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Interim Co-Lead Counsel for Plaintiffs

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

In Re: Robinhood Outage Litigation

Master File No. 3:20-cv-01626-JD

CLASS ACTION

**DECLARATION OF SCOTT WALSTER
IN SUPPORT OF PLAINTIFFS' NOTICE
OF MOTION AND MOTION FOR
PRELIMINARY APPROVAL OF
PROPOSED CLASS ACTION
SETTLEMENT**

Date: September 22, 2022
Time: 10:00 a.m.
Judge: Hon. James Donato
Ctrm: 11, 19th Floor

1 I, Scott Walster, declare and state as follows:

2 I have personal knowledge of the facts stated herein and if called upon as a witness, could
3 and would testify to the facts set forth herein. I submit this Declaration in Support of Plaintiffs'
4 Motion for Preliminary Approval of the Class Action Settlement.

5 1. I have been retained as a consultant and testifying expert in this matter by co-lead interim
6 class counsel Kaplan Fox & Kilsheimer, LLP and Cotchett, Pitre & McCarthy, LLP ("Class
7 Counsel"). I am being assisted in this matter by staff from Global Economics Group, LLC ("Global
8 Economics Group") who have worked under my direction and supervision. Global Economics
9 Group is being compensated at an hourly rate of \$550 per hour for my work in this matter.

10 2. I am a Principal at Global Economics Group, a financial consulting firm that specializes in
11 the application of economics, finance, and valuation principles to questions that arise in both
12 litigation and non-litigation contexts. Prior to joining Global Economics Group, I was an Assistant
13 Director in the Division of Economic Risk Analysis at the United States Securities and Exchange
14 Commission ("SEC"). I worked in the SEC's Office of Litigation Economics where I performed
15 financial and economic analyses to assist the SEC with its investigations, litigations, and settlement
16 negotiations on its enforcement actions. My work at the SEC focused on the economics of market
17 manipulations; insider trading; securities lending; corporate disclosure; broker-dealer violations;
18 and investment adviser frauds. I provided economic advice to help the SEC determine investor
19 damages, ill-gotten gains, corporate penalties, as well as, to distribute money back to investors
20 through Fair Funds. A copy of my current resume is attached as **Exhibit 1**.

21 3. On June 25, 2021, I submitted a report in this case setting forth proposed damages
22 methodologies for the Robinhood accountholders at the time of the March 2020 Outages. I also sat
23 for a deposition in this case in September of 2021. As outlined in my report, we obtained and
24 analyzed a sample of Robinhood account holders' data before, during, and after the Outages. In
25 sum, my report set forth an "Ex Ante" approach the potential damages in this case that focused on
26 economic losses based on the transfer restriction cost caused by the Outages that was also referred
27 to as a "discount for lack of marketability" or DLOM analysis. My report set forth that the proposed

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1 class of approximately 6.82 million Robinhood customers experienced \$13,488,869 in economic
2 losses associated with the DL0M analysis.

3 4. My report also set forth an “Ex Post” analysis that measured the economic losses depending
4 on the actual price movements of their investments during the Outages and the limited trading data
5 available from before, during, and just after the Outages. As part of the Ex Post analysis, my report
6 analyzed three categories of losses pertinent to the proposed Settlement Agreement.

7 a. The first category considered whether trades were placed on March 3, 2020, at a loss
8 relative to the Volume Weighted Average Price “(VWAP)” of those positions during
9 the March 2 and 3, 2020 Outages. The proposed losses for this group look at what
10 pricing movements took place during the Outages and what trading activity occurred
11 on March 3 after the Outages to determine whether Settlement Class Members had
12 actual realized losses because of their inability to close positions at better prices
13 during the Outages. Based on my analysis of a sample of data produced for
14 Robinhood customers, I estimate 103,844 accounts experienced losses totaling
15 \$12,148,378.

16 b. The second category includes any person who held a SPDR S&P 500 (“SPY”) option
17 position expiring on March 2, 2020, and experienced a loss relative to the
18 VWAP of those options during the March 2, 2020 Outage. Based on my analysis of
19 a sample of data for Robinhood customers, I estimate 6,022 accounts with this
20 trading history experienced losses totaling \$730,201.

21 c. The third category includes any person who had placed an equity trade that became
22 marketable during the Outages but did not execute and the investor experienced a
23 loss relative to the price at the end of the Outages and/or the transaction price
24 eventually obtained within the day after the Outage. Based on my analysis of a
25 sample of data for Robinhood customers, I estimate 46,793 accounts with this
26 trading history experienced losses totaling \$7,527,561.

1 5. I am informed and understand that a proposed Settlement Agreement has been reached in
 2 this matter and I have been consulting with Class Counsel on the proposed Plan of Allocation, a
 3 copy of which is attached hereto as **Exhibit 2**. The proposed Plan of Allocation contemplates
 4 implementing the same methodologies for determining the Settlement Payments to Settlement
 5 Class Members as set forth in my prior report and described above in paragraph 4 as the “Ex Post”
 6 measures of losses.

7 6. I have assisted Class Counsel in determining the Customer Trading Information necessary
 8 to perform the analysis described in the Plan of Allocation. My understanding is that should
 9 preliminary approval be granted, Global Economics Group will receive the Customer Trading
 10 Information negotiated in the Settlement Agreement so that we can perform the necessary analyses
 11 stated in the Plan of Allocation. Given our prior work on this matter and our familiarity the form
 12 and content of Robinhood’s data and third-party market data, we have developed a work flow,
 13 programming, and quality controls, that can be used in an efficient manner to implement the Plan
 14 of Allocation. I will personally oversee and supervise the work to be performed. I have discussed
 15 a proposed budget with Class Counsel and estimate that the work can be done for less than
 16 \$100,000. I am mindful that the funds necessary to complete this analysis may come out of the
 17 proposed settlement fund and I will make sincere efforts to streamline the work and use Global
 18 Economics Group staff members and research analysts who have lesser billing rates when possible.
 19 As we have throughout this case, we will keep billing records of all time spent on this matter and
 20 will invoice Class Counsel on a monthly basis.

21 I declare under penalty of perjury that the foregoing is true and correct. Executed on this 5th
 22 day of August, 2022, in Chicago, Illinois.

DocuSigned by:

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 Scott Walster

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SIGNATURE ATTESTATION

I am the ECF User whose identification and password are being used to file the foregoing Notice of Motion and Motion for Preliminary Approval of Proposed Class Action Settlement; Memorandum of Points and Authorities in Support Thereof. Pursuant to L.R 5-1(i)(3) regarding signatures, I, Anne Marie Murphy attest that concurrence in the filing of this document has been obtained.

DATED: August 5, 2021

/s/Anne Marie Murphy

Anne Marie Murphy

EXHIBIT 1

SCOTT E. WALSTER
Principal, Global Economics Group

140 S. Dearborn St., Suite 1000
Chicago, IL 60603
Phone: (312) 933-4400
swalster@globaleconomicsgroup.com

Scott E. Walster is a Principal in the securities and financial regulation practices at Global Economics Group. Most recently, Mr. Walster served as Assistant Director in the Division of Economic and Risk Analysis of the US Securities and Exchange Commission (SEC). While at the SEC, Mr. Walster supervised and performed economic analysis for hundreds of enforcement actions involving securities law violations. He has provided live and written expert testimony on matters involving portfolio performance, derivative trading strategies, and market manipulations.

For the SEC, Mr. Walster worked on matters involving spoofing and high frequency trading market manipulations; corporate disclosure violations; insider trading, Regulation SHO violations and other matters involving securities lending; investment adviser “cherry picking” and churning frauds; and Rule-105 violations. The economic advice he provided was used to help determine investor damages, ill-gotten gains, and corporate penalties – as well as to distribute money back to investors through Fair Funds. Mr. Walster also advised and provided testimony for the US Department of Justice on a number of criminal securities fraud investigations and trials; and he has advised the Commodity Futures Trading Commission and the Federal Trade Commission on investigations.

EDUCATION

B.S. University of Illinois at Chicago, graduated with University Honors
Economics, 2003
Finance, highest distinction, 2003

PROFESSIONAL EMPLOYMENT

GLOBAL ECONOMICS GROUP, LLC., Chicago, IL Principal	2020 – present
U.S. SECURITIES AND EXCHANGE COMMISSION, Chicago, IL Assistant Director, Division of Economics and Risk Analysis	2015 – 2020
Supervisory Financial Economist, Division of Economics and Risk Analysis	2014 – 2015
Financial Economist, Division of Economics and Risk Analysis	2012 – 2014
GLOBAL ECONOMICS GROUP, LLC., Chicago, IL Vice President	2011 – 2012
Director	2008 – 2010

CHICAGO PARTNERS, LLC., Chicago, IL

Director	2008
Senior Consultant	2007 – 2008
Associate	2004 – 2006
Research Analyst	2003 – 2004

SELECTED EXPERIENCE

Securities and Valuation

- Led multiple teams of economists analyzing security trading activity from hundreds of brokerage accounts for equity price manipulations through coordinated ordering and execution activity in lit and dark equity markets.
- Analyzed the price impact of a high frequency trading firm's equity market on-close order strategy.
- Provided analysis for dozens of insider trading investigations. Evaluated portfolio and trade performance, materiality, and statistical tests assessing the level of coordination across multiple traders.
- Managed case teams on a number of Rule 10b-5 and Section 11 securities class action matters. Developed event studies to measure the effect of alleged frauds on security prices to address materiality and loss causation.
- Implemented statistical tests to analyze the market efficiency of common stock, preferred stock, and debt securities including tests for autocorrelation and the cause and effect relationship between new information and security prices.
- Designed analyses to measure shareholder harm for Rule 10b-5 and Section 11 class action securities cases.
- Designed statistical tests and disgorgement analyses for matters involving "cherry picking" schemes of investment advisors through which advisors assign profitable trades to their own accounts and unprofitable trades to their clients' accounts.
- Evaluated the risk and performance of complex option trading strategies.
- Implemented damage models to measure hedge fund profits from their alleged market timing and late trading of mutual funds.
- Developed discounted cash flow and comparable company valuation models to estimate equity values of privately held companies in the energy infrastructure and oil and gas industries.

Regulation

- Managed an economic analysis of the potential consumer impact stemming from the Dodd-Frank debit interchange fee regulation.
- Created a mutual fund share conversion calculator for a NASD regulatory matter involving the inappropriate sales of Class B mutual fund shares. Project included forming damage estimates for negotiations with NASD regulators, identifying potentially damaged clients, and calculating cash remediation and share conversion remediation.

Labor Economics and Discrimination

- Managed and performed dozens of statistical analyses of differences in employee wages, wage growth, promotion rates, termination rates, and performance ratings across laborers of different races, genders, and ages.
- Used data collected from over 60,000 employment applications to provide statistical analyses of the impact race had on employment outcomes while controlling for candidate experience and qualifications.
- Used geocoding data to predict the drive times of at-home appliance laborers in a wage and hour litigation. Prepared a statistical analysis comparing the predicted drive time outcomes to punch card data of the actual reported drive times.
- Implemented econometric analyses of homeowners' insurance claims, losses and premiums to evaluate price discrimination claims alleged by minorities.

PUBLICATIONS AND PRESENTATIONS

"Economic Concepts in the Litigation Context," invited panelist at Practicing Law Institute Pocket MBA 2020: Finance for Lawyers and Other Professionals, October 2020.

"How COVID-19 May Influence SEC's Enforcement Analysis," Joint with Charles Riely and Grace Signorelli-Cassady, *Law360*, June 2020.

"Loss Causation in a Bear Market: The Economists' Perspective," invited panelist at The Chicago Bar Association, June 2020.

"Economic Concepts in the Litigation Context," invited panelist at Practicing Law Institute Pocket MBA 2019: Finance for Lawyers and Other Professionals, October 2019.

"Economic Analysis in the Context of SEC Enforcement Actions," invited panelist at SEC Speaks, February 2018.

“Big Data in Securities Enforcement,” invited panelist at North American Securities Administrators Association Annual Conference, September 2017.

“Vehicle Sales in 2003: A good down-year (Special Issue),” Joint with William Strauss and Michael Munley, *Chicago Fed Letter*, No. 191a, July 2003.

“The Disappearance of Manufacturing?,” Joint with William Strauss, *Chicago Fed Letter*, No. 190, June 2003.

“Any Bounce in the Economy in 2003?,” Joint with William Strauss and Michael Munley, *Chicago Fed Letter*, No. 185b, January 2003.

TESTIMONIAL EXPERIENCE AND REPORTS

In re: Robinhood Outage Litigation, 3:20-cv-01626-JD, United States District Court Northern District of California. Expert report filed in June 2021. Deposed in September 2021.

SEC v. Chen et al, 1:18-cv-10657, United States District Court District of Massachusetts. Deposed and testified at trial in January 2020.

SEC v. Chen et al, 1:19-cv-12127-WGY, United States District Court District of Massachusetts. Filed declarations in October 2019 and December 2019.

USA v. Beshey et al, 1:17-cr-00643, United States District Court Northern District of Illinois. Testified at trial in April 2019.

SEC v. Bryant et al, 04:17-cv-00336-ALM, United States District Court Eastern District of Texas Sherman Division. Expert report filed in January 2018.

SEC Administrative Proceeding in the matter of Gregory T. Bolan Jr. and Joseph C. Ruggieri, File No. 3-16178. Testified in April 2015.

SEC v. Chad C. McGinnis and Sergey Pugach, 13-cv-1047 (AVC), United States District Court District of Connecticut. Filed declaration and testified in October 2013.

HONORS AND AWARDS

SEC Analytical Methods Award, 2016

EXHIBIT 2

Exhibit 2

In re Robinhood Outage Litigation, No. 3:20-cv-01626-JD (N.D. Cal)

Plan of Allocation of Settlement Payments

The objective of the Plan of Allocation is to equitably distribute the Net Settlement Fund among Settlement Class Members who engaged in Qualifying Trades based on their respective alleged economic losses under Plaintiffs' damages theories.

To determine each Settlement Class Members' Settlement Payment, Plaintiffs' expert(s), Global Economics Group, will use the data provided by Robinhood to calculate Settlement Payments in accordance with the methods set forth in the Ex-post Economic Losses section of the expert report of Scott E. Walster (Dkt. No. 136-67) as outlined and modified below:

1. For Settlement Class Members who closed all or a portion of a Position on March 3, 2020, the VWAP(s) for the corresponding security(s) on March 2-3, 2020 will be determined from available market data. A "Position" is defined as a Settlement Class Members' combined equity and option holdings in the same underlying security. The Settlement Class Member's loss/gain for each security shall be determined as the difference between the price of the trade and the VWAP multiplied by the number of shares traded or the number of underlying shares represented by the option contract(s) traded.
2. For Settlement Class Members who held a SPDR S&P 500 ("SPY") option Position expiring on March 2, 2020, the loss/gain for each option shall be calculated as the value of the investment based on the VWAP during the March 2, 2020 Outage less any loss/gain resulting from the difference between the strike price and the underlying SPY price for in-the-money options at expiration on March 2, 2020.
3. For Settlement Class Members who experienced a Failed Equity Trade of a marketable order during the March 2 and 3 Outages the loss/gain shall be calculated as the difference between the price obtained when executing the transaction once the Outage ended through March 4, 2020 and the price of the failed transaction once it became marketable multiplied by the number of shares traded or the number of underlying shares represented by the option contract(s) traded. For Settlement Class Members who experienced a Failed Equity Trade of a marketable order during the March 9 Outage the loss/gain shall be calculated as the difference between the price obtained when executing the transaction once the Outage ended through March 10, 2020 and the price of the failed transaction once it became marketable multiplied by the number of shares traded or the number of underlying shares represented by the option contract(s) traded. If a new price for the failed transaction was not obtained through March 4, 2020 or March 10, 2020, respectively, the loss/gain shall be determined as the difference between the price of the security once the corresponding Outage ended and the price of the failed transaction multiplied by the number of shares traded or the number of underlying shares represented by the option contract(s) traded.

4. For Settlement Class Members that held multiple investments or experienced multiple Failed Equity Trades pertaining to the same underlying security, the Settlement Payment will be based on the net loss/gain for eligible activity calculated under 1, 2, or 3. Only Settlement Class Members with a net loss with 1, 2, or 3 are eligible for a Settlement Payment.
5. In the event that minute-by-minute market pricing data is not available for a particular security, including over-the-counter securities (“OTC Securities”), the Settlement Payment shall be determined using the daily VWAP price for March 2, 2020.
6. Should any specific trade be eligible for a Settlement Payment under 1 or 2 and 3 specified above, the Settlement Class Member shall be entitled to the highest payment but not both.
7. All Settlement Payments will be offset by any payments made to the Settlement Class Member paid by Robinhood as a result of its Goodwill Program pertaining to the March 2020 Outages. The offset may extinguish a Settlement Class Members’ Settlement Payment.
8. After the calculation of Settlement Payment set forth above, all Settlement Payments will be reduced *pro rata* relative to the estimated Net Settlement Fund.