CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

Securities Class Action Filings

2021 Year in Review

Table of Contents

Table of Figures

Executive Summary

Overall filing volume plummeted in 2021, falling to 218 filings from 333 in 2020. This decline was largely due to reductions in M&A and core federal Rule 10b-5 filings without Section 11 allegations, which were down 82% and 17%, respectively. However, the typical filing size increased as median filing MDL and DDL rose 41% and 105%, respectively.

Core filings with allegations related to special purpose acquisition companies (SPACs) increased more than sixfold from 2020 to 2021 following the rise in SPAC IPOs. Federal Section 11 and state 1933 Act filings, however, were roughly in line with 2020—the federal-only share of these filings was the largest since 2014.

Number and Size of Filings

- Plaintiffs filed 218 **new class action securities cases** (filings) in federal and state courts in 2021, down 35% relative to 2020 and below the 1997–2020 average of 228. "Core" filings—those excluding M&A filings—fell 15% to 200.
- While the number of **IPOs** rose significantly in 2021, federal and state court class actions alleging **claims under the Securities Act of 1933** (1933 Act) remained roughly in line with 2020. (pages 21 and 23)
- **Disclosure Dollar Loss (DDL)** was largely in line with 2020, increasing by only 0.1% to $274 billion in 2021. **Maximum Dollar Loss (MDL)** decreased by 41% to $941 billion, due to a substantial drop in mega MDL filings. (pages 10, 12, and 28)

Other Measures of Filing Intensity

- The percentage of **U.S. exchange-listed companies** subject to filings decreased for the second straight year, from a record high of 8.9% in 2019 to 4.2% in 2021. (page 14)

Federal M&A and core federal Rule 10b-5 filings without Section 11 allegations had their largest percentage declines in the last decade.

Figure 1: Federal and State Class Action Filings Summary

(Dollars in Billions)

	Annual (1997–2020) Average	Maximum	Minimum	2020	2021
Class Action Filings	228	427	120	333	218
Core Filings	*192*	*267*	*120*	*234*	*200*
Disclosure Dollar Loss (DDL)	$142	$331	$42	$273	$274
Maximum Dollar Loss (MDL)	$701	$2,046	$145	$1,599	$941

Note: This figure presents data on a combined federal and state filings basis. 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 4–8, 12, 14–19, 21, or 24–31.

Key Trends in Federal Filings

Core federal SPAC filings in 2021 increased more than sixfold relative to 2020. The overall decline in federal filings was driven by an 82% drop in M&A filings and a 17% drop in core federal Rule 10b-5 filings without Section 11 allegations. The percentage of S&P 500 firms with core federal filings in 2021 fell to the third-lowest value on record.

M&A Filings

- Federal filings of **M&A class actions**—those involving M&A transactions with Section 14 claims but no Rule 10b-5, Section 11, or Section 12(a) claims—decreased by 82% to the lowest level since 2014. (page 4)
- M&A filings continued to have a much higher rate of dismissal (92%) than core federal filings (48%) over the period 2011 to 2020. (page 17)

Federal SPAC Cases

- Core filings related to **SPACs** in 2021 increased more than sixfold relative to 2020 and more than fivefold relative to the 2019–2020 total. (page 5)
- One-third of all SPAC filings in 2021 involved the **auto industry**. (page 6)
- While nearly all federal SPAC filings were M&A filings in 2019, in 2021, all but one SPAC filing had Rule 10b-5 allegations. (page 8)

U.S. Issuers

- In 2021, the likelihood of core and M&A filings targeting **U.S. exchange-listed companies** dropped to their lowest combined level since 2014. (page 14)
- Core federal filings against **S&P 500 firms** in 2021 occurred at a rate of 2.2%, falling to the lowest level since 2015. (page 15)

Non-U.S. Issuers

- There were 41 core federal filings against **non-U.S. issuers**, a reversion to 2012–2019 levels after an all-time high in 2020. (page 25)
- The likelihood of a core federal filing against a non-U.S. issuer again surpassed the likelihood of such a filing against an S&P 500 company. (page 27)

By Industry

- All industries were within three filings of their 2020 levels, except for **Financial** and **Basic Materials**, which fell by a combined 17 filings. (page 29)

By Circuit

- The **Second** and **Ninth Circuits** had the highest combined share of total core federal filings for any two circuits since tracking began in 1997. (page 30)

Mega Federal Filings

- The number and total index value of **mega DDL and MDL** filings were down from 2020's highs, but remained above historical averages. (page 28)

Dismissal Rates by Plaintiffs' Counsel

- Complaints filed by the **three plaintiff law firms** that have most frequently filed first identified complaints continue to have higher dismissal rates than those filed by other plaintiffs' counsel. (page 31)

Trend Cases

- After 17 filings in 2020 and 10 filings in the first half of 2021, **COVID-19 filings** fell to seven in 2021 H2. (page 5)

New Developments

- Ninth Circuit Court of Appeals decision in *Pirani v. Slack Technologies Inc*. involving Section 11 claims arising out of the direct listing of registered and unregistered shares.
- Denial of class certification in *Stoyas v. Toshiba Corp*., a case involving claims relating to unsponsored American Depositary Receipts (ADRs) that were found to have been purchased outside the United States.
- Investigation by the Department of Justice and potential rulemaking by the SEC relating to short selling.

Featured: Annual Rank of Filing Intensity

Filings in 2021 continued to decline sharply from the record highs observed in 2019. Federal M&A filings fell to the lowest count since 2014, despite a substantial increase in M&A activity.[1] The number of 1933 Act filings in state courts has continued to decline since the Delaware Supreme Court ruling in *Sciabacucchi* in March 2020, while federal-only Section 11 filings have increased over the same period.

Of companies in the S&P 500 at the beginning of 2021, 11 were subject to a core federal filing, the third-lowest number since 2000. MDL fell 41% from 2020, while DDL rose by 0.1%. Median MDL and DDL both rose, by 41% and 105%, respectively.

Figure 2: Annual Rank of Measurements of Federal and State Filing Intensity

	2019	2020	2021
Number of Total Filings	1st	4th	10th
Core Filings	1st	4th	12th
M&A Filings	3rd	4th	9th
Size of Core Filings			
Disclosure Dollar Loss	2nd	4th	3rd
Maximum Dollar Loss	5th	2nd	6th
Percentage of U.S. Exchange-Listed Companies Sued			
Total Filings	1st	4th	7th
Core Filings	1st	3rd	6th
Percentage of S&P 500 Companies Subject to Core Federal Filings	4th	13th	19th

Note: This figure presents combined federal and state data in the rankings in all categories beginning in 2010, except the Percentage of S&P 500 Companies Subject to Core Federal Filings, which excludes 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, the filing counts determining the rankings in this figure may not match those in Figures 4–8, 12, 14–19, 21, or 24–31. Rankings cover 1997 through 2020 with the exceptions of M&A filings, which have been tracked as a separate category since 2009, and analysis of the litigation likelihood of S&P 500 companies, which began in 2001. 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. Core filings are all state 1933 Act class actions and all federal securities class actions excluding those defined as M&A filings.

[1] According to *FactSet MergerMetrics*, the number of non-withdrawn mergers with a transaction value greater than $100 million and with a public company target traded on the NYSE or Nasdaq rose from 116 with announcement dates in 2020 to 208 with announcement dates in 2021.

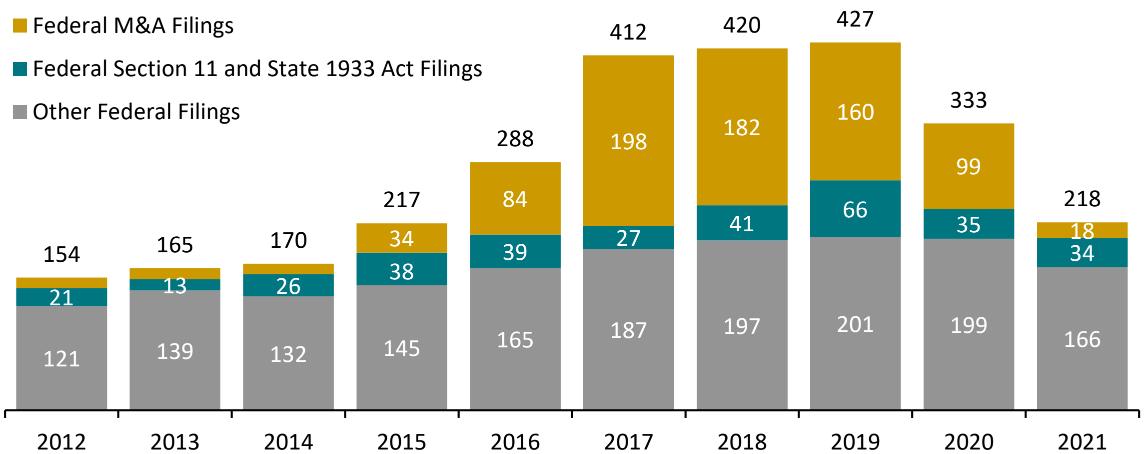
Combined Federal and State Filing Activity

- Plaintiffs filed 218 new securities class actions in federal and state courts, a 35% decline from 2020 and 45% lower than the 2017–2020 average of 398. Filing activity in 2021 was instead more in line with the 2012–2016 average of 199 filings.
- In 2021 both federal M&A and core federal Rule 10b-5 filings without Section 11 allegations had their largest percentage declines in the last decade, decreasing by 82% and 17%, respectively.

The number of class action filings dropped largely due to a decline in M&A and core federal Rule 10b-5 filings without Section 11 allegations.

- On the other hand, federal Section 11 and state 1933 Act filings declined only 3% from 2020, dropping from 35 to 34.
- Of these 34 filings, only eight were filed exclusively in state courts—a 43% decrease from 2020 and the lowest share since 2017.
- Of all federal Section 11 and state 1933 Act filings, 62% were federal-only filings, the highest share since 2014, compared to 37% in 2020.
- Parallel filings in state and federal courts fell from eight filings in 2020 to five filings in 2021.

Figure 3: Federal Filings and State 1933 Act Filings by Venue
2012–2021



	Federal Section 11 and State 1933 Act Filings									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Federal Courts Only	13	12	21	21	12	11	9	13	13	21
State Courts Only	3	0	2	11	13	3	16	28	14	8
Parallel Filings	5	1	3	6	14	13	16	25	8	5
Total	21	13	26	38	39	27	41	66	35	34

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 4–8, 12, 14–19, 21, or 24–31. See Additional Notes to Figures for more detailed information.

Summary of Trend Cases

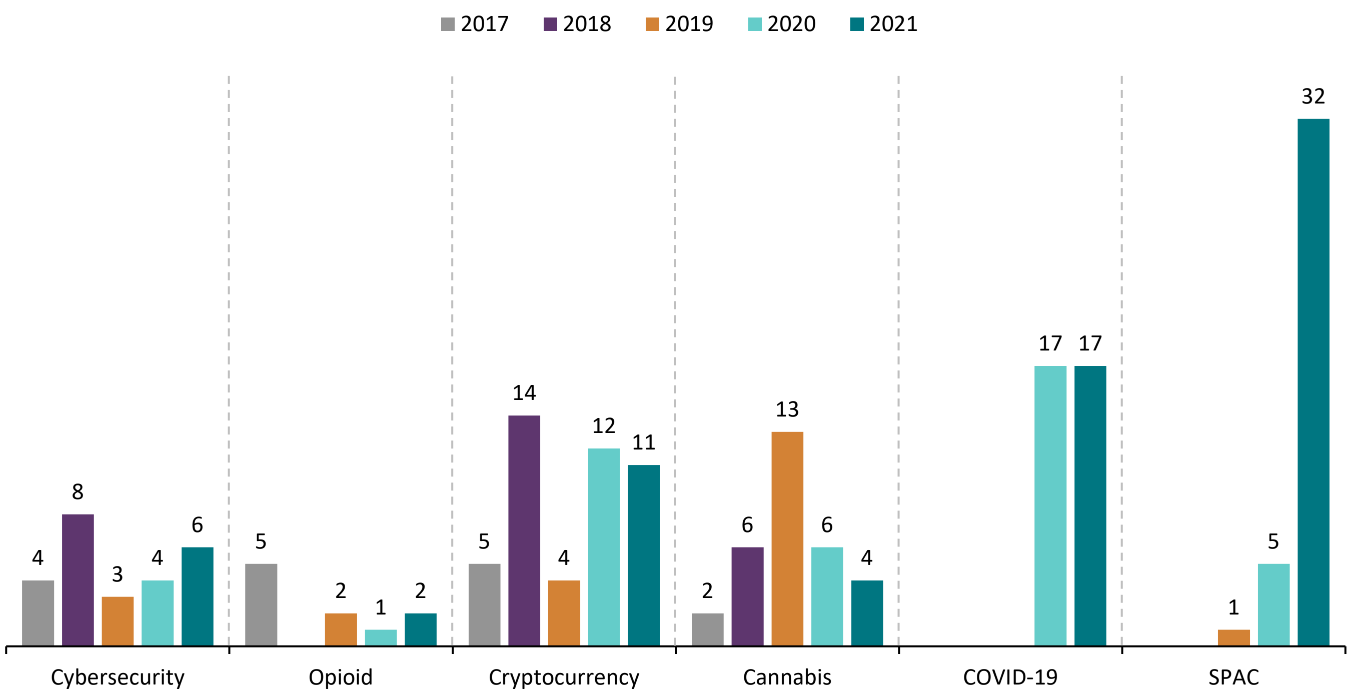
This figure highlights recent trends that have appeared in core filing activity.

- The most dominant trend in 2021 concerned SPACs, with 32 filings, followed by COVID-19 (17 filings) and cryptocurrency (11 filings).
- Federal SPAC filings increased more than sixfold from five in 2020 to 32 in 2021. Of these, 11 filings (34%) were related to the auto industry.
- COVID-19 filings fell from 10 in 2021 H1 to seven in 2021 H2. Of the 2021 H2 COVID-19 filings, five concerned companies that were alleged to have misrepresented temporary increases in demand due to the pandemic. Six of the 2021 H1 COVID-19 filings involved companies developing COVID vaccines, tests, masks, or treatments.
- Cryptocurrency filings remained elevated. Of these, two were against the same defendant (Coinbase Global Inc.). One filing against Coinbase Global contained allegations surrounding the definition of exchanges and securities.

Federal SPAC filings increased more than sixfold, while the number of COVID-19-related filings remained constant.

- There were six cybersecurity filings in 2021, four of which occurred in 2021 H2 (and all in a span of eight days in July). These filings were in response to reviews from the Cyberspace Administration of China.
- Cannabis-related filings fell from six in 2020 to four in 2021, only one of which occurred in 2021 H2.
- While the number of opioid filings remained low, one of the 2021 filings was especially large. About half of the total MDL associated with opioid filings since the first opioid filing in 2016 is attributable to a January 2021 filing.

Figure 4: Summary of Trend Cases—Core Federal Filings
2017–2021



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

Industry Comparison of Federal SPAC Filings

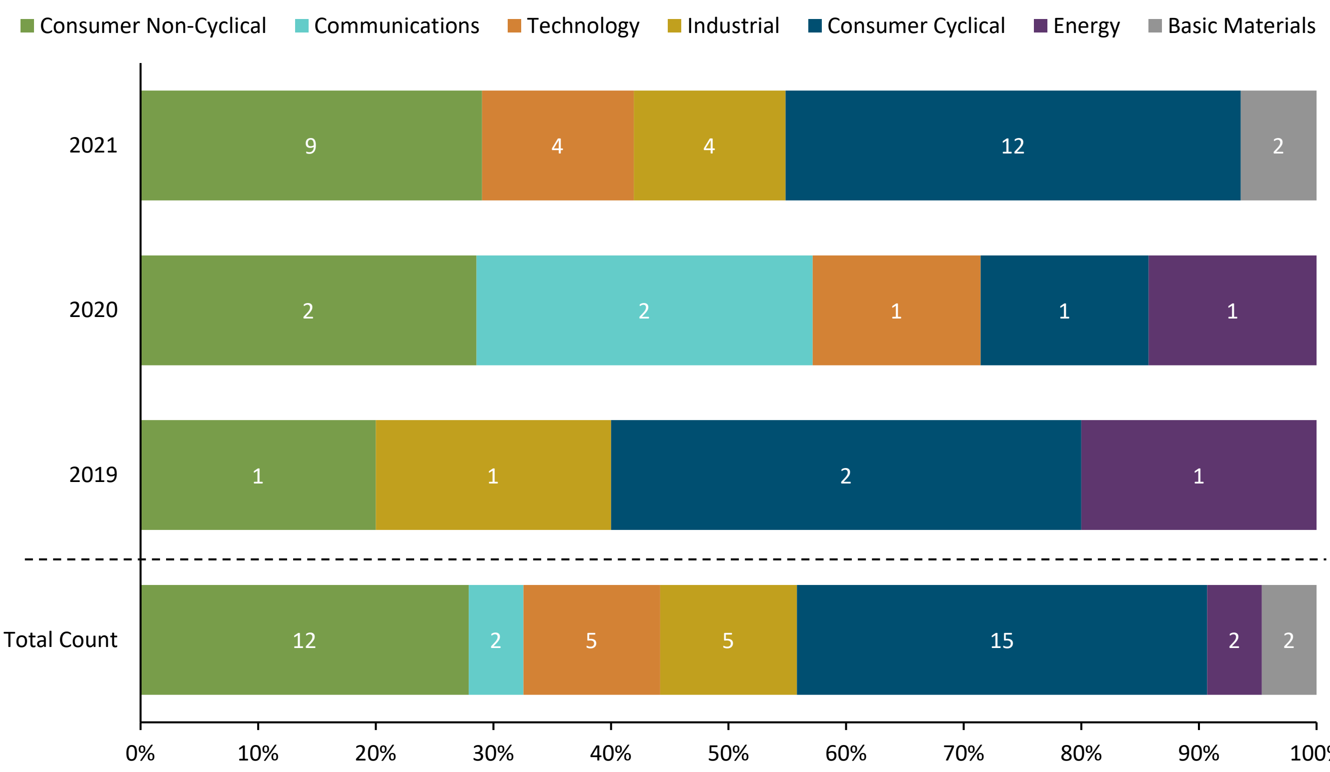
This analysis examines the industry composition associated with the substantial increase in federal filings against current and former SPACs observed over the last three years.

- Of the 15 SPAC Consumer Cyclical filings in the last three years, 10 had a subsector classification of Auto Manufacturers or Auto Parts & Equipment, nine of which were filed in 2021. Two other filings (for a total of 11 in 2021) were also related to the auto industry.
- Three subsectors—Entertainment, Retail, and Leisure Time—made up the remaining filings in the Consumer Cyclical sector.
- The Consumer Non-Cyclical sector was the second most common sector for SPAC filings.
- The Industrial sector had four SPAC filings in 2021, bringing its three-year total to five filings.

One-third of all SPAC filings in 2021 involved the auto industry.

- Among Consumer Non-Cyclical SPAC filings, healthcare-related subsectors appeared for the first time in 2021, accounting for six of the nine total Consumer Non-Cyclical filings. These subsectors comprised Biotechnology (one filing), Healthcare-Services (three filings), Healthcare-Products (one filing), and Pharmaceuticals (one filing).
- Consumer Non-Cyclical SPAC filings in 2019–2021 also included the following subsectors: Commercial Services (three filings), Food (one filing), and Agriculture (one filing).

Figure 5: Filings by Industry—All Federal SPAC Filings



Note: M&A SPAC filings are included in this exhibit. Filings with missing sector information or infrequently used sectors are excluded. Some filings in which the security at issue could not be used to calculate market capitalization may also be excluded. As a result, numbers in this chart may not match other total SPAC counts listed in the report. See Additional Notes to Figures for more detailed information.

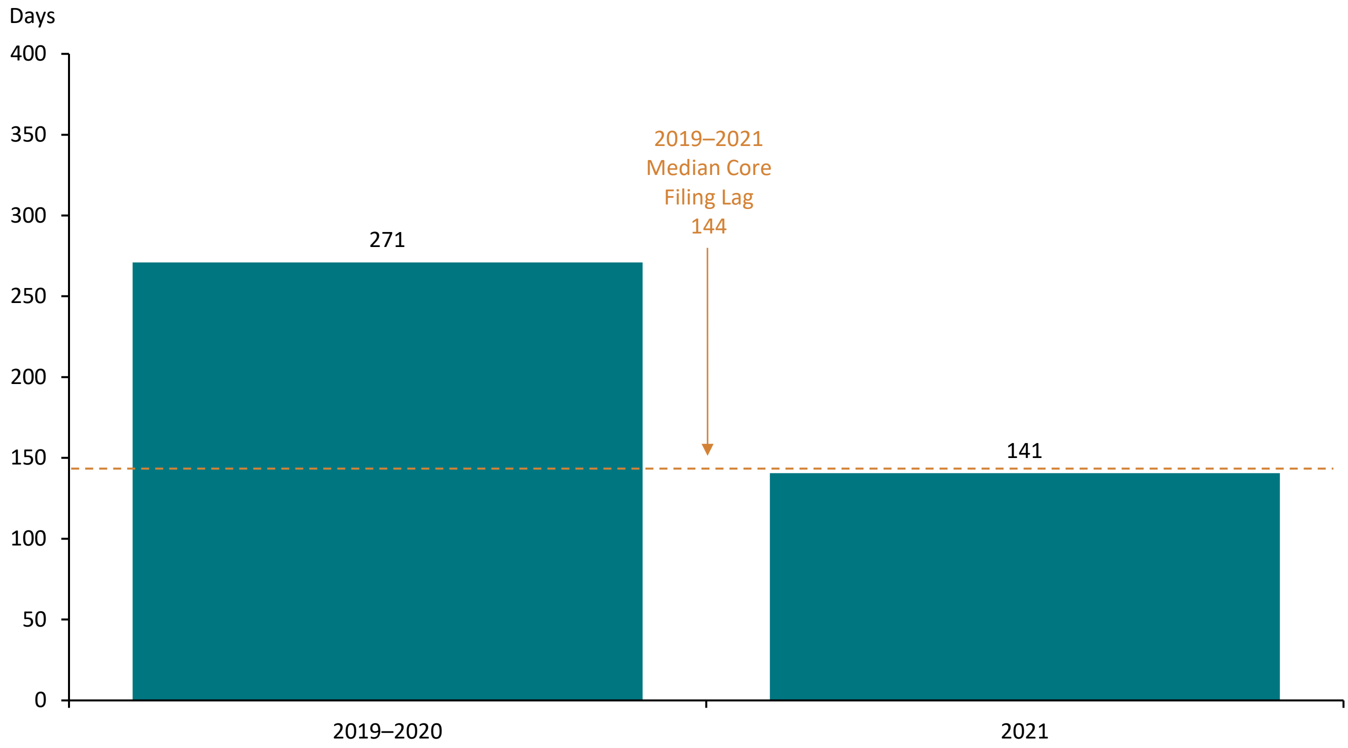
Lag between De-SPAC Transaction and Core Federal Filings

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 much greater in 2019–2020 (271 days) than it was in 2021 (141 days).
- The 2021 median filing lag after a De-SPAC Transaction (141 days) is only slightly less than the overall 2019–2021 median filing lag (144 days, or roughly four and a half months).

From 2019 through 2021, the median filing lag for a SPAC subject to a core federal filing was roughly four and a half months.

Figure 6: Median Lag between De-SPAC Transaction and Core Federal SPAC Filings
2019–2021



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

Note: Federal M&A SPAC filings are not considered, as they typically occur before the closing date of the De-SPAC Transaction. Additionally, the analysis excludes two filings against SPACs that did not complete the merger transactions referenced in the filing and one filing against a SPAC that was made before the merger transaction was completed. See Additional Notes to Figures for more detailed information.

Federal SPAC Filing Allegations

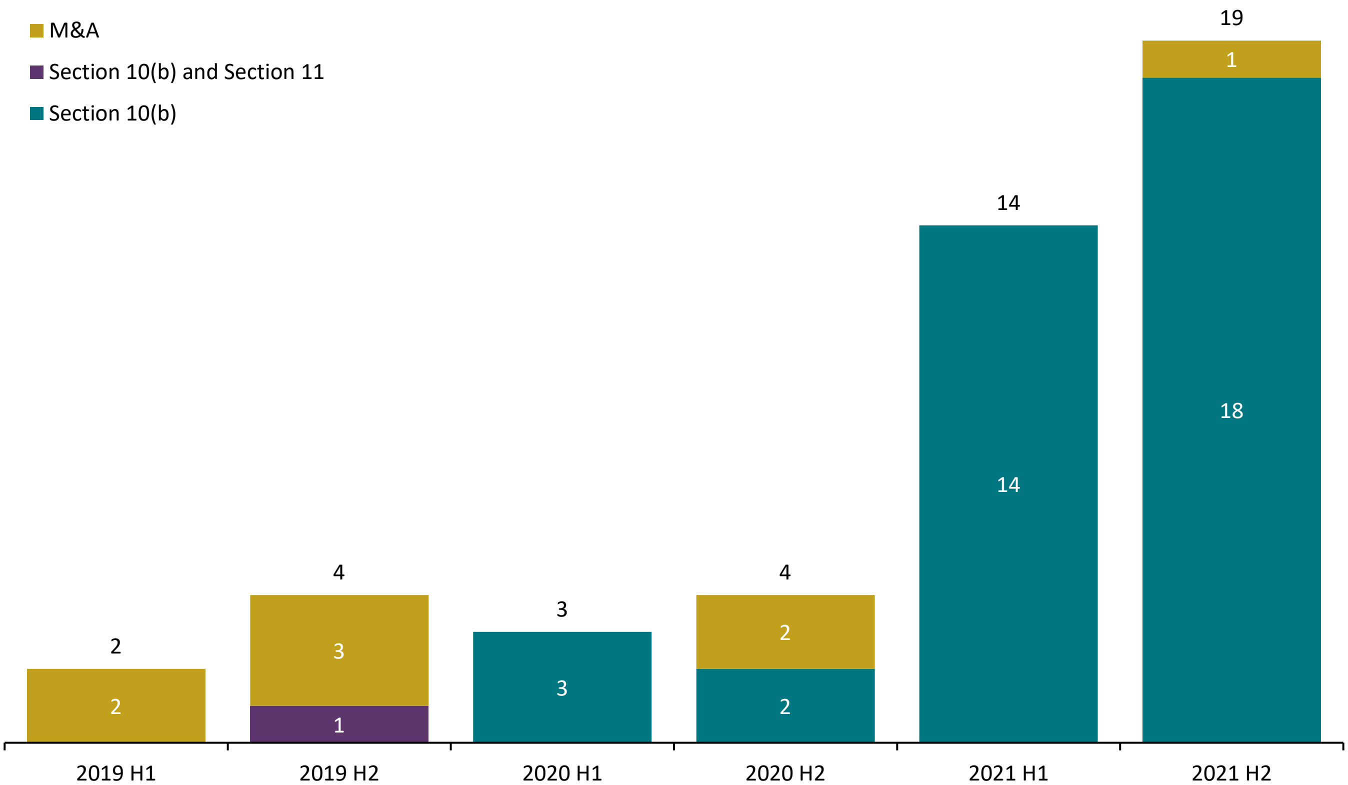
The figure below illustrates how the types of allegations in filings against current and former SPACs have changed over time. Allegations are based on first identified complaints.

- According to *SPAC Insider*, as of December 31, 2021, 291 SPAC merger transactions have closed since the start of 2019. Over this same period, there have been 46 federal SPAC filings.
- This equates to a core litigation rate of about 13%, slightly above the *cumulative* core litigation rate that recent newly public issuers have faced in the first two years after IPOs.[1]

The rate of core filings involving SPACs is approximately 13%.

- While nearly all federal SPAC filings were M&A filings in 2019, in 2021, only one of the 33 SPAC filings had Section 14 allegations while 32 had Section 10(b) allegations.
- Over the last three years, only one federal SPAC filing has included Section 11 allegations.
- Over the last two years, The Rosen Law Firm, Pomerantz LLP, and Glancy Prongay & Murray LLP accounted for 73% of first identified core federal SPAC filings, compared to 61% for all first identified core federal non-SPAC filings.
- In 37% of all 2019–2021 federal SPAC filings, one or more stock-price drops was alleged to have resulted from a short-seller report.

Figure 7: Federal SPAC Filing Allegations
2019–2021



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. One filing in 2021 included both Section 10(b) and M&A allegations. This filing is characterized as Section 10(b) rather than M&A.

[1] See Appendix 5: Litigation Exposure for IPOs in the Given Periods—Core Filings.

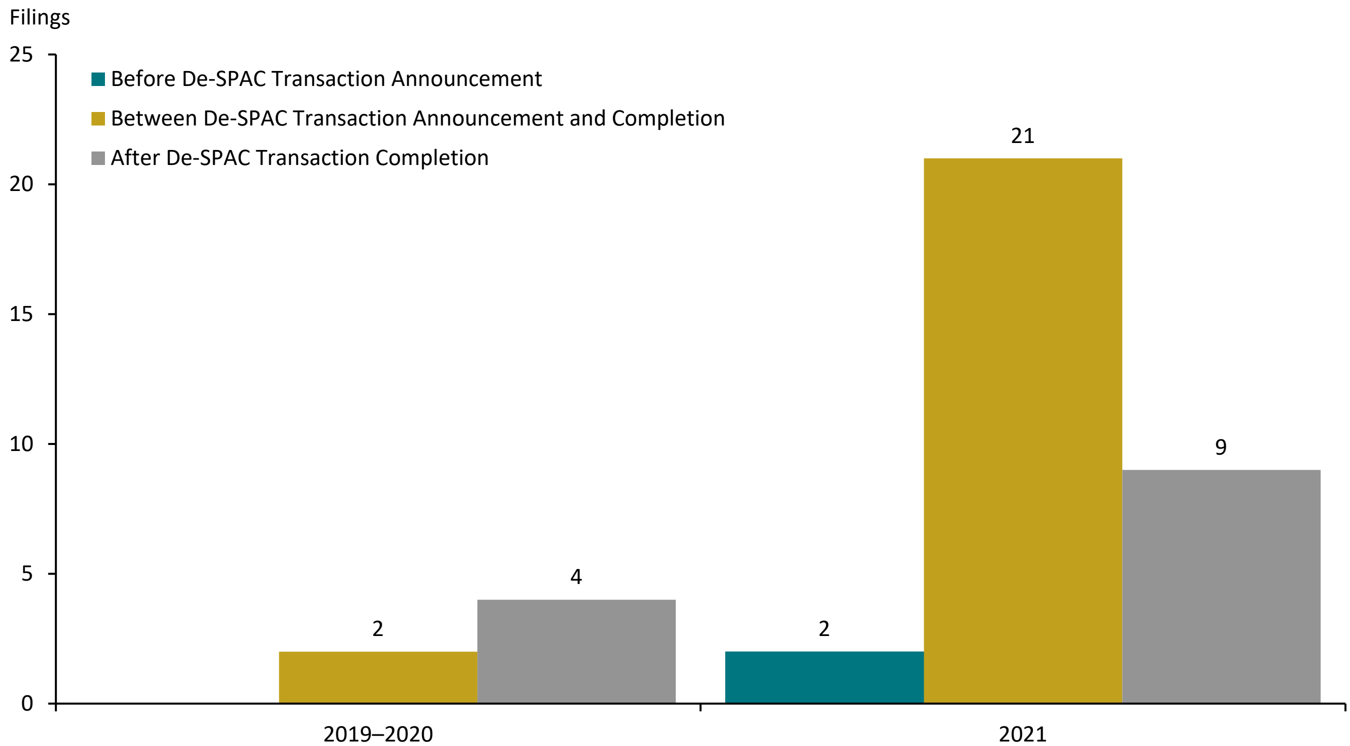
New: SPAC Filing Class Period Start Date Analysis

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, 61% 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.

- 2021 was the first year in which any core federal SPAC complaint alleged a class period start date before the De-SPAC Transaction announcement date. This occurred in two of the 32 core federal SPAC filings in 2021.
- Of the core federal SPAC filings in 2021 that did not allege a class period start date before the De-SPAC Transaction date, 70% alleged a class period start date between the De-SPAC Transaction announcement and completion dates.
- Total core federal SPAC filings increased dramatically in 2021 to 533% of the combined 2019–2020 count of such filings.

Figure 8: Core Federal SPAC Filing Class Period Start Date Analysis
2019–2021



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®)

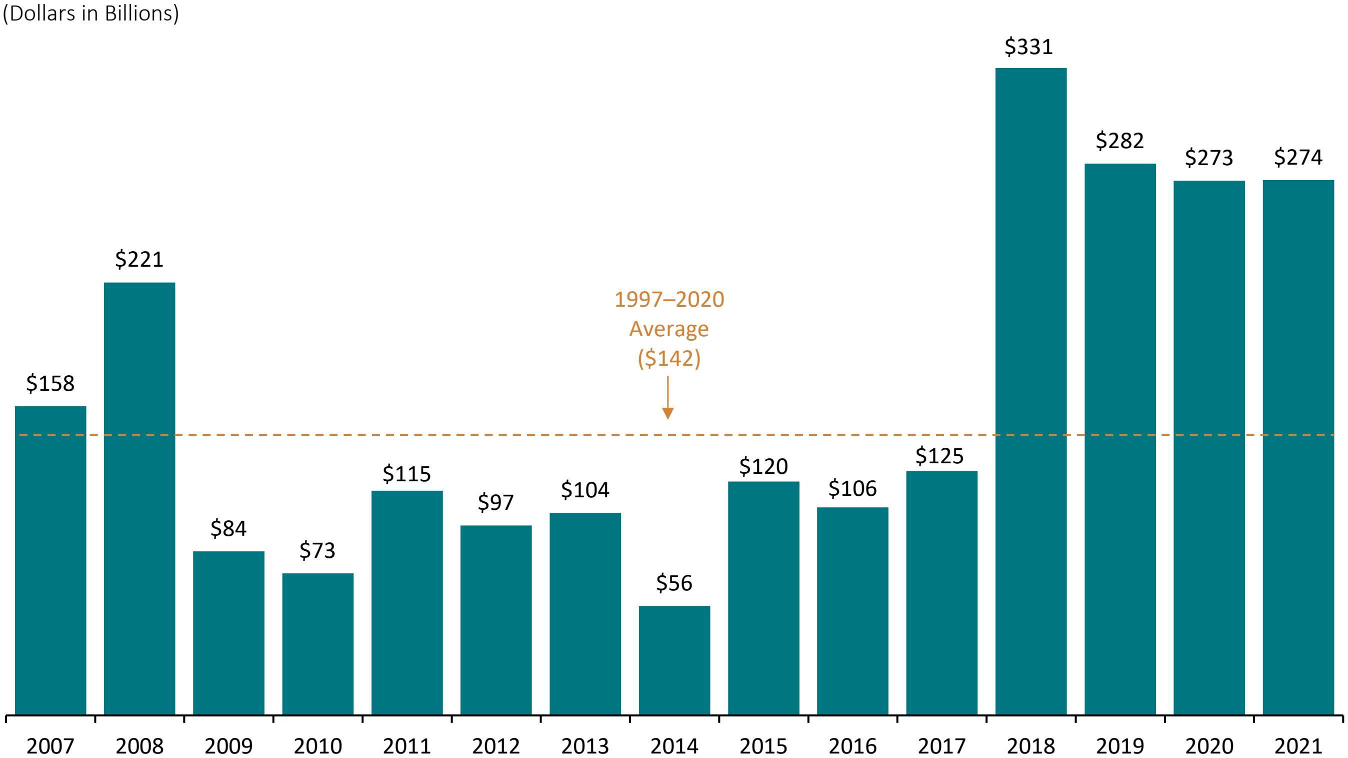
This index measures the aggregate annual DDL for all federal and state filings. DDL is the dollar-value change in the defendant firm's market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period. See the Glossary for additional discussion on market capitalization losses and DDL.

The DDL Index remained at the previous year's level, well above historical averages.

- The DDL Index of $274 billion remained virtually unchanged from the previous year, although down 17% from the all-time high in 2018. The 2021 DDL index value remained substantially higher than the 1997–2020 average.
- As shown in Figure 10, the 2021 median DDL per filing more than doubled the 2020 median, reversing a two-year decline. See Appendix 1 for DDL totals, averages, and medians from 1997 to 2020.
- There were 11 mega DDL filings in state and federal courts in 2021, accounting for 57% of total DDL, or $157 billion.

Figure 9: Disclosure Dollar Loss Index® (DDL Index®)
2007–2021

(Dollars in Billions)

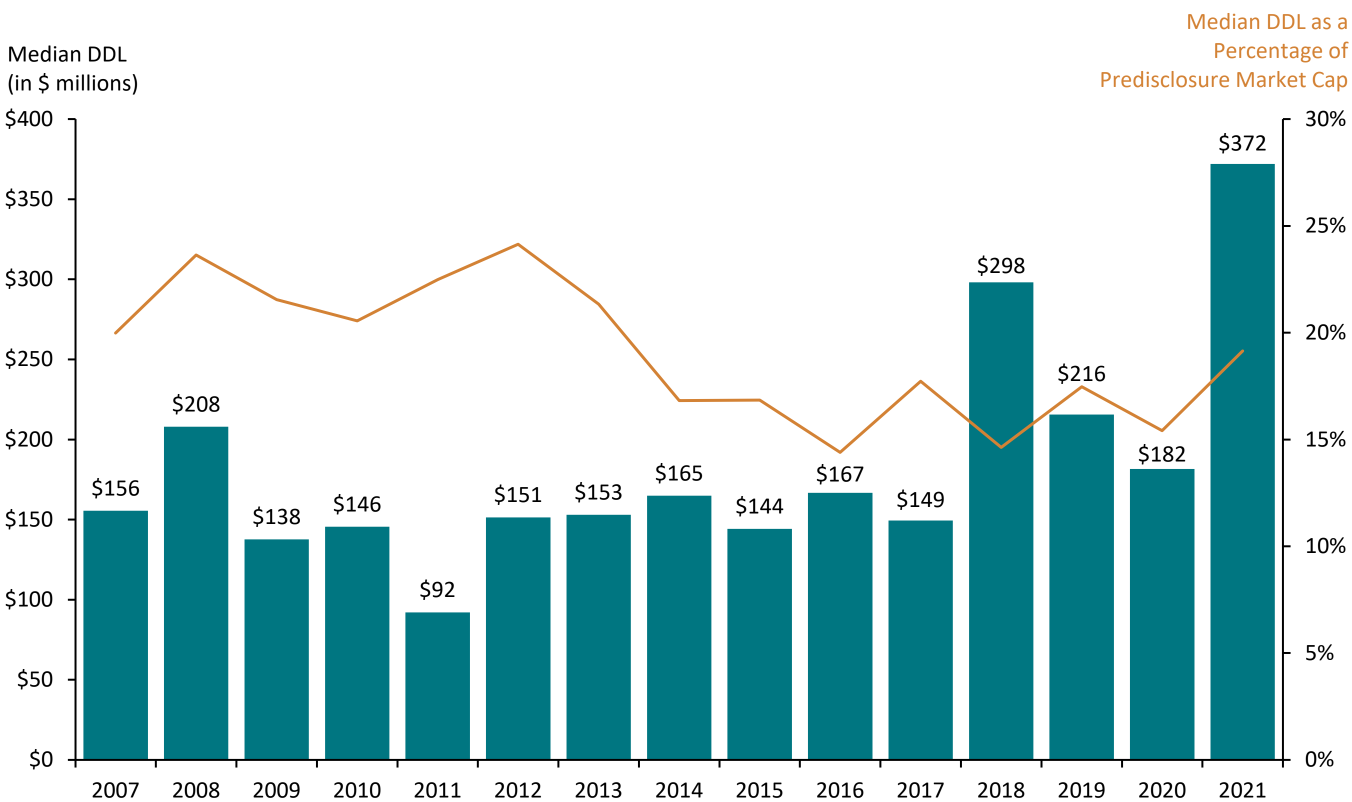


Note: This figure begins including DDL associated with state 1933 Act filings in 2010. As a result, this figure's DDL Index will not match those in Figure 27 or Appendices 6–8, which summarize federal filings. DDL associated with parallel class actions is only counted once in this figure.

- As shown by the gold line in the figure below, since 2014, the typical (i.e., median) percentage stock price drop at the end of the class period has oscillated between about 15% and 18% of the predisclosure market capitalization. That measure was 19% in 2021, slightly higher than 2017 and 2019 levels.
- 2021 had the highest median DDL per filing on record, 163% above the 1997–2020 average.
- This record-high level of median DDL is the first time this metric has exceeded $300 million and is only the fourth time it has exceeded $200 million.

Median DDL in 2021 more than doubled its 2020 measure, reaching a record high, while the median value of DDL as a percentage of predisclosure market capitalization rose to 19%, slightly above 2014 to 2020 levels.

Figure 10: Median Disclosure Dollar Loss
2007–2021



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 Figure 27 or Appendices 6–8, which summarize federal filings. DDL associated with parallel class actions is only counted once in this figure.

Maximum Dollar Loss Index® (MDL Index®)

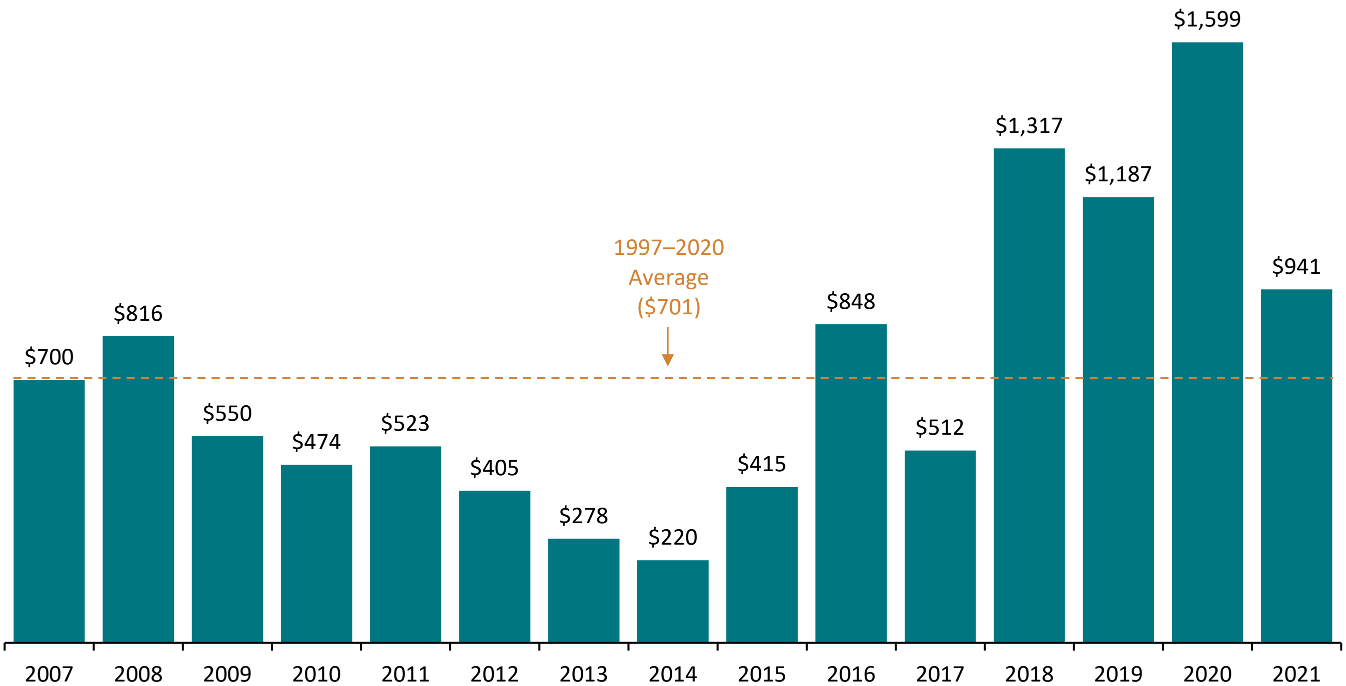
This index measures the aggregate annual MDL for all federal and state filings. MDL is the dollar-value change in the defendant firm's market capitalization from the trading day with the highest market capitalization during the class period to the trading day immediately following the end of the class period. See the Glossary for additional discussion on market capitalization losses and MDL.

- The MDL Index sharply declined 41% to $941 billion, but was still more than 34% above the 1997–2020 average. See Appendix 1 for MDL totals, averages, and medians from 1997 to 2021.
- Despite the MDL Index's sharp decline, the 2021 median MDL of $1.419 billion was the second highest on record, 103% above the 1997–2020 average. This is slightly below the record level of $1.494 billion in 2002, but well above the third-highest year, 2008, with $1.077 billion. See Appendix 1.
- There were 20 mega MDL filings in federal courts in 2021—lower than in 2020 but still 40% above the 1997–2020 average. See Figure 27.
- The 22 mega MDL filings in both state and federal courts accounted for $640 billion, or 68%, of total MDL.

The MDL Index sharply declined by 41%, falling under $1 trillion for the first time since 2017.

Figure 11: Maximum Dollar Loss Index® (MDL Index®)
2007–2021

(Dollars in 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 Figure 27 or Appendices 6–8, which summarize federal filings. MDL associated with parallel class actions is only counted once in this figure.

Classification of Federal Complaints

- Of the 2021 core federal filings, 14% contained a Section 11 claim (up from 10% in 2020).
- Section 12(a) claims decreased from 11% of core federal filings in 2020 to 6% in 2021.
- Core federal filings with allegations of internal control weaknesses declined by nearly 50%, from 18% in 2020 to only 9% in 2021, the lowest level over the last five years. Similarly, allegations related to announced restatements dropped to just 3%, also the lowest level over the last five years.

Rule 10b-5 claims were asserted in 91% of core federal filings in 2021, the highest level since 2017.

- Core federal filings with allegations of announced internal control weaknesses decreased from 7% in 2020 to 4% in 2021, continuing a decline from 2019.

Figure 12: Allegations Box Score—Core Federal Filings

	Percentage of Filings[1]				
	2017	2018	2019	2020	2021
Allegations in Core Federal Filings[2]					
Rule 10b-5 Claims	93%	86%	87%	85%	91%
Section 11 Claims	12%	10%	16%	10%	14%
Section 12(a) Claims	4%	10%	7%	11%	6%
Misrepresentations in Financial Documents[3]	100%	95%	98%	90%	90%
False Forward-Looking Statements	46%	48%	47%	43%	43%
Trading by Company Insiders	3%	5%	5%	4%	6%
Accounting Violations[4]	22%	23%	23%	27%	22%
Announced Restatement[5]	6%	5%	8%	5%	3%
Internal Control Weaknesses[6]	14%	18%	18%	18%	9%
Announced Internal Control Weaknesses[7]	7%	7%	10%	7%	4%
Underwriter Defendant	8%	8%	11%	9%	10%
Auditor Defendant[8]	0%	0%	0%	0%	0%

Note:

1. The percentages do not add to 100% because complaints may include multiple allegations.
2. Core federal filings are all federal securities class actions excluding those defined as M&A filings.
3. First identified complaint (FIC) includes alleged misrepresentations of information in financial documents, including, but not limited to, those filed with the U.S. Securities and Exchange Commission (SEC) (e.g., Form 10-Ks and registration statements) and press releases announcing financial results.
4. FIC includes allegations of U.S. GAAP violations or violations of other reporting standards such as IFRS. In some cases, plaintiff(s) may not have expressly referenced violations of U.S. GAAP or other reporting standards; however, the allegations, if true, would represent violations of U.S. GAAP or other reporting standards.
5. FIC includes allegations of Accounting Violations and refers to an announcement during or subsequent to the class period that the company will restate, may restate, or has unreliable financial statements.
6. FIC includes allegations of internal control weaknesses over financial reporting.
7. FIC includes allegations of internal control weaknesses and refers to an announcement during or subsequent to the class period that the company has internal control weaknesses over financial reporting.
8. In each of 2018, 2019, and 2020, there was one FIC with allegations against an auditor defendant.
9. 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, 9–11, 13, 20, or 22–23.

U.S. Exchange-Listed Companies

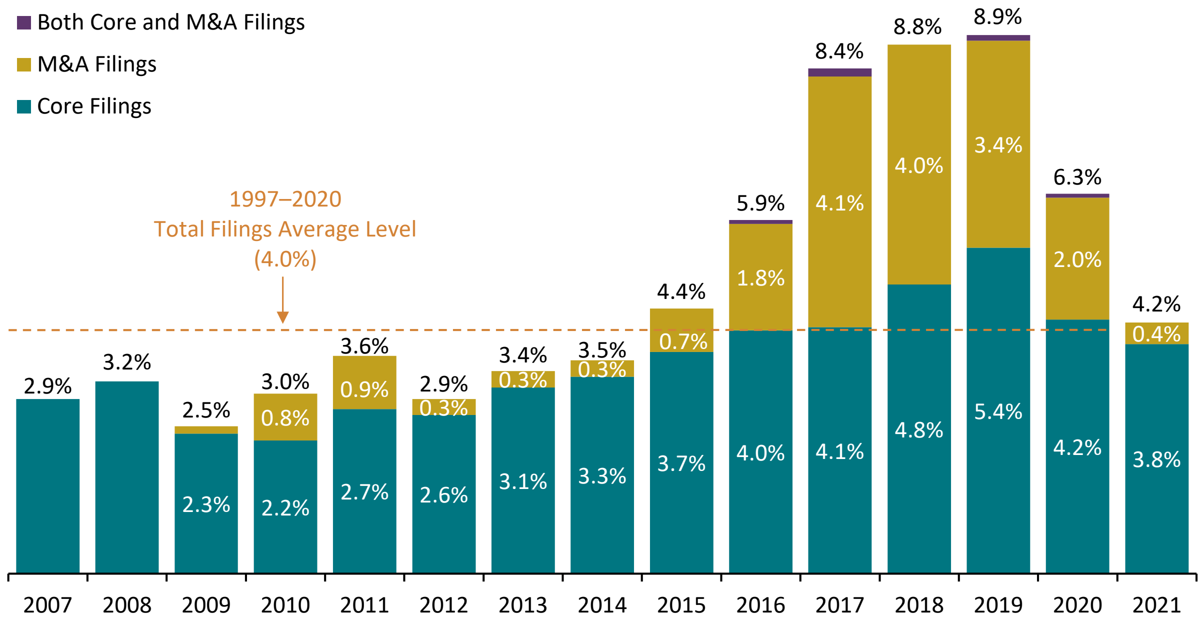
The percentage of companies subject to filings is calculated as the unique number of companies listed on the NYSE or Nasdaq subject to federal or state securities fraud class actions in a given year divided by the unique number of companies listed on the NYSE or Nasdaq in the same year.

- The percentage of companies subject to filings decreased for the second year in a row, falling to 4.2%, its lowest point in seven years and in line with the 1997–2020 average level of 4.0%. Similarly, the percentage of companies subject to core filings decreased to its lowest point in six years (3.8%).
- While M&A class action litigation in federal courts has subsided, the risk of core stock price drop litigation remains elevated above pre-2015 levels, even after two consecutive declines from an all-time high of 5.4% in 2019.

While lower than in recent years, the likelihood of stock drop filings targeting U.S. exchange-listed companies is still higher than it was at the top of the credit crisis.

- The percentage of all companies subject to M&A filings fell to 0.4%, putting it at levels similar to those prior to 2016.
- Filing volume was down in 2021 for firms listed on both exchanges, but total filing size rose for firms listed on Nasdaq (total DDL rose from $120 million to $163 million). The decline in total filings for NYSE-listed firms (42%) was steeper than that for firms listed on Nasdaq (27%). See Appendix 8 for more information about filings by exchange.

Figure 13: Percentage of U.S. Exchange-Listed Companies Subject to Federal or State Filings
2007–2021



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Number of Firms	5,467	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
Percent Change	(1.0%)	(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%

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.

Heat Maps: S&P 500 Securities Litigation™ for Federal Core Filings

The Heat Maps analysis illustrates federal court securities class action activity by industry sector for companies in the S&P 500 index. Starting with the composition of the S&P 500 at the beginning of each year, the Heat Maps examine each sector by:

(1) The percentage of these companies subject to new securities class actions in federal court during each calendar year.

(2) The percentage of the total market capitalization of these companies subject to new securities class actions in federal court during each calendar year.

- Of the companies in the S&P 500 at the beginning of 2021, approximately one in 45 (2.2%) was subject to a core federal filing. This percentage is the lowest since 2015, and the third lowest on record. See Appendix 2A for percentage of companies by sector from 2001 to 2021.

The likelihood of an S&P 500 company being sued continued to decline after a decade-high in 2018.

- The Consumer Discretionary, Financials/Real Estate, Health Care, and Utilities sectors all had no federal filings, which has not occurred for any sector since 2015.
- The percentage of companies subject to core federal filings in the Consumer Staples, Energy/Materials, and Communication Services/Telecommunications/Information Technology sectors more than doubled relative to 2020.

Figure 14: Heat Maps of S&P 500 Securities Litigation™ Percentage of Companies Subject to Core Federal Filings

	Average 2001–2020	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Consumer Discretionary	5.3%	4.9%	8.4%	1.2%	0.0%	3.6%	8.5%	10.0%	3.1%	8.1%	0.0%
Consumer Staples	3.7%	2.4%	0.0%	0.0%	5.0%	2.6%	2.7%	11.8%	12.1%	3.1%	6.3%
Energy/Materials	1.6%	2.7%	0.0%	1.3%	0.0%	4.5%	3.3%	1.8%	3.7%	1.9%	5.7%
Financials/Real Estate	7.5%	3.7%	0.0%	1.2%	1.2%	6.9%	3.3%	7.0%	2.0%	5.3%	0.0%
Health Care	8.9%	1.9%	5.7%	0.0%	1.9%	17.9%	8.3%	16.1%	12.9%	6.3%	0.0%
Industrials	4.1%	1.6%	0.0%	4.7%	0.0%	6.1%	8.7%	8.8%	10.1%	2.7%	1.4%
Communication Services/ Telecommunications/ Information Technology	6.3%	3.8%	9.1%	0.0%	4.2%	6.8%	8.5%	12.7%	10.0%	2.0%	5.1%
Utilities	5.3%	0.0%	0.0%	0.0%	3.4%	3.4%	7.1%	7.1%	6.9%	7.1%	0.0%
All S&P 500 Companies	5.5%	3.0%	3.4%	1.2%	1.6%	6.6%	6.4%	9.4%	7.2%	4.4%	2.2%

0% | 0–5% | 5–15% | 15–25% | 25%+

Note:

1. The figure is based on the composition of the S&P 500 as of the last trading day of the previous year. Sectors are based on the Global Industry Classification Standard (GICS), which differ from those in the Bloomberg Industry Classification System used in Figures 5 and 28.

2. Percentage of Companies Subject to Core Federal Filings equals the number of companies subject to new securities class action filings in federal courts in each sector divided by the total number of companies in that sector.

3. In August 2016, GICS added a new industry sector, Real Estate. This analysis begins using the Real Estate industry sector in 2017. In 2018, the Telecommunication Services sector was incorporated into a new sector, Communication Services. With this name change, all companies previously classified as Telecommunication Services and some companies classified as Consumer Discretionary (such as Netflix, Comcast, and CBS) and Information Technology (such as Alphabet and Facebook) were reclassified into the Communication Services sector.

4. 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, 9–11, 13, 20, or 22–23.

- The percentage of total market capitalization of S&P 500 companies subject to core federal filings rose from 4.3% in 2020 to 5.1% in 2021. See Appendix 2B for market capitalization percentage by sector from 2001 to 2021.
- The Consumer Staples sector's percentage of market capitalization subject to core federal filings increased from 1.8% in 2020 to 17.7% in 2021.
- The Energy/Materials sector's percentage of market capitalization subject to core federal filings also increased dramatically, from 0.4% in 2020 to 12.0% in 2021.
- The Financials/Real Estate sector continued to fluctuate annually between low litigation percentages (<5%) and high litigation percentages (>10%) with its drop from 16.9% in 2020 to 0% in 2021.

In five of the eight sectors, the percentage of market capitalization subject to core federal filings fell from the previous year.

Figure 15: Heat Maps of S&P 500 Securities Litigation™ Percentage of Market Capitalization Subject to Core Federal Filings

	Average 2001–2020	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Consumer Discretionary	4.5%	1.6%	4.4%	2.5%	0.0%	2.8%	8.2%	4.7%	0.5%	2.2%	0.0%
Consumer Staples	4.2%	14.0%	0.0%	0.0%	1.9%	1.0%	6.7%	15.2%	9.1%	1.8%	17.7%
Energy/Materials	2.7%	0.9%	0.0%	0.2%	0.0%	19.8%	2.3%	1.4%	1.2%	0.4%	12.0%
Financials/Real Estate	14.5%	11.0%	0.0%	0.3%	3.0%	11.9%	1.5%	12.5%	2.2%	16.9%	0.0%
Health Care	11.5%	0.8%	4.4%	0.0%	3.1%	13.2%	2.7%	26.3%	6.6%	4.7%	0.0%
Industrials	8.9%	1.2%	0.0%	1.7%	0.0%	8.7%	22.3%	19.4%	21.6%	4.9%	0.5%
Communication Services/ Telecommunications/ Information Technology	8.8%	2.2%	16.6%	0.0%	7.0%	12.3%	4.4%	19.4%	18.0%	1.6%	8.2%
Utilities	6.2%	0.0%	0.0%	0.0%	3.7%	4.4%	9.6%	6.5%	7.9%	6.6%	0.0%
All S&P 500 Companies	8.4%	4.3%	4.7%	0.6%	2.8%	10.0%	6.1%	14.9%	10.0%	4.3%	5.1%

0% | 0–5% | 5–15% | 15–25% | 25%+

Note:

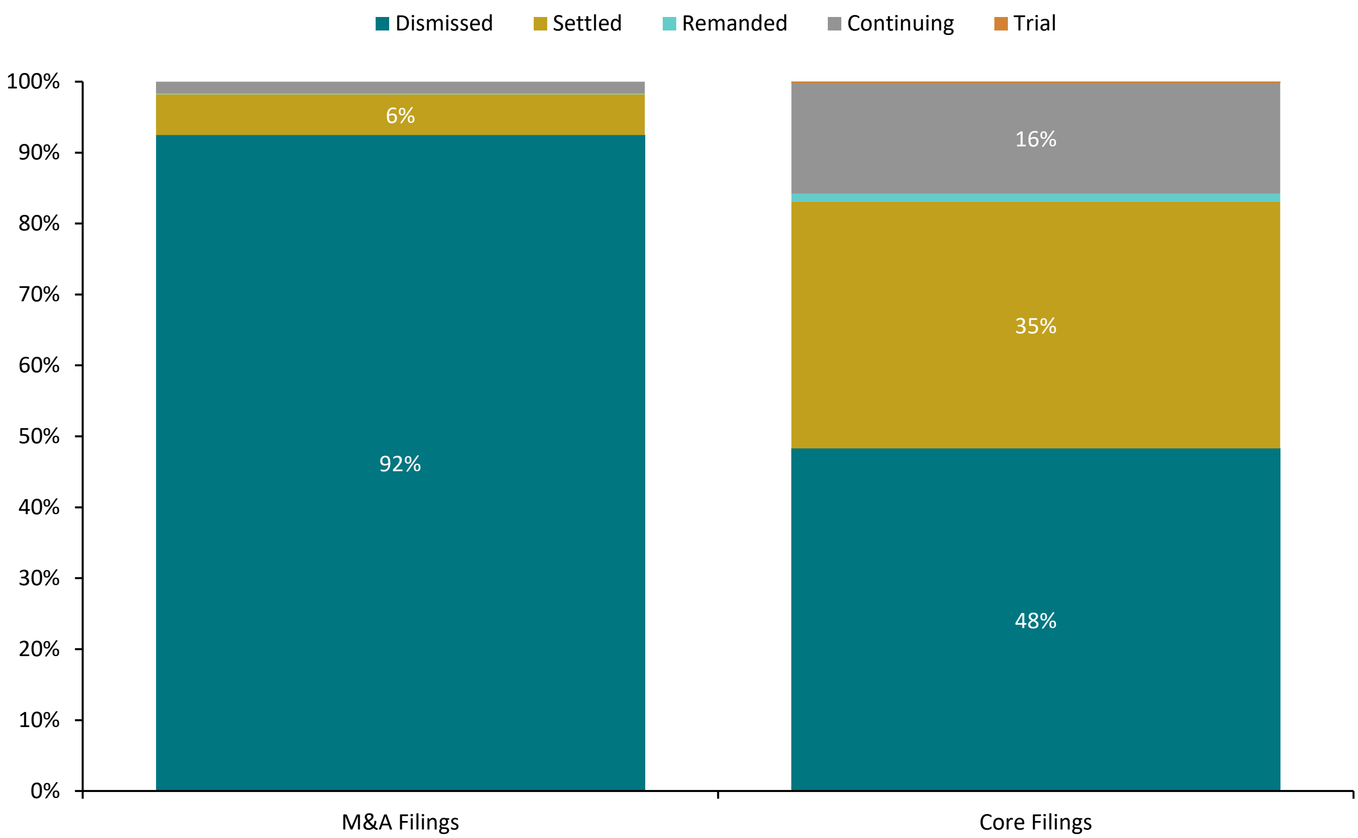
1. The figure is based on the composition of the S&P 500 as of the last trading day of the previous year.
2. Sectors are based on the Global Industry Classification Standard (GICS).
3. Percentage of Market Capitalization Subject to Core Federal Filings equals the market capitalization of companies subject to new securities class action filings in federal courts in each sector divided by the total market capitalization of companies in that sector.
4. In August 2016, GICS added a new industry sector, Real Estate. This analysis begins using the Real Estate industry sector in 2017. In 2018, the Telecommunication Services sector was incorporated into a new sector, Communication Services. With this name change, all companies previously classified as Telecommunication Services and some companies classified as Consumer Discretionary (such as Netflix, Comcast, and CBS) and Information Technology (such as Alphabet and Facebook) were reclassified into the Communication Services sector.
5. 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, 9–11, 13, 20, or 22–23.

Status of M&A Filings in Federal Courts

- There were 837 M&A filings between 2011 and 2020, compared to 1,847 core federal filings over the same period.
- From 2011 to 2020, about 98% of M&A filings were resolved, compared to about 84% of core filings.
- M&A filings were dismissed almost twice as often as core federal filings over the last 10 years, with a dismissal rate 44% higher than that of core filings. The settlement rate of core filings was nearly six times the settlement rate for M&A filings. See Appendix 3 for a year-by-year overview of M&A and core filings status.

M&A filings continued to be dismissed at a much higher rate and settled at a much lower rate than core federal filings.

Figure 16: Status of M&A Filings Compared to Core Federal Filings
2011–2020



Note:

1. The Securities Class Action Clearinghouse began tracking M&A filings as a separate category in 2009.
2. The 2021 filing cohort is excluded since a large percentage of cases are ongoing.
3. Percentages may not sum to 100% due to rounding.
4. 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, 9–11, 13, 20, or 22–23.

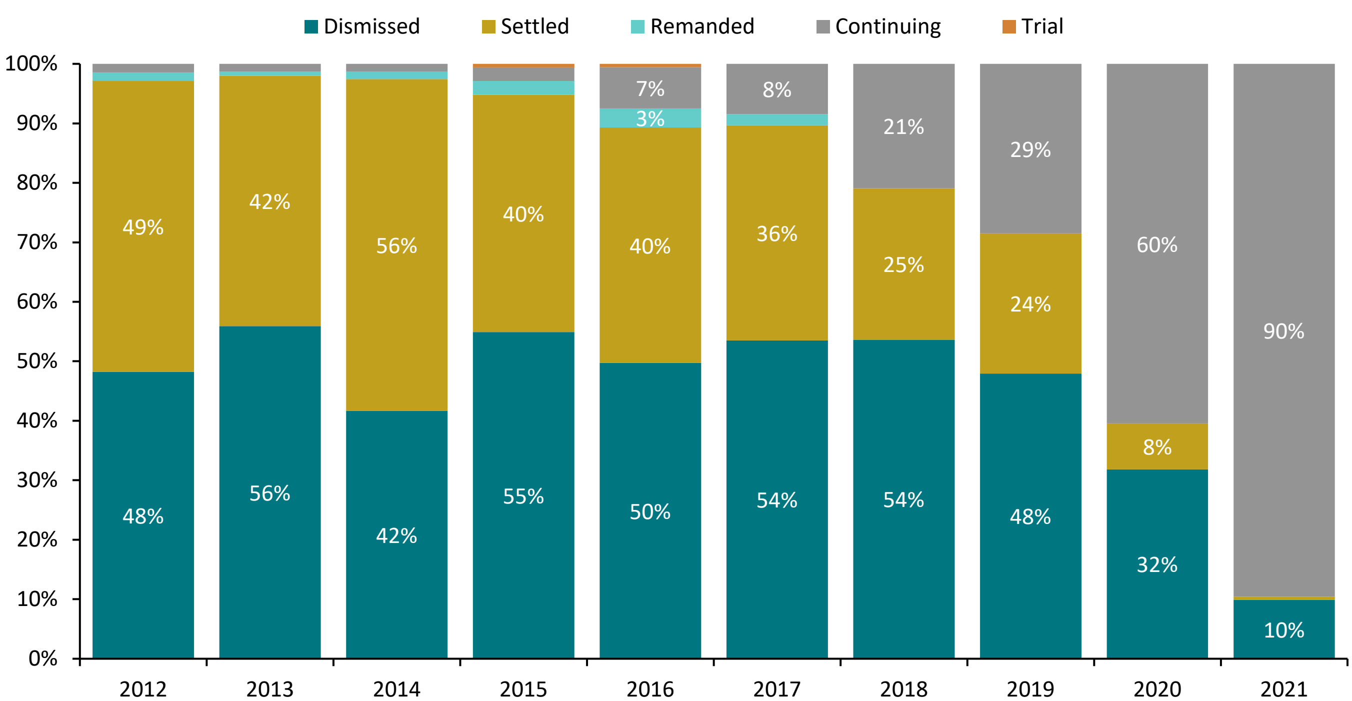
Status of Core Federal Securities Class Action Filings

This analysis compares filing groups to determine whether filing outcomes have changed over time. As each cohort ages, a larger percentage of filings are resolved—whether through dismissal, settlement, remand, or by trial. In the first few years after filing, a larger proportion of core federal cases are dismissed rather than settled, but in later years more are resolved through settlement than dismissal.

Despite litigation delays due to the COVID-19 pandemic, the 2019 and 2020 cohorts have experienced above-average resolution rates given their maturities.

- From 1997 to 2021, 46% of core federal filings were settled, 43% were dismissed, 0.5% were remanded, and 10% are continuing. During this time, only 0.4% of core federal filings (or 19 cases) reached trial, and less than 0.2% (11 cases) were tried to a verdict.
- The 2020 cohort had the fourth-highest one-year resolution rate on record, despite litigation delays due to the COVID-19 pandemic. Appendix 4 shows the proportion of core federal filings in each cohort that were resolved within each of the first three years after their filing date.
- The 2019 cohort's 71.5% three-year resolution rate is 8.9 percentage points higher than the 1997–2018 average rate and the second highest on record—and will likely get higher given that the data are incomplete.

Figure 17: Status of Filings by Year—Core Federal Filings
2012–2021



Note:

1. Percentages may not sum to 100% due to rounding.

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 may not match Figures 1–3, 9–11, 13, 20, or 22–23.

1933 Act Cases Filed in State Courts

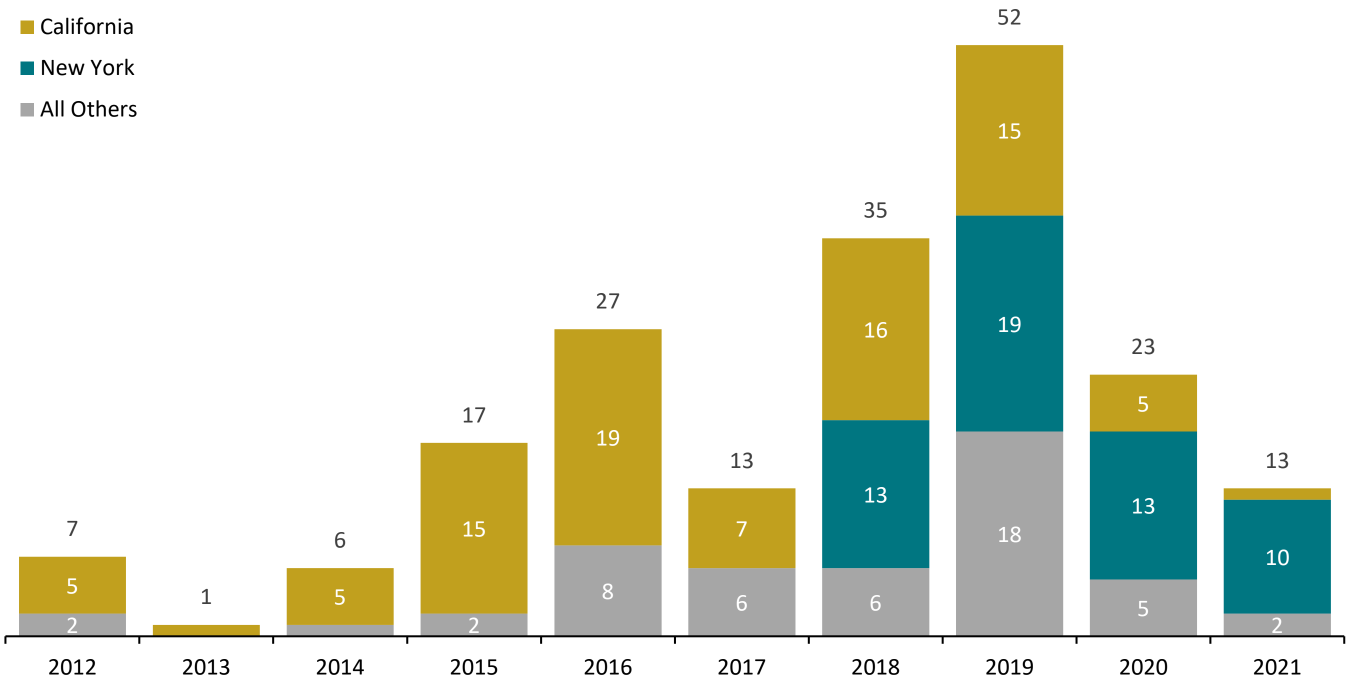
The following data include 1933 Act filings in California, New York, and other state courts. Filings from prior years are added retrospectively when identified. These filings may include Section 11, Section 12, and Section 15 claims, but do not include Rule 10b-5 claims.

- In 2021, the number of state 1933 Act filings dropped dramatically with only one filing in California, 10 filings in New York, and two filings in all other state courts.

State 1933 Act filing activity decreased by 43% from 2020, continuing the steep decline from 2019.

- Filings in New York accounted for the vast majority of state 1933 Act filings in 2021. Of these 10 filings, half were against non-U.S. issuers, similar to the period 2018–2020, when non-U.S. issuers made up 56% of New York state filings. By comparison, only 21% of core federal filings were against non-U.S. issuers in 2021. See Figure 24.
- State 1933 Act filings in states other than New York and California dropped to the lowest level since 2015. Pennsylvania and New Jersey each had one state 1933 Act filing.

Figure 18: State 1933 Act Filings by State
2012–2021



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, 9–11, 13, 20, or 22–23. See Additional Notes to Figures for more detailed information.

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

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.

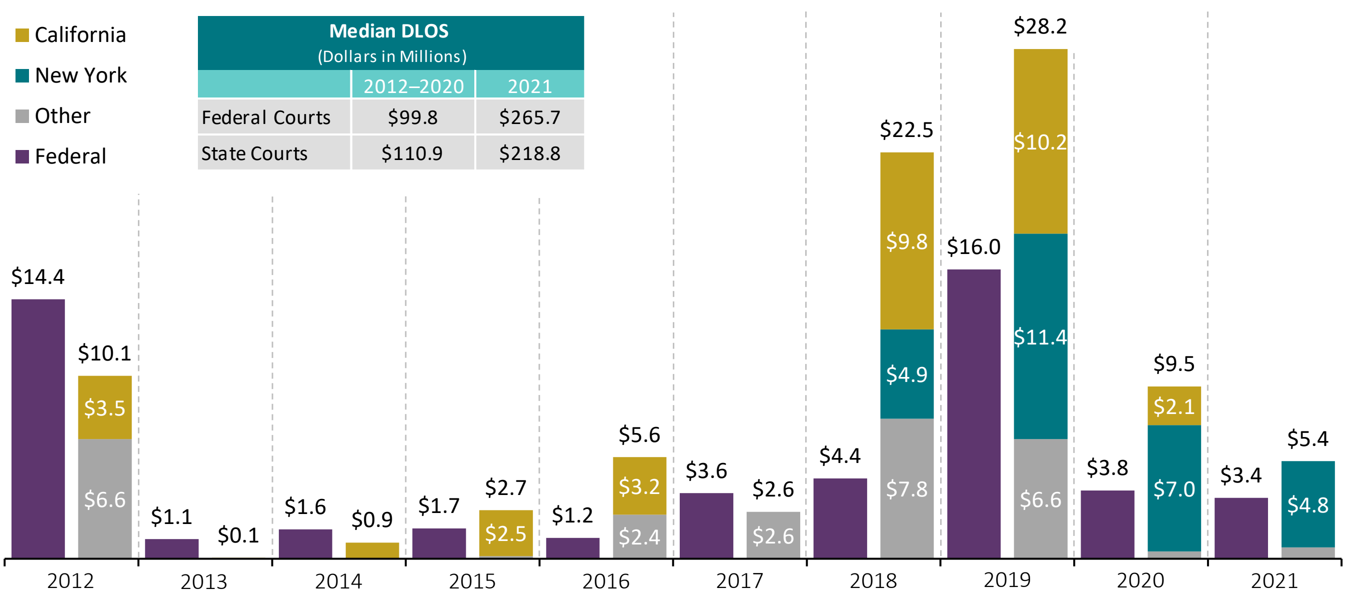
This alternative measure of losses has been calculated for federal filings involving only Section 11 claims (i.e., no Section 10(b) claims) and 1933 Act filings in state courts. This measure, Dollar Loss on Offered Shares (DLOS), aims to capture, more precisely than MDL, the dollar loss associated with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

In 2021, the Dollar Loss on Offered Shares for filings in New York was nearly eight times the amount in all other state courts combined.

- Total DLOS for both federal filings and state 1933 Act filings were well below their 2012–2020 averages of \$5.3 billion and \$9.1 billion, respectively.
- In 2021, DLOS attributable to 1933 Act filings declined by 43%, partially due to the decline in California DLOS.

Figure 19: Dollar Loss on Offered Shares™ (DLOS Index™) for Federal Section 11–Only and State 1933 Act Filings 2012–2021

(Dollars in Billions)



Median DLOS (Dollars in Millions)		
	2012–2020	2021
Federal Courts	\$99.8	\$265.7
State Courts	\$110.9	\$218.8

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

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. See Additional Notes to Figures for more detailed information.

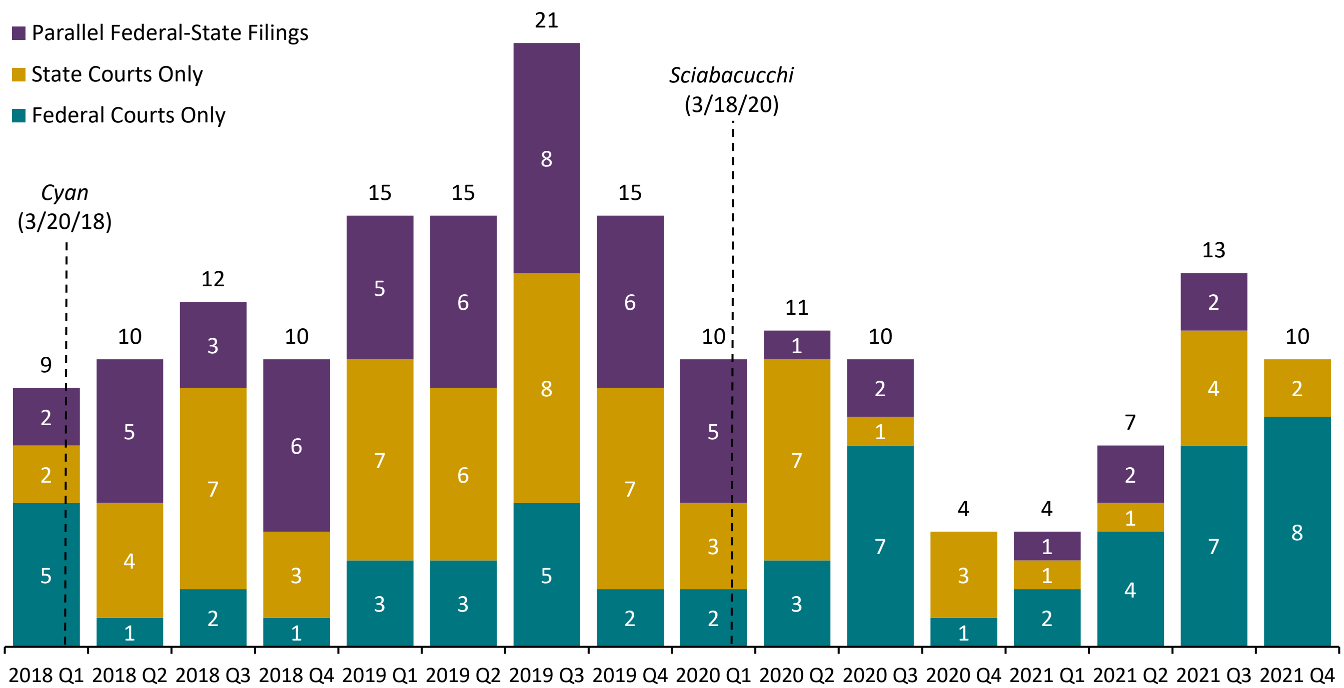
Comparison of Federal Section 11 Filings with State 1933 Act Filings

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.

- Following *Cyan* but before the *Sciabacucchi* decision, 41% of these filings were state-only and 40% were parallel. However, since *Sciabacucchi*, the percentage of state-only filings decreased to 32%, and the percentage of parallel filings decreased to 16%. During this same period, federal-only filings increased dramatically, from 18% to 52%.
- In 2021, overall filing activity was consistent with historical averages (with 34 federal Section 11 and state 1933 Act filings as compared to the 2011–2020 average of 33 filings) but depressed compared to the all-time highs observed in 2019, down 48% by comparison.
- In 2021, federal-only Section 11 filings increased substantially, rising 62% compared to 2020, and comprising 62% of total federal Section 11 and state 1933 Act filings in 2021. This is in contrast to parallel and state-only filings, which fell 38% and 43%, respectively, in 2021.

2021 had the most federal-only Section 11 filings since 2015, and the greatest share of federal-only filings since 2014, likely an effect of the Sciabacucchi *decision.*

Figure 20: Quarterly Federal Section 11 and State 1933 Act Filings
2018–2021



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Bloomberg Law; 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 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 4–8, 12, 14–19, 21, or 24–31. See Additional Notes to Figures for more detailed information.

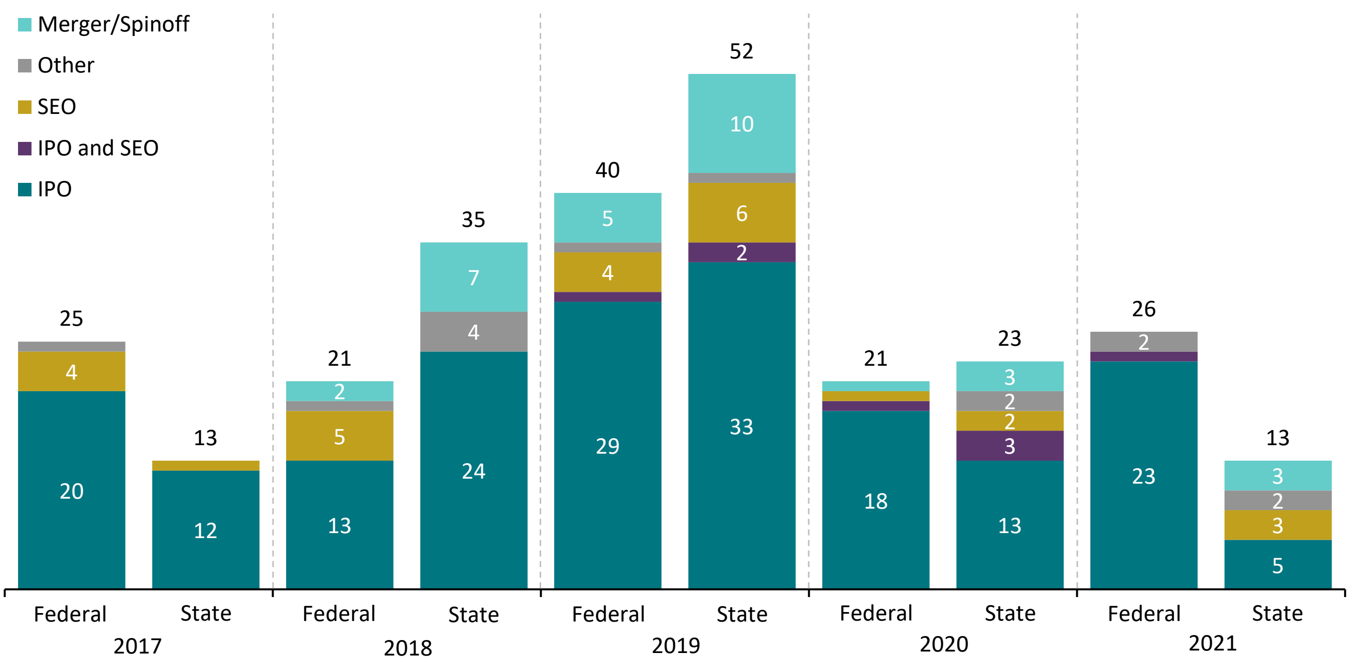
Type of Security Issuance Underlying Federal Section 11 and State 1933 Act Filings

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.

State court filings related to IPOs fell to five, down 62% from 2020 and 85% from 2019.

- IPOs accounted for 88% of Section 11 filings in federal courts, while 1933 Act filings in state courts were more evenly dispersed across all issuance types.
- Following significant growth in 2019, federal Section 11 and state 1933 Act filings have reverted to nearly the same levels as 2017.
- The share of state 1933 Act filings related to IPOs or IPOs and SEOs fell to 38%, the lowest share on record.

Figure 21: Federal Section 11 and State 1933 Act Class Action Filings by Type of Security Issuance
2017–2021



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, 9–11, 13, 20, or 22–23. 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.

IPO Activity and Federal Section 11 and State 1933 Act Filings

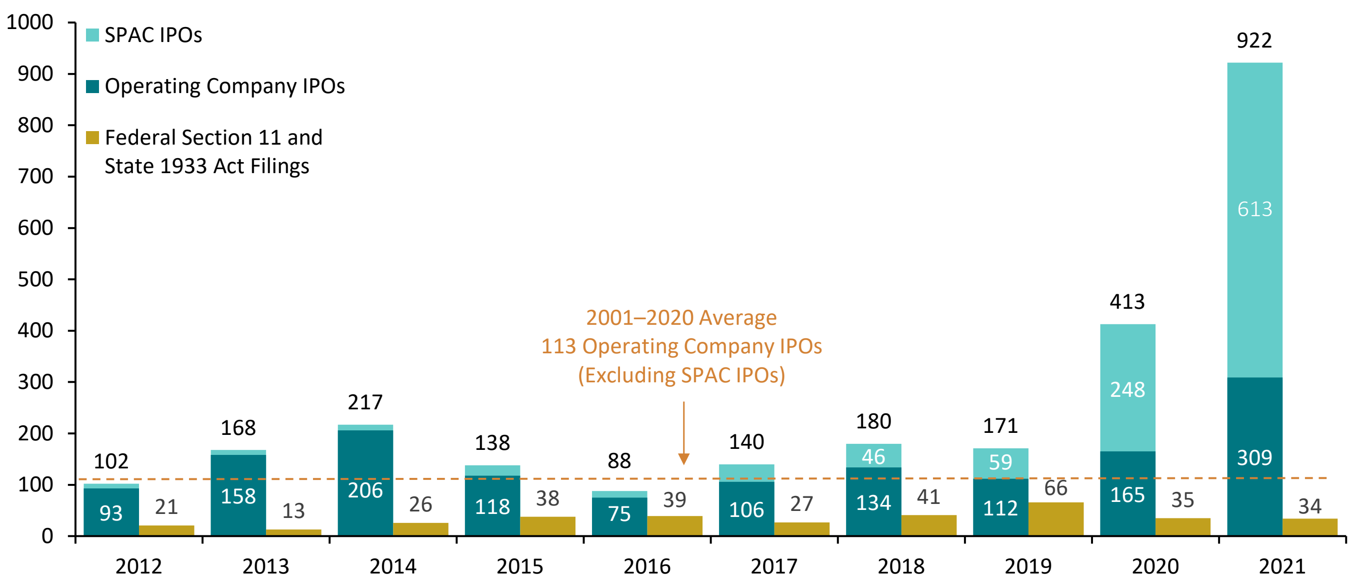
This figure compares IPO activity (operating company IPOs and SPAC IPOs) with counts of federal Section 11 and state 1933 Act filings.

- Although historically SPACs have represented only a small portion of IPOs, in the last two years, SPACs have become an increasingly large share of IPO activity. In 2021, the number of SPAC IPOs continued to surge, increasing from 248 to 613, almost double that of operating company IPOs.

While the number of IPOs rose significantly in 2021, filings with 1933 Act claims fell for the second consecutive year.

- With 309 IPOs, the number of operating company IPOs increased 87% from 2020 to 2021, the largest percentage increase since 2010, and nearly triple the 2001–2020 average of 113 operating company IPOs.
- Generally, heavier operating company IPO activity appears to be correlated with increased levels of federal Section 11 and state 1933 Act filings in the ensuing year. Although the number of operating company IPOs in 2020 increased to 165 from 112 in 2019, the number of federal Section 11 and state 1933 Act filings decreased from 35 in 2020 to 34 in 2021, the lowest since 2017.
- The boom of IPO activity in 2021, especially that involving SPACs, may lead to substantial future litigation.

Figure 22: Number of IPOs on Major U.S. Exchanges and Number of Filings of Federal Section 11 and State 1933 Act Claims 2012–2021



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse; Jay R. Ritter, "Initial Public Offerings: Updated Statistics," University of Florida, January 5, 2022

Note:

1. Operating company IPOs exclude the following offerings: those with an offer price of below $5.00, ADRs, unit offers, closed-end funds, REITs, natural resource limited partnerships, small best efforts offers, banks and S&Ls, and stocks not included in the CRSP database (CRSP includes Amex, NYSE, and Nasdaq stocks). SPAC IPOs include unit and non-unit SPAC IPOs, as defined by Professor Ritter.

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 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 4–8, 12, 14–19, 21, or 24–31. The federal Section 11 cases displayed may include Rule 10b-5 claims, but state 1933 Act filings do not.

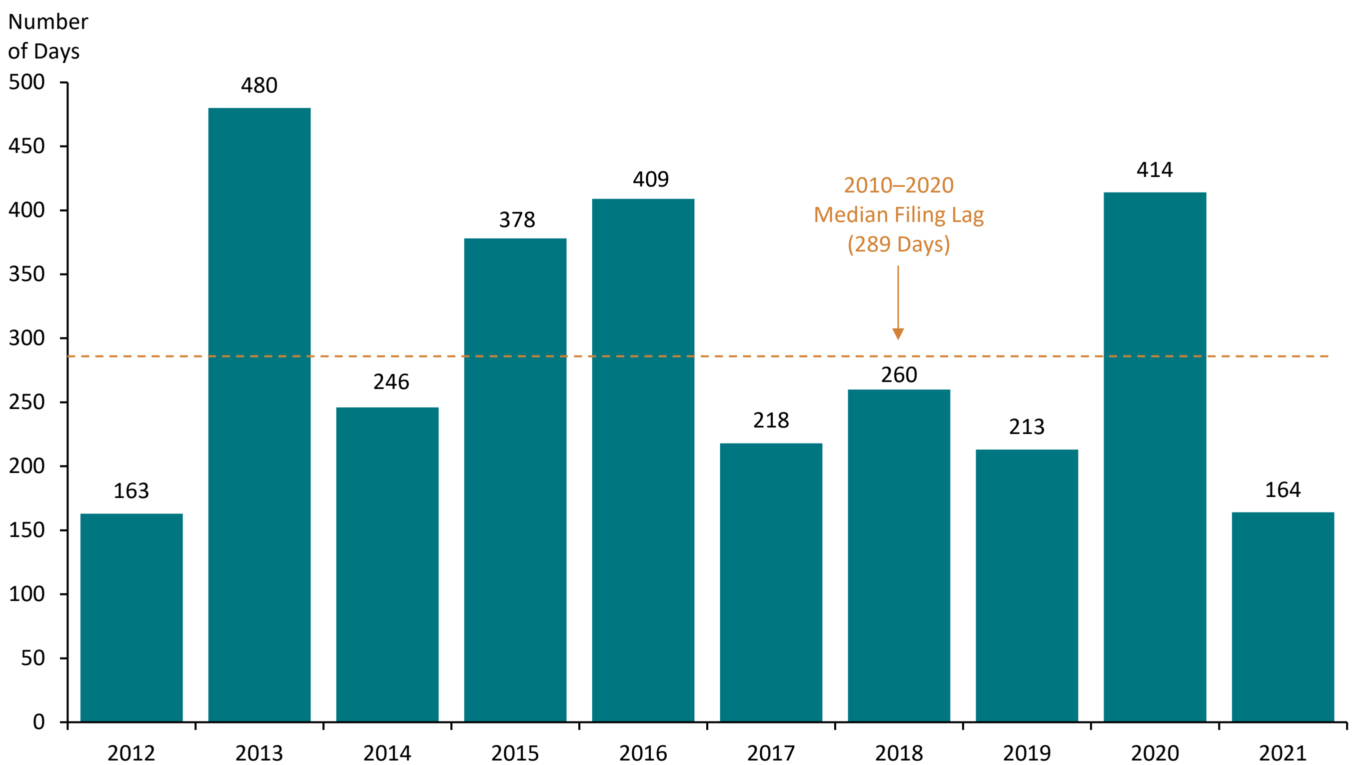
Lag between IPO and Federal Section 11 and State 1933 Act Filings

This analysis reviews the number of days between the IPO of a company and the filing date of a federal Section 11 or state 1933 Act securities class action.

- The IPO filing lag has varied substantially since 2010, but is fairly centered around the median filing lag of 289 days.
- The IPO filing lag fell to 164 days in 2021 from 414 days in 2020, a 60% decline.
- The 2021 IPO filing lag is the lowest since 2012.

The median filing lag for an IPO subject to a federal Section 11 or state 1933 Act claim was roughly nine and a half months between 2010 and 2020.

Figure 23: Lag between IPO and Federal Section 11 and State 1933 Act Filings
2012–2021



Note:

1. These data only consider IPOs with a subsequent federal Section 11 or state 1933 Act class action complaint. Only complaints that exclusively were in reference to an IPO were considered. Federal filings that also include Rule 10b-5 allegations are not considered.

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

3. 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.

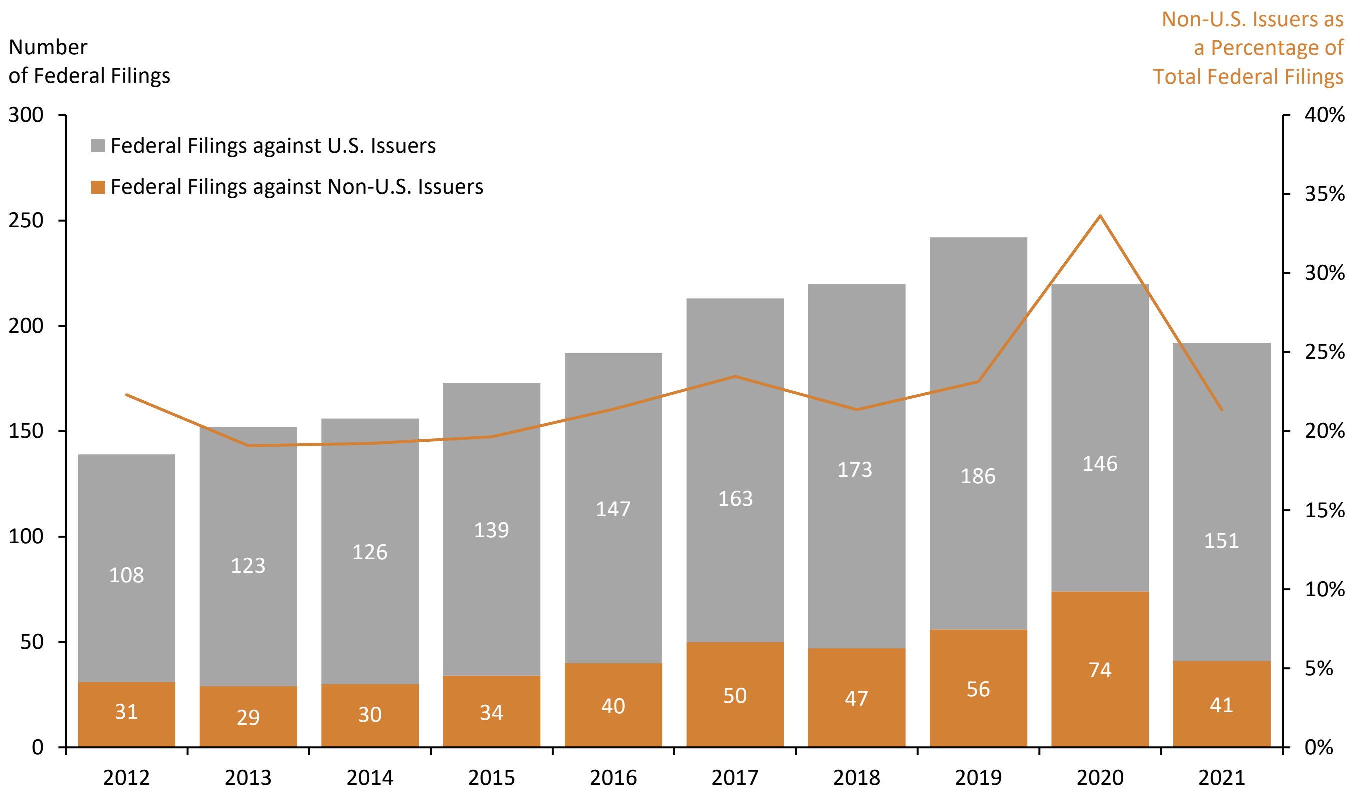
Non-U.S. Core Federal Filings

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

- The number of filings against non-U.S. issuers as a percentage of total filings declined steeply after gradually trending upwards since 2013. While reaching only 41, or just over half its record high of 74 in 2020, the number of non-U.S. core federal filings in 2021 is in line with the 2012–2019 average of 40.
- As a percentage of total core federal filings, core federal filings against non-U.S. issuers decreased from 34% in 2020 to 21% in 2021. This also represents a reversion back to 2012–2019 levels, when the average was 21%.

The number of core federal filings against non-U.S. issuers fell to 41, significantly down from its record high of 74 in 2020.

Figure 24: Annual Number of Class Action Filings by Location of Headquarters—Core Federal Filings 2012–2021

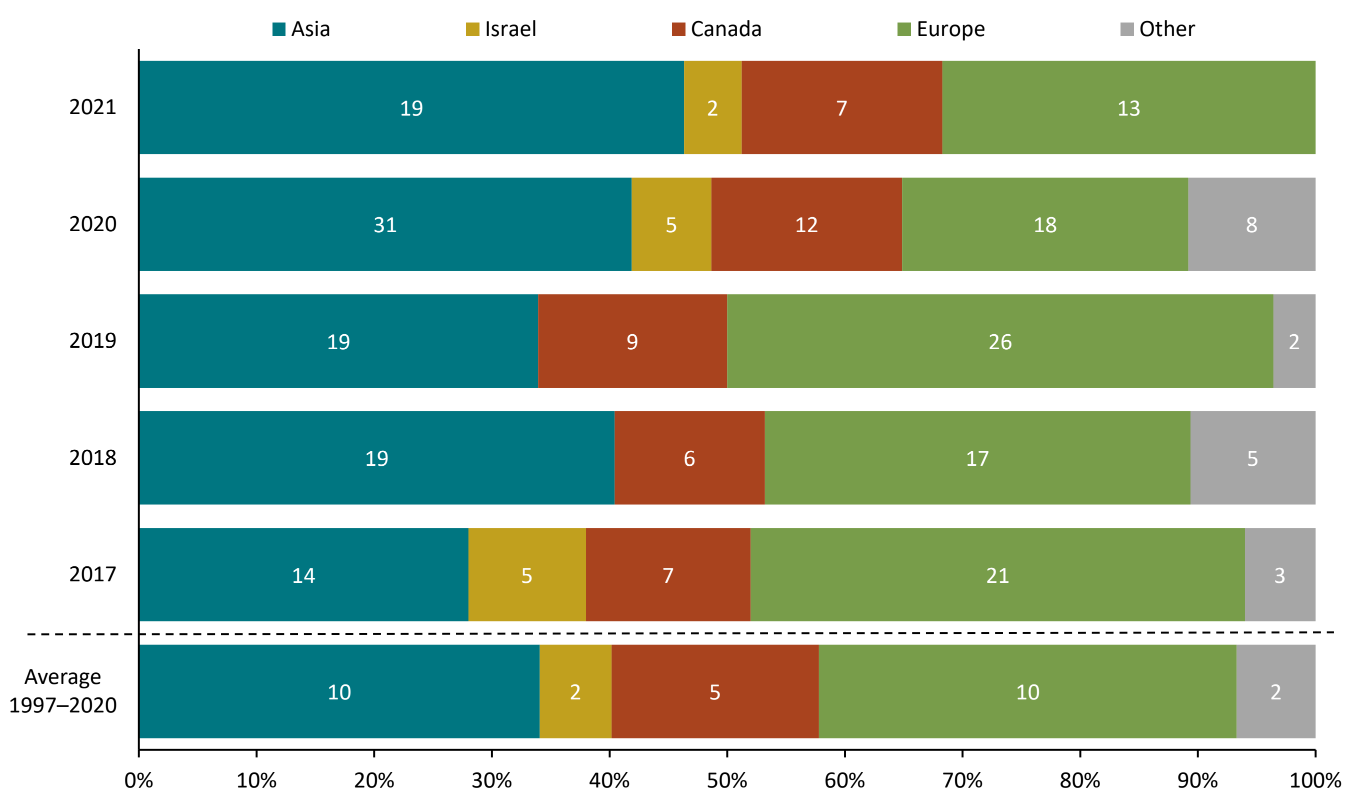


Note: This analysis only considers federal filings. It does not present combined federal and state data, and cases are not identified as parallel. This is different from other figures in this report that account for filings in federal courts that also have parallel cases identified in state courts. In 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, 9–11, 13, 20, or 22–23.

- While there were only 19 core federal filings against Asian firms, compared to 31 filings against Asian firms the year prior, 2021 had the highest proportion of core federal filings against Asian firms relative to all other non-U.S. core federal filings since 2015. Of these 19 filings, 18 involved Chinese firms, including four filed in a span of eight days in July as Chinese regulators cracked down against Chinese tech firms' use of consumer data.
- Of the 13 core federal filings against European firms, there were no more than two filings against companies headquartered in any one country. Five of the 13 European filings were related to the healthcare or pharmaceuticals industry.
- There were seven core federal filings against Canadian firms in 2021. The second half of 2021 is the first semiannual period since cannabis's legalization in Canada in October 2018 that there were no core federal filings against a Canadian cannabis firm.
- Overall, this year's percentage breakdown by region was fairly standard, with all regions (excluding Asia) within seven percentage points (or three filings) of their respective 1997–2020 averages.

The percentage of non-U.S. core federal filings against Asian firms was the highest since 2015.

Figure 25: Non-U.S. Filings by Location of Headquarters—Core Federal Filings



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

Note: 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, 9–11, 13, 20, or 22–23. See Additional Notes to Figures for more detailed information.

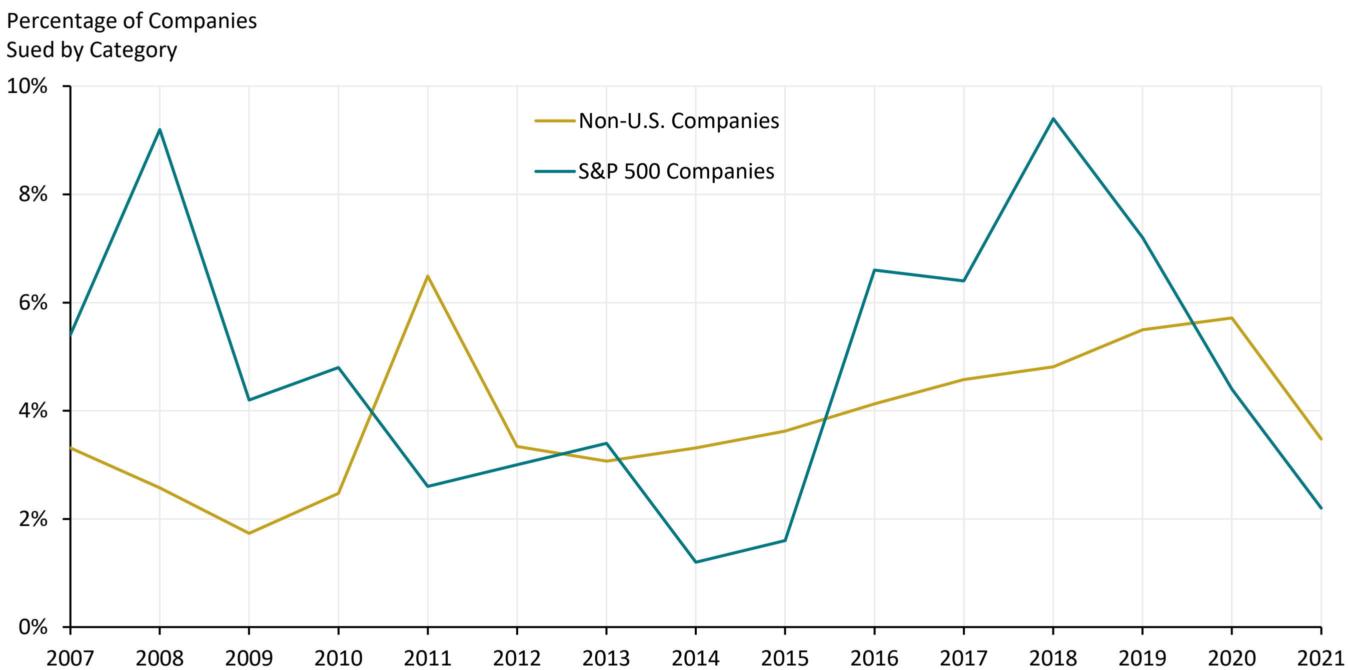
Non-U.S. Company Litigation Likelihood of Federal Filings

This figure examines the incidence of non-U.S. core federal filings relative to the likelihood of S&P 500 companies being the subject of a class action.

The likelihood of a lawsuit against an S&P 500 company and a non-U.S. company listed on a U.S. exchange declined in parallel.

- In 2021 the percentage of non-U.S. companies subject to core federal filings decreased for the first time since 2013, dropping to the fourth-lowest level since 2010. However, this 3.5% level is roughly in line with the 2000–2020 average of 3.2%.
- The percentage of S&P 500 companies sued dropped to 2.2%, the third-lowest level since 2000 and well below the 2000–2020 average level of 5.5%.
- 2021 was the first year since 2009 in which both metrics declined, which is consistent with the general decline in filing activity seen this year.

Figure 26: Percentage of Companies Sued by Listing Category or Domicile—Core Federal Filings
2007–2021



Source: CRSP; Yahoo Finance

Note:

1. Non-U.S. companies are defined as companies with headquarters outside the United States, Puerto Rico, and Virgin Islands. Companies were counted if they issue common stock or ADRs and are listed on the NYSE or Nasdaq.
2. Percentage of Companies Sued is calculated as the number of filings against unique companies in each category divided by the total number of companies in each category in a given year.
3. 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, 9–11, 13, 20, or 22–23.

Mega Federal 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 only presented for core federal filings.

- The number of mega DDL filings decreased from 14 in 2020 to 10 in 2021, and total DDL from mega filings decreased by $34 billion.
- There were 20 mega MDL filings in 2021. Total MDL for mega core federal filings decreased 54% from $1,319 billion to $606 billion, although still above the 1997–2020 average of $497 billion.
- The 2021 percentages of total federal DDL and MDL represented by mega filings were consistent with their historical averages.
- In 2021, Internet and Software companies made up 60% of mega DDL filings (six) and 40% of mega MDL filings (eight).
- Other notable industries contributing to 2021 mega MDL filings included Energy (both Oil & Gas and alternative fuel, 20% of mega MDL filings) and Consumer Cyclical and Non-Cyclical (Leisure Time and Retail, and Commercial Services, respectively, both 15% of mega MDL filings).

The number and total index value of mega DDL and MDL filings were down from 2020's highs, but were above historical averages.

Figure 27: Mega Filings—Core Federal Filings

	Average 1997–2020	2019	2020	2021
Mega Disclosure Dollar Loss (DDL) Filings[3]				
Mega DDL Filings	6	8	14	10
DDL ($ Billions)	$77	$147	$178	$144
Percentage of Total DDL	54%	53%	66%	56%
Mega Maximum Dollar Loss (MDL) Filings[4]				
Mega MDL Filings	14	20	29	20
MDL ($ Billions)	$497	$825	$1,319	$606
Percentage of Total MDL	71%	71%	83%	67%

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, 9–11, 13, 20, or 22–23.

2. There are core 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.

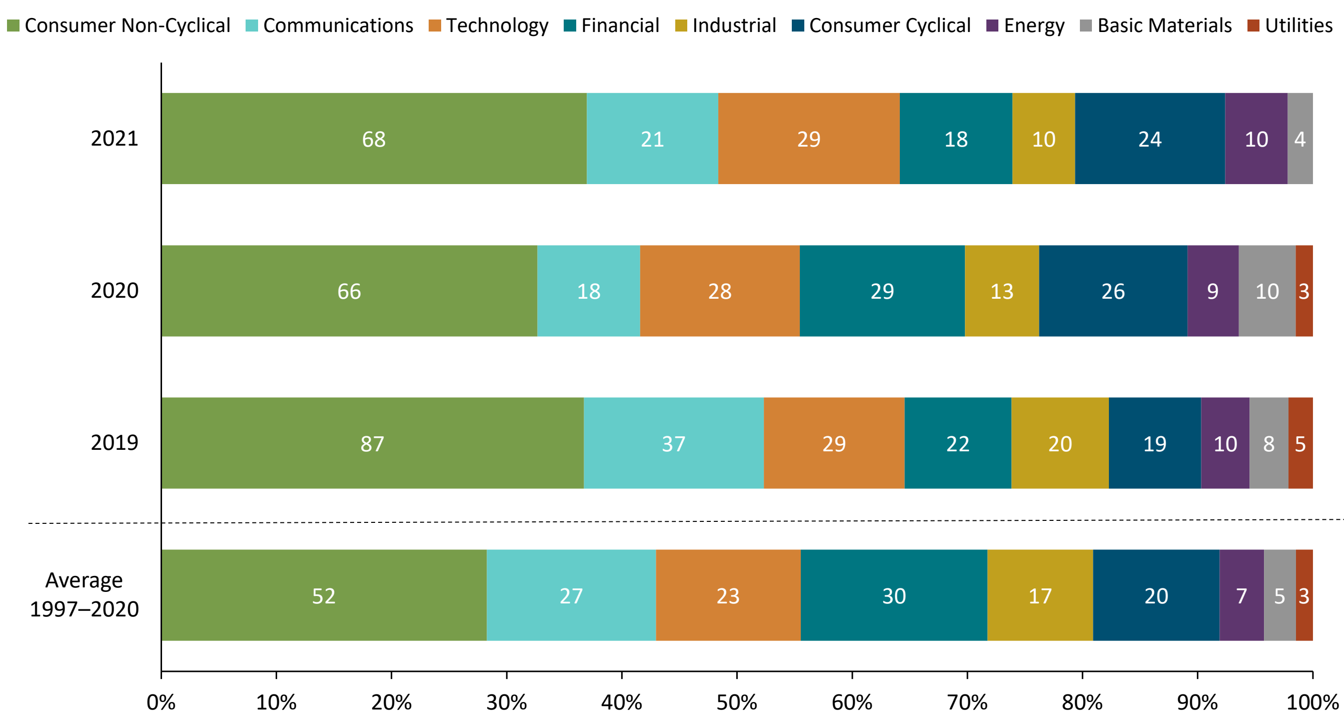
Industry Comparison of Federal Filings

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

- The number of filings in the Financial, Industrial, and Utilities industries all dropped. Corresponding with this drop, the total DDL in each industry fell to less than half of the 2020 total and relative to the 1997–2020 average. See Appendix 6.
- Although Consumer Non-Cyclical companies (primarily composed of pharmaceutical, healthcare, and biotechnology firms) had fewer filings in 2021 (68) than the 2016–2020 average (78), they still surpassed the 1997–2020 average by over 30%.
- There were 21 Communications filings in 2021, slightly more than in 2020 but significantly below the 2019 count of 37 and the 1997–2020 average of 27.
- There were no Utilities sector filings in 2021, the first year without such filings since 2014.
- Filings in the Financial sector decreased by 38% from 2020.
- From 1997 to 2020, the average number of Consumer Non-Cyclical filings was about the same as the number of Technology and Communications filings combined. However, in 2021, as in every year since 2008, there were more Consumer Non-Cyclical filings than Technology and Communications filings.

All industries were within three filings of their 2020 levels, except for Financial and Basic Materials, which fell by a combined 17 filings.

Figure 28: Filings by Industry—Core Federal Filings



Note:

1. Filings with missing sector information or infrequently used sectors may be excluded. Some filings in which the security at issue could not be used to calculate market capitalization may also be excluded. As a result, numbers in this chart may not match other total counts listed in the report.

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 may not match Figures 1–3, 9–11, 13, 20, or 22–23.

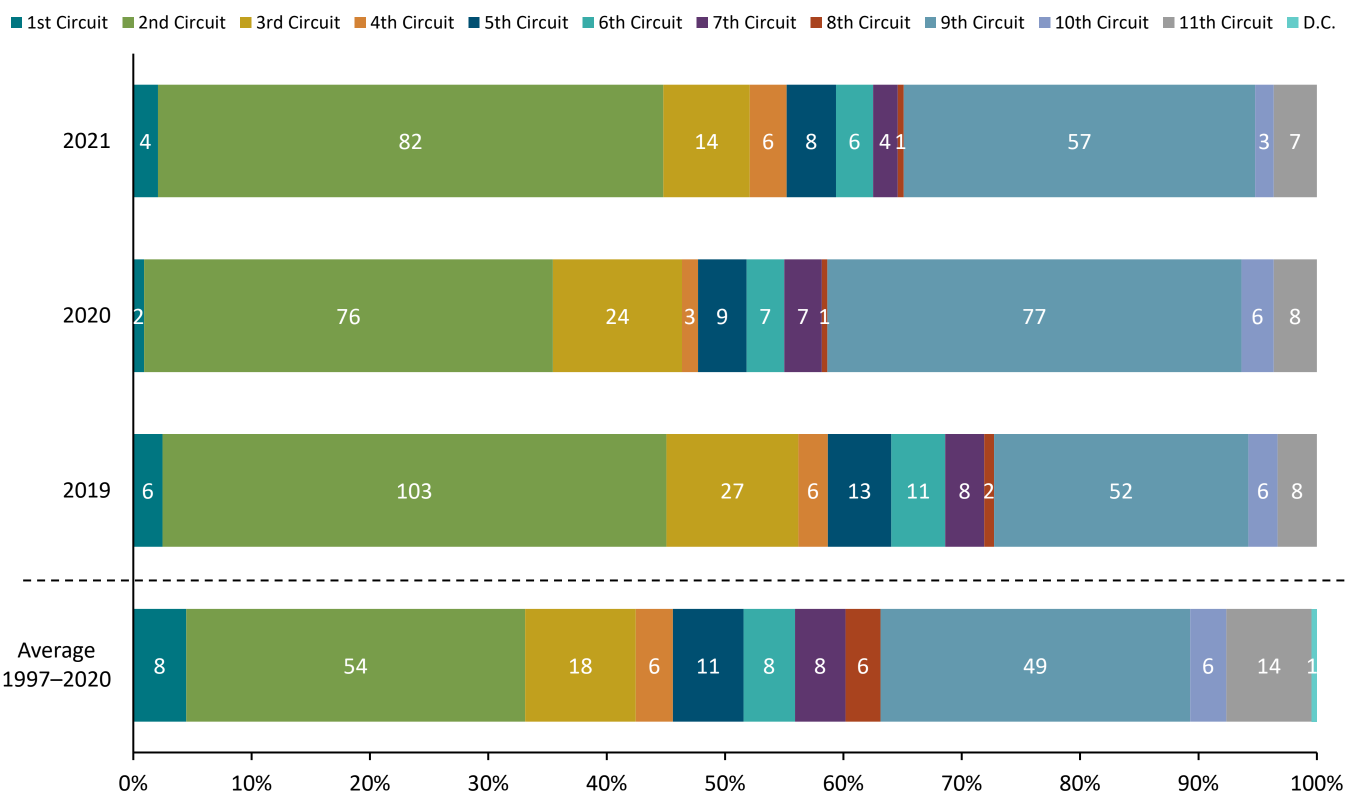
3. Sectors are based on the Bloomberg Industry Classification System.

Federal Filings by Circuit

- The Second and Ninth Circuits made up 72% of all core federal filings in 2021, the highest combined proportion for any two circuits since tracking began in 1997. This value was only modestly higher than that in 2020 (70%), but significantly above the 1997–2020 average of 55%.
- Core federal filings in the Ninth Circuit decreased by 26% to 57 filings, above the 1997–2020 average of 49. Core filings in the Second Circuit increased by 8% from 76 to 82 filings, well above the 1997–2020 average of 54.
- Seven of the 12 federal circuits had decreases in total MDL of 40% or more. Of those seven, MDL in the Sixth, Seventh, Tenth, and Eleventh Circuits declined by at least 70%. See Appendix 7.

The Second and Ninth Circuits made up 72% of all core federal filings in 2021, the highest combined proportion for any two circuits since tracking began in 1997.

Figure 29: Filings by Circuit—Core Federal Filings



Note: 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, 9–11, 13, 20, or 22–23.

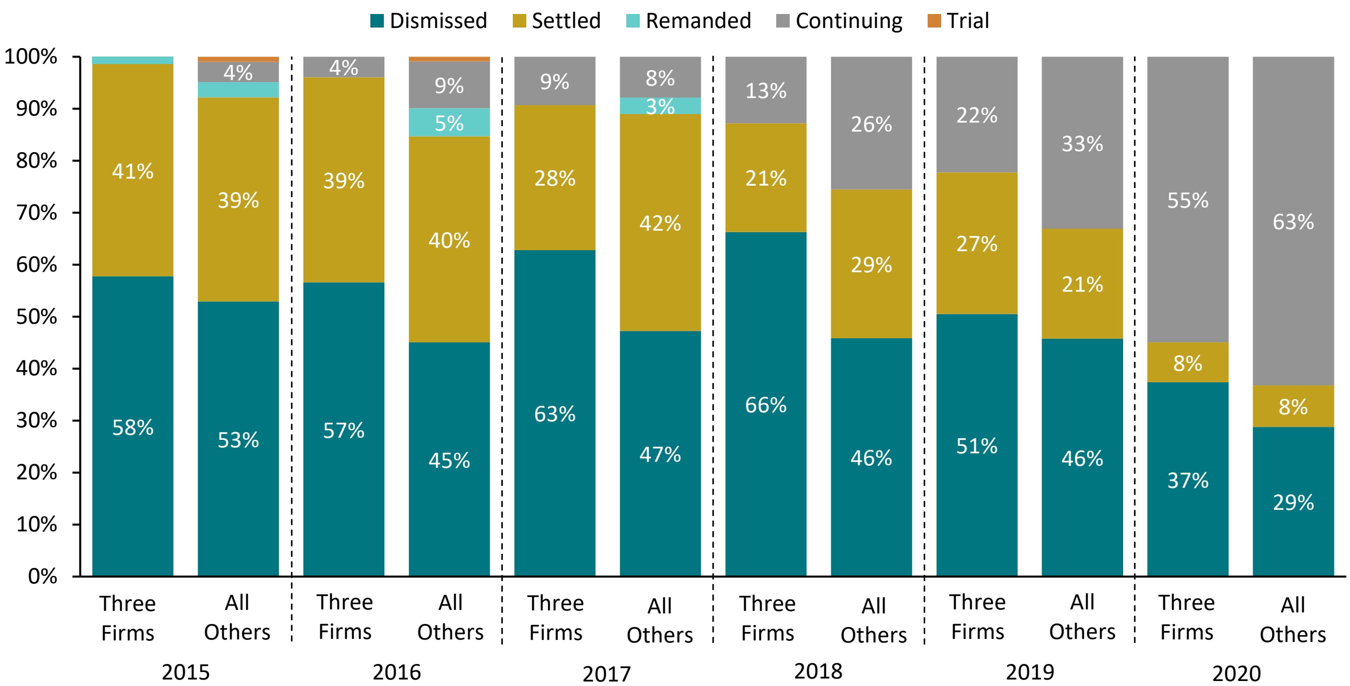
Federal Case Status by Plaintiff Counsel

Three law firms—The Rosen Law Firm, Pomerantz LLP, and Glancy Prongay & Murray LLP—have been responsible for 61% of first identified core securities class action complaints in federal courts from 2015 to 2021. The figure below examines case outcomes for core federal filings for which these three firms were listed as counsel of record on the operative complaint. These case outcomes are compared with filings for which other plaintiff law firms are the counsel of record.

Complaints filed by these three plaintiff law firms have been dismissed more frequently than other law firms for all years analyzed.

- Core federal filings made by these three firms fell 8% in 2021 based on first identified complaint, while filings made by other firms decreased by 20%.
- From 2015 through 2020, these three firms have had 55% of their core federal operative complaint class actions dismissed, compared to 44% for all other plaintiff firms. A larger set of filings and more careful consideration of other factors such as circuit, court, industry, type of allegation, and other factors would be necessary to determine if differences between these two groups are statistically significant.
- Prior analysis of these three firms by Michael Klausner, Professor of Law at Stanford Law School, and Jason Hegland, Executive Director of Stanford Securities Litigation Analytics, indicated these firms had higher dismissal rates between 2006 and 2015 as well. See "Guest Post: Deeper Trends in Securities Class Actions 2006–2015," The D&O Diary, June 23, 2016.

Figure 30: Case Status by Plaintiff Law Firm of Record on the Operative Complaint—Core Federal Filings 2015–2020



Note:

1. The analysis relies on the counsel of record on the operative complaint. Of core federal filings in 2020, 2% do not have counsel of record assigned yet; these filings are not included in this analysis. Percentages may not sum to 100% due to rounding.

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 may not match Figures 1–3, 9–11, 13, 20, or 22–23.

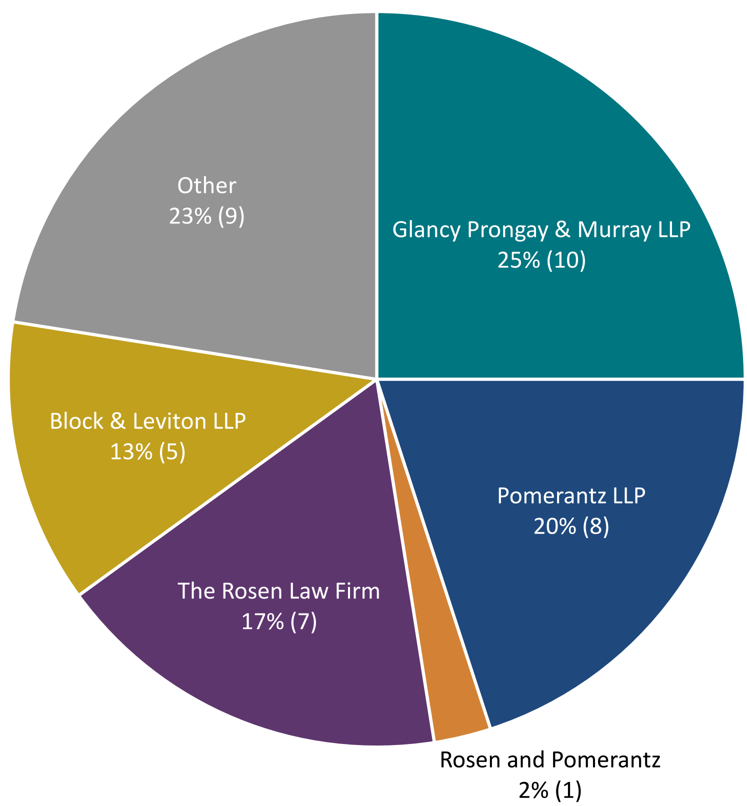
New: Filings Referencing Short-Seller Reports by Plaintiff Counsel

In 2021, 40 core federal first identified complaints, or about 21%, referenced reports published by short sellers. This analysis examines which plaintiff law firms reference reports by short sellers most frequently.

In 2021, four plaintiff law firms filed 78% of the core federal filings that referenced reports published by short sellers.

- Of these 40 core federal filings, 31 (about 78%) were made by four law firms.
- The three law firms discussed above in Figure 30—The Rosen Law Firm, Pomerantz LLP, and Glancy Prongay & Murray LLP—were responsible for 26 (65%) of the 40 core federal filings referencing short-seller reports. Their share of core federal filings referencing short-seller reports slightly exceeded their share of all core federal filings (61%) in 2021.
- A fourth law firm—Block & Leviton LLP—was responsible for an additional five (13%) of the 40 core federal filings.

Figure 31: Core Federal Filings Referencing Short-Seller Reports by Plaintiff Counsel
2021



Source: Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse

Note: Filings that contained at least one of the four plaintiff law firms were included in the relevant category; otherwise, they were included in "Other." Three were filed jointly by at least one of the four plaintiff law firms and another firm not named above.

New Developments

Pirani v. Slack Technologies Inc.

On September 2, 2021, the Ninth Circuit Court of Appeals in *Pirani v. Slack Technologies Inc.*[1] upheld the denial of Defendant's motion to dismiss Plaintiff's Section 11 claims arising out of a direct listing.

Courts have long required Section 11 plaintiffs to trace their shares to the alleged misleading registration statement. In a traditional IPO, investors can satisfy the tracing requirement because only certain shares are registered for sale, and remaining shares, held by insiders or early investors, are prohibited from being sold for a period of time, typically six months. In a direct offering, the company does not sell new shares, but rather lists existing shares on an exchange. Because direct offerings allow the simultaneous sale of securities issued pursuant to a registration statement and those that are exempt from registration, 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.

In its direct listing, Slack's shareholders could sell 118 million shares that had been registered under its registration statement and 165 million shares that were exempt from registration under SEC rules. Slack argued that Plaintiff lacked standing to sue because he could not show that he had purchased registered rather than unregistered shares. The Ninth Circuit disagreed, reasoning that all shares sold in the direct listing, whether registered or unregistered, could be traced to one registration statement.

The *Slack* opinion may have profound implications for the future of securities litigation. Among other issues, the opinion appears to contradict prior decisions that have strictly enforced the tracing requirement. It also potentially extends Section 11 liability for misleading registration statements to securities that are exempt from registration, which in turn may expand Section 11 damages far beyond the statutory maximum.

Slack is currently before the Ninth Circuit on a petition for rehearing and could end up before the Supreme Court.

Unsponsored ADRs

In *Stoyas v. Toshiba Corp.*,[2] the court denied Plaintiffs' motion for class certification, finding that their claims or defenses were not typical of those of the proposed class.

At issue in *Toshiba* were unsponsored American Depositary Receipts (ADRs). Unlike sponsored ADRs in which a non-U.S. company enters into an agreement with a U.S. depositary bank to sell depositary receipts backed by its shares on U.S. markets, unsponsored ADRs are implemented without the cooperation of the non-U.S. issuer. The Ninth Circuit had held that a purchaser of unsponsored ADRs may sue under the Securities Exchange Act of 1934 as long as it incurred "irrevocable liability" for the purchase in the United States.[3]

In *Toshiba*, the court found that Plaintiffs incurred irrevocable liability in Japan, and thus their shares were acquired in non-U.S. transactions beyond the reach of the Exchange Act. Because Plaintiffs had failed to establish that they purchased the ADRs in a domestic transaction, unlike members of the proposed class, they could not satisfy the "typicality" requirement for class certification.

Investigation of Short Selling

In December 2021, the Department of Justice launched a criminal investigation into possible relationships between hedge funds that engage in short selling and research firms that are alleged to have published reports with misleading or inaccurate information on certain companies with the goal of causing stock price declines.[4]

Earlier in the year, the SEC proposed a new rule (Exchange Act Rule 10c-1) that would require "any person that loans a security on behalf of itself or another person to report certain material terms of those loans and related information . . . to a registered national securities association (RNSA), such as the Financial Industry Regulatory Authority."[5]

As discussed above, references to one or more published short-seller reports were made in about 21% of core federal securities class action cases filed in 2021. Consequently, the DOJ investigation and the SEC's potential rulemaking could affect the extent to which certain research firms issue negative reports, which could affect the nature of the allegations in or even the number of securities class action filings.

1. Pirani v. Slack Techs. Inc., No. 20-16419 (9th Cir. Sep. 20, 2021).
2. Stoyas v. Toshiba Corp., No. 2:15-cv-04194 (C.D. Cal., Jan. 7, 2022).
3. Toshiba, slip op. at 10, fn. 9.
4. "Hedge Funds Face Expansive Short-Selling Probe, Exciting Critics," *Bloomberg News*, December 10, 2021.
5. SEC Fact Sheet – Securities Lending Transparency.

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.

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. 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.

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.

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 3: Federal Section 11 and State 1933 Act Class Action Filings by Venue

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.

Figure 4: Summary of Trend Cases

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 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. These include current and former SPACs.

Figure 5: Filings by Industry—All 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. Sectors are based on the Bloomberg Industry Classification System.

Figure 6: 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. 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. 2017 was the only year these filings accounted for more than 0.1% of U.S. exchange-listed companies. *(continued in next column)*

Figure 13 *continued*

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 ADRs and listed on the NYSE or Nasdaq.

Figure 18: 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.

Figure 19: Dollar Loss on Offered Shares Index™ (DLOS Index™) for Federal Section 11–Only and State 1933 Act Filings

1. 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.
2. Starting with this report, the DLOS methodology has been 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 20: Quarterly Federal Section 11 and State 1933 Act Filings

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.
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.

Figure 25: 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: Basic Filings Metrics

			Disclosure Dollar Loss			Maximum Dollar Loss			U.S. Exchange-Listed Firms: Core Filings		
Year	Class Action Filings	Core Filings	DDL Total ($ Billions)	Average ($ Millions)	Median ($ Millions)	MDL Total ($ Billions)	Average ($ Millions)	Median ($ Millions)	Number	Number of Listed Firms Sued	Percentage of Listed Firms Sued
1997	174	174	$42	$272	$57	$145	$940	$405	8,113	165	2.0%
1998	242	242	$80	$365	$61	$224	$1,018	$294	8,190	225	2.7%
1999	209	209	$140	$761	$101	$364	$1,978	$377	7,771	197	2.5%
2000	216	216	$240	$1,251	$119	$761	$3,961	$689	7,418	205	2.8%
2001	180	180	$198	$1,215	$93	$1,487	$9,120	$771	7,197	168	2.3%
2002	224	224	$201	$989	$136	$2,046	$10,080	$1,494	6,474	204	3.2%
2003	192	192	$77	$450	$100	$575	$3,363	$478	5,999	181	3.0%
2004	228	228	$144	$739	$108	$726	$3,722	$498	5,643	210	3.7%
2005	182	182	$93	$595	$154	$362	$2,321	$496	5,593	168	3.0%
2006	120	120	$52	$496	$109	$294	$2,827	$413	5,525	114	2.1%
2007	177	177	$158	$1,013	$156	$700	$4,489	$715	5,467	158	2.9%
2008	224	224	$221	$1,516	$208	$816	$5,591	$1,077	5,339	170	3.2%
2009	164	157	$84	$830	$138	$550	$5,447	$1,066	5,042	118	2.3%
2010	174	135	$73	$691	$146	$474	$4,515	$598	4,764	107	2.2%
2011	189	146	$115	$850	$92	$523	$3,876	$439	4,660	127	2.7%
2012	154	142	$97	$758	$151	$405	$3,139	$647	4,529	119	2.6%
2013	165	152	$104	$750	$153	$278	$2,011	$532	4,411	137	3.1%
2014	170	158	$56	$378	$165	$220	$1,489	$528	4,416	144	3.3%
2015	217	183	$120	$671	$144	$415	$2,332	$512	4,578	169	3.7%
2016	288	204	$106	$554	$167	$848	$4,418	$1,038	4,593	188	4.1%
2017	412	214	$125	$637	$149	$512	$2,613	$665	4,411	186	4.2%
2018	420	238	$331	$1,584	$298	$1,317	$6,299	$1,063	4,406	211	4.8%
2019	427	267	$282	$1,190	$216	$1,187	$5,008	$1,010	4,318	237	5.5%
2020	333	234	$273	$1,346	$182	$1,599	$7,875	$1,008	4,514	193	4.3%
2021	218	200	$274	$1,555	$372	$941	$5,348	$1,419	4,759	182	3.8%
Average 1997–2020	228	192	$142	$829	$142	$701	$4,101	$701	5,557	171	3.1%

Note:

1. 1933 Act filings in state courts are included in the data beginning in 2010.
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.
3. The number and percentage of U.S. exchange-listed firms sued are based on core filings and include companies that were subject to both an M&A filing and a core filing in the same year.

Appendix 2A: S&P 500 Securities Litigation—Percentage of S&P 500 Companies Subject to Core Federal Filings

Year	Consumer Discretionary	Consumer Staples	Energy/ Materials	Financials/ Real Estate	Health Care	Industrials	Telecomm./ Comm./IT	Utilities	All S&P 500 Companies
2001	2.4%	8.3%	0.0%	1.4%	7.1%	0.0%	18.0%	7.9%	5.6%
2002	10.2%	2.9%	3.1%	16.7%	15.2%	6.0%	11.0%	40.5%	12.0%
2003	4.6%	2.9%	1.7%	8.6%	10.4%	3.0%	5.6%	2.8%	5.2%
2004	3.4%	2.7%	1.8%	19.3%	10.6%	8.5%	3.2%	5.7%	7.2%
2005	10.3%	8.6%	1.7%	7.3%	10.7%	1.8%	6.7%	3.0%	6.6%
2006	4.4%	2.8%	0.0%	2.4%	6.9%	0.0%	8.1%	0.0%	3.6%
2007	5.7%	0.0%	0.0%	10.3%	12.7%	5.8%	2.3%	3.1%	5.4%
2008	4.5%	2.6%	0.0%	31.2%	13.7%	3.6%	2.5%	3.2%	9.2%
2009	3.8%	4.9%	1.5%	9.5%	3.7%	6.9%	1.2%	0.0%	4.2%
2010	5.1%	0.0%	4.3%	10.3%	13.5%	0.0%	2.4%	0.0%	4.8%
2011	3.8%	2.4%	0.0%	1.2%	2.0%	1.7%	7.1%	0.0%	2.6%
2012	4.9%	2.4%	2.7%	3.7%	1.9%	1.6%	3.8%	0.0%	3.0%
2013	8.4%	0.0%	0.0%	0.0%	5.7%	0.0%	9.1%	0.0%	3.4%
2014	1.2%	0.0%	1.3%	1.2%	0.0%	4.7%	0.0%	0.0%	1.2%
2015	0.0%	5.0%	0.0%	1.2%	1.9%	0.0%	4.2%	3.4%	1.6%
2016	3.6%	2.6%	4.5%	6.9%	17.9%	6.1%	6.8%	3.4%	6.6%
2017	8.5%	2.7%	3.3%	3.3%	8.3%	8.7%	8.5%	7.1%	6.4%
2018	10.0%	11.8%	1.8%	7.0%	16.1%	8.8%	12.7%	7.1%	9.4%
2019	3.1%	12.1%	3.7%	2.0%	12.9%	10.1%	10.0%	6.9%	7.2%
2020	8.1%	3.1%	1.9%	5.3%	6.3%	2.7%	2.0%	7.1%	4.4%
2021	0.0%	6.3%	5.7%	0.0%	0.0%	1.4%	5.1%	0.0%	2.2%

Appendix 2B: S&P 500 Securities Litigation—Percentage of Market Capitalization of S&P 500 Companies Subject to Core Federal Filings

Year	Consumer Discretionary	Consumer Staples	Energy/ Materials	Financials/ Real Estate	Health Care	Industrials	Telecomm./ Comm./IT	Utilities	All S&P 500 Companies
2001	1.3%	6.3%	0.0%	0.8%	5.4%	0.0%	32.6%	17.4%	10.9%
2002	24.7%	0.3%	1.2%	29.2%	35.2%	13.3%	9.1%	51.0%	18.8%
2003	2.0%	2.3%	0.4%	19.9%	16.3%	4.6%	1.7%	4.3%	8.0%
2004	7.9%	0.1%	29.7%	46.1%	24.1%	8.8%	1.2%	4.8%	17.7%
2005	5.7%	11.4%	1.6%	22.2%	10.1%	5.6%	10.3%	5.6%	10.7%
2006	8.9%	0.8%	0.0%	8.2%	18.1%	0.0%	8.3%	0.0%	6.7%
2007	4.4%	0.0%	0.0%	18.1%	22.5%	2.2%	3.4%	5.5%	8.2%
2008	7.2%	2.6%	0.0%	55.0%	20.0%	26.4%	1.4%	4.0%	16.2%
2009	1.9%	3.9%	0.8%	30.7%	1.7%	23.2%	0.3%	0.0%	7.6%
2010	4.9%	0.0%	5.2%	31.1%	32.7%	0.0%	5.9%	0.0%	11.1%
2011	4.6%	0.8%	0.0%	6.9%	0.7%	2.1%	13.4%	0.0%	5.0%
2012	1.6%	14.0%	0.9%	11.0%	0.8%	1.2%	2.2%	0.0%	4.3%
2013	4.4%	0.0%	0.0%	0.0%	4.4%	0.0%	16.6%	0.0%	4.7%
2014	2.5%	0.0%	0.2%	0.3%	0.0%	1.7%	0.0%	0.0%	0.6%
2015	0.0%	1.9%	0.0%	3.0%	3.1%	0.0%	7.0%	3.7%	2.8%
2016	2.8%	1.0%	19.8%	11.9%	13.2%	8.7%	12.3%	4.4%	10.0%
2017	8.2%	6.7%	2.3%	1.5%	2.7%	22.3%	4.4%	9.6%	6.1%
2018	4.7%	15.2%	1.4%	12.5%	26.3%	19.4%	19.4%	6.5%	14.9%
2019	0.5%	9.1%	1.2%	2.2%	6.6%	21.6%	18.0%	7.9%	10.0%
2020	2.2%	1.8%	0.4%	16.9%	4.7%	4.9%	1.6%	6.6%	4.3%
2021	0.0%	17.7%	12.0%	0.0%	0.0%	0.5%	8.2%	0.0%	5.1%
Average 2001–2020	4.5%	4.2%	2.7%	14.5%	11.5%	8.9%	8.8%	6.2%	8.4%

Note: Average figures are calculated as the sum of the market capitalization subject to core filings in a given sector from 2001 to 2020 divided by the sum of market capitalization in that sector from 2001 to 2020.

Appendix 3: M&A Federal Filings Overview

		M&A Case Status					Case Status of All Other Federal Filings				
Year	M&A Filings	Dismissed	Settled	Remanded	Continuing	Trial	Dismissed	Settled	Remanded	Continuing	Trial
2011	43	40	3	0	0	0	69	74	1	0	1
2012	12	9	3	0	0	0	67	68	2	2	0
2013	13	7	6	0	0	0	85	64	1	2	0
2014	12	9	3	0	0	0	65	87	2	2	0
2015	34	27	7	0	0	0	95	69	4	4	1
2016	84	68	14	0	2	0	93	74	6	13	1
2017	198	190	6	1	1	0	114	77	4	18	0
2018	182	176	4	0	2	0	118	56	0	46	0
2019	160	153	2	0	5	0	116	57	0	69	0
2020	99	95	0	0	4	0	70	17	0	133	0
2021	18	11	0	0	7	0	19	1	0	172	0

Note:

1. The Securities Class Action Clearinghouse began tracking M&A filings as a separate category in 2009.
2. Case status is as of the end of 2021.

Appendix 4: Case Status by Year—Core Federal Filings

	In the First Year				In the Second Year				In the Third Year			
Filing Year	Settled	Dismissed	Other	Total Resolved within One Year	Settled	Dismissed	Other	Total Resolved within Two Years	Settled	Dismissed	Other	Total Resolved within Three Years
1997	0.6%	7.5%	0.0%	8.0%	14.9%	8.6%	0.0%	31.6%	17.8%	4.0%	0.0%	53.4%
1998	0.8%	7.4%	0.0%	8.3%	16.1%	12.8%	0.0%	37.2%	15.7%	7.9%	0.0%	60.7%
1999	0.5%	6.7%	0.0%	7.2%	11.0%	12.0%	0.0%	30.1%	18.2%	9.1%	0.0%	57.4%
2000	1.9%	4.2%	0.0%	6.0%	11.6%	13.0%	0.0%	30.6%	15.7%	10.6%	0.5%	57.4%
2001	1.7%	6.7%	0.0%	8.3%	11.7%	10.6%	0.0%	30.6%	18.3%	5.0%	0.0%	53.9%
2002	0.9%	5.8%	0.4%	7.1%	6.7%	9.4%	0.0%	23.2%	15.2%	11.6%	0.0%	50.0%
2003	0.5%	7.8%	0.0%	8.3%	7.8%	13.5%	0.0%	29.7%	14.6%	14.6%	0.0%	58.9%
2004	0.0%	10.5%	0.0%	10.5%	9.6%	16.2%	0.0%	36.4%	12.7%	9.6%	0.0%	58.8%
2005	0.5%	11.5%	0.0%	12.1%	8.8%	19.8%	0.0%	40.7%	17.0%	8.8%	0.0%	66.5%
2006	0.8%	9.2%	0.0%	10.0%	8.3%	17.5%	0.0%	35.8%	16.7%	7.5%	0.0%	60.0%
2007	0.6%	7.3%	0.0%	7.9%	7.9%	18.1%	0.0%	33.9%	19.8%	11.9%	0.0%	65.5%
2008	0.0%	13.0%	0.9%	13.9%	4.9%	20.2%	0.0%	39.0%	10.3%	10.3%	0.0%	59.6%
2009	0.0%	9.6%	0.0%	9.6%	6.4%	22.9%	0.0%	38.9%	8.3%	8.9%	0.0%	56.1%
2010	1.5%	11.0%	0.7%	13.2%	8.8%	20.6%	0.0%	42.6%	5.9%	13.2%	0.0%	61.8%
2011	0.0%	12.4%	0.7%	13.1%	4.1%	18.6%	0.0%	35.9%	22.1%	11.7%	0.0%	69.7%
2012	0.7%	12.9%	1.4%	15.1%	6.5%	25.9%	0.0%	47.5%	15.8%	6.5%	0.0%	69.8%
2013	0.0%	19.1%	0.7%	19.7%	9.9%	25.0%	0.0%	54.6%	14.5%	5.3%	0.0%	74.3%
2014	0.6%	10.9%	1.3%	12.8%	11.5%	21.8%	0.0%	46.2%	16.0%	7.7%	0.0%	69.9%
2015	0.0%	17.3%	2.3%	19.7%	6.4%	23.7%	0.0%	49.7%	11.6%	9.2%	0.0%	70.5%
2016	0.0%	14.4%	1.6%	16.0%	8.0%	22.5%	0.5%	47.1%	11.8%	7.5%	1.1%	67.4%
2017	0.0%	18.3%	1.4%	19.7%	5.6%	22.5%	0.5%	48.4%	11.7%	8.0%	0.0%	68.1%
2018	0.0%	13.2%	0.0%	13.2%	6.8%	22.7%	0.0%	42.7%	10.9%	13.6%	0.0%	67.3%
2019	0.0%	14.9%	0.0%	14.9%	8.7%	26.0%	0.0%	49.6%	14.9%	7.0%	0.0%	71.5%
2020	1.4%	17.3%	0.0%	18.6%	6.4%	14.5%	0.0%	39.5%	-	-	-	-
2021	0.5%	9.9%	0.0%	10.4%	-	-	-	-	-	-	-	-

Note: Percentages may not sum due to rounding. Percentages below the lines indicate cohorts for which data are not complete. “Other” represents cases that were remanded or went to trial. Case Status is reported as of the last significant docket update as determined by the Cornerstone Research and Stanford Law School Securities Class Action Clearinghouse.

Appendix 5: Litigation Exposure for IPOs in the Given Periods—Core Filings

	Cumulative Exposure			Incremental Exposure		
Years Since IPO	2009–2020	2001–2008	1996–2000	2009–2020	2001–2008	1996–2000
1	6.3%	3.8%	2.0%	6.3%	3.8%	2.0%
2	11.5%	6.5%	5.9%	5.1%	2.7%	4.0%
3	16.1%	8.6%	8.8%	4.6%	2.1%	2.9%
4	19.5%	10.8%	11.5%	3.5%	2.2%	2.6%
5	22.8%	12.2%	14.6%	3.3%	1.4%	3.1%
6	25.3%	13.6%	16.7%	2.5%	1.5%	2.2%
7	27.5%	15.3%	19.3%	2.2%	1.6%	2.6%
8	29.2%	17.1%	21.5%	1.7%	1.8%	2.2%
9	31.4%	18.1%	24.0%	2.2%	1.1%	2.5%
10	33.8%	19.9%	25.7%	2.4%	1.8%	1.7%

Note:

1. Cumulative litigation exposure correcting for survivorship bias is calculated using the following formula:

$$\left(\text{cumulative litigation exposure in year } t\right) = 1 - \prod_{i=1}^{t}(1-p_i)\text{, where:}$$

$$p_i = \frac{\text{number of companies sued in year } i}{\text{number of companies surviving at the end of year } (i-1)}$$

Appendix 6: Filings by Industry—Core Federal Filings

(Dollars in Billions)

	Class Action Filings				Disclosure Dollar Loss				Maximum Dollar Loss			
Industry	Average 1997–2020	2019	2020	2021	Average 1997–2020	2019	2020	2021	Average 1997–2020	2019	2020	2021
Financial	30	22	29	18	$21	$10	$75	$7	$137	$41	$805	$33
Consumer Non-Cyclical	52	87	66	68	$41	$68	$68	$63	$163	$324	$309	$179
Industrial	17	20	13	10	$13	$22	$16	$6	$50	$105	$45	$10
Technology	23	29	28	29	$25	$100	$69	$41	$96	$426	$126	$101
Consumer Cyclical	20	19	26	24	$10	$9	$12	$44	$55	$38	$125	$134
Communications	27	37	18	21	$24	$55	$11	$83	$145	$163	$88	$259
Energy	7	10	9	10	$4	$5	$5	$13	$22	$25	$40	$175
Basic Materials	5	8	10	4	$2	$9	$4	$3	$15	$23	$15	$7
Utilities	3	5	3	0	$2	$2	$11	$0	$10	$20	$25	$0
Unknown/ Unclassified	4	5	18	8	$0	$0	$1	$0	$0	$0	$3	$0
Total	188	242	220	192	$142	$280	$270	$259	$696	$1,165	$1,580	$899

Note: Figures may not sum due to rounding.

Appendix 7: Filings by Circuit—Core Federal Filings

(Dollars in Billions)

	Class Action Filings				Disclosure Dollar Loss				Maximum Dollar Loss			
Circuit	Average 1997–2020	2019	2020	2021	Average 1997–2020	2019	2020	2021	Average 1997–2020	2019	2020	2021
1st	8	6	2	4	$7	-$1	$0	$1	$20	$30	$0	$5
2nd	54	103	76	82	$45	$82	$72	$109	$251	$360	$633	$371
3rd	18	27	24	14	$18	$18	$21	$10	$69	$99	$107	$49
4th	6	6	3	6	$2	$1	$1	$5	$12	$9	$4	$17
5th	11	13	9	8	$7	$4	$5	$11	$35	$20	$47	$156
6th	8	11	7	6	$7	$8	$13	$2	$27	$24	$34	$8
7th	8	8	7	4	$8	$29	$10	$1	$34	$106	$105	$2
8th	6	2	1	1	$3	$2	$0	$0	$12	$5	$1	$1
9th	49	52	77	57	$38	$133	$140	$113	$197	$501	$575	$272
10th	6	6	6	3	$2	$2	$1	$1	$12	$7	$13	$3
11th	14	8	8	7	$5	$1	$7	$6	$22	$4	$61	$16
D.C.	1	0	0	0	$1	$0	$0	$0	$3	$0	$0	$0
Total	188	242	220	192	$142	$280	$270	$259	$696	$1,165	$1,580	$899

Note: Figures may not sum due to rounding.

Appendix 8: Filings by Exchange Listing—Core Federal Filings

	Average (1997–2020)		2020		2021	
	NYSE/Amex	Nasdaq	NYSE	Nasdaq	NYSE	Nasdaq
Class Action Filings	92	115	118	173	69	126
Core Filings	*77*	*95*	*83*	*110*	*62*	*115*
Disclosure Dollar Loss						
DDL Total ($ Billions)	$91	$50	$147	$120	$93	$163
Average ($ Millions)	$1,304	$528	$1,911	$1,145	$1,754	$1,473
Median ($ Millions)	$286	$108	$524	$113	$499	$360
Maximum Dollar Loss						
MDL Total ($ Billions)	$456	$235	$1,146	$413	$335	$557
Average ($ Millions)	$6,443	$2,483	$14,884	$3,929	$6,316	$5,018
Median ($ Millions)	$1,419	$490	$2,588	$675	$2,539	$1,159

Note:
1. Average and median numbers are calculated only for filings with MDL and DDL data.
2. NYSE/Amex was renamed NYSE MKT in May 2012.

Research Sample

- The Securities Class Action Clearinghouse, cosponsored by Cornerstone Research and Stanford Law School, has identified 6,116 federal securities class action filings between January 1, 1996, and December 31, 2021 (securities.stanford.edu). The analysis in this report is based on data identified by Stanford as of January 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.
- An additional 204 state class action filings in state courts, from January 1, 2010, to June 30, 2021, have also been identified.

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 study.

Please direct any questions to:

Alexander Aganin
650.853.1660
aaganin@cornerstone.com

Cornerstone Research

Cornerstone Research provides economic and financial consulting and expert testimony in all phases of complex litigation and regulatory proceedings. The firm works with an extensive network of prominent faculty and industry practitioners to identify the best-qualified expert for each assignment. Cornerstone Research has earned a reputation for consistent high quality and effectiveness by delivering rigorous, state-of-the-art analysis for more than thirty years. The firm has over 700 staff and offices in Boston, Chicago, London, Los Angeles, New York, San Francisco, Silicon Valley, and Washington.

www.cornerstone.com