UNITED STATES OF AMERICA
Before the
SECURITIES AND EXCHANGE COMMISSION

SECURITIES EXCHANGE ACT OF 1934
Release No. 102207 / January 16, 2025

INVESTMENT ADVISERS ACT OF 1940
Release No. 6824 / January 16, 2025

ADMINISTRATIVE PROCEEDING
File No. 3-22418

In the Matter of **TWO SIGMA INVESTMENTS, LP, and TWO SIGMA ADVISERS, LP,** **Respondents.**	**ORDER INSTITUTING ADMINISTRATIVE AND CEASE-AND-DESIST PROCEEDINGS, PURSUANT TO SECTION 21C OF THE SECURITIES EXCHANGE ACT OF 1934 AND SECTIONS 203(e) AND 203(k) OF THE INVESTMENT ADVISERS ACT OF 1940, MAKING FINDINGS, AND IMPOSING REMEDIAL SANCTIONS AND A CEASE-AND-DESIST ORDER**

I.

The Securities and Exchange Commission ("Commission") deems it appropriate and in the public interest that public administrative and cease-and-desist proceedings be, and hereby are, instituted pursuant to Section 21C of the Securities Exchange Act of 1934 ("Exchange Act") and Sections 203(e) and 203(k) of the Investment Advisers Act of 1940 ("Advisers Act") against Two Sigma Investments, LP ("TSI") and Two Sigma Advisers, LP ("TSA") (collectively, "Two Sigma" or "Respondents").

II.

In anticipation of the institution of these proceedings, Respondents have submitted Offers of Settlement (the "Offers") which the Commission has determined to accept. Solely for the purpose of these proceedings and any other proceedings brought by or on behalf of the Commission, or to which the Commission is a party, and without admitting or denying the findings herein, except as to the Commission's jurisdiction over them and the subject matter of these proceedings, which are admitted, Respondents consent to the entry of this Order Instituting Administrative and Cease-and-Desist Proceedings, Pursuant to Section 21C of the Securities Exchange Act of 1934 and Sections 203(e) and 203(k) of the Investment Advisers Act of 1940, Making Findings, and Imposing Remedial Sanctions and a Cease-and-Desist Order ("Order"), as set forth below.

III.

On the basis of this Order and Respondents' Offers, the Commission finds[1] that:

Summary

1. These proceedings arise out of failures by registered investment advisers TSI and TSA to exercise reasonable care in addressing known material vulnerabilities to a subset of their computer-based algorithmic investment models ("Models") in breach of their fiduciary duty of care, deficiencies in their written compliance policies and procedures, and TSI's failure to reasonably supervise one of its employees ("Modeler A"), as well as TSI's and TSA's violations of the Commission's whistleblower protection rule. Two Sigma is a large quantitative-analytics-based hedge fund manager that uses Models when making investment decisions for its clients, including private funds and separately managed accounts (each, an "SMA"), as well as for its own proprietary funds.

2. Between March 2019 and October 2023 (the "Relevant Period"), TSI recognized significant vulnerabilities to certain of its Models that could materially adversely impact clients' investment returns. Specifically, beginning in at least March 2019, Two Sigma employees expressed concern that numerous Two Sigma personnel had unfettered read and write access to a firm database that stored Model "parameters"—variable inputs that impact the stock predictions generated by Models—used by certain of Two Sigma's live-trading Models. These employees expressed concern that such personnel could make changes to these Model parameters without review or approval and that such changes could materially impact Two Sigma's investment decisions for its clients. Despite Two Sigma employees identifying and providing senior management with proposed solutions, TSI failed to reasonably address these vulnerabilities for years. And, despite also knowing about these vulnerabilities, TSA also failed to take reasonable steps to address them.

3. Additionally, between November 2021 and August 2023, TSI failed to supervise one of its modelers, Modeler A, who had read and write access to this database and changed Model parameters without approval for fourteen Models that Two Sigma was using in live trading. Modeler A's unauthorized changes caused these Models to perform differently than expected such that Two Sigma made investment decisions that it otherwise would not have made in the client funds and SMAs it advised. Modeler A's changes, which went undetected until August 2023, demonstrated the significance of the vulnerabilities that Two Sigma had first identified in early 2019 but failed reasonably to address. Modeler A's changes resulted in certain funds and SMAs overperforming by more than $400 million and other funds and SMAs underperforming by approximately $165 million. Two Sigma voluntarily repaid the negatively impacted funds and SMAs, which primarily included outside investors, approximately $165 million in December 2023 and January 2024.

---

[1] The findings herein are made pursuant to Respondents' Offers of Settlement and are not binding on any other person or entity in this or any other proceeding.

4. Two Sigma also failed to adopt and implement written policies and procedures reasonably designed to prevent violations of the Advisers Act during the Relevant Period. Specifically, Two Sigma failed to adopt and implement written policies and procedures to address the recognized access control vulnerabilities to the Models described above.

5. Accordingly, both TSI and TSA violated Sections 206(2) and 206(4) of the Advisers Act and Rule 206(4)-7 thereunder. TSI also failed reasonably to supervise Modeler A, within the meaning of Section 203(e)(6) of the Advisers Act, with a view to preventing and detecting Modeler A's violations of the federal securities laws.

6. Separately, between at least April 2019 and February 2024, Two Sigma entered into separation agreements with employees ("Separation Agreements") that required departing employees to represent to Two Sigma that they had not filed a complaint with any governmental agency in order to receive certain post-separation payments and benefits. As a result, Two Sigma violated Rule 21F-17(a) under the Exchange Act, which prohibits any person from taking any action to impede an individual from communicating directly with the Commission staff about a possible securities law violation.

Respondents

7. **TSI** is a Delaware limited partnership that is headquartered in New York, NY. TSI was founded in July 2001 and has been registered with the Commission as an investment adviser since August 2009. TSI provides advisory services on a discretionary basis to various clients, including private investment funds. According to its Form ADV filed on March 28, 2024, TSI had regulatory assets under management of approximately $84 billion.

8. **TSA** is a Delaware limited partnership that is headquartered in New York, NY. TSA was founded in December 2001 and has been registered with the Commission as an investment adviser since February 2010. TSA provides advisory services on a discretionary basis to various clients, including private investment funds, a registered investment company, foreign funds, and SMAs. According to its Form ADV filed on March 28, 2024, TSA had regulatory assets under management of approximately $76 billion.

Background

9. Two Sigma is a quantitative-analytics-based hedge fund manager with approximately 1,700 employees worldwide. Two Sigma manages dozens of private funds, and TSA also manages SMAs, which use sophisticated computer-based algorithmic trading Models. The Models create forecasts that Two Sigma uses to make investment decisions for client portfolios as well as in its own proprietary funds. Two Sigma uses hundreds of different Models across its various investment strategies.

10. TSI and TSA are affiliates and share certain of the same owners and certain of the same employees.

11. TSI personnel called "researchers" or "modelers" develop the Models. TSI uses the Models when making investment decisions for itself and its private fund clients. TSI also licenses

the Models to TSA for TSA's use when making investment decisions for itself, its private fund clients, and SMAs it advises.

12. During the Relevant Period, Two Sigma managed private funds that employed a "master-feeder" or "fund-of-funds" structure whereby investors purchased interests in a fund and that fund's assets were then invested, directly or indirectly, through various TSI- and TSA-managed strategies and/or funds that used the Models. TSA also managed SMAs for numerous clients during the Relevant Period that also were invested, directly or indirectly, through various TSI- and TSA-managed strategies and/or funds that used the Models.

A. Two Sigma's Storage of Model Parameters and Process for Approving Models

13. Two Sigma's Models are made available for live trading after being vetted through an internal approval process. Members of Two Sigma's portfolio management teams then evaluate each approved Model and determine whether and how to incorporate each approved Model into Two Sigma's investment strategies.

i. Model Storage

14. Two Sigma's live trading system uses Model code that is stored in a secure file called the "Jar." Only members of an engineering team can update the live trading system to use a new version of the Jar file. Beginning with the advent of machine learning-based Models, the parameters necessary to run such Models outgrew the data size constraints of the Jar. Thus, modelers began using a database, called "celFS," to store certain Model parameters that were too large to be stored in the Jar. The Model parameters stored in celFS were accessible by certain modelers and a variety of other Two Sigma personnel, each of whom had unrestricted read and write access to celFS and the parameters stored therein. Modelers could then code their Models to run by linking the Model code stored in the Jar to the Model parameters stored in celFS.

15. Certain Two Sigma modelers used Model parameters stored in celFS to increase or decrease the impact of specific Model code contained in the Jar, including decreasing one Model's correlation to other existing Models. This use of Model parameters was important to Two Sigma because it removed redundancy that could result in Two Sigma buying or selling more or less of a specific security than it otherwise desired or intended.

ii. Model Approval Process

16. Two Sigma required its modelers to complete several steps before new Models, or certain changes to existing Models, could be approved and released for use in live trading.

17. During the Relevant Period, Two Sigma's primary policy and procedure governing the approval of new Models was called Productionalize a Model (or "PAM"). The PAM manual, which was available to modelers and other Two Sigma employees, incorporated detailed guidance on the Model approval and release processes, including that new Models would be evaluated based on their correlation to existing Models. Modelers frequently used parameters to help control their new Models' expected correlation to existing Models.

18. As an initial step, PAM required modelers to draft and submit a document—referred to internally as a "white paper"—detailing the Model's objective and providing information about the Model's analytics and key metrics. PAM then required modelers to complete and submit several forms which summarized these key attributes, including the proposed Model's correlation to existing Models. Two Sigma management then reviewed these documents and forms, and Models could be approved where, among other things, the modeler's documentation reported that the proposed Model's correlation to existing Models was below a specified threshold. As part of that review process, designated Two Sigma personnel could reject the proposed new Model, approve the proposed new Model for live trading, or require changes to the proposed new Model. Once approved, members of Two Sigma's portfolio management teams would evaluate the new Model and determine whether and how to incorporate it into Two Sigma's investment strategies.

19. The PAM manual also outlined the approval process for changes to existing Models, which was called "Mini-PAM." The use of Mini-PAM depended on the proposed changes' "smallness"—the degree of change in the expected performance of the existing Model. Where proposed changes exceeded the smallness threshold, modelers were required to follow the same steps required for a new Model (*i.e.*, PAM).

B. Vulnerabilities to Two Sigma's Model Parameters Stored in celFS

i. Two Sigma Personnel Identify Significant Vulnerability in celFS

20. Two Sigma personnel first identified significant vulnerabilities to the Model parameters stored in celFS in at least early 2019. By March 2019, TSI employees began sharing emails and a memorandum outlining concerns regarding security vulnerabilities to Model parameters stored in celFS. These emails and the memorandum focused on the lack of access controls (*i.e.*, read and write controls) that could result in Two Sigma employees inadvertently making changes to, or overwriting entirely, Model parameters stored in celFS. The memorandum also identified proposed fixes to address these security vulnerabilities by, among other things, limiting read and write access in celFS to a smaller group of Two Sigma employees.

21. Over the next several months, these concerns and proposals were shared with senior employees in the TSI Machine Learning and Engineering groups. Employees in these two groups suggested various pragmatic approaches, including the use of tighter access controls in celFS, process enhancements that would ensure that changes to Model parameters stored in celFS were accompanied by PAM or Mini-PAM approvals, encrypting the Model parameters stored in celFS, and/or removing the Model parameters from celFS entirely and using an alternate storage database.

ii. Two Sigma Fails to Correct Vulnerabilities to Model Parameters in celFS

22. Two Sigma employees failed to reach a consensus on the best way to address these known vulnerabilities to Model parameters stored in celFS, which persisted even after one of Two Sigma's co-founders expressed concern about Model parameters stored in celFS in 2019. Two Sigma made no changes to the controls governing Model parameters stored in celFS in 2019 or 2020.

23. In late January 2022, a senior TSI engineer circulated to one of Two Sigma's co-founders and other Two Sigma executives his own memorandum about Model controls. In this memorandum, the senior engineer raised concerns about the lack of access controls for Model parameters stored in celFS and the absence of controls to ensure modelers followed an approval process for changes to these Model parameters. In the same memorandum, the senior engineer also explained that while no prior incidents had been malicious or caused significant issues to Two Sigma's trading, "[i]t is nevertheless dangerous to allow this and efforts are in place to limit and eventually allow only Data Engineering to have write access."

24. Despite these concerns, Two Sigma made no changes to address the vulnerabilities to Model parameters stored in celFS until after a TSI employee accidentally overwrote Model parameters in that database in May 2022.

iii. May 2022 celFS Incident Reinforces Vulnerability Concerns

25. On May 9, 2022, a TSI employee inadvertently overwrote an entire volume in celFS containing several Models' parameters before certain markets opened for trading that day. This change prevented the Models from generating the forecasts that Two Sigma used to make investment decisions on behalf of certain of its client funds and SMAs. Although Two Sigma was able to reverse these changes before markets opened, this incident reinforced the validity of the concerns expressed by Two Sigma employees about the vulnerabilities to the celFS database beginning in 2019.

26. In an internal post-mortem document circulated among the TSI Engineering group and with Two Sigma senior management on May 10, 2022, Two Sigma employees identified the same access control issues that had been identified previously in 2019 and noted that these vulnerabilities had enabled this incident.

27. In response, in June 2022, Two Sigma implemented a new procedure that limited access to Model parameters stored in the celFS database to a small, dedicated team of engineers and allowed changes to Model parameters only upon receipt of a written request, called a ticket, from a modeler. This new procedure prevented modelers from making direct changes to Model parameters stored in celFS. However, since it merely required modelers to document their changes on a ticket and to submit the ticket to a team of engineers for implementation, it was insufficient to address errors in modelers' tickets and did not prevent modelers from intentionally changing Model parameters because modeler tickets were not reviewed, tested, or approved. Rather, Two Sigma automatically—*i.e.*, without review or analysis by the engineers who received the tickets — implemented the Model parameter changes reflected on a modeler's ticket.

C. Modeler A Makes Unauthorized Changes to Model Parameters Stored in celFS

28. Between November 2021 and August 2023, Modeler A, a TSI employee who had used celFS to store certain Model parameters for years, made dozens of unauthorized changes to Model decorrelation parameters stored in celFS for fourteen different Models that Two Sigma used

in live trading. These Models included both Models that Modeler A developed himself as well as Models developed by Modeler A's direct reports and with which Modeler A assisted.

29. Modeler A effected these parameter changes in at least two ways. First, between November 2021 and May 2022, Modeler A himself changed Model decorrelation parameters stored in celFS, which were linked to the Model code stored in the Jar. By adjusting these Model parameters, in many cases to zero (*i.e.*, nullifying the parameter), Modeler A increased these Models' expected correlation to Two Sigma's other Models without detection. Second, between at least February and August 2023, Modeler A submitted tickets for changes to Model decorrelation parameters stored in celFS that he knew, based on his understanding of the ticket process, would not be substantively reviewed or questioned. Modeler A later acknowledged to certain colleagues that he should have filed a Mini-PAM for these Model parameter changes in celFS.

30. These changes caused the Models to perform differently than expected such that Two Sigma made investment decisions that it otherwise would not have made. Specifically, Modeler A's unauthorized changes resulted in Two Sigma buying or selling more or less of specific securities than it otherwise would have, which caused certain funds and SMAs to overperform by more than $400 million and other funds and SMAs to underperform by approximately $165 million. Modeler A received millions of dollars of additional compensation from Two Sigma as a result of the net overperformance attributable to these changes.

31. TSI knew since at least March 2019 of the risk that its modelers could use the vulnerabilities to Model parameters stored in celFS to make unauthorized changes to these Model parameters. Despite recognizing this risk, TSI failed to adopt or implement written policies and procedures that were reasonably designed to confirm that its modelers did not make such unauthorized changes during the Relevant Period. In August 2023, TSI began monitoring the celFS database to confirm that its modelers had not made, and were not making, unauthorized changes to Model parameters and discovered Modeler A's changes.

D. Two Sigma's Failure to Reasonably Address Model Vulnerabilities

32. An investment adviser's fiduciary duty includes a duty of care. To fulfill this obligation, an adviser, among other things, must provide investment advice in the best interest of its client based on the client's objectives, and take steps to protect client interests from being placed at risk because of the adviser's inability to provide advisory services. This includes taking steps to minimize known or reasonably foreseeable operational risks that could lead to significant business disruptions.

33. During the Relevant Period, TSI and TSA breached their fiduciary duty to take reasonable steps to protect their clients' interests from recognized material vulnerabilities to certain Models, which were a core function of its advisory business as a quantitative-analytics-based hedge fund manager. Specifically, despite having first recognized vulnerabilities to live trading Model parameters stored in celFS in March 2019—and being aware of various reasonable methods to mitigate them—TSI did not adequately address these vulnerabilities until October 2023. And, TSA, despite knowing about the vulnerabilities, also failed to take reasonable steps to address them.

E. Two Sigma Failed to Adopt and Implement Reasonably Designed Written Compliance Policies and Procedures

34. During the Relevant Period, Two Sigma's written policies and procedures were not reasonably designed to prevent violations of the Advisers Act. Specifically, while TSI had written policies and procedures governing changes to existing Models (*e.g.*, PAM and Mini-PAM), these policies and procedures were deficient because they contained no mechanism to check whether all changes to Model parameters stored in celFS that required a PAM or Mini-PAM were in fact made pursuant to a PAM or Mini-PAM. And, TSA, as a licensee of TSI's Models that shared certain employees with TSI, failed to adopt and implement written policies and procedures that were reasonably designed to address these same recognized vulnerabilities.

35. In October 2023, to help the firm better fulfill its fiduciary obligations, Two Sigma adopted and implemented additional policies and procedures to monitor, identify, and address vulnerabilities to the security of its Models.

F. Two Sigma's Separation Agreements Raised Impediments to Its Employees' Ability to Communicate Directly with The Commission Staff about Possible Securities Laws Violations

36. The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), enacted on July 21, 2010, amended the Exchange Act by adding Section 21F, "Whistleblower Incentives and Protection." The purpose underlying these provisions was "to encourage whistleblowers to report possible violations of the securities laws by providing financial incentives, prohibiting employment-related retaliation, and providing various confidentiality guarantees." *See Implementation of the Whistleblower Provisions of Section 21F of the Securities Exchange Act of 1934*, Release No. 34-64545, at p. 197 (Aug. 12, 2011).

37. To fulfill this Congressional purpose, the Commission adopted Rule 21F-17, which provides in relevant part:

> (a) No person may take any action to impede an individual from communicating directly with the Commission staff about a possible securities law violation, including enforcing, or threatening to enforce, a confidentiality agreement … with respect to such communications.

Rule 21F-17 became effective on August 12, 2011.

38. From at least April 2019 until February 2024, Two Sigma required departing employees to sign Separation Agreements in order to receive certain post-separation payments and benefits. The Separation Agreements required employees to represent that they had not filed any complaints against Two Sigma prior to signing the Separation Agreement, but also stated that employees were not prohibited from reporting possible violations of law to any governmental agency or making other disclosures that are protected under whistleblower laws or regulations.

39. Specifically, Section 6(d) of the Separation Agreements (the "Employee Representation") required departing employees to make the following representation: "You

represent that you have not filed against any Two Sigma Party any charges, complaints or lawsuits regarding any acts or omissions occurring prior to your execution of this Agreement with any international, federal, state, city or local court, governmental agency or arbitration tribunal."

40. The Separation Agreements also contained a prospective carve-out in Section 14(c) (the "Carve Out"), which stated: "Nothing in this Agreement (including without limitations Sections 5(g), 6, 7 and 8), the Company's policies or any other agreement between you and the Company prohibits you from making a good faith reporting of possible violations of law or regulation to any governmental agency or entity or making other disclosures that are protected under whistleblower laws or regulations."

41. The Separation Agreements further authorized Two Sigma to file an arbitration seeking various financial and non-financial remedies against any employee who breached the Separation Agreements.

42. Two Sigma's use of the Separation Agreements violated Rule 21F-17(a) under the Exchange Act because the Employee Representation required departing employees to disclose to Two Sigma whether they had previously reported possible violations of the federal securities laws to the Commission and barred such departing employees from receiving the post-separation payments and benefits that Two Sigma offered in exchange for receiving signed Separation Agreements. Further, departing employees who may have breached the Separation Agreements by falsely making the Employee Representation ran the risk of facing an arbitration and being held liable to Two Sigma for various financial and non-financial remedies.

43. The Carve Out did not remedy the impeding effect of the Employee Representation, which addressed *past* employee conduct (*i.e.*, it required disclosure of already-made complaints), because the Carve Out was *prospective* in application (*i.e.*, it did not prohibit departing employees from making future complaints).

44. From April 2019 until February 2024, nearly three hundred (300) departing employees signed Separation Agreements containing the Employee Representation.

45. In February 2024, Two Sigma revised the Separation Agreements such that the Employee Representation read: "You represent that you have not filed against any Two Sigma Party any charges, complaints or lawsuits regarding any acts or omissions occurring prior to your execution of this Agreement with any international, federal, state, city or local court, governmental agency or arbitration tribunal. *However, this representation does not apply to any charges, actions, or proceedings before, or engaging in communications with, the SEC . . . about possible fraud or other securities law violations occurring prior to the date you execute this agreement*." (Emphasis added.)

46. This revision made clear that the Employee Representation did not apply to instances where departing employees had previously reported possible securities laws violations to the SEC, and that departing employees who had already made such a report to the SEC did not need to identify themselves, could still honestly make the required Employee Representation, and

could still receive the post-separation payments and benefits set forth in the Separation Agreements.

47. The Commission staff is not aware of specific instances in which Two Sigma took any action against any departing employee for breaching the Separation Agreements, in which a current or former Two Sigma employee was prevented from communicating with the Commission staff about potential violations of securities laws, or in which Two Sigma took action to otherwise prevent such communications, including with respect to the events described herein.

Violations and Failure to Supervise

48. As a result of the conduct described above, TSI and TSA willfully[2] violated Section 206(2) of the Advisers Act, which prohibits an investment adviser from engaging "in any transaction, practice or course of business which operates as a fraud or deceit upon any client or prospective client." Scienter is not required to establish a violation of Section 206(2), which may rest on a finding of simple negligence. *SEC v. Steadman*, 967 F.2d 636, 643 n.5 (D.C. Cir. 1992) (citing *SEC v. Cap. Gains Rsch. Bureau, Inc.*, 375 U.S. 180, 194-95 (1963)).

49. As a result of the conduct described above, TSI and TSA willfully violated Section 206(4) of the Advisers Act and Rule 206(4)-7 thereunder by failing to adopt and implement written policies and procedures reasonably designed to prevent violations of the Advisers Act and the rules thereunder. Proof of scienter is not required to establish a violation of Section 206(4) of the Advisers Act and the rules thereunder. *Steadman*, 967 F.2d at 647.

50. As a result of the conduct described above, TSI failed reasonably to supervise Modeler A within the meaning of Section 203(e)(6) of the Advisers Act, with a view to preventing and detecting Modeler A's violations of the federal securities laws.

51. As a result of the conduct described above, TSI and TSA willfully violated Rule 21F-17(a) of the Exchange Act, which prohibits any person from taking any action to impede an individual from communicating directly with the Commission staff about a possible securities law violation.

---

[2] "Willfully," for purposes of imposing relief under Sections 203(e) and (f) of the Advisers Act, "'means no more than that the person charged with the duty knows what he is doing.'" *Wonsover v. SEC*, 205 F.3d 408, 414 (D.C. Cir. 2000) (quoting *Hughes v. SEC*, 174 F.2d 969, 977 (D.C. Cir. 1949)). There is no requirement that the actor "also be aware that he is violating one of the Rules or Acts." *Tager v. SEC*, 344 F.2d 5, 8 (2d Cir. 1965). The decision in *The Robare Group, Ltd. v. SEC*, which construed the term "willfully" for purposes of a differently structured statutory provision, does not alter that standard. 922 F.3d 468, 478-79 (D.C. Cir. 2019) (setting forth the showing required to establish that a person has "willfully omit[ted]" material information from a required disclosure in violation of Section 207 of the Advisers Act).

Two Sigma's Cooperation and Remedial Efforts

52. In determining to accept the Offers, the Commission considered the cooperation Two Sigma afforded the Commission staff and remedial acts Two Sigma promptly undertook.

53. Two Sigma provided substantial cooperation in the Division of Enforcement's investigation, and its efforts assisted the Commission staff in its collection of evidence, including information that might not otherwise have been available to the Commission staff.

54. In October 2023, Two Sigma, during the course of an examination by the Division of Examinations ("Examinations"), disclosed to investors and the Examinations staff that one of its modelers engaged in what Two Sigma described as "intentional misconduct" by circumventing Two Sigma's modeling practices, and stated that it would remediate investors for any negative impacts arising therefrom.

55. In December 2023 and January 2024, Two Sigma voluntarily repaid the negatively impacted client funds and SMAs approximately $165 million to account for the underperformance that these funds suffered as a result of Modeler A's unauthorized changes.

56. In 2023 and 2024, Two Sigma reviewed its written disclosures, written policies and procedures, and internal controls relating to, among other things, the security of Model parameters stored in celFS, the integrity of Model code, the approval of new Models and changes to existing Models, and the supervision of its associated persons, and adopted and implemented changes thereto.

57. Additionally, upon learning of the Commission's separate investigation concerning its Separation Agreements, Two Sigma promptly initiated a remediation program concerning compliance with Rule 21F-17 under the Exchange Act. Within two weeks, Two Sigma:

(i) reviewed and, as necessary, revised its Separation Agreements, as well as various other employment-related agreements and training programs, to comply with Rule 21F-17;

(ii) reviewed and, as necessary, revised its written policies and procedures for compliance with Rule 21F-17;

(iii) enhanced its annual compliance training materials for all employees to ensure compliance with Rule 21F-17;

(iv) communicated with all current employees to advise them of the protections afforded them by Rule 21F-17, including their right to communicate directly with the Commission staff regarding any potential violation of the federal securities laws; and

(v) communicated with the nearly three hundred (300) employees who had signed the Separation Agreements between April 2019 and February 2024, advising them of the protections afforded them by Rule 21F-17, including

their right to communicate directly with the Commission staff regarding any potential violation of the federal securities laws.

Undertakings

58. Two Sigma agrees to cooperate fully with the Commission in any and all investigations, litigations, or other proceedings relating to or arising from the matters described in the Order. In connection with such cooperation, Two Sigma shall: (i) produce, without service of a notice or subpoena, any and all non-privileged documents and other information reasonably requested by the Commission staff; (ii) use their best efforts to cause Two Sigma's officers, employees, and directors to be interviewed by the Commission staff at such time as the Commission staff may reasonably direct; (iii) provide any certification or authentication of business records of TSI and TSA as may be reasonably requested by the Commission staff; and (iv) use their best efforts to cause Two Sigma's officers, employees, and directors to appear and testify without service of a notice or subpoena in such investigations, depositions, hearings or trials as may be requested by the Commission staff.

59. In determining whether to accept the Offers, the Commission has considered these undertakings.

IV.

In view of the foregoing, the Commission deems it appropriate and in the public interest to impose the sanctions agreed to in Respondents Offer.

Accordingly, pursuant to Section 21C of the Exchange Act, and Sections 203(e) and 203(k) of the Advisers Act, it is hereby ORDERED that:

A. Respondents cease and desist from committing or causing any violations and any future violations of Rule 21F-17(a) under the Exchange Act and Sections 206(2) and 206(4) of the Advisers Act and Rule 206(4)-7 promulgated thereunder.

B. Respondents are censured.

C. Respondents TSI and TSA shall, within 10 days of the entry of this Order, each pay a civil money penalty in the amount of $45,000,000, for a total of $90,000,000, to the Securities and Exchange Commission for transfer to the general fund of the United States Treasury, subject to Exchange Act Section 21F(g)(3). If timely payment is not made, additional interest shall accrue pursuant to 31 U.S.C. § 3717.

Payment must be made in one of the following ways:

(1) Respondent may transmit payment electronically to the Commission, which will provide detailed ACH transfer/Fedwire instructions upon request;

(2) Respondent may make direct payment from a bank account via Pay.gov through the SEC website at http://www.sec.gov/about/offices/ofm.htm; or

(3) Respondent may pay by certified check, bank cashier's check, or United States postal money order, made payable to the Securities and Exchange Commission and hand-delivered or mailed to:

Enterprise Services Center
Accounts Receivable Branch
HQ Bldg., Room 181, AMZ-341
6500 South MacArthur Boulevard
Oklahoma City, OK 73169

Payments by check or money order must be accompanied by a cover letter identifying TSI and/or TSA as a Respondent in these proceedings, and the file number of these proceedings; a copy of the cover letter and check or money order must be sent to Lee A. Greenwood, Assistant Regional Director, Asset Management Unit, Division of Enforcement, Securities and Exchange Commission, 100 Pearl Street, Suite 20-100, New York, NY 10004.

D. Amounts ordered to be paid as civil money penalties pursuant to this Order shall be treated as penalties paid to the government for all purposes, including all tax purposes. To preserve the deterrent effect of the civil penalty, Respondents agree that in any Related Investor Action, they shall not argue that they are entitled to, nor shall they benefit by, offset or reduction of any award of compensatory damages by the amount of any part of Respondents' payment of a civil penalty in this action ("Penalty Offset"). If the court in any Related Investor Action grants such a Penalty Offset, Respondents agree that they shall, within 30 days after entry of a final order granting the Penalty Offset, notify the Commission's counsel in this action, and pay the amount of the Penalty Offset to the Securities and Exchange Commission. Such a payment shall not be deemed an additional civil penalty and shall not be deemed to change the amount of the civil penalty imposed in this proceeding. For purposes of this paragraph, a "Related Investor Action" means a private damages action brought against Respondents by or on behalf of one or more investors based on substantially the same facts as alleged in the Order instituted by the Commission in this proceeding.

By the Commission.

Vanessa A. Countryman
Secretary