

**UNITED STATES OF AMERICA**  
**Before the**  
**SECURITIES AND EXCHANGE COMMISSION**

**SECURITIES EXCHANGE ACT OF 1934**  
**Release No. 75331 / June 30, 2015**

**ADMINISTRATIVE PROCEEDING**  
**File No. 3-16665**

**In the Matter of**

**Goldman, Sachs & Co.**

**Respondent.**

**ORDER INSTITUTING ADMINISTRATIVE  
AND CEASE-AND-DESIST PROCEEDINGS,  
PURSUANT TO SECTIONS 15(b) AND 21C  
OF THE SECURITIES EXCHANGE ACT OF  
1934, MAKING FINDINGS, AND IMPOSING  
REMEDIAL SANCTIONS AND A  
CEASE-AND-DESIST ORDER**

**I.**

The Securities and Exchange Commission (the “Commission”) deems it appropriate and in the public interest that public administrative and cease-and-desist proceedings be, and hereby are, instituted pursuant to Sections 15(b) and 21C of the Securities Exchange Act of 1934 (the “Exchange Act”) against Goldman, Sachs & Co. (“GSCO” or “Respondent”).

**II.**

In anticipation of the institution of these proceedings, Respondent has submitted an Offer of Settlement (the “Offer”), which the Commission has determined to accept. Solely for the purpose of these proceedings and any other proceedings 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 it and the subject matter of these proceedings, which are admitted, Respondent consents to the entry of this Order Instituting Administrative and Cease-and-Desist Proceedings, Pursuant to Sections 15(b) and 21C of the Securities Exchange Act of 1934, 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 Respondent’s Offer, the Commission finds that:

## INTRODUCTION

1. This proceeding arises out of GSCO's violations of the market access rule and an event that disrupted trading in the options markets on August 20, 2013.

2. The Commission adopted Exchange Act Rule 15c3-5<sup>1</sup> in November 2010 to require that brokers or dealers, as gatekeepers to the financial markets, "appropriately control the risks associated with market access, so as not to jeopardize their own financial condition, that of other market participants, the integrity of trading on the securities markets, and the stability of the financial system."<sup>2</sup>

3. Subsection (b) of Rule 15c3-5 requires brokers or dealers with market access to "establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory, and other risks" of having market access. The rule addresses a range of market access arrangements, including customers directing their own trading while using a broker's market participant identifications, brokers trading for their customers as agents, and a broker-dealer's trading activities that place its own capital at risk.

4. Subsection (c) of Rule 15c3-5 identifies specific required elements of a broker's or dealer's risk management controls and supervisory procedures. A broker or dealer must have systematic financial risk management controls and supervisory procedures that are reasonably designed to prevent the entry of erroneous orders that exceed appropriate price or size parameters and orders that exceed pre-set credit and capital thresholds in the aggregate for each customer and the broker or dealer.

5. On August 20, 2013, as a result of a configuration error in one of GSCO's options order routers, the firm erroneously sent thousands of \$1.00 limit orders to the options exchanges prior to the start of regular market trading. Before the market open at 9:30 a.m., GSCO shut off the creation of additional options orders and initiated efforts to cancel the erroneous orders that it had sent to the exchanges. However, within minutes after the opening of regular market trading, GSCO already had received executions for a portion of its unintended sell orders, representing approximately 1.5 million options contracts (representing 150 million underlying shares). Though GSCO faced up to a potential \$500 million loss from the executions, the firm's loss ultimately amounted to approximately \$38 million, after taking into account executed orders that were cancelled or received price adjustments pursuant to the options exchanges' rules concerning clearly erroneous trades.

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<sup>1</sup> 17 C.F.R. § 240.15c3-5. The initial compliance date for Rule 15c3-5 was July 14, 2011. On June 30, 2011, the Commission extended the compliance date for certain requirements of Rule 15c3-5 until November 30, 2011.

<sup>2</sup> Risk Management Controls for Brokers or Dealers with Market Access, 75 Fed. Reg. 69792, 69792 (Nov. 15, 2010) (final rule release).

6. The August 20, 2013 options trading event resulted from a series of failures in GSCO's then-existing system of risk management controls and supervisory procedures, exacerbated by human error.

7. First, the price checks in GSCO's Sigma Options order matching system failed to prevent the entry of the erroneously priced pre-market orders. The Sigma Options system was used to match customer and firm contingent options orders and then send those crossed orders to the exchanges. During market hours, Sigma Options applied price checks based on the then-current bid and ask prices for each listed option series. However, during pre-market hours, Sigma Options employed a "default" price check that allowed the transmittal of options orders with any price greater than \$0.01 and less than 1.5 times the highest closing price for any listed option from the prior day. On August 19, 2013, the highest closing price of any listed option was \$2,060 (the price of the call option to purchase 100 shares of the Nasdaq 100 Index at a strike price of \$1,000 with an expiration date of December 2013). Thus, on August 20, option orders that were entered prior to market open "passed" the price check as long as they were priced above \$0.01 and below \$3,090.<sup>3</sup>

8. In addition, the firm's operation and management of its electronic "circuit breakers" did not effectively block the erroneous orders sent on August 20. These circuit breakers existed to prevent erroneous orders by halting all message traffic to the exchanges once that traffic had exceeded a certain rate. However, on August 20, the firm's control personnel repeatedly lifted the circuit breakers blocks between 8:44 a.m. and 9:32 a.m., thereby permitting additional erroneous orders to be sent to the exchanges. Before lifting the circuit breaker blocks, the control personnel did not obtain authorization from the responsible technology employees, as required under written firm policies.

9. The firm's policies relating to the manual "lifting" of those circuit breakers were not disseminated to or fully understood by the employees responsible for deciding when the circuit breakers should be lifted, and, prior to August 20, 2013, GSCO personnel had lifted circuit breaker blocks shortly after learning of the block and while still investigating the cause of the circuit breaker trip.

10. The manner in which GSCO implemented software changes that impacted the firm's order flow also contributed to the August 20 event. In particular, the firm's written policies did not require that a software configuration change be reviewed by an employee other than the person who made the particular change. The firm's written policies did not require testing of all parallel information flows (or "stripes") that could potentially generate orders sent to the exchanges. The policies did not explicitly require that persons who implement software changes notify other relevant persons who may be impacted by those changes, and also did not require

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<sup>3</sup> Since August 20, 2013, the firm has implemented pre-market price checks in Sigma Options, as well as in the trading systems utilized by the firm's direct market access ("DMA") clients, that are based on the previous day's closing price for each individual option (using a price band of +/-100% of the prior day's closing price for options that closed below \$1, and a price band of +/-50% of the closing price for options that closed at \$1 or above).

personnel who make coding or configuration changes to be present on the day that those changes are put into production.<sup>4</sup>

11. GSCO also had deficiencies in the risk management controls and supervisory procedures designed to prevent orders that exceed the firm's pre-set capital threshold.

12. Specifically, the firm only calculated its open equities and options orders and executions every 30 minutes, with its systems generating an automated alert when 75% of the capital threshold was reached. The length of the calculation interval exposed the firm to the possibility that orders exceeding the firm's capital threshold would be executed and their impact on the aggregate capital exposure would not be known until up to 30 minutes after order entry. In addition, the firm did not have an automated process to prevent the entry of additional orders in the event the 30-minute calculation revealed that a capital threshold had been breached. Finally, during 2012 and 2013, GSCO failed to include a portion of the trading flow from a number of business units in the firm's capital utilization calculation for the purpose of determining whether the capital threshold was breached, and the calculation also did not include certain open (but unexecuted) orders.

13. As a result of the foregoing, and as described in greater detail below, during the period from at least November 30, 2011 through August 20, 2013, GSCO did not have a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory, and other risks of market access in relation to its listed equity options business.

## **FACTS**

### **A. Respondent**

14. GSCO is a U.S.-based broker-dealer and a wholly-owned subsidiary of The Goldman Sachs Group, Inc. ("Goldman Sachs Group"). GSCO is registered with the Commission pursuant to Section 15 of the Exchange Act and is a Financial Industry Regulatory Authority ("FINRA") member. GSCO has its principal business operations in New York, New York. The common stock of Goldman Sachs Group is registered pursuant to Section 12(b) of the Exchange Act and is listed for trading on the New York Stock Exchange.

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<sup>4</sup> Since August 20, 2013, the firm has enhanced its written policies and procedures regarding the deployment of new electronic trading software for control and connectivity code of the firm's U.S. listed equity options business by: (a) requiring software code and configuration changes to be subject to secondary review; (b) requiring software code and configuration changes made to production, including all relevant trading flows or stripes, to be verified for correctness; (c) requiring notification of changes to appropriate parties; and (d) requiring appropriate personnel to be available when changes first become effective.

## **B. The August 20, 2013 Options Trading Incident**

### GSCO's Technology Change Relating to Provision of Option Liquidity

15. Since 2012, GSCO has been in the process of consolidating into GSCO certain client service functions that had previously been operated either by an affiliated broker-dealer, Goldman Sachs Execution & Clearing, L.P. ("GSEC"), or that had been operated by both GSCO and GSEC. One of the client service functions that had previously been operated at GSEC was the provision of options liquidity to electronic trading customers.

16. This provision of options liquidity was done in part through the use of a matching engine that sought to pair the firm's own indications of interest, also known as "axes" or "contingent orders," in particular options contracts against customer orders. If a trade could be matched between a customer order and the firm's own trading interests, the customer order would be paired with the firm's interest and a paired order would be sent to an exchange for execution in accordance with applicable rules. (If there was no match, the customer order would be routed to the market.) Axes are based on the firm's interest in executing trades for its own accounts, and are contingent on price, size, and other parameters. Axes are not intended to go to the exchanges unless paired with a customer order; they are intended to remain in the matching engine and search for customer orders to pair-off against.

17. The software development work related to the migration of certain functions into GSCO started in September 2012. The two technology units principally involved in this project were the Equity Derivatives Automation Team ("Eq-Dat") and Mission Control. Eq-Dat was responsible for developing the systems used by the firm's equity derivatives traders and which interacted with the firm's electronic trading clients. Mission Control monitored those trading systems once they were operating, and handled many of the updates and changes that were required once a particular system was operational.

18. The system designed by Eq-Dat used an algorithm to generate axes. Each axe contained a placeholder price of \$1, though the system was designed so that the price would adjust based on whatever customer order it executed against. The axes were then sent to a workflow server, which separated the axes into one of two "stripes" based on the ticker symbol of the underlying equity for the option. Options whose underlying equity symbols were in the ranges A-H and L-Z flowed through one stripe, while options with underlying symbols in the I-K range flowed through another.<sup>5</sup>

19. The axes then flowed through two execution servers on their way to seeking a matching customer order in Sigma Options. However, before reaching Sigma Options, the axes passed through a smart order router, which translated order information coming from the two execution servers into a format that was readable by Sigma Options. The translation was

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<sup>5</sup> Striping is done for staging purposes; a staging environment is necessary for the testing of future changes. Changes are introduced in the stage environment first in order to assess the change on a smaller scale prior to the full scale roll-out.

governed by the configuration values set by Mission Control, which was responsible for connecting the execution servers to the order router.

20. Once it passed through the router, the axe was sent to Sigma Options to see if there was a customer order to match against. When a customer order was matched against an axe, the price on the axe was adjusted from the \$1 placeholder price to an actual price that matched the customer order. If an axe was paired against a customer order, the two orders flowed back through the router to the execution servers before being sent to an exchange for crossing. If there was no match between an axe and a customer order, the customer order was routed to the exchange for matching and execution, while the axe remained in Sigma Options (though it may have been replaced by a subsequent axe in the same symbol). Axes were not intended to go to the market without a matching customer order and adjusted price.

#### The Configuration Error and the Pre-Market Hour Price Checks

21. The execution server that handled the A-H and L-Z ranges was connected to the order router in September 2012; the server that handled the I-K range was connected in January 2013. The connection process involved setting, or “configuring,” certain values in the router’s software which then controlled how the router would treat the axes.

22. The erroneous options orders sent by GSCO on August 20, 2013 resulted from an incorrect configuration of the order router. The misconfiguration coded the orders flowing through the server responsible for the I-K range as actual live orders, rather than as axes. The configuration work was performed by a Mission Control employee who did not fully understand the technical operation of the new Axe options order flow at the time he performed the configuration. This employee’s work was not reviewed by the Eq-Dat team or anyone else at GSCO, nor was such a review required by GSCO’s written policies regarding software change management.

23. In addition, the Eq-Dat personnel who tested the new order flow system during the week prior to August 20 sent test axes through the execution server that handled the A-H and L-Z ranges – which was configured correctly – but not the I-K stripe. As a result, those tests did not reveal the misconfiguration.

24. After market-close on August 19, 2013, an Eq-Dat employee activated the axe generation functionality for GSCO, thereby enabling it to start generating order flow for the next trading day (before the market opened). Although informing others of impending changes was considered a best practice at GSCO, Eq-Dat did not inform anyone from Mission Control – the unit responsible for monitoring the relevant equity trading systems – that the axe order flow would begin on August 20, nor was Eq-Dat required to do so by any formal written policy or guideline at GSCO.

25. GSCO’s Sigma Options order matching system contains price checks designed to prevent the entry of erroneous options orders to the exchanges. Those price checks are based on the then-current bid and ask prices for each listed option series. As of August 20, 2013, for options with a bid/ask price below \$1, the price band was +/- 100% of the current national best bid and offer (“NBBO”); for options with a bid/ask price at or above \$1, the price band was +/-

50% of the current NBBO. However, as of August 20, 2013, during pre-market hours, Sigma Options employed a “default” price check, which allowed the transmittal of options orders with any price greater than \$0.01 and less than 1.5 times the highest closing price from the prior day for any listed option.

26. GSCO first implemented this price check in June 2011, in anticipation of the implementation date of Rule 15c3-5, and used it both for the Sigma Options system and for the trading systems utilized by the firm’s direct market access (“DMA”) clients. GSCO’s decision to use this default price check was based on the lack of current bid-ask information during pre-market hours and a concern that using the prior day’s closing prices as reference points on an option-by-option basis could result in the unnecessary rejection of reasonably priced orders.

27. After this price collar was implemented in the summer of 2011 and prior to August 20, 2013, the default price collar that GSCO used during pre-market hours allowed erroneous orders to go to the market in several instances. Specifically, between November 2011 and August 20, 2013, there were at least three instances in which GSCO’s DMA clients sent erroneous options orders during the pre-market period. However, none of these incidents caused GSCO to evaluate whether it should adjust the parameters of the default price check.

#### Circuit Breaker Practices

28. GSCO also has several circuit breakers in place to prevent erroneous orders. The circuit breakers that exist to prevent erroneous options trades are based on the rate of outgoing electronic messages (*e.g.*, orders, cancellations, and replacements) that are sent by the firm to an exchange during any one-minute interval. When the particular message rate for an exchange is exceeded (or “tripped”), all subsequent orders to that exchange are automatically blocked until a GSCO employee “lifts” the block. The GSCO Mission Control team receives notice when a circuit breaker has been tripped and only Mission Control personnel have the ability to lift a circuit breaker block. However, Mission Control’s written policy on circuit breakers required its personnel to obtain authorization from the Eq-Dat team to lift a blockage of options order flow.

29. The Eq-Dat team was responsible for the technology systems relevant to the options order flow. Prior to August 20, 2013, the Eq-Dat team did not have any formal written policies related to when a circuit breaker block should be lifted, nor was the Eq-Dat team informed about Mission Control’s policies related to circuit breakers. On multiple occasions prior to August 20, 2013, Eq-Dat personnel instructed Mission Control to lift a circuit breaker block for options shortly after Mission Control had notified Eq-Dat about the block – while Eq-Dat was still investigating the cause of the circuit breaker trip (but after Eq-Dat personnel had formed a belief that the block was not likely to recur).

#### The Events of August 20, 2013

30. On August 20, 2013, as a result of the unintentional conversion of options axes to live orders, thousands of limit orders for options whose underlying equity symbol began with the letters I through K were submitted to the options exchanges prior to the opening of the markets. Because these orders were mistakenly designated as live orders (rather than axes), the Sigma Options system did not attempt to pair them with customer orders. The orders were not stopped

by the default price check in Sigma Options because they were priced at \$1, which fell between \$0.01 and \$3,090 (which was the highest closing price for any listed option on the prior day, multiplied by 1.5).

31. The circuit breakers for GSCO's connections to the ARCA and AMEX options exchanges tripped several times. At 8:44 a.m. the ARCA/AMEX circuit breaker tripped for the first time. At 9:01 a.m., a Mission Control employee (who had authored the Mission Control circuit breaker policy) noticed the block and lifted it, even though he had not spoken to anyone on the Eq-Dat team or received authorization from Eq-Dat to lift the block. As detailed above, the Eq-Dat team had not notified Mission Control of the new axe order flow, and as a result, the Mission Control employee evaluating the circuit breakers did not know of this change to the order flow.

32. This lifting of the block violated Mission Control's policies regarding circuit breakers (as did multiple additional liftings of blocks later that morning). However, the Mission Control employee's lifting of the block was based, in part, on the Mission Control employee's prior experiences with Eq-Dat in which Eq-Dat personnel had instructed Mission Control, in other circumstances, to lift blocks shortly after learning of them (and prior to completing an investigation as to the cause of the trip). On this occasion, the Mission Control employee lifted the circuit breaker block without obtaining explicit authorization from Eq-Dat. After lifting that first block, this Mission Control employee emailed the Eq-Dat team at 9:03 a.m. At that time, none of the Eq-Dat team members who developed the axe generation functionality were present in GSCO's offices. The Mission Control employee did not receive any response to his 9:03 a.m. email.

33. At 9:07 a.m., the ARCA/AMEX circuit breaker tripped again and at 9:08 a.m., the Mission Control employee initiated an emergency conference call, known at GSCO as a "V-team call," to review the circuit breaker blocks. At 9:12 a.m., approximately the same time that he dialed in to the V-team call, the Mission Control employee cleared the second ARCA/AMEX block. (No one from Eq-Dat had joined the call at this point.)

34. At 9:15 a.m., there was a third ARCA/AMEX circuit breaker trip. The Mission Control employee who initiated the V-team emailed the Eq-Dat team again at 9:17 a.m. to alert them about the blocks. While on the V-team call, the Mission Control employee stated that he was going to clear the block and no one objected. The Mission Control employee cleared the block at 9:18 a.m. The Mission Control employee emailed further information regarding the blocks to the Eq-Dat team at 9:23 a.m.

35. At 9:25 a.m., a member of the Eq-Dat team joined the V-Team call. The following circuit breaker trips then occurred after the market opened: (i) between 9:30 a.m. and 9:31 a.m. – circuit breakers tripped for most of the exchanges; (ii) at 9:31 a.m. – another Mission Control employee cleared the Boston Options Exchange ("BOX") trip – at the same time BOX tripped again; (iii) at 9:32 a.m. – the Mission Control employee cleared all circuit breakers for all exchanges; and (iv) between 9:32 a.m. and 9:35 a.m. – all circuit breakers tripped again. Mission Control did not override these blocks and they remained in place through the evening. At this point, GSCO's global equities division directed that firm personnel shut down all of the firm's options trading flow.

36. GSCO's pre-market price collar did not operate to prevent the entry of the erroneous orders into the market. The erroneous orders that were sent to the market used the default price of \$1. This order price did not trigger GSCO's pre-market price collar because it was above \$.01 and below the "maximum prior day's option closing price" for *any* listed option. As a result of the breadth of this price check, thousands of the \$1 orders went to the exchanges even though the \$1 order prices were (in many instances) significantly higher or lower than the prices at which these options had last traded. Many of the orders were not executed. For example, sell orders priced at \$1 for options that were trading below \$1 were not executed. However, sell orders with \$1 limits for options that were trading above \$1 were executed.

37. By the time GSCO had cancelled all outstanding options orders at the exchanges, sell orders for approximately 1.5 million options contracts (representing 150 million shares) had been executed. If none of the trades had been cancelled through the firm's invocation of exchanges' obvious error rules and other avenues, the potential gross exposure to GSCO would have been up to \$500 million. Because a majority of the trades were either cancelled or have had the price adjusted to a reasonable price under the exchanges' rules, GSCO suffered a loss from the incident of approximately \$38 million.

### **C. Calculation of GSCO's Capital Usage**

38. Rule 15c3-5(c)(1)(i) requires the establishment of controls and supervisory procedures that are reasonably designed to "prevent the entry of orders that exceed appropriate pre-set credit or capital thresholds in the aggregate for each customer and the broker or dealer ... by rejecting orders if such orders would exceed the applicable credit or capital thresholds."

39. In 2011, GSCO established a process in which order management and trading systems exported details of the firm's open equities and options orders (as well as executions) to a data aggregator that computed the firm's capital exposure levels every 30 minutes and provided an automated warning when 75% of the capital threshold had been reached. The firm, however, did not calculate its capital exposure levels or generate alerts concerning its capital exposure levels during the 30 minute interim between calculations. Because the firm only calculated its outstanding exposure every 30 minutes, the firm would not have been alerted to breaches of the capital threshold that could have happened during the 30 minute interim between calculations.

40. In addition, in the event the firm's trading reached its pre-set capital threshold, GSCO did not have an automated process for preventing the entry of orders that exceeded the limit. GSCO personnel would have been required to manually disable its trading systems in the event that its trading reached the threshold. Thus, if a breach had occurred, GSCO may have not only lagged behind in learning about the breach, it may also have required additional time to respond manually, thereby increasing the likelihood of additional threshold-breaching orders and a runaway trading incident that could have caused damage to the firm and the wider market.

41. Finally, during 2012 and 2013, GSCO failed to include a portion of the trading flow from a number of business units in the firm's capital utilization calculation for the purpose of determining whether the capital threshold was breached, thereby underestimating the firm's capital exposure. Specifically, the calculation of the threshold did not include all of the trading flow from: (a) the firm's options trading flow from February 2012 to September 9, 2013; (b) the

firm's single stock trading from August 2012 through September 5, 2013; and (c) the firm's ETF and synthetic product trading from December 2012 through September 5, 2013. The failure to include these trading flows understated GSCO's capital utilization.

42. GSCO's capital threshold calculation also did not include open (but unexecuted) equities orders during 2012 and 2013. However, as soon as a portion of an unexecuted order was executed, the full notional value of the entire order (including the unexecuted portion) was then included in the calculation.<sup>6</sup>

## **VIOLATIONS**

43. Section 15(c)(3) of the Exchange Act, among other things, prohibits a broker or dealer from effecting any securities transaction in contravention of the rules and regulations the Commission prescribes as necessary or appropriate in the public interest, or for the protection of investors, to provide safeguards with respect to the financial responsibility and related practices of brokers or dealers. GSCO willfully<sup>7</sup> violated this Section through its willful violations, described herein, of a rule promulgated by the Commission thereunder.

44. Subsection (c)(1)(i) of Rule 15c3-5 requires that a broker or dealer's risk management controls and supervisory procedures shall be reasonably designed to prevent systematically the entry of orders that exceed appropriate pre-set credit or capital thresholds in the aggregate for each customer and the broker or dealer. As set forth in paragraphs 38 through 42, above, GSCO willfully violated this requirement by (a) only computing its capital usage level every 30 minutes with an automated warning when capital usage reached 75%; (b) failing to implement a reasonable process to prevent the entry of orders that exceeded its capital threshold; and (c) failing to include a portion of the trading flow from several business units, and certain unexecuted orders, in its capital usage calculations. GSCO's system of controls did not reasonably manage this aspect of the firm's market access financial risk because significant components of its order flow were not accounted for, and the firm could therefore have exceeded its capital threshold.

45. Subsection (c)(1)(ii) of Rule 15c3-5 requires that a broker or dealer's risk management controls and supervisory procedures be reasonably designed to prevent systematically the entry of erroneous orders that exceed appropriate price or size parameters on an order-by-order basis or over a short period of time, or that indicate duplicative orders. As set forth in paragraphs 25 through 37, above, GSCO willfully violated this requirement by failing to have controls reasonably designed to prevent the entry of erroneous orders by: (a) employing

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<sup>6</sup> GSCO would not have exceeded its capital threshold on August 20, 2013, even if it had factored in the missing trading flows and the open (but unexecuted) orders.

<sup>7</sup> A willful violation of the securities laws means merely "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." *Id.* (quoting *Gearhart & Otis, Inc. v. SEC*, 348 F.2d 798, 803 (D.C. Cir. 1965)).

unreasonably wide price checks for options orders during pre-market hours; and (b) failing to establish and maintain reasonable controls and procedures relating to its options circuit breakers.

46. Subsection (b) of Rule 15c3-5 requires brokers or dealers with market access to “establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory, and other risks” of having market access. As set forth in paragraphs 21 through 27, GSCO willfully violated this requirement by failing to establish and maintain reasonable controls and procedures with respect to its management of software changes that impact order flow.

#### **RESPONDENT’S REMEDIAL EFFORTS**

47. In determining to accept the Offer, the Commission has considered the remedial efforts promptly undertaken by Respondent and its cooperation afforded to the Commission Staff.

#### **IV.**

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

Accordingly, pursuant to Sections 15(b) and 21C of the Exchange Act, it is hereby ORDERED that:

A. Respondent GSCO cease and desist from committing or causing any violations and any future violations of Section 15(c)(3) of the Exchange Act and Rule 15c3-5 thereunder.

B. Respondent GSCO is censured.

C. Pursuant to Section 21B(a)(1) and (2) of the Exchange Act, Respondent GSCO shall, within ten (10) days of the entry of this Order, pay a civil money penalty in the amount of \$7,000,000 (\$7 million) to the United States Treasury. If timely payment is not made, additional interest shall accrue pursuant to 31 U.S.C. § 3717. Such payment must be made in one of the following ways: (a) Respondent GSCO may transmit payment electronically to the Commission, which will provide detailed ACH transfer/Fedwire instructions upon request; (b) 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 (c) Respondent GSCO 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 GSCO 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 Daniel M. Hawke, Chief, Market Abuse Unit,

Division of Enforcement, Securities and Exchange Commission, One Penn Center, 1617 JFK Blvd., Ste. 520, Philadelphia, Pennsylvania, 19103.

By the Commission.

Brent J. Fields  
Secretary