflation in each year from 2009 through 2012. Id. Dr. Neuberger, defendant's expert, does not dispute the accuracy of these figures.

Use of the DTA rate does not pass muster in this case because an objectively reasonable prudent investor simply would not invest in a product that would result in a loss of purchasing power. See Sears, 124 Fed. Cl. at 736. In other words, the failure of a hypothetical investment "to keep pace with inflation over the pertinent period" demonstrates that such investment "is an inappropriate basis for deriving interest as part of just compensation." Id. Therefore, further inquiry is unnecessary for the court to conclude that the DTA rate is an inappropriate measure of delay damages in the instant case.

C. The Five-Year TIPS Rate Is Inappropriate in This Case

Defendant also suggests that the five-year TIPS rate provides a viable alternative to the DTA rate because the TIPS rate "protects Plaintiffs against inflationary risks by providing return adjustments based on actual inflation rates." Def.'s Cross-Mot. 13. Dr. Neuberger explains that while "five-year TIPS involve a longer term (and thereby less liquidity)" than one-year Treasury securities as contemplated by the DTA rate, they also "offer protection against inflationary risk in the form of adjustments to returns based on actual inflation rates" and "ensure that the principal award is preserved in real (inflation-adjusted) terms between the date of the alleged taking and the date of the award." Def.'s Cross-Mot. Attach. A ("Neuberger Decl.") ¶ 40, ECF No. 202-1. TIPS provide both the "return of an inflation-adjusted principal value" and "an annual coupon payment which is calculated on the basis of this inflation-adjusted principal each and every year." Milbourn Rebuttal ¶ 47.

Dr. Neuberger posits that the "annualized return on the five-year TIPS issued on August 19, 2013 was 1.06 percent." Neuberger Decl. ¶ 41. Dr. Milbourn disputes that figure, and avers that the annualized return on the five-year TIPS between August 19, 2013, and April 15, 2018, was 1.49%. Milbourn Rebuttal ¶ 118. Dr. Milbourn's estimate includes consideration of the adjusted principal return and semiannual coupon payments. See id. Dr. Neuberger, meanwhile, does not provide any details for his calculation. See Neuberger Decl. ¶ 41.

However, the apparent dispute regarding the actual performance of the five-year TIPS is ultimately immaterial. The five-year TIPS failed to keep pace with inflation in three out of five years from 2013 through 2017, even when using the higher 1.49% figure. Compare Milbourn Rebuttal ¶ 188, with Milbourn Decl. Ex. B Panel 1, and Neuberger Decl. ¶ 41. Further, assuming (for the sake of argument) that the five-year TIPS provides a rate of return approximately equal to the inflation rate, the five-year TIPS still falls short. Although keeping pace with inflation is a necessary condition for a hypothetical investment to serve as an appropriate benchmark upon which to award interest for delay damages, see supra Section III.B, it is not a sufficient condition.

An objectively reasonable prudent person would not invest in a product that did not provide adequate compensation for the risks faced in conjunction with that investment. Indeed, the parties agree that plaintiffs should only be compensated for risks actually borne (although they disagree on which risks plaintiffs did in fact bear). Compare Neuberger Decl. ¶ 64 ("The guiding economic principle of the proper determination of interest is that it must be commensurate with the risks actually borne by the Plaintiffs because of the delay."), with Milbourn Decl. ¶ 183 ("[T]he economic harm to plaintiffs is demonstrated by the characterization of the risks actually borne by the plaintiffs, and the rate of interest used to estimate the amount of delay compensation should be matched commensurately to these risks."). Further, an objectively reasonable prudent person would seek to obtain a return on the investment beyond merely keeping pace with inflation, even if doing so entailed some degree of risk. Milbourn Decl. ¶¶ 52-54.

Plaintiffs in the instant case face a liquidity risk as a result of the delay in payment because federal law prohibits them from liquidating their claims through a sale or being pledged as collateral for a loan. See 31 U.S.C. § 3727(a)-(b) (2012). Plaintiffs are entitled to be compensated for this harm because it would not exist if payment had been made contemporaneously with the taking. See Biery v. United States, Nos. 07-693L and 07-675L, 2012 WL 5914521, at *3 (Fed. Cl. Nov. 27, 2012) ("The court's primary goal in determining a correct interest rate is to employ an interest calculation that does not just yield a higher or lower interest payment, but rather is the more accurate measure of the economic harm of the property owners." (internal quotation marks and alterations omitted)). Other judges of this court have recognized that the detriment plaintiffs face with respect to liquidity should "be taken into account in the court's determination of an appropriate interest rate." Sears, 124 Fed. Cl. at 736. The court therefore agrees with plaintiffs that failing to account for liquidity risk in determining an appropriate interest rate would "undercompensate them for their economic loss" suffered as a result of the delay in payment. Milbourn Decl. ¶ 27; accord Milbourn Rebuttal ¶ 32 ("Liquidity risk is a real risk imposed on plaintiffs and financial markets provide yield compensation for this risk."). Accordingly, defendant's argument that "the illiquidity of a plaintiff's claim, i.e., the ability to transfer their lawsuit, is . . . not a factor in determining the appropriate interest on a delayed payment," Def.'s Cross-Mot. 16, is meritless.

In short, the court agrees with the parties that the five-year TIPS does not account for liquidity risk. See Milbourn Decl. ¶ 21; Neuberger Decl. ¶¶ 40, 54. Further, plaintiffs face a liquidity risk due to the delay in payment. An objectively reasonable prudent investor facing such a risk would not select an investment that fails to consider such risk. Therefore, the court concludes that an interest rate based on the performance of the five-year TIPS does not provide adequate compensation for delay damages in the instant case.

D. The VBINX Rate Is Inappropriate in This Case

Plaintiffs aver that the VBINX is a "perfect and representative example of . . . a fund that is both (1) consistent with all of the tenets of the [Prudent Investor Rule] and (2) matches the actual risks applicable to" them. Pls.' Mot. 3, ECF No. 193. According to plaintiffs, the VBINX is a "diversified mutual fund," has "low and certainly acceptable risk," and "balance[s] the elements of return between production of income and the protection of purchasing power." Id. at 9. Defendant argues that applying an interest rate pegged to the performance of the VBINX would "overcompensate Plaintiffs for risks they did not bear." Def.'s Cross-Mot. 18. The parties are correct on the law, but miss the mark in its application.

Dr. Neuberger posits that, as a result of the taking that the court found to have occurred on August 19, 2013, plaintiffs essentially hold a risk-free claim against the federal government and should be compensated accordingly. See, e.g., Neuberger Decl. ¶ 30. Meanwhile, Dr. Milbourn focuses on plaintiffs having "displayed a willingness to hold land as part of [their] investment portfolio[s]," Milbourn Decl. ¶ 171, and argues that delay damages should be calculated by focusing on the type of asset—land—that was taken, id. ¶ 122 ("It is appropriate to consider the type of asset allegedly taken."). Accord id. ¶ 152 ("Had the plaintiffs been fairly compensated for the taking of their private land on August 19, 2013, the plaintiffs would have likely sought to invest those proceeds in investments that at a minimum met their investment objectives from holding land as part of their portfolio.").

Both approaches are unsound. As explained above, plaintiffs are entitled to compensation that will place them in the same pecuniary position as if the payment of just compensation coincided with the taking; such a determination requires adherence to the Prudent Investor Rule. In other words, rather than calculating delay damages by treating plaintiffs as creditors of the federal government or as investors in real estate, the court must determine how an objectively reasonable prudent person "would have invested the funds owed by the government to produce a reasonable return while maintaining safety of principal." Sears, 124 Fed. Cl. at 734-35.

Dr. Milbourn asserts that plaintiffs should be compensated for delay damages by assuming that hypothetical investors

> would have sought to invest [their principal damages awards] in an investment fund that was diversified, managed to balance both income and growth, managed to protect purchasing power, incurred low management fees and transaction costs, was adeptly managed by a financial professional, and adhered to each individual plaintiff's risk and return objectives for this component of their overall investment portfolio as part of the strategy for the entire portfolio.

Milbourn Decl. ¶ 69 (emphasis added). By arguing for an approach that considers individual risk and return objectives rather than the perspective of an objectively reasonable prudent person, Dr. Milbourn fails to properly analyze the Prudent Investor Rule as applied to a large group of plaintiffs. Thus, his conclusion that the VBINX rate is a proper measure of the delay-damages portion of the just compensation to which plaintiffs are entitled is unsupported. Since plaintiffs bear the burden of demonstrating the amount of just compensation to which they are entitled, the court must deny their motion for partial summary judgment to the extent that they seek an interest rate equal to the performance of the VBINX.

In any event, the composition of the VBINX betrays the notion that it would be an appropriate hypothetical investment in this case:

> [The VBINX] offers investors an easy, low-cost way to gain exposure to stocks and bonds. The fund invests roughly 60% in stocks and 40% in bonds by tracking two indexes that represent broad barometers for the U.S. equity and U.S. taxable bond markets. The fund's broad diversification is important, because one or two holdings should not have a sizeable impact on the fund. Investors with a long-term horizon who want growth and some income—and who are willing to accept stock and bond market volatility—may wish to consider this as a core holding in their portfolio.

Id. ¶ 156 n.58 (internal quotation marks omitted). Dr. Milbourn defines volatility as follows:

> A standard way to characterize risk in investment plans is to characterize the range of returns an investor sees when holding a particular investment. Finance professionals rely on a measure known as volatility (or standard deviation in statistics terms) to capture the extent of the variability in possible returns in any given year. Volatility is a measure of how spread out (or dispersed) the rates of return on an investment could be in any particular year relative to the average rate of return. Such a measure accounts for how low the rates of return might go, as well as how high the rates of return might go.

Id. ¶ 139. In the economic environment that has existed between August 19, 2013, and the present, the VBINX's volatility reflects that it "does not currently comport sufficiently with the 'minimal risk' criterion" even though "such an investment might otherwise be considered 'prudent' under some economic conditions." Sears, 124 Fed. Cl. at 736. The fund's broad diversification, low fees and costs, and professional management are important factors, but the VBINX's volatility makes it unacceptable in the instant case because the VBINX will not necessarily adequately "maintain[] safety of principal," id. at 734 (internal quotation marks omitted), moving forward.

In short, the court concludes that the VBINX rate is an improper benchmark by which to measure delay damages in the instant case.

E. The Moody's Rate Reflects a Proper Measure of Delay Damages

The final rate discussed by the parties is the Moody's rate. Plaintiffs aver that "the Moody's Rate protects [their] purchasing power under an appropriate [Prudent Investor Rule] analysis," but that it fails to "adequately compensate [them] for risks they were taking by holding land as part of their investment portfolio." Pls.' Mot. 24. Defendant asserts that applying the

Moody's rate "would overcompensate Plaintiffs." Def.'s Cross-Mot. 19. Defendant explains that Moody's "is designed to compensate investors for the risks of corporate default," that plaintiffs "did not actually hold an investment in the Moody's bond index or bear its associated risks," and that the risk of default "does not exist for takings by the United States government." Id.

Dr. Neuberger emphasizes that the Moody's rate

> is calculated based on the returns on corporate bonds with the highest credit ratings. Moody's assigns a "Aaa" rating to corporate bonds "judged to be of the highest quality, subject to the lowest level of credit risk." Corporate bond rates reflect . . . the returns required by creditors as compensation for the risk that the borrower will fail to meet its obligations.

Neuberger Decl. ¶ 107 (footnotes omitted). Dr. Milbourn stresses that Moody's is "primarily driven by illiquidity risk and not credit risk," Milbourn Rebuttal ¶ 37, but notes that plaintiffs' claims against the federal government are completely illiquid, unlike a Moody's investment, id. ¶ 40. Indeed, Dr. Milbourn agrees with Dr. Neuberger that Moody's is an "Investment Grade" bond index "made up of only the safest corporate credits." Milbourn Decl. ¶ 75. Dr. Milbourn observes that the cumulative default rate on investment-grade bonds—i.e., those given an Aaa, Aa, A, or Baa rating, in ascending order of credit risk—is only 1.0% after five years, and the average recovery rate on defaulted bonds is 50%. Id. ¶ 76. In other words, an investor has a 99.5% expected recovery after five years for all investment-grade bonds. The five-year expected recovery rate for Aaa bonds would be even higher because Aaa bonds are the highest-rated investment-grade bonds. Thus, although Moody's "factors the risk of corporate defaults into its rate of return," Def.'s Cross-Mot. 19, such a risk is de minimis for investment-grade bonds, particularly those receiving an Aaa rating. Indeed, the default rate for Aaa bonds was 0% during 2016. Milbourn Rebuttal ¶ 54. The risk that the federal government will default is similarly de minimis.

In addition to accounting for an illiquidity risk and a de minimis credit risk, the Moody's rate "produce[s] a reasonable return while maintaining safety of principal," Sears, 124 Fed. Cl. at 734, because it has consistently provided a return on investment in addition to outpacing inflation, Milbourn Decl. Ex. B Panel 1. Further, the Moody's rate does not factor in the type of investment—land—that was taken. Therefore, applying the Moody's rate is consistent with the Prudent Investor Rule.

In short, the court concludes that the Moody's rate is the appropriate measure of delay damages in the instant case. It will not depart from the consensus that has emerged since 2009 in the Court of Federal Claims that the Moody's rate is the appropriate benchmark by which to award delay damages in the Rails-to-Trails context. See Pls.' Reply 5-6, ECF No. 207 (providing a table of interest rates applied in Rails-to-Trails cases over the past ten years).

F. Compounding Is Appropriate

As a final matter, the court addresses whether interest should be compounded. There appears to be no dispute between the parties that compounding is appropriate in the instant case. Dr. Milborn emphasizes that "[p]rudent investing is commensurate with compound interest" because "an investor seeking to maximize the appreciation of capital and thereby future income would choose to reinvest any gains each year." Milborn Decl. ¶¶ 193-94. Meanwhile, the DTA rate proposed by defendant provides for compounding, and defendant argues that interest under the TIPS rate should be compounded as well. See Sears, 124 Fed. Cl. at 737 n.4 ("By advocating use of [a particular benchmark] as the measure of interest, the government in essence concedes that compounding is appropriate . . . .").

Therefore, as in Sears, the court concludes that interest shall be compounded quarterly in accordance with the Prudent Investor Rule.

IV. CONCLUSION

The court has considered all of the parties' arguments. To the extent not discussed herein, they are unpersuasive, without merit, or unnecessary for resolving the issues currently before the court.

There is no genuine issue of material fact currently before the court. Plaintiffs are entitled to delay damages between the date of taking and the date of payment at an interest rate equivalent to the Moody's rate, compounded quarterly, pursuant to the Prudent Investor Rule. Neither the DTA, TIPS, nor VBINX rates are appropriate.

Accordingly, the court **GRANTS IN PART** and **DENIES IN PART** plaintiffs' motion for partial summary judgment and **DENIES** defendant's cross-motion for partial summary judgment.

IT IS SO ORDERED.

s/ Margaret M. Sweeney
MARGARET M. SWEENEY
Judge