

SECURITIES CLASS ACTION (SCA) RULE 10b-5 EXPOSURE REPORT - 4Q 2020



January 8, 2021

U.S. SCA Rule 10b-5 Exposure of Public Corporations that Issue Common Stock on U.S. Exchanges Decreased Slightly to \$97.8B in 4Q'20 from \$101.8B in 3Q'20ⁱ

34 public corporations that issue common stock on U.S. Exchanges (“U.S. issuers”) were sued for alleged violations of the federal securities laws under Section 10(b) and 20(a) of the Securities Exchange Act of 1934 during 4Q'20.ⁱⁱ U.S. SCA Rule 10b-5 Exposure of directors and officers of U.S. issuers to claims that allege violations of Rule 10b-5 under the Exchange Act amounts to \$97.8 billion.ⁱⁱⁱ Approximately \$14.4 billion, or 12.8% of alleged shareholder losses (claimed market capitalization losses), do not surpass statistical thresholds of stock price impact. Without discounting the effects of back-end price impact, alleged shareholder losses in 4Q'20 amount to \$112.1 billion.

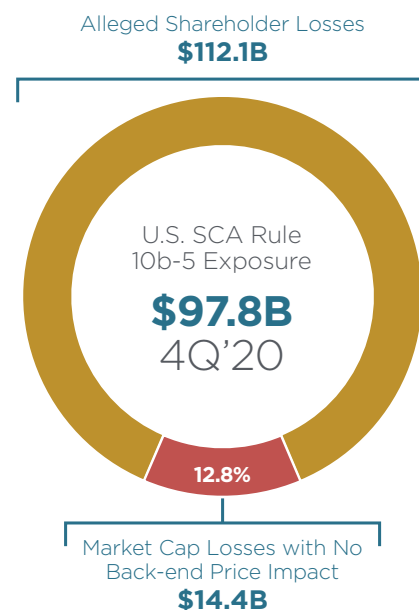


Table 1: U.S. SCA Rule 10b-5 Exposure of U.S. Issuers

Quarter	Rule 10b-5 Exchange Act Filings [1]	U.S. SCA Rule 10b-5 Exposure (000s) [2]	Aggregate Market Cap. of U.S. Issuers (000s) [3]	U.S. SCA Rule 10b-5 Exposure Rate [4]	U.S. SCA Rule 10b-5 Litigation Rate [5]
1Q'20	41	\$63,510,381	\$30,060,799,635	0.21%	1.19%
2Q'20	36	\$44,927,989	\$29,632,030,048	0.15%	1.04%
3Q'20	40	\$101,836,858	\$34,852,007,527	0.29%	1.16%
4Q'20	34	\$97,758,984	\$39,492,171,257	0.25%	0.97%
2020 Total:	151	\$308,034,212			

[1] Identified first-filed SCA complaints that allege violations of Rule 10b-5. Excludes non-U.S. issuers that trade on U.S. exchanges through ADRs.

[2] U.S. SCA Rule 10b-5 Exposure is equal to the claimed market cap. losses that may surpass back-end price impact statistical thresholds.

[3] The average aggregate market cap. of U.S. issuers for the corresponding quarter.

[4] The ratio of U.S. SCA Rule 10b-5 Exposure to the aggregate market cap of U.S. issuers ([4] = [2] / [3]).

[5] = Number of defendant U.S. issuers divided by the aggregate number of U.S. issuers.

Although the frequency of U.S. SCA Rule 10b-5 filings in 4Q'20 was the lowest recorded during the past two years, *U.S. SCA Rule 10b-5 Exposure* remained high. **Fourth quarter data indicates that lower frequency does not equate to lower severity.** *U.S. SCA Rule 10b-5 Exposure* of \$97.8 billion was the second highest quarterly exposure recorded since 2Q'19, and only fell by 4.0% relative to 3Q'20. 4Q'20 *U.S. SCA Rule 10b-5 Exposure Rate* also decreased slightly from 0.29% in 3Q'20 to 0.25% in 4Q'20. The *U.S. SCA Rule 10b-5 Litigation Rate* also decreased by 19 basis points in 4Q'20, which amounts to 0.97%.

COVID-19 U.S. SCA Rule 10b-5 Litigation Exposure: The *SCA Rule 10b-5 Exposure* of private securities class actions directly related to COVID-19 amounts to \$7.6 billion in 4Q'20 stemming from 3 SCAs filed against U.S. issuers.^{iv} COVID-19 related allegations account for 7.7% of the \$97.8 billion in aggregate *U.S. SCA Rule 10b-5 Exposure*. The 2020 total *SCA Rule 10b-5 Exposure* directly related to COVID-19 amounts to \$22.8 billion, of which 33.2% was alleged by shareholders during 4Q'20.

Table 2: Back-end Price Impact Summary of Alleged Corrective Disclosures of U.S. Issuers

Quarter	Rule 10b-5 Exchange Act Filings [1]	Alleged Corrective Disclosures [2]	Alleged Corrective Disclosures with No Price Impact [3]	% of Corrective Disclosures with No Price Impact [4]
1Q'20	41	72	16	22%
2Q'20	36	71	28	39%
3Q'20	40	82	26	32%
4Q'20	34	73	24	33%
2020 Total:	151	298	94	32%

[1] Identified first-filed SCA complaints that allege violations of Rule 10b-5. Excludes non-U.S. issuers that trade through ADRs.

[2] The number of alleged corrective disclosures identified in the sample of SCA complaints.

[3] The number of alleged corrective disclosures that do not exhibit a statistically significant one-day residual stock price return at the 95% confidence standard.

[4] The ratio of the number of alleged corrective disclosures that do not exhibit back-end price impact to the total number of alleged corrective disclosures. ([4] = [3] / [2])

During 4Q'20, SAR accounted for 58 “stock-drop” SCAs filed against U.S. issuers that allege violations of Rule 10b-5 via 140 claimed corrective disclosures.^v After consolidating cases with seemingly related allegations against individual U.S. issuers, SAR accounted for 34 filed SCAs. A total of 73 corrective disclosures have been alleged in the 34 first-filed SCAs.^{vi} Of the 73 corrective disclosures alleged during 4Q'20, 24 (33%) may not be claimed as damages by a proposed class of shareholders because they do not surpass statistical thresholds of

back-end price impact (*Halliburton II*) in accordance with the heightened pleading standards of loss causation (*Dura*).^{vii} Although the number of alleged corrective disclosures decreased from 82 in 3Q'20 to 73 in 4Q'20, those that did not exhibit back-end price impact only decreased by 2 relative to 3Q'20. The alleged corrective disclosures that may not surpass back-end price impact statistical thresholds amounts to \$14.4 billion in 4Q'20, which is a decrease of \$5.0 billion relative to 3Q'20.^{viii}

SCA RULE 10b-5 EXPOSURE BY INDUSTRY SECTOR

In 4Q'20, 17.9% of Alleged Shareholder Losses Stem from a Single Claim Against Citigroup

Out of the 34 SCAs filed in 4Q'20, 10 (or 29.4%) were filed against Pharma/Biotech companies, 5 (or 14.7%) against Finance, Insurance, and Real Estate ("F.I.R.E.") companies, and 4 (or 11.8%) against Retail and Consumer Products companies. The sector with the greatest *SCA Rule 10b-5 Exposure* was the F.I.R.E. sector which accounted for 47.75% of the *U.S. SCA Rule 10b-5 Exposure*, which amounts to \$46.7 billion.

The SCA filed against Citigroup accounts for 17.9% of the fourth quarter's *U.S. SCA Rule 10b-5 Exposure*. This amounts to 37.4% of the exposure impacting the F.I.R.E. industry sector. Without the Citigroup SCA case, industry-wide *SCA Rule 10b-5 Exposure* amounts to \$80.3 billion.

Data and analyses indicate that the industry sectors that were impacted most by alleged corrective disclosures that may not surpass statistical thresholds of back-end price impact are Energy, Hardware and Semiconductor, Auto, Retail and Consumer Products, F.I.R.E., Software, and Pharma/Biotech. 100% (\$11.8 million) of shareholder losses alleged in the single SCA filed against an Energy company do not exhibit stock price impact. 52% (\$996.6 million) of shareholder losses alleged in the 2 SCAs against Hardware and Semiconductor companies do not exhibit stock price impact. 34% (\$933.1 million) of shareholder losses alleged in the 2 SCAs against Auto companies do not exhibit stock price impact. 25% (\$2.5 billion) of shareholder losses alleged in the 4 SCAs against Retail and Consumer companies do not exhibit stock price impact. 17% (\$9.7 billion) of shareholder losses alleged in the 5 SCAs against F.I.R.E. companies do not exhibit stock price impact.

Table 3: U.S. SCA Rule 10b-5 Exposure by Industry Sector in 4Q'20

Industry Sector [1]	Rule 10b-5 Exchange Act Filings [2]	Alleged Market Cap. Losses (000s) [3]	Market Cap. Losses that Do Not Exhibit Price Impact (000s) [4]	U.S. SCA Rule 10b-5 Exposure (000s) [5]	% of Market Cap. Losses that Do Not Exhibit Price Impact [6]
Auto	2	\$2,741,538	\$933,093	\$1,808,445	34%
Energy	1	\$11,823	\$11,823	\$0	100%
F.I.R.E.	5	\$56,355,155	\$9,671,319	\$46,683,836	17%
Hardware and Semiconductor	2	\$1,922,626	\$996,603	\$926,023	52%
Health Care	3	\$4,779,796	\$0	\$4,779,796	0%
Industrial	0	\$0	\$0	\$0	0%
Manufacturing, Farm, and Industrial	0	\$0	\$0	\$0	0%
Materials	3	\$2,234,852	\$0	\$2,234,852	0%
Media	1	\$7,679,663	\$0	\$7,679,663	0%
Pharma/Biotech	10	\$18,594,583	\$127,362	\$18,467,220	1%
Retail and Consumer Products	4	\$10,160,432	\$2,519,666	\$7,640,765	25%
Software	2	\$1,322,308	\$103,990	\$1,218,318	8%
Transportation and Storage	1	\$6,320,066	\$0	\$6,320,066	0%
4Q 2020 Total:	34	\$112,122,840	\$14,363,856	\$97,758,984	12.8%

[1] Industry sector is based on the defendant corporation's SIC code.

[2] Identified first-filed SCA complaints that allege violations of Rule 10b-5. Excludes non-U.S. issuers that trade on U.S. exchanges through ADRs.

[3] Market cap. losses of U.S. issuers listed as defendants unadjusted for alleged corrective disclosures that do not meet statistical thresholds of back-end price impact.

[4] Market cap. losses of U.S. issuers listed as defendants that do not meet statistical thresholds of back-end price impact.

[5] U.S. SCA Rule 10b-5 Exposure is equal to the claimed market cap. losses that may surpass statistical thresholds of back-end stock price impact ([5]=[3]-[4]).

[6] = [4] / [3]

SCA RULE 10b-5 EXPOSURE OF U.S. LARGE CAP CORPORATIONS^{ix}

Large Cap SCA Rule 10b-5 Exposure Remained Steady in 4Q'20, Amounting to \$93.2 billion.

17 large cap corporations were sued for alleged violations of Rule 10b-5 during 4Q'20 – an increase of 2 – relative to 3Q'20. The average aggregate market capitalization of U.S. large cap corporations, based on the market capitalization range of the S&P500 Index during 4Q'20, was \$37.37 trillion.^x This is an increase in aggregate market cap of \$4.55 trillion, or 13.85%, relative to 3Q'20. The increase in the aggregate market cap led to a decrease in the *Large Cap SCA Rule 10b-5 Exposure Rate* by 4 basis points to 0.25% in 4Q'20. The *Large Cap SCA Rule 10b-5 Litigation Rate* increased from 1.81% in 3Q'20 to 1.96% in 4Q'20.



4Q'20 U.S. Large Cap Analysis: The *Large Cap SCA Rule 10b-5 Exposure* of \$93.2 billion during 4Q'20 is in line with the exposure exhibited in 3Q'20 but significantly greater than the previous two quarters when exposure averaged \$46.3 billion. 2 more large cap corporations faced Rule 10b-5 allegations in 4Q'20 relative to 3Q'20, resulting in a *Large Cap SCA Rule 10b-5 Litigation Rate* of 1.96%.

In 2020, the Large Cap U.S. SCA Rule 10b-5 Litigation Rate equates to 7.2% — 1 in 14 large cap companies were the target of Rule 10b-5 Exchange Act claims.

Table 4: Large Cap SCA Rule 10b-5 Exposure of U.S. Issuers

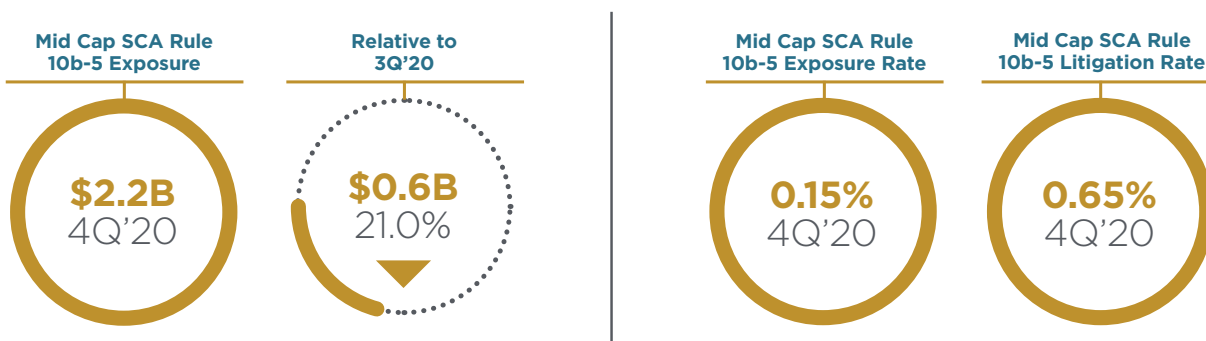
Quarter	Rule 10b-5 SCAs filed against Large Cap Defendants	Large Cap SCA Rule 10b-5 Exposure (000s)	Aggregate Market Cap. of Large Caps (000s)	Large Cap SCA Rule 10b-5 Exposure Rate	Large Cap SCA Rule 10b-5 Litigation Rate
1Q'20	18	\$54,966,106	\$28,098,908,799	0.20%	2.01%
2Q'20	10*	\$37,641,718	\$27,704,032,389	0.14%	1.45%
3Q'20	15	\$93,702,669	\$32,827,622,957	0.29%	1.81%
4Q'20	17	\$93,171,021	\$37,375,514,160	0.25%	1.96%

* 9 large cap defendants were sued in 2Q'20, but SAR is using the 1 Act Filings to calculate the *Large Cap SCA Rule 10b-5 Litigation Rate* because the 2 SCAs filed against Wells Fargo & Co. in that quarter present non-overlapping allegations

SCA RULE 10b-5 EXPOSURE OF U.S. MID CAP CORPORATIONS^{xi}

Mid Cap SCA Rule 10b-5 Exposure Decreased in 4Q'20, Amounting to \$2.2 Billion.

4 mid cap corporations were sued for alleged violations of Rule 10b-5 during 4Q'20, which is lowest number of mid cap corporations that have been sued in 2020. The average aggregate market capitalization of U.S. mid cap corporations, based on the market capitalization range of the S&P MidCap 400 Market Index during 4Q'20, was \$1.43 trillion.^{xii} In 4Q'20, the *Mid Cap SCA Rule 10b-5 Exposure Rate* decreased to 0.15%. This is a decrease of 5 basis points relative to 3Q'20. The *Mid Cap Rule 10b-5 Litigation Rate* decreased quarter-over-quarter at 0.65%, the lowest *Mid Cap Rule 10b-5 Litigation Rate* exhibited all year.



4Q'20 U.S. Mid Cap Analysis: The *Mid Cap SCA Rule 10b-5 Exposure* of mid cap corporations decreased by 21.6% in 4Q'20 relative to 3Q'20, but remained above 2Q'20 exposure, even though the *Mid Cap Rule 10b-5 Litigation Rate* was significantly lower than in previous quarters.

In 2020, the Mid Cap U.S. SCA Rule 10b-5 Litigation Rate equates to 4.2% – 1 in 24 mid cap companies were the target of Rule 10b-5 Exchange Act claims.

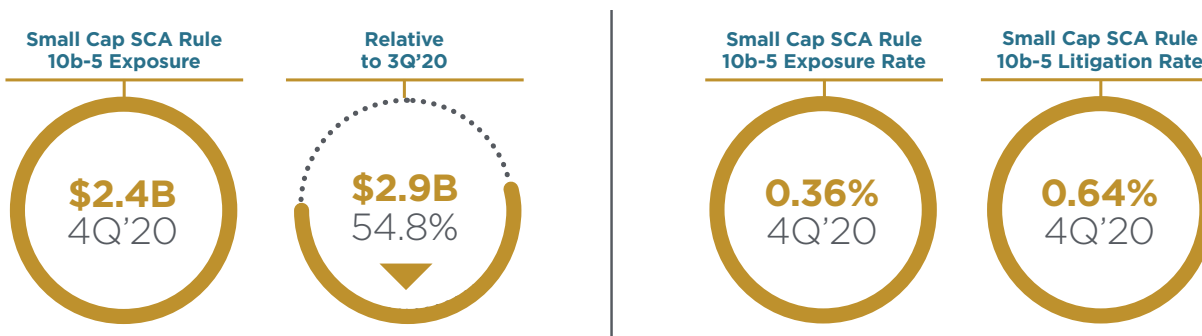
Table 5: Mid Cap SCA Rule 10b-5 Exposure of U.S. Issuers

Quarter	Rule 10b-5 SCAs filed against Mid Cap Defendants	Mid Cap SCA Rule 10b-5 Exposure (000s)	Aggregate Market Cap. of Mid Caps (000s)	Mid Cap SCA Rule 10b-5 Exposure Rate	Mid Cap SCA Rule 10b-5 Litigation Rate
1Q'20	7	\$5,280,307	\$1,291,795,762	0.59%	1.12%
2Q'20	7	\$2,004,804	\$1,257,405,797	0.16%	1.29%
3Q'20	7	\$2,746,684	\$1,354,948,295	0.20%	1.17%
4Q'20	4	\$2,152,848	\$1,432,821,304	0.15%	0.65%

SCA RULE 10b-5 EXPOSURE OF U.S. SMALL CAP CORPORATIONS^{xiii}

Small Cap SCA Rule 10b-5 Exposure Decreased Significantly in 4Q'20, Amounting to \$2.4 Billion.

13 small cap corporations were sued for alleged violations of Rule 10b-5 during 4Q'20, which is 5 fewer than in 3Q'20 and the lowest number in 2020. The *Small Cap SCA Rule 10b-5 Exposure* in 4Q'20 decreased by more than half in 4Q'20 relative to 3Q'20. The average aggregate market capitalization of U.S. small cap corporations, based on the market capitalization range of the S&P SmallCap 600 Market Index during 4Q'20, was \$683.8 billion.^{xiv} In 4Q'20, the *Small Cap SCA Rule 10b-5 Exposure Rate* was 0.36%, which is 45 basis points lower relative to 3Q'20. The *Small Cap Rule 10b-5 Litigation Rate* also decreased by 25 basis points to 0.64%, the lowest *Small Cap Rule 10b-5 Litigation Rate* of 2020.



4Q'20 U.S. Small Cap Analysis: *Small Cap SCA Rule 10b-5 Exposure* decreased to the lowest amount recorded in 2020. The aggregate market cap of small cap corporations also remained relatively stable throughout the year, increasing by only 2.2% in 4Q'20. Combined, this resulted in the lowest *Small Cap SCA Rule 10b-5 Exposure Rate* and *Small Cap Rule 10b-5 Litigation Rate* during 2020.

In 2020, the Small Cap U.S. SCA Rule 10b-5 Litigation Rate equates to 3.2% — 1 in 31 small cap companies were the target of Rule 10b-5 Exchange Act claims.

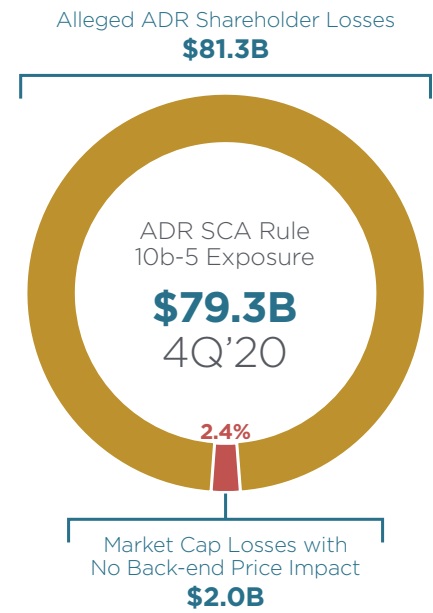
Table 6: Small Cap SCA Rule 10b-5 Exposure of U.S. Issuers

Quarter	No. of Small Cap Defendants	SCA Rule 10b-5 Exposure (000s)	Aggregate Market Cap. of Small Caps (000s)	Small Cap Rule 10b-5 Exposure Rate	Small Cap Rule 10b-5 Litigation Rate
1Q'20	16	\$3,263,967	\$670,095,073	0.49%	0.83%
2Q'20	19	\$5,281,467	\$670,591,862	0.79%	0.85%
3Q'20	18	\$5,387,505	\$669,436,275	0.80%	0.89%
4Q'20	13	\$2,435,116	\$683,835,792	0.36%	0.64%

The ADR SCA Rule 10b-5 Exposure of non-U.S. issuers in 4Q'20 amounts to \$79.3 billion, an increase of 153% relative to 3Q'20.^{xv}

7 non-U.S. issuers that trade on U.S. exchanges through ADRs (“non-U.S. issuers”) were sued for alleged violations of the federal securities laws under Section 10(b) and 20(a) of the Securities Exchange Act of 1934 during 4Q'20.^{xvi} ADR SCA Rule 10b-5 Exposure for directors and officers of non-U.S. issuers to claims that allege violations of Rule 10b-5 under the Exchange Act amounts to \$79.3 billion.^{xvii} Approximately \$2.0 billion of market capitalization declines that have been claimed as investor losses by a proposed class of common stock shareholders may not surpass statistical thresholds of back-end price impact. Without discounting the effects of back-end stock price impact, claimed shareholder losses against directors and officers of non-U.S. issuers amounts to \$81.3 billion in 4Q'20.

In 4Q'20, the ADR SCA Rule 10b-5 Exposure Rate increased by 15 basis points to 0.27% relative to 0.12% in 3Q'20. The ADR SCA Rule 10b-5 Litigation Rate is 0.35% based on the number of non-U.S. issuers that trade in the NYSE, NASDAQ, and over-the-counter in the U.S, which is a decrease of 10 basis points relative to 3Q'20.



4Q'20 ADR Analysis: Although there were 2 fewer ADR Rule 10b-5 Exchange Act Filings in 4Q'20 relative to 3Q'20, ADR SCA Rule 10b-5 Exposure of non-U.S. issuers increased by 153% relative to 3Q'20 and is the highest amount recorded in 2020. Of the 11 alleged corrective disclosures included in the 7 SCAs filed against non-U.S. issuers, 2 alleged corrective disclosures do not surpass statistical thresholds of back-end price impact. That amounts to \$2.0 billion of market capitalization declines that may not surpass statistical thresholds of back-end price impact.

In 2020, 1 in 75 non-U.S. issuers were the target of Rule 10b-5 Exchange Act claims.

Table 7: ADR SCA Rule 10b-5 Exposure of Non-U.S. Issuers

Quarter	No. of Defendant Non-U.S. Issuers [1]	ADR SCA Rule 10b-5 Exposure (000s)	Aggregate Market Cap. Of Non-US Issuers (000s)	ADR SCA Rule 10b-5 Exposure Rate	ADR SCA Rule 10b-5 Litigation Rate
1Q'20	6	\$11,684,707	\$25,043,412,187	0.05%	0.30%
2Q'20	5	\$8,142,559	\$23,282,514,608	0.03%	0.25%
3Q'20	9	\$31,346,247	\$25,857,369,640	0.12%	0.45%
4Q'20	7	\$79,317,724	\$28,864,710,836	0.27%	0.35%

[1] First-filed SCA complaints that allege violations of Rule 10b-5 against non-U.S. issuers. Excludes U.S. issuers that trade on U.S. exchanges.

[2] ADR SCA Rule 10b-5 Exposure is equal to the claimed market cap. losses that may surpass back-end price impact thresholds.

[3] The aggregate market cap. of non-U.S. issuers.

[4] The ratio of ADR SCA Rule 10b-5 Exposure to the aggregate market cap of non-U.S. issuers. ([4] = [2] / [3]).

[5] = Number of defendant non-U.S. issuers divided by the aggregate number of non-U.S. issuers.

Table 8: Back-end Price Impact Summary of Alleged Corrective Disclosures of Non-U.S. Issuers

Quarter	ADR Rule 10b-5 Exchange Act Filings [1]	Alleged Corrective Disclosures [2]	Alleged Corrective Disclosures with No Price Impact [3]	% of Corrective Disclosures with No Price Impact [4]
1Q'20	6	14	3	21.4%
2Q'20	5	11	5	45.5%
3Q'20	9	23	16	69.6%
4Q'20	7	11	2	18.2%

[1] First filed SCA complaints that allege violations of Rule 10b-5 against non-U.S. issuers that trade on U.S. exchanges through ADRs. Excludes U.S. issuers.

[2] The total number of alleged corrective disclosures identified in the sample of SCA complaints.

[3] The total number of alleged corrective disclosures that do not exhibit a statistically significant one-day residual stock price return at the 95% confidence standard.

[4] The ratio of the number of alleged corrective disclosures that do not meet statistical thresholds of back-end price impact to the total number of alleged corrective disclosures. ([4] = [3] / [2]).

Sources: S&P Global Market Intelligence, S&P Dow Jones Indices, Thomson Reuters, SAR SCA Platform as of December 31st, 2020.

Any reprint of the information or figures presented in this quarterly report should reference SAR. Please direct any technical inquiries to Stephen Sigrist at 202.891.3652 or stephen@sarlit.com. SAR is a software and data analytics company that actively tracks, monitors, and analyzes private securities fraud actions that allege violations of the Exchange Act of 1934.

ⁱFigures of Securities Class Action (SCA) *Rule 10b-5 litigation exposure* are based on identified first-filed complaints for each claim filed during the corresponding quarter. All federal securities class action complaints are read and screened for allegations that specifically include alleged violations of Rule 10b-5 and define a specific Class Period. Only the claimed stock price declines presented in the first filed complaint against each defendant company are accounted for to estimate *U.S. SCA Rule 10b-5 Exposure*. Measures of SCA exposure for each claim may increase or decrease as the case progresses through the class action life cycle.

ⁱⁱThis tally accounts for U.S. issuers of common stock that are listed as defendants in first filed SCA complaints that allege shareholder damages for alleged artificial inflation of stock price during the third quarter of 2020. A U.S. issuer of common stock that was sued a second or third time during the current quarter is not accounted for in the current quarter's tally. The tally excludes SCA complaints against U.S. issuers of common stock that were sued for alleged violations of the federal securities laws in previous quarters. The tally also excludes Exchange Act claims that allege an artificially depressed price of common stock, a novel damages theory (see for example, *White Pine Investments v. CVR Refining, LP et al*); and Exchange Act claims against Electronic Traded Funds (ETFs). The tally also excludes cases that have been filed against international corporations that are listed on U.S. exchanges through American Depositary Receipts (ADRs). SCAs that allege Class Periods and corrective disclosures for which insufficient historical pricing data exists to estimate stock price impact with a multivariate regression are also excluded from the tally (see for example, *Plagens v. Deckard et al, Ferraiori v. Triterras, Inc. et al*).

ⁱⁱⁱA public corporation's exposure to alleged violations of Rule 10b-5 is estimated by tracking the cumulative decline in market capitalization during open market trading sessions that correspond with the timing of the claimed alleged corrective disclosures that surpass statistical thresholds of indirect price impact and are presented in a first filed SCA complaint. This figure excludes market capitalization declines of non-U.S. issuers that have been sued for violations of the U.S. federal securities laws and trade on U.S. exchanges through American Depositary Receipts (ADRs).

^{iv}First identified COVID-19 related SCA filings in 4Q'20 include:

1. *City of Riviera Beach General Employees Retirement System v. Royal Caribbean Cruises Ltd. et al, Case No. 20-cv-24111.*
2. *Lee v. K12 Inc. et al, Case No. 20-CV-01419*
3. *Alperstein v. Sona Nanotech Inc. et al, Case No. 20-CV-11405*

SCA Rule 10b-5 Exposure related to COVID-19 does not account for Defendants that have been sued multiple times for seemingly related alleged violations of the Exchange Act.

^vSAR relies on Docket Alert and Court Wire notifications attained from Thomson Reuters Westlaw. SAR professionals actively monitor and track case dockets to attain newly filed and amended claims.

^{vi}This tally of alleged corrective disclosures includes only those from first filed SCA complaints identified during 4Q 2020 against U.S. issuers of common stock. The tally excludes securities class action complaints against companies for which there are first filed complaints in prior quarters.

^{vii}See *Dura Pharmaceuticals, Inc. v. Broudo*, No. 03-932, 2005 WL 885109 (2005), and *Halliburton Co. v. Erica P. John Fund, Inc.*, 134 S. Ct. 2398 (2014).

^{viii}A single-firm multivariate regression analysis with a minimum of 100 observations (if a full 252 observations is unattainable) for a Control Period is applied to evaluate the statistical significance of the logarithmic residual stock price decline on the trading day(s) affected by an alleged corrective disclosure(s) (or the alleged adverse event). Statistical significance is measured by computing the t-statistic of the residual stock price decline during the trading session that is affected by the alleged corrective information. (If the t-statistic is greater than plus or minus 1.96, the likelihood that the daily residual return of the defendant company's common stock could have been caused by random volatility is less than 5%.) The Control Period ends one trading day prior to the start of the Class Period presented in the corresponding securities class action complaint.

^{ix}Large cap corporations are the sub-set of defendant corporations that have market capitalizations within the range of the greatest and least market capitalization value of the constituent members of the S&P 500 Market Index at the time of the start of the Class Period alleged in the first filed complaint.

^xThis is the average total market capitalization of U.S. issuers of common stock that are listed on the NYSE or Nasdaq exchanges with market capitalizations greater than \$3.7 billion between October 1st, 2020 and December 31st, 2020.

^{xi}Mid cap corporations are the sub-set of defendant corporations that have market capitalizations within the range of the greatest and least market capitalization value of the constituent members of the S&P MidCap 400 Market Index at the time of the start of the Class Period alleged in the first filed complaint.

^{xii}This is the average total market capitalization of U.S. issuers of common stock that are listed on the NYSE or Nasdaq exchanges with market capitalizations between \$1.26 and \$3.7 billion between October 1st, 2020 and December 31st, 2020.

^{xiii}Small cap corporations are the sub-set of defendant corporations that have market capitalizations within the range of the greatest and least market capitalization value of the constituent members of the S&P SmallCap 600 Market Index at the time of the start of the Class Period alleged in the first filed complaint.

^{xiv}This is the average total market capitalization of U.S. issuers of common stock in that are listed on the NYSE or Nasdaq exchanges with market capitalizations less than \$1.26 billion between October 1st, 2020 and December 31st, 2020.

^{xv}Figures of *ADR Securities Class Action (SCA) Rule 10b-5 Exposure* are based on the first filed complaint for each claim filed during the corresponding quarter. All federal securities class action complaints are read and screened for allegations that specifically include alleged violations of Rule 10b-5 and define a specific Class Period. Only the claimed stock price declines presented in the first filed complaint against each defendant company are accounted for to estimate *ADR SCA Rule 10b-5 Exposure*. Measures of SCA exposure for each claim may increase or decrease as the case progresses through the class action life cycle.

^{xvi}This tally only includes securities class action complaints against non-U.S. issuers that trade on U.S. exchanges through ADRs that were sued for alleged violations of the federal securities laws for the first time in the current quarter. A non-U.S. issuer of ADRs that was sued a second or third time during the current quarter is not accounted for in the current quarter's tally.

^{xvii}A non-U.S. issuer's exposure to alleged violations of Rule 10b-5 is estimated by tracking the cumulative decline in market capitalization during open market trading sessions that correspond with the timing of the claimed alleged corrective disclosures that surpass statistical thresholds of indirect price impact and are presented in a first filed SCA complaint.

All content, data, and analyses presented in this SAR SCA Rule 10b-5 Exposure Report are subject to further review and revision. All source and raw financial data used to derive the results of the quantitative and statistical analyses presented in this report are publicly available and legally obtained from the sources specified above. The only warranty SAR makes with respect to this SAR SCA Rule 10b-5 Exposure Report is that it was prepared in good faith using the methodologies described above.

To learn more about how SAR data analytics services and data packages can enhance the complex claim resolution capabilities of your organization, please contact:

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