CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

Securities Class Action Filings

2022 Midyear Assessment

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Executive Summary

Relative to 2021 H2, filing activity in the first half of 2022 increased slightly from 107 to 110 filings. However, two measures of market capitalization losses, Maximum Dollar Loss (MDL) and Disclosure Dollar Loss (DDL), increased to historically high levels. MDL reached $1,573 billion in 2022 H1, more than triple the 1997–2021 semiannual average, and the highest semiannual total in two decades.[1] DDL was more than double the 2021 H2 level, and already represents a new annual record. These values were driven by three Communications sector filings, which represented 53% of MDL and 69% of DDL.

Number and Size of Filings

- Plaintiffs filed 110 **new class action securities cases** (filings) across federal and state courts in 2022 H1, up slightly relative to 2021 H2. After declining from 2019 H2 to 2021 H1, **core filings** (those without M&A allegations) have slightly increased over two consecutive semiannual periods. (page 4)
- The number of **state filings with causes of action under the Securities Act of 1933** (1933 Act) in the first half of 2022 was consistent with the three prior semiannual periods and still dramatically below 2018 H1–2020 H1 levels. (pages 15, 17)
- **Maximum Dollar Loss (MDL)** increased sharply to $1,573 billion in 2022 H1, more than double the 2021 H2 total and more than triple the 1997–2021 semiannual average. (page 12)
- **Disclosure Dollar Loss (DDL)** spiked to $482 billion in 2022 H1, significantly above the previous all-time high of $280 billion set in 2000 H1. In 2022 H1, three filings alone represented 113% of the annual total 2021 DDL. (page 11)
- The 2022 H1 percentages of total DDL and MDL represented by **mega filings** were at a historic high, far exceeding their historical averages (both at 89% compared to 61% and 77%, respectively). (page 13)
- **Federal-only Section 11 filings**[2] in 2022 H1 accounted for 73% of total federal Section 11 and state 1933 Act filings, the highest share since 2014 H2. (page 17)

While filing counts increased only slightly in 2022 H1, both MDL and DDL rose sharply to historically high levels.

Figure 1: Federal and State Semiannual Class Action Filings Summary

(Dollars in 2022 Billions)

	Semiannual (1997 H1–2021 H2) Average	Maximum	Minimum	2021 H1	2021 H2	2022 H1
Class Action Filings	114	222	55	111	107	110
Core Filings	*96*	*134*	*55*	*99*	*101*	*105*
Disclosure Dollar Loss (DDL)	$101	$280	$21	$88	$210	$482
Maximum Dollar Loss (MDL)	$496	$1,833	$98	$394	$630	$1,573

Note: This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. As a result, this figure's filing counts may not match those in Figures 18–21.

[1] In response to recent substantial increases in inflation, reported MDL, DDL, and Dollar Loss on Offered Shares (DLOS) numbers are inflation-adjusted to 2022 dollars.

[2] Categorizations of allegations are based on the first identified complaint.

Key Trends in Federal Filings

Special purpose acquisition company (SPAC) filings remained at elevated levels, despite the rate of SPAC mergers slowing dramatically due to increased SEC regulation. Cryptocurrency-related filings are on pace to exceed 2021 totals as regulatory oversight has increased. There were eight COVID-19-related filings in 2022 H1, four of which came in the first two months.

Dollar Loss on Offered Shares Index™ (DLOS Index™)

- The **DLOS Indices for federal Section 11 and state 1933 Act filings** for the first half of 2022 are already higher than those indices in all of 2021.
- The **median DLOS** in federal courts in 2022 H1 was more than twice the historical median. (page 16)

SPAC Filings

- There were 18 **federal SPAC filings** in the first half of 2022, on pace to surpass total SPAC filings in 2021. For the first time since 2019 H2, there were federal SPAC filings with Section 11 allegations (two) in first identified complaints. (pages 5, 9)
- The median **filing lag for core federal SPAC filings** over the last three and a half years was roughly five and a half months. (page 8)
- The number of **technology-related SPAC filings** in the first half of 2022 (five) already surpassed the 2021 total and comprised over a quarter of all core federal SPAC filings. (page 7)
- Since 2019, 56% of all **core federal SPAC filings** alleged a class period start date between the announcement date of the De-SPAC Transaction (defined on page 8) and the completion of the transaction. (page 10)

Trend Cases

- **SPAC, cryptocurrency-related, and COVID-19 filings** remained elevated, with 18, 10, and eight filings, respectively. (page 5)
- Other trend-related filings (e.g., those involving **cannabis** companies, and those related to **cybersecurity** and the **opioid** epidemic) continued to decline. (page 5)
- **Cryptocurrency-related** filings are on pace to exceed last year's total and have been filed against an increasingly diverse pool of defendant types. (page 6)

Non-U.S. Issuers

- The number of federal filings against **non-U.S. issuers** is on track to be less than half of 2020's record high of 74 but would be similar to the 2012–2016 average of 33.
- As a percentage of total core federal filings, core federal filings against **non-U.S. issuers** decreased from 21% in 2021 to 18% in 2022 H1. This two-year drop from 2020 represents a reversion back to 2012–2016 levels.
- Since 2021 H1, filings against Asian firms have made up a decreasing proportion of filings against non-U.S. firms, while the share of filings against **European firms** has increased. (pages 19–20)

By Industry

- Core filings in the **Financial** sector fell to a third of the 1997–2021 semiannual average.
- Over half of core federal filings in the **Communications** sector in 2022 H1 were either mega MDL or DDL filings, with an average MDL of $112 billion and an average DDL of $45 billion. By comparison, the **Consumer Non-Cyclical** sector (also with five mega MDL filings) had an average MDL per filing of $6 billion. (pages 21, 29)

By Circuit

- MDL of core filings in the **Ninth Circuit** increased by over 400% while MDL in the **Second Circuit** declined.
- The **Second** and **Ninth Circuits** combined comprised 69% of all core federal filings in the first half of 2022, in line with 2021 H1 and H2 (73% and 71%, respectively) and above the 1997–2021 semiannual average of 55%. (page 22)

U.S. Exchange-Listed Companies

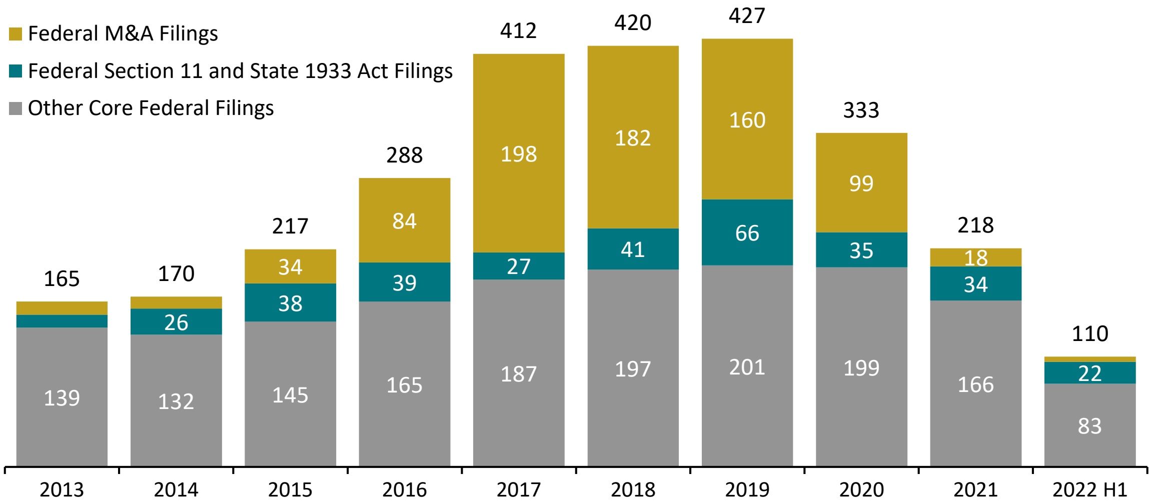
- In 2022 H1, the likelihood of a core filing against a **U.S. exchange-listed company** decreased to an annualized rate of 3.2%, the lowest rate since 2013. (page 14)

Combined Federal and State Filing Activity

- Federal M&A filings continued to decline in 2022 H1—the fifth consecutive semiannual period in which a decline in M&A filings has occurred.
- Federal Section 11 and state 1933 Act filings in 2022 H1 are in line with 2021 H2, decreasing by one filing from 23 to 22. However, if this level of filing activity continues, by year end, 2022 will have the second most federal Section 11 and state 1933 Act filings in the last decade, driven largely by federal-only filings.
- The count of federal-only filings was consistent with 2021 H2 (16), but is on pace to be at the highest annual level since 2009.
- In 2022 H1, federal M&A filings were 28% of their 2021 total and are less than 3% of their peak in 2017.
- Parallel filings dropped from two to zero—the first semiannual period in which there were no parallel filings since H1 2013. State-court-only 1933 Act filing activity increased slightly from five to six filings. See Figure 16.
- The count of other core federal filings—those excluding Section 11 and state 1933 Act filings—is on pace to be consistent with 2021.

As of 2022 H1, federal M&A filings are on pace to be at their lowest level since 2009.

Figure 2: Federal Filings and State 1933 Act Filings by Venue
2013–2022 H1



	Federal Section 11 and State 1933 Act Filings									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 H1
Federal Courts Only	12	21	21	12	11	9	13	13	22	16
State Courts Only	0	2	11	13	3	16	28	14	7	6
Parallel Filings	1	3	6	14	13	16	25	8	5	0
Total	13	26	38	39	27	41	66	35	34	22

Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; Institutional Shareholder Services' Securities Class Action Services (ISS' SCAS)

Note: This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. As a result, this figure's filing counts may not match those in Figures 18–21. See Additional Notes to Figures for more detailed information.

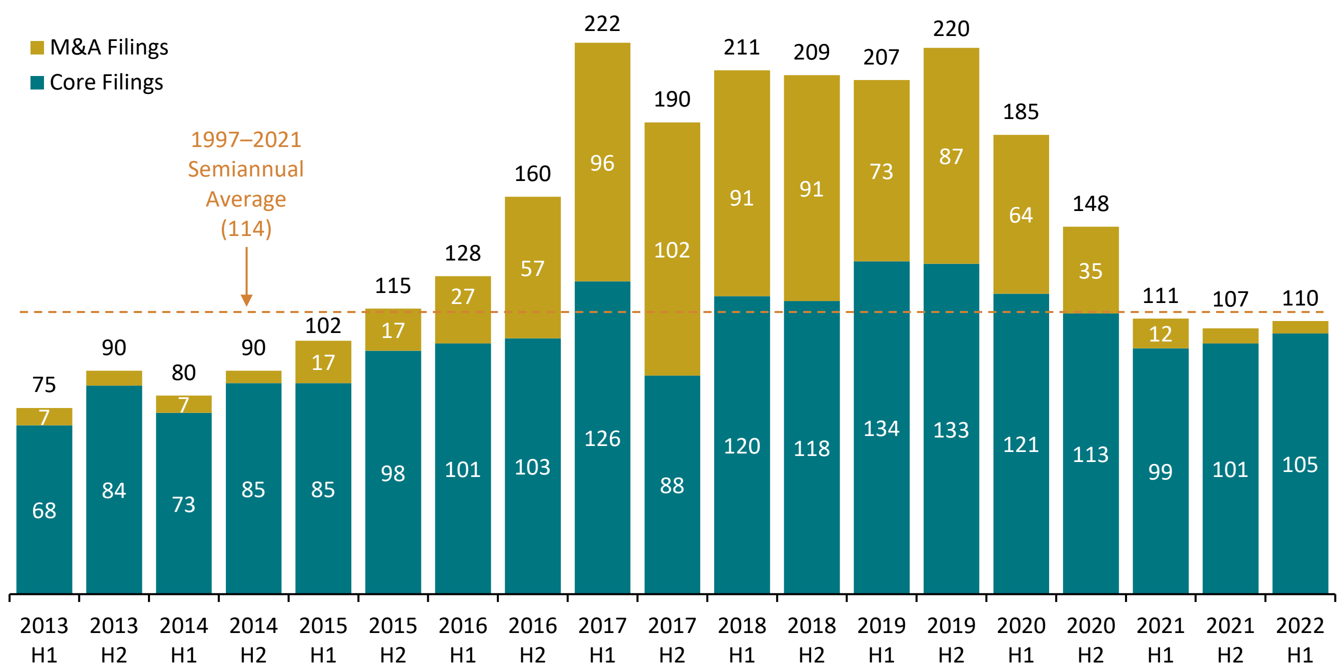
Number of Federal and State Filings

- Plaintiffs filed 110 securities class actions in the first half of 2022, 2.8% higher than the previous half-year's total of 107 filings. This is a deviation from the trend of filings declining since 2020, largely driven by decreases in M&A and federal Section 11 and state 1933 Act filings, and suggests a plateau in filings over the last three semiannual periods.
- Semiannual M&A filings remained low, decreasing from six in 2021 H2 to five in 2022 H1. This 2022 figure represents a 92% decrease from the semiannual M&A filing average over the last five years.
- After remaining relatively constant in 2021 H1 and H2 (at 99 and 101 filings, respectively), core filings slightly increased to 105 in 2022 H1.

Total filing activity increased slightly in 2022 H1 relative to 2021 H2, but was still below the semiannual average.

- As discussed in Figures 14 and 16, the increase in core filings in 2018–2020 between the *Cyan* and *Sciabacucchi* decisions is explained by a temporary increase in state 1933 Act filing activity. Further, from 2019, the peak of the post-*Cyan*, pre-*Sciabacucchi*, to 2021, the first year post-*Sciabacucchi*, the number of state 1933 Act filings dropped 77%. If 2022 H1 trends continue, state 1933 Act filings will be only around 23% of their 2019 levels.

Figure 3: Class Action Filings Index® (CAF Index®) Semiannual Number of Class Action Filings
2013 H1–2022 H1



Note: This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. As a result, this figure's filing counts may not match those in Figures 18–21.

Summary of Trend Cases

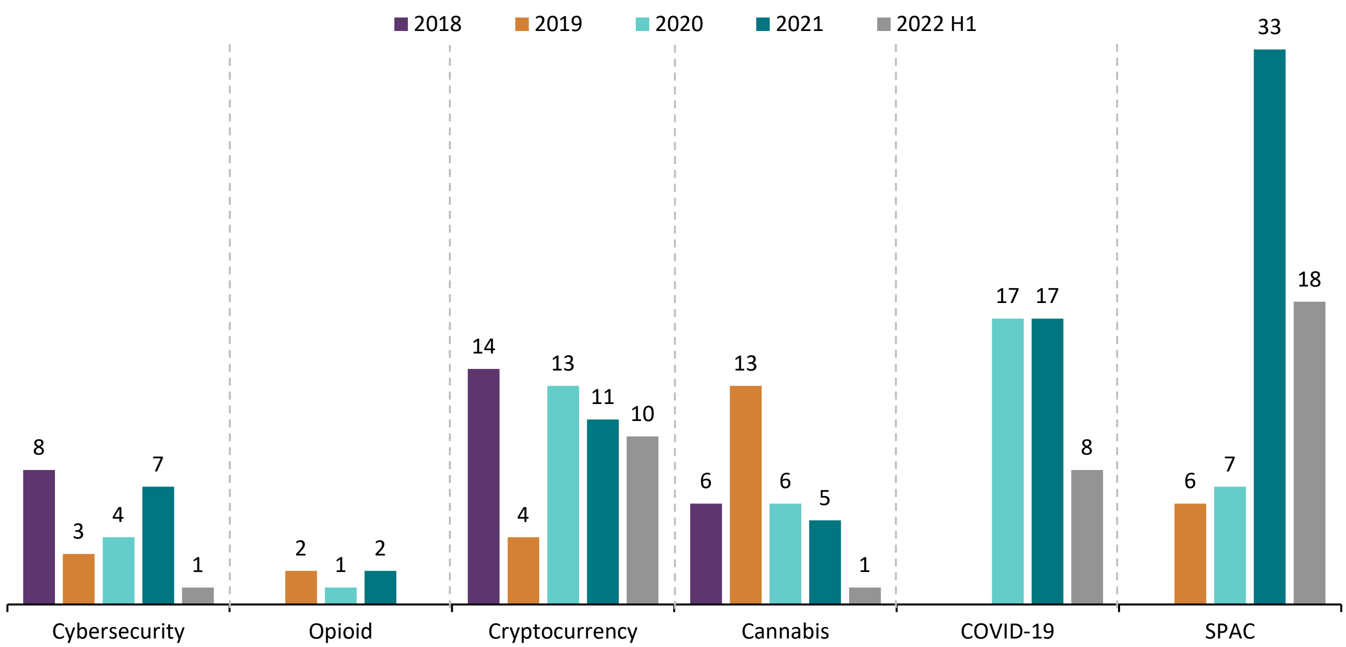
This figure highlights recent trends that have appeared in core filing activity.

- Cases concerning SPACs continued to be the dominant trend, with 18 filings in the first half of 2022, followed by cryptocurrency-related (10) and COVID-19-related (eight). SPAC cases are on pace to exceed 2021's all-time high of 33.
- Cryptocurrency-related filings remained elevated and are projected to be at an all-time high. Filings in this trend included suits against cryptocurrency exchanges and those against the coin issuers themselves. See Figure 5 for more detail.
- Half of the COVID-19 filings in 2022 H1 (four) involved the Healthcare and Biotechnology subsectors, three of which were filed in January.

COVID-19 filings have remained at a high level, while cryptocurrency-related and SPAC filings are on pace to exceed previous years. Other trends have continued to decline.

- No new opioid cases have been filed since June 2021.
- Cannabis filings continued to decrease, reaching their lowest point since 2016.
- Cybersecurity filings are on pace to decrease by over 71%, with only one filing so far this year.

Figure 4: Summary of Trend Cases—Core Federal Filings
2018–2022 H1



Note: M&A SPAC filings are excluded from this exhibit. There were five, two, one, and one such filing in 2019, 2020, 2021, and 2022, respectively. See Additional Notes to Figures for trend definitions and more detailed information.

New: Summary of Cryptocurrency-Related Filings

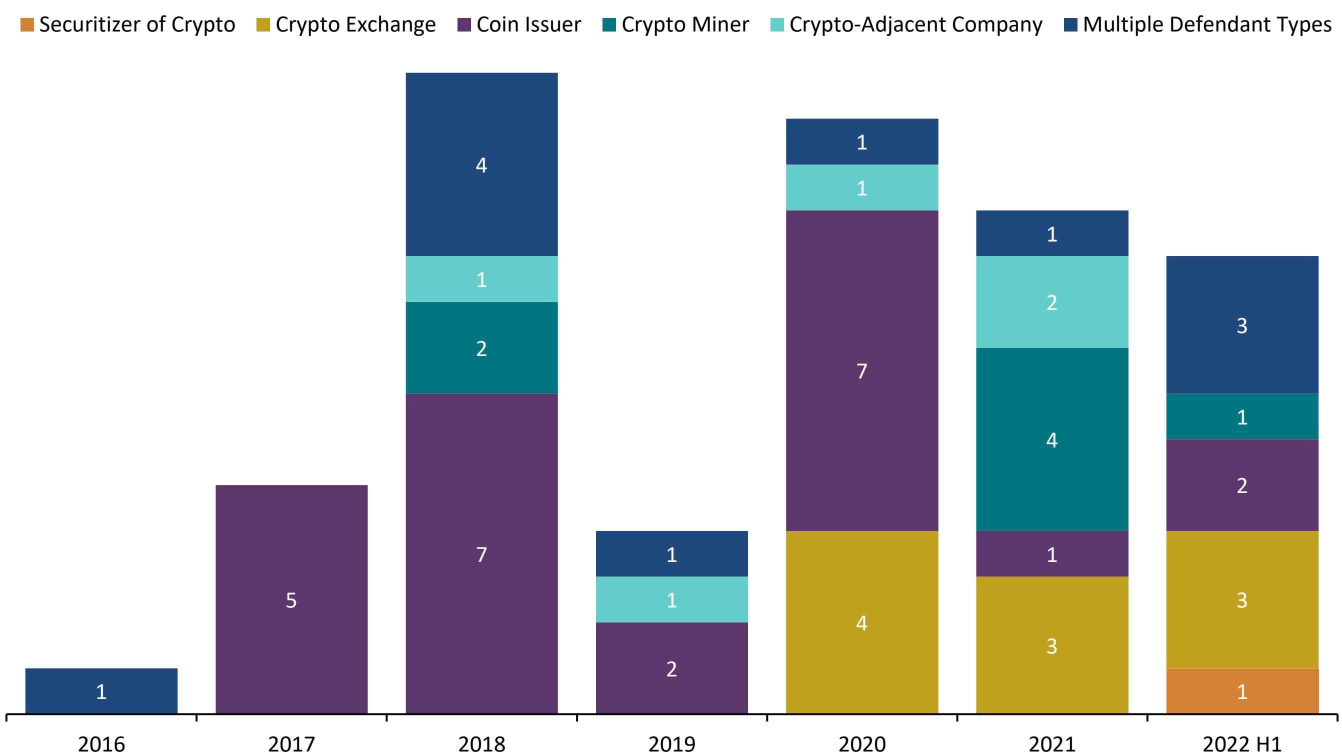
This figure categorizes cryptocurrency-related filings since 2016 by defendant type, including, but not limited to, coin issuers, cryptocurrency exchanges, cryptocurrency miners, securitizers of cryptocurrencies or cryptocurrency mining contracts, and companies adjacent to cryptocurrency.

- Cryptocurrency-related filings are on pace to exceed 2021 totals as regulatory oversight has increased.
- From 2016 to 2020, 73% of cryptocurrency-related filings included allegations concerning cryptocurrency issuances. This figure dropped sharply to 19% of cryptocurrency-related filings including coin issuance allegations in 2021 and 2022.

Cryptocurrency-related filings have been filed against an increasingly diverse pool of defendant types.

- From 2016 to 2019, only 8% of cryptocurrency-related cases included allegations concerning cryptocurrency exchanges. Thereafter, 44% of cryptocurrency-related cases have had these allegations.
- There have already been three filings in 2022 with allegations related to cryptocurrency securitization, two of which are included in the "Multiple Defendant Types" category in the figure below. Prior to 2022, there had been no such filings since 2016.

Figure 5: Summary of Cryptocurrency-Related Filings—Core Federal Filings
2016–2022 H1



Note: Crypto-Adjacent Companies include companies selling mining rigs and chips, companies attempting to enter the cryptocurrency space, and companies partnering with cryptocurrency companies to provide services. "Multiple Defendant Types" refers to primary defendants operating in two or more of the categories.

Industry Comparison of Federal SPAC Filings

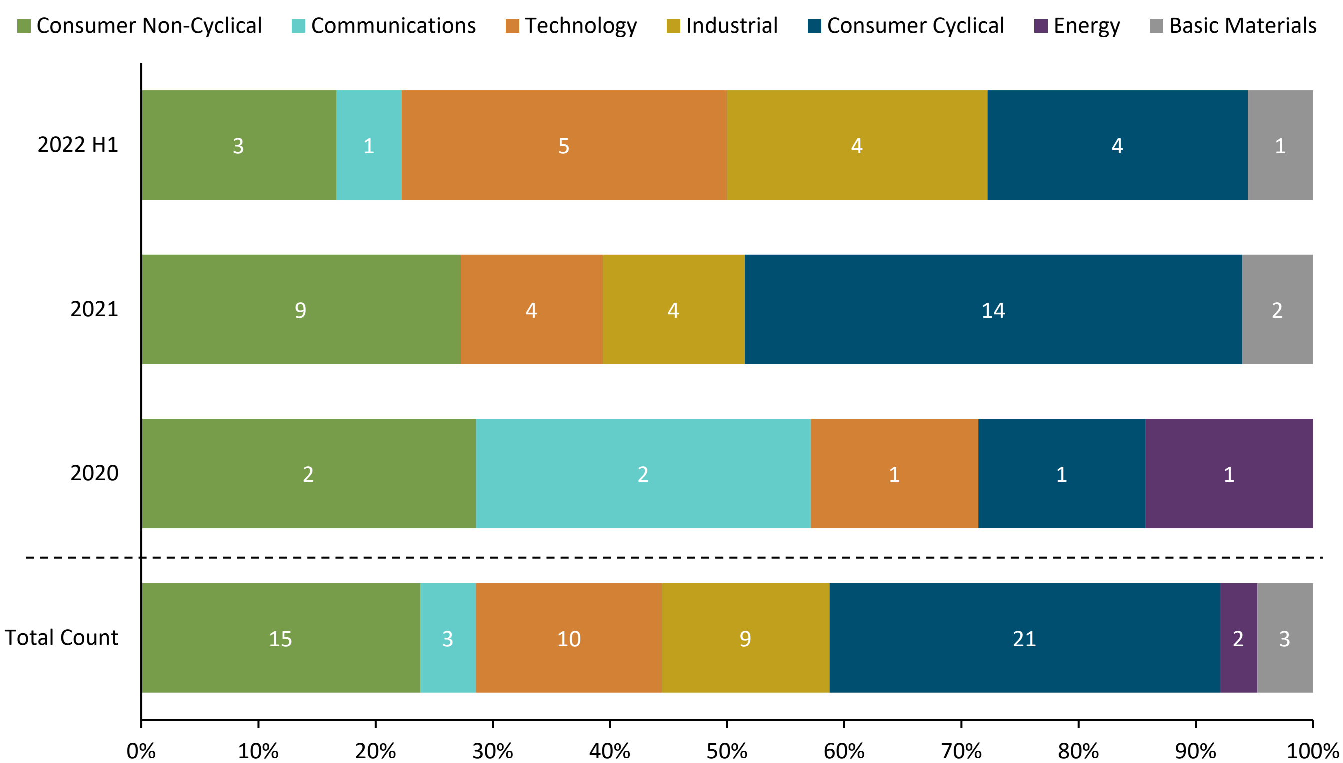
This analysis examines the industry composition associated with the substantial increase in federal filings against current and former SPACs observed over the last several years.

- Filings against former SPACs in the Technology sector (five) substantially increased in 2022 H1, already surpassing last year's total of four, and continuing an upward trend begun in 2020. These filings have been in the Computers (two filings) and Software (three filings) subsectors.
- Three of the four SPAC Consumer Cyclical filings in 2022 had a subsector classification of Auto Manufacturers or Auto Parts & Equipment, a decline from 10 such filings in 2021. The fourth Consumer Cyclical filing was in the Airlines subsector.

Technology-focused SPAC filings continued to increase, already surpassing last year's total.

- Consumer Non-Cyclical SPAC filings also declined in 2022 H1 and were evenly spread across the following subsectors: Commercial Services, Healthcare – Products, and Healthcare – Services.
- The sole Communications sector filing in 2022 was in the Internet subsector, further indicating a focus on technology-related former SPACs.
- Industrial SPAC filings increased from 2020 to 2021 and, if the current trend continues, would reach their highest annual count on record in 2022.

Figure 6: Filings by Industry—All Federal SPAC Filings



Note: Both M&A and core SPAC filings are included in this exhibit. Filings with missing sector information or infrequently used sectors are excluded; as a result, yearly counts may not match Figures 4 or 8–9. SPAC filings concern companies that went public for the express purpose of acquiring an existing company in the future. SPAC filings include current and former SPACs. Sectors are based on the Bloomberg Industry Classification System.

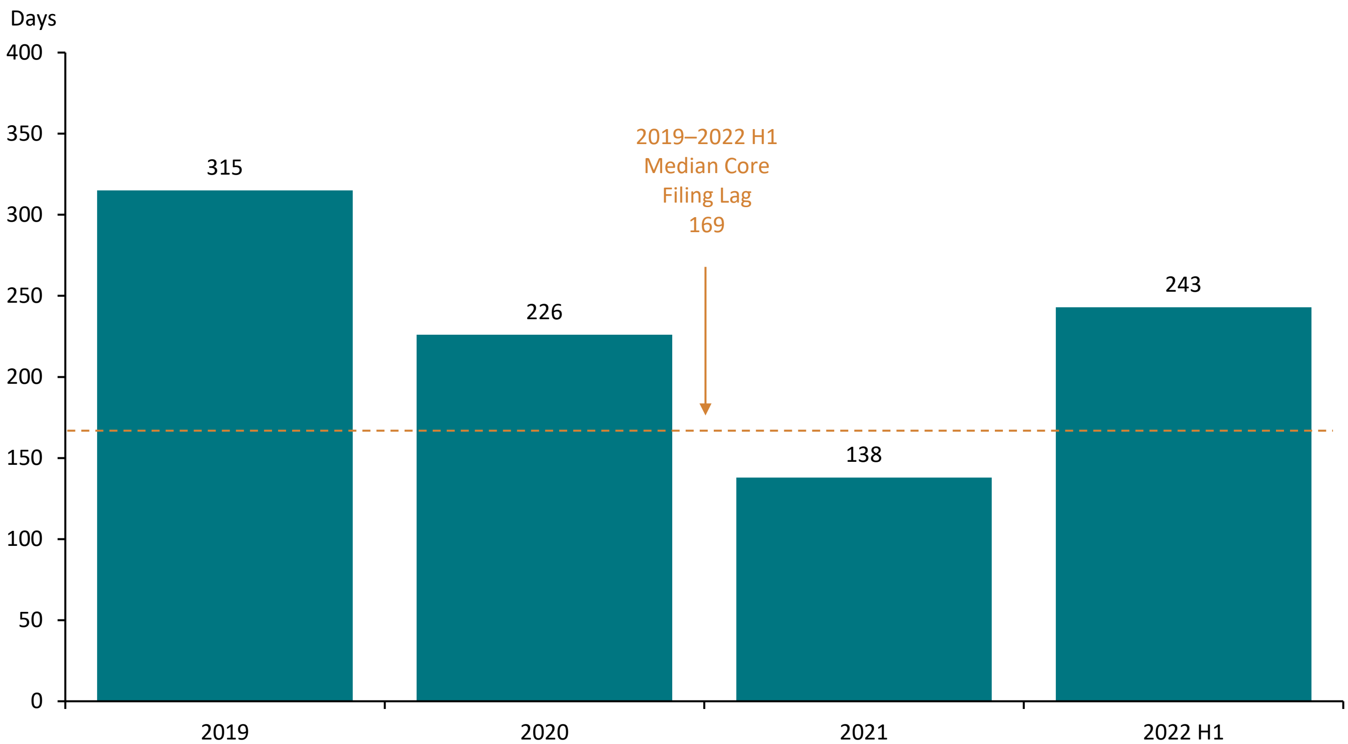
Lag between De-SPAC Transaction and Core Federal Filings

This analysis reviews the median number of days between the closing date of the SPAC merger transaction (De-SPAC Transaction) and the filing date of a core federal securities class action.

- The median filing lag after a De-SPAC Transaction was 243 days in 2022 H1, a substantial increase over the median filing lag in 2021 (138 days) and comparable with the typical filing lag after an IPO (289 days).[1]
- Only the median filing lag in 2021 was below the median filing lag over the three-and-a-half-year period from 2019 to 2022 H1.
- Since 2019, the longest lag between completing the De-SPAC Transaction and the filing date of a core federal securities class action has been 2.7 years.

Core federal SPAC filings are on pace to have the highest median filing lag since 2019.

Figure 7: Median Lag between De-SPAC Transaction and Core Federal SPAC Filings
2019–2022 H1



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; *SPAC Insider*

Note: SPAC filings concern companies that went public for the express purpose of acquiring an existing company in the future. These include current and former SPACs. Federal M&A SPAC filings are not considered, as they typically occur before the closing date of the De-SPAC Transaction. Additionally, filings against SPACs that did not complete the merger transactions referenced in the filing are excluded from the filing lag comparison. Year refers to the year in which the complaint was filed. See Additional Notes to Figures for more detailed information.

[1] See *Securities Class Action Filings—2021 Year in Review*, Figure 23.

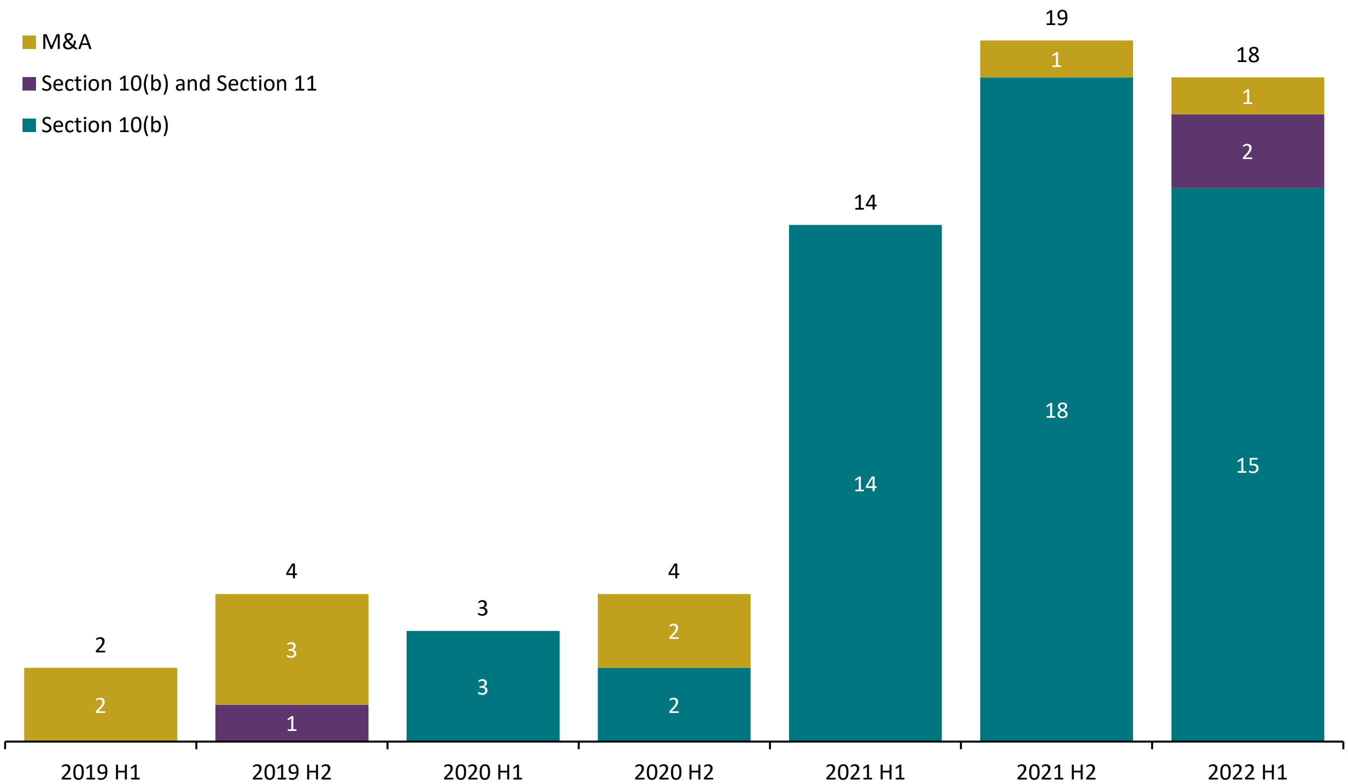
Federal SPAC Filing Allegations

The figure below illustrates how the types of allegations in filings against current and former SPACs have changed over time. Allegations are based on the first identified complaints.

The SPAC core litigation rate over the last three and a half years is approximately 16%—slightly lower than the cumulative core litigation rate for public companies in the first four years after IPOs.

- According to *SPAC Insider*, as of June 30, 2022, 341 SPAC merger transactions have closed since the start of 2019. Over this same period, there have been 55 core federal SPAC filings. This equates to a litigation rate of about 16%, slightly lower than the cumulative core litigation rate that newly public issuers have faced in the first four years after an initial public offering (IPO).[1]
- The pace of filings against SPACs over the last three semiannual periods appears to have stabilized at an elevated rate (average of 17 filings).
- Federal SPAC filings with Section 11 allegations (two) have reappeared for the first time since 2019 H2.
- Filings with Section 14 allegations remain rare, comprising just 6% of 2022 H1 federal SPAC filings, down from 54% of 2019–2020 filings.

Figure 8: Federal SPAC Filing Allegations
2019 H1–2022 H1



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; *SPAC Insider*

Note: SPAC filings concern companies that went public for the express purpose of acquiring an existing company in the future. These include current and former SPACs.

[1] See *Securities Class Action Filings—2020 Year in Review*, Figure 25.

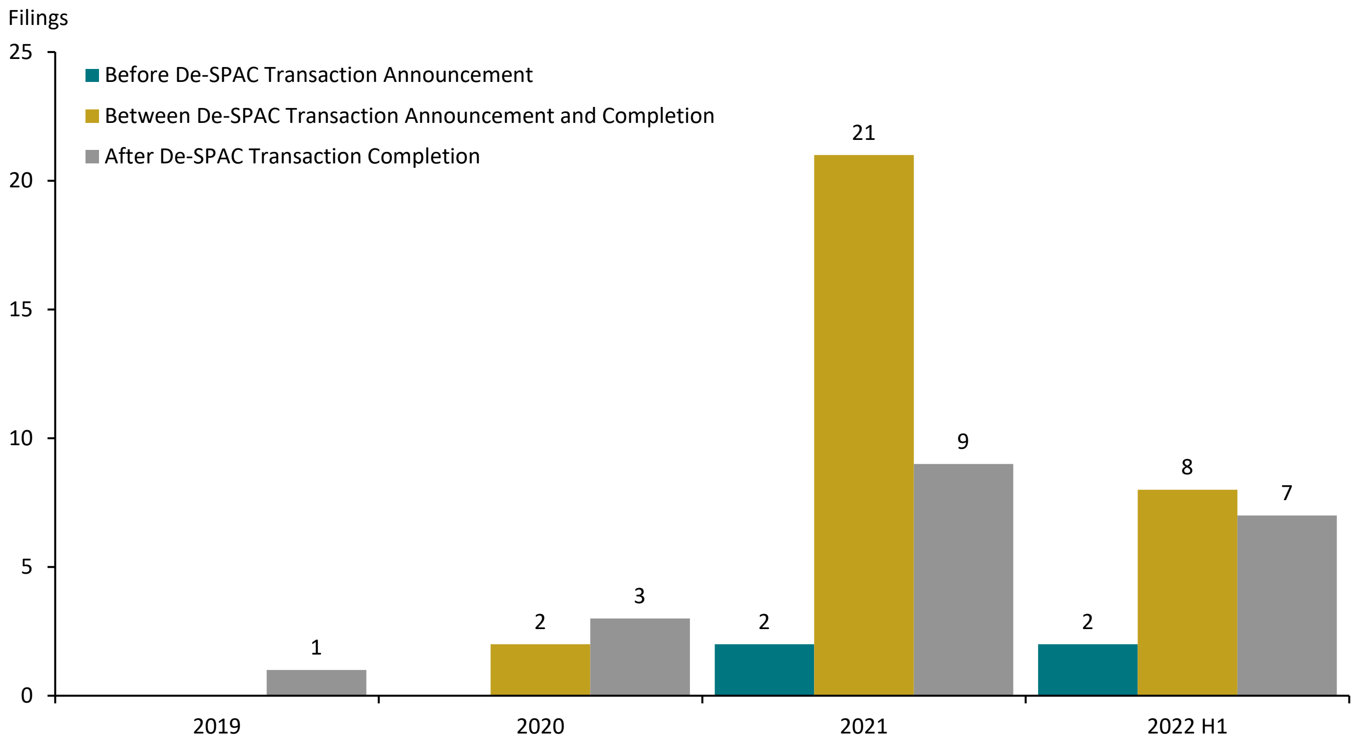
SPAC Filing Class Period Start Date Analysis

The following figure shows the relationship among all core federal SPAC filings between their alleged class period start dates and their respective De-SPAC Transaction announcement and completion dates.

Since 2019, 56% of all core federal SPAC filings alleged a class period start date between the De-SPAC Transaction announcement date and the completion of the transaction.

- If 2022 H1 trends continue, filings alleging a class period start date before the De-SPAC Transaction announcement date will be twice as common in 2022 as they were in 2021.
- Overall, 2022 is on pace to surpass 2021 in the total number of core federal SPAC filings. However, in 2021, 6%, 66%, and 28% of such filings alleged class period start dates *before* the De-SPAC Transaction announcement, *between* the De-SPAC Transaction announcement and completion, and *after* the De-SPAC Transaction completion date, respectively; in 2022 H1, those ratios shifted slightly, to 12%, 47%, and 41%, respectively.

Figure 9: Core Federal SPAC Filing Class Period Start Date Analysis
2019–2022 H1



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; *SPAC Insider*

Note: M&A SPAC filings are excluded from this exhibit. SPAC filings concern companies that went public for the express purpose of acquiring an existing company in the future. These include current and former SPACs.

Market Capitalization Losses for Federal and State Filings

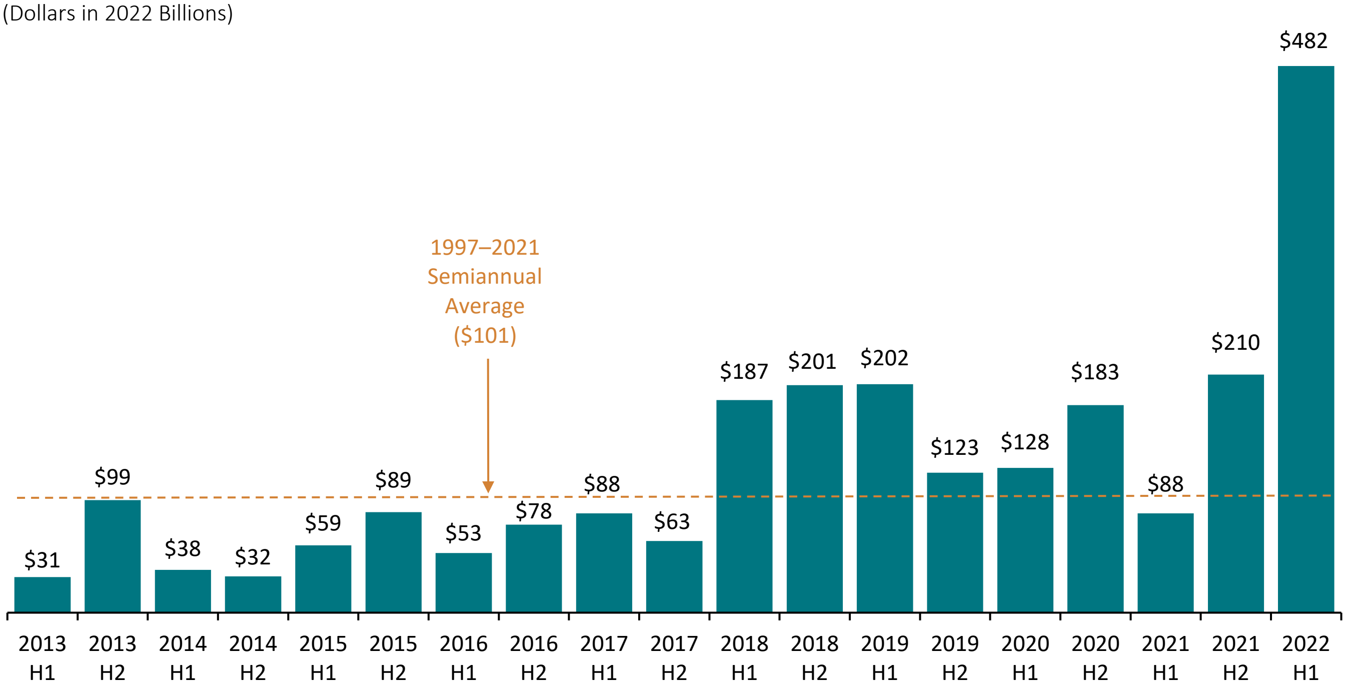
Disclosure Dollar Loss Index® (DDL Index®)

This index measures the aggregate annual DDL for all federal and state filings. DDL is the dollar-value change in the defendant firm's market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period. In response to recent substantial increases in inflation, reported numbers are inflation-adjusted to 2022 dollars. See the Glossary for additional discussion on market capitalization losses and DDL.

The DDL Index spiked to an inflation-adjusted all-time high, more than quadrupling the semiannual average.

- The DDL Index spiked to $482 billion in 2022 H1, more than doubling 2021 H2 and significantly above its previous all-time high of $280 billion in 2000 H1. This represents the largest total increase on record. The DDL in 2022 H1 more than quadrupled the 1997–2021 average of $101 billion.
- The sector with the highest share of state and federal DDL in 2022 H1 was Communications (74%), even though this sector comprised only 9% of core filings.
- Three Communications filings against internet companies in 2022 alone represented 113% of the total 2021 DDL. See Appendix 1 for DDL Index information.

Figure 10: Disclosure Dollar Loss Index® (DDL Index®)
2013 H1–2022 H1
(Dollars in 2022 Billions)



Note: This figure begins including DDL associated with state 1933 Act filings in 2010. As a result, this figure's DDL Index will not match those in Appendices 3 or 4. DDL associated with parallel class actions is only counted once. The numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.

Maximum Dollar Loss Index® (MDL Index®)

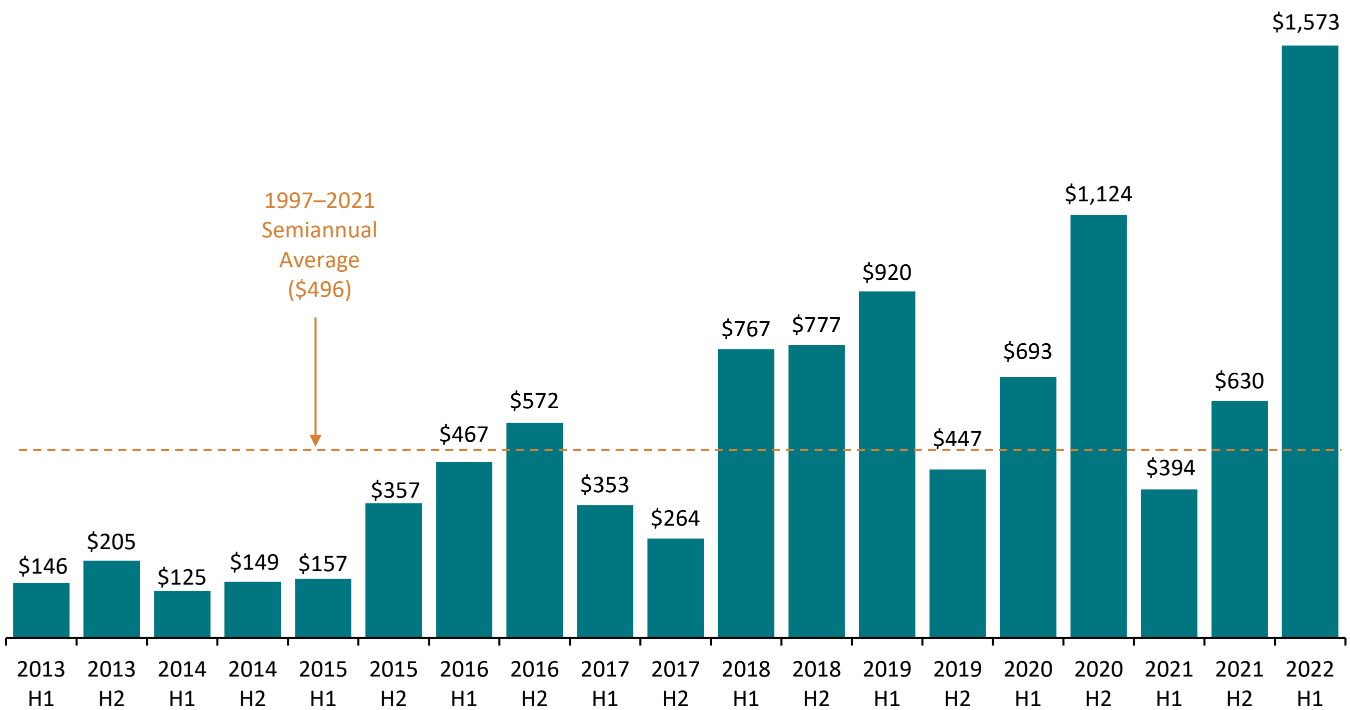
This index measures the aggregate annual MDL for all federal and state filings. MDL is the dollar-value change in the defendant firm's market capitalization from the trading day with the highest market capitalization during the class period to the trading day immediately following the end of the class period. In response to recent substantial increases in inflation, reported numbers are inflation-adjusted to 2022 dollars. See the Glossary for additional discussion on market capitalization losses and MDL.

- The MDL Index rose 150% to $1,573 billion in the first half of 2022, more than tripling the 1997–2021 semiannual average.
- The largest contributor to the MDL Index was the Communications sector, which comprised 57% of total MDL, even though this sector represented only 9% of core filings. Filings against three prominent internet companies in the Communications sector alone amounted to 53% of total MDL.
- See Appendix 1 for MDL totals and averages from 1997 H1 to 2022 H1.

The MDL Index rose to an inflation-adjusted two-decade high, representing a nearly 150% increase from 2021 H2 and more than tripling the semiannual average.

Figure 11: Maximum Dollar Loss Index® (MDL Index®)
2013 H1–2022 H1

(Dollars in 2022 Billions)



Note: This figure begins including MDL associated with state 1933 Act filings in 2010. As a result, this figure's MDL Index will not match those in Appendices 3 or 4. MDL associated with parallel class actions is only counted once. The numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.

Mega Filings

Mega DDL filings have a DDL of at least $5 billion. Mega MDL filings have an MDL of at least $10 billion. MDL and DDL are inflation-adjusted to 2022 dollars.

- The number of mega DDL filings has increased dramatically, with 12 filings already in the first half of 2022, compared to 13 in all of 2021. Similarly, total DDL from mega filings has already increased by $251 billion (139%) from 2021.
- So far there have been 18 mega MDL filings in 2022 compared to 24 in 2021. Total MDL for mega filings has increased by 94%, from $718 billion to $1,394 billion, and is already 184% of the 1997–2021 yearly average of $759 billion.
- The 2022 H1 percentages of total DDL and MDL represented by mega filings are at a record and two-decade high, respectively, far exceeding their historical averages (both at 89% compared to 61% and 77%, respectively).
- In 2022 so far, the Communications sector has made up 28% of total mega MDL filings (five) and 64% of total mega MDL ($886 billion).
- Over half of core federal filings in the Communications sector in 2022 H1 where MDL and DDL could be computed were mega filings (five of eight for both MDL and DDL), with a sector average MDL of $112 billion and a sector average DDL of $45 billion. By comparison, the Consumer Non-Cyclical sector (also with five mega MDL filings) had a sector average MDL per filing of $6 billion.

The number and total index value of mega DDL and MDL are on pace to be at historic highs in 2022.

Figure 12: Mega Filings

	Average 1997–2021	2020	2021	2022 H1
Mega Disclosure Dollar Loss (DDL) Filings[1]				
Mega DDL Filings	8	14	13	12
Mega DDL ($ Billions)	$123	$202	$180	$431
Percentage of Total DDL	61%	65%	61%	89%
Mega Maximum Dollar Loss (MDL) Filings[2]				
Mega MDL Filings	19	33	24	18
Mega MDL ($ Billions)	$759	$1,542	$718	$1,394
Percentage of Total MDL	77%	85%	70%	89%

Note:

1. This figure begins including MDL associated with state 1933 Act filings in 2010. As a result, this figure's DDL Index will not match those in Appendices 3 or 4. MDL associated with parallel class actions is only counted once.

2. There are filings for which data are not available to estimate MDL and DDL accurately. These core filings are excluded from MDL and DDL analysis and counts.

3. Mega DDL filings have a disclosure dollar loss of at least $5 billion.

4. Mega MDL filings have a maximum dollar loss of at least $10 billion.

5. The numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.

U.S. Exchange-Listed Companies

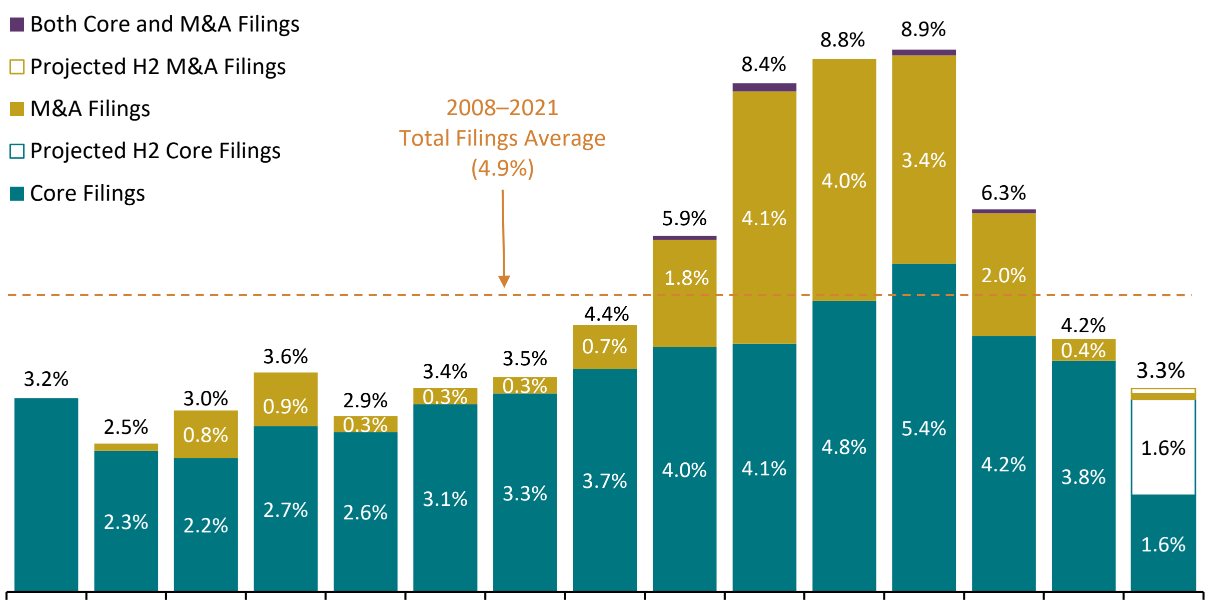
The percentage of companies subject to core and M&A filings is calculated as the unique number of companies listed on the NYSE or Nasdaq subject to federal or state securities fraud class actions in a given year divided by the unique number of companies listed on the NYSE or Nasdaq in the same year.

- At the current pace, only 3.3% of companies listed on major U.S. exchanges will become subject to a core or M&A filing in 2022. This is the third consecutive year with a decrease in the percentage of companies subject to such filings, and represents a large decline from 2016–2020 levels.
- The percentage of U.S. exchange-listed companies subject to a core filing in 2022 H1 was 1.6%, largely because of a 21% increase in the number of exchange-listed firms. If this trend continues, this percentage exposure would be the lowest since 2013.

The percentage of U.S. exchange-listed companies subject to core federal or state filings is on track to be at the lowest level since 2013.

- In 2022 H1, the percentage of U.S. exchange-listed companies subject to an M&A filing declined for the fourth straight year to just 0.1%, the lowest percentage since tracking of M&A cases began in 2009.

Figure 13: Percentage of U.S. Exchange-Listed Companies Subject to Federal or State Filings
2008–2022 H1



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number of Firms	5,339	5,042	4,764	4,660	4,529	4,411	4,416	4,578	4,593	4,411	4,406	4,318	4,514	4,759	5,741
Percent Change	(2.3%)	(5.6%)	(5.5%)	(2.2%)	(2.8%)	(2.6%)	0.1%	3.7%	0.3%	(4.0%)	(0.1%)	(2.0%)	4.5%	5.4%	20.6%

Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Center for Research in Security Prices (CRSP)

Note: This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. The figure begins including issuers facing suits in state 1933 Act filings in 2010. See Additional Notes to Figures for more detailed information.

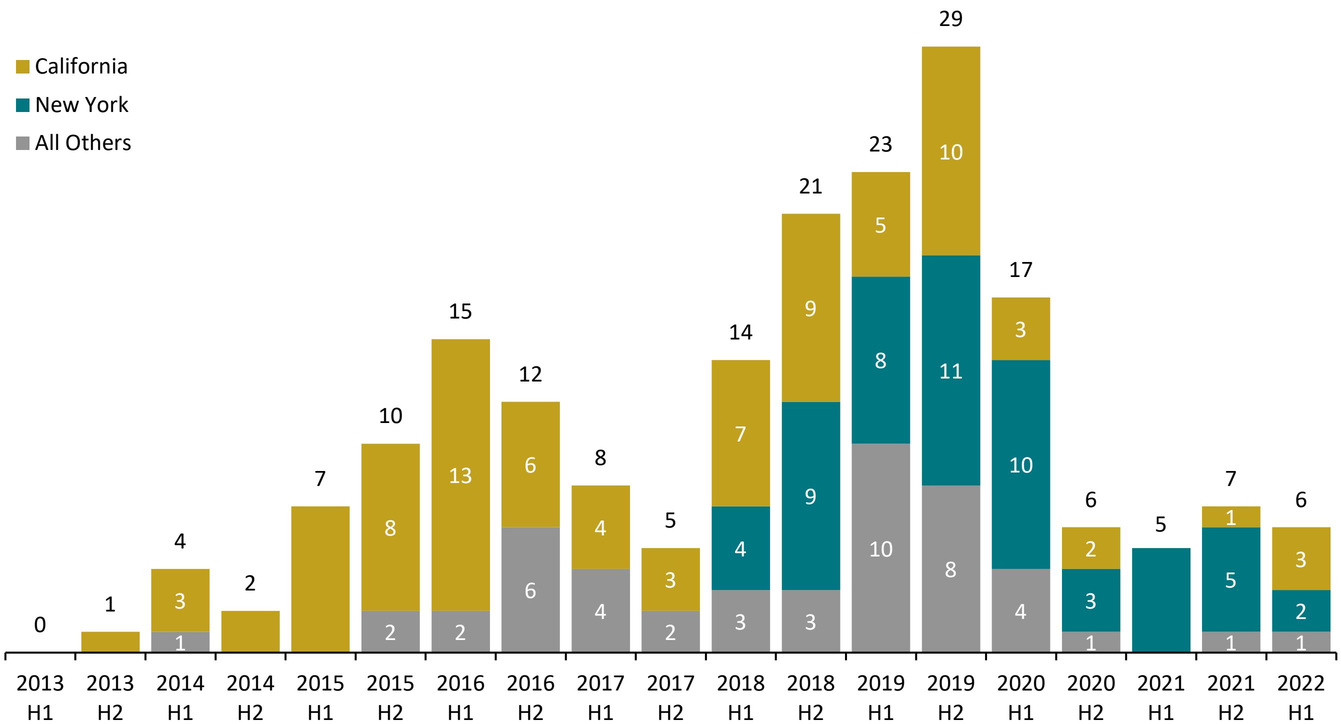
1933 Act Cases Filed in State Courts

The following data include 1933 Act filings in California, New York, and other state courts. Filings from prior years are added retrospectively when identified. These filings may include Section 11, Section 12, and Section 15 claims, but do not include Rule 10b-5 claims.

- Three of the six state 1933 Act claims in the first half of 2022 were filed in California—a marked increase from 2021 in which there was only one filing in California. However, these cases may ultimately be dismissed and filed in other jurisdictions due to the enforcement of federal forum selection provisions.
- Four of the six state 1933 Act filings in 2022 H1 were against companies in the Consumer Non-Cyclical sector while the other two were against companies in the Technology sector. Two of these Consumer sector filings were in the Healthcare – Services subsector.
- In the first half of 2022, five of the six 1933 Act filings were against U.S. companies, while one was against a company headquartered in Sweden, reversing the trend from 2021 in which nearly half of the issuers sued in state courts were not headquartered in the U.S.

The number of state 1933 Act filings in the first half of 2022 was consistent with the three prior semiannual periods and dramatically below 2018 H1–2020 H1 levels.

Figure 14: State 1933 Act Filings by State
2013 H1–2022 H1



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; ISS' SCAS

Note: This analysis counts all filings in state courts. It does not present data on a combined federal and state basis, nor does it identify or account for cases that have parallel filings in both state and federal courts. As a result, totals in this analysis may not match Figures 1–3, 16, or 17. See Additional Notes to Figures for more detailed information.

Dollar Loss on Offered Shares Index™ (DLOS Index™)

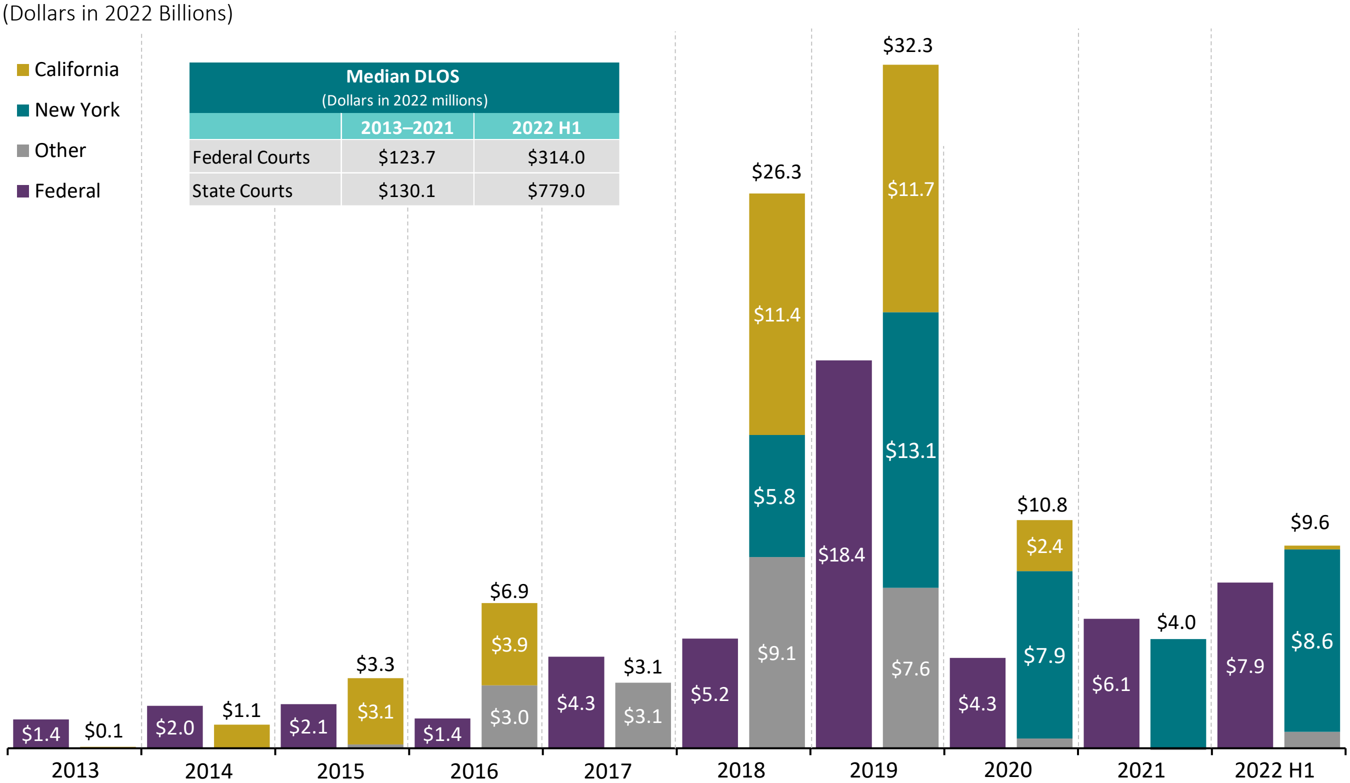
This analysis calculates the loss of market value of class members' shares offered in securities issuances that are subject to 1933 Act claims. It is calculated as the shares offered at issuance (e.g., in an IPO, a seasoned equity offering (SEO), or a corporate merger or spinoff) acquired by class members multiplied by the difference between the offering price of the shares and their price on the filing date of the first identified complaint. In response to recent substantial increases in inflation, reported numbers are inflation-adjusted to 2022 dollars.

This alternative measure of losses has been calculated for federal filings involving only Section 11 claims (i.e., no Section 10(b) claims) and 1933 Act filings in state courts. This measure, Dollar Loss on Offered Shares (DLOS), aims to capture, more precisely than MDL, the dollar loss associated with the specific shares at issue as alleged in a complaint.

The 2022 H1 DLOS Indices for federal Section 11 and state 1933 Act filings are already higher than those for all of 2021.

- Filings in New York state courts have been the main source of state DLOS since 2020. The share of DLOS attributable to New York was 90% in 2022 H1, 100% in 2021, and 73% in 2020.
- The median DLOS in federal courts in the first half of 2022 was more than twice the historical median while the median DLOS in state courts in the first half of 2022 was almost six times the historical median.
- Beginning in 2018 (and excepting 2021) total DLOS has been higher in state 1933 Act filings than in federal Section 11–only filings.

Figure 15: Dollar Loss on Offered Shares Index™ (DLOS Index™) for Federal Section 11–Only and State 1933 Act Filings 2013–2022 H1
(Dollars in 2022 Billions)



Median DLOS (Dollars in 2022 millions)		
	2013–2021	2022 H1
Federal Courts	$123.7	$314.0
State Courts	$130.1	$779.0

Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; ISS' SCAS; CRSP; SEC EDGAR
Note: See Additional Notes to Figures for more detailed information.

Comparison of Federal Section 11 Filings and State 1933 Act Filings

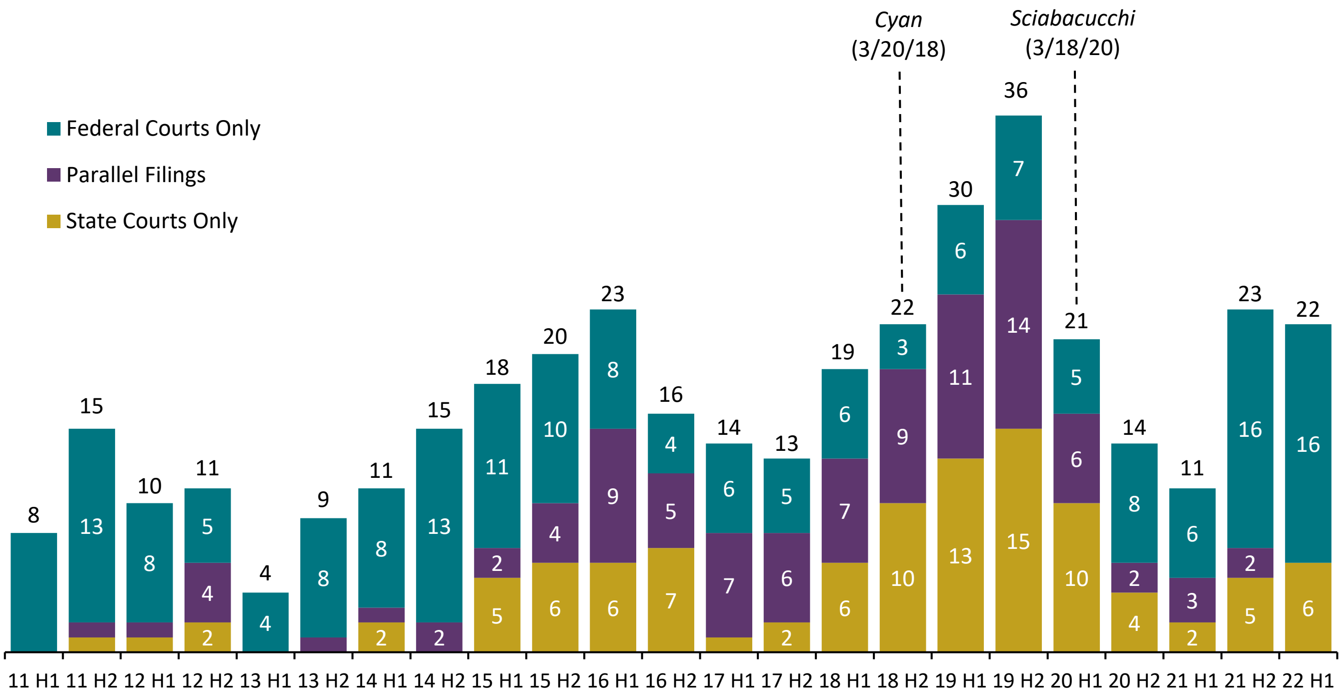
The figure below is a combined measure of Section 11 filing activity in federal courts and 1933 Act filings in state courts. It highlights parallel (or related) class actions in federal and state courts.

- Federal Section 11 and state 1933 Act filing activity in 2022 H1 remained stable relative to 2021 H2, down only 4% overall.
- Post-*Sciabacucchi* (2020 H1–2022 H2), federal-only filings rose to 58% of total Section 11 and state 1933 Act filings, more than triple the 18% during the *Cyan-Sciabacucchi* interim period (2018 H1–2019 H2).
- The share of state-only filings dropped to 30% post-*Sciabacucchi*, compared to an interim period figure of 41%. These levels are still considerably elevated relative to the pre-*Cyan* (2011 H1–2017 H2) share of just 18%.

Federal-only Section 11 filings in 2022 H1 accounted for 73% of total federal Section 11 filings and state 1933 Act filings, the highest share since 2014 H2.

- The share of parallel filings continued to decline post-*Sciabacucchi*, as 2022 H1 marked the first semiannual period since 2013 H1 when no such filings were observed. Post-*Sciabacucchi*, parallel filings comprised just 12% of total Section 11 and 1933 Act filings, down considerably from the 40% observed in the interim period, and even below the 22% observed pre-*Cyan*.
- Only 27% of total Section 11 and state 1933 Act filings were brought in state court in 2022 H1, with or without a parallel filing. This is the lowest level since 2014 H2 and continues the decline since its peak at 86% in 2018 H2.

Figure 16: Semiannual Federal Section 11 and State 1933 Act Filings
2011 H1–2022 H1



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; ISS' SCAS
Note: See Additional Notes to Figures for more detailed information.

Type of Security Issuance Underlying Federal Section 11 and State 1933 Act Filings

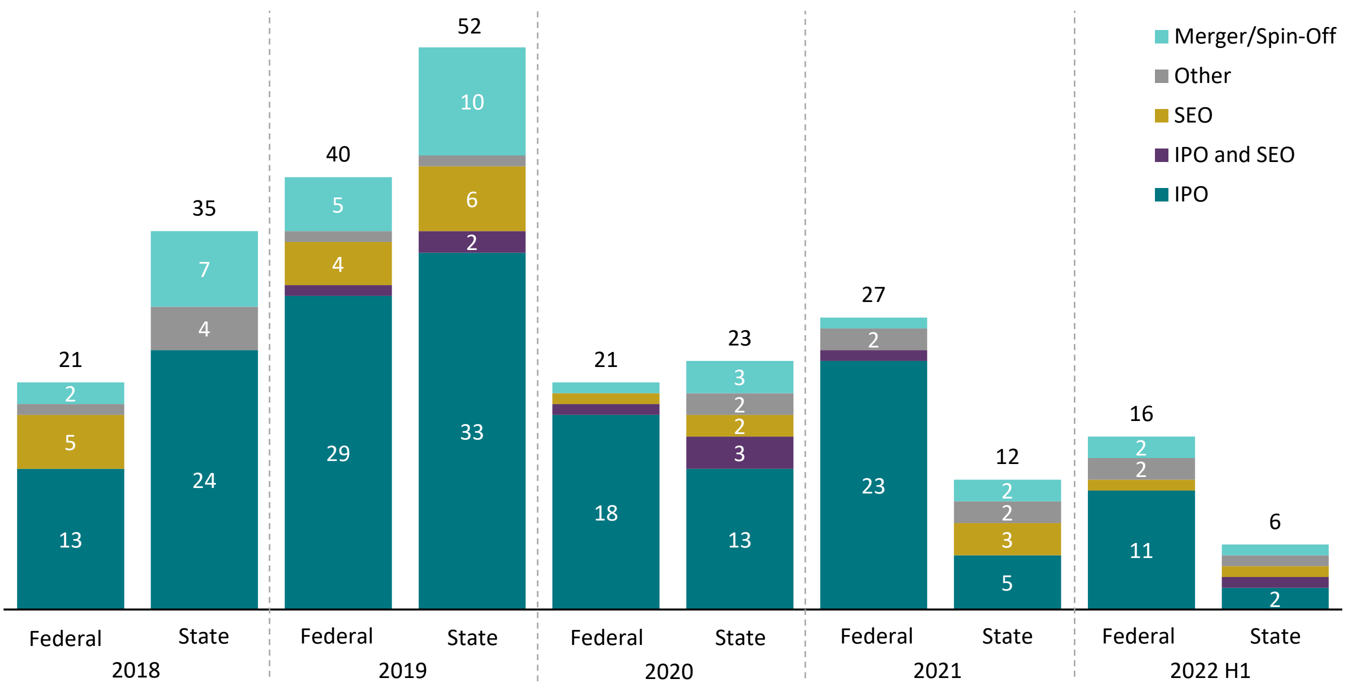
The figure below illustrates Section 11 claims in federal courts and 1933 Act claims in state courts based on the type of security issuance underlying the lawsuit.

- IPOs accounted for 69% of federal Section 11 filings in the first half of 2022, while state 1933 Act filings were more evenly spread across issuance types.

Claims based on IPO issuances were predominant in 2022 H1 federal Section 11 and state 1933 Act filings.

- Filings related to mergers or spin-offs remained at low levels in the first half of 2022, with two filings in federal court and one in state court.
- Filings based on both an IPO and an SEO remained relatively low, consistent with recent trends.
- One filing in state court was related to an unregistered offering of "digital tokenized assets" in 2022 H1 and was characterized as "Other."
- The two "Other" federal Section 11 filings were related to allegations against issuances of exchange-traded funds (ETFs) and bonds, respectively.

Figure 17: Federal Section 11 and State 1933 Act Class Action Filings by Type of Security Issuance
2018–2022 H1



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; ISS' SCAS

Note: This analysis compares all Section 11 filings in federal courts with all 1933 Act filings in state courts. It does not present data on a combined federal and state basis, nor does it identify or account for cases that have parallel filings in both state and federal courts. As a result, this figure's filing counts may not match Figures 1–3, 14, or 16. See Additional Notes to Figures for more detailed information.

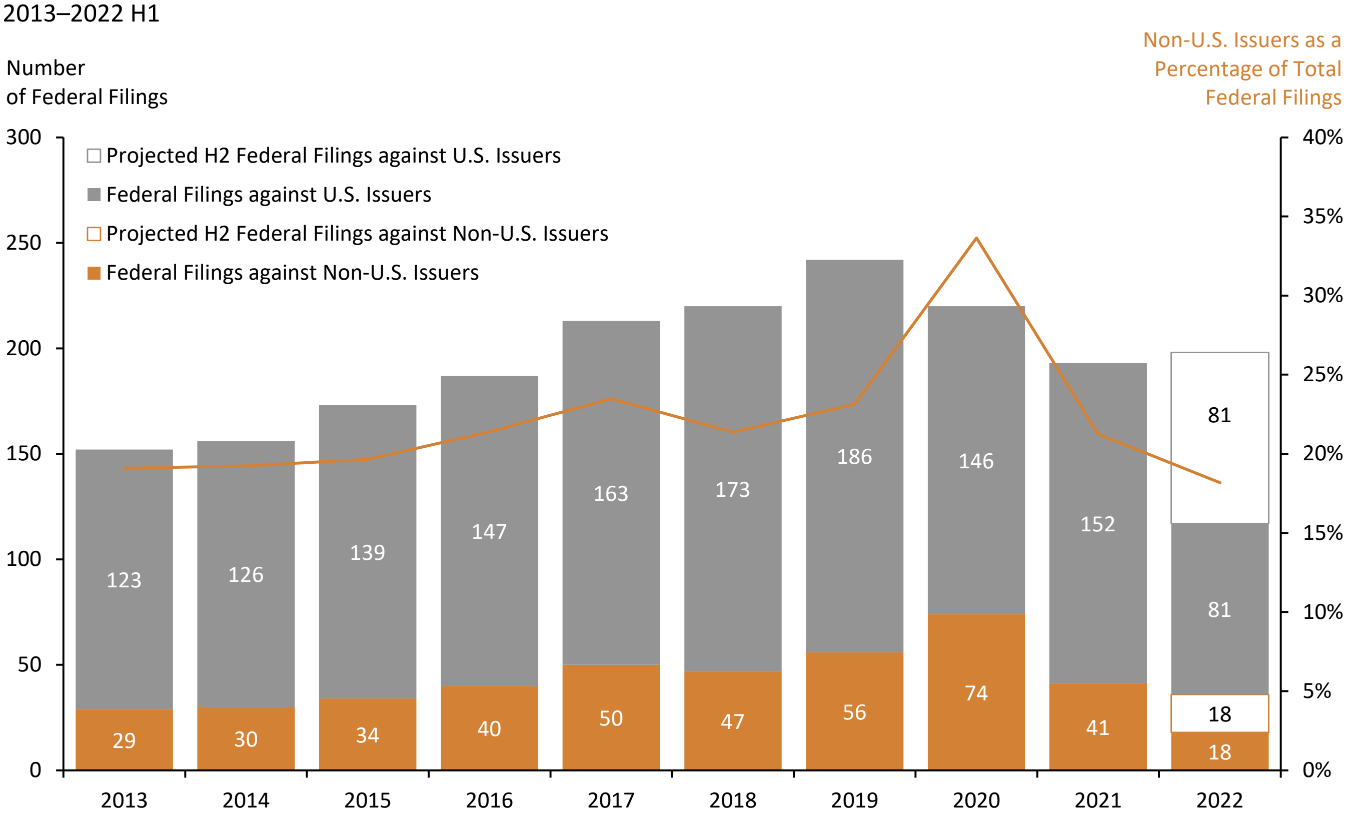
Non-U.S. Core Federal Filings

This index tracks the number of core federal filings against companies headquartered outside the United States relative to total core federal filings.

- At the current pace, the number of filings against non-U.S. issuers would continue its recent decline after gradually trending upwards since 2013. While on pace to reach only 36, or just under half its record high of 74 in 2020, the number of core federal filings against non-U.S. issuers in 2022 would be consistent with the 2012–2016 average of 33.
- As a percentage of total core federal filings, core federal filings against non-U.S. issuers decreased from 21% in 2021 to 18% in 2022 H1. This two-year drop from 2020 represents a reversion back to 2012–2016 levels, when the average was 20%.

The number of federal filings against non-U.S. issuers is on track to be less than half of 2020's record high of 74, but similar to the 2012–2016 average of 33.

Figure 18: Annual Number of Class Action Filings by Location of Headquarters—Core Federal Filings
2013–2022 H1

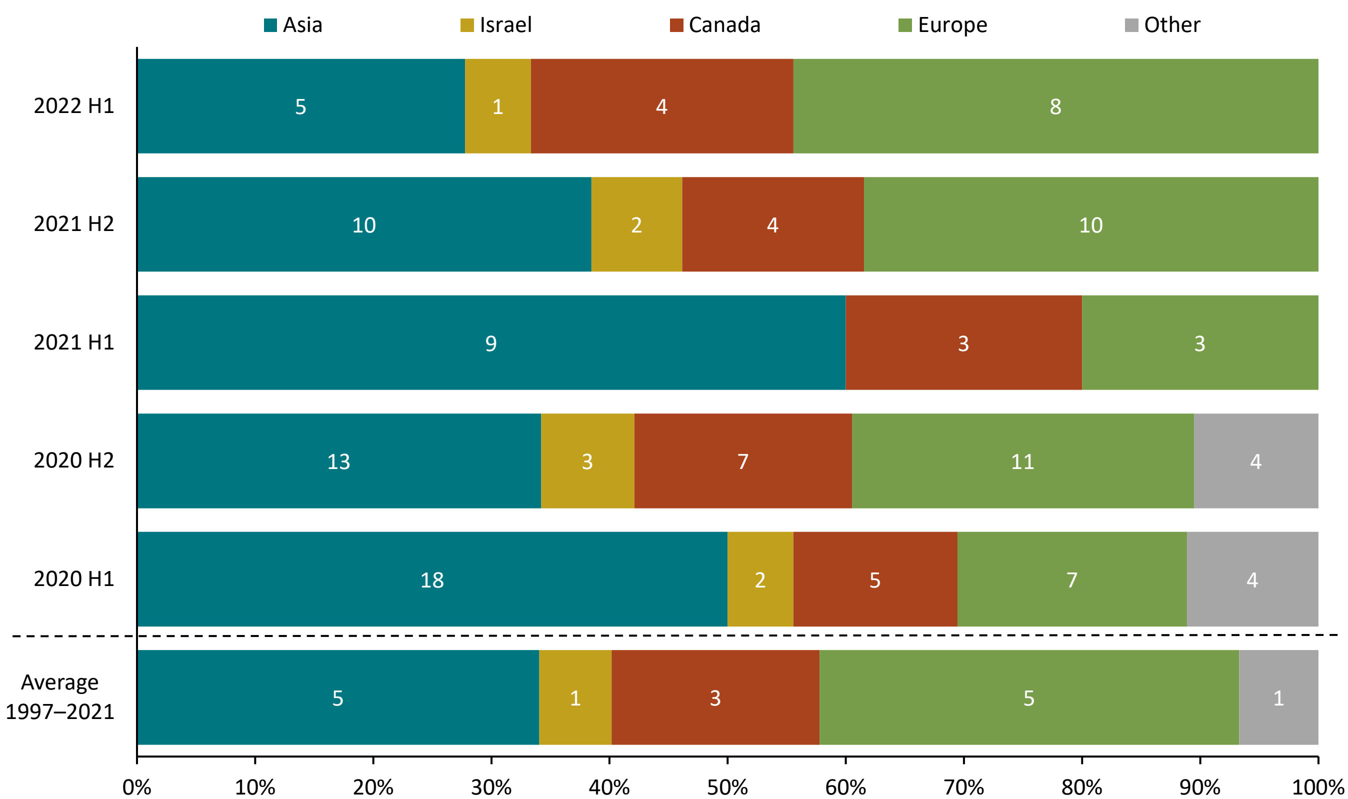


Note: This analysis only considers core federal filings. It does not present M&A cases or combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In those analyses, when parallel cases are filed in different years, only the earlier filing date is reflected in the analysis. As a result, this figure's filing counts may not match Figures 1–3, 13, 16, 17, or Appendix 1.

- Four of the 18 core filings against non-U.S. firms included allegations related to SPACs.
- Three of the five core filings against Asian firms were against Chinese firms that focus on education. Asian firms made up 28% of 2022 H1 core federal filings, the lowest proportion since 2017 H1.
- Overall, this year's filing counts are fairly in line with historic averages, with all regions within three filings of their respective 1997–2021 semiannual average.
- Core federal filings against European firms made up 44% of core federal filings against non-U.S. firms in 2022 H1, the highest proportion since the first half of 2019.

Since 2021 H1, the share of filings against Asian firms has fallen, while the share of filings against European firms has increased.

Figure 19: Non-U.S. Filings by Location of Headquarters—Core Federal Filings



Source: United Nations, "Regional Groups of Member States"

Note: This analysis only considers core federal filings. It does not present M&A cases or combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In those analyses, when parallel cases are filed in different years, only the earlier filing date is reflected in the analysis. As a result, this figure's filing counts may not match Figures 1–3, 13, 16, 17, or Appendix 1. See Additional Notes to Figures for more detailed information.

Industry Comparison of Federal Filings

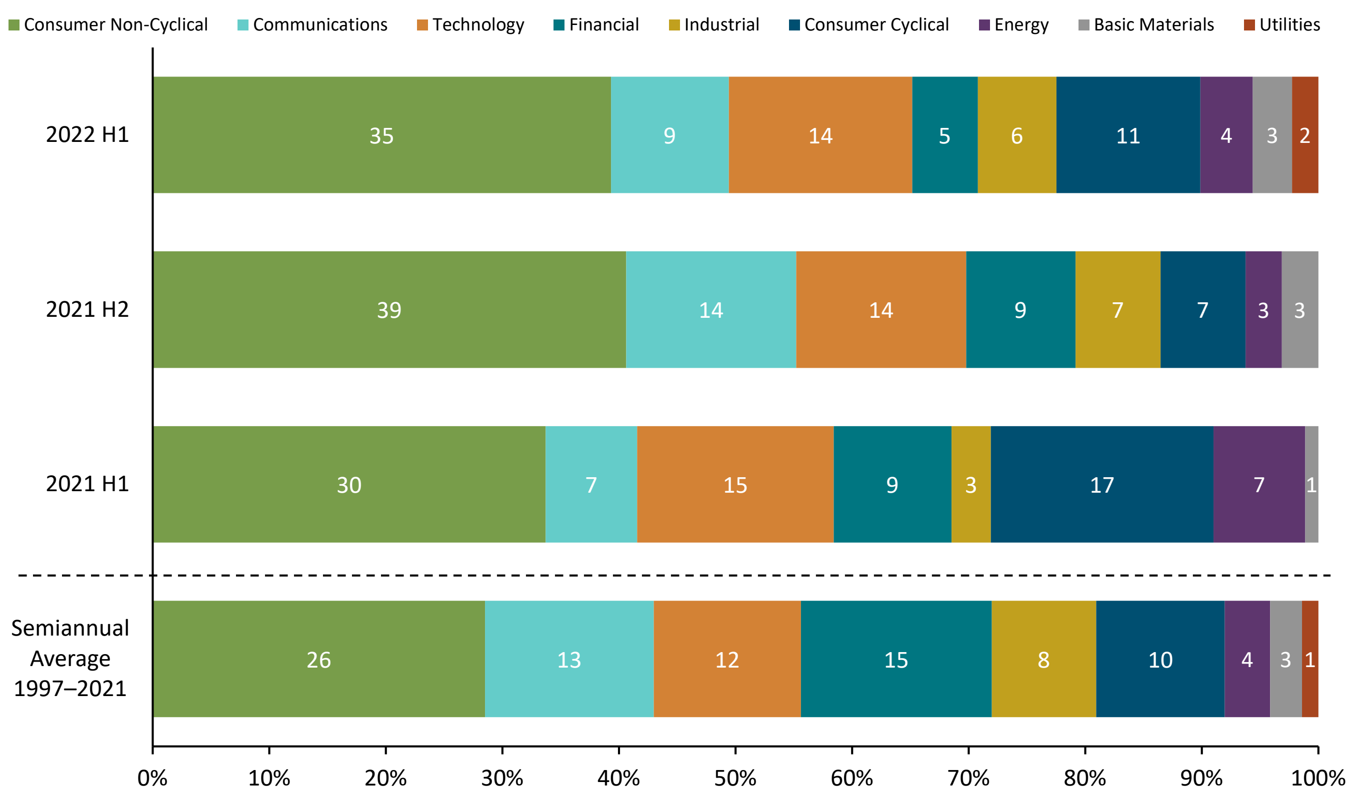
This analysis of core federal filings encompasses both smaller companies and the large capitalization companies of the S&P 500.

- Financial sector filings continued to decline, decreasing from nine filings in both 2021 H1 and H2 to only five in 2022 H1. This amounts to a third of the 1997–2021 semiannual average of 15 filings.
- After decreasing from 2021 H1 to 2021 H2 (17 to seven), the number of Consumer Cyclical filings increased to 11, which was more in line with the 1997–2021 semiannual average.

Filings in the Financial sector fell to a third of the semiannual average.

- While there were only nine Communications filings in 2022 H1, four fewer than the 1997–2021 semiannual average of 13, those nine filings accounted for $357 billion of DDL, about 19 times the historical average. See Appendix 3 for more details.
- As in the last 21 semiannual periods, the industry with the highest number of filings was Consumer Non-Cyclical with 35 filings, down slightly from 39 filings in 2021 H2.

Figure 20: Filings by Industry—Core Federal Filings



Note:

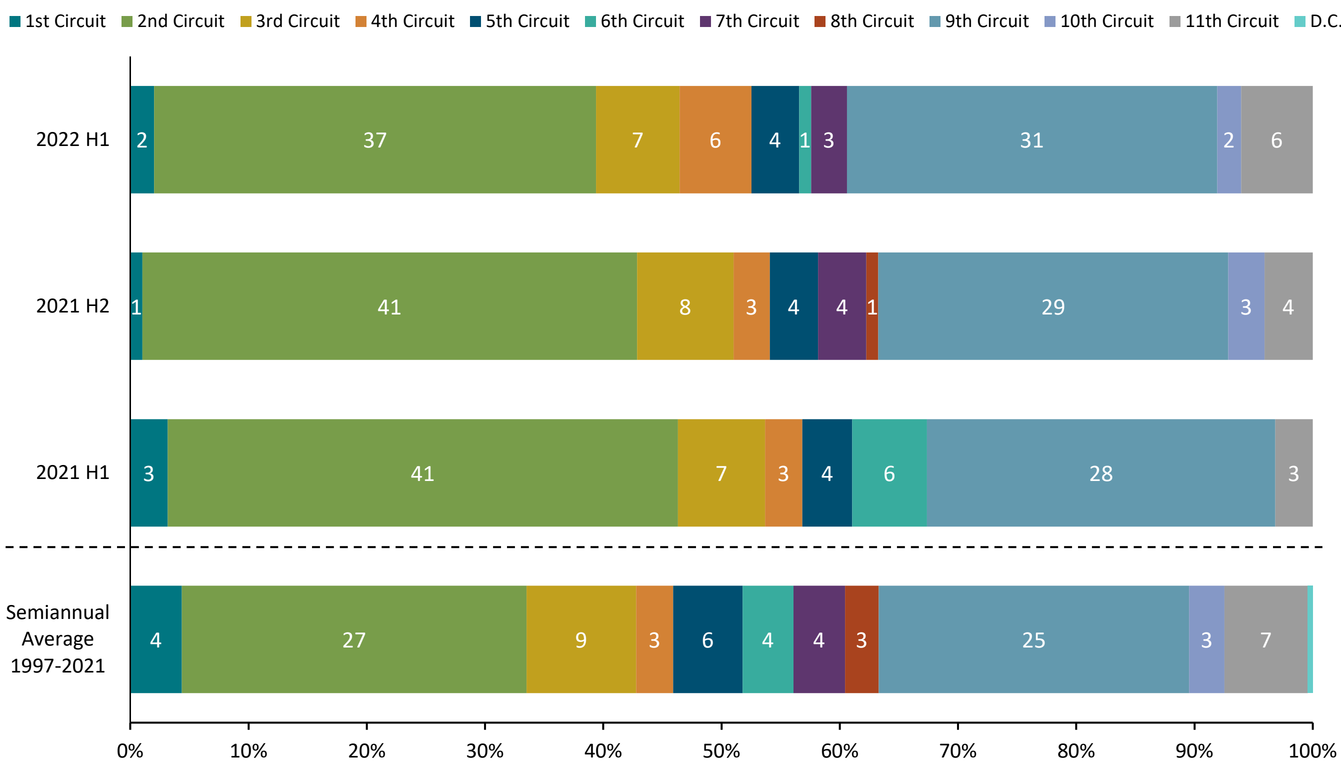
1. Filings with missing sector information or infrequently used sectors may be excluded. As a result, numbers in this chart may not match other total counts listed in the report.
2. This analysis only considers core federal filings. It does not present M&A cases or combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In those analyses, when parallel cases are filed in different years, only the earlier filing date is reflected in the analysis. As a result, this figure's filing counts may not match Figures 1–3, 13, 16, 17, or Appendix 1.
3. Sectors are based on the Bloomberg Industry Classification System.

Federal Filings by Circuit

- The Second and Ninth Circuits combined comprised 69% of the total number of core federal filings in the first half of 2022, in line with 2021 H1 and H2 (73% and 71%, respectively) and above the 1997–2021 semiannual average of 55%.
- Core filings in the Ninth Circuit (31) remained consistent with 2021 H1 and H2 (28 and 29, respectively). However, total MDL for Ninth Circuit filings dramatically increased from $211 billion to $1,160 billion in 2022 H1, a more than 400% increase.
- The five largest filings by MDL and the four largest filings by DDL in 2022 H1 (which made up 67% and 74% of total core federal MDL and DDL, respectively), were all filed in the Ninth Circuit. For both MDL and DDL, the three largest filings were against internet companies in the Communications sector, a sector with large decreases in stock prices in 2022 H1.
- There were no core filings in the Eighth or D.C. Circuits.
- Core filings in the Second Circuit decreased slightly from 41 to 37 filings, still well above the 1997–2021 semiannual average of 27. Although total MDL across all circuits increased by over 150%, MDL in the Second Circuit, historically the circuit with the largest MDL, decreased from $302 billion to $244 billion, nearly a 20% decline. See Appendix 4.
- SPAC-related core filings were typically filed in the Second and Ninth Circuits (six in each). Collectively, these circuits accounted for 71% of core SPAC filings from 2019 H1 to 2022 H1 and have accounted for at least 66% of core SPAC filings in every half year since 2020 H1.

MDL of core filings in the Ninth Circuit increased by over 400% while MDL in the Second Circuit declined.

Figure 21: Filings by Circuit—Core Federal Filings



Note: This analysis only considers core federal filings. It does not present M&A cases or combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In those analyses, when parallel cases are filed in different years, only the earlier filing date is reflected in the analysis. As a result, this figure's filing counts may not match Figures 1–3, 13, 16, 17, or Appendix 1.

New Developments

Goldman Sachs Group v. Arkansas Teacher Retirement System

In May 2022, Goldman Sachs Group for a third time petitioned the Second Circuit Court of Appeals to reverse the district court's decision to grant class certification.[1] Goldman Sachs Group argued that the district court had incorrectly applied the U.S. Supreme Court's instruction to consider the degree of mismatch between purported misstatements that are generic and specific alleged corrective disclosures. Goldman Sachs Group argued that the district court's decision "would vitiate the Supreme Court's decision: Virtually any misconduct 'implicates' some prior broad corporate statement about objectives or policies, but that does not mean that any disclosure of specific misconduct 'actually corrected the generic misrepresentation.'"

Rare Securities Fraud Class Action Trial and Jury Verdict

In June 2022, a securities fraud class action lawsuit (*Gruber v. Gilbertson et al*.) went to trial and reached a jury verdict in favor of plaintiff.[2] Counting *Gilbertson*, since 1996 there have been only 23 securities fraud cases that have gone to trial, and only 17 that have reached either a full or partial trial verdict.

Increased Legal and Regulatory Scrutiny of SPACs

SPACs have come under increasing legal and regulatory scrutiny in the past six months. In January 2022, the Delaware Chancery Court in *In re: Multiplan Corp. Stockholder Litigation* denied a motion to dismiss a lawsuit alleging that management of a SPAC breached a duty of loyalty in pursuing a merger that favored insiders.[3] The court adopted enhanced scrutiny of fiduciary duties under the entire fairness standard rather than deference under the business judgment rule, signaling potential increased litigation risk for SPAC directors. Further, in March 2022, the SEC issued proposed rulemaking "intended to provide investors with disclosures and liability protections comparable to those that would be present if the private operating company were to conduct a traditional firm commitment initial public offering."[4] Some investment banks have reportedly reduced their involvement in SPAC business after the proposal was made public.[5]

Pirani v. Slack Technologies Inc.

On May 2, 2022, the Ninth Circuit Court of Appeals in *Pirani v. Slack Technologies Inc.* denied Slack's petition for rehearing *en banc* of its decision to uphold the denial of Slack's motion to dismiss plaintiff's Section 11 claims arising out of a direct listing.[6]

In direct offerings, both registered and unregistered shares enter the market and become commingled, preventing investors from being able to establish whether they purchased registered or unregistered shares.

The Ninth Circuit had rejected Slack's argument that plaintiff lacked standing to sue because he could not show that he had purchased registered rather than unregistered shares. The decision appears to be inconsistent with the requirement that plaintiffs trace the purchase of securities to the at-issue registration statement. The ruling could also extend Section 11 liability to securities that are exempt from registration, potentially expanding Section 11 damages far beyond the statutory maximum.

Slack will petition the Supreme Court to review the ruling.[7]

Ninth Circuit: Short-Seller Report Did Not Serve as a Corrective Disclosure

In *In re: Nektar Therapeutics Securities Litigation*, plaintiffs alleged that a short-seller report constituted a corrective disclosure.[8] In holding that the report did not establish loss causation, the Ninth Circuit reiterated the approach it had articulated in *In re BofI Holding Inc. Securities Litigation*. The court noted that the report was authored by anonymous short-sellers who had a financial incentive to convince others to sell, and who had disclaimed any representation as to the accuracy or completeness of the information in the article. The court concluded that "it is not plausible that the market would perceive the [short-seller report] as revealing false statements because the nature of the report means that investors would have taken its 'contents with a healthy grain of salt.'"

1. In re: Goldman Sachs Group Inc., No. 22-484 (2nd Cir. May 11, 2022).
2. Gruber v. Gilbertson et al., No. 1:2016-cv-09727 (S.D.N.Y. June 14, 2022).
3. In re Multiplan Corp. Stockholder Litigation, C.A. No. 2021-0300-LWW (Del. Ch. Jan. 3, 2022).
4. SEC Release No. 33-11048, p. 66.
5. See Tom Zanki, "SEC's Proposed SPAC Crackdown Meets Industry Resistance," *Law360*, June 22, 2022.
6. Pirani v. Slack Technologies Inc., No. 20-16419 (9th Cir. May 2, 2022).
7. Alison Frankel, "Slack Will Ask Supreme Court to Review Novel 'Direct Listing' Case," *Reuters*, May 2, 2022.
8. In re Nektar Therapeutics Securities Litigation, No. 21-15170 (9th Cir. May 19, 2022).

Glossary

Annual Number of Class Action Filings by Location of Headquarters (formerly known as the Class Action Filings Non-U.S. Index) tracks the number of core federal filings against non-U.S. issuers (companies headquartered outside the United States) relative to total core federal filings.

Class Action Filings Index® (CAF Index®) tracks the number of federal securities class action filings.

Core filings are all state 1933 Act class actions and all federal securities class actions excluding those defined as M&A filings.

Cyan refers to *Cyan Inc. v. Beaver County Employees Retirement Fund.* In this March 2018 opinion, the U.S. Supreme Court ruled that 1933 Act claims may be brought to state venues and are not removable to federal court.

De-SPAC Transaction refers to the transaction by which a SPAC acquires and merges with a previously private company, which will assume the SPAC's exchange listing.

Disclosure Dollar Loss Index® (DDL Index®) measures the aggregate DDL for all federal and state filings over a period of time. DDL is the dollar-value change in the defendant firm's market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period. DDL should not be considered an indicator of liability or measure of potential damages. Instead, it estimates the impact of all information revealed at the end of the class period, including information unrelated to the litigation. When a filing alleges that the share price was artificially deflated, DDL is multiplied by negative one. In response to recent substantial increases in inflation, reported DDL is inflation-adjusted to 2022 dollars (from the year of the end of the alleged class period for Rule 10b-5 cases and the filing year for all other cases) using the Consumer Price Index for All Urban Consumers (CPI-U).

Dollar Loss on Offered Shares Index™ (DLOS Index™) measures the aggregate DLOS for federal filings with only Section 11 claims and for state 1933 Act filings. DLOS is the change in the dollar-value of shares acquired by members of the putative class. It is the difference in the price of offered shares (i.e., from the date the registration statement becomes effective through the filing date of the first identified complaint multiplied by the shares offered). DLOS should not be considered an indicator of liability or measure of potential damages. *(continued in next column)*

Dollar Loss on Offered Shares Index™ (DLOS Index™), *continued* Instead, it estimates the impact of all information revealed between the date of the registration statement and the complaint filing date, including information unrelated to the litigation. In response to recent substantial increases in inflation, reported DLOS is inflation-adjusted to 2022 dollars from the filing year using the Consumer Price Index for All Urban Consumers (CPI-U).

Filing lag is the number of days between the end of a class period and the filing date of the securities class action.

First identified complaint is the first complaint filed of one or more securities class action complaints with the same underlying allegations filed against the same defendant or set of defendants. When there is no federal complaint and multiple state complaints are filed, they are treated as separate filings.

Market capitalization losses measure changes to market values of the companies subject to class action filings. This report tracks market capitalization losses for defendant firms during and at the end of class periods. They are calculated for publicly traded common equity securities, closed-ended mutual funds, and exchange-traded funds where data are available. Declines in market capitalization may be driven by market, industry, and/or firm-specific factors. To the extent that the observed losses reflect factors unrelated to the allegations in class action complaints, indices based on class period losses would not be representative of potential defendant exposure in class actions. This is especially relevant in the post-*Dura* securities litigation environment. In April 2005, the U.S. Supreme Court ruled that plaintiffs in a securities class action are required to establish a causal connection between alleged wrongdoing and subsequent shareholder losses. This report tracks market capitalization losses at the end of each class period using DDL, and market capitalization losses during each class period using MDL.

Maximum Dollar Loss Index® (MDL Index®) measures the aggregate MDL for all federal and state filings over a period of time. MDL is the dollar-value change in the defendant firm's market capitalization from the trading day with the highest market capitalization during the class period to the trading day immediately following the end of the class period. MDL should not be considered an indicator of liability or measure of potential damages. Instead, it estimates the impact of all information revealed during or at the end of the class period, including information unrelated to the litigation. *(continued on next page)*

Maximum Dollar Loss Index® (MDL Index®), *continued*
When a filing alleges that the share price was artificially deflated, MDL is multiplied by negative one. In response to recent substantial increases in inflation, reported MDL is inflation-adjusted to 2022 dollars (from the year of the end of the alleged class period for Rule 10b-5 cases and the filing year for all other cases) using the Consumer Price Index for All Urban Consumers (CPI-U).

Merger and acquisition (M&A) filings are securities class actions filed in federal courts that have Section 14 claims, but no Rule 10b-5, Section 11, or Section 12(a) claims, and involve merger and acquisition transactions.

Sciabacucchi refers to *Salzberg v. Sciabacucchi*. On March 18, 2020, the Delaware Supreme Court held that forum-selection provisions in corporate charters requiring that some class action securities claims under the 1933 Act be adjudicated in federal courts are enforceable.

Securities Class Action Clearinghouse is an authoritative source of data and analysis on the financial and economic characteristics of federal securities fraud class action litigation, cosponsored by Cornerstone Research and Stanford Law School.

State 1933 Act filing is a class action filed in a state court that asserts claims under Section 11 and/or Section 12 of the Securities Act of 1933. These filings may also have Section 15 claims, but do not have Rule 10b-5 claims.

Additional Notes to Figures

Figure 2: Federal Filings and State 1933 Act Filings by Venue

1. The federal Section 11 data displayed may contain Rule 10b-5 claims, but state 1933 Act filings do not.

2. This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. As a result, this figure's filing counts may not match those in Figures 18–21.

3. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims. Since 2018, there have been two such filings.

Figure 4: Summary of Trend Cases—Core Federal Filings

Definitions:

Cybersecurity filings are those in which allegations relate to data breaches or security vulnerabilities.

Opioid filings involve allegations related to opiate drugs that are addictive, were falsely marketed as non-addictive, or caused other opiate-related issues.

Cryptocurrency-related filings include blockchain or cryptocurrency companies that engaged in the sale or exchange of tokens (commonly initial coin offerings), cryptocurrency mining, cryptocurrency derivatives, or that designed blockchain-focused software.

Cannabis filings include companies financing, farming, distributing, or selling cannabis and cannabidiol products.

COVID-19 filings include allegations related to companies negatively impacted by the virus or looking to address demand for products as a result of the virus.

SPAC filings concern companies that went public for the express purpose of acquiring an existing company in the future.

Note: SPAC filings count both core and M&A federal filings. All other trends only count core federal filings. SPAC filings include current and former SPACs.

Figure 7: Median Lag between De-SPAC Transaction and Core Federal SPAC Filings

1. SPAC filings concern companies that went public for the express purpose of acquiring an existing company in the future. These include current and former SPACs.

2. Federal M&A SPAC filings are not considered, as they typically occur before the closing date of the De-SPAC Transaction. Additionally, filings against SPACs that did not complete the merger transactions referenced in the filing are excluded from the filing lag comparison.

3. Year refers to the year in which the complaint was filed.

Figure 13: Percentage of U.S. Exchange-Listed Companies Subject to Federal or State Filings

1. Percentages are calculated by dividing the count of issuers listed on the NYSE or Nasdaq subject to filings by the number of companies listed on the NYSE or Nasdaq as of the beginning of the year. Percentages may not sum due to rounding.

2. Core Filings and M&A Filings do not include instances in which a company has been subject to both a core and M&A filing in the same year. These are reported separately in the category labeled Both Core and M&A Filings. Since 2009 there have been 22 instances in which a company has been subject to both core and M&A filings in the same year. In 2016, 2017, 2019, and 2020, these filings represented 0.1% of U.S. exchange-listed companies. In 2009, 2010, 2013, 2015, and 2021, these filings accounted for less than 0.1% of U.S. exchange-listed companies.

3. Listed companies were identified by taking the count of listed securities at the beginning of each year and accounting for cross-listed companies or companies with more than one security traded on a given exchange. Securities were counted if they were classified as common stock or American depositary receipts (ADRs) and listed on the NYSE or Nasdaq.

4. This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. The figure begins including issuers facing suits in state 1933 Act filings in 2010.

Figure 14: State 1933 Act Filings by State

1. All Others contains filings in Alabama, Arizona, Colorado, Florida, Georgia, Illinois, Indiana, Iowa, Massachusetts, Michigan, Nevada, New Hampshire, New Jersey, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Washington, West Virginia, and Wisconsin.

2. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims. Since 2018, there have been two such filings.

Figure 15: Dollar Loss on Offered Shares Index™ (DLOS Index™) for Federal Section 11–Only and State 1933 Act Filings

1. This analysis compares all Section 11 filings in federal courts with all 1933 Act filings in state courts. It does not present data on a combined federal and state basis, nor does it identify or account for cases that have parallel filings in both state and federal courts. The numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.

2. Federal filings included in this analysis must contain a Section 11 claim and may contain a Section 12 claim, but do not contain Section 10(b) claims. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims. Since 2018, there have been two such filings.

3. Starting with the *Securities Class Action Filings—2021 Year in Review*, the DLOS methodology changed from using the difference between the offering price of the shares and their closing price on the day of the first identified complaint's first alleged corrective disclosure (if none were mentioned, instead the price the day after the complaint filing day was used), to using the difference between the offering price of the shares and their price on the filing date of the first identified complaint.

Figure 16: Semiannual Federal Section 11 and State 1933 Act Filings

1. This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different quarters, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. As a result, this figure's filing counts may not match those in Figures 14 or 17.
2. The federal Section 11 filings displayed may include Rule 10b-5 claims, but state 1933 Act filings do not.
3. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims. Since 2018, there have been two such filings.

Figure 17: Federal Section 11 and State 1933 Act Class Action Filings by Type of Security Issuance

1. The federal Section 11 data displayed may contain Rule 10b-5 claims, but state 1933 Act filings do not.
2. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims. Since 2018, there have been two such filings.
3. There was one federal court filing in 2019 related to both a merger-related issuance and SEO. This analysis categorizes this filing as relating to a merger-related issuance to avoid double-counting. Similarly, there was an SEO and other state filing in 2021 marked as SEO, a merger-related and other federal filing in 2022 marked as merger-related, and an IPO/SEO and other state filing in 2022 marked as IPO/SEO, all for the same reason.

Figure 19: Non-U.S. Filings by Location of Headquarters—Core Federal Filings

1. The "Asia" category includes filings for companies headquartered in Hong Kong.
2. In 2020, the definition for region was changed to use groupings set by the United Nations. As a result, counts in this figure may not match those in prior reports.

Appendices

Appendix 1: Filings Basic Metrics

	Class Action Filings	Core Filings	Disclosure Dollar Loss: DDL Total ($ Billions)	Disclosure Dollar Loss: Average ($ Millions)	Disclosure Dollar Loss: Median ($ Millions)	Maximum Dollar Loss: MDL Total ($ Billions)	Maximum Dollar Loss: Average ($ Millions)	Maximum Dollar Loss: Median ($ Millions)
1997 H1	79	79	$21	$311	$81	$98	$1,447	$733
1997 H2	95	95	$56	$649	$135	$170	$1,973	$751
1998 H1	115	115	$65	$627	$75	$158	$1,538	$493
1998 H2	127	127	$80	$687	$129	$246	$2,099	$607
1999 H1	126	126	$110	$1,004	$175	$258	$2,341	$598
1999 H2	83	83	$137	$1,849	$228	$385	$5,201	$798
2000 H1	111	111	$280	$2,917	$160	$566	$5,900	$757
2000 H2	105	105	$130	$1,353	$243	$732	$7,625	$1,663
2001 H1	103	103	$229	$2,457	$163	$1,651	$17,754	$1,641
2001 H2	77	77	$103	$1,471	$114	$836	$11,941	$1,090
2002 H1	109	109	$132	$1,270	$191	$1,518	$14,598	$2,306
2002 H2	115	115	$196	$1,980	$300	$1,833	$18,512	$2,525
2003 H1	105	105	$77	$796	$151	$540	$5,571	$855
2003 H2	87	87	$47	$635	$162	$386	$5,216	$587
2004 H1	111	111	$90	$1,006	$158	$494	$5,553	$699
2004 H2	117	117	$135	$1,278	$182	$651	$6,141	$968
2005 H1	109	109	$87	$937	$209	$375	$4,034	$696
2005 H2	73	73	$53	$847	$250	$178	$2,824	$772
2006 H1	65	65	$31	$579	$172	$187	$3,472	$601
2006 H2	55	55	$45	$890	$141	$247	$4,932	$639
2007 H1	69	69	$53	$935	$217	$246	$4,308	$1,096
2007 H2	108	108	$172	$1,738	$225	$755	$7,623	$935
2008 H1	111	111	$127	$1,840	$314	$647	$9,379	$1,926
2008 H2	113	113	$176	$2,284	$222	$471	$6,122	$1,417
2009 H1	82	79	$67	$1,770	$233	$481	$12,657	$1,609
2009 H2	82	78	$48	$756	$185	$272	$4,315	$1,274
2010 H1	71	58	$73	$1,588	$220	$469	$10,201	$983
2010 H2	103	77	$25	$429	$190	$175	$2,965	$527
2011 H1	94	73	$64	$975	$121	$342	$5,179	$501
2011 H2	95	73	$86	$1,250	$119	$349	$5,063	$893
2012 H1	88	81	$79	$1,079	$195	$325	$4,452	$859
2012 H2	66	61	$47	$847	$196	$198	$3,535	$693
2013 H1	75	68	$31	$515	$209	$146	$2,393	$669
2013 H2	90	84	$99	$1,289	$186	$205	$2,664	$678
2014 H1	80	73	$38	$538	$222	$125	$1,783	$676
2014 H2	90	85	$32	$409	$167	$149	$1,914	$641
2015 H1	102	85	$59	$715	$112	$157	$1,886	$506
2015 H2	115	98	$89	$933	$210	$357	$3,763	$798
2016 H1	128	101	$53	$554	$187	$467	$4,913	$1,276
2016 H2	160	103	$78	$801	$212	$572	$5,894	$1,294
2017 H1	222	126	$88	$736	$177	$353	$2,964	$624
2017 H2	190	88	$63	$821	$234	$264	$3,432	$1,070
2018 H1	211	120	$187	$1,802	$273	$767	$7,374	$1,202
2018 H2	209	118	$201	$1,911	$470	$777	$7,404	$1,326
2019 H1	207	134	$202	$1,738	$210	$920	$7,933	$950
2019 H2	220	133	$123	$1,020	$288	$447	$3,696	$1,368
2020 H1	185	121	$128	$1,251	$185	$693	$6,794	$1,145
2020 H2	148	113	$183	$1,812	$220	$1,124	$11,131	$1,142
2021 H1	111	99	$88	$995	$409	$394	$4,482	$1,533
2021 H2	107	101	$210	$2,385	$456	$630	$7,158	$1,627
2022 H1	110	105	$482	$5,358	$330	$1,573	$17,482	$2,226
Average 1997–2021	114	96	$101	$1,185	$206	$496	$5,841	$1,020

Note:

1. This figure presents combined federal and state data. Filings in federal courts may have parallel cases filed in state courts. When parallel cases are filed in different years, only the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings. State 1933 Act filings are included in the data beginning in 2010. As a result, this figure's filing counts may not match those in Figures 14 or 18–21, and this figure's MDL/DDL counts may not match Appendices 3 or 4.

2. Average and median numbers are calculated only for filings with MDL and DDL data. Filings without MDL and DDL data include M&A-only filings, initial coin offering filings, and other filings where calculations of MDL and DDL are non-obvious. The numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.

Appendix 2: 1933 Act Filings in State Courts

Year	California	New York	Texas	Massachusetts	Pennsylvania	Others	Total
	1933 Act Filings in State Courts						
2010	1	0	0	0	0	0	1
2011	3	0	0	0	0	0	3
2012	5	0	0	0	0	2	7
2013	1	0	0	0	0	0	1
2014	5	0	0	0	1	0	6
2015	15	0	0	2	0	0	17
2016	19	0	1	1	0	6	27
2017	7	0	1	0	1	4	13
2018	16	13	0	0	0	6	35
2019	15	19	2	1	3	12	52
2020	5	13	0	1	0	4	23
2021	1	10	0	0	0	1	12
2022 H1	3	2	0	0	1	0	6
Average 2010–2021	8	5	0	0	0	3	16

Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; ISS' SCAS

Note:

1. This analysis counts all filings in state courts. It does not present data on a combined federal and state basis, nor does it identify or account for cases that have parallel filings in both state and federal courts. As a result, totals in this analysis may not match Figures 1–3, 16, or 17.
2. All Others contains filings in Alabama, Arizona, Colorado, Florida, Georgia, Illinois, Indiana, Iowa, Michigan, Nevada, New Hampshire, New Jersey, Ohio, Oregon, Rhode Island, Tennessee, Utah, Washington, West Virginia, and Wisconsin.
3. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims. Since 2018, there have been two such filings.

Appendix 3: Filings by Industry—Core Federal Filings

(Dollars in 2022 Billions)

	Class Action Filings				Disclosure Dollar Loss				Maximum Dollar Loss			
Industry	Semiannual Average 1997–2021	2021 H1	2021 H2	2022 H1	Semiannual Average 1997–2021	2021 H1	2021 H2	2022 H1	Semiannual Average 1997–2021	2021 H1	2021 H2	2022 H1
Consumer Non-Cyclical	26	30	39	35	$29	$20	$52	$53	$112	$54	$145	$206
Communications	13	7	14	9	$19	$14	$76	$357	$113	$36	$244	$898
Technology	12	15	14	14	$17	$7	$38	$17	$68	$23	$87	$105
Financial	15	9	9	5	$14	$2	$6	$22	$86	$6	$29	$105
Industrial	8	3	7	6	$9	$3	$3	$4	$33	$4	$7	$11
Consumer Cyclical	10	17	7	11	$8	$33	$16	$17	$41	$94	$53	$158
Energy	4	7	3	4	$3	$9	$5	$2	$19	$173	$19	$26
Basic Materials	3	1	3	3	$1	$0	$3	$2	$10	$2	$6	$5
Utilities	1	0	0	2	$1	$0	$0	$0	$7	$0	$0	$3
Unknown/Unclassified	2	6	2	10	$0	$0	$0	$0	$0	$0	$0	$0
Total	94	95	98	99	$101	$87	$198	$473	$489	$393	$591	$1,517

Note:

1. Filings with missing sector information or infrequently used sectors are categorized as Unknown/Unclassified.
2. This analysis only considers federal filings. It does not present combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In those analyses, when parallel cases are filed in different years, only the earlier filing date is reflected in the analysis. As a result, this figure's filing counts and MDL/DDL totals may not match Figures 1–3, 13, 16, 17, or Appendix 1, and this figure's MDL/DDL counts may not match Figures 1, 10–12, or Appendix 1.
3. Sectors are based on the Bloomberg Industry Classification System.
4. The MDL/DDL numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.
5. Figures may not sum due to rounding.

Appendix 4: Filings by Circuit—Core Federal Filings

(Dollars in 2022 Billions)

	Class Action Filings				Disclosure Dollar Loss				Maximum Dollar Loss			
Circuit	Average 1997–2021	2021 H1	2021 H2	2022 H1	Average 1997–2021	2021 H1	2021 H2	2022 H1	Average 1997–2021	2021 H1	2021 H2	2022 H1
1st	4	3	1	2	$5	$1	$1	$2	$14	$2	$3	$33
2nd	27	41	41	37	$31	$30	$88	$62	$171	$100	$303	$245
3rd	9	7	8	7	$13	$10	$5	$2	$49	$43	$16	$7
4th	3	3	3	6	$2	$1	$5	$2	$9	$4	$15	$15
5th	6	4	4	4	$5	$5	$8	$0	$29	$144	$27	$17
6th	4	6	0	1	$5	$2	$0	$1	$20	$8	$0	$7
7th	4	0	4	3	$5	$0	$1	$18	$23	$0	$2	$25
8th	3	0	1	0	$2	$0	$0	$0	$8	$0	$2	$0
9th	25	28	29	31	$26	$34	$89	$386	$137	$84	$211	$1,160
10th	3	0	3	2	$2	$0	$1	$0	$9	$0	$3	$1
11th	7	3	4	6	$4	$5	$1	$0	$16	$7	$10	$8
D.C.	0	0	0	0	$0	$0	$0	$0	$2	$0	$0	$0
Total	94	95	98	99	$101	$87	$198	$473	$489	$393	$591	$1,517

Note:

1. This analysis only considers federal filings. It does not present combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In those analyses, when parallel cases are filed in different years, only the earlier filing date is reflected in the analysis. As a result, this figure's filing counts may not match Figures 1–3, 13, 16, 17, or Appendix 1, and this figure's MDL/DDL counts may not match Figures 1, 10–12, or Appendix 1.

2. The MDL/DDL numbers shown in this exhibit have been inflation-adjusted to 2022 dollars and will not match prior reports.

3. Figures may not sum due to rounding.

Research Sample

- The Securities Class Action Clearinghouse, cosponsored by Cornerstone Research and Stanford Law School, has identified 6,223 federal securities class action filings between January 1, 1996, and June 30, 2022 (securities.stanford.edu). The analysis in this report is based on data identified by Stanford as of July 12, 2022.
- The sample used in this report includes federal filings that typically allege violations of Sections 11 or 12 of the Securities Act of 1933, or Sections 10(b) or 14(a) of the Securities Exchange Act of 1934.
- The sample is referred to as the "classic filings" sample and excludes IPO allocation, analyst, and mutual fund filings (313, 68, and 25 filings, respectively).
- Multiple filings related to the same allegations against the same defendant(s) are consolidated in the database through a unique record indexed to the first identified complaint.
- In addition to federal filings, class actions filed in state courts since January 1, 2010, alleging violations of the Securities Act of 1933 are also separately tracked.
- This research has identified 203 class action filings in state courts from January 1, 2010, to June 30, 2022.

The authors request that you reference Cornerstone Research and the Stanford Law School Securities Class Action Clearinghouse in any reprint of the information or figures included in this report.

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