

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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SECURITIES AND EXCHANGE COMMISSION, :  
 :  
 Plaintiff, : 20 Civ. 10832 (AT) (SN)  
 :  
 - against - : ECF Case  
 :  
 RIPPLE LABS, INC., BRADLEY GARLINGHOUSE, :  
 and CHRISTIAN A. LARSEN, :  
 :  
 Defendants. :  
 :  
-----X

PLAINTIFF SECURITIES AND EXCHANGE COMMISSION'S BRIEF IN  
OPPOSITION TO DEFENDANTS' MOTION  
TO EXCLUDE THE TESTIMONY OF [REDACTED] Ph.D.

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Plaintiff Securities and Exchange Commission (the “SEC”) respectfully submits this brief in opposition to Defendants’ Motion to Exclude the Testimony of [REDACTED] Ph.D. (D.E. 546, 547). For the reasons stated below, the motion should be denied.

### PRELIMINARY STATEMENT

[REDACTED] [REDACTED] who holds a Ph.D. [REDACTED] [REDACTED] He conducted an event study on XRP prices, as well as other analyses on XRP prices. [REDACTED] initial report found statistically significant evidence that XRP’s price increased in response to certain types of positive news published on the website of Defendant Ripple Labs, Inc. (“Ripple”), about Ripple and XRP. His testimony about large increases in XRP’s price following those news announcements is relevant to the question of whether Ripple offered and sold XRP as investment contracts, and tends to show that XRP holders had a reasonable expectation of profits from Ripple’s efforts. [REDACTED] also issued a supplemental report in which he quantified the impact that these positive news announcements about Ripple and XRP had on XRP’s price. [REDACTED] found that, but-for the news announcements related to Ripple and XRP, the price of an XRP unit would rarely have exceeded \$0.02, when the actual XRP price was many times greater.

Defendants do not challenge [REDACTED] qualifications or the relevance of his opinions. Instead, Defendants move to preclude [REDACTED] from testifying regarding his initial and supplemental opinions based on three arguments: *i.e.*, his methodology is defective, his statistical analysis is flawed, and allowing [REDACTED] to testify would violate Second Circuit precedent. Defendants are wrong on all counts. Their criticisms of [REDACTED] are based on a misunderstanding of event study methodology, a misinterpretation of the relevant data, and a mischaracterization of the applicable law. [REDACTED] event study applied appropriate methodology and used accepted principles and methods to analyze relevant data. Accordingly, he should be permitted to testify about all of his opinions.

## BACKGROUND

### I. [REDACTED] Qualifications

[REDACTED] was a Senior Consultant, and is now a Principal, at the Brattle Group, a global economic consulting group. (D.E. 549-1, Am. Expert Report of [REDACTED] Ph.D., ¶ 1.) He received [REDACTED] [REDACTED] (Id. ¶ 3.) Dr. [REDACTED] Ph.D. studies included statistics, econometrics, finance, monetary economics and numerical methods. (Id.) [REDACTED] spent fifteen years in various roles as an economist at [REDACTED] (Id. ¶¶ 4-7.) There, he conducted event studies that assessed the impact of credit actions and public announcements on the costs of capital, supervised the development of analytical methodologies, and assessed the impact of new information on the financial status of various business entities. (Id.) [REDACTED] has worked as an economic consultant since [REDACTED] and has testified [REDACTED] [REDACTED] regarding event studies and market efficiency. (Id. ¶¶ 2, 4.)

### II. [REDACTED] Initial Opinions

[REDACTED] initial report involved two inquiries. First, he performed an empirical, statistical analysis of XRP's price movements over time to determine whether the publication of news about Ripple Labs and its activities is associated with statistically significant XRP price changes. (D.E. 549-1 ¶¶ 10, 30-32.) Second, he determined the extent to which XRP's price movements could be correlated with, and driven by, the price movements of other leading digital tokens such as bitcoin ("BTC") and ether ("ETH"). (D.E. 549-1 ¶¶ 10, 111.)

To do so, [REDACTED] first reviewed more than 500 separate, favorable news events that Ripple announced, including news items about Ripple reported by third parties and posted on Ripple's company website. (D.E. 549-1 ¶¶ 46-49 and Appendix C.) Second, he designed an economic analysis which included selecting 20 different regression models, specifying an appropriate "event window" within which to measure changes in XRP's price, estimating the abnormal returns, and

determining the statistical significance of those returns. (*Id.* ¶¶ 60-63.) Finally, ██████ evaluated the relationship between positive news days and significant positive XRP returns. (*Id.* ¶ 64.)

He found statistically significant evidence that XRP's price increased after announcements of: (1) company milestone events (*id.* ¶¶ 68-69, 74-76), (2) listings of XRP on new trading platforms (*id.* ¶¶ 77-79, 82), (3) Ripple customer and product developments (*id.* ¶¶ 83-87), and (4) Ripple commercialization initiatives (*id.* ¶¶ 88-93). The most significant increases in XRP's price followed the announcements of company milestones and announcements directly related to XRP. (*Id.* ¶ 12(a).) These results indicate that XRP's price reacted to the news about Ripple, and this was true across 20 different regression models that controlled for other variables. (*Id.* ¶¶ 12(a), 98-102.)

██████ concluded that the relationship between positive Ripple news announcements and abnormal XRP price returns was almost always statistically significant. (*Id.*)

In addition to his event study, ██████ conducted an additional analysis of the prices of XRP, BTC and ETH in order to determine whether, over time, the price of XRP followed the price movements of those other tokens. (*Id.* ¶¶ 114-117.) ██████ found that the relationship between XRP returns and the returns of BTC and ETH varied, and sometimes was zero or even negative. (*Id.* ¶¶ 116-117.) The price movements of BTC and ETH could explain, on average, only 40% of XRP's price movement. (*Id.* ¶ 121.) So ██████ concluded that XRP's historical prices cannot be attributed merely to the price movements of BTC and ETH. (*Id.* ¶¶ 12(b), 121.) Defendants do not challenge the methodology or the admissibility of this additional analysis.

### III. ██████ Rebuttal Opinions

██████ also prepared a rebuttal report to certain opinions of Allen Ferrell ("Ferrell"), a defense expert, about variation in XRP's long run price returns. (*See* 548-5.) ██████ offered several criticisms of Ferrell's methodology, analysis, and conclusions. (*Id.* ¶ 5.) ██████ opined that Ferrell had failed to



answer the question of whether Ripple’s actions, and news about those actions, impacted XRP price returns. (*Id.*) Defendants’ motion does not mention, or seek to exclude, [REDACTED] rebuttal opinions.

#### IV. [REDACTED] Supplemental Opinions

Ripple retained two expert witnesses, Prof. Daniel Fischel (“Fischel”) and Dr. M. Laurentius Marais (“Marais”), to rebut the statistical analysis in [REDACTED] initial report. These rebuttal experts did not conduct their own event studies, or dispute that XRP’s prices increased significantly following the Ripple news announcements identified by [REDACTED]. Instead, both experts challenged [REDACTED] event study methodology and asserted, among other things, that [REDACTED] analysis failed to demonstrate that XRP holders benefitted financially from Ripple’s news announcements. (*See* D.E. 439-5, Fischel Rebuttal ¶¶ 14(a), 18, 20, 26; D.E. 439-4, Marais Rebuttal ¶ 30.)

In response, [REDACTED] issued a supplemental report in which he provided additional quantification of the economic significance of the impact that positive news announcements about Ripple and XRP had on XRP’s price. (D.E. 549-5 ¶ 4.) Taking the results of his initial report, and using an economic model he constructed for a counterfactual price history of XRP—replacing the actual, abnormal returns for XRP with expected returns—[REDACTED] determined what the price of XRP would have been but-for Ripple’s favorable news announcements.<sup>1</sup> (*Id.* ¶ 10.) [REDACTED] then used the same twenty regression models from his initial report and determined that, but-for the public announcements related to Ripple and XRP (which XRP’s price reacted to in a statistically significant way), the price of an XRP unit would have rarely exceeded \$0.02. (*Id.* ¶ 16.) He also determined that, if an investor purchased XRP before the release of the good news related to Ripple on the days with an abnormal return, he or she would have been able to achieve significantly greater returns than investors who purchased XRP at other times. (*Id.* ¶¶ 20-22.)

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<sup>1</sup> This is the same approach suggested by Fischel, Defendant’s own expert. (D.E. 549-5 ¶ 10 n. 10.)

## LEGAL STANDARD

This Court must ensure that any proposed expert testimony on scientific and technical matters is relevant and rests on a reliable foundation. See *SEC v. Vali Mgmt. Partners*, 2022 WL 2155094, at \*2 (2d Cir. June 15, 2022) (testimony of plaintiff's experts was admissible). See also *Amorgianos v. Nat'l Railroad Passenger Corp.*, 303 F.3d 256, 259 (2d Cir. 2002). The Court “should consider the indicia of reliability identified in Rule 702” of the Federal Rules of Evidence, including whether the testimony: (1) is grounded in facts or data; (2) is the product of reliable principles and methods; and (3) whether those principles and methods have been applied to the facts of the case. *United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007).

The Court is *not* required to consider each factor identified in *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579 (1993). See *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 150 (1999). Instead, the Court should ensure that an expert “employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.* at 152. The Court should not exclude an expert opinion unless it “is speculative or conjectural or based on assumptions that are so unrealistic and contradictory as to suggest bad faith or to be in essence an apples and oranges comparison.” *Restivo v. Hessemann*, 846 F.3d 547, 557 (2d Cir. 2017) (admitting expert testimony).

If an expert is qualified, and his or her methodology is appropriate, and the proposed opinion testimony is relevant, it should be admissible. See *Williams*, 506 F.3d at 162. Arguments that “an expert’s assumptions are unfounded” or that there are “gaps and inconsistencies in the [expert’s] reasoning” go to the weight of the expert’s testimony rather than to its admissibility. *Vali Mgmt. Partners*, 2022 WL 215094 at \*2; *Restivo*, 846 F.3d at 577-78.

## ARGUMENT

### I. [REDACTED] Initial Opinions Are Reliable.

#### A. [REDACTED] Event Study Follows an Accepted Methodology and Is Supported by Sufficient Facts and Data.

”An event study is a statistical regression analysis that examines the effect of an event on a dependent variable, such as a company’s stock price.” *In re Pfizer Inc. Sec. Litig.*, 819 F.3d 642, 648 (2d Cir. 2016). An event study has four basic parts: (1) defining the event; (2) establishing the event window, or the period over which changes are calculated; (3) measuring the expected return; and (4) computing the abnormal return, which is the actual return minus the expected return.<sup>2</sup> *See Carpenters*, 310 F.R.D. at 80. In *Carpenters*, the court rejected challenges to an expert’s methodology, including the subjectivity of his analysis, the size of his sample, and the number of days with an abnormal return, where the expert had employed “standard event study methodology,” and his study was “reliable, objective and consistent with scientific principles.” *Id.* at 90.

[REDACTED] followed a standard event study methodology that is accepted by academics and by courts.<sup>3</sup> *See e.g.*, A. Craig MacKinlay, “Event Studies in Economics and Finance,” *Journal of Economic Literature*, Vol. XXXV, at 14-16 (March 1997) (describing basic methodology for event studies) (Ex. A to the Declaration of Mark R. Sylvester (“Sylvester Decl.”).) [REDACTED] methodology included: selecting relevant events, determining an appropriate event window, calculating the expected and abnormal returns of XRP’s price, and evaluating the statistical significance of the abnormal returns. (D.E. 547-1 ¶¶ 46-49, 60-63, 64 & Appendix C.)

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<sup>2</sup> A statistically significant abnormal return is evidence that the results are not occurring by chance. *Carpenters Pension Trust Fund of St. Louis v. Barclays PLC*, 310 F.R.D. 69, 81 (S.D.N.Y. 2015).

<sup>3</sup> *See e.g.*, *In re Virtus Inv. Partners, Inc. Sec. Litig.*, 2017 WL 2062985, at \*4 (S.D.N.Y. May 15, 2017) (event studies are a generally accepted way to “prove that a stock [price] was responding to a specific piece of information on a specific day”).

█████ methodology for analyzing the relationship between Ripple news and XRP's price (D.E. 547-1 ¶¶ 36-38 & Appendix D) is substantially similar to that described in peer-reviewed academic literature studying the impact of Ripple news on XRP's price. *See* Mohammad Hashemi Joo, Yuka Nishikawa, and Krishnan Dandapani, "Announcement effects in the cryptocurrency market," *Applied Economics* Vol. 52, No. 44 (2020) at 4797-4802 (Sylvester Decl., Ex. B).

Neither Marais nor Fischel performed their own event study of Ripple news events and XRP's price, although both testified that they were capable of doing so. (*See* D.E. 548-34, Fischel Tr. 68:2-6, 69:10-17, 70:14-18; D.E. 548-37, Marais Tr. 80:1:14.) And neither defense expert has claimed that █████ results do not follow from his data and methodology, or that his statistical analysis contained computational errors. Accordingly, █████ opinion testimony regarding his event study and its results are admissible to show the relationship between Ripple news and XRP's price.

**B. Event Studies Are Not Predicated on Semi-Strong Market Efficiency.**

Defendants claim that the market for XRP is inefficient and, "under Second Circuit law" and "economic literature," an event study cannot reliably correlate events with asset prices in an inefficient market. (D.E. 547 at 1, 3-6.) However, Defendants have either misunderstood or mischaracterized these precedents.

By definition, an event study is a test for *both* market efficiency *and* whether a particular event had a statistically significant impact on an asset's price.<sup>4</sup> *See* Eugene Fama, "Efficient Capital Markets: II", *The Journal of Finance*, Vol. XLVI, No. 5 (December 1991) at 1575-76, 1607) (Sylvester Decl., Ex. C). So it is misleading to assert, as Defendants do, that an event study cannot demonstrate a relationship between an event and asset prices unless a market has at least semi-strong efficiency. (D.E. 547 at 4 n.4.) The MacKinlay article—often cited by academics and courts as an

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<sup>4</sup> Fischel has admitted that event studies are commonly used to determine the informational efficiency of markets of securities and other assets. (*See* D.E. 548-33, Fischel Initial Rebuttal ¶ 32.)

authority on the standard event study methodology—does not suggest that an efficient market is a prerequisite for performing an event study. (*See* Sylvester Decl. Ex. A.) Defendants cite no academic literature suggesting otherwise. And Defendants’ own expert, Ferrell, testified that an event study can be performed even if a market is inefficient. (*See* D.E. 548-24, Ferrell Tr. 70:8-12.)

Defendants cite a number of inapposite cases to support their claim that [REDACTED] methodology is unsound. (*See* D.E. 547 at 4 n.5.) For example, in order to invoke the “fraud on the market” theory of reliance during class certification, class plaintiffs are required to show that the securities at issue trade in an efficient market. *See e.g., Teamsters Local 445 Freight Div. Pension Fund v. Bombardier Inc.*, 546 F.3d 196, 200 (2d Cir. 2008). But this case is not a class action, and reliance is irrelevant here. So the class action decisions cited by Defendants do not apply.

Defendants’ contention that, in the Second Circuit, a market’s inefficiency precludes the Court from accepting an event study to establish a correlation between events and prices (*see* D.E. 547 at 4, 6), is also misleading. In *Basic v. Levinson*, 485 U.S. 224, 248 n. 28 (1988), the Supreme Court declined to endorse “any particular theory of how quickly and completely publicly available information is reflected in market price.” More recently, in *Haliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258, 272 (2014), the Supreme Court noted that “market efficiency is a matter of degree.”

Defendants’ cases do not require any level of market efficiency to admit event study testimony. *7 W. 57<sup>th</sup> Street Realty Co. v. Citigroup, Inc.*, 771 F. App’x 498 (2d Cir. 2019), was an antitrust and RICO case, and did not involve a *Daubert* challenge, an event study, or a discussion of market efficiency. The plaintiff’s complaint was dismissed for failure to allege a direct injury to his municipal bond investments. The Second Circuit’s statement about “opacity and illiquidity,” *id.* at 504, was *dicta* regarding the anticipated difficulties of proving the plaintiff’s alleged allegations—not a limitation on the admissibility of expert testimony in all cases. In *In re Vivendi, S.A. Sec. Litig.*, 838 F.3d 223, 253 (2d Cir. 2016), the Second Circuit actually endorsed the plaintiff’s use of an event

study to disentangle firm-specific information from other information material to stock prices. The court affirmed the decision below to admit opinion testimony from plaintiffs' expert about the price impact of defendant's misstatements regarding liquidity risk, over the defendant's numerous objections, because the expert's testimony was sufficiently reliable and relevant. *Id.* at 260. [REDACTED] testimony should be admissible in this case for these same reasons.

In any event, [REDACTED] does not claim that the market for XRP is inefficient. Instead, he notes that "digital token markets, including the XRP market, are generally *less* informationally efficient than the stock market, though there is evidence that efficiency is increasing over time." (D.E. 549-1 ¶ 35 (emphasis supplied).)

**C. Dr. [REDACTED] Used an Appropriate Event Window.**

Defendants criticize [REDACTED] for expanding his event window for XRP's price reaction from three to seven days, claiming that using a 7-day price window cannot "overcome the methodological error of applying event study methodology to an inefficient market." (D.E. 547 at 6 n.7.) This is disingenuous. [REDACTED] does not base his conclusions on the results derived from 7-day returns. To the contrary, his results are based on 3-day returns, which was more conservative than the prior academic study by Joo, *et al.*, of XRP price movements. (*See* D.E. 549-1 ¶¶ 38, 61 n.42.)

[REDACTED] analysis merely considered the effect of 1-day and 2-day windows, and used 5-day and 7-day windows as robustness checks in order to address the possibility that the XRP market may take longer to react to news. (*See Id.* at Appendix E.) A longer event window is an appropriate robustness check under these circumstances.<sup>5</sup> "Even if the event being considered is an

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<sup>5</sup> The longer an event window is, the more likely it is that the window will include all new information about the relevant event. *See In re Sec. Capital Assurance, Ltd. Sec. Litig.*, 729 F. Supp. 2d 569, 600 n.5 (S.D.N.Y. 2010); Mark L. Mitchell, Jeffrey M. Netter, "The Role of Financial Economics in Securities Fraud Cases: Applications at the Securities and Exchange Commission, 49 *Business Law* 545, 558 (1994); David I. Tabak & Frederick C. Dunbar, "Materiality and Magnitude: Event Studies in the Courtroom," *Litigation Services Handbook* 19-2 (b) (3d ed. 2001) (Sylvester Decl., Ex. D).

announcement on [a] given date it is typical to set the event window length to be larger than one. This facilitates the use of abnormal returns around the event day in the analysis.” MacKinlay, at 19 (Sylvester Decl. Ex. A.)

**D. ██████ Event Study Is Supported by Sufficient Data.**

Defendants further claim that ██████ manipulated his dataset: first, by ignoring relevant data—which Defendants argue would have undermined his desired conclusions—and, second, by adding data that is not a “fair proxy” for what he ought to be analyzing. (D.E. 547 at 1, 7-9.) More specifically, Defendants claim ██████ set of Ripple news events *should* have included additional news event days, including event days with negative returns, but that he should *not* have included any Ripple announcement about actions by a third party regarding XRP. (*Id.*)

However, an expert is not required to conduct any particular form of analysis, as long as he or she has a “methodological explanation” for the method of analysis chosen. *Chen-Oster v. Goldman Sachs & Co.*, 2022 WL 814074, at \*7 (S.D.N.Y. Mar. 17, 2022) (denying *Daubert* challenge because expert provided a reasonable explanation for his regression modeling). When conducting an event study, an expert by necessity uses discretion in defining selection criteria that are appropriate for that regression analysis. *McIntire v. China MediaExpress Holdings, Inc.*, 38 F. Supp. 3d 415, 429 (S.D.N.Y. 2014) (denying *Daubert* challenge). The process of identifying news, deciding if it is material and then categorizing it as positive or negative requires an expert to make certain subjective decisions. *Id.* (citing *Billhofer v. Flamel Techs., S.A.*, 281 F.R.D. 150, 163 (S.D.N.Y. 2012) (standard event study methodology “necessarily” requires an expert to determine what is considered news)).

In constructing his event study, ██████ therefore was not required to include or analyze all news announcements about Ripple in his dataset. To test the hypothesis that XRP price returns are independent of news about Ripple, he focused on those positive news events which Ripple chose to highlight by linking to them at its company website. (*See* D.E. 549-1 ¶¶ 44-49a.) ██████ then

categorized this Ripple news into more than a dozen categories by subject matter, and excluded certain news events because they were repetitious or directionally uncertain; the final set of announcements consisted of 683 documents regarding 514 news event days.<sup>6</sup> (*Id.* ¶¶ 48b.-49.) His approach to gathering and categorizing news events is consistent with the method used in a recent published, peer-reviewed academic study of BTC, ETH, and XRP. *See* Joo, *et al.*, at 4797-4799 (Sylvester Decl. Ex. B).

█ also acknowledged that this dataset of Ripple news, which was collected from the Ripple website, is strongly biased towards good or neutral news.<sup>7</sup> (D.E. 549-1 ¶ 51.) This was appropriate because he was testing a hypothesis that there was *no* relationship between Ripple news and XRP's price. Although █ analysis focused on the correlation between Ripple's news and positive XRP price reaction, he also tested for any correlation between Ripple's news and negative XRP price reaction, as a robustness check, and found none. (*See Id.* ¶¶ 103-104 n. 62.)

With respect to Defendants' second argument that █ wrongly included certain data, Defendants do not attempt to show that he erred in considering 16 additional announcements (5 about financial institutions using XRP and 11 about exchange listings) out of a total of 683, or that adding those additional events would have affected his analysis in any meaningful way. It is undisputed that Ripple historically made efforts to list XRP with exchanges. (*See* D.E. 549-1 at ¶¶ 77, 81-82.) Defendants also provide no assurances that Ripple was uninvolved in the decisions of these third parties to begin using XRP—at a time when Ripple had been promoting the use of XRP within the U.S. and globally. At a minimum, posting these announcements on the company website

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<sup>6</sup> By contrast, Defendants' expert Ferrell did not consider a single Ripple news event when forming his opinion that Ripple's actions do not influence XRP's price. (*See* D.E. 548-21 ¶¶ 17, 31, 33.)

<sup>7</sup> Despite retaining their own experts to rebut █ Defendants have offered no models, and cited no economics or statistics literature, in support of their proposition that the addition of other news events, including negative news events, would change the results or improve █ analysis.



constitutes action by Ripple to identify the news about XRP from third party sources and communicate that news to interested parties—including XRP holders and traders.

Further, contrary to Defendants’ arguments (D.E. 547 at 7-8), █████ did consider, and attempted to eliminate, other “confounding factors,” such as information about XRP outside of Ripple’s control and the digital asset industry.<sup>8</sup> He designed and implemented additional regression models and robustness checks on his results to control for the impact of potentially confounding news, including information about other crypto tokens and the growth of XRP accounts. (See D.E. 549-1 ¶¶ 39-40; D.E. 549-2, █████ Tr. 195:2-197:20, 200:14-20, 203:17-21, 204:5-12, 206:10-207:2.)

For the 24 most important dates, █████ also performed keyword searches for confounding news in LexisNexis, and examined Coordinated Universal Time (“UTC”) timing codes for web publications. (D.E. 549-2, █████ Tr. 208:5-210:3.) █████ also addressed the possibility of confounding factors by estimating an expected return based on these factors and deducting it from the actual return so as to use only the abnormal return. He estimated XRP’s expected return on a given day by incorporating factors in his regression models that may affect XRP’s price, such as news with market-wide significance or news specific to XRP outside of Ripple’s control.

Considering additional, more general information about Ripple would have compromised the ability of █████ event study to show the relationship between Ripple news and XRP’s price—if that information was not relevant to XRP. See e.g., *Teamsters*, 546 F.3d at 209-210 (affirming rejection of event study where the inclusion of additional, company-specific news did not communicate any material information about the specific investments at issue). Arguments that confounding events caused price changes or make it “impossible to quantify the precise impact” of an event address the

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<sup>8</sup> Normally, the failure to include measurable variables in a regression analysis will affect only its probative value, “not its admissibility.” *Bazemore v. Friday*, 478 U.S. 385, 400 (1986). A study that accounts for all “major factors” should be admissible. *Id.*; *In re REMEC Sec. Litig.*, 702 F. Supp. 2d 1202, 1273 (S.D. Cal. 2010).

weight of evidence, not admissibility. *Fogorazzo v. Lehman Bros.*, 232 F.R.D. 176, 190 (S.D.N.Y. 2005). So ██████ was not required to consider any additional information as confounding.

**E. ██████ Opinions on Correlation Are Appropriate.**

Defendants complain that ██████ opinions are unreliable because an event study can only show a correlation between news events and price movements, not causation, but that he desires to testify that Ripple's news announcements actually caused the price of XRP to increase. (D.E. 547 at 10-11) This is inaccurate: event studies *can* prove causation, and in any event the Court can decide whether to allow ██████ to testify on causation at trial based on the foundation laid.

An event study that shows a statistically significant correlation between the disclosure of unanticipated, material information about a security with movement in the security's price is "considered prima facie evidence of the existence of such a causal relationship."<sup>9</sup> *Teamsters*, 546 F.3d at 207-08. ██████ event study indeed demonstrates a statistically significant correlation between the Ripple news announcements he studied and XRP price returns. (See D.E. 549-1 ¶¶ 57, 80, 90, 101, 108-109.) So ██████ should be permitted to testify about his event study before the jury, which is *permitted to infer* that Ripple's news announcements caused the XRP's price to increase.

Furthermore, most of ██████ statements regarding causation were made during his depositions, in answer to questions asked by Defendants' counsel. (See D.E. 547 at 11 & n.11.) ██████ deposition testimony reflects his view that the most likely reason that XRP prices moved following the Ripple news he studied was as a reaction to those announcements. The Court is now aware of how ██████ would answer those same questions at trial. So, at trial, the Court will decide

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<sup>9</sup> See also *In re Xcelera. Com.*, 430 F.3d 503, 512-14 (1st Cir. 2005) (cause-and-effect relationship between company events and price movements could be inferred from evidence including an event study); *In re Groupon Inc. Sec. Litig.*, 2015 WL 1043321, at \*11 (N.D. Ill. Mar. 5, 2015) (event study established a cause-and-effect relationship between announcements and stock price movements).

whether or not ██████ may share his views on causation. But Defendants have cited no cases holding that the mere fact ██████ has views regarding causation is a basis for excluding his entire testimony.

## II. ██████ Supplemental Opinions Are Reliable.

Finally, Defendants raise a number of unfounded objections regarding the reliability of ██████ supplemental report. First, Defendants argue that the counterfactual or “but-for” price methodology, which quantifies the amount by which Ripple’s actions inflated XRP’s prices, “is not supported by a single peer-reviewed publication, a single court decision, nor any other reliable authority.” (D.E. 547 at 12.) Not only is this contention incorrect, it is highly misleading. ██████ employs a standard method of constructing counterfactual prices in securities fraud cases. *See, e.g.*, David Tabak and Chudzoie Okongwu, “Inflation Methodologies in Securities Fraud Cases: Theory and Practice,” *NERA Working Paper* (July 2002) at 17 (“We conclude that the constant dollar and constant percentage inflation methodologies serve as useful idealized paradigms for modeling various types of different allegations.”) (Sylvester Decl., Ex. E). Indeed, it is the same methodology adopted by Ferrell, Defendants’ expert, in another context.<sup>10</sup>

Second, Defendants claim the but-for methodology of ██████ supplemental report produces obvious results; they argue that because removing large price returns from a sequence guarantees that the final price will be lower, the methodology cannot reliably calculate XRP price inflation over a six-year period. (D.E. 547 at 13.) Defendants argue that Marais applied ██████ methodology to a

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<sup>10</sup> *See* Allen Ferrell & Atanu Saha, “The Loss Causation Requirement for Rule 10b-5 Causes of Action: The Implication of *Dura Pharmaceuticals, Inc. v. Broudo*,” *The Business Lawyer*, Vol. 63, No. 1 (November 2007), at 186 (“These but-for returns when substituted for the actual returns on the earnings announcement days would generate the forward-casted but-for price line. The difference between the actual and the but-for price line would be a direct measure of the inflation caused by the overstated earnings.”) (D.E. 548-28). It is also the same methodology used by Defendants’ expert Marais in his rebuttal report. (*See* D.E. 548-38, Marais Rebuttal Report ¶¶ 27-29 & Table 3.)

different set of data, removing all abnormal positive XRP returns occurring on Wednesdays, and obtained virtually identical results to the supplemental report.<sup>11</sup> (*Id.*)

But Marais did not use a completely different dataset. He used two of the 24 event days with abnormal returns identified by ██████ which may have influenced Marais's results. (*See* D.E. 549-6, Marais Supp. Rebuttal ¶ 14.) And the price inflation resulting from Marais's experiment was not "virtually identical"—Marais's results were visibly higher over a two year period. (*See Id.* at Figure 1.) Moreover, in his supplemental report, ██████ did not remove abnormal price returns at random. He removed *only* those abnormal returns that followed Ripple news events.

Third, Defendants claim that ██████ counterfactual or but-for methodology produces contradictory results because each of his regression models identifies different days on which there was a significant abnormal XRP price return, and each model predicts different prices of XRP. (D.E. 547 at 14.) Defendants cite nothing to suggest that a counterfactual price analysis must rely on a single model. ██████ based his supplemental opinions on the results of *all* of his models, a more thorough and conservative approach than relying on a single model. Each of ██████ 20 regression models produce an estimate of the expected return based on a different set of factors. That some models using different factors produce results that differ slightly is normal. However, across all 20 models, ██████ results consistently show that—absent the abnormal XRP returns following Ripple news events—more than 90% of XRP prices are below 2 cents. (*See* D.E. 549-5 ¶ 16 & Figure 3.)

### CONCLUSION

For the foregoing reasons, the Court should deny Defendants' Motion to Exclude the Testimony of ██████ Ph.D. (D.E. 546, 547).

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<sup>11</sup> Nothing in the two cases Defendants cite for this point, *LIBOR-Based Fin. Instruments*, 299 F. Supp. 3d 430 (S.D.N.Y. 2018), or *Lippe v. Bairnco Corp.*, 99 F. Appx. 274 (2d Cir. 2004), suggests that applying methodology which is *similar* to an opposing expert's methodology, to a *different* set of data, and then misinterpreting the results, constitutes a viable *Daubert* challenge.

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Respectfully submitted,

/s/Mark R. Sylvester  
Mark R. Sylvester  
Pascale Guerrier  
Ladan F. Stewart  
Jorge G. Tenreiro  
Daphna A. Waxman  
Attorneys for Plaintiff  
SECURITIES AND EXCHANGE  
COMMISSION  
New York Regional Office  
100 Pearl Street, Suite 20-100  
New York, NY 10004  
(212) 336-0159 (Sylvester)  
sylvesterm@sec.gov

Benjamin J. Hanauer  
Robert M. Moyer  
Attorneys for Plaintiff  
SECURITIES AND EXCHANGE  
COMMISSION  
175 W. Jackson Boulevard, Suite 1450  
Chicago, IL 60604