CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

Securitie	S
Class Actio	n
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55,39 37,45 64
64,32 14,32 48,15
78,25 85,78 37,45
91,65 24,21 14,32
94,32 84,72 85,78
65,98 79,11 24,21
46,21 47,39 84,72
56,32 55,48 79
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2016 Year in Review

Filings rise to highest levels in 20 years

New wave of M&A federal filings

Section 11 cases in California state courts

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EXECUTIVE SUMMARY

NUMBER AND SIZE OF FILINGS

- Plaintiffs filed a record 270 new federal class action securities cases (filings) in 2016. This was 44 percent greater than both 2015 filings and the historical average of 188 filings observed between 1997 and 2015. (pages 5–6)
- Disclosure Dollar Loss (DDL) edged up to \$107 billion in 2016,
 2 percent above 2015 DDL, but 11 percent below the historical average of \$120 billion. (page 7)
- For the first time since the 2008 financial crisis, Maximum Dollar Loss (MDL) exceeded the historical average. MDL was \$823 billion in 2016, 38 percent above the historical average, and more than double 2015 MDL. (page 8)
- In 2016, five mega filings made up 31 percent of DDL and 22 mega filings made up 66 percent of MDL. While the number of mega DDL filings was in line with the historical average, mega DDL as a percentage of total DDL was well below the historical average of 54 percent. The number of mega MDL filings was well above the historical average, but mega MDL as a percentage of total MDL was below the historical average of 71 percent. Filings with a DDL of at least \$5 billion or an MDL of at least \$10 billion are considered mega filings. (pages 25–27)

OTHER MEASURES OF LITIGATION INTENSITY

- A record 3.9 percent of U.S. exchange-listed companies were subject to "traditional" class action filings in 2016. This was above the historical average of 2.8 percent. (page 10)
- More cases were filed against S&P 500 firms in 2016 than in any of the previous seven years, with a large spike for companies in the Health Care sector. (pages 23–24)

By several measures, filing activity surpassed all previous years, including 2008.

FIGURE 1A: FEDERAL CLASS ACTION FILINGS SUMMARY

	Average 1997–2015	2015	2016
Class Action Filings	188	188	270
Disclosure Dollar Loss (\$ Billions)	\$120	\$105	\$107
Maximum Dollar Loss (\$ Billions)	\$595	\$371	\$823

EXECUTIVE SUMMARY continued

KEY TRENDS

- Federal filings of class actions involving merger and acquisition (M&A) transactions increased to 80, more than four times greater than in 2015. (page 11)
- The 2016 median filing lag of seven days was the shortest on record.
 Between 1997 and 2015, the average median filing lag was 23 days.
 (page 20)
- The number of filings against foreign issuers increased from 2015 levels despite very few filings against Chinese issuers, previously the most frequently targeted foreign firms. (pages 21–22)
- Filings targeting European issuers increased to their highest level since case tracking began in 1997. (pages 21–22)
- Filings against companies in the Financial sector doubled to 34 in 2016 after dropping to 17 in 2015. (page 28)
- The Consumer Non-Cyclical sector again had the most filings with 109, more than double the historical average of 47 filings. The increase was driven in part by filings against pharmaceutical, biotechnology, and healthcare companies. (pages 28–29)
- There were 86 filings in the Ninth Circuit and 64 filings in the Second Circuit. Filings in these circuits made up 56 percent of all filings in 2016. (page 32)

A substantial increase in federal M&A filings drove the overall jump in filing activity.

NEW AND UPDATED FOR THE 2016 YEAR IN REVIEW

M&A FILINGS BY CIRCUIT

- Federal M&A objection filings (M&A filings) more than quadrupled to 80 filings in 2016 and were most common in the Ninth and Third Circuits, with 24 and 11 filings, respectively. (page 11)
- Federal M&A filings quintupled in the Third and Ninth Circuits in 2016 compared to 2015. The Third and Ninth Circuits accounted for 44 percent of all M&A filings in 2016. (page 11)
- The Delaware Court of Chancery's rejection of a disclosure-only settlement in *Trulia* in January 2016 may have resulted in shifting of merger objection lawsuits from state to federal venues. (page 11)

STATUS OF M&A FILINGS

 M&A filings had a higher dismissal rate than other filings from 2009 to 2015. During this period, 78 percent of these M&A filings were dismissed, compared to 47 percent of other federal filings. (page 12)

PHARMACEUTICAL, BIOTECHNOLOGY, AND HEALTHCARE SUBSECTORS

 The number of filings in the Pharmaceutical, Biotechnology, and Healthcare subsectors increased for the fifth consecutive year and was more than double the 1997–2015 historical average. These filings continue to make up an increasingly large percentage of MDL. (pages 29–30) The wave of federal M&A filings in 2016 may be the result of the venue shifting effect of *Trulia*.

NEW AND UPDATED FOR THE 2016 YEAR IN REVIEW continued

CALIFORNIA STATE COURT SECTION 11 CASES

Class actions with Section 11 claims have been increasingly filed in California state courts in the last few years (California state Section 11 filings). Some of these filings have parallel actions in federal courts, but most do not. These California state Section 11 filings do not include claims related to Rule 10b-5, but may include Section 12 or Section 15 claims. (pages 16–18)

- Between 2010 and 2016, plaintiffs filed 48 Section 11 cases in California state courts. (page 16)
- In 2016, California state Section 11 filings were greater than in any of the previous six years. These filings were primarily concentrated in the San Francisco Bay Area. (page 16)
- The MDL of California state Section 11 filings was higher in 2015 and 2016 than in any previous years. (page 17)
- A larger percentage of California state Section 11 filings are ongoing relative to comparable federal filings (i.e., filings with Section 11 claims, but no Rule 10b-5 claims), primarily due to a lower dismissal rate for state filings. (page 18)

California state
Section 11 filings
have become more
frequent in the last
two years.

FIGURE 1B: CALIFORNIA STATE COURT SECTION 11 CLASS ACTION FILINGS SUMMARY

	Average 2010–2015	2015	2016
Section 11 Class Action Filings in State Courts			
Filings in State Courts Only	3	10	11
Parallel Filings in State and Federal Courts	2	5	7
Total	5	15	18
Maximum Dollar Loss of State Court Filings (\$ Billions)			
MDL of Filings in State Courts Only	\$7	\$32	\$16
MDL of Filings in State and Federal Courts	\$2	\$4	\$13
Total MDL	\$9	\$37	\$29

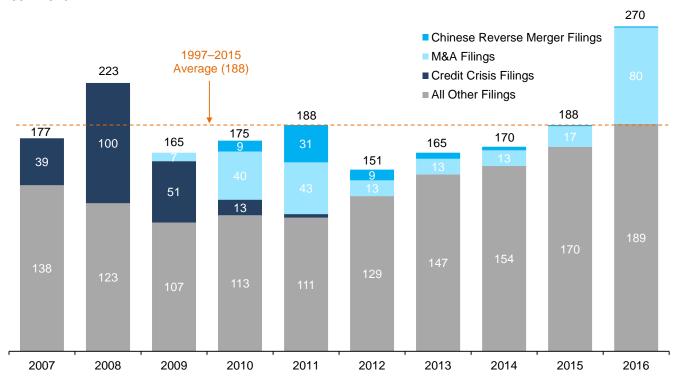
NUMBER OF FILINGS

KEY FINDINGS

- Plaintiffs filed a record 270 new federal class action securities cases in 2016.
- Filings in 2016 were 44 percent higher than both the number in 2015 and the historical average.
- The 80 M&A filings in 2016 was the largest number since 2009 (when this report began separately identifying these filings) and a major contributor to the increase in total filings.
- "Traditional" filings—those excluding M&A and Chinese reverse merger (CRM) cases—were 11 percent higher in 2016 than in 2015.

The number of federal filings in 2016 leapt to unprecedented levels.

FIGURE 2: CLASS ACTION FILINGS INDEX® (CAF INDEX®) ANNUAL NUMBER OF CLASS ACTION FILINGS 2007–2016



Note: There were two cases in 2011 that were both an M&A filing and a Chinese reverse merger company. These filings were classified as M&A filings in order to avoid double counting.

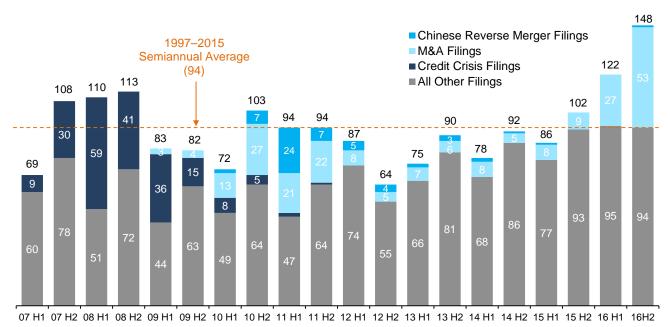
NUMBER OF FILINGS continued

KEY FINDINGS

- Total filing activity rose 21 percent in the second half of 2016 compared to the first half.
- Filing activity has increased for three consecutive semiannual periods.
- Since 2013, the number of filings in the second half of the year has outpaced the first half.
- There have been more than 90 "traditional" filings in each of the last three semiannual periods.
- There were 53 M&A filings in the second half of 2016, the most in any semiannual period.

Filing activity in the second half of 2016 was also the highest on record.

FIGURE 3: CLASS ACTION FILINGS INDEX® (CAF INDEX®) SEMIANNUAL NUMBER OF CLASS ACTION FILINGS 2007 H1-2016 H2



Note: There were two cases in 2011 that were both an M&A filing and a Chinese reverse merger company. These filings were classified as M&A filings in order to avoid double counting.

MARKET CAPITALIZATION LOSSES

Disclosure Dollar Loss Index® (DDL Index®)

This index measures the aggregate DDL for all 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. See the glossary for additional discussion.

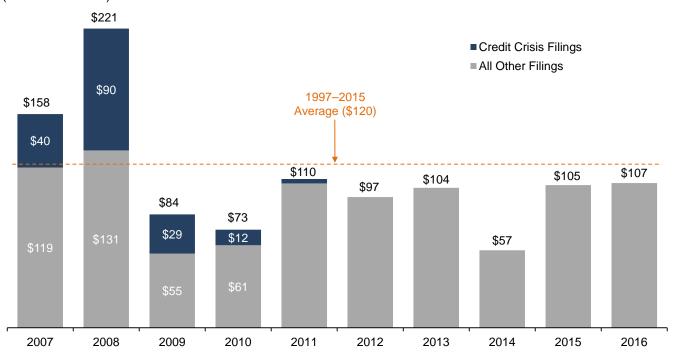
KEY FINDINGS

- While the DDL Index increased 2 percent from 2015 to 2016, it was only 89 percent of the historical average.
- In 2016, mega DDL accounted for only 31 percent of the DDL Index.
 Filings with mega DDLs are typically more than 50 percent of the DDL Index.
- Average DDL per filing declined from \$0.64 billion in 2015 to \$0.58 billion in 2016.

The DDL Index has not exceeded the historical average for eight consecutive years.

FIGURE 4: **DISCLOSURE DOLLAR LOSS INDEX®** (**DDL INDEX®**) 2007–2016

(Dollars in billions)



- 1. See Appendix 1 for the mean and median values of DDL.
- 2. Numbers may not add due to rounding.

MARKET CAPITALIZATION LOSSES continued

Maximum Dollar Loss Index® (MDL Index®)

This index measures the aggregate MDL for all 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. See the glossary for additional discussion.

KEY FINDINGS

- The MDL Index increased 122 percent from 2015 to 2016.
- The increase in the MDL Index is due in part to more mega MDL filings in 2016, as well as the overall rise in filings.
- This is the first year since 2008 that the MDL Index exceeded the historical average and is the highest level since 2002.

In 2016, the MDL Index surpassed the 2008 financial crisis level.

FIGURE 5: MAXIMUM DOLLAR LOSS INDEX® (MDL INDEX®) 2007–2016 (Dollars in billions)

\$823 \$816 1997-2015 ■ Credit Crisis Filings Average (\$595) ■ All Other Filings \$700 \$550 \$459 \$276 \$511 \$474 \$62 \$38 \$404 \$287 \$371 \$278 \$215 \$424 \$436

2011

2012

2013

2014

2015

2016

Note:

2007

1. See Appendix 1 for the mean and median values of MDL.

2008

2009

2010

2. Numbers may not add due to rounding.

CLASSIFICATION OF COMPLAINTS

KEY FINDINGS

- The increase in nontraditional filings resulted in a decrease in traditional Rule 10b-5, Section 11, and Section 12(2) claims as a percentage of the total population. Nontraditional filings in 2016 primarily related to proposed merger and other shareholder transactions.
- Filings including Section 11 claims have decreased as a percentage of federal filings, in part because of the rise in M&A filings that do not include this claim and because of the migration of some Section 11 claims to California state courts.
- Underwriter and auditor defendants continue to be an infrequent characteristic in all filings.
- Consistent with 2015, allegations of misrepresentations in financial documents were nearly universal (99 percent of all filings).

The general characteristics of claims asserted in 2016 filings shifted significantly from 2015 filings.

FIGURE 6: 2016 ALLEGATIONS BOX SCORE 2012–2016

		Perce	entage of Filing	gs ¹	
	2012	2013	2014	2015	2016
General Characteristics of All Filings					
Rule 10b-5 Claims	85%	84%	85%	84%	67%
Section 11 Claims	10%	9%	14%	15%	9%
Section 12(2) Claims	9%	7%	6%	8%	4%
No Rule 10b-5, Section 11, or Section 12(2) Claims	9%	11%	9%	9%	29%
Underwriter Defendant	8%	9%	11%	11%	5%
Auditor Defendant	2%	2%	1%	1%	1%
Allegations in All Filings					
Misrepresentations in Financial Documents	95%	97%	94%	99%	99%
False Forward-Looking Statements	62%	54%	47%	49%	34%
Trading by Company Insiders	17%	17%	16%	19%	7%
Allegations in Traditional Filings ²					
GAAP Violations ³	25%	27%	39%	38%	30%
Announced Restatement ⁴	12%	13%	19%	12%	10%
Internal Control Weaknesses ⁵	22%	23%	26%	26%	21%
Announced Internal Control Weaknesses ⁶	9%	9%	11%	11%	8%

^{1.} The percentages do not add to 100 percent because complaints may include multiple allegations.

^{2.} Traditional filings represent those filings containing allegations related to Rule 10b-5, Section 11, and/or Section 12(2) Claims. Note that nontraditional filings may include allegations related to GAAP (e.g., that a non-GAAP metric was not reconciled to GAAP in Schedule 14A, Schedule 14D-9, or other form issued in connection with a proposed merger or other shareholder transaction).

^{3.} First identified complaint includes allegations of GAAP Violations. In some cases, plaintiff(s) may not have expressly referenced GAAP; however, the allegations, if true, would represent GAAP violations.

^{4.} First identified complaint 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.} First identified complaint includes allegations of Internal Control Weaknesses over Financial Reporting.

^{6.} First identified complaint 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.

LITIGATION LIKELIHOOD FOR U.S. EXCHANGE-LISTED COMPANIES

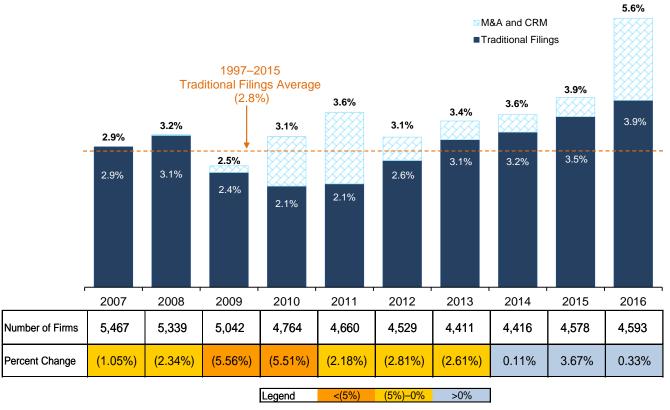
The percentage in the figure below is calculated as the unique number of companies listed on the NYSE or NASDAQ that were the subject of filings in a given year divided by the unique number of companies listed on the NYSE or NASDAQ. Figures are provided for both "traditional" filings (i.e., those excluding M&A and CRM filings) and for all filings.

KEY FINDINGS

- The litigation exposure of U.S. exchange-listed companies to "traditional" filings increased for a fifth consecutive year from 2.1 percent in 2011 to 3.9 percent in 2016.
- Approximately one in 25 companies listed on U.S. exchanges was the subject of a "traditional" class action in 2016. (See Appendix 1 for litigation exposure over a longer time frame.)

The litigation exposure of U.S. exchange-listed companies was greater than in any prior year in the data.

FIGURE 7: PERCENTAGE OF U.S. EXCHANGE-LISTED COMPANIES SUBJECT TO FILINGS AND CHANGE IN THE NUMBER OF COMPANIES LISTED ON U.S. EXCHANGES 2007–2016



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.

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.
 The Securities Class Action Clearinghouse began tracking M&A fillings in 2009.

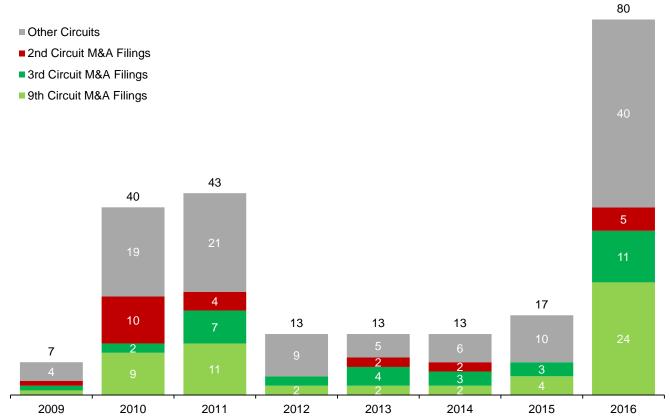
UPDATED ANALYSIS: M&A FILINGS BY CIRCUIT

KEY FINDINGS

- The number of M&A filings in the Third and Ninth Circuits was the highest since this report began identifying them separately in 2009, accounting for 44 percent of M&A filings in 2016. The number of M&A filings in the Ninth Circuit increased to 24 in 2016 from four in 2015, a sixfold increase.
- In January 2016, the Delaware Court of Chancery rejected a disclosureonly settlement in Zillow's acquisition of Trulia.¹ This may have resulted in some venue shifting for merger objection lawsuits from state to federal courts. See Cornerstone Research, <u>Shareholder Litigation</u> <u>Involving Acquisitions of Public Companies—Review of 2015 and 1H 2016 M&A Litigation</u>
- After the Ninth and Third Circuits, the Fourth Circuit with seven M&A filings was the next most active. The Fifth, Seventh, and Eleventh Circuits all had six M&A filings.

The number of M&A filings in federal courts spiked in 2016 with activity highest in the Ninth and Third Circuits.

FIGURE 8: **ANNUAL NUMBER OF M&A FILINGS BY CIRCUIT 2009–2016**²



- ${\it 1. See http://courts.delaware.gov/opinions/download.aspx? ID=235370.}$
- 2. The Securities Class Action Clearinghouse began tracking M&A filings in 2009.

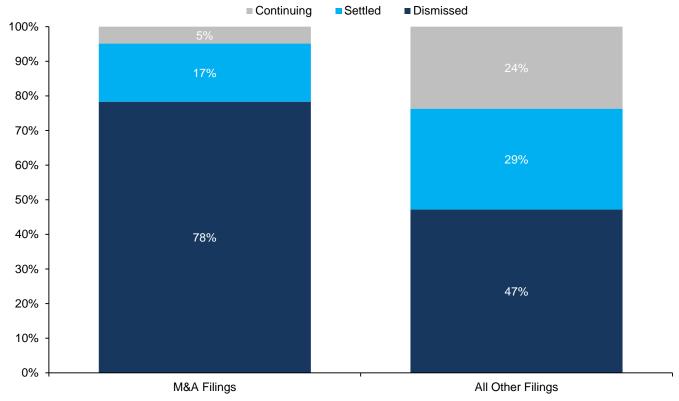
NEW ANALYSIS: STATUS OF M&A FILINGS

KEY FINDINGS

- There were 143 M&A filings between 2009 and 2015, compared to 1,056 other filings.
- M&A filings have been dismissed at higher rates and resolved more quickly than other federal filings.
- M&A filings have had dismissal rates more than 31 percentage points greater than other federal filings.

M&A filings have been dismissed at a higher rate than other federal filings during the last seven years.

FIGURE 9: STATUS OF M&A FILINGS COMPARED TO OTHER FEDERAL FILINGS FILINGS IN YEARS 2009–2015



- 1. The Securities Class Action Clearinghouse began tracking M&A filings in 2009.
- 2. The 2016 filing cohort is not included in the figure since a large percentage of cases are ongoing.
- 3. See Appendix 2 for a yearly history of the status of M&A filings.

STATUS OF SECURITIES CLASS ACTION FILINGS

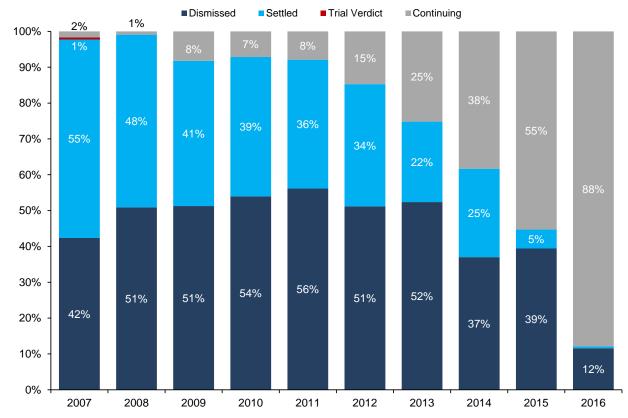
This report examines whether filing outcomes have changed over time. It compares the outcomes of filing cohort groups. As each cohort ages, a larger percentage of filings are resolved—whether through a dismissal, settlement, or trial verdict outcome

KEY FINDINGS

- From 1997 to 2015, 50 percent of filings have settled, 43 percent have been dismissed, and 7 percent are ongoing. Overall, less than 1 percent of filings have reached a trial verdict.
- Filings from the 2014 cohort have exhibited higher settlement rates and lower dismissal rates than either the 2013 or 2015 filing cohort groups.

After a decline for the 2014 cohort group, dismissal rates for the 2015 filing cohort have increased.

FIGURE 10: STATUS OF FILINGS BY YEAR EXCLUDING M&A AND CRM FILINGS 2007–2016



- 1. Percentages may not add to 100 percent due to rounding.
- 2. The Securities Class Action Clearinghouse began tracking M&A filings in 2009.

EXAMINATION OF THE TIMING OF DISMISSALS

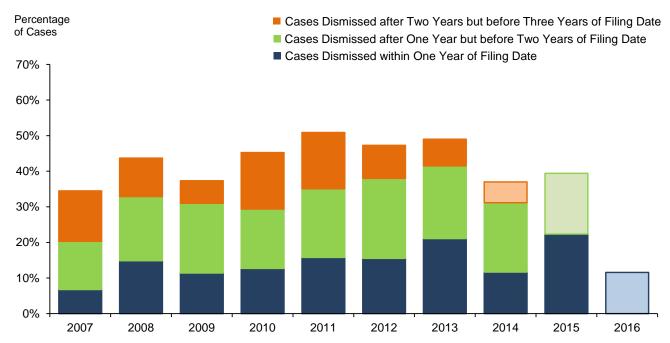
Given the length of time that may exist between the filing of a class action and its outcome, it may not be possible to immediately determine whether trends in dismissal rates observed in earlier annual cohort years will persist in later annual cohorts. This analysis looks at dismissal trends within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

KEY FINDINGS

- While the percentage of cases dismissed within three years of filing had generally increased for filing cohorts prior to 2012, it decreased for 2012 and later cohorts. However, the early dismissal rates of the 2015 and 2016 filing cohorts suggest that this trend may not continue. Filings in cohort year 2015 have been dismissed within the first year at a higher rate than 2012 to 2014 cohorts.
- The early indication of increased dismissals for the 2015 filing cohort has not been influenced by heightened M&A filing activity because these filings have been excluded from the analysis.

Filings in cohort year 2015 have been dismissed in the first year since filing at the highest rate since case tracking began in 1997.

FIGURE 11: PERCENTAGE OF CASES DISMISSED WITHIN THREE YEARS OF FILING DATE EXCLUDING M&A AND CRM FILINGS
2007–2016



^{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 2014 through 2016 indicate the percentage of cases dismissed through the end of 2016. 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.

^{3.} Appendix 3 shows dismissals over a longer time frame.

EXAMINATION OF THE TIMING OF SETTLEMENTS

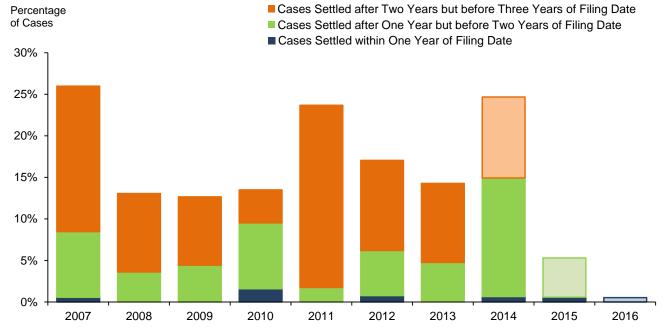
This analysis is a counterpart to the previous page. It examines the pattern of settlements in the years immediately after the filing of a class action. This analysis looks at settlement trends within the first three years of a class action filing to gain insight on settlement trends in relation to the observed early dismissal rates shown on the previous page.

KEY FINDINGS

- The percentage of cases settled within three years of their filing decreased, from 26 percent for 2007 cohorts to 14 percent for 2013 cohorts—the last annual cohort group for which three full years of resolution data are available.
- Filings from cohort years 2011 through 2013 had higher settlement rates in the third year after filing than those from 2008 through 2010.
- Overall, filings from 2012 and 2013 are being resolved more slowly than 2011 cohort filings. Filings in 2014, however, are being settled at a quicker pace. Based on complete resolution data for two years and part of a third year, 25 percent of filings in the 2014 cohort have been settled, the most since 2007.

A relatively larger portion of 2014 cohort filings have settled in the three years since complaint filing.

FIGURE 12: PERCENTAGE OF CASES SETTLED WITHIN THREE YEARS OF FILING DATE EXCLUDING M&A AND CRM FILINGS 2007–2016



^{1.} Percentage of cases in each category is calculated as the number of cases that were settled 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 2014 through 2016 indicate the percentage of cases settled through the end of 2016. The outlined portions of these stacked bars therefore present only partial-year observed resolution activity, whereas the comparable data in earlier years show an entire year.

^{3.} Appendix 3 shows dismissals over a longer time frame.

NEW ANALYSIS: SECTION 11 CASES FILED IN CALIFORNIA STATE COURTS

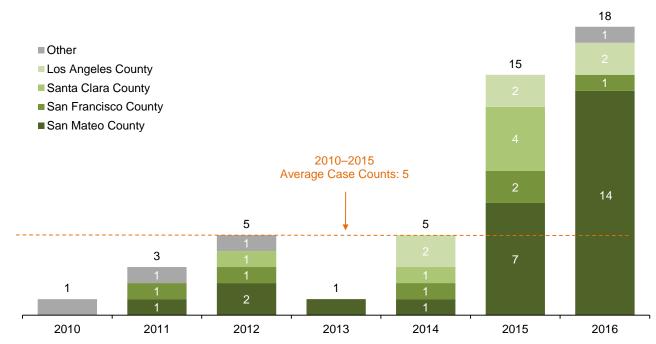
California state courts have recently become venues to hear and resolve class actions involving Section 11 claims. Writ of certiorari petitions before the U.S. Supreme Court in *Cyan Inc. et al. v. Beaver County Employees Retirement Fund et al.* involve questions regarding this trend and the use of state venues for adjudicating class actions with Section 11 claims.

KEY FINDINGS

- In 2016, 18 class actions were filed in California state courts alleging violations of Section 11. The filings may also include Section 12 and Section 15 claims, but do not include allegations of Rule 10b-5 violations.
- California state Section 11 filings were concentrated in the San Francisco Bay Area during 2015 and 2016. In particular, San Mateo County has been the center of filing activity.
- Santa Clara County (also in the San Francisco Bay Area) had four filings in 2015, but did not have any in 2016.

California state
Section 11 filings
increased distinctly
in 2015 and 2016.

FIGURE 13: CALIFORNIA STATE SECTION 11 FILINGS BY COUNTY 2010–2016



Note: Other contains filings from Alameda, Kern, Orange, and San Diego Counties. See Appendix 4 for more detail.

NEW ANALYSIS: SECTION 11 CASES FILED IN CALIFORNIA STATE COURTS—SIZE OF FILINGS

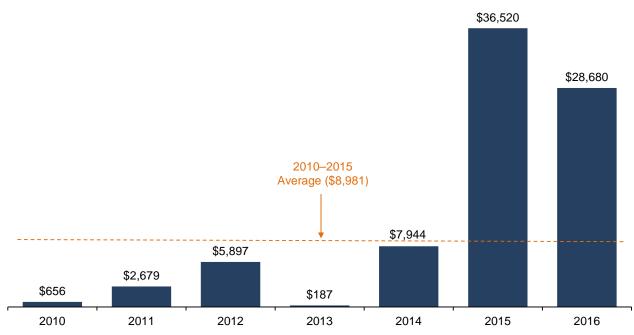
KEY FINDINGS

- In both 2015 and 2016, the MDL for California state Section 11 filings was more than triple the 2010–2015 average.
- The MDL declined from \$36.5 billion in 2015 to \$28.7 billion in 2016, even as filings increased.

In the last two years, MDL for California state Section 11 filings has increased, consistent with the number of filings.

FIGURE 14: MAXIMUM DOLLAR LOSS OF CALIFORNIA STATE SECTION 11 FILINGS 2010–2016

(Dollars in millions)



Note: The Securities Class Action Clearinghouse tracked California state Section 11 filings data back to 2010.

NEW ANALYSIS: SECTION 11 CASES FILED IN CALIFORNIA STATE COURTS—CASE STATUS

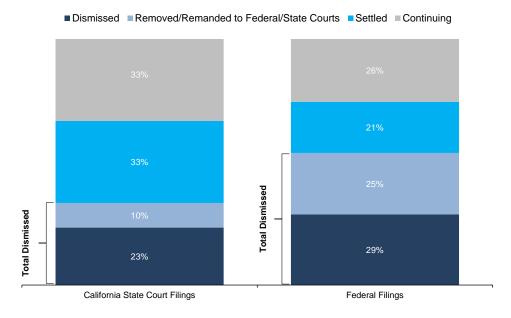
This analysis compares the outcomes of California state Section 11 filings to comparable federal filings. Because there were few California state Section 11 filings before 2015, the analysis weights the outcomes for the comparable federal filings by the number of California state Section 11 filings in each year to create a comparable benchmark.

KEY FINDINGS

- A larger percentage of California state Section 11 filings are ongoing compared to Section 11 federal filings without Rule 10b-5 claims (federal Section 11-only filings).
- Only 33 percent of California state Section 11 filings were dismissed in 2010–2015 compared to 54 percent of federal Section 11–only filings.
- Of the California state Section 11 filings removed to federal court, one
 was dismissed and two are ongoing. Of the Section 11 federal filings
 remanded to state courts, seven were settled, one was dismissed, and
 three are ongoing.
- This analysis does not cover filings in 2016, almost all of which are ongoing. Whether these observed patterns for filings in 2010 through 2015 persist will be determined only as filings are further adjudicated.

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

FIGURE 15: RESOLUTION OF CALIFORNIA STATE SECTION 11 FILINGS COMPARED WITH FEDERAL SECTION 11-ONLY FILINGS 2010-2015



- 1. See Appendix 4 for yearly detail.
- 2. California state Section 11 filings have been identified only as early as 2010.
- 3. The 2016 filing cohort is not included in the figure since a large percentage of cases are ongoing.

NEW ANALYSIS: COMBINED FEDERAL AND CALIFORNIA STATE SECTION 11 FILINGS

This analysis is a combined measure of class action filing activity in federal and California state courts. It highlights Section 11 claims and the extent to which parallel actions have been filed.

KEY FINDINGS

- Overall filing activity increased at both the federal and California state levels. In 2016, the combined number of federal and California Section 11 filings was 281.
- California state Section 11 filings in 2016 outpaced the number of equivalent federal Section 11 filings (i.e., federal filings with a Section 11 claim but no Rule 10b-5 claim).

Collectively in federal and state courts, Section 11 activity has increased in the last three years.

FIGURE 16: FEDERAL AND CALIFORNIA STATE SECTION 11 FILINGS 2010–2016



Note: Section 11 filings in federal courts may include parallel cases filed in California state courts. When parallel cases are filed in different years, the earlier filing is counted. For this reason, counts may not reconcile with other figures showing annual counts of California state Section 11 filings.

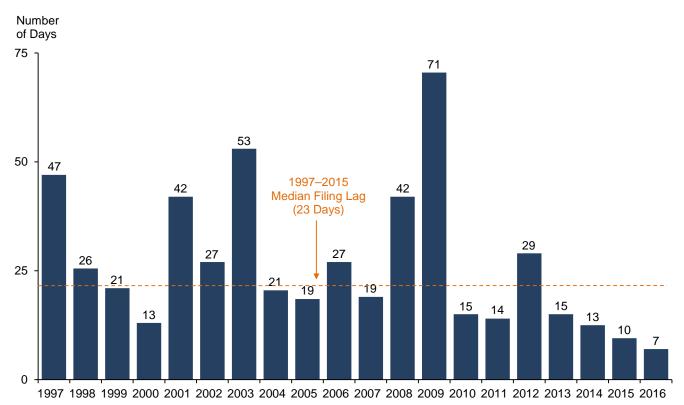
FILING LAG

KEY FINDINGS

- In 2016, the median filing lag was seven days between the end of the alleged class period and the filing date of the lawsuit, the shortest on record.
- The median filing lag in 2016 excluding M&A cases was 12 days, the second-shortest median filing lag for this subset of filings.
- Only 8 percent of class actions were filed more than 180 days after the end of the alleged class period—the lowest percentage on record.

The median filing lag has been steadily decreasing since 2012.

FIGURE 17: ANNUAL MEDIAN LAG BETWEEN CLASS END DATE AND FILING DATE 1997–2016



FOREIGN FILINGS

Class Action Filings-Foreign Index® (CAF-F Index®)

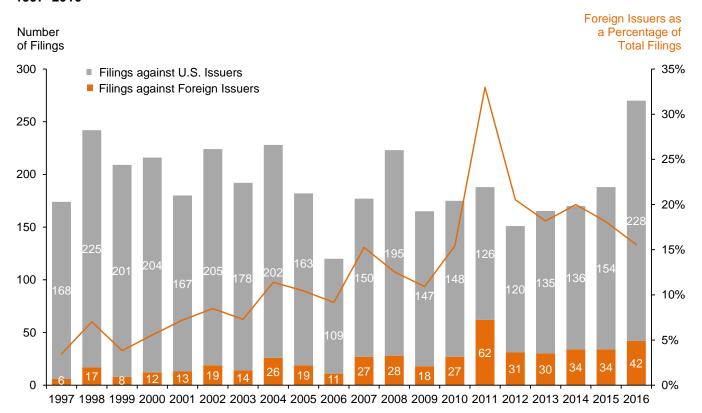
This index tracks the number of filings against companies headquartered outside the United States relative to total filings.

KEY FINDINGS

- The number of filings against foreign issuers increased to 42 in 2016, well above the historical average of 23 filings.
- As a percentage of total filings, however, filings against foreign issuers
 decreased to the lowest rate since 2010. This is largely because few of
 the filings against foreign issuers were M&A proxy class actions. Only
 three M&A filings involved foreign issuers.
- Filings against European companies increased from six in 2015 to 15 in 2016, more than double the historical average of seven.
- Filings against Chinese firms declined from 7 percent of all filings in 2015 to 1.5 percent in 2016. In 2015, companies headquartered in China were the most common targets of foreign filings.

Filings against European firms were more common than filings against Chinese companies for the first time since 2009.

FIGURE 18: CLASS ACTION FILINGS-FOREIGN INDEX® (CAF-F INDEX®)
ANNUAL NUMBER OF CLASS ACTION FILINGS BY LOCATION OF HEADQUARTERS
1997–2016



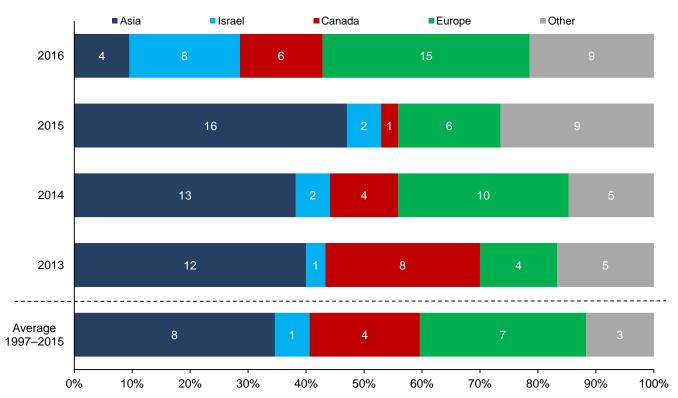
FOREIGN FILINGS continued

KEY FINDINGS

- The number of filings against European firms was more than double the 1997–2015 average. This marks the largest number of European filings on record.
- Filings against firms headquartered in Ireland, the United Kingdom, and Germany were the highest on record, with six, four, and four filings, respectively.
- Filings against Chinese companies decreased markedly, from 14 in 2015 to four in 2016, the lowest number since 2009.
- Companies headquartered in Israel were subject to eight class actions, more than any year on record.

Class actions against European companies were the most common filing involving foreign issuers.

FIGURE 19: FOREIGN FILINGS BY LOCATION OF HEADQUARTERS 1997–2016



HEAT MAPS: S&P 500 SECURITIES LITIGATION™

The Heat Maps analyze companies in the 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 two questions for each sector:

- (1) What percentage of these companies were subject to new securities class actions in federal court during the year?
- (2) What percentage of the total market capitalization of these companies was accounted for by companies named in new securities class actions?

KEY FINDINGS

- Of the companies in the S&P 500 at the beginning of 2016, one in about 12 companies (8.4 percent) was a defendant in a class action filed during the year, the largest percentage since 2008.
- The percentage of filings in the Health Care sector (21.4 percent) was more than double the historical average of 8.6 percent
- The Consumer Staples sector had above-average activity for a third straight year. The Industrials and Energy/Materials sectors also had above-average filings activity in 2016.

The Health Care sector was more active in 2016 than in any previous years.

FIGURE 20: **HEAT MAPS OF S&P 500 SECURITIES LITIGATION™ PERCENTAGE OF COMPANIES SUBJECT TO NEW FILINGS 2007–2016**

	Average 2001–2015	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Consumer Discretionary	5.2%	5.7%	4.5%	3.8%	5.1%	3.8%	4.9%	8.4%	1.2%	0.0%	4.8%
Consumer Staples	3.2%	0.0%	2.6%	4.9%	0.0%	2.4%	2.4%	0.0%	5.0%	7.5%	5.3%
Energy/Materials	1.4%	0.0%	0.0%	1.5%	5.7%	0.0%	2.7%	0.0%	1.3%	1.4%	10.4%
Financials	9.3%	10.3%	31.2%	13.1%	10.3%	1.2%	3.7%	0.0%	1.2%	1.2%	6.9%
Health Care	8.6%	12.7%	13.7%	3.7%	15.4%	2.0%	3.8%	5.7%	3.6%	1.9%	21.4%
Industrials	3.1%	5.8%	3.6%	6.9%	0.0%	1.7%	1.6%	0.0%	4.7%	0.0%	6.1%
Telecommunications/ Information Tech	6.0%	2.3%	2.5%	1.2%	3.5%	7.1%	3.8%	9.1%	0.0%	5.6%	8.2%
Utilities	6.2%	3.1%	3.2%	0.0%	0.0%	8.8%	3.1%	0.0%	3.2%	10.3%	3.4%
All S&P 500 Companies	5.5%	5.4%	9.2%	4.8%	5.4%	3.2%	3.4%	3.4%	2.2%	2.6%	8.4%

Note:

1. The chart is based on the composition of the S&P 500 as of the last trading day of the previous year. See Appendix 5A for more detail.

Legend

2. Sectors are based on the Global Industry Classification Standard (GICS). The Energy and Materials sectors and the Telecommunications and Information Technology sectors appear separately but are combined for the purposes of this analysis.

0%

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.

0-5%

5-15% 15-25%

HEAT MAPS: S&P 500 SECURITIES LITIGATION continued

KEY FINDINGS

- In 2016, the total market capitalization of S&P 500 companies subject to filings rose from 3.2 percent to 10.9 percent, the largest percentage since 2010.
- Filings against S&P 500 companies were above the historical average for the first time since 2010.
- Larger S&P 500 companies have historically been more likely targets of class actions. This pattern continued in 2016. The percentage of S&P 500 companies subject to filings was less than their share of the S&P 500 market capitalization.
- Within the Energy/Materials sector, 24.9 percent of the market capitalization was the target of a class action. Historically, only 2 percent had been subject to a class action.

Four sectors had double-digit activity for the first time since 2005.

FIGURE 21: **HEAT MAPS OF S&P 500 SECURITIES LITIGATION™** PERCENTAGE OF MARKET CAPITALIZATION SUBJECT TO NEW FILINGS 2007-2016

	Average 2001–2015	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Consumer Discretionary	5.9%	4.4%	7.2%	1.9%	4.9%	4.6%	1.6%	4.4%	2.5%	0.0%	3.8%
Consumer Staples	3.4%	0.0%	2.6%	3.9%	0.0%	0.8%	14.0%	0.0%	3.4%	3.7%	1.7%
Energy/Materials	2.0%	0.0%	0.0%	0.8%	5.5%	0.0%	0.9%	0.0%	0.2%	0.4%	24.9%
Financials	19.3%	18.1%	55.0%	38.3%	31.1%	6.9%	11.0%	0.0%	0.3%	3.0%	11.9%
Health Care	13.9%	22.5%	20.0%	1.7%	33.7%	0.7%	3.8%	4.4%	3.0%	3.1%	14.6%
Industrials	6.1%	2.2%	26.4%	23.2%	0.0%	2.1%	1.2%	0.0%	1.7%	0.0%	8.7%
Telecommunications/ Information Tech	8.3%	3.4%	1.4%	0.3%	5.9%	13.4%	2.2%	16.6%	0.0%	7.6%	12.5%
Utilities	6.9%	5.5%	4.0%	0.0%	0.0%	5.6%	6.8%	0.0%	0.7%	5.7%	4.4%
All S&P 500 Companies	9.1%	8.2%	16.2%	8.6%	11.2%	5.1%	4.9%	4.7%	1.3%	3.2%	10.9%
			Legend	0%	0–5%	5–15%	15–25%	25%+			

^{1.} The chart is based on the market capitalizations of the S&P 500 companies as of the last trading day of the previous year. If the market capitalization on the last trading day is not

available, the average fourth-quarter market capitalization is used. See Appendix 5B for more detail.

2. Sectors are based on the Global Industry Classification Standard (GICS). The Energy and Materials sectors and the Telecommunications and Information Technology sectors appear separately but are combined for the purposes of this analysis.

^{3.} Percentage of Market Capitalization Subject to New Filings equals the total market capitalization of companies subject to new securities class action filings in federal courts in each sector divided by the total market capitalization of all companies in that sector.

MEGA FILINGS

Mega DDL filings have a disclosure dollar loss (DDL) of at least \$5 billion and mega MDL filings have a maximum dollar loss (MDL) of at least \$10 billion.

KEY FINDINGS

- There were five mega DDL filings that accounted for \$33 billion of DDL in 2016
- Mega DDL in 2016 accounted for only 31 percent of total DDL, well below the historical average of 54 percent.
- There were 22 mega MDL filings in 2016 with a total MDL of \$544 billion, the most since 2008.
- Mega MDL as a percentage of total MDL, however, was below the historical average, indicating that the largest cases proportionally were still not as large as historical averages.

Mega MDL activity increased for two consecutive years for the first time since 2008.

FIGURE 22: MEGA FILINGS

	Average 1997–2015	2013	2014	2015	2016
Mega Disclosure Dollar Loss (DDL) Filings ¹					
Mega DDL Filings	5	3	0	5	5
DDL (\$ Billions)	\$65	\$53	\$0	\$56	\$33
Percentage of Total DDL	54%	51%	0%	53%	31%
Mega Maximum Dollar Loss (MDL) Filings ²					
Mega MDL Filings	12	5	2	8	22
MDL (\$ Billions)	\$422	\$132	\$31	\$207	\$544
Percentage of Total MDL	71%	47%	15%	56%	66%

^{1.} Mega DDL filings have a dollar loss of at least \$5 billion.

^{2.} Mega MDL filings have a dollar loss of at least \$10 billion.

DISTRIBUTION OF DDL VALUES

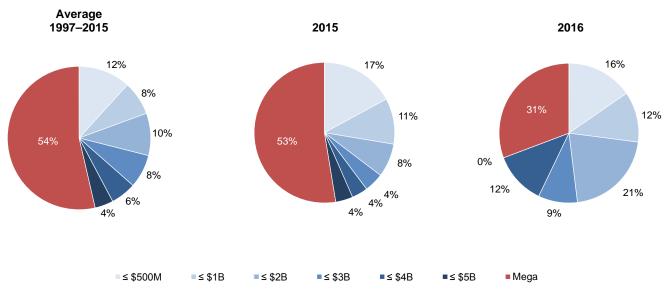
These charts compare the distribution of DDL attributable to filings of a given size in 2016 with the historical distribution of DDL.

KEY FINDINGS

- Mega DDL accounted for 2 percent of the total number of filings and 31 percent of total DDL in 2016.
- Historically, mega DDL filings have accounted for 3 percent of total filings and 54 percent of total DDL. The figures for 2016 were below historical averages.
- The portion of DDL attributable to midsized filings (i.e., DDL greater than \$500 million but less than or equal to \$5 billion) increased in 2016 compared to 2015 and the historical average.

DDL was more evenly distributed in 2016 than in 2015.

FIGURE 23: **DISTRIBUTION OF DDL—PERCENTAGE OF TOTAL DDL ATTRIBUTABLE TO FILINGS IN THE GROUPING**



- 1. Values are calculated only for filings with positive DDL data.
- 2. Size of each slice represents the percentage of total DDL.
- 3. Percentages may not add to 100 percent due to rounding.

DISTRIBUTION OF MDL VALUES

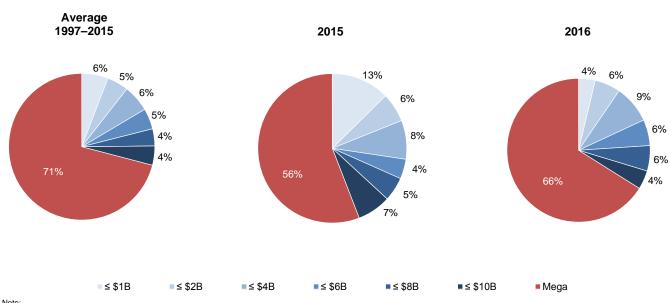
These charts compare the distribution of MDL attributable to filings of a given size in 2016 with the historical distribution of MDL.

KEY FINDINGS

- In 2016, mega MDL filings represented 8 percent of the total number of filings and 66 percent of total MDL
- The distribution of MDL in 2016 was more similar to the historical average than it was in 2015. The percentage of mega MDL filings increased in 2016 from 2015, while the percentage of MDL under \$1 billion decreased.

The distribution of MDL continued in 2016 to move closer to historical averages.

FIGURE 24: **DISTRIBUTION OF MDL—PERCENTAGE OF TOTAL MDL ATTRIBUTABLE TO FILINGS IN THE GROUPING**



- 1. Values are calculated only for filings with positive MDL data.
- 2. Size of each slice represents the percentage of total MDL.
- 3. Percentages may not add to 100 percent due to rounding.

INDUSTRY

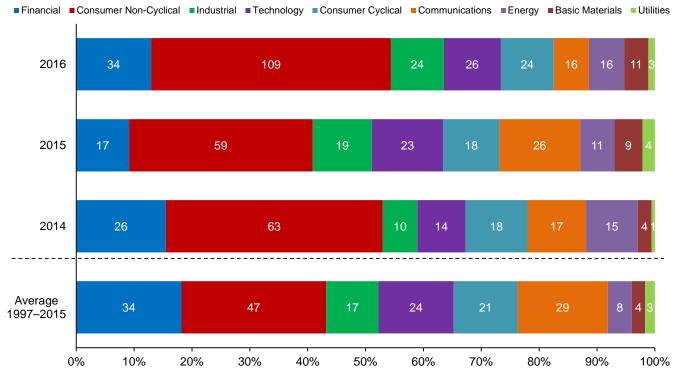
This analysis encompasses all filings, both the large capitalization companies of the S&P 500, shown on the preceding pages, as well as smaller companies.

KEY FINDINGS

- There were more Consumer Non-Cyclical filings in 2016 than any other year.
- Filings against companies in the Financial sector jumped to 34 from 17 in 2015, in line with the historical average.
- The \$19 billion DDL for filings against Financial sector companies was more than double from 2015 and was on par with the historical average. (See Appendix 6.)
- While filings against companies in the Consumer Non-Cyclical sector increased in 2016, the DDL for these filings dropped 27 percent from 2015. MDL, however, more than doubled to \$327 billion.

The Consumer
Non-Cyclical sector
had the most filings
for the seventh
consecutive year.

FIGURE 25: FILINGS BY INDUSTRY



- 1. Filings with missing sector information or infrequently used sectors may be excluded. See Appendix 6 for more information.
- 2. Sectors are based on the Bloomberg Industry Classification System.

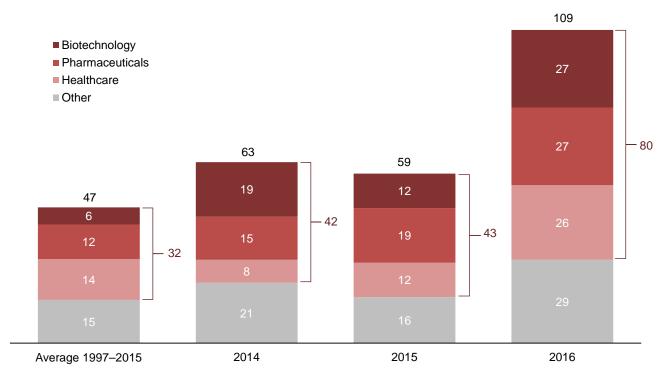
INDUSTRY continued

KEY FINDINGS: CONSUMER NON-CYCLICAL SECTOR

- In the Consumer Non-Cyclical sector, filings involving biotechnology, pharmaceutical, and healthcare companies totaled 80, an 86 percent increase from 2015.
- The number of filings against biotechnology and healthcare firms more than doubled in 2016.
- Biotechnology firms experienced the greatest year-over-year jump in filings, but both biotechnology and pharmaceutical firms experienced record numbers of filings. Healthcare filings were only one fewer than the annual record established in 1998.

Filings against biotechnology, pharmaceutical, and healthcare firms spiked in 2016.

FIGURE 26: **CONSUMER NON-CYCLICAL SECTOR FILINGS 2014–2016**



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.

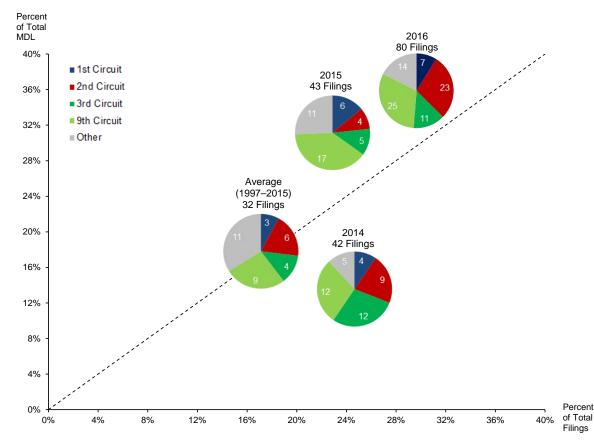
NEW ANALYSIS: BIOTECHNOLOGY, PHARMACEUTICAL, AND HEALTHCARE SUBSECTORS

KEY FINDINGS

- In 2015 and 2016, biotechnology, pharmaceuticals, and healthcare filings were larger than the average filing.
- In 2016, filings involving biotechnology, pharmaceuticals, and healthcare firms were 30 percent of filings, but their collective MDL was 36 percent of total MDL. In 2015, the comparable figures were 23 percent and 31 percent. From 1997 to 2015, the average figures were 17 percent and 18 percent, respectively.
- Biotechnology, pharmaceuticals, and healthcare filings were most common in the Ninth, Second, and Third Circuits in 2016.

MDL involving biotechnology, pharmaceutical, and healthcare filings has been increasing.

FIGURE 27: ANNUAL NUMBER AND PERCENTAGE OF MDL FOR BIOTECHNOLOGY, PHARMACEUTICAL, AND HEALTHCARE FILINGS 2014–2016



Note:

1. Pharmaceutical, Biotechnology, and Healthcare filings are part of the Consumer Non-Cyclical sector based on the Bloomberg Industry Classification System.

2. Numbers may not add due to rounding. See Appendix 7 for more detail.

EXCHANGE

KEY FINDINGS

- In 2016, 140 class actions were filed against NASDAQ-listed companies, and 117 against companies listed on the NYSE.
- The number of filings against NASDAQ and NYSE firms increased by 46 percent and by 41 percent, respectively.
- While median MDL for filings against NASDAQ companies increased by 62 percent in 2016, median DDL decreased by 16 percent.
- Both the median DDL and MDL for filings against NYSE companies increased in 2016.

Filings against
NASDAQ firms
remained more
common than
against NYSE
firms for the fourth
consecutive year.

FIGURE 28: FILINGS BY EXCHANGE LISTING

	Average (19	997–2015)	2	015	2	016
	NYSE/Amex	NASDAQ	NYSE	NASDAQ	NYSE	NASDAQ
Class Action Filings	77	96	83	96	117	140
Disclosure Dollar Loss						
DDL Total (\$ Billions)	\$84	\$36	\$52	\$53	\$77	\$31
Average (\$ Millions)	\$1,276	\$408	\$736	\$597	\$926	\$322
Median (\$ Millions)	\$247	\$95	\$172	\$141	\$321	\$118
Maximum Dollar Loss						
MDL Total (\$ Billions)	\$397	\$196	\$208	\$162	\$587	\$222
Average (\$ Millions)	\$5,983	\$2,170	\$2,925	\$1,816	\$7,076	\$2,336
Median (\$ Millions)	\$1,240	\$442	\$779	\$415	\$2,081	\$672

^{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.

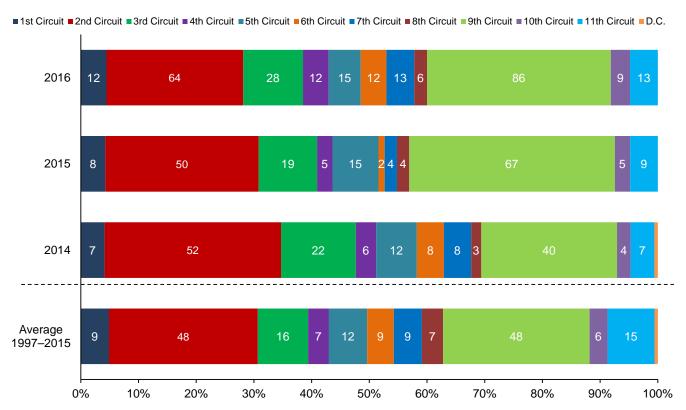
CIRCUIT

KEY FINDINGS

- Filings in the Ninth Circuit increased to a record 86, with 28 percent comprising M&A filings. The Second and Ninth Circuits combined for 56 percent of all filings, slightly higher than the 1997–2015 average of 51 percent.
- In the Ninth Circuit, the largest industry subsectors were Biotechnology (12 filings) and Pharmaceuticals (six filings) followed by Internet and Electronics companies (five filings each).
- Driven by mega filings, MDL in the Second and Ninth Circuits increased significantly from 2015 to 2016. (See Appendix 8.)

Driven by the increase in M&A activity, filings in the Ninth Circuit were the highest on record.

FIGURE 29: FILINGS BY COURT CIRCUIT



Note: See Appendix 8 for more information.

GLOSSARY

California state Section 11 filing is a class action filed in a California state court that has Section 11 claims.

These filings may also have Section 12 and/or Section 15 claims, but do not have Rule 10b-5 claims.

Chinese reverse merger (CRM) filing is a securities class action against a China-headquartered company listed on a U.S. exchange as a result of a reverse merger with a public shell company. See Cornerstone Research, *Investigations and Litigation Related to Chinese Reverse Merger Companies*.

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

Class Action Filings-Foreign Index® (CAF-F Index®) tracks the number of filings against foreign issuers (companies headquartered outside the United States) relative to total filings.

Disclosure Dollar Loss Index® (DDL Index®) measures the aggregate DDL for all 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 during or at the end of the class period, including information unrelated to the litigation.

Filing lag is the time between the end of a class period and the filing of a securities class action.

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 two questions for each sector: (1) What percentage of these companies were subject to new securities class actions in federal court during the year? (2) What percentage of the total market capitalization of these companies was accounted for by companies named in new securities class actions?

Market capitalization losses measure changes to market values of the companies subject to class action filings. Market capitalization losses are tracked 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 plead 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 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.

GLOSSARY continued

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) filing is a securities class action that has Section 14 claims, but no Rule 10b-5, Section 11, or Section 12(2) claims, and involves a merger and acquisition transaction. M&A filings typically do not have DDL or MDL figures.

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.

APPENDICES

APPENDIX 1: FILINGS BASIC METRICS

			Disclosure Dollar Loss Maximum Dollar Loss U.S. Exchange-Liste			Maximum Dollar Loss			ge-Listed Firms
Year	Class Action Filings	DDL Total (\$ Billions)	Average (\$ Millions)	Median (\$ Millions)	MDL Total (\$ Billions)	Average (\$ Millions)	Median (\$ Millions)	Percentage of Listed Firms Sued	Percentage of Listed Firms Sued Excluding M&A and CRM
Average (1997–2015)	188	\$120	\$766	\$126	\$595	\$3,793	\$632	3.0%	2.8%
1997	174	\$42	\$272	\$57	\$145	\$940	\$405	2.0%	2.0%
1998	242	\$80	\$365	\$61	\$224	\$1,018	\$294	2.8%	2.8%
1999	209	\$140	\$761	\$101	\$364	\$1,978	\$377	2.5%	2.5%
2000	216	\$240	\$1,251	\$119	\$761	\$3,961	\$689	2.8%	2.8%
2001	180	\$198	\$1,215	\$93	\$1,487	\$9,120	\$771	2.3%	2.3%
2002	224	\$201	\$989	\$136	\$2,046	\$10,080	\$1,494	3.2%	3.2%
2003	192	\$77	\$450	\$100	\$575	\$3,363	\$478	3.0%	3.0%
2004	228	\$144	\$739	\$108	\$726	\$3,722	\$498	3.7%	3.7%
2005	182	\$93	\$595	\$154	\$362	\$2,321	\$496	3.0%	3.0%
2006	120	\$52	\$496	\$109	\$294	\$2,827	\$413	2.1%	2.1%
2007	177	\$158	\$1,013	\$156	\$700	\$4,489	\$715	2.9%	2.9%
2008	223	\$221	\$1,516	\$208	\$816	\$5,591	\$1,077	3.2%	3.1%
2009	165	\$84	\$830	\$138	\$550	\$5,447	\$1,066	2.5%	2.4%
2010	175	\$73	\$691	\$146	\$474	\$4,515	\$598	3.1%	2.1%
2011	188	\$110	\$821	\$89	\$511	\$3,815	\$422	3.6%	2.1%
2012	151	\$97	\$767	\$151	\$404	\$3,183	\$659	3.1%	2.6%
2013	165	\$104	\$750	\$153	\$278	\$2,011	\$532	3.4%	3.1%
2014	170	\$57	\$387	\$169	\$215	\$1,455	\$532	3.6%	3.2%
2015	188	\$105	\$635	\$144	\$371	\$2,235	\$502	3.9%	3.5%
2016	270	\$107	\$581	\$187	\$823	\$4,471	\$1,164	5.6%	3.9%

APPENDIX 2: M&A FILINGS OVERVIEW

		N	I&A Case Status	Case Status Case Status of All Other Filings				
Year	M&A Filings	Dismissed	Settled	Continuing	Dismissed	Settled	Continuing	
Average (2009–2015)	21	16	3	1	71	44	36	
2009	7	5	2	0	81	64	13	
2010	40	33	6	0	69	56	10	
2011	43	40	2	1	72	59	14	
2012	13	9	3	0	72	46	20	
2013	13	7	6	0	79	35	38	
2014	13	8	2	2	57	39	61	
2015	17	10	3	4	68	9	94	
2016	80	32	0	46	22	1	167	

Note:

1. Average and median numbers are calculated only for filings with MDL and DDL data.

2. U.S. exchange-listed firms were identified by taking the count of listed securities at the beginning of each year and accounting for cross-listed firms or firms 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.

Note:
1. The Securities Class Action Clearinghouse began tracking M&A filings in 2009.
2. Case status is as of the end of 2016.

APPENDIX 3: CASE STATUS BY YEAR—EXCLUDING M&A AND CRM FILINGS

		In the Fir	st Year			In the Sec	ond Year		In the Third Year			
				Total				Total				Total
Filing Year	Settled	Dismissed	Trial	Resolved	Settled	Dismissed	Trial	Resolved	Settled	Dismissed	Trial	Resolved
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%	7.9%	0.0%	8.7%	16.1%	12.0%	0.0%	36.8%	16.1%	8.3%	0.0%	61.2%
1999	0.5%	7.2%	0.0%	7.7%	11.0%	11.5%	0.0%	30.1%	18.2%	9.1%	0.0%	57.4%
2000	1.9%	4.2%	0.0%	6.0%	11.6%	13.0%	0.0%	30.6%	15.7%	10.6%	0.5%	57.4%
2001	1.7%	6.7%	0.0%	8.3%	11.7%	10.6%	0.0%	30.6%	18.3%	5.0%	0.0%	53.9%
2002	0.9%	5.8%	0.4%	7.1%	6.7%	9.4%	0.0%	23.2%	15.2%	11.6%	0.0%	50.0%
2003	0.5%	7.8%	0.0%	8.3%	7.8%	13.5%	0.0%	29.7%	14.6%	14.6%	0.0%	58.9%
2004	0.0%	10.5%	0.0%	10.5%	9.6%	16.2%	0.0%	36.4%	12.3%	9.6%	0.0%	58.3%
2005	0.5%	11.5%	0.0%	12.1%	8.2%	21.4%	0.0%	41.8%	17.6%	8.8%	0.0%	68.1%
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%	14.9%	0.0%	14.9%	3.6%	18.0%	0.0%	36.5%	9.5%	10.8%	0.0%	56.8%
2009	0.0%	11.4%	0.0%	11.4%	4.4%	19.6%	0.0%	35.4%	8.2%	6.3%	0.0%	50.0%
2010	1.6%	12.7%	0.0%	14.3%	7.9%	16.7%	0.0%	38.9%	4.0%	15.9%	0.0%	58.7%
2011	0.0%	15.8%	0.0%	15.8%	1.8%	19.3%	0.0%	36.8%	21.9%	15.8%	0.0%	74.6%
2012	0.8%	15.5%	0.0%	16.3%	5.4%	22.5%	0.0%	44.2%	10.9%	9.3%	0.0%	64.3%
2013	0.0%	21.1%	0.0%	21.1%	4.8%	20.4%	0.0%	46.3%	9.5%	7.5%	0.0%	63.3%
2014	0.6%	11.7%	0.0%	12.3%	14.3%	19.5%	0.0%	46.1%	9.7%	5.8%	0.0%	61.7%
2015	0.6%	22.4%	0.0%	22.9%	4.7%	17.1%	0.0%	44.7%	-	-	-	-
2016	0.5%	11.6%	0.0%	12.1%	-	-	-	-	-	-	-	-

Note: Numbers may not add due to rounding. Figures below the dashed lines indicate cohorts for which insufficient time has elapsed to observe a full year's worth of data.

APPENDIX 4: CALIFORNIA STATE SECTION 11 FILINGS OVERVIEW

	California State Section 11 Filings						California State Section 11 Filing Status				Federal Section–11 Only Filing Status				California State Section 11	
Year	Los Angeles County	Santa Clara County	San Francisco County	San Mateo County	Other	Ongoing	Settled	Dismissed	Removed to Federal Court	Ongoing	Settled	Dismissed	Remanded to State Court	DDL (\$ Millions)	MDL (\$ Millions)	
Total (2010–2016)	6	6	6	26	4	25	10	7	6	21	21	26	13	\$4,440	\$53,883	
2010	0	0	0	0	1	0	1	0	0	2	7	8	1	\$68	\$656	
2011	0	0	1	1	1	0	1	2	0	0	4	5	1	\$308	\$2,679	
2012	0	1	1	2	1	0	2	2	1	1	5	3	2	\$2,447	\$5,897	
2013	0	0	0	1	0	0	1	0	0	0	2	5	1	\$112	\$187	
2014	2	1	1	1	0	2	2	1	0	4	2	2	2	-\$176	\$7,944	
2015	2	4	2	7	0	8	3	2	2	4	1	3	4	\$1,680	\$36,520	
2016	2	0	1	14	1	15	0	0	3	10	0	0	2	\$224	\$28,680	

APPENDIX 5A: **S&P 500 SECURITIES LITIGATION PERCENTAGE OF COMPANIES SUBJECT TO NEW FILINGS**

Year	Consumer Discretionary	Consumer Staples	Energy / Materials	Financials	Health Care	Industrials	Telecom /	Utilities	All S&P 500 Companies
Average 2001–2015	5.2%	3.2%	1.4%	9.3%	8.6%	3.1%	6.0%	6.2%	5.5%
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%	13.1%	3.7%	6.9%	1.2%	0.0%	4.8%
2010	5.1%	0.0%	5.7%	10.3%	15.4%	0.0%	3.5%	0.0%	5.4%
2011	3.8%	2.4%	0.0%	1.2%	2.0%	1.7%	7.1%	8.8%	3.2%
2012	4.9%	2.4%	2.7%	3.7%	3.8%	1.6%	3.8%	3.1%	3.4%
2013	8.4%	0.0%	0.0%	0.0%	5.7%	0.0%	9.1%	0.0%	3.4%
2014	1.2%	5.0%	1.3%	1.2%	3.6%	4.7%	0.0%	3.2%	2.2%
2015	0.0%	7.5%	1.4%	1.2%	1.9%	0.0%	5.6%	10.3%	2.6%
2016	4.8%	5.3%	10.4%	6.9%	21.4%	6.1%	8.2%	3.4%	8.4%

APPENDIX 5B: **S&P 500 SECURITIES LITIGATION PERCENTAGE OF MARKET CAPITALIZATION SUBJECT TO NEW FILINGS**

Year	Consumer Discretionary	Consumer Staples	Energy / Materials	Financials	Health Care	Industrials	Telecom / IT	Utilities	All S&P 500 Companies
Average 2001–2015	5.9%	3.4%	2.0%	19.3%	13.9%	6.1%	8.3%	6.9%	9.1%
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%	38.3%	1.7%	23.2%	0.3%	0.0%	8.6%
2010	4.9%	0.0%	5.5%	31.1%	33.7%	0.0%	5.9%	0.0%	11.2%
2011	4.6%	0.8%	0.0%	6.9%	0.7%	2.1%	13.4%	5.6%	5.1%
2012	1.6%	14.0%	0.9%	11.0%	3.8%	1.2%	2.2%	6.8%	4.9%
2013	4.4%	0.0%	0.0%	0.0%	4.4%	0.0%	16.6%	0.0%	4.7%
2014	2.5%	3.4%	0.2%	0.3%	3.0%	1.7%	0.0%	0.7%	1.3%
2015	0.0%	3.7%	0.4%	3.0%	3.1%	0.0%	7.6%	5.7%	3.2%
2016	3.8%	1.7%	24.9%	11.9%	14.6%	8.7%	12.5%	4.4%	10.9%

APPENDIX 6: FILINGS BY INDUSTRY

	Class Action Filings				D	isclosure D	Oollar Loss		Maximum Dollar Loss			
Industry	Average 1997–2015	2014	2015	2016	Average 1997–2015	2014	2015	2016	Average 1997–2015	2014	2015	2016
Financial	34	26	17	34	\$19	\$7	\$8	\$19	\$110	\$22	\$26	\$182
Consumer Non-Cyclical	47	63	59	109	\$36	\$21	\$52	\$38	\$124	\$53	\$139	\$327
Industrial	17	10	19	24	\$11	\$3	\$2	\$18	\$34	\$10	\$12	\$77
Technology	24	14	23	26	\$18	\$9	\$25	\$12	\$80	\$22	\$90	\$33
Consumer Cyclical	21	18	18	24	\$8	\$9	\$4	\$5	\$48	\$18	\$15	\$41
Communications	29	17	26	16	\$22	\$3	\$8	\$1	\$157	\$28	\$39	\$49
Energy	8	15	11	16	\$3	\$4	\$3	\$11	\$21	\$51	\$19	\$59
Basic Materials	4	4	9	11	\$1	\$1	\$2	\$2	\$12	\$10	\$26	\$51
Utilities	3	1	4	3	\$1	\$0	\$1	\$0	\$9	\$0	\$6	\$2
Unknown/Unclassified	1	2	2	7				-				\$1
Total	188	170	188	270	\$120	\$57	\$105	\$107	\$595	\$215	\$371	\$823

APPENDIX 7: PHARMACEUTICAL, BIOTECHNOLOGY, AND HEALTHCARE SUBSECTORS

							Percent of
Year	Filings	1st	2nd	3rd	9th	Other	Total MDL
Average							
(1997–2015)	32	3	6	4	9	11	17.8%
1997	28	2	4	3	9	10	20.3%
1998	40	3	7	6	11	13	19.6%
1999	28	1	3	2	10	12	10.8%
2000	22	2	4	5	3	9	9.4%
2001	28	0	13	2	6	7	2.0%
2002	34	3	7	6	6	13	9.9%
2003	37	5	4	2	9	17	21.0%
2004	40	4	8	4	11	13	19.4%
2005	32	5	4	4	3	17	41.1%
2006	25	0	5	3	3	14	18.9%
2007	29	0	11	2	7	9	25.9%
2008	25	5	5	2	2	11	17.4%
2009	25	1	1	3	12	8	4.9%
2010	40	4	8	2	17	9	45.3%
2011	28	0	5	3	9	11	5.6%
2012	32	2	5	6	5	14	7.0%
2013	35	2	10	6	11	6	14.8%
2014	42	4	9	12	12	5	13.7%
2015	43	6	4	5	17	11	31.2%
2016	80	7	23	11	25	14	36.1%

APPENDIX 8: FILINGS BY CIRCUIT

	CI	ass Actio	n Filings		Dis	closure D	Oollar Loss		Maximum Dollar Loss			
Circuit	Average 1997–2015	2014	2015	2016	Average 1997–2015	2014	2015	2016	Average 1997–2015	2014	2015	2016
1st	9	7	8	12	\$8	\$3	\$23	\$3	\$22	\$5	\$45	\$7
2nd	48	52	50	64	\$41	\$24	\$29	\$16	\$217	\$86	\$119	\$249
3rd	16	22	19	28	\$17	\$4	\$16	\$7	\$59	\$10	\$64	\$44
4th	7	6	5	12	\$2	\$2	\$1	\$2	\$13	\$13	\$7	\$6
5th	12	12	15	15	\$7	\$3	\$5	\$11	\$37	\$16	\$22	\$55
6th	9	8	2	12	\$7	\$5	\$0	\$6	\$27	\$15	\$1	\$24
7th	9	8	4	13	\$6	\$3	\$1	\$15	\$24	\$6	\$1	\$62
8th	7	3	4	6	\$3	\$1	\$1	\$2	\$14	\$4	\$9	\$14
9th	48	40	67	86	\$21	\$9	\$25	\$43	\$144	\$41	\$94	\$343
10th	6	4	5	9	\$3	\$1	\$3	\$0	\$13	\$3	\$5	\$11
11th	15	7	9	13	\$5	\$3	\$1	\$2	\$23	\$15	\$4	\$8
D.C.	1	1	0	0	\$1	\$0	\$0	\$0	\$3	\$2	\$0	\$0
Total	188	170	188	270	\$120	\$57	\$105	\$107	\$595	\$215	\$371	\$823

RESEARCH SAMPLE

- The Stanford Law School Securities Class Action Clearinghouse, in collaboration with Cornerstone Research, has identified 4,355 federal securities class action filings between January 1, 1996, and December 31, 2016 (securities.stanford.edu).
- The sample used in this report 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.
- An additional 48 state class action filings in California courts from January 1, 2010, to December 31, 2016, have also been identified.

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

Please direct any questions to:

Alexander Aganin 650.853.1660 aaganin@cornerstone.com

Cornerstone Research

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