

# **EXHIBIT 17**

CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

# Securities Class Action Filings

2019 Year in Review

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# Executive Summary

For a third consecutive year, the number of new class action securities filings based on federal statutes remained above 400. Most notably, core filings surged to record levels. Market capitalization losses, as in 2018, surpassed \$1 trillion.

## Number and Size of Filings

- Plaintiffs filed 428 **new class action securities cases** (filings) across federal and state courts in 2019, the most on record and nearly double the 1997–2018 average. “Core” filings—those excluding M&A filings—rose to the highest number on record. (pages 5–6)
- Federal and state court class actions alleging claims under the Securities Act of 1933 (1933 Act) helped push filing activity to record levels. The number of **1933 Act filings** themselves reached unprecedented levels. (page 25)
- **Disclosure Dollar Loss (DDL)** decreased by 14 percent to \$285 billion in 2019. (pages 7–8)
- **Maximum Dollar Loss (MDL)** also fell by 9 percent to \$1,199 billion. (page 9)
- In 2019, eight **mega filings** in federal courts made up 52 percent of federal core DDL and 21 mega filings in federal courts made up 71 percent of federal core MDL. Both of these percentages track closely with historical averages. Filings with a DDL of at least \$5 billion or an MDL of at least \$10 billion are considered mega filings. (pages 33–35)

## Other Measures of Filing Intensity

- In 2019, the likelihood of litigation involving a core filing for **U.S. exchange-listed companies** increased for a seventh consecutive year. This measure reached record levels because of both the heightened filing activity against public companies and an extended decline in the number of public companies over the last 15 years. (page 11)
- One in about 14 **S&P 500** companies (7.2 percent) was subject to litigation in federal courts in 2019. Companies in the Health Care sector were the most frequent targets of new core federal filings. (pages 12–13)

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*Core filings in 2019 increased 13 percent compared to 2018.*

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Figure 1: Federal and State Class Action Filings Summary

(Dollars in Billions)

	Annual (1997–2018)			2018	2019
	Average	Maximum	Minimum		
Class Action Filings	215	420	120	420	428
Core Filings	186	242	120	238	268
Disclosure Dollar Loss (DDL)	\$130	\$331	\$42	\$331	\$285
Maximum Dollar Loss (MDL)	\$638	\$2,046	\$145	\$1,317	\$1,199

# Key Trends in Federal Filings

Companies on U.S. exchanges were more likely to be sued in 2019 than in any previous year whether measured solely on core filings or on total filings. Core filings in federal courts (core federal filings) against non-U.S. issuers (i.e., companies headquartered outside the United States with securities trading on U.S. exchanges) also reached record levels.

## U.S. Companies

- In 2019, 5.5 percent of **U.S. exchange-listed companies** were the subject of core filings. (page 11)
- Core federal filings against **S&P 500 firms** in 2019 occurred at a rate of 7.2 percent. (page 12)

## Non-U.S. Companies

- Core federal filings against **non-U.S. companies** rose to 57, the highest level on record. (pages 30–31)
- The likelihood of a core federal filing against a non-U.S. company increased from 4.8 percent in 2018 to 5.6 percent in 2019. (page 32)

## By Industry

- In 2019, 66 core federal filings were brought against companies in the **Technology** and **Communications** sectors combined, up 32 percent from 2018. (page 36)
- Core federal filings in the **Consumer Non-Cyclical** sector jumped from 67 in 2018 to 88 in 2019. Within this sector, combined filings against biotechnology, pharmaceutical, and healthcare companies also increased. (pages 36–37)

## By Circuit

- There were 103 and 52 core federal filings in the **Second and Ninth Circuits**, respectively. Second Circuit core federal filings were at historically high levels, 45 percent greater than 2018. (page 38)
- **Third Circuit** filings remained at elevated levels with 28 in 2019 compared with the 1997–2018 historical average of 17. (page 38)

## M&A Filings

- Federal filings of merger-objection class actions—those involving M&A transactions with Section 14 claims but no Rule 10b-5, Section 11, or Section 12(2) claims—decreased again, from 182 in 2018 to 160 in 2019. (page 5)
- M&A filings were concentrated in the Third Circuit. In 2019, 127 of the 160 M&A filings were in the Third Circuit, including 126 in Delaware federal court. (page 14)
- M&A filings had a much higher rate of dismissal (89 percent) than core federal filings (47 percent) from 2009 to 2018. (page 15)

## Filings by Lead Plaintiff

- For 2019 core federal filings, individuals were appointed lead plaintiff more often than institutional investors, a pattern that has persisted since 2013. (page 18)

## Appointment of Plaintiff Lead Counsel

- The growth in core federal filings over the last seven years has coincided with the activity of three plaintiff law firms that have increasingly been involved in securities class actions. (page 39)

## New Developments

- There has been an increased number of core filings involving companies in and related to the cannabis industry. (page 41)
- The forum selection case, *Sciabacucchi v. Salzberg*, is currently before the Delaware Supreme Court. (page 41)



## Featured: Annual Rank of Filing Intensity

Filing activity in federal and state courts accelerated in 2019. Each of the last three years—2017 through 2019—has been more active than any previous year. More core filings in federal and state courts occurred in 2019 than in any other year. Unlike in earlier years with heightened levels of filings (e.g., at the time of the dot-com bust or the financial crisis), the current peaks have occurred despite a lack of financial market turbulence.

Core federal filings against S&P 500 companies occurred with slightly lower frequency than in 2018, but remained elevated compared with historical measures. Given the number of filings and the frequency of filings involving larger companies, historically large amounts of market capitalization losses (as measured by DDL and MDL) are being litigated.

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

	2017	2018	2019
<b>Number of Total Filings</b>	3rd	2nd	1st
Core Filings	8th	3rd	1st
M&A Filings	1st	2nd	3rd
<b>Size of Core Filings</b>			
Disclosure Dollar Loss	10th	1st	2nd
Maximum Dollar Loss	12th	3rd	4th
<b>Percentage of U.S. Exchange-Listed Companies Sued</b>			
Total Filings	3rd	2nd	1st
Core Filings	3rd	2nd	1st
<b>Percentage of S&amp;P 500 Companies Subject to Core Federal Filings</b>	8th	2nd	4th

Note: Rankings cover 1997 through 2019 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. Core filings are those excluding M&A claims. State 1933 Act filings filed exclusively in state courts are included in the rankings in all categories beginning in 2010, except the Percentage of S&P 500 Companies Subject to Core Federal Filings.

## Featured: State Court 1933 Act Filings

Securities class action filings with 1933 Act claims increased in state courts in 2019 after the 2018 U.S. Supreme Court decision in *Cyan Inc. v. Beaver County Employees Retirement Fund*. This is one of the more meaningful trends in securities litigation in the last few years. In 2019, filings in state courts with 1933 Act claims exceeded those in federal courts.

- From 2010 through 2019, plaintiffs filed at least 159 1933 Act cases in state courts (state 1933 Act filings). (page 19)
- The number of state 1933 Act filings in 2019 increased by 40 percent from 2018, while the total MDL of state 1933 Act filings rose by 78 percent. (pages 19–20)
- About 45 percent of all state 1933 Act filings in 2019 had a parallel action in federal court. (page 25)
- While state 1933 Act filings exclusively filed in state courts decreased in California from 2018 to 2019, filings in both New York and other states rose substantially.

*In 2019, New York state courts became the preferred state venue for plaintiffs bringing 1933 Act claims.*

**Figure 3: State Court 1933 Act Class Action Filings Summary**  
(Dollars in Billions)

	Average 2010–2018	2018	2019
<b>State Court 1933 Act Class Action Filings</b>			
Filings in State Courts Only	5	16	27
California	4	8	5
New York	1	5	13
All Other States	1	3	9
Parallel Filings in State and Federal Courts	7	16	22
Total	12	32	49
<b>Maximum Dollar Loss of State Court 1933 Act Filings</b>			
MDL of Filings in State Courts Only	\$7.6	\$4.3	\$18.7
California	\$7.2	\$2.8	\$0.8
New York	\$0.2	\$1.5	\$12.9
All Other States	\$0.2	\$0.0	\$5.0
MDL of Filings in State and Federal Courts	\$7.7	\$19.4	\$25.7
Total MDL	\$15.2	\$23.7	\$44.4

Note:

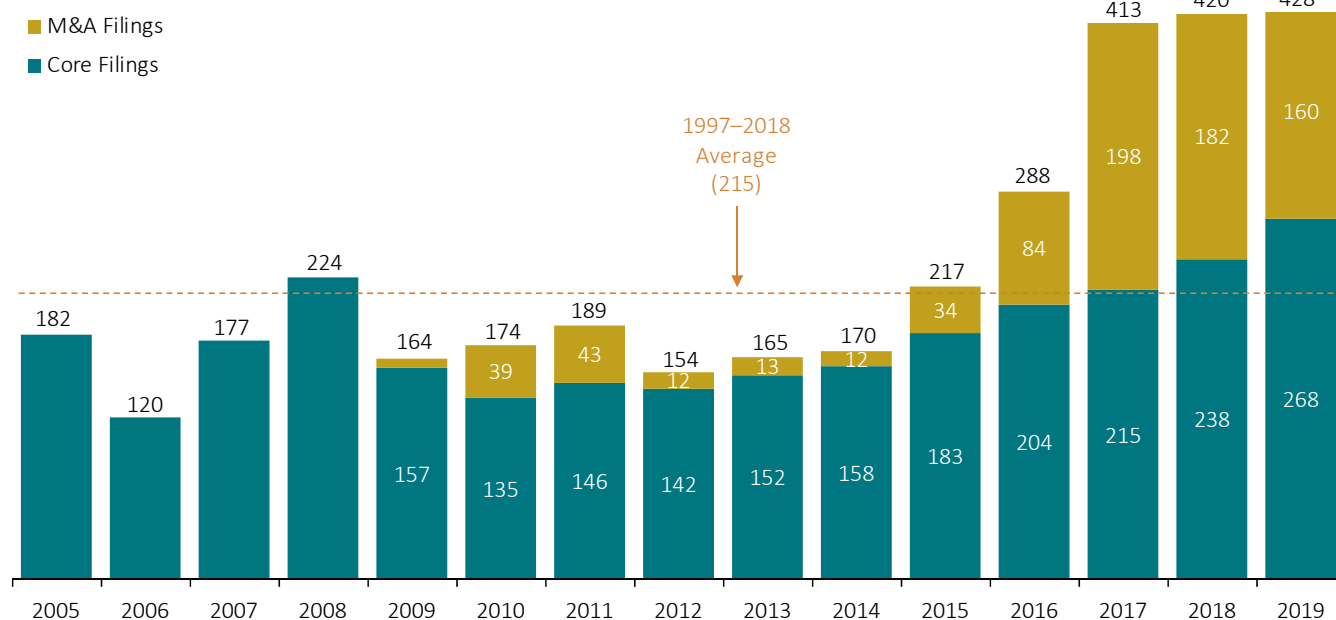
1. Filings in state courts may have parallel cases filed in federal courts. When parallel cases are filed in different years, the earlier filing is reflected in the figure above. Filings against the same company brought in different states without a filing brought in federal court are counted as unique state filings.
2. Beginning in 2018, the Securities Class Action Clearinghouse began tracking 1933 Act filings in California state courts containing Section 11 or Section 12 claims; there were six filings in California state courts with only Section 12 claims in 2018. Filings in other state courts are currently only those with Section 11 claims.
3. Figures may not sum due to rounding.

# Number of Federal and State Filings

- Plaintiffs filed 428 new securities class actions across federal and state courts, the highest number on record and nearly double the 1997–2018 average.
- The 160 M&A filings in 2019 were the third-largest number since 2009 (when this report began separately identifying these filings).
- Core filings—those excluding M&A filings—were the highest on record, topping even 2008 when filings surged due to the volatility in U.S. and global financial markets. See Appendix 1 for litigation totals from 1997 to 2019.
- The growth in core federal filings over the last seven years has coincided with the activity of three plaintiff law firms that have increasingly been involved in securities class actions. See additional discussion at page 39.
- There were just three initial coin offering (ICO)/cryptocurrency-related filings in 2019. Emerging as a new trend were filings against issuers involved in the cannabis industry—13 such federal filings occurred in 2019, up from six in 2018.

*The number of class action filings across federal and state venues was the highest on record as overall filing activity remained significantly above pre-2016 levels.*

Figure 4: Class Action Filings Index® (CAF Index®) Annual Number of Class Action Filings 2005–2019

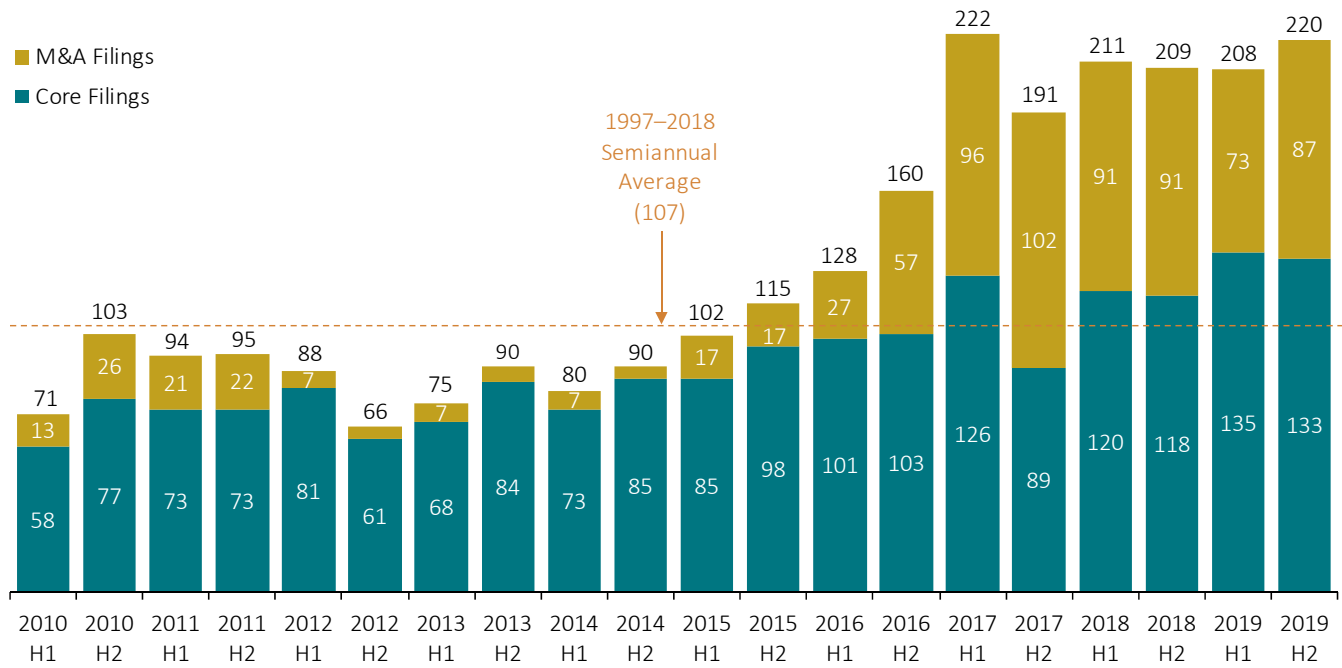


Note: This figure begins including state 1933 Act filings in the annual counts in 2010. Parallel class actions are only reflected as a single filing.

- The pace of core filings was essentially unchanged in the second half of 2019, while the pace of M&A filings was higher in the second half of the year.

*Filing activity increased by 6 percent in the second half of 2019.*

Figure 5: Class Action Filings Index® (CAF Index®) Semiannual Number of Class Action Filings 2010–2019



Note: This figure begins including state 1933 Act filings in the semiannual counts in 2010. Parallel class actions are only reflected as a single filing.

# Market Capitalization Losses for Federal and State Filings

## Disclosure Dollar Loss Index® (DDL Index®)

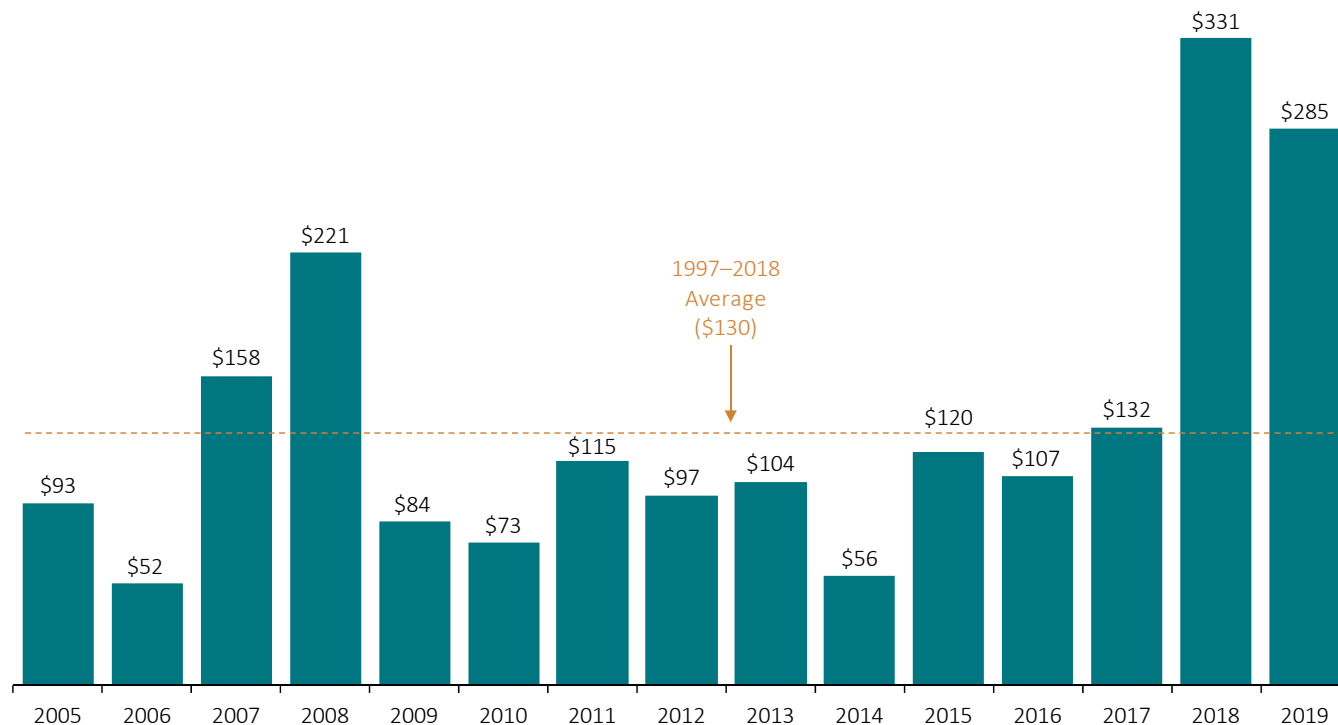
This index measures the aggregate annual DDL for all federal and state filings. DDL is the dollar value change in the defendant firm’s market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period.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

- The DDL Index fell to \$285 billion in 2019, down 14 percent from 2018, but remained more than double the 1997–2018 average.
- Median DDL per filing in 2019 was the second-highest on record, trailing only 2018. See Appendix 1 for DDL totals, averages, and medians from 1997 to 2019.

*The DDL Index remained significantly elevated in 2019 despite a sizable decline from last year’s record.*

Figure 6: Disclosure Dollar Loss Index® (DDL Index®) 2005–2019

(Dollars in Billions)

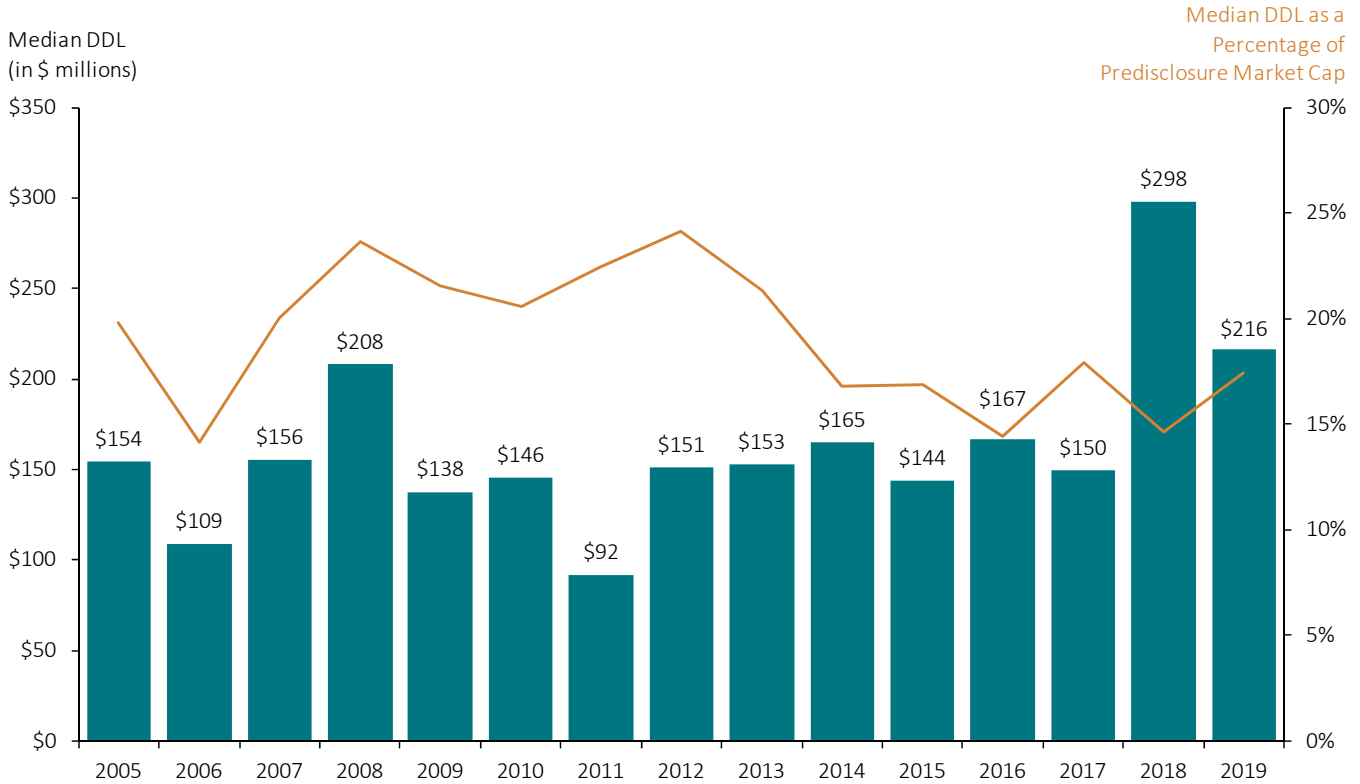


Note: This figure begins including DDL associated with state 1933 Act filings in 2010. DDL associated with parallel class actions are only counted once.

- The typical (i.e., median) percentage stock price drop at the end of the class period has generally oscillated between 14 percent and 18 percent since 2014, and in 2019 reached its second-highest level in the past six years.
- The median DDL decreased 28 percent from 2018 levels, although it was still 58 percent above the 1997–2018 average.

*Median DDL fell noticeably from 2018 levels while the median value of DDL as a percentage of predisclosure market capitalization rebounded to 2017 levels.*

Figure 7: Median Disclosure Dollar Loss 2005–2019



**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.

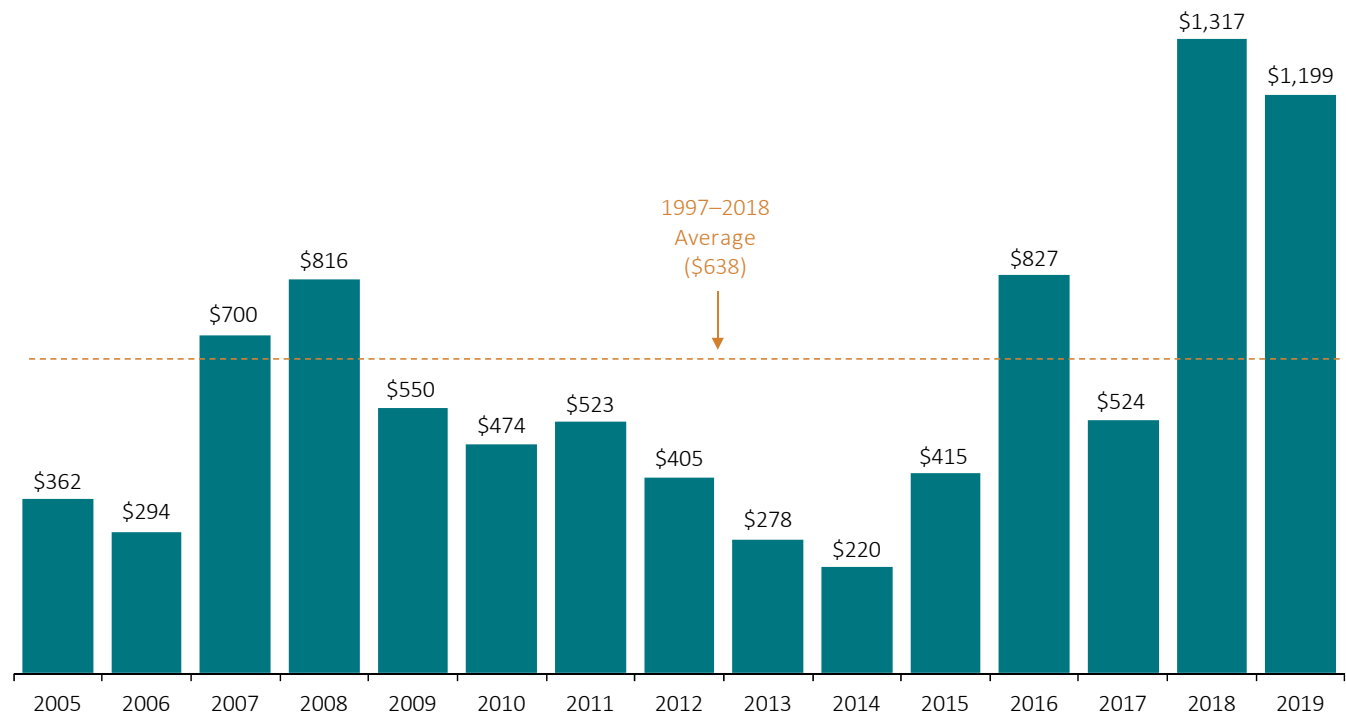
- The MDL Index reached \$1.2 trillion in 2019, the fourth-largest year on record. Relative to 2018, the MDL Index declined by 9 percent. See Appendix 1 for MDL totals, averages, and medians from 1997 to 2019.

- For the second consecutive year, there were at least 20 mega MDL filings, compared to 14 in 2017. Mega MDL filings primarily involved pharmaceutical, technology, and communications companies.

*The MDL Index eclipsed \$1 trillion for a second consecutive year.*

**Figure 8: Maximum Dollar Loss Index® (MDL Index®) 2005–2019**

(Dollars in Billions)



Note: This figure begins including MDL associated with state 1933 Act filings in 2010. MDL associated with parallel class actions are only counted once.

# Classification of Federal Complaints

- Section 11 claims increased in federal courts even as filing activity continued to increase in state courts. See page 22.
- Section 12(2) claims decreased from 10 percent of core federal filings in 2018 to 7 percent in 2019.
- For the third consecutive year, around one-fourth of core federal filings included allegations related to accounting violations.
- Allegations of announced internal control weaknesses increased from 7 percent of core federal filings to 10 percent.

*Section 11 claims were asserted in 16 percent of core federal filings in 2019, up from 10 percent in 2018.*

- Underwriters were named as defendants in 11 percent of core federal filings, up from 8 percent in 2018. This increase is consistent with the higher numbers of Section 11 core federal filings.

Figure 9: Allegations Box Score—Core Federal Filings

	Percentage of Filings <sup>1</sup>				
	2015	2016	2017	2018	2019
<b>Allegations in Core Federal Filings<sup>2</sup></b>					
Rule 10b-5 Claims	92%	94%	93%	86%	87%
Section 11 Claims	16%	12%	12%	10%	16%
Section 12(2) Claims	9%	6%	4%	10%	7%
Misrepresentations in Financial Documents	99%	99%	100%	95%	98%
False Forward-Looking Statements	53%	45%	46%	48%	47%
Trading by Company Insiders	16%	10%	3%	5%	5%
Accounting Violations <sup>3</sup>	38%	30%	22%	23%	23%
Announced Restatement <sup>4</sup>	12%	10%	6%	5%	8%
Internal Control Weaknesses <sup>5</sup>	26%	21%	14%	18%	18%
Announced Internal Control Weaknesses <sup>6</sup>	11%	7%	7%	7%	10%
Underwriter Defendant	12%	7%	8%	8%	11%
Auditor Defendant <sup>7</sup>	1%	2%	0%	0%	0%

Note:

1. The percentages do not add to 100 percent 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 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 accounting GAAP violations; however, the allegations, if true, would represent accounting GAAP violations.
4. FIC includes allegations of GAAP 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.
5. FIC includes allegations of internal control weaknesses over financial reporting.
6. 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.
7. In each of 2018 and 2019 there was one filing with allegations against an auditor defendant.



# U.S. Exchange-Listed Companies

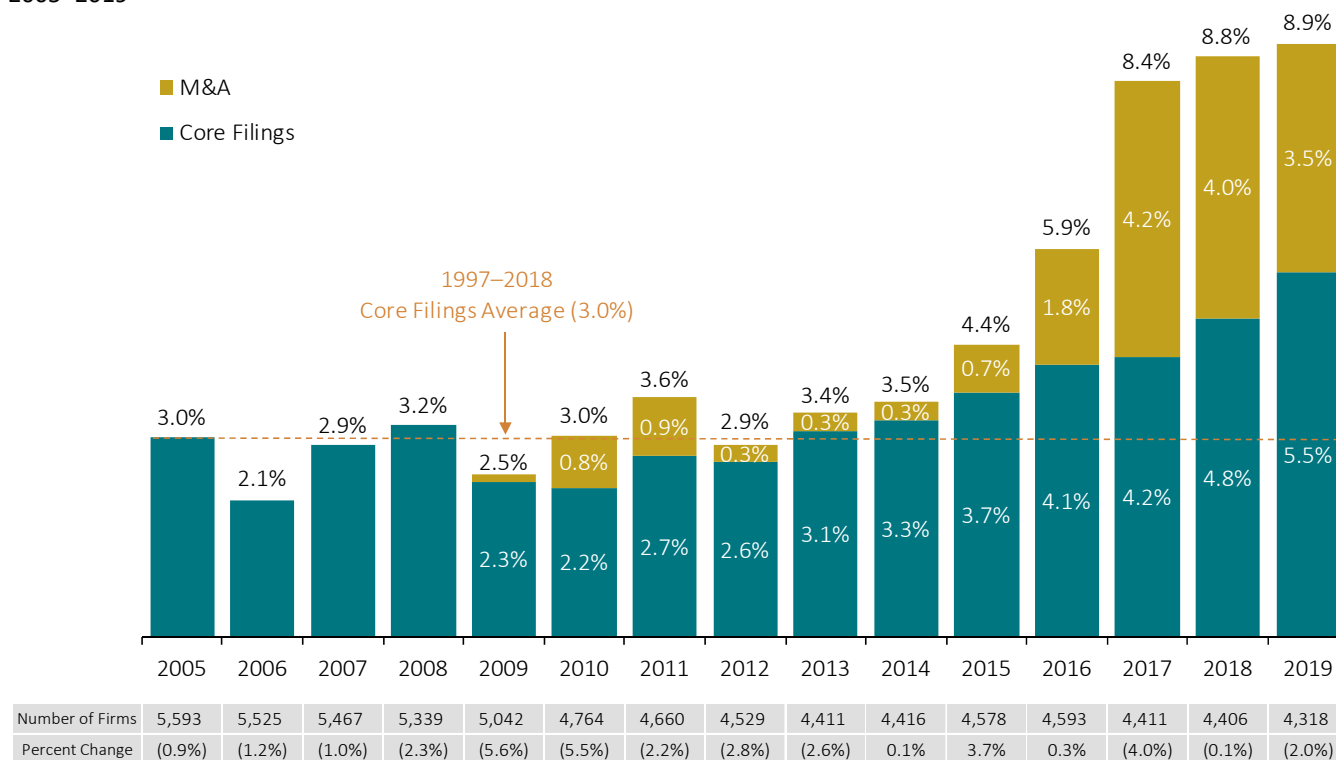
The percentages below are calculated as the unique number of companies listed on the NYSE or Nasdaq subject to federal or state securities fraud class actions in a given year divided by the unique number of companies listed on the NYSE or Nasdaq.

- The likelihood that U.S. exchange-listed companies were subject to core filings increased for a seventh consecutive year, from 2.6 percent in 2012 to 5.5 percent in 2019.
- Approximately one in 18 companies listed on U.S. exchanges was the subject of a core filing in 2019. See Appendix 1 for litigation likelihood from 1997 to 2019.

*The likelihood of core filings targeting U.S. exchange-listed companies surpassed the previous record set in 2018, while M&A filings dropped to the lowest level since 2016.*

- M&A filings decreased in 2019 to 3.5 percent, down from 4.0 percent in 2018.

Figure 10: Percentage of U.S. Exchange-Listed Companies Subject to Federal or State Filings 2005–2019



Source: Securities Class Action Clearinghouse; Center for Research in Security Prices (CRSP)

Note:

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.
2. Listed companies were identified by taking the count of listed securities at the beginning of each year and accounting for cross-listed companies or companies with more than one security traded on a given exchange. Securities were counted if they were classified as common stock or American Depository Receipts (ADRs) and listed on the NYSE or Nasdaq.
3. Percentages may not sum due to rounding.
4. This figure begins including issuers facing suits in state 1933 Act filings in 2010.

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

The Heat Maps illustrate 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 2019, approximately one in 14 companies (7.2 percent) was a defendant in a core federal filing during the year. See Appendix 2A for percentage of companies by sector from 2001 to 2019.
  - The rate of core federal filings against Energy/Materials firms doubled from 2018 to 2019.
  - The Consumer Staples, Industrials, Communication Services/Information Tech, and Utilities sectors continued to see higher likelihoods of core federal filings than prior to 2016, while rates in other sectors have plateaued or decreased.
  - The percentage of companies in the Financials/Real Estate sector subject to core federal filings (2 percent) was 25 percent of the 2001–2018 average.

*The likelihood of an S&P 500 company being sued declined after a decade high in 2018.*

Figure 11: Heat Maps of S&P 500 Securities Litigation™ Percentage of Companies Subject to Core Federal Filings

	Average 2001–2018	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Consumer Discretionary	5.3%	5.1%	3.8%	4.9%	8.4%	1.2%	0.0%	3.6%	8.5%	10.0%	3.1%
Consumer Staples	3.4%	0.0%	2.4%	2.4%	0.0%	0.0%	5.0%	2.6%	2.7%	11.8%	12.1%
Energy/Materials	1.5%	4.3%	0.0%	2.7%	0.0%	1.3%	0.0%	4.5%	3.3%	1.8%	3.7%
Financials/Real Estate	8.0%	10.3%	1.2%	3.7%	0.0%	1.2%	1.2%	6.9%	3.3%	7.0%	2.0%
Health Care	8.8%	13.5%	2.0%	1.9%	5.7%	0.0%	1.9%	17.9%	8.3%	16.1%	12.9%
Industrials	3.8%	0.0%	1.7%	1.6%	0.0%	4.7%	0.0%	6.1%	8.7%	8.8%	10.1%
Communication Services / Information Tech	6.3%	2.4%	7.1%	3.8%	9.1%	0.0%	4.2%	6.8%	8.5%	12.7%	10.0%
Utilities	5.3%	0.0%	2.9%	0.0%	0.0%	0.0%	3.4%	3.4%	7.1%	7.1%	6.9%
<b>All S&amp;P 500 Companies</b>	<b>5.5%</b>	<b>4.8%</b>	<b>2.8%</b>	<b>3.0%</b>	<b>3.4%</b>	<b>1.2%</b>	<b>1.6%</b>	<b>6.6%</b>	<b>6.4%</b>	<b>9.4%</b>	<b>7.2%</b>

Legend	0%	0–5%	5–15%	15–25%	25%+
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**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 Companies Subject to New 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.
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.

- The percentage of total market capitalization of S&P 500 companies subject to core federal filings fell from 14.9 percent in 2018 to 10.0 percent in 2019. See Appendix 2B for market capitalization percentage by sector from 2001 to 2019.
- While the percentage of companies in the Energy/Materials sector subject to core federal filings more than doubled relative to 2018, the percentage of this sector's market capitalization subject to core federal filings fell 18 percent year-over-year.
- All sectors other than the Industrials and Utilities sectors saw a decrease in the percentage of market capitalization subject to core federal filings compared to 2018.

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

**Figure 12: Heat Maps of S&P 500 Securities Litigation™ Percentage of Market Capitalization Subject to Core Federal Filings**

	Average 2001–2018	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Consumer Discretionary	5.2%	4.9%	4.6%	1.6%	4.4%	2.5%	0.0%	2.8%	8.2%	4.7%	0.5%
Consumer Staples	4.1%	0.0%	0.8%	14.0%	0.0%	0.0%	1.9%	1.0%	6.7%	15.2%	9.1%
Energy/Materials	2.9%	5.2%	0.0%	0.9%	0.0%	0.2%	0.0%	19.8%	2.3%	1.4%	1.2%
Financials/Real Estate	15.2%	31.1%	6.9%	11.0%	0.0%	0.3%	3.0%	11.9%	1.5%	12.5%	2.2%
Health Care	12.9%	32.7%	0.7%	0.8%	4.4%	0.0%	3.1%	13.2%	2.7%	26.3%	6.6%
Industrials	8.4%	0.0%	2.1%	1.2%	0.0%	1.7%	0.0%	8.7%	22.3%	19.4%	21.6%
Communication Services / Information Tech	9.5%	5.9%	13.4%	2.2%	16.6%	0.0%	7.0%	12.3%	4.4%	19.4%	18.0%
Utilities	6.0%	0.0%	0.6%	0.0%	0.0%	0.0%	3.7%	4.4%	9.6%	6.5%	7.9%
<b>All S&amp;P 500 Companies</b>	<b>8.9%</b>	<b>11.1%</b>	<b>5.0%</b>	<b>4.3%</b>	<b>4.7%</b>	<b>0.6%</b>	<b>2.8%</b>	<b>10.0%</b>	<b>6.1%</b>	<b>14.9%</b>	<b>10.0%</b>

Legend    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 New 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.

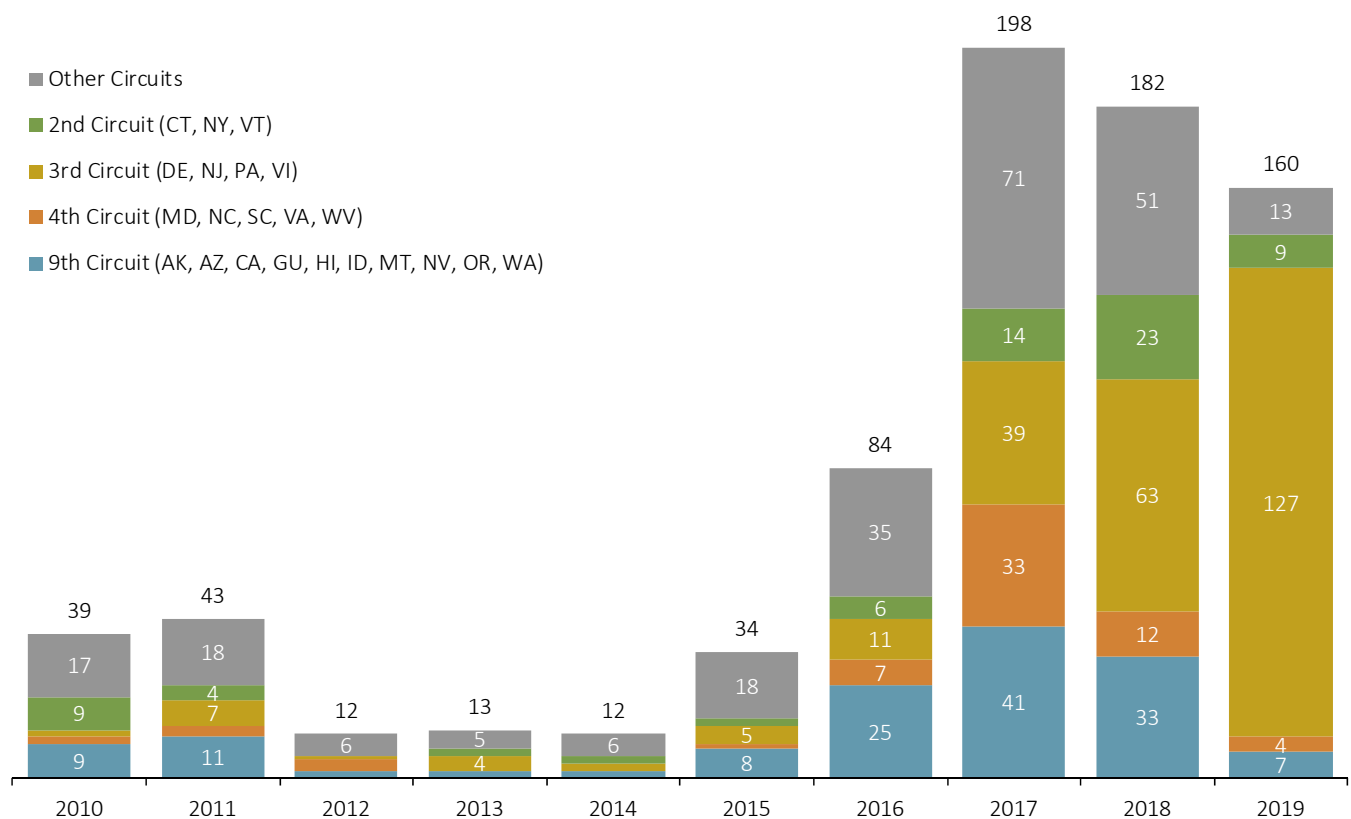
# M&A Filings by Federal Circuit

In January 2016, the Delaware Court of Chancery rejected a disclosure-only settlement in Zillow's acquisition of Trulia.<sup>1</sup> This appears to have resulted in some venue shifting for merger-objection lawsuits from state to federal courts.

*M&A filings were concentrated in the Third Circuit, where filings more than doubled.*

- The number of M&A filings in the Third Circuit set a new record for the fourth consecutive year.
- The Third Circuit accounted for almost 80 percent of total M&A filings in 2019; all but one of these filings were brought in Delaware federal courts.
- The Fourth Circuit exhibited a 67 percent decline in M&A filings in 2019 for a two-year decline of 88 percent. M&A filings in the Ninth Circuit also declined nearly 80 percent from 2018 to 2019.

Figure 13: Annual M&A Filings by Federal Circuit 2010–2019



Note:

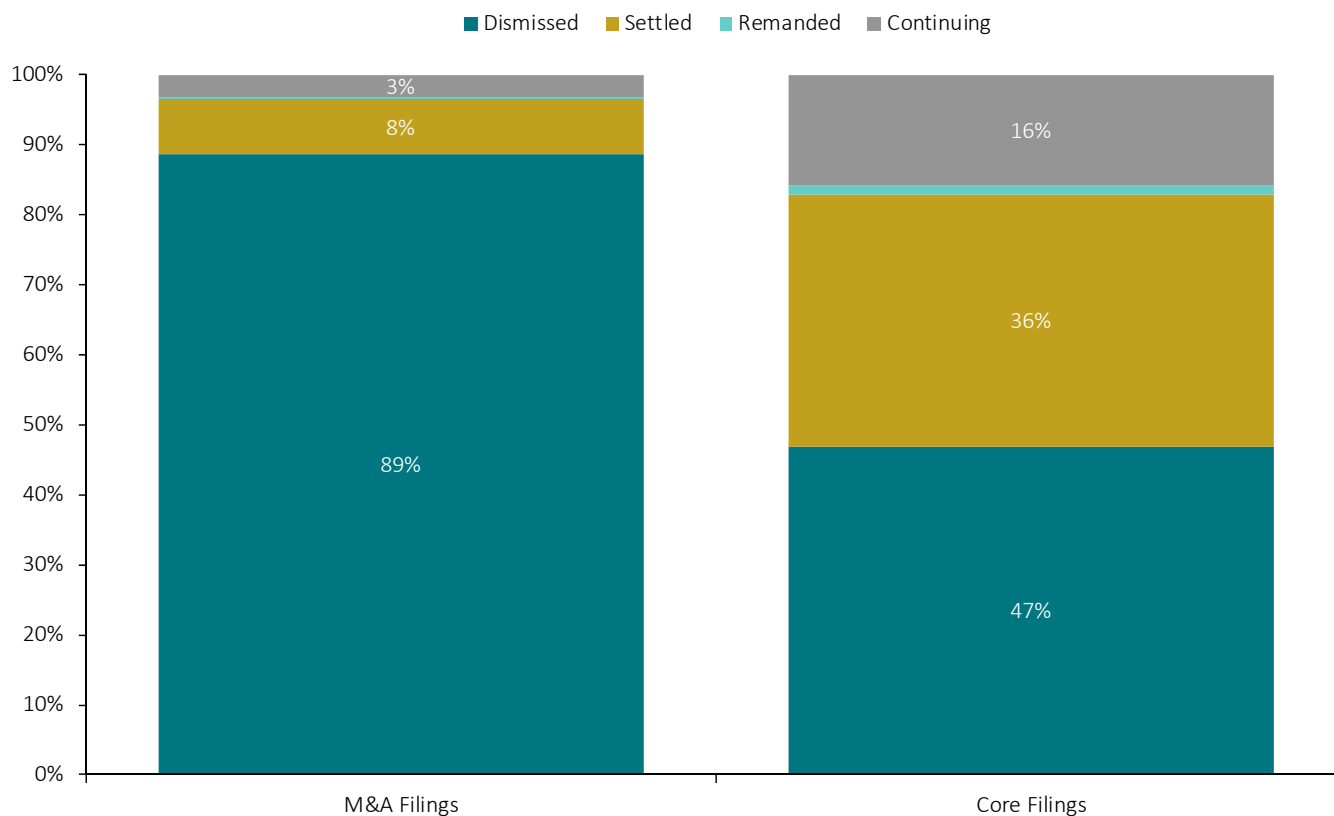
1. See <http://courts.delaware.gov/opinions/download.aspx?ID=235370>.
2. The Securities Class Action Clearinghouse began tracking M&A filings as a separate category in 2009.

# Status of M&A Filings in Federal Courts

- There were 624 M&A filings between 2009 and 2018, compared to 1,679 core federal filings.
- M&A filings were dismissed at much higher rates and resolved more quickly than core federal filings.
- M&A filings exhibited settlement rates 28 percentage points below core federal filings. See Appendix 3 for a year-by-year overview of M&A and core filings status.

*M&A filings were dismissed at a much higher rate and settled at a much lower rate than core federal filings.*

Figure 14: Status of M&A Filings Compared to Core Federal Filings 2009–2018



Note:

1. The Securities Class Action Clearinghouse began tracking M&A filings as a separate category in 2009.
2. The 2019 filing cohort is excluded since a large percentage of cases are ongoing.

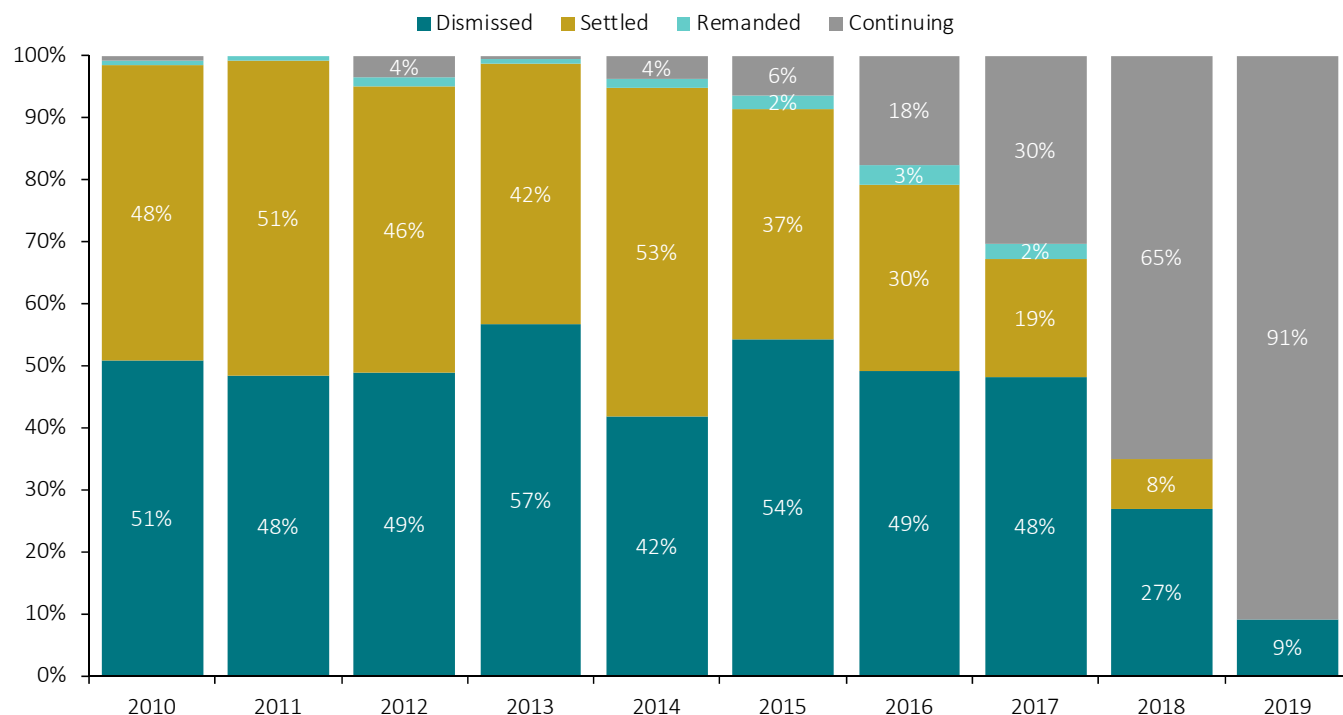
# Status of Federal Securities Class Action Filings

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 trial verdict.

*The dismissal rate for the 2017 core federal filings cohort is currently nearly half of all cases, despite the fact that 30 percent of the cases are continuing.*

- From 1997 to 2018, 49 percent of core federal filings were settled, 43 percent were dismissed, less than 1 percent were remanded, and 7 percent are continuing. Overall, less than 1 percent of core federal filings have reached a trial verdict.
- Recent annual dismissal rates have been closer to 50 percent. In the last 10 years the cohorts with the most divergent dismissal rates were 2014 (at 42 percent) and 2013 (at 57 percent).
- More recent cohorts have too many ongoing cases to determine their ultimate dismissal rates. However, the 2016 cohort will end up having a dismissal rate of at least 49 percent.

Figure 15: Status of Filings by Year—Core Federal Filings 2010–2019



Note: Percentages may not sum to 100 percent due to rounding.

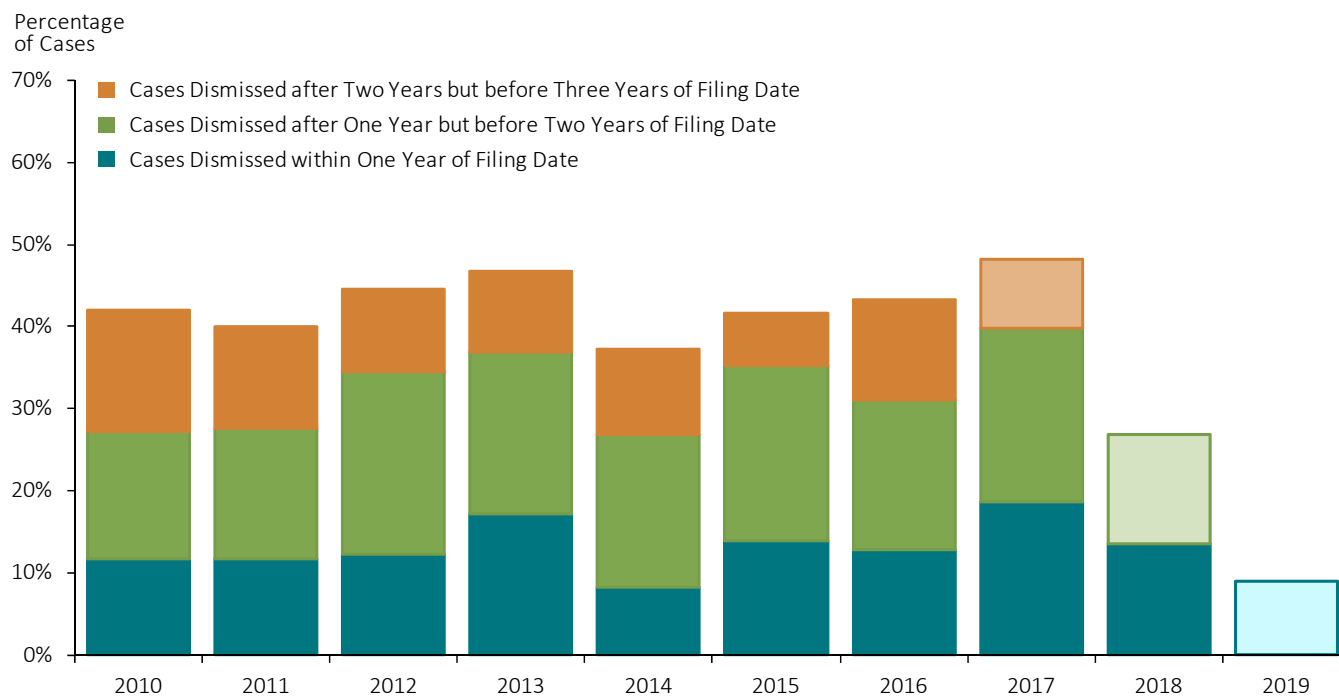
# Timing of Dismissals of Federal Filings

Given the length of time that may exist between the filing of a class action and its outcome, it may not be possible to immediately determine whether trends in dismissal rates observed in earlier annual cohort years will persist in later annual cohorts. This analysis looks at dismissal trends within the first several years of the filing of a federal class action to gain insight on recent dismissal rates.

*The percentage of core federal cases dismissed within the first three years for the 2017 cohort is the highest on record.*

- While the percentage of core federal cases dismissed within three years of filing had generally increased for filing cohorts prior to 2013, it decreased for 2014 cohort filings before increasing again for 2015, 2016, and 2017 cohort filings.
- For 2017 cohort filings, three full years of observational history are not yet complete. Dismissal rates will therefore increase in 2020 as more 2017 core federal filings are resolved. See Appendix 4 for case status by year from 1997 to 2019.
- Early indications of the first-year dismissal rate for the 2019 cohort are inconclusive and do not reveal any obvious trends.

Figure 16: Percentage of Cases Dismissed within Three Years of Filing Date—Core Federal Filings 2010–2019



Note:

1. Percentage of cases in each category is calculated as the number of cases that were dismissed within one, two, or three years of the filing date divided by the total number of cases filed each year.
2. The outlined portions of the stacked bars for years 2017 through 2019 indicate the percentage of cases dismissed through the end of 2019. The outlined portions of these stacked bars therefore present only partial-year observed resolution activity, whereas their counterparts in earlier years show an entire year.

# Federal Filings by Lead Plaintiff

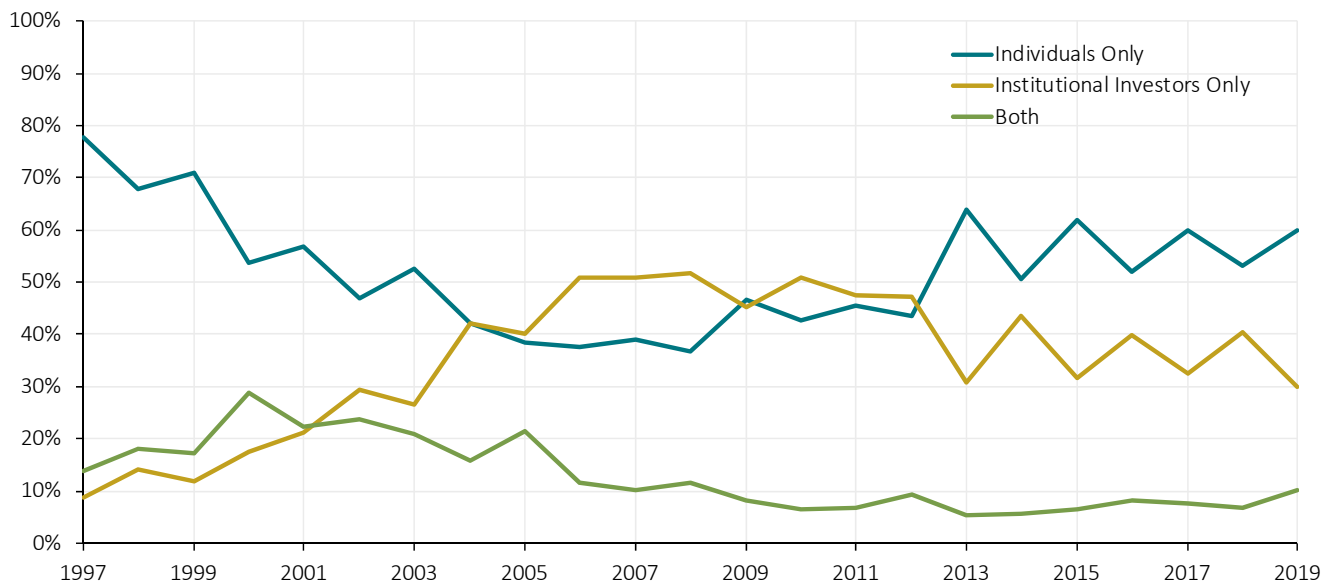
This analysis examines how frequently individual or institutional investors were appointed as lead plaintiff in core federal filings.

- From 1997 to 2003, while individuals were appointed as lead plaintiff more often than institutional investors in core federal filings, the difference narrowed.
- From 2004 to 2012, institutional investors were generally as or more likely to be appointed lead plaintiff than were individuals.
- Starting in 2013, individuals were appointed as lead plaintiff more often than institutional investors. This suggests a shift in litigation strategies by some plaintiff law firms.

- Individuals were exclusively appointed as lead plaintiff in 60 percent of the core federal filings in 2019.

*Individuals have been appointed as lead plaintiff more than institutional investors in each of the last seven years.*

Figure 17: Percentage of Federal Class Action Filings by Lead Plaintiff—Core Federal Filings 1997–2019



Note:

1. Multiple plaintiffs can be designated as co-leads on a single case. This table separates percentages for which a case had only individuals as the lead/co-leads, institutional investors or investor groups as the lead/co-leads, or both individuals and institutional investors as the co-leads.
2. Cases may not have lead plaintiff data due to dismissal or settlement before a lead plaintiff is appointed or because the cases have not yet reached the stage when a lead plaintiff can be identified.
3. Lead plaintiff data are available for over 93 percent of core federal filings for each year from 1997 to 2018. Lead plaintiff data are available for 64 percent of 2019 core federal filings.



# 1933 Act Cases Filed in State Courts

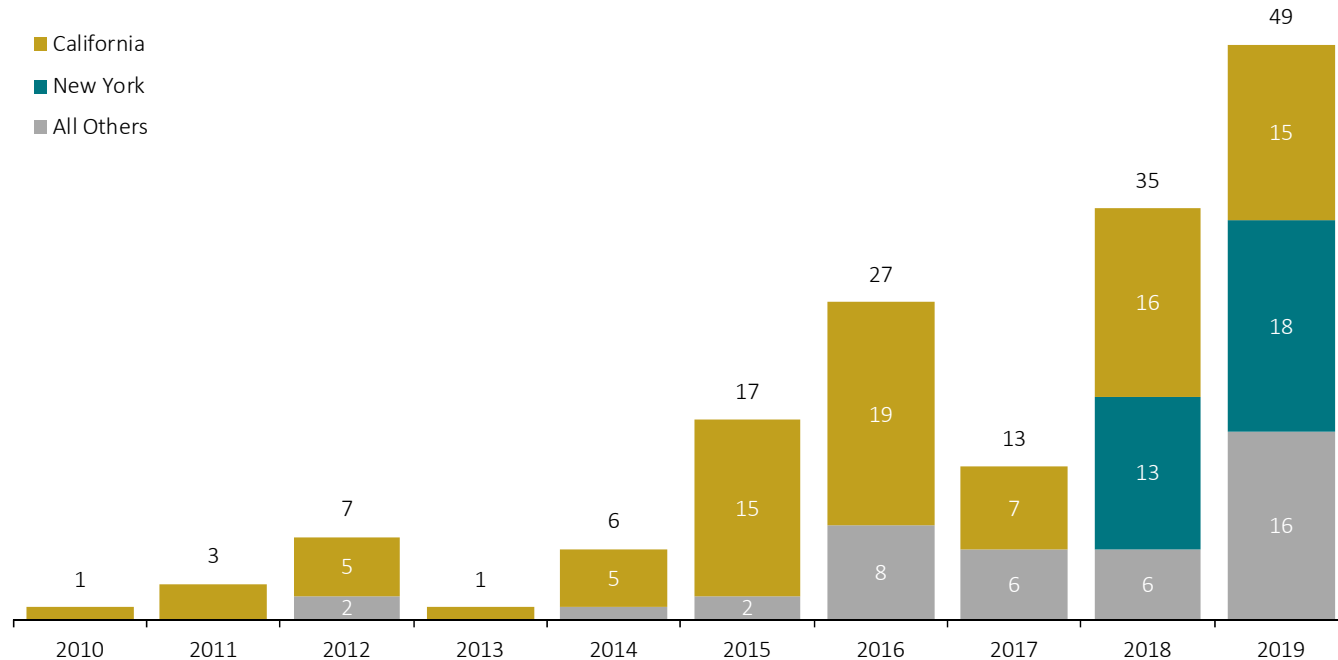
The following data include 1933 Act filings in California, New York, and other state courts. The figure below illustrates all the filings currently in the dataset. Filings from prior years are added retrospectively when identified.

- In 2019, 15 class actions alleging violations of the 1933 Act were filed in California state courts, 18 were filed in New York state courts, and 16 were filed in other state courts. These filings may include Section 11, Section 12, and Section 15 claims, but do not include Rule 10b-5 claims.
- Since 2018, 81 percent of California state filings have involved companies headquartered in California and only 16 percent have involved non-U.S. companies. Conversely, in New York only 10 percent involved companies headquartered in New York and 42 percent involved non-U.S. companies.

- In 2019, filings in New York state courts overtook the number of filings in California state courts.
- State filings in states outside of New York and California almost tripled in 2019, from six filings in 2018 to 16 in 2019. These filings were in Florida, Illinois, Massachusetts, Michigan, Nevada, New Jersey, Pennsylvania, Rhode Island, Tennessee, Texas, and Wisconsin.

*State 1933 Act filing activity continued to increase, driven largely by filings in state courts outside of New York and California.*

Figure 18: State 1933 Act Filings by State 2010–2019



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

Note:

1. All others contains filings in Alabama, Arizona, Colorado, Florida, Georgia, Illinois, Iowa, Massachusetts, Michigan, Nevada, New Hampshire, New Jersey, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, 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.

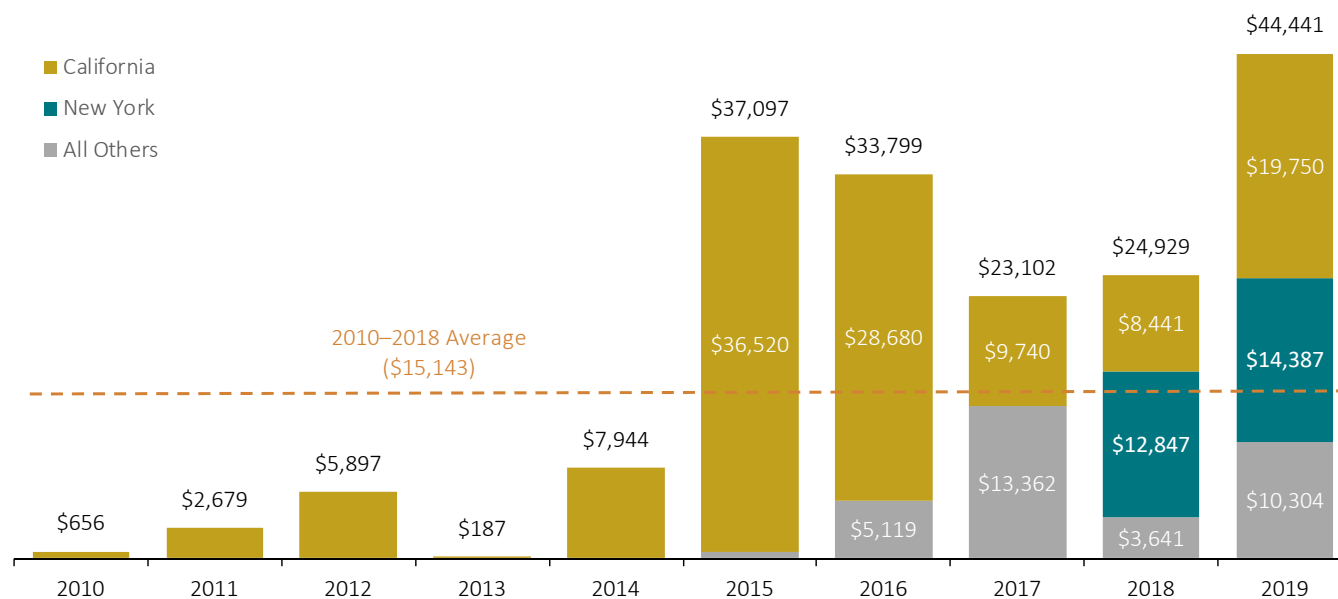
# 1933 Act Cases Filed in State Courts— Size of Filings

- In 2019, MDL for state 1933 Act filings increased to \$44.4 billion, almost three times the 2010–2018 average.
- Relative to 2018, MDL for all state 1933 Act filings increased by 78 percent compared to a 40 percent increase in the number of filings.
- MDL for California 1933 Act filings accounted for a significant share of MDL at \$19.8 billion, or nearly 45 percent. Two companies with MDLs of around \$6 billion each largely contributed to this total.

*California state 1933 Act filings made up nearly 45 percent of the MDL in 2019.*

Figure 19: Maximum Dollar Loss (MDL) of State 1933 Act Filings 2010–2019

(Dollars in Millions)



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

Note: 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. MDL calculations include all shares outstanding and not only shares traceable to offering materials. Therefore, these calculations overstate potential damages. MDL associated with filings related to a spin-off or merger-related issuance are excluded.

# New: Dollar Loss on Offered Shares™ in Federal Section 11–Only Filings and 1933 Act Cases Filed in State Courts

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 initial public offering (IPO), a seasoned equity offering (SEO), or a corporate merger or spin-off) acquired by class members multiplied by the difference between the offering price of the shares and their price at the end of the class period.

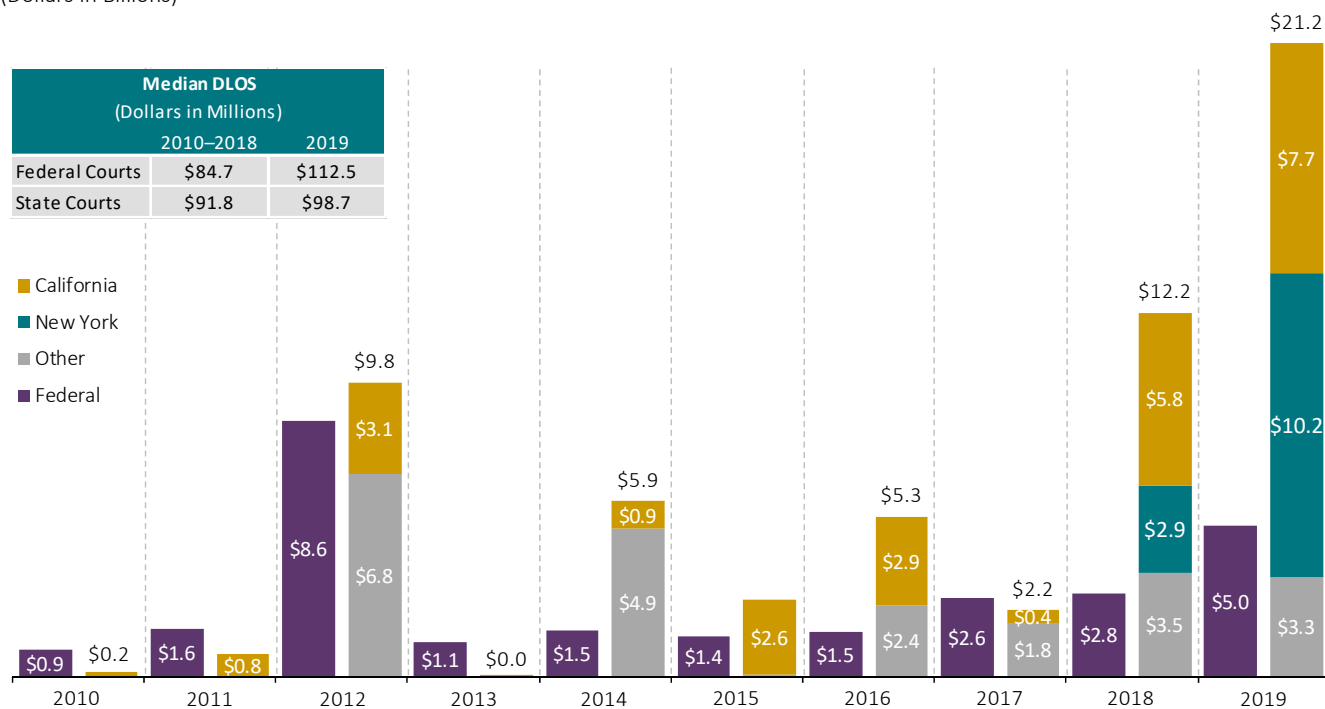
This alternative measure of losses has been calculated for federal filings involving only Section 11 claims (i.e., no Section 10b claims) and 1933 Act filings in state courts. This measure, Dollar Loss on Offered Shares (DLOS), aims to capture more precisely than MDL the dollar loss associated with the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

*In 2019, the Dollar Loss on Offered Shares across state and federal courts was nearly four times the 2010–2018 average.*

- DLOS in state courts has exceeded that in federal courts in five of the last six years.
- In 2019, state 1933 Act filings had the highest DLOS of the decade, regardless of venue.

Figure 20: Dollar Loss on Offered Shares™ for Federal Section 11–Only and State 1933 Act Filings 2010–2019

(Dollars in Billions)



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

Note: Federal filings included in this analysis must contain a Section 11 claim and may contain a Section 12 claim, but do not contain Section 10b 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.

# Comparison of Federal Section 11 Filings with State 1933 Act Filings—Pre- and Post-*Cyan*

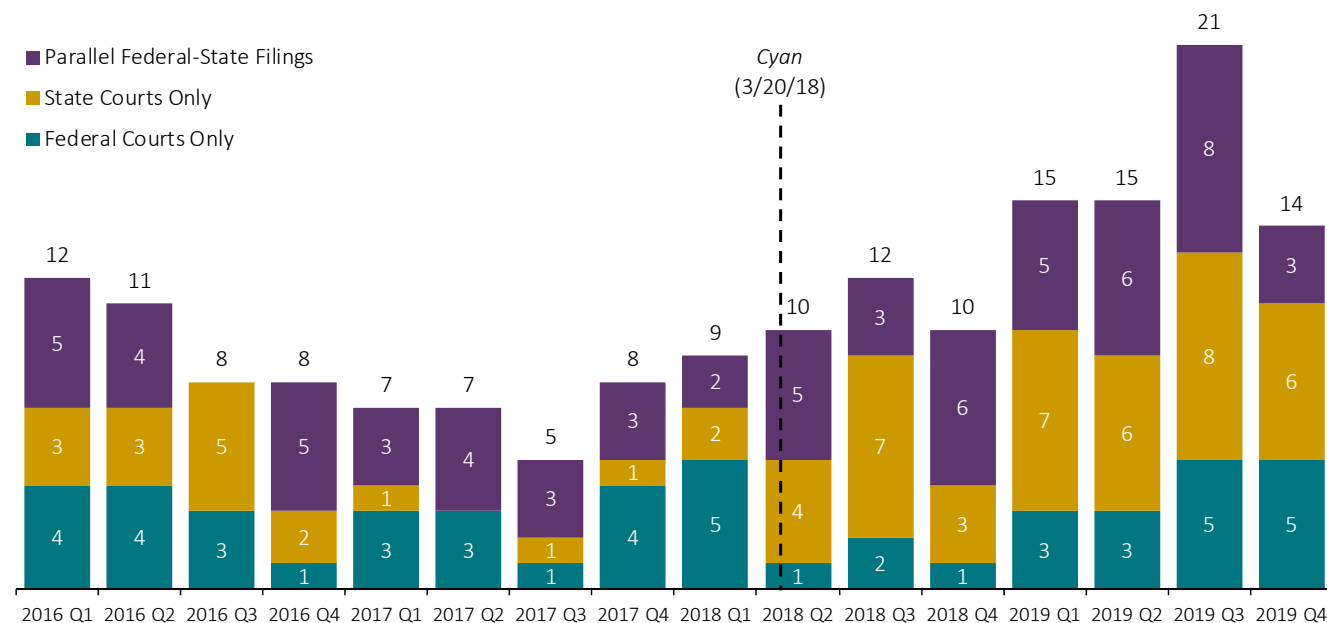
The figure below is a combined measure of Section 11 filing activity in federal courts and 1933 Act filings in state courts. It highlights parallel (or related) class actions in federal and state courts.

- In 2019, the combined number of federal Section 11 filings and state 1933 Act filings was 65. This comprised 22 parallel filings, 27 state-only filings, and 16 federal-only filings.
- Overall, the 59 percent increase in these filings from 2018 can be attributed to increases in each category (i.e., parallel, state-only, and federal-only filings).
- The third quarter of 2019 had the largest quarterly number of combined federal Section 11 filings and state 1933 Act filings on record.

- While the increase in the aggregate number of federal Section 11 and state 1933 Act filings follows an increase in the number of IPOs (see p. 27), the change in the composition (federal vs. state) shows the effect of the *Cyan* decision.

*State 1933 Act filings have continued to increase since the Cyan decision, although new filing activity lessened in the fourth quarter relative to the peak in the third quarter of 2019.*

**Figure 21: Pre- and Post-*Cyan* Quarterly Federal Section 11 and State 1933 Act Filings 2015–2019**



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

Note:

1. The federal Section 11 filings displayed may include Rule 10b-5 claims, but state 1933 Act filings do not.
2. Section 11 filings in federal courts may include parallel (or related) cases filed in state courts. When these cases are filed in different quarters, the earliest filing is counted. If filings against the same company are brought in different states in addition to a filing brought in federal court, the parallel filing is counted as a unique case and the state-only filing is treated as a unique case. Filings against the same company brought in different states without a parallel filing brought in federal court are counted as unique state filings.
3. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims.

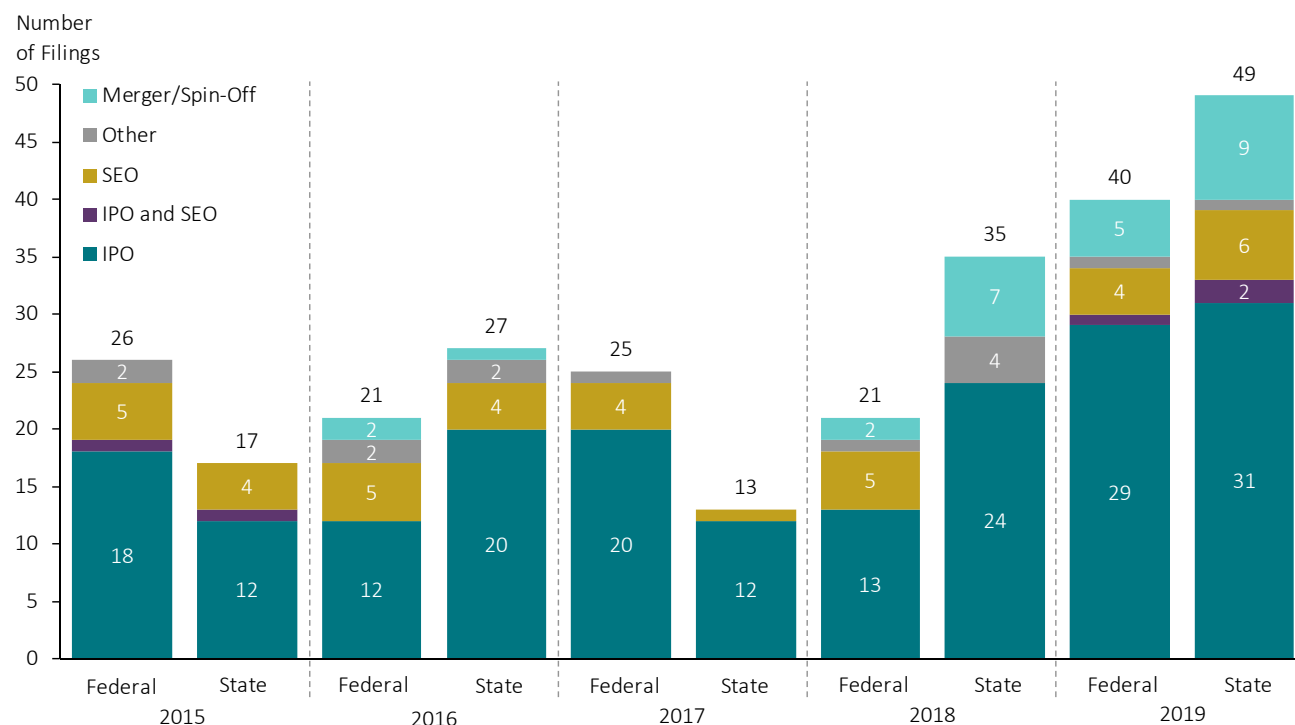
# New: Type of Security Issuance Underlying Federal Section 11 and State 1933 Act Filings

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.

*Filings related to issuances due to mergers or spin-offs have accounted for more than 15 percent of all federal Section 11 and state 1933 Act filings since 2018.*

- Filings related to issuances due to mergers or spin-offs have increased dramatically in the last two years, particularly in state courts. There were 14 such filings in 2019 across the federal and state venues, up from zero in 2017.
- There were three filings related to both an IPO and SEO in 2019—the first such filings since 2015.

Figure 22: Federal Section 11 and State 1933 Act Class Action Filings by Type of Security Issuance 2015–2019



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

Note:

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

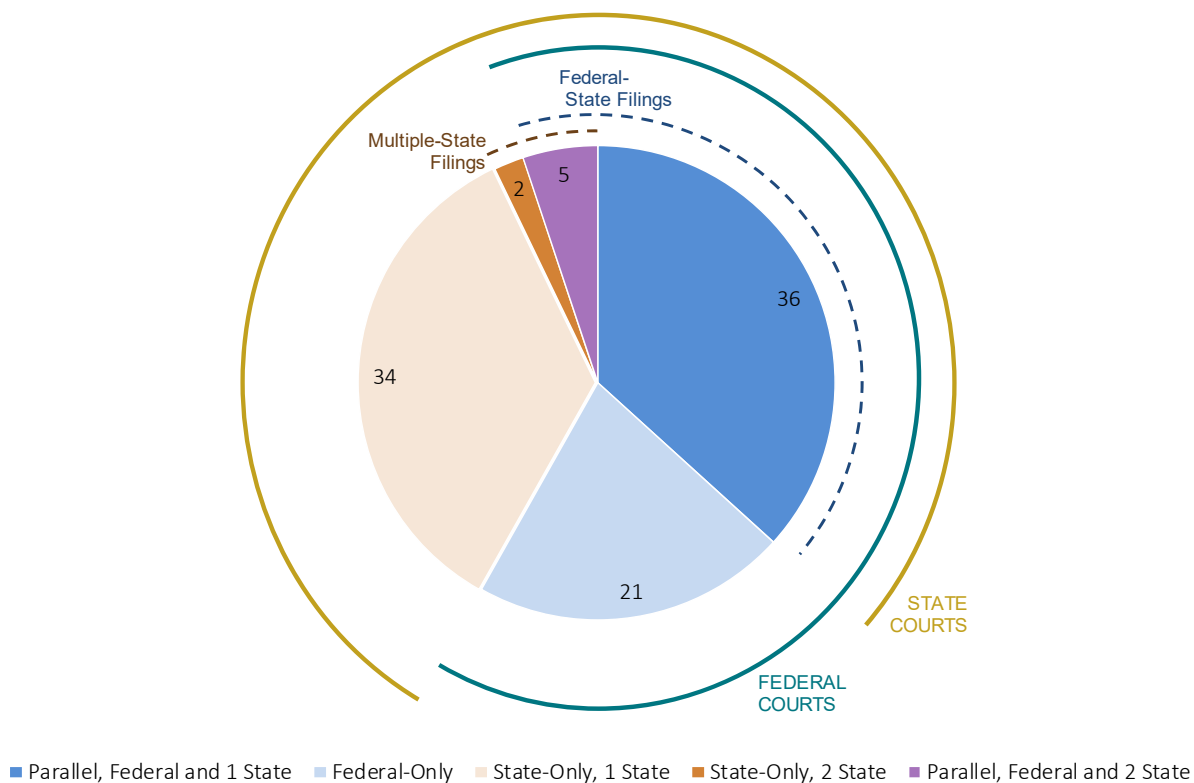
# New: 1933 Act Filings by Venue—Post-Cyan

Parallel (or related) 1933 Act filings against the same issuer in different venues have increased post-Cyan. This figure presents the degree to which post-Cyan 1933 Act filings are being litigated in multiple jurisdictions at the same time. These parallel filings may be in federal and state courts (federal-state filings) or in different state courts (multiple-state filings).

- Multiple-state filings have increased post-Cyan. Between 2010 and 2018 there were only four companies facing multiple-state filings, whereas post-Cyan there have already been seven.
- As an example of post-Cyan jurisdictional complexities, in 2019 SmileDirectClub was the subject of securities class action filings in New York federal court, Tennessee federal court, Michigan federal court, Tennessee state court, and Michigan state court.
- Six of the seven companies facing multiple-state filings post-Cyan were sued in New York state courts.

*Since the Cyan ruling, 43 parallel class actions have been filed in multiple federal and state jurisdictions.*

Figure 23: Frequency of Federal Section 11 and State 1933 Act Class Action Filings by Venue—Post-Cyan



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

Note:

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. Filings in state and federal courts may have related cases filed in other state courts or in federal court. In these instances, the later filing date was used in determining if the filing was post-Cyan. The U.S. Supreme Court ruled in March 2018 in *Cyan Inc. v. Beaver County Employees Retirement Fund*.

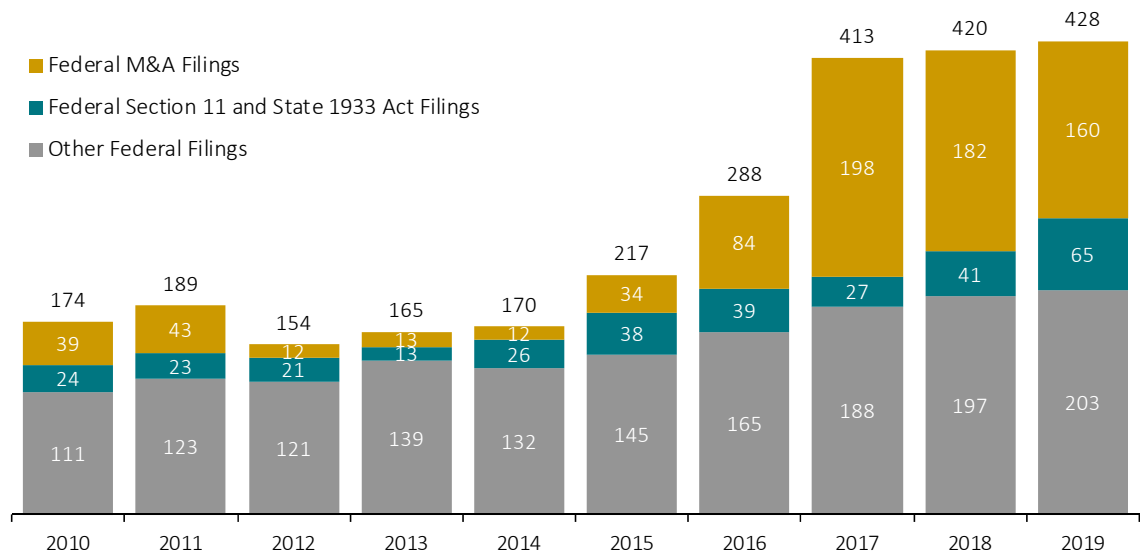
# Combined Federal and State Filing Activity—Highlighting Federal Section 11 and State 1933 Act Filings

This analysis highlights federal Section 11 claims, state 1933 Act filings, and the extent to which parallel actions have been filed.

*The 65 filings in federal and state courts alleging Section 11 and 1933 Act claims were a nearly 60 percent increase from 2018.*

- Of the federal Section 11 and state 1933 Act filings, there were 27 state-only filings in 2019—a 69 percent increase from 2018.
- State-only and parallel filings made up over 75 percent of all federal Section 11 and state 1933 Act filings.
- The 65 filings in 2019 was historically unprecedented. Prior to 2015, there were only a handful of state court filings, and the highest number of federal Section 11 filings previously was 57 in 1998.

Figure 24: Federal Section 11 and State 1933 Act Class Action Filings by Venue 2010–2019



	Federal Section 11 and State 1933 Act Filings									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Federal Courts Only	22	21	13	12	21	21	12	11	9	16
State Courts Only	0	1	3	0	2	11	13	3	16	27
Parallel Filings	2	1	5	1	3	6	14	13	16	22
<b>Total</b>	<b>24</b>	<b>23</b>	<b>21</b>	<b>13</b>	<b>26</b>	<b>38</b>	<b>39</b>	<b>27</b>	<b>41</b>	<b>65</b>

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

Note:

1. The federal Section 11 data displayed may contain Rule 10b-5 claims, but state 1933 Act filings do not.
2. Section 11 filings in federal courts may include parallel (or related) cases filed in state courts. When these cases are filed in different years, the earliest filing is counted. If filings against the same company are brought in different states in addition to a filing brought in federal court, the parallel filing is counted as a unique case and the state-only filing is treated as a unique case. Filings against the same company brought in different states without a parallel filing brought in federal court are counted as unique state filings.
3. Beginning in 2018, California state filings may contain either Section 11 or Section 12 claims. Of the 16 filings in California in 2018, six filings contained Section 12 claims without also containing Section 11 claims.

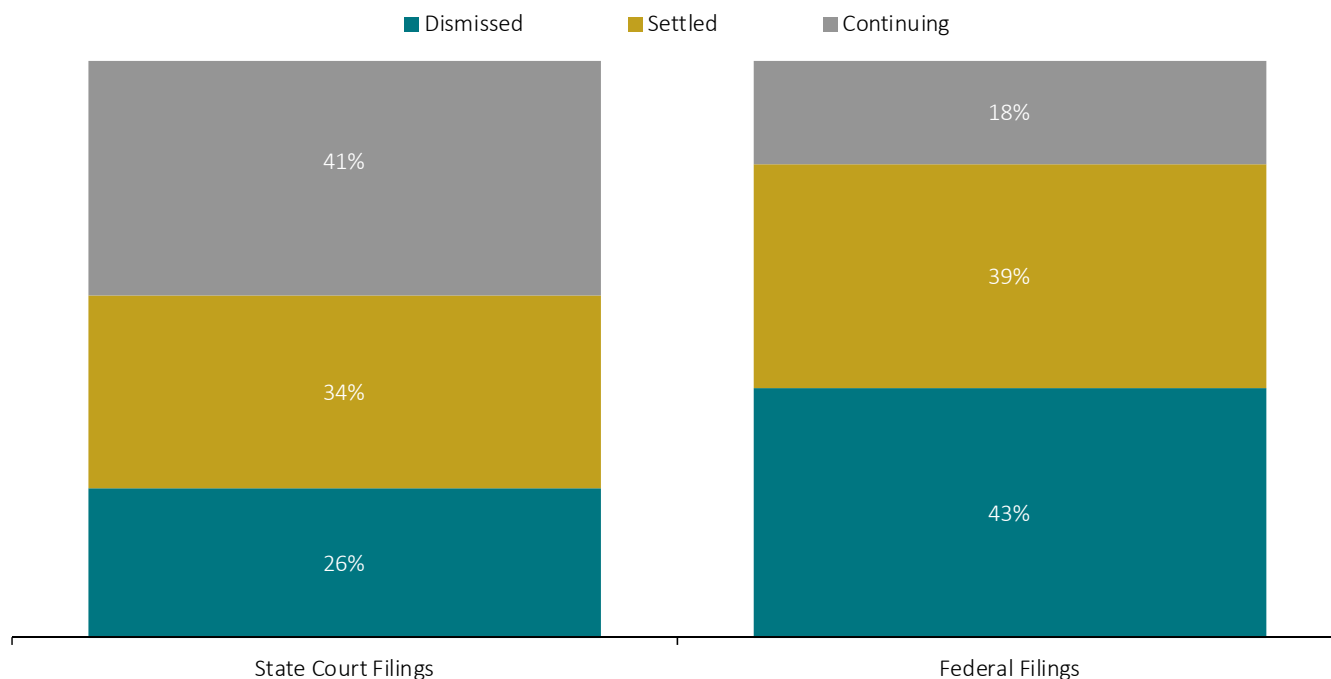
# Section 11 Cases Filed in State Courts— Case Status

This figure compares the outcomes of state Section 11 filings to federal filings that assert Section 11 claims but no Rule 10b-5 claims.

*A smaller portion of Section 11–only cases in 2010–2018 were dismissed in state courts compared to federal courts.*

- A higher percentage of state Section 11 filings are continuing compared to Section 11–only federal filings. See Appendix 5 for a year-by-year overview.
- Only 26 percent of state Section 11 filings were dismissed in 2010–2018 compared to 43 percent of Section 11–only federal filings.

Figure 25: Resolution of State Section 11 Filings Compared with Section 11–Only Federal Filings 2010–2018



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

Note:

1. The 2019 filing cohort is excluded since a large percentage of cases are ongoing.
2. If a matter is remanded from federal court to a state court, it is recorded in the state court column based on its state court disposition. Alternatively, if a matter is removed from a state court to federal court, it is recorded in the federal court column based on its federal court disposition.
3. Figures may not sum to 100 percent due to rounding.

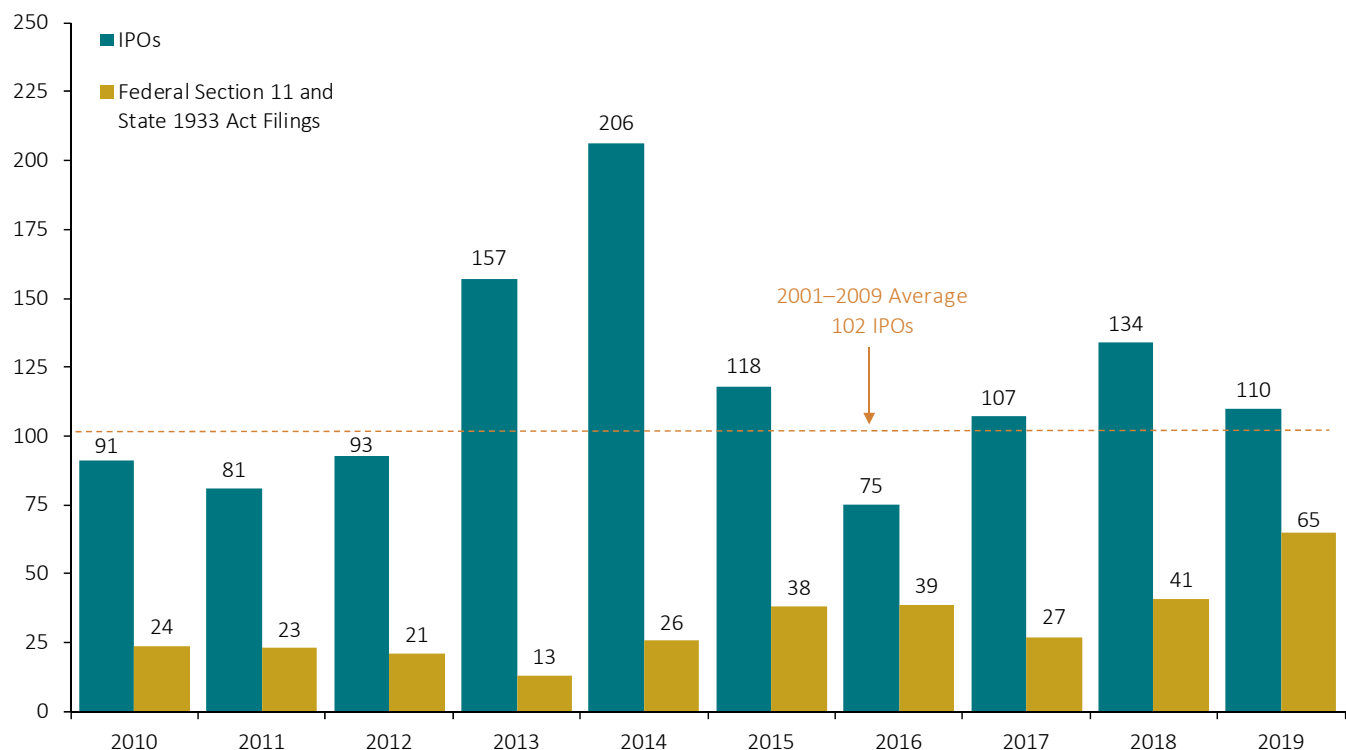


# IPO Activity and Federal Section 11 and State 1933 Act Filings

- IPO activity decreased 18 percent from 2018 to 2019.
- With 110 IPOs, 2019 IPO activity was just above the 2001–2009 average of 102 IPOs per year.
- Heavier IPO activity appears to be correlated with increased levels of federal Section 11 and state 1933 Act filings in the ensuing years. Assuming that remains true, it is likely that Section 11 filing activity will increase in 2020 relative to 2019 due to the deferred effects of increased IPO activity in 2017, 2018, and 2019, as well as plaintiffs' increasing inclination to test state venues to bring 1933 Act filings.

*IPO activity fell in 2019 after two consecutive years of growth, while filings with 1933 Act claims continued to rise.*

Figure 26: Number of IPOs on Major U.S. Exchanges and Number of Filings of Federal Section 11 and State 1933 Act Claims 2010–2019



Source: Jay R. Ritter, "Initial Public Offerings: Updated Statistics," University of Florida, January 10, 2020

Note:

1. These data exclude the following IPOs: those with an offer price of less than \$5, American Depositary Receipts (ADRs), unit offers, closed-end funds, real estate investment trusts (REITs), natural resource limited partnerships, small best efforts offers, banks and S&Ls, and stocks not listed in the Center for Research in Security Prices (CRSP) database.
2. The number of federal Section 11 and state 1933 Act cases is displayed. In 2018, the Securities Class Action Clearinghouse began tracking 1933 Act filings in California state courts with Section 11 or Section 12 claims, as well as filings in other state courts with Section 11 claims. The federal Section 11 cases displayed may include Rule 10b-5 claims, but state 1933 Act filings do not.

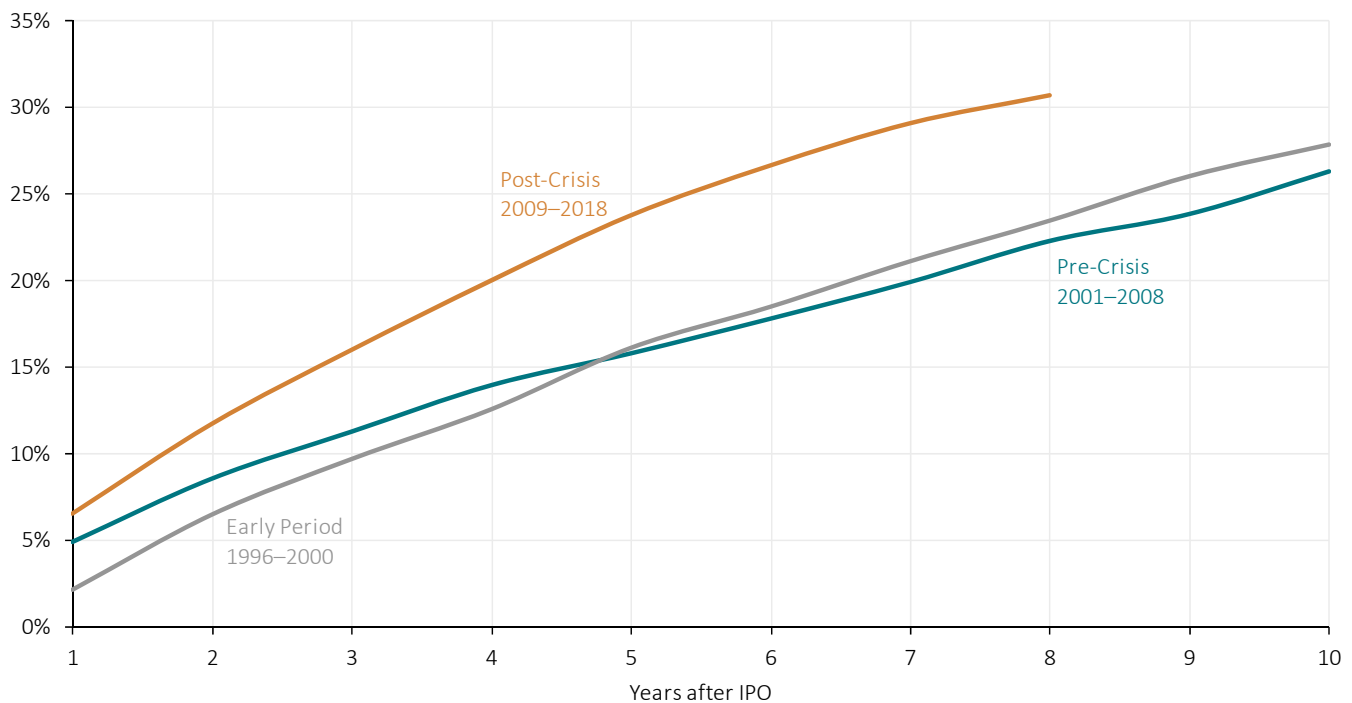
# IPO Litigation Likelihood

This figure compares the cumulative litigation exposure of IPOs to core federal and state 1933 Act filings since the 2008 credit crisis (post-crisis: 2009–2018) with two other groups of IPOs—core federal filings prior to the credit crisis (pre-crisis: 2001–2008) and prior to the dot-com collapse (early period: 1996–2000). The 1933 Act filings that are exclusively in the state courts enter into this analysis beginning in 2010.

- Post-crisis IPOs have faced higher litigation exposure in the first few years after an offering than IPOs in prior periods—for example, 20.0 percent of post-crisis IPOs have been subject to a core filing within four years of the IPO, compared to 14.0 percent for the pre-crisis cohort and 12.6 percent for the early period cohort.
- For each IPO grouping, the incremental litigation exposure generally decreased with each year further removed from the IPO. See Appendix 6 for incremental exposure litigation values.

*IPOs from 2009 through 2018 have been subject to litigation at a steadily higher rate than earlier cohorts in the years after the IPO.*

**Figure 27: Likelihood of Litigation against Recent IPOs—Core Filings**  
2009–2018 IPOs versus Prior-Period IPOs



Source: Jay R. Ritter, “Founding Dates for Firms Going Public in the U.S. during 1975–2018,” University of Florida, March 2019; CRSP

Note:

1. Cumulative litigation exposure measures the probability that a surviving company will be a defendant in at least one securities class action during the analysis period. For a detailed explanation about the methodology, see Cornerstone Research, *Securities Class Action Filings—2014 Midyear Assessment* (page 10 and Appendix 3).
2. The post-crisis IPO cumulative litigation exposure is not presented for 9–10 years after the IPO due to limited data for cohorts with an IPO date toward the end of this period.
3. State 1933 Act filings enter into this analysis beginning in 2010.

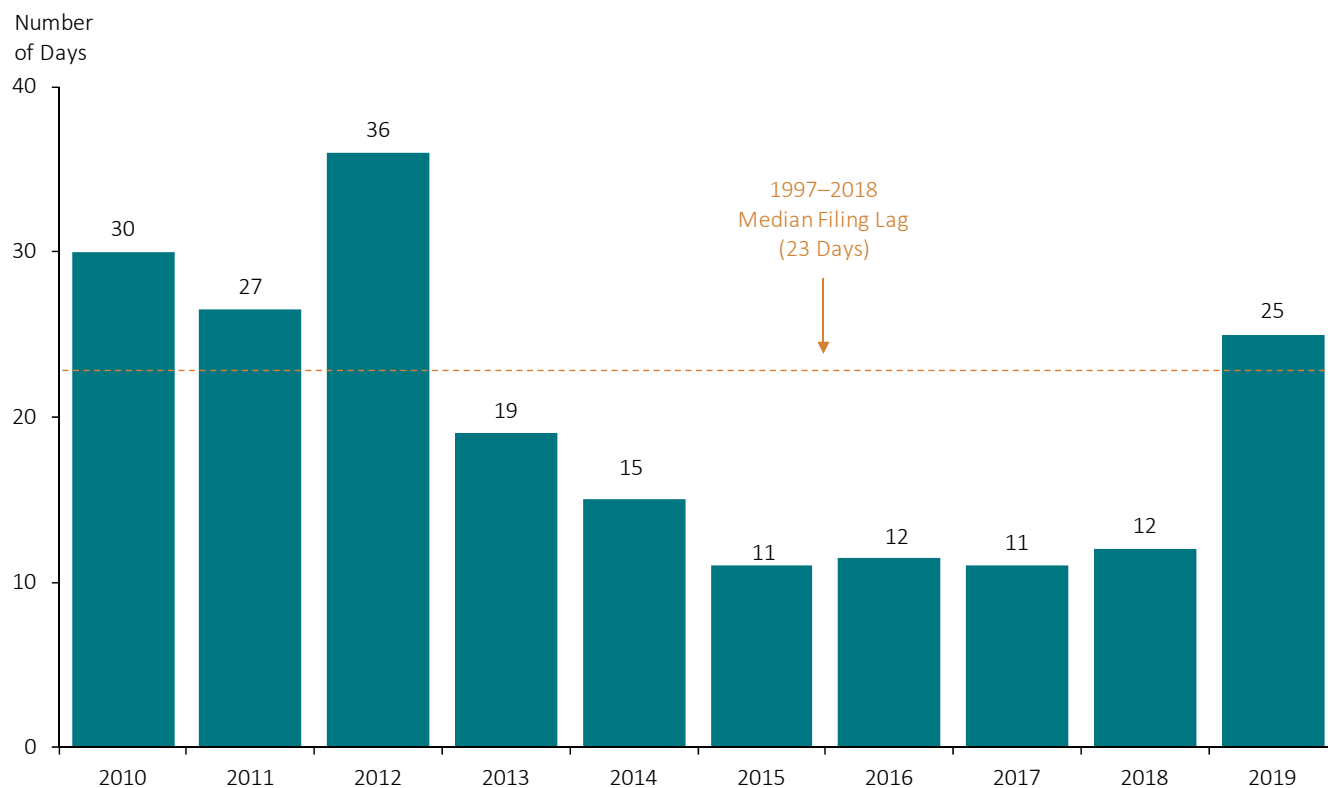
# Federal Filing Lag

This analysis reviews the number of days between the end of the class period and the filing date of a core federal securities class action.

- The median filing lag in 2019 jumped to 25 days, which is slightly above the historical median value.
- In the four previous years, the median lag fluctuated between 11 and 12 days.
- Among the three plaintiff law firms discussed on pages 39–40, the median filing lag nearly doubled since 2018, growing from eight days to 15 days. Outside of this plaintiff group, median filing lag increased from 34 days to 72 days.

*Filing lag more than doubled from 12 days in 2018 to 25 days in 2019, the highest since 2012.*

Figure 28: Annual Median Lag between Class Period End Date and Filing Date—Core Federal Filings 2010–2019



Note: This analysis excludes filings with only Section 11 claims and ICO- or cryptocurrency-related filings because there is often no specified end of the class period.

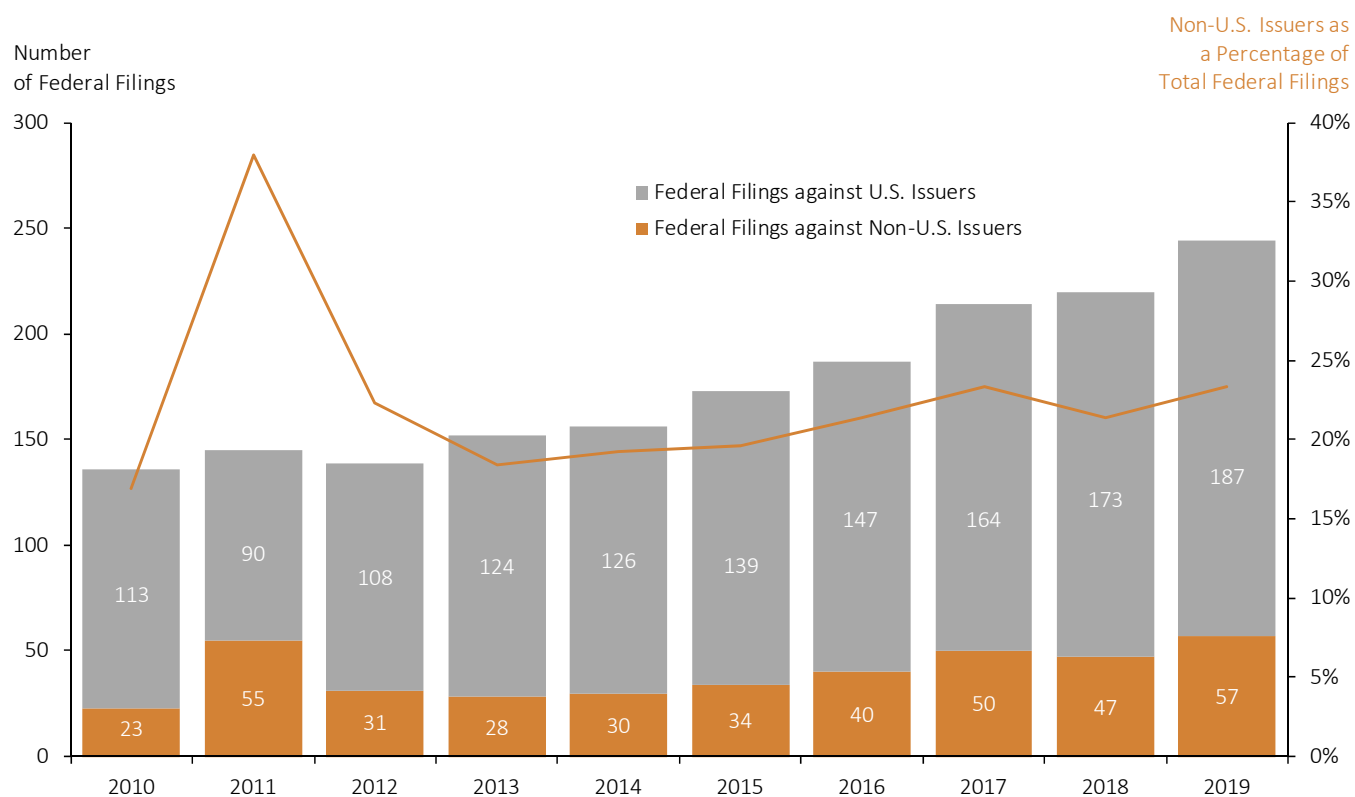
# Non-U.S. Federal Filings

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 core federal filings against non-U.S. issuers increased to 57, the highest on record.
- As a percentage of total core federal filings, core federal filings against non-U.S. issuers increased to 23.4 percent, the second highest since 2011 and the third highest overall.

*The number of filings against non-U.S. issuers as a percentage of total filings has generally been trending upwards over the last decade.*

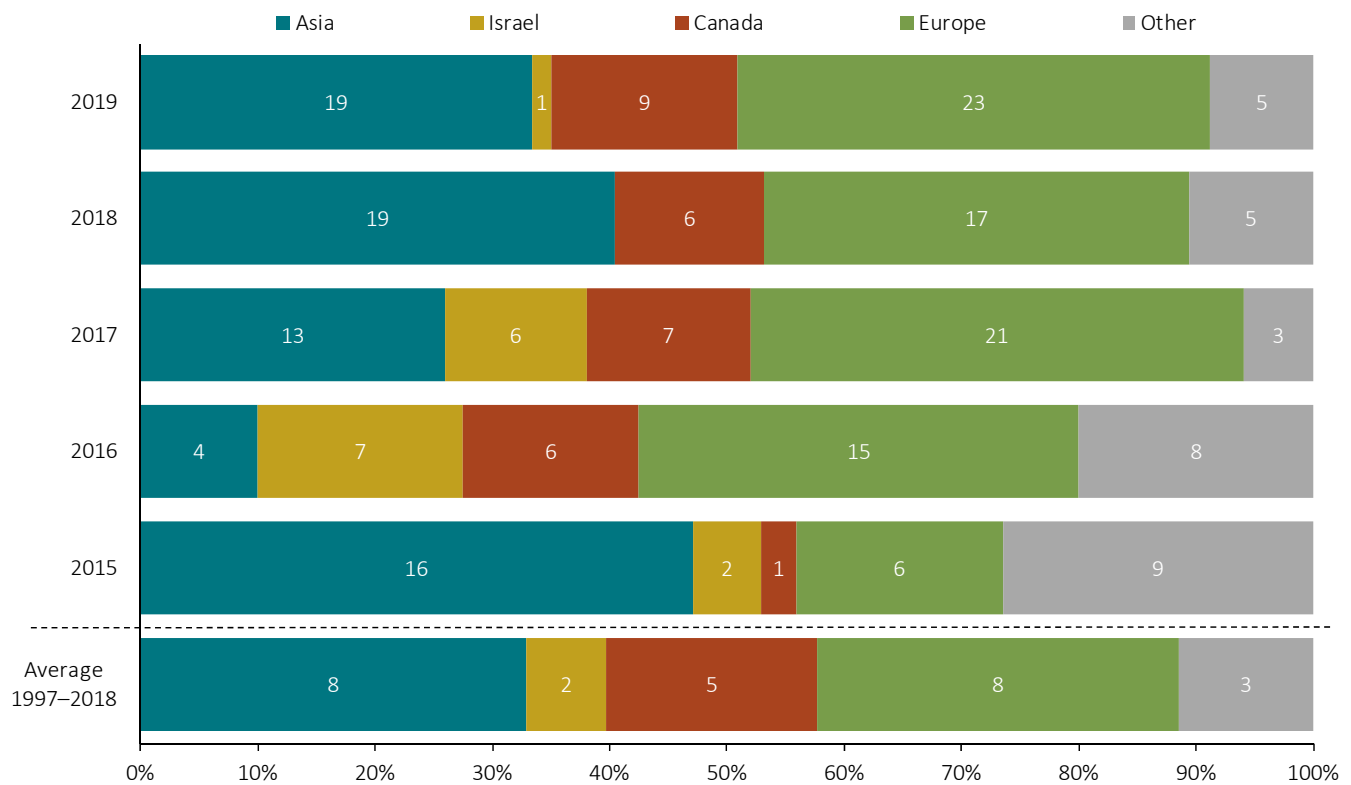
Figure 29: Annual Number of Class Action Filings by Location of Headquarters—Core Federal Filings 2010–2019



- There were nine core federal filings against Canadian firms, the highest since 1998. Of these, six involved cannabis- or CBD-related companies.
- Of the 23 core federal filings against European firms, nine were against firms headquartered in the United Kingdom. No other European country had more than three core federal filings against companies headquartered there.
- Of the 19 core federal filings against Asian firms, 17 involved Chinese firms. The remaining two involved a Taiwanese firm and an Indian firm.
- Of the 17 core federal filings against companies headquartered in China, 10 were against firms in the Communications sector, accounting for roughly 27 percent of core federal filings in that sector. See page 36.

*The number of filings against European firms was the highest on record.*

Figure 30: Non-U.S. Filings by Location of Headquarters—Core Federal Filings



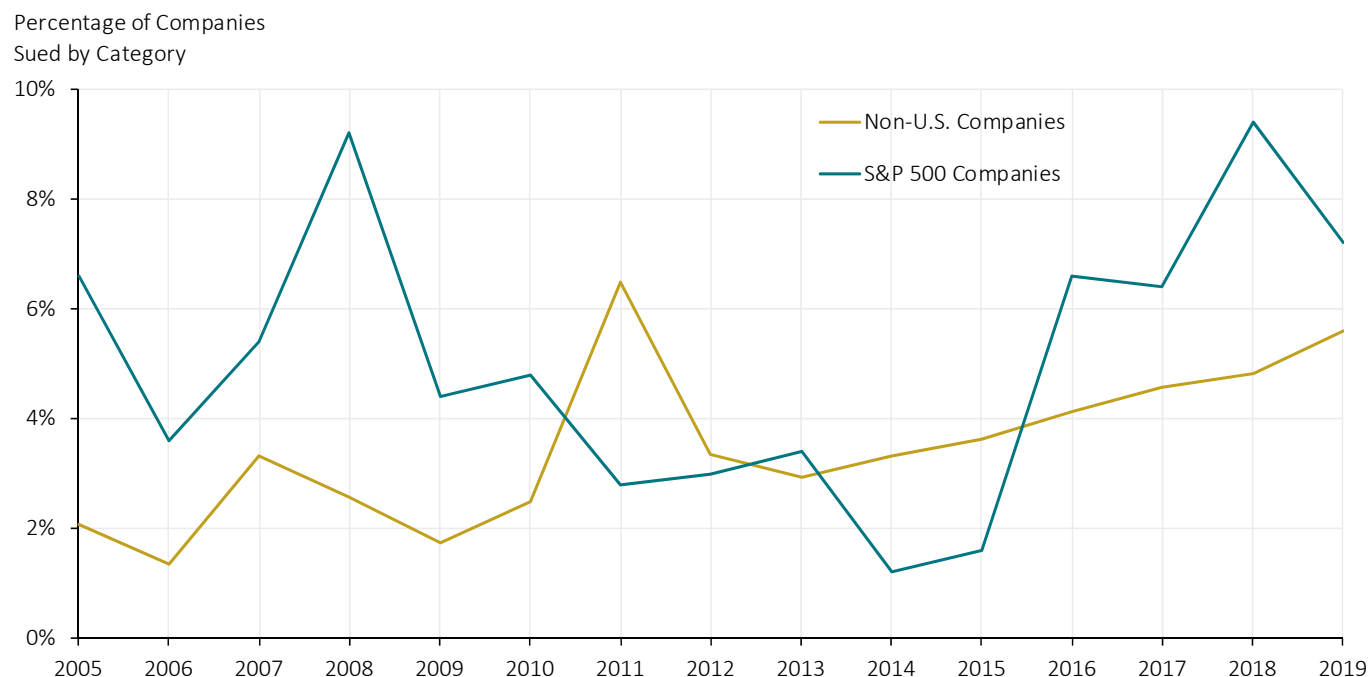
# Non-U.S. Company Litigation Likelihood of Federal Filings

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.

- For the sixth consecutive year, in 2019 the percentages of non-U.S. companies subject to core federal filings increased. For the past three years, the likelihood of a non-U.S. company being subject to a core federal filing has increased at roughly the same rate as all U.S. exchange-listed companies (see Figure 10).

*The percentage of S&P 500 companies sued dropped to 7.2 percent, reducing the gap between them and non-U.S. companies to 1.6 percentage points.*

Figure 31: Percentage of Companies Sued by Listing Category or Domicile—Core Federal Filings 2005–2019



Source: CRSP; Yahoo Finance

Note:

- 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.
- 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.

# 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.

- In 2019, eight mega DDL filings accounted for \$147 billion of federal DDL.
- Mega DDL in 2019 accounted for 52 percent of total federal DDL, close to the 1997–2018 average of 54 percent but well below the 2018 figure of 64 percent.
- There were 21 mega MDL filings in 2019 with a total federal MDL of \$837 billion, a noticeable decrease from 2018.
- Although the mega MDL and DDL indices decreased both in the number of filings and in the associated dollar amounts, their share of overall federal MDL and DDL remained very close to the respective historical averages.
- Of the 21 mega MDL filings, pharmaceutical, technology, and communications companies were the most common defendants, with five, four, and four filings respectively.

*The number of mega DDL and MDL filings decreased significantly.*

**Figure 32: Mega Filings—Core Federal Filings**

(Dollars in Billions)

	Average 1997–2018	2017	2018	2019
<b>Mega Disclosure Dollar Loss (DDL) Filings<sup>1</sup></b>				
Mega DDL Filings	6	7	17	8
DDL for Mega Core Federal Filings	\$70	\$47	\$212	\$147
Percentage of Total Federal DDL	54%	36%	64%	52%
<b>Mega Maximum Dollar Loss (MDL) Filings<sup>2</sup></b>				
Mega MDL Filings	13	14	27	21
MDL for Mega Core Federal Filings	\$445	\$253	\$963	\$837
Percentage of Total Federal MDL	70%	49%	73%	71%

Note:

1. Mega DDL filings have a disclosure dollar loss of at least \$5 billion.
2. Mega MDL filings have a maximum dollar loss of at least \$10 billion.

## Distribution of DDL Values

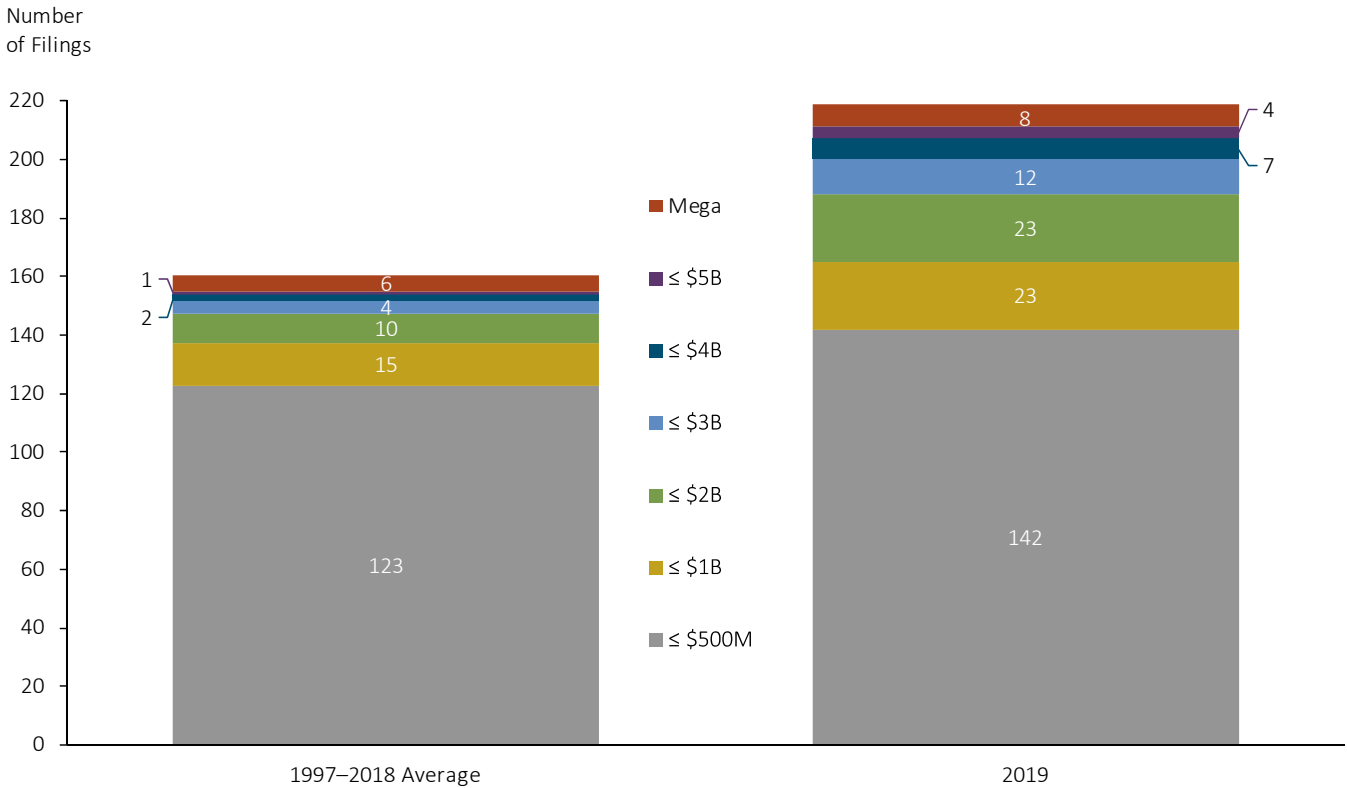
The figure below compares the distribution of DDL attributable to filings of a given size in 2019 with the historical distribution of DDL.

- Mega DDL filings accounted for 4 percent of the total number of federal filings with DDL values and 52 percent of federal DDL in 2019.
- The number of small DDL filings (filings with DDL less than or equal to \$500 million) in 2019 was 142, considerably more than both the historical average of 123 and the 2018 figure of 112. These filings accounted for 65 percent of federal filings with DDL values in 2019.

- Midsize DDL filings (filings with DDL greater than \$500 million but less than or equal to \$5 billion) accounted for 32 percent of federal filings with DDL values in 2019, above the 1997–2018 average of 20 percent but below the 2018 figure of 35 percent.

*While they were numerically close to historical averages, mega DDL filings were a proportionally smaller percentage of core federal filings.*

Figure 33: Distribution of Filings Based on DDL Size—Core Federal Filings





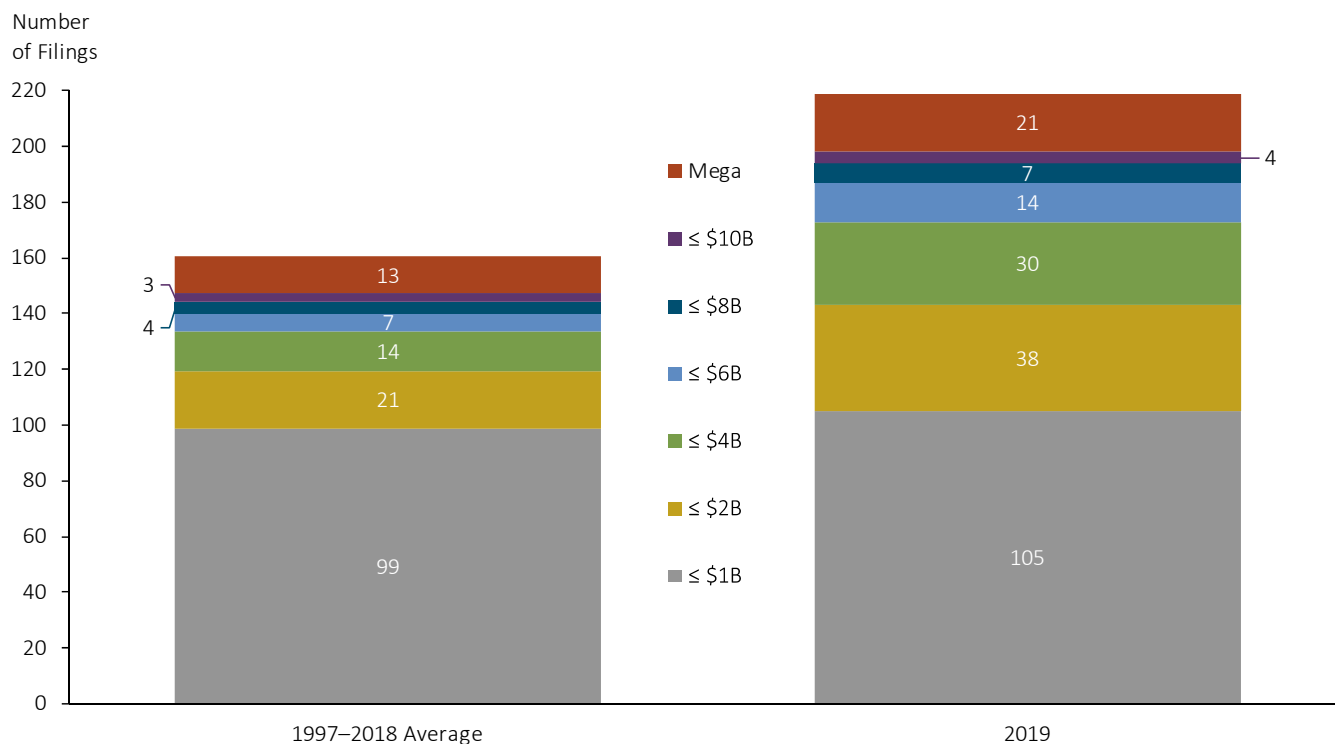
## Distribution of MDL Values

The figure below compares the distribution of MDL attributable to filings of a given size in 2019 with the historical distribution of MDL.

- In 2019, mega MDL filings represented 10 percent of the total number of core federal filings with MDL values and 71 percent of total federal MDL.
- The number of mega MDL filings shrank from 27 in 2018 to 21 in 2019, while the number of filings with MDL less than or equal to \$1 billion grew from 88 in 2018 to 105 in 2019.
- In 2019, the percentage of federal filings with MDL greater than \$1 billion but less than or equal to \$6 billion was 37 percent, compared to the 1997–2018 historical average of 26 percent.

*Led by 21 mega MDL filings, the proportion of 2019 federal filings with MDL greater than \$6 billion exceeded the historical average.*

Figure 34: Distribution of Filings Based on MDL Size—Core Federal Filings



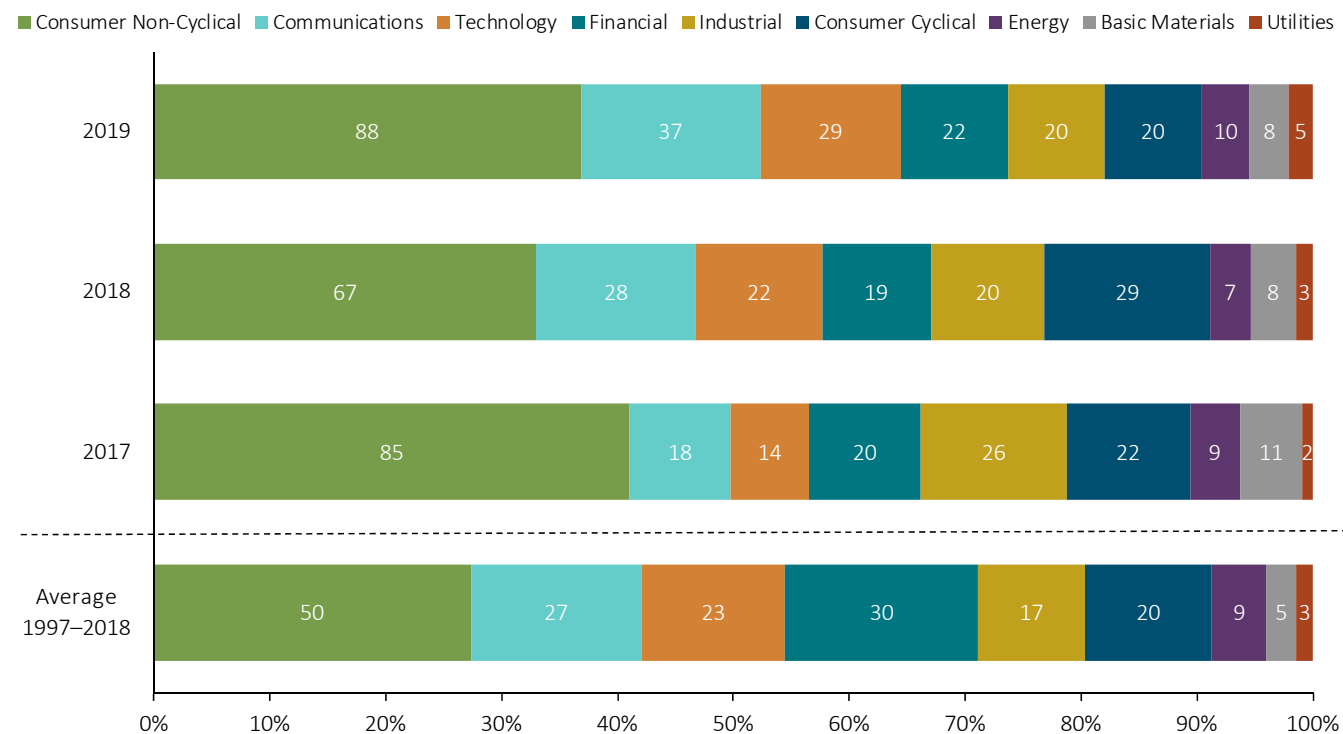
# Industry Comparison of Federal Filings

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

- The Communications sector had the greatest number of core federal filings since 2002 with 37 filings. Despite this increase, the MDL for the Communications sector decreased to \$55 billion in 2019, down 16 percent from 2018.
- The number of technology filings has more than doubled since 2017, rising to 29 core federal filings in 2019, with the highest DDL on record.
- Core federal filings in the Financial sector were below the historical average for the ninth straight year.
- MDL and DDL for the Consumer Cyclical sector fell considerably as core federal filings decreased by nearly one-third. See Appendix 7.

*Core federal filings against Consumer Non-Cyclical companies, primarily composed of pharmaceutical, healthcare, and biotechnology firms, were at record levels.*

Figure 35: Filings by Industry—Core Federal Filings



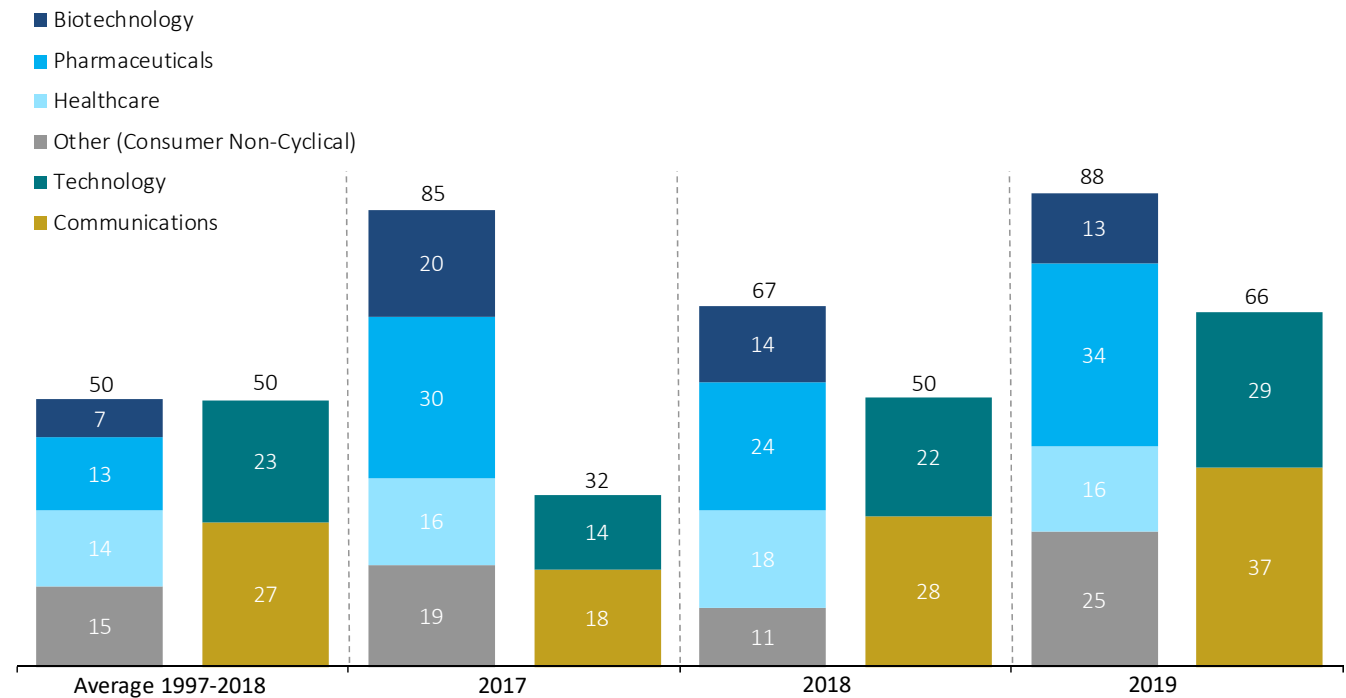
Note:  
 1. Filings with missing sector information or infrequently used sectors may be excluded.  
 2. Sectors are based on the Bloomberg Industry Classification System.

## Sector Comparison: Consumer Non-Cyclical Versus Technology and Communications

- In line with 2018, Pharmaceuticals filings made up the largest proportion of Consumer Non-Cyclical filings in 2019 with 34 core federal filings. Core federal filings against biotechnology and healthcare companies decreased for the second straight year.
- The increase in other Consumer Non-Cyclical filings was driven by core federal filings against commercial services companies, an increase from six in 2018 to 12 in 2019. Core federal filings against agricultural companies also increased from one in 2018 to four in 2019; all Agricultural filings in the past two years were against tobacco or cannabis companies.

*In 2019, core federal filings in the Technology and Communication sectors continued to grow, recording a combined 32 percent increase from 2018 and 106 percent increase from 2017.*

Figure 36: Sector Comparison: Consumer Non-Cyclical Versus Technology and Communications—Core Federal Filings



Note:

1. Sectors and subsectors are based on the Bloomberg Industry Classification System.
2. The “Other” category is a grouping primarily encompassing the Agriculture, Beverage, Commercial Services, and Food subsectors.
3. Average figures may not sum due to rounding.

# Federal Filings by Circuit

- The Second and Ninth Circuits combined made up 64 percent of all core federal filings in 2019, in line with 2018 (64 percent) and above the 1997–2018 average of 53 percent.
- Core federal filings in the Second Circuit increased by 45 percent to 103 filings, the highest number on record. Core filings in the Ninth Circuit decreased by 25 percent to 52 filings, which is slightly above the 1997–2018 average of 48. The combined number of Second and Ninth Circuit core filings in 2019 (155) increased relative to 2018 (140).
- Core federal filings in the Seventh Circuit decreased by 38 percent to eight filings after the spike in 2018, in line with the 1997–2018 average. Despite this decrease, DDL and MDL in this circuit more than doubled.
- The total MDL for the Ninth Circuit increased from \$489 billion in 2018 to \$501 billion in 2019, three times the 1997–2018 average. See Appendix 8.

*Core federal filings in the Second Circuit were the highest on record.*

Figure 37: Filings by Circuit—Core Federal Filings



# Appointment of Plaintiff Lead Counsel in Federal Filings

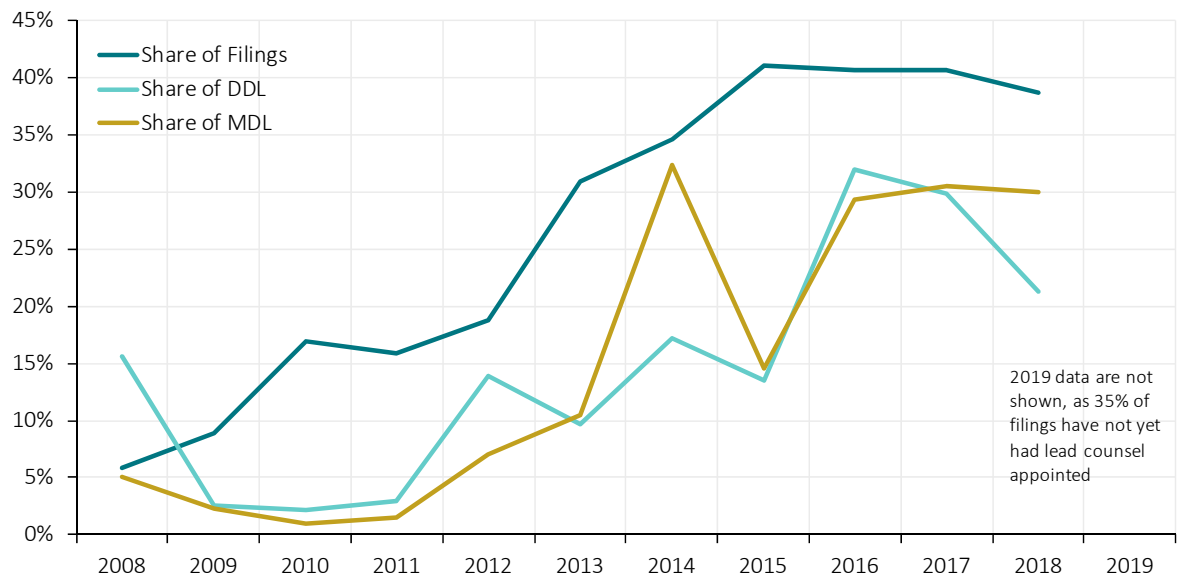
This figure focuses on three law firms—The Rosen Law Firm, Pomerantz LLP, and Glancy Prongay & Murray LLP. While these three law firms have been responsible for the majority of first identified complaints in each federal cohort since 2014, their rate of appointment as lead or co-lead counsel has been lower.

- The percentage of cases for which these firms were appointed lead counsel dropped slightly from 2017 to 2018.
- With the exception of 2008, these firms were typically appointed lead counsel for smaller cases (i.e., their share of filings exceeded their share of total MDL and DDL).

- These firms were largely responsible for the declining median filing lag between 2013 and 2018 discussed on page 29 and for the increasing frequency of the appointment of individuals, rather than institutional investors, as lead plaintiff, as discussed on page 18.

*From 2015 through 2018, three plaintiff law firms were appointed lead or co-lead plaintiff counsel in approximately 40 percent of core federal filings.*

Figure 38: Frequency of Three Law Firms' Appointment as Lead or Co-Lead Plaintiff Counsel—Core Federal Filings 2008–2019



Frequency of These Firms as the Counsel of Record on the First Identified Complaint												
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of Core Filings	22	23	26	35	40	66	83	104	122	126	119	151
% of Total Core Filings	10%	15%	19%	24%	29%	43%	53%	60%	65%	59%	54%	62%

Note:

1. This analysis considers law firms that were appointed lead or co-lead counsel by the court. For filings in which the case was resolved prior to the appointment of lead counsel, the counsel listed on the first identified complaint (FIC) are considered the lead counsel.
2. One percent of core federal filings in 2017, 2 percent of core federal filings in 2018, and 35 percent of core federal filings in 2019 have not yet had lead counsel appointed.
3. The counts in the table include circumstances when the FIC includes one or any of these law firms, regardless of whether other plaintiff counsel are also listed on the complaint.

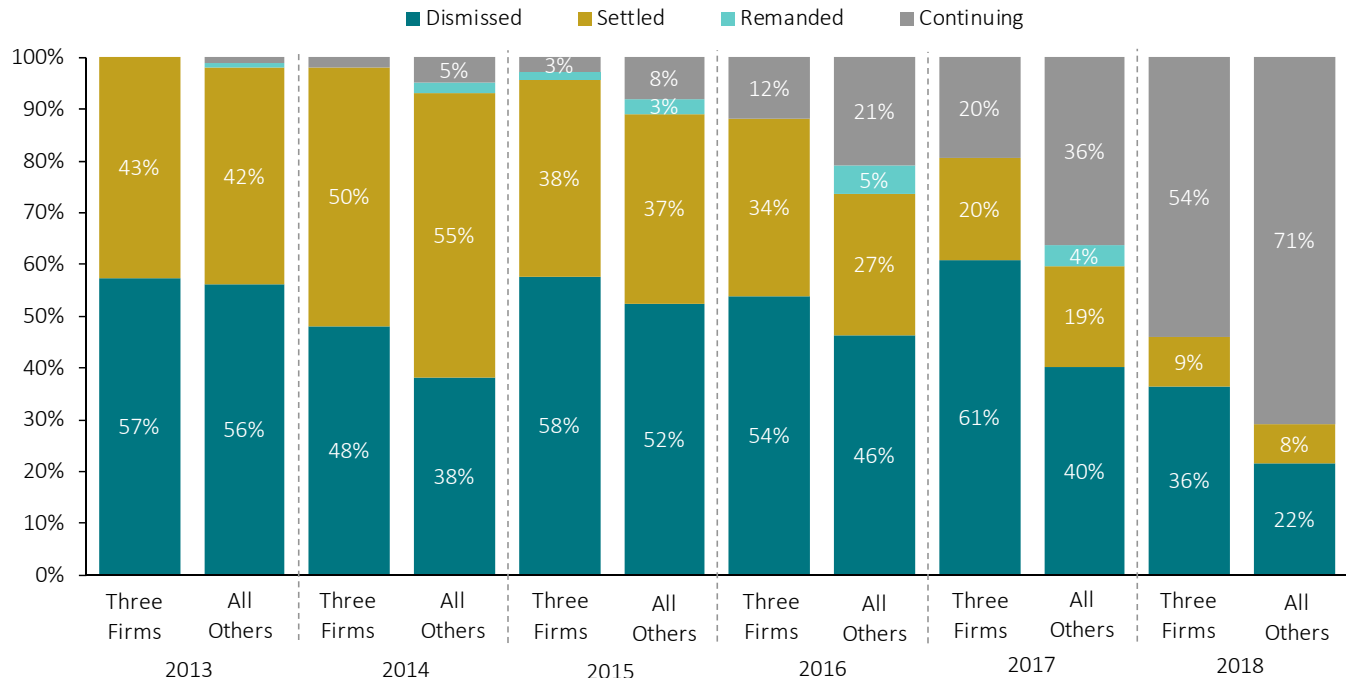
# Federal Case Status by Lead Plaintiff Counsel

This figure examines the case outcomes for core federal filings in which The Rosen Law Firm, Pomerantz LLP, and Glancy Prongay & Murray LLP were appointed lead or co-lead counsel. The outcomes for these filings are compared with filings in which other plaintiff law firms are the lead counsel.

*Core federal class actions filed in 2016, 2017, and 2018 in which these three plaintiff law firms were appointed lead or co-lead counsel have preliminarily exhibited higher dismissal rates than other plaintiff law firms.*

- From 2013 through 2018, these three firms have had 52 percent of their class actions dismissed compared to 42 percent for all other plaintiff firms. However, 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 these differences 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 39: Case Status by Plaintiff Law Firm Appointed Lead or Co-Lead Counsel—Core Federal Filings 2013–2018



Note:

1. This analysis considers law firms that were appointed lead or co-lead counsel by the court. For filings in which the case was resolved prior to the appointment of lead counsel, the counsel listed on the first identified complaint (FIC) are considered the lead counsel.
2. One percent of core federal filings in 2017 and 2 percent of core federal filings in 2018 have not yet had lead counsel appointed. These filings are not included in this analysis.
3. Percentages may not sum to 100 percent due to rounding.

# New Developments

## Cannabis-Related Filings

With the legalization of recreational marijuana in Canada in October 2018 and the increasing number of U.S. states permitting medicinal and recreational use, numerous corporations have entered the cannabis industry in recent years. These corporations are involved in the financing, farming, distribution, or sales of cannabis products. Peripheral businesses supporting the industry or developing products derived from cannabis (e.g., specialized drugs from cannabidiol) have grown in concert.

Beginning in the latter part of 2018, companies with connections to the cannabis industry were increasingly the target of federal class action filings. In 2018, six core federal filings involved companies selling cannabis or cannabidiol products. In 2019, 13 companies were sued in federal courts. Three of these companies also faced state 1933 Act claims.

Multiple Canadian cannabis-related companies with securities trading on U.S. exchanges were the subject of class action filings in 2018 and 2019. Nine of these filings involved many of the largest Canadian-licensed cannabis growers.

## State Court 1933 Act Claims

*Sciabacucchi v. Salzberg* is a matter currently before the Delaware Supreme Court. At issue is whether provisions in corporate charters can dictate that class action securities claims under the 1933 Act be adjudicated in federal courts.

In recent years, multiple companies chartered in Delaware have adopted so-called Federal Forum Provisions dictating that 1933 Act claims be adjudicated in federal rather than state courts. In the wake of the March 2018 U.S. Supreme Court ruling in *Cyan* permitting plaintiffs to continue to file 1933 Act claims in state courts, even more companies have adopted Federal Forum Provisions.

In December 2018, the Delaware Chancery Court ruled that the charter provisions were invalid under Delaware law. The decision was appealed by defendants, with briefing before the Delaware Supreme Court in the fall of 2019.

# 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 filings against non-U.S. issuers (companies headquartered outside the United States) relative to total core filings.

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

**Cohort** is the group of securities class actions all filed in a particular calendar year.

**Core filings** are all federal and state 1933 Act 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.

**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 class members. It is the difference in the price of offered shares (i.e., from offering until the end of the class period) 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 during or at the end of the class period, 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 (FIC)** 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.

**Heat Maps of S&P 500 Securities Litigation™** analyze securities class action activity by industry sector. The analysis focuses on companies in the Standard & Poor's 500 (S&P 500) index, which comprises 500 large, publicly traded companies in all major sectors. 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 were subject to new securities class actions in federal court during each calendar year and (2) the percentage of the total market capitalization of these companies that was subject to new securities class actions in federal court during each calendar year.

**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.



**Mega filings** include mega DDL filings, securities class action filings with a DDL of at least \$5 billion; and mega MDL filings, securities class action filings with an MDL of at least \$10 billion.

**Merger and acquisition (M&A) filings** are securities class actions that have Section 14 claims, but no Rule 10b-5, Section 11, or Section 12(2) claims, and involve merger and acquisition transactions.

**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.

# Appendices

## Appendix 1: Basic Filings Metrics

Year	Class		Disclosure Dollar Loss			Maximum Dollar Loss			U.S. Exchange-Listed Firms: Core Filings		
	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	\$107	\$557	\$167	\$827	\$4,308	\$1,038	4,593	188	4.1%
2017	413	215	\$132	\$668	\$150	\$524	\$2,660	\$666	4,411	186	4.2%
2018	420	238	\$331	\$1,584	\$298	\$1,317	\$6,299	\$1,063	4,406	211	4.8%
2019	428	268	\$285	\$1,196	\$216	\$1,199	\$5,037	\$1,017	4,318	237	5.5%
Average (1997–2018)	215	186	\$130	\$791	\$137	\$638	\$3,886	\$673	5,661	167	3.0%

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, ICO 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.

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

Year	Consumer Discretionary	Consumer Staples	Energy / Materials	Financials / Real Estate	Health Care	Industrials	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%	10.7%	3.7%	6.9%	1.2%	0.0%	4.4%
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%	2.9%	2.8%
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%
Average 2001–2018	5.3%	3.4%	1.5%	8.0%	8.8%	3.8%	6.3%	5.3%	5.5%

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

Year	Consumer Discretionary	Consumer Staples	Energy / Materials	Financials / Real Estate	Health Care	Industrials	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%	31.2%	1.7%	23.2%	0.3%	0.0%	7.7%
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%	0.6%	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%
Average 2001–2018	5.2%	4.1%	2.9%	15.2%	12.9%	8.4%	9.5%	6.0%	8.9%

Note: Average figures are calculated as the sum of the market capitalization subject to core filings in a given sector from 2001–2018, divided by the sum of market capitalization in that sector from 2001–2018.

**Appendix 3: M&A Federal Filings Overview**

Year	M&A Filings	M&A Case Status				Case Status of Core Federal Filings			
		Dismissed	Settled	Remanded	Continuing	Dismissed	Settled	Remanded	Continuing
2009	7	5	2	0	0	82	74	0	1
2010	39	33	6	0	0	69	65	1	1
2011	43	40	3	0	0	70	74	1	0
2012	12	9	3	0	0	68	64	2	5
2013	13	7	6	0	0	86	64	1	1
2014	12	9	3	0	0	65	83	2	6
2015	34	26	7	0	1	94	64	4	11
2016	84	66	13	0	5	92	56	6	33
2017	198	189	4	1	4	103	41	5	65
2018	182	169	2	0	11	59	18	0	143
2019	160	104	0	0	56	22	0	0	222
Average (2009–2018)	62	55	5	0	2	79	60	2	27

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 2019.

**Appendix 4: Case Status by Year—Core Federal Filings**

Filing Year	In the First Year				In the Second Year				In the Third Year			Total Resolved within Three Years
	Settled	Dismissed	Other	Total Resolved	Settled	Dismissed	Other	Total Resolved	Settled	Dismissed	Other	
1997	0.0%	7.5%	0.6%	8.0%	14.9%	8.6%	0.0%	31.6%	16.7%	4.0%	0.0%	52.3%
1998	0.8%	7.4%	0.0%	8.3%	16.1%	12.4%	0.0%	36.8%	15.7%	7.9%	0.0%	60.3%
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%	17.8%	5.0%	0.0%	53.3%
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%	12.3%	9.6%	0.0%	58.3%
2005	0.5%	11.5%	0.0%	12.1%	8.2%	19.8%	0.0%	40.1%	17.6%	8.8%	0.0%	66.5%
2006	0.8%	9.2%	0.0%	10.0%	8.3%	16.7%	0.0%	35.0%	14.2%	6.7%	0.0%	55.8%
2007	0.6%	6.8%	0.0%	7.3%	7.9%	13.6%	0.0%	28.8%	17.5%	14.1%	0.0%	60.5%
2008	0.0%	13.0%	0.9%	13.9%	3.6%	18.4%	0.0%	35.9%	9.9%	11.2%	0.0%	57.0%
2009	0.0%	9.6%	0.0%	9.6%	4.5%	19.7%	0.0%	33.8%	8.3%	6.4%	0.0%	48.4%
2010	1.5%	11.8%	0.7%	14.0%	7.4%	15.4%	0.0%	36.8%	3.7%	14.7%	0.0%	55.1%
2011	0.0%	11.7%	0.7%	12.4%	2.8%	15.9%	0.0%	31.0%	18.6%	12.4%	0.0%	62.1%
2012	0.7%	12.2%	1.4%	14.4%	4.3%	22.3%	0.0%	41.0%	8.6%	10.1%	0.0%	59.7%
2013	0.0%	17.1%	0.7%	17.8%	5.3%	19.7%	0.0%	42.8%	9.2%	9.9%	0.0%	61.8%
2014	0.6%	8.3%	1.3%	10.3%	5.1%	18.6%	0.0%	34.0%	9.6%	10.3%	0.0%	53.8%
2015	0.0%	13.9%	2.3%	16.2%	2.3%	21.4%	0.0%	39.9%	9.2%	6.4%	0.0%	55.5%
2016	0.0%	12.8%	1.6%	14.4%	4.3%	18.2%	0.5%	37.4%	13.4%	12.3%	1.1%	64.2%
2017	0.0%	18.7%	1.9%	20.6%	4.7%	21.0%	0.5%	46.7%	14.5%	8.4%	0.0%	69.6%
2018	0.5%	13.6%	0.0%	14.1%	7.7%	13.2%	0.0%	35.0%	-	-	-	-
2019	0.0%	9.0%	0.0%	9.0%	-	-	-	-	-	-	-	-

Note: Percentages may not sum due to rounding. Percentages below the dashed lines indicate cohorts for which data are not complete. Other represents cases that were remanded or went to trial.

**Appendix 5: 1933 Act Filings in State Courts and Federal Section 11–Only Filings Overview**

Year	1933 Act Filings in State Courts			Status of 1933 Act Filings in State Courts			Status of Federal Section 11–Only Filings		
	California	New York	Other	Ongoing	Settled	Dismissed	Ongoing	Settled	Dismissed
2010	1	0	0	0	1	0	0	8	9
2011	3	0	0	0	1	2	0	4	5
2012	5	0	2	0	3	3	0	6	3
2013	1	0	0	0	1	0	0	2	5
2014	5	0	1	0	5	1	1	4	5
2015	15	0	2	0	9	5	1	4	6
2016	19	0	8	4	11	10	0	4	2
2017	7	0	6	5	2	5	3	3	5
2018	16	13	6	32	1	0	12	2	1
2019	15	18	16	20	0	1	23	0	2
Average (2010–2018)	8	1	3	5	4	3	2	4	4

Note: If a matter is remanded from federal court to a state court, it is recorded in the state court column based on its state court disposition. Alternatively, if a matter is removed from a state court to federal court, it is recorded in the federal court column based on its federal court disposition.

**Appendix 6: Litigation Exposure for IPOs in the Given Periods—Core Filings**

Years Since IPO	Cumulative Exposure			Incremental Exposure		
	2009–2018	2001–2008	1996–2000	2009–2018	2001–2008	1996–2000
1	6.6%	5.0%	2.2%	6.6%	5.0%	2.2%
2	11.8%	8.6%	6.5%	5.2%	3.7%	4.3%
3	16.0%	11.3%	9.7%	4.3%	2.7%	3.2%
4	20.0%	14.0%	12.6%	4.0%	2.7%	2.9%
5	23.8%	15.8%	16.1%	3.8%	1.8%	3.5%
6	26.7%	17.9%	18.5%	2.9%	2.0%	2.4%
7	29.1%	20.0%	21.1%	2.4%	2.1%	2.6%
8	30.7%	22.3%	23.5%	1.6%	2.4%	2.3%
9	-	23.9%	26.0%	-	1.6%	2.6%
10	-	26.4%	27.8%	-	2.5%	1.8%

Note:

1. The post-crisis IPO cumulative litigation exposure is not presented for 9–10 years after the IPO due to limited data for cohorts with an IPO date toward the end of this period. 1933 Act filings that are exclusively in the state courts enter into this analysis beginning in 2010.
2. Cumulative litigation exposure correcting for survivorship bias is calculated using the following formula:

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

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

**Appendix 7: Filings by Industry—Core Federal Filings**

(Dollars in Billions)

Industry	Class Action Filings				Disclosure Dollar Loss				Maximum Dollar Loss			
	Average 1997–2018	2017	2018	2019	Average 1997–2018	2017	2018	2019	Average 1997–2018	2017	2018	2019
Financial	30	20	19	22	\$19	\$14	\$25	\$10	\$111	\$48	\$138	\$41
Consumer Non-Cyclical	50	85	67	88	\$39	\$42	\$104	\$70	\$150	\$165	\$435	\$336
Industrial	17	26	20	20	\$13	\$26	\$28	\$22	\$48	\$85	\$240	\$105
Technology	23	14	22	29	\$19	\$8	\$65	\$100	\$80	\$58	\$150	\$426
Consumer Cyclical	20	22	29	20	\$10	\$15	\$28	\$10	\$53	\$84	\$120	\$43
Communications	27	18	28	37	\$23	\$13	\$65	\$55	\$147	\$37	\$166	\$163
Energy	9	9	7	10	\$4	\$5	\$1	\$5	\$22	\$20	\$4	\$25
Basic Materials	5	11	8	8	\$2	\$7	\$10	\$9	\$15	\$17	\$33	\$23
Utilities	3	2	3	5	\$1	\$1	\$3	\$2	\$9	\$8	\$25	\$20
Unknown/Unclassified	2	7	17	5	\$0	\$0	\$0	\$0	\$0	\$0	\$2	\$0
<b>Total</b>	<b>184</b>	<b>214</b>	<b>220</b>	<b>244</b>	<b>\$130</b>	<b>\$131</b>	<b>\$330</b>	<b>\$283</b>	<b>\$635</b>	<b>\$521</b>	<b>\$1,311</b>	<b>\$1,182</b>

Note: Figures may not sum due to rounding.

**Appendix 8: Filings by Circuit—Core Federal Filings**

Circuit	Class Action Filings				Disclosure Dollar Loss				Maximum Dollar Loss			
	Average 1997–2018	2017	2018	2019	Average 1997–2018	2017	2018	2019	Average 1997–2018	2017	2018	2019
1st	9	10	6	6	\$7	\$1	\$3	-\$1	\$21	\$6	\$18	\$30
2nd	50	75	71	103	\$42	\$46	\$88	\$82	\$229	\$161	\$494	\$360
3rd	17	35	26	28	\$18	\$27	\$44	\$20	\$67	\$106	\$190	\$110
4th	6	7	3	7	\$2	\$5	\$3	\$1	\$12	\$17	\$11	\$14
5th	11	8	11	13	\$7	\$4	\$3	\$4	\$35	\$16	\$11	\$20
6th	8	7	4	11	\$7	\$4	\$6	\$8	\$27	\$36	\$19	\$24
7th	8	4	13	8	\$7	\$3	\$11	\$29	\$28	\$20	\$50	\$106
8th	6	1	3	2	\$3	\$0	\$2	\$2	\$13	\$0	\$7	\$5
9th	48	45	69	52	\$29	\$31	\$162	\$133	\$167	\$114	\$489	\$501
10th	6	7	6	6	\$3	\$2	\$2	\$2	\$13	\$14	\$9	\$7
11th	14	14	8	8	\$5	\$8	\$5	\$1	\$21	\$20	\$14	\$4
D.C.	1	1	0	0	\$1	\$0	\$0	\$0	\$6	\$11	\$0	\$0
<b>Total</b>	<b>184</b>	<b>214</b>	<b>220</b>	<b>244</b>	<b>\$130</b>	<b>\$131</b>	<b>\$330</b>	<b>\$283</b>	<b>\$635</b>	<b>\$521</b>	<b>\$1,311</b>	<b>\$1,182</b>

Note: Figures may not sum due to rounding.

**Appendix 9: Filings by Exchange Listing—Core Federal Filings**

	Average (1997–2018)		2018		2019	
	NYSE/Amex	Nasdaq	NYSE	Nasdaq	NYSE	Nasdaq
<b>Class Action Filings</b>	86	109	157	216	195	187
Core Filings	75	93	87	111	118	111
<b>Disclosure Dollar Loss</b>						
DDL Total (\$ Billions)	\$88	\$41	\$168	\$152	\$118	\$164
Average (\$ Millions)	\$1,290	\$453	\$1,995	\$1,418	\$1,076	\$1,543
Median (\$ Millions)	\$274	\$106	\$611	\$285	\$340	\$150
<b>Maximum Dollar Loss</b>						
MDL Total (\$ Billions)	\$422	\$209	\$814	\$458	\$557	\$623
Average (\$ Millions)	\$6,129	\$2,263	\$9,688	\$4,284	\$5,065	\$5,874
Median (\$ Millions)	\$1,351	\$471	\$2,384	\$901	\$1,764	\$735

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 Stanford Law School Securities Class Action Clearinghouse, in collaboration with Cornerstone Research, has identified 5,590 federal securities class action filings between January 1, 1996, and December 31, 2019 (securities.stanford.edu). The analysis in this report is based on data identified by Stanford as of January 10, 2020.
- The sample used in this report includes federal filings that typically allege violations of the Securities Act of 1933 Section 11, the Securities Exchange Act of 1934 Section 10b, Section 12(a) (registration requirements), or Section 14(a) (proxy solicitation requirements).
- 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 159 state class action filings in state courts from January 1, 2010, to December 31, 2019, have also been identified.

The views expressed in this report are solely those of the authors, who are responsible for the content, and do not necessarily represent the views of Cornerstone Research.



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.

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