EXHIBIT 18

NERA
ECONOMIC CONSULTING

12 February 2020

Recent Trends in Securities Class Action Litigation: 2019 Full-Year Review

Filings Remain High, Driven by an Uptick in Standard Cases
Median Settlement Value at Highest Recorded since 2012
Resolutions Have Slowed, Mostly from Fewer Settlements

By Janeen McIntosh and Svetlana Starykh

Insight in Economics™

Foreword

I am excited to share NERA's Recent Trends in Securities Class Action Litigation: 2019 Full-Year Review with you. This year's edition builds on work carried out over numerous years by many members of NERA's Securities and Finance Practice. In this year's report, we continue our analyses of trends in filings and settlements and present new analyses, such as our new quantification of Investor Losses and our new predicted-settlement model. Although space does not permit us to present all the analyses the authors have undertaken while working on this year's edition or to provide details on the statistical analysis of settlement amounts, we hope you will contact us if you want to learn more about our work related to securities litigation. On behalf of NERA's Securities and Finance Practice, I thank you for taking the time to review our work and hope you find it informative.

Dr. David Tabak
Managing Director

Recent Trends in Securities Class Action Litigation: 2019 Full-Year Review

Filings Remain High, Driven by an Uptick in Standard Cases
Median Settlement Value at Highest Recorded since 2012
Resolutions Have Slowed, Mostly from Fewer Settlements

By Janeen McIntosh and Svetlana Starykh[1]

12 February 2020

Introduction and Summary

In 2019, 433 federal securities class actions were filed, representing the third consecutive year with more than 400 filings.[2] Excluding the IPO laddering cases filed in 2001, filings between 2016 and 2019 have been the highest recorded since the passage of the Private Securities Litigation Reform Act (PSLRA) in 1995. Despite no change in the total number of cases filed between 2018 and 2019, there were differences in the underlying characteristics of these cases. Filings under Rule 10b-5, Section 11, and/or Section 12 in the Second Circuit increased by 39%, with 107 cases filed in 2019. Although merger-objection filings represented nearly 50% of cases filed in 2017 and 2018, in 2019, these filings declined, and there was an increase in cases alleging Rule 10-b, Section 11, and/or Section 12 violations, which were filed at the highest level recorded over the past 10 years. The proportion of filings against defendants in the health technology and services sector continued to decline in 2019, although this sector remains the most frequently targeted. Cases alleging missed earnings guidance spiked in 2019, with this allegation appearing in more than 30% of complaints filed, making it the single most common allegation.

The number of cases resolved in 2019 decreased from 2018, driven primarily by the lowest number of settled cases over the past 10 years. The average settlement value declined from an uptick in 2018, which was driven almost entirely by the $3 billion Petrobras mega-settlement. The median settlement value in 2019 was $12.8 million, the highest recorded since 2012 and approximately $1.3 million more than the 2018 inflation-adjusted value.

Aggregate NERA-defined Investor Losses for filed cases decreased from a record high of $929 billion in 2018 to $518 billion in 2019. This decrease was driven by a decline in cases with NERA-defined Investor Losses of $5 billion or more. At the same time, in 2019, aggregate NERA-defined Investor Losses for cases with losses of $5 billion or less was $173 billion, the highest recorded amount over the past 10 years.

Trends in Filings

Trend in Federal Cases Filed

Between 2015 and 2018, federal securities class action filings dramatically increased, reaching a high of 433 cases in 2018, nearly double the level observed in 2014.[3] In 2019, there was no change in new filings, with 433 securities class actions filed. This represents the third consecutive year with more than 400 cases filed, a higher level than has been recorded since 1996, with the exception of 2001, when 310 cases were filed related to IPO laddering allegations. See Figure 1.

Figure 1. **Federal Filings and Number of Companies Listed in the United States**
January 1996–December 2019
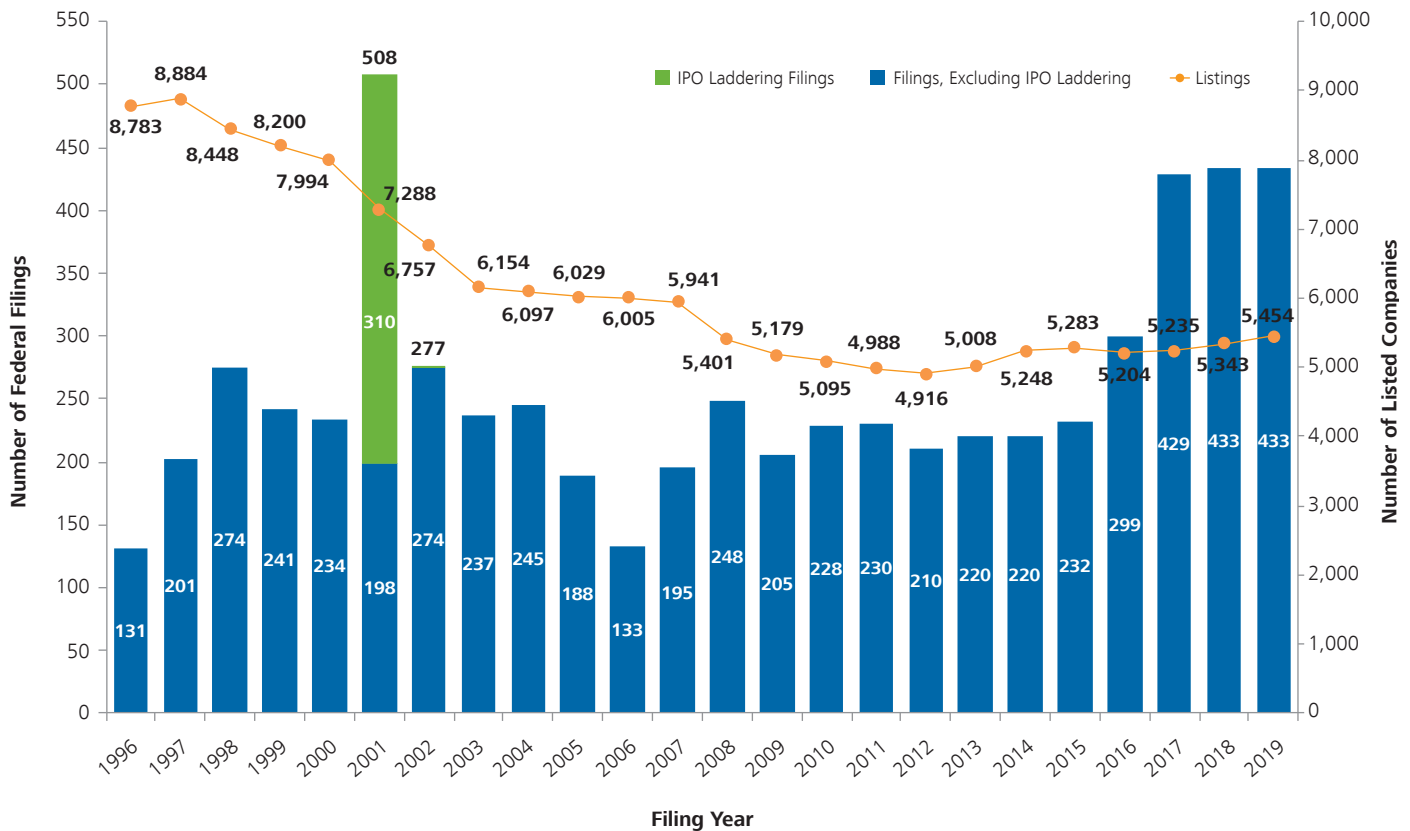
Note: Listed companies include those listed on the NYSE and Nasdaq. Listings data from 2016 through 2019 obtained from World Federation of Exchanges (WFE). Data for prior years were obtained from Meridian Securities Markets and WFE. The 2019 listings data are as of October 2019.

Similar to the pattern of new filings, the number of companies listed in the Unites States has grown in recent years, increasing 3% between 2015 and 2019. As of October 2019, there were 5,454 companies listed on the major US securities exchanges.[4] Although we see no significant change in the ratio of new filings to listed companies between 2017 or 2018 and 2019, the ratios in recent years are substantially higher than those earlier in the decade. These higher ratios are driven primarily by the increase in the new cases filed, although there has been slight variability in the number of listed companies from year to year. Since the 1995 implementation of the PSLRA, the

number of listed companies has declined considerably, falling by approximately 38% between 1996 and 2019. Securities class action filings, on the other hand, have more than doubled over the same period. Over the 20-year span ending in 2019, the ratio of filings to companies listed in the United States increased from 2.94% to 7.94%. This implies that the chance that a publicly listed company will face a securities class action case has more than doubled over the period while remaining relatively unchanged in the past few years.

Federal Filings by Circuit

Over the past five years, securities class action filings have been concentrated in the Second, Third, and Ninth circuits. Between January 2017 and December 2019, 74% of all securities class action cases (excluding merger-objections) have been filed in these three circuits, with more than 35% filed in the Second Circuit and 24% filed in the Ninth Circuit. In 2019, the number of cases filed in the Second Circuit was nearly double that in the Ninth Circuit, the circuit with the second highest number of cases. The Third Circuit includes Delaware, where a large number of companies are incorporated, and has continued to show a high number of filings, with 32 cases filed over the past 12 months. See Figure 2.

Figure 2. **Federal Filings by Circuit and Year**
Excludes Merger-Objections
January 2015–December 2019
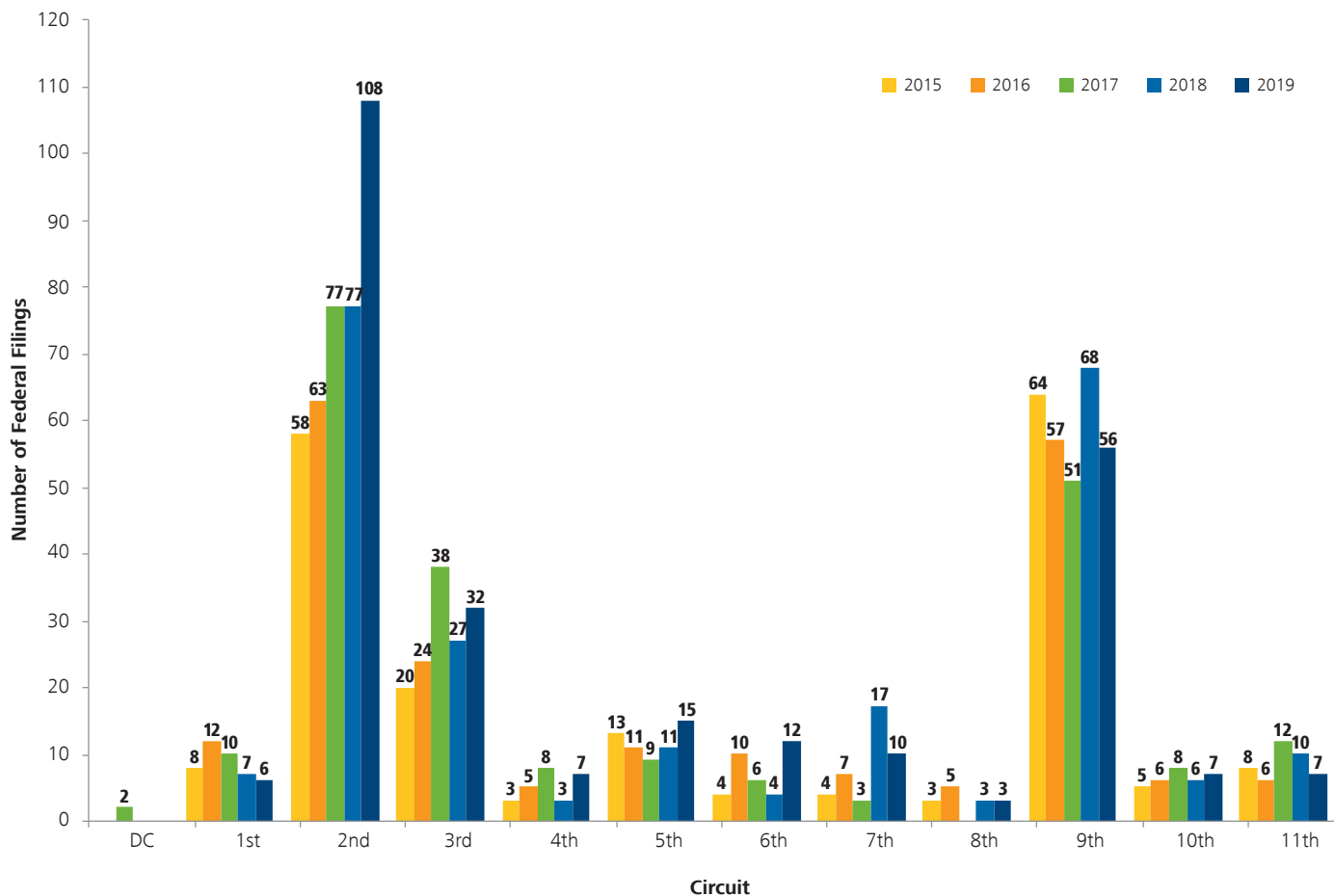
Federal Filings by Type

Although merger-objection filings represented the largest portion of filings by type in 2017 and 2018 (48% and 46%, respectively), in 2019, this pattern shifted as filings of merger-objection cases declined slightly and Rule 10b-5 filings increased by approximately 7% compared with 2018. Generally, Rule 10b-5, Section 11, and/or Section 12 cases (standard cases), increased in 2019 relative to the levels in the previous five years.[5] See Figure 3. This increase in standard cases occurred almost entirely in the Second Circuit, which includes New York. Standard cases filed in the Second Circuit rose from 77 in 2018 to 107 in 2019, a 39% increase.

Figure 3. **Federal Filings by Type**
January 2010–December 2019
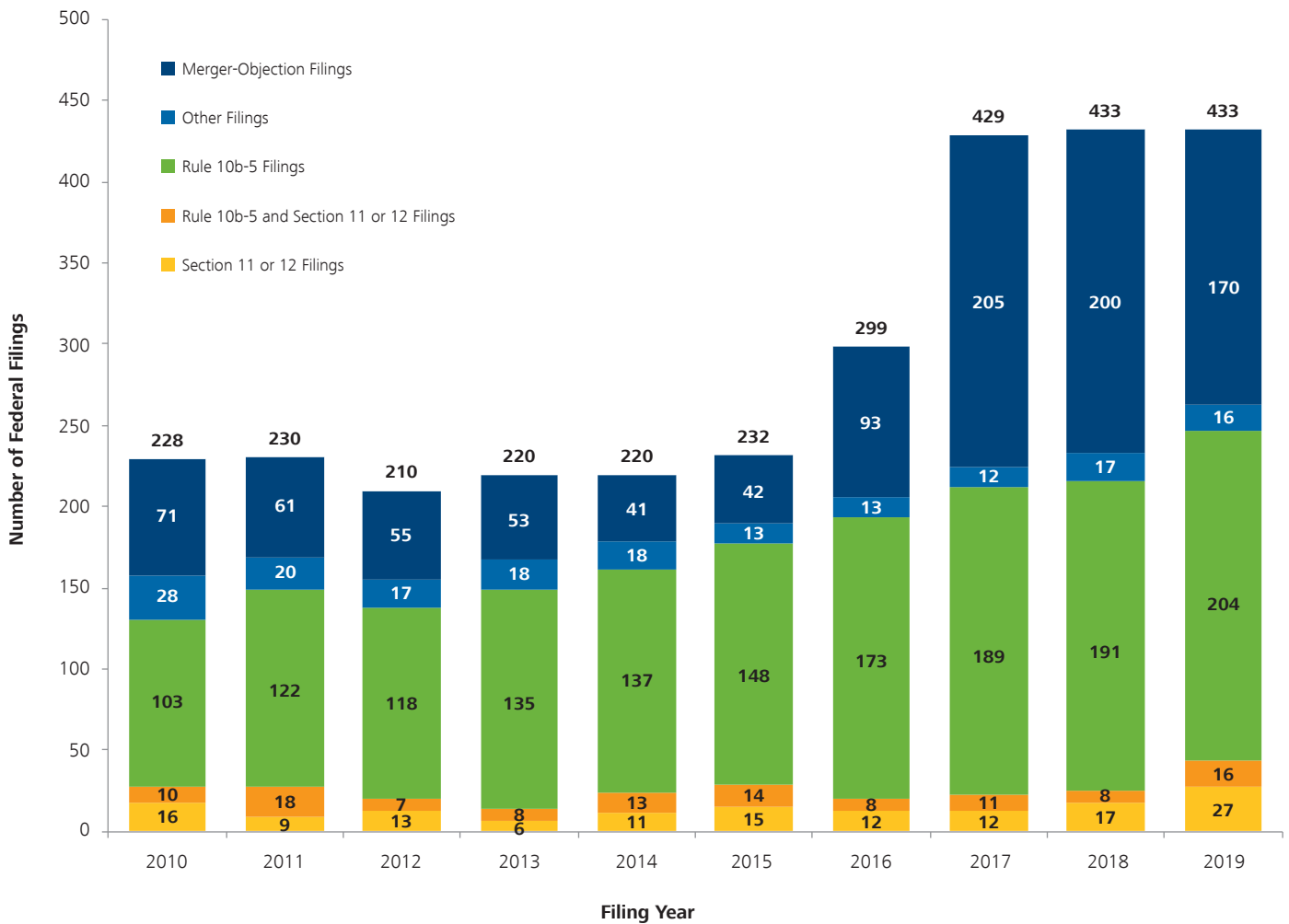
Section 11 securities class action filings increased by more than 80% from 23 in 2018 to 43 in 2019. In California, a state considered more favorable to plaintiffs, Section 11 filings in 2019 were more than double the number of filings in 2018, rising from 5 to 12. As in previous years, a substantial portion of these cases continue to be filed in New York, with approximately 35% of 2019 cases

alleging Section 11 violations filed in this jurisdiction. This is a decline from the proportion observed in prior years, specifically 2017 and 2018, when 48% of Section 11 cases were filed in New York. The reason for the decline is not just the increase in Section 11 cases filed in California but also the filing of these cases in states that have seen no filings in the prior two years. More than 15% of all Section 11 cases filed in 2019 were in Michigan, Oregon, Rhode Island, Texas, and Utah.

Federal Filings by Sector

Since 2015, the health technology and services sector has recorded the largest proportion of new cases filed in a single sector. In 2019, this pattern persisted with this sector accounting for 21% of the non-merger-objection cases filed. Between 2016 and 2018, there has been a steady decline in the proportion of annual filings against firms in the health technology and services sector. Cases filed in this sector declined in 2019 for the third year in a row, from a high of 34% in 2016 to 21% in 2019.

The electronic technology and technology services and the finance sectors continued to demonstrate substantial activity, and defendants in these sectors remain a steady target of filings. Firms in the consumer durables and nondurables and the commercial and industrial services sectors continue to be targeted less frequently, each accounting for 8% of filings in 2019. See Figure 4.

Figure 4. **Percentage of Federal Filings by Sector and Year**
Excludes Merger-Objections
January 2015–December 2019
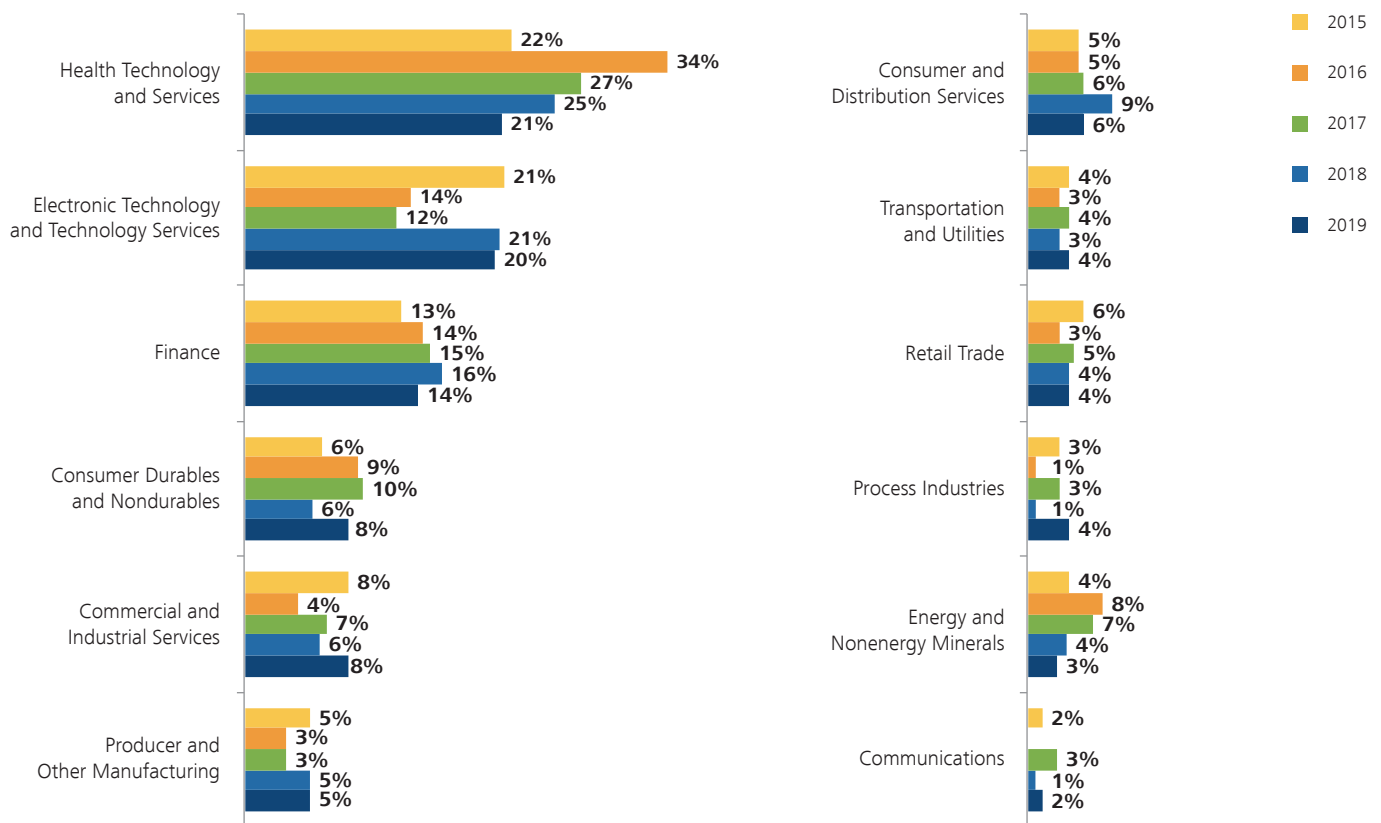
Note: This analysis is based on the FactSet Research Systems economic sector classification. Some of the FactSet economic sectors are combined for presentation.

Allegations

During 2015–2016, the most common type of allegation included in securities class action complaints was related to accounting issues, with more than 30% of cases including this type of allegation. In 2019, the relative mix of allegations shifted, with more cases including allegations of missed earnings guidance. More than 30% of complaints filed in 2019 included allegations of company-specific missed earnings guidance, compared with an average of 20% in the previous four years. Cases involving allegations related to the environment have remained low, representing less than 5% of filings in each of the past five years. Although allegations related to future performance and regulatory issues remain common, there have been no major changes in the respective proportion of cases including these claims. Allegations involving merger-integration issues have continued to show an upward trend, increasing from 8% of cases in 2018 to 11% in 2019.[6] See Figure 5.

Figure 5. **Allegations**

Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, and/or Section 12
January 2015–December 2019
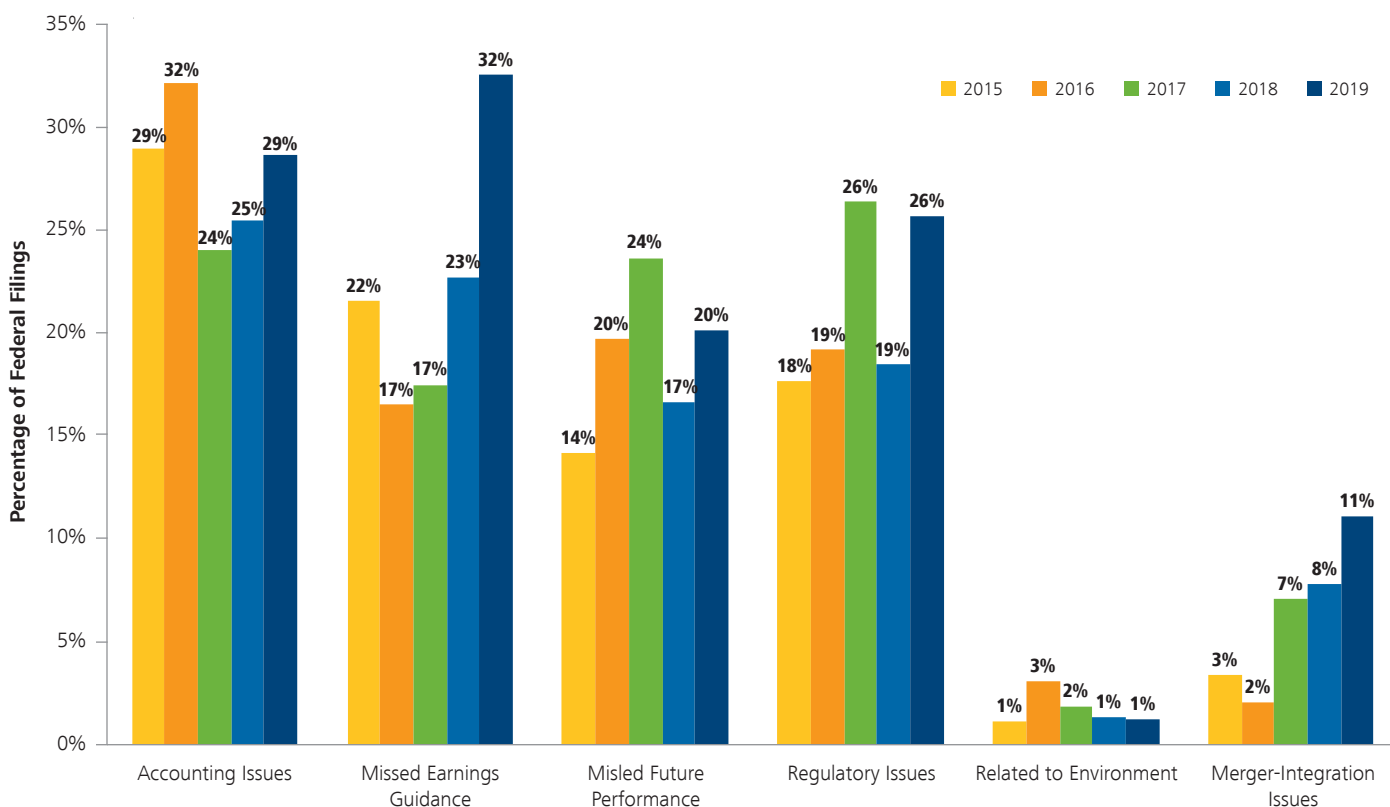
Recent Developments in Federal Filings

Despite the wave of event-driven litigation filings in 2018 related to the #MeToo movement and the opioid crisis, filings of these cases did not dominate 2019. In fact, very few of these cases were filed in 2019. There was, however, an increase in federal filings activity related to cyber security breach allegations.

- Between June and October 2019, three cases were filed against companies (FedEx Corporation, Capital One Financial Corporation, and Zendesk Inc.) alleging either that the company failed to disclose security breaches or that the company did not maintain robust information security systems.[7] This level of activity in six months is an increase from the three cases of this type filed over the 2017–2018 period.

In addition, there has been a new development: filings in the cannabis industry.

- Between July and December 2019, six cases were filed on behalf of investors in the cannabis industry alleging either (1) failure to disclose weak demand for the product or the expected decline in revenue and profits or (2) misrepresentations related to quality of the product, the status of inventory, or markup on biological assets.[8]

These developments in event-driven litigation and in the cannabis industry are areas to monitor in the upcoming months.

Table 1. **Event-Driven and Recent Development Activity Securities Class Actions**
January 2017–December 2019

Case Type	Defendant Name	Filing Date	Status	Circuit
Opioid crisis	Endo International PLC	18 Aug 17	Settled	3rd
Opioid crisis	Depomed, Inc.	18 Aug 17	Pending	9th
Opioid crisis	Alkermes PLC	22 Nov 17	Dismissed	2nd
Opioid crisis	Reckitt Benckiser Group PLC	15 Jul 19	Pending	3rd
#MeToo	BioSante Pharmaceuticals Inc.	03 Feb 19	Pending	7th
#MeToo	Signet Jewelers	28 Mar 17	Pending	5th
#MeToo	Ryb Education, Inc.	27 Nov 17	Dismissed	2nd
#MeToo	Wynn Resorts	20 Feb 18	Pending	2nd
#MeToo	National Beverage Corp.	17 Jul 18	Dismissed	11th
#MeToo	CBS Corporation	27 Aug 18	Pending	2nd
#MeToo	Papa John's International, Inc.	30 Aug 18	Pending	2nd
#MeToo	Teladoc Health, Inc.	12 Dec 18	Pending	2nd
Cyber security breach	Equifax Inc.	15 Sep 17	Pending	2nd
Cyber security breach	Chegg, Inc.	27 Sep 18	Dismissed	9th
Cyber security breach	Alphabet, Inc.	11 Oct 18	Pending	9th
Cyber security breach	FedEx Corporation	26 Jun 19	Pending	2nd
Cyber security breach	Capital One Financial Corp.	02 Oct 19	Pending	2nd
Cyber security breach	Zendesk, Inc.	24 Oct 19	Pending	9th
Cannabis companies	India Globalization Capital, Inc.	02 Nov 18	Pending	2nd
Cannabis companies	CannTrust Holdings Inc.	10 Jul 19	Pending	2nd
Cannabis companies	Sundial Growers Inc.	25 Sep 19	Pending	2nd
Cannabis companies	Canopy Growth Corporation	20 Nov 19	Pending	3rd
Cannabis companies	Aurora Cannabis Inc.	21 Nov 19	Pending	3rd
Cannabis companies	HEXO Corp.	26 Nov 19	Pending	2nd
Cannabis companies	Trulieve Cannabis Corp.	30 Dec 19	Pending	2nd

Trends in Case Resolutions

Number of Cases Settled or Dismissed

Resolutions declined in 2019, ending the three-year uptick in resolutions from 2016 through 2018.[9]
In total, 311 securities class action cases were resolved, an approximate 9% decrease from the
10-year high of 340 cases in 2018. Despite the decline, resolutions for 2019 remained higher than
during 2010–2016, when only 215 cases were resolved annually on average. Given the known time
lag between filing and resolution, it is no surprise that the increase in federal filings in the past few
years has not yet translated to a sustained higher level of resolutions.[10] See Figure 6.

Figure 6. **Number of Resolved Cases: Dismissed or Settled**
January 2010–December 2019
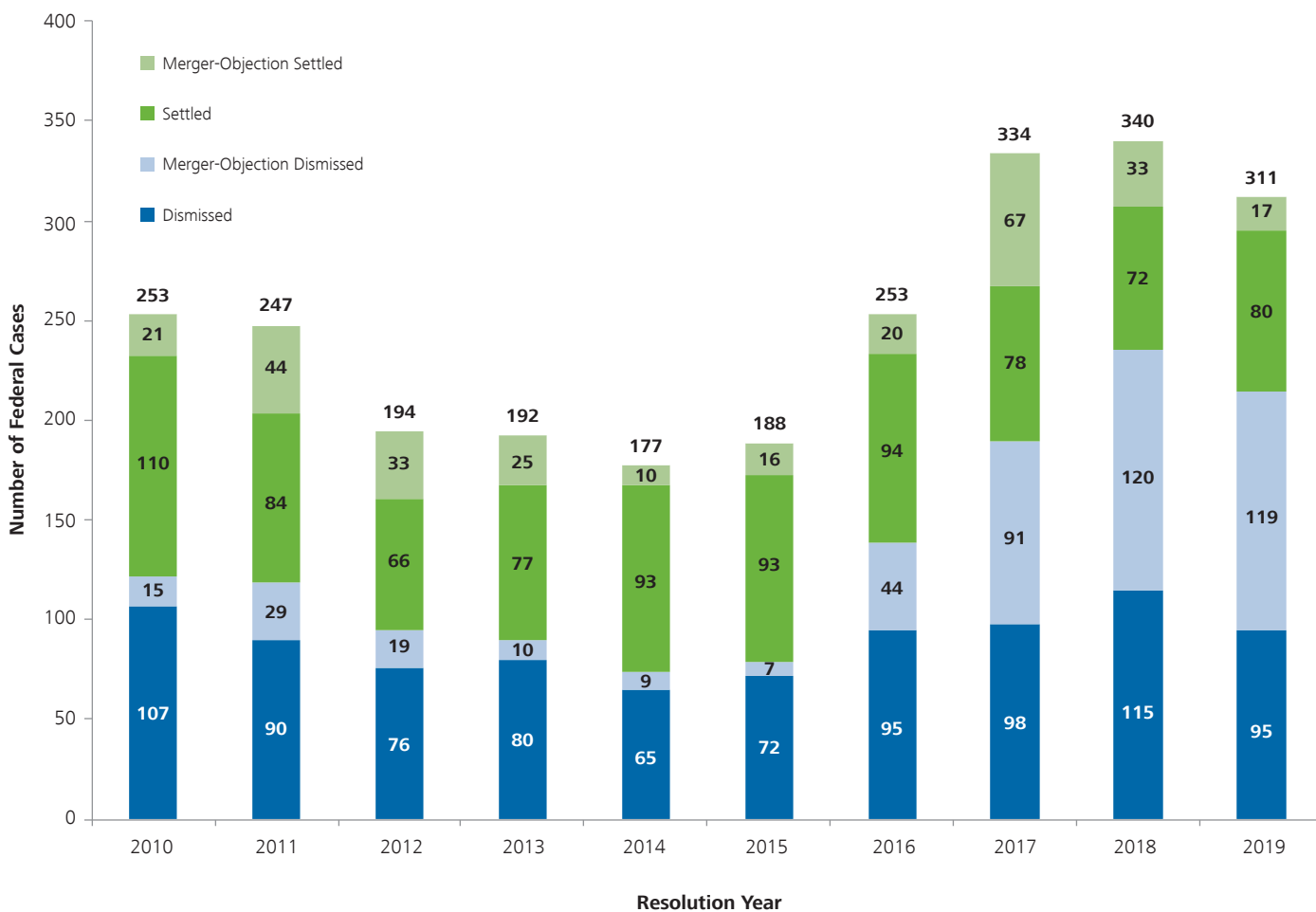
As has been the case since 2016, dismissals accounted for most of the case resolutions in the recent year.[11] In 2019, more than two-thirds of the cases resolved in favor of the defendant, with no payment made to plaintiffs. Although there was an increase in the number of cases dismissed in 2018, this pattern did not persist in 2019, with dismissals falling in between the 2017 and 2018 levels.

The overall decline in federal resolutions was driven primarily by the decline in the number of settled cases. For the first time since 2012, fewer than 100 cases were settled.

Although there was an overall decrease in settled cases, there was a slight increase in the number of cases alleging Rule 10b-5, Section 11, and/or Section 12 violations that settled in 2019. Settlements of these cases increased by 11%, and settlements of merger-objection cases declined by nearly 50%. This lower level of settlements for merger-objection cases occurred for the first time since 2015, when overall resolutions were fewer than 200 cases annually.

The decline in dismissals of 17% for standard cases was larger than the decline of 1% observed for merger-objection cases. However, the chance of a case resolving in favor of defendants remains higher regardless of the type of securities class action. In 2019, 88% of resolved merger-objection cases were dismissed, compared with 78% in the prior year. For standard cases, 54% of the cases in 2019 were resolved via dismissal, a decrease from the 61% resolved without payment in 2018.

Case Status by Filing Year

As of December 2019, the majority of resolved cases filed after 2015 were resolved in favor of the defendant. Between 2015 and 2017, more than 40% of cases filed each year were resolved by dismissal, and 20% to 42% of cases filed were still unresolved or pending. For the more recent filings—cases filed in 2018—more than 74% of filings remain pending, with 22% dismissed and only 3% settled. It is likely that a larger proportion of the pending cases will result in a positive settlement because settlements typically occur in the latter phases of the litigation, whereas motions for summary judgment or dismissal typically occur in the earlier stages. This theory is supported by looking at the change in the status of resolutions for cases filed between 2010 and 2018 using data as of December 2018 and data as of December 2019.[12] For cases filed before 2016, the proportion resolved via dismissal has changed minimally between the December 2018 and December 2019 snapshots, while the proportion of settled cases has increased.[13] See Figure 7 for the December 2019 snapshot. The more substantial increase in the proportion of cases filed in 2017 and later that were dismissed supports the notion that a larger proportion of dismissed cases than settled cases are resolved within two years of filing.

Figure 7. **Status of Cases as a Percentage of Federal Filings by Filing Year**
Excludes Merger-Objections and Verdicts
January 2010–December 2019
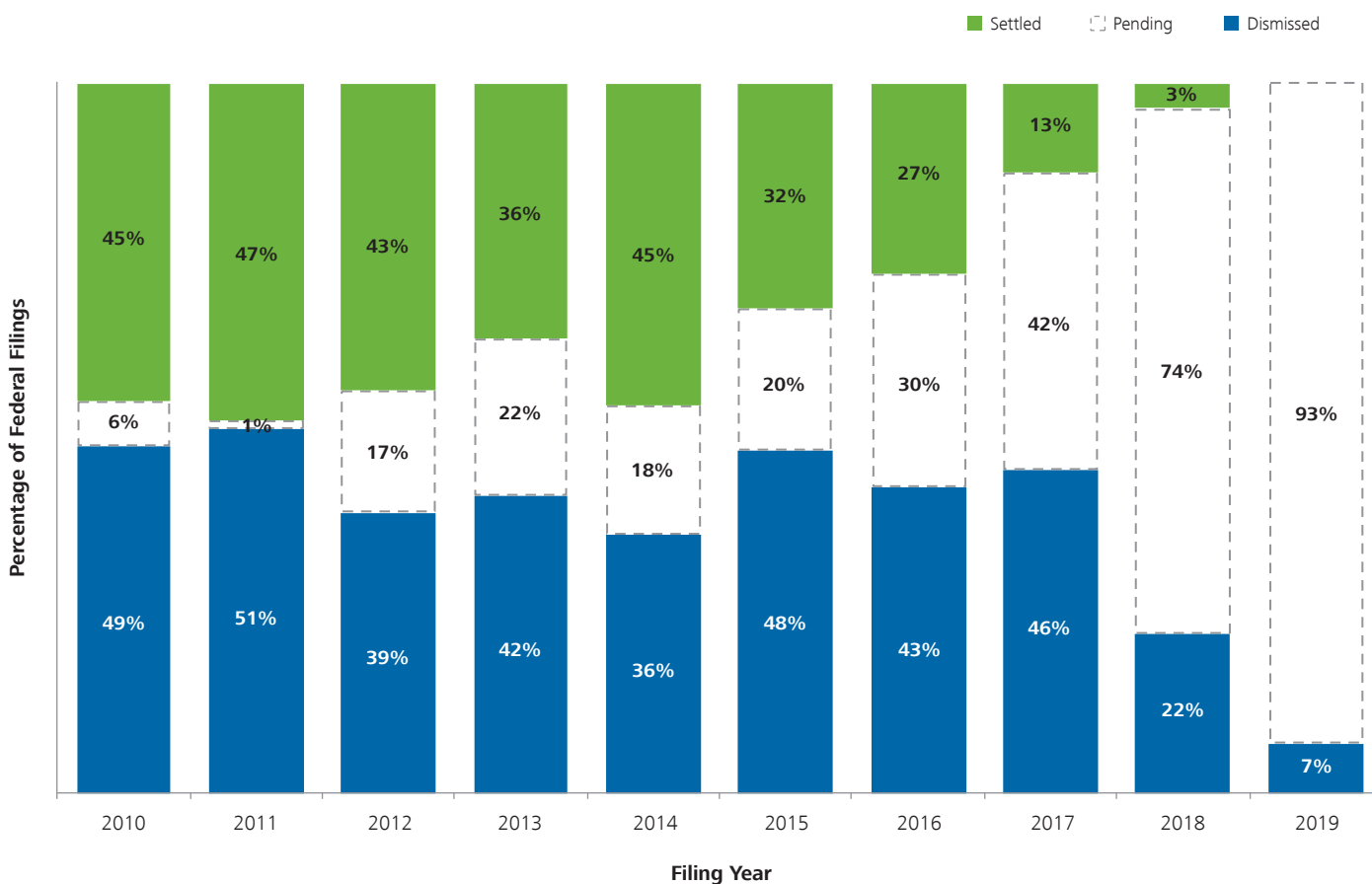
Time from First Complaint Filing to Resolution

A review of the time between the filing of the first complaint and resolution for each case filed between 1 January 2001 and 31 December 2015 reveals that approximately 80% of cases resolve within four years.[14] In the first four years, the distribution of resolution is far from steady, with 14% of the cases resolved in less than one year, 28% of cases resolved between one and two years, and 23% of cases resolved between two and three years. See Figure 8.

Figure 8. **Time from First Complaint Filing to Resolution**
Cases Filed January 2001–December 2015
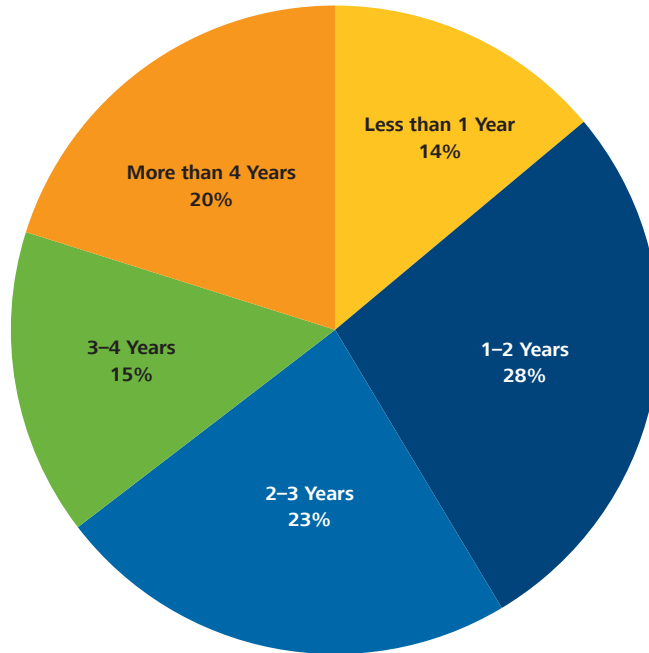
Based on the proportions observed in the pre-2016 filings, we would anticipate that as of 2019, approximately 65% of all non-merger-objection cases filed in 2016 would be resolved. This is in line with the actual status distribution of cases by file year shown in Figure 7. Of the 2016 filings, approximately 70% have already been resolved.

Trends in Settlement Values

Average and Median Settlement Value

To evaluate trends in settlement values, we present two alternative measures: the average settlement amount and the median settlement amount.[15] The average settlement value for non-merger-objection cases resolved in 2019 was $30 million, the second lowest average for the decade. Although slightly higher than the 2017 average settlement value, the average for 2019 was more than 50% lower than the average value in 2018. See Figure 9.

Figure 9. **Average Settlement Value**
Excludes Merger-Objections and Settlements for $0 to the Class
January 2010–December 2019
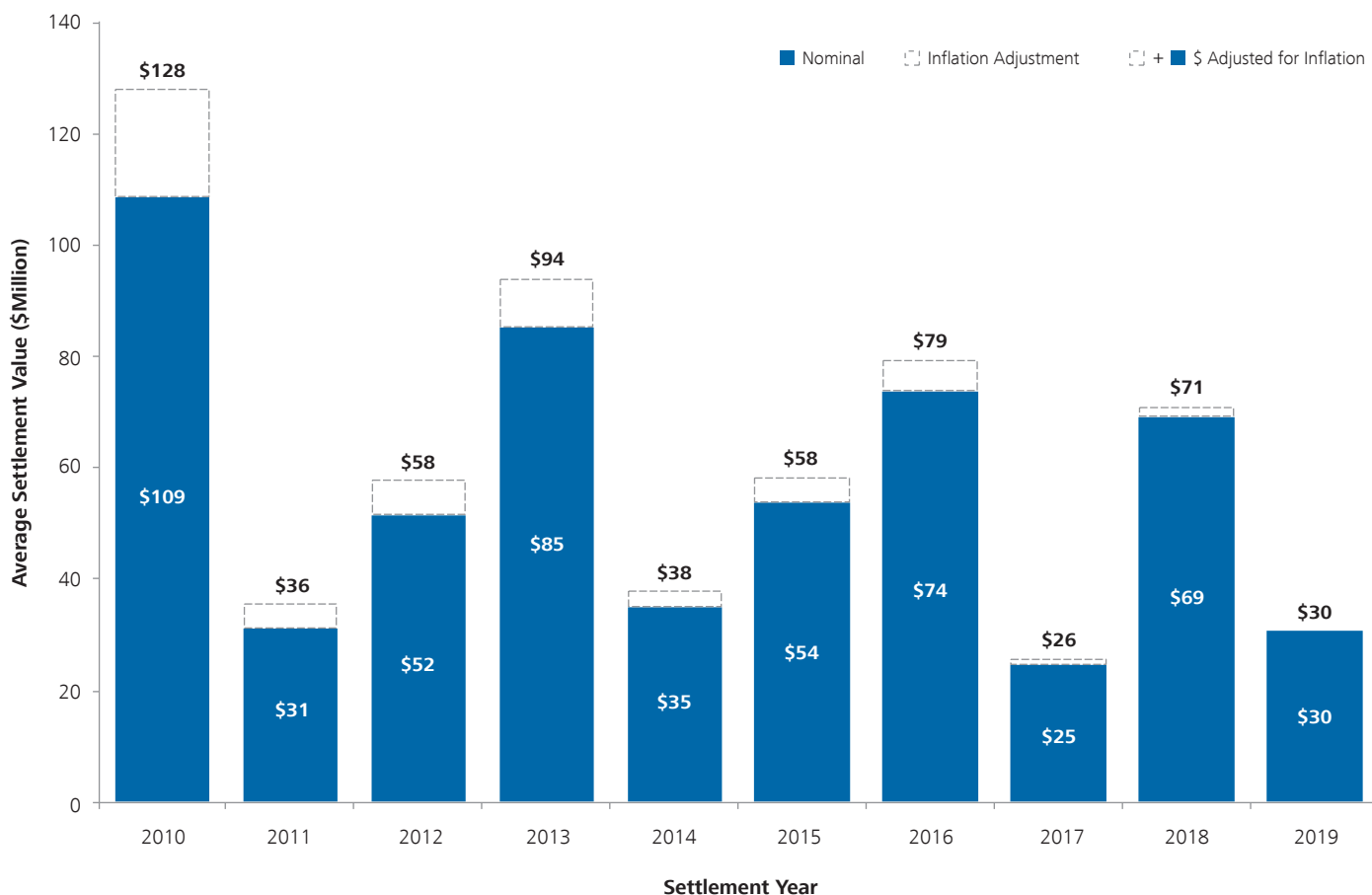
This drop-off in the average settlement value was influenced by the absence of a "outlier" or mega-settlement in 2019 of similar magnitude to the Petrobras $3 billion settlement in 2018.[16] Historically, there has been wide variation in the annual average settlement value for securities class action cases. Over the past 10 years, the average value for non-merger-objection cases after adjusting for inflation has ranged from a high of $128 million to a low of $26 million.

These swings in the average settlement value are often driven by a few larger outlier settlements. As a proxy to measure such outlier settlements, we evaluated the average settlement values excluding individual case settlements above $1 billion. Once these settlements are removed, the average settlement value for 2019 of $30 million is in line with the 2018 average of $30 million, but lower than the average over the 2015–2016 period. In addition, the average settlement values after adjusting for inflation from 2010 to 2019 are far less variable, with a range of $26 million to $60 million. See Figure 10.

Figure 10. **Average Settlement Value**
Excludes Settlements over $1 Billion, Merger-Objections, and Settlements for $0 to the Class
January 2010–December 2019
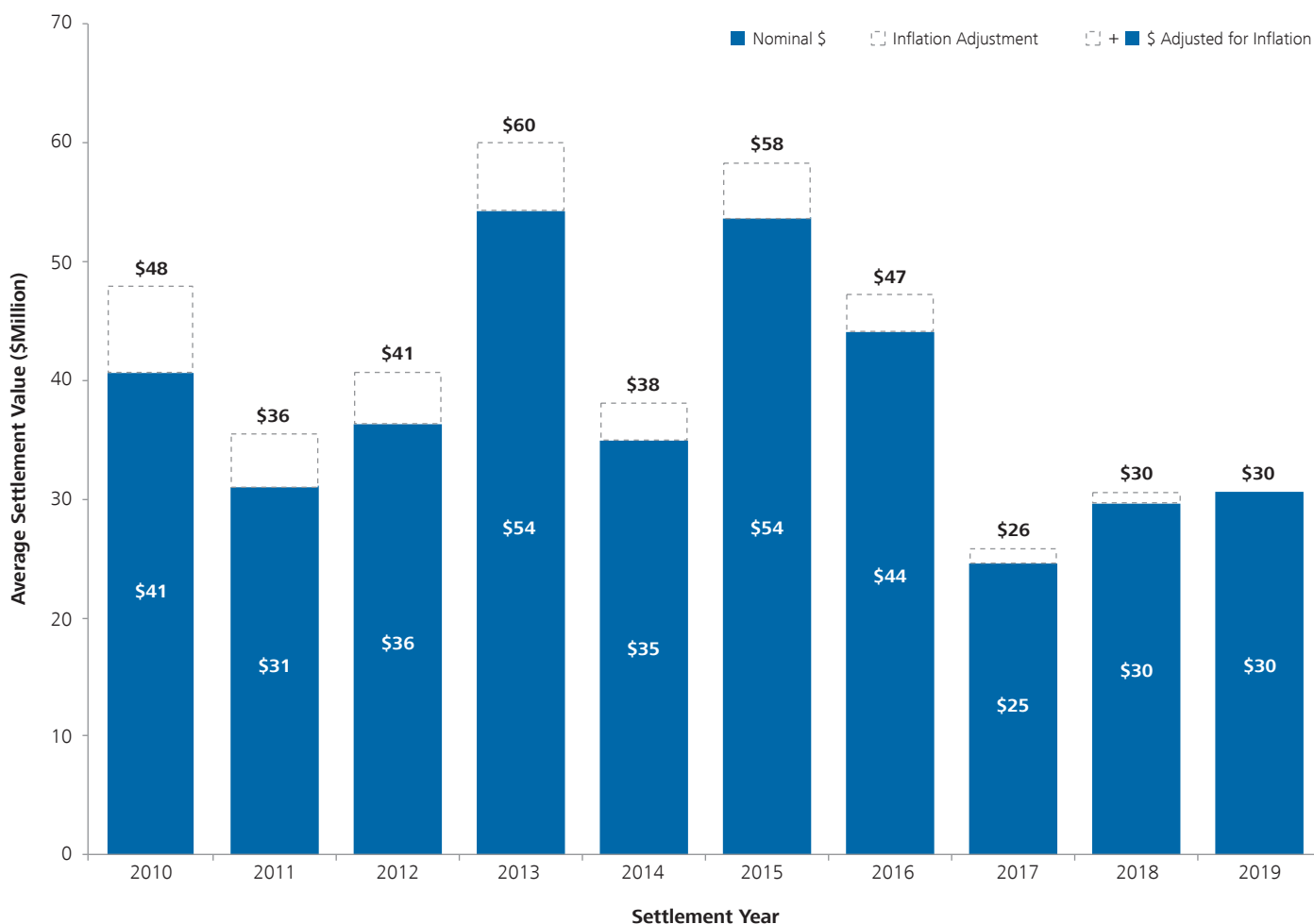
An evaluation of the annual median settlement values over the past decade reveals a different trend. The median value for 2019 was $12.8 million, the highest median value since 2012 after adjusting for inflation. This is an indication that more cases have been settling for higher values in recent years than was the case between 2013 and 2017. In fact, the median settlement for 2018 and 2019 is more than 25% higher than the median values in the previous three years. See Figure 11.

This pattern of increasing median settlement values, combined with the pattern in average settlement values, shows that the high average settlement values in the earlier years were driven by a few outlier high settlements and not higher settlement values in general. In fact, the annual median settlements in 2017, 2018, and 2019 show that the individual settlement values have shifted slightly upward and are not declining, as suggested by the average settlement value. This is further evidenced by the change in the distribution of settlements over the past five years. In 2018 and 2019, there was an uptick in settlements values, with more than 40% of cases having settled for between $10 million and $49.9 million. This is a 50% increase in this settlement value range compared with the prior two-year period. In addition, this increase has been accompanied by a general downward trend in the proportion of cases settled for less than $10 million. Between 2015 and 2019, the proportion of cases settled for less than $10 million declined from 58% to 41%.

Figure 11. **Median Settlement Value**
Excludes Settlements over $1 Billion, Merger-Objections, and Settlements for $0 to the Class
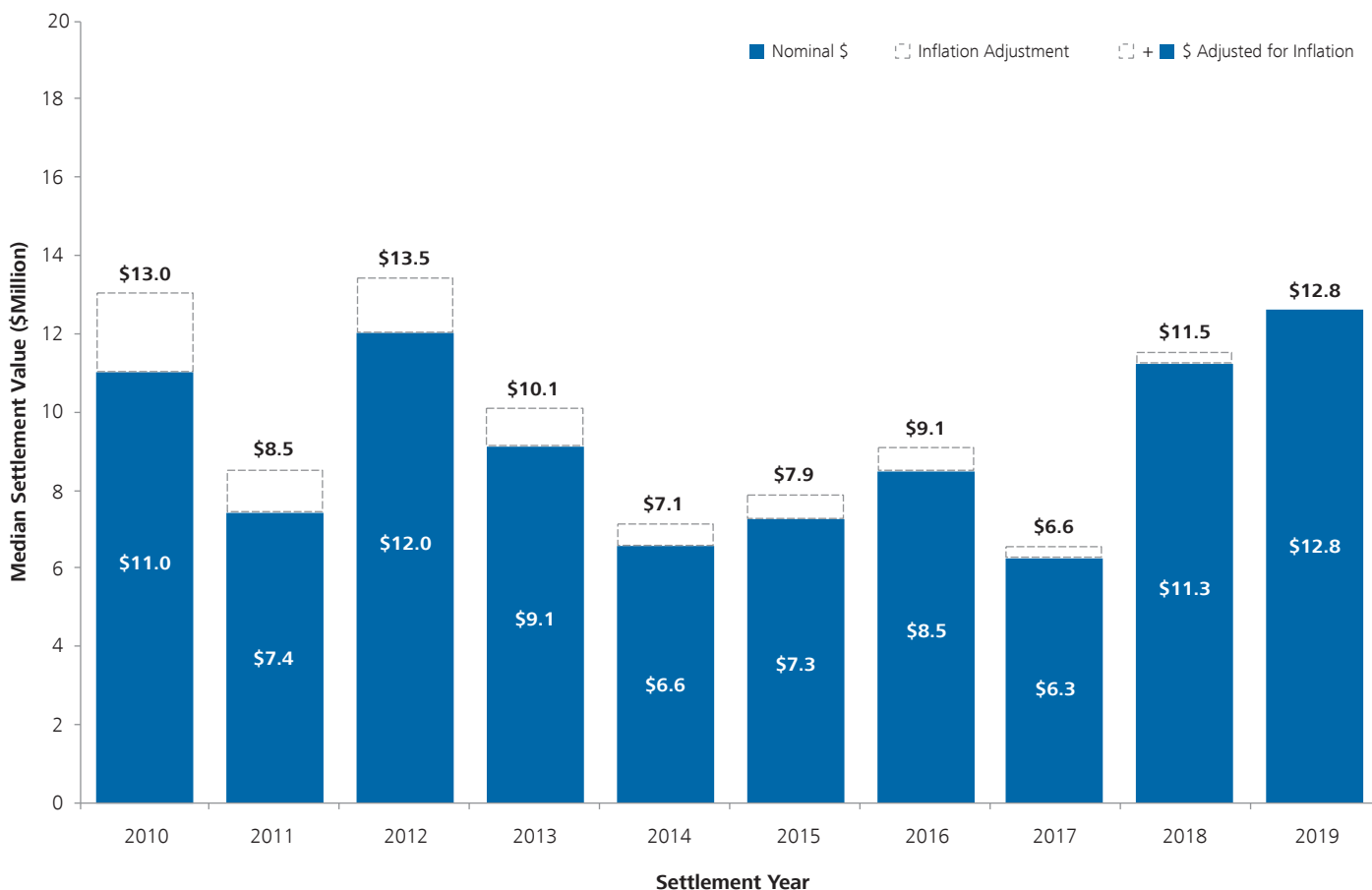January 2010–December 2019

Top Settlements for 2019

Between 1 January 2019 and 31 December 2019, two cases settled for $250 million or more. The top settlement for the year came from a case against Cobalt International Energy with allegations including violations of the Foreign Corrupt Practices Act. See Table 2.

Table 2. **Top 10 2019 Securities Class Action Settlements**

Rank	Defendant	Filing Date	Settlement Date	Total Settlement Value ($Million)	Plaintiffs' Attorneys' Fees and Expenses ($Million)	Circuit	Economic Sector
1	Cobalt International Energy, Inc.	30 Nov 14	13 Feb 19	$398.6	$112.4	5th	Energy minerals
2	Alibaba Group Holding Limited	30 Jan 15	16 Oct 19	$250.0	$11.3	2nd	Retail trade
3	Wal-Mart Stores, Inc.	07 May 12	08 Apr 19	$160.0	$48.6	8th	Retail trade
4	SunEdison, Inc.	04 Apr 16	25 Oct 19	$147.9	$36.0	2nd	Utilities
5	Fiat Chrysler Automobiles N.V.	11 Sep 15	05 Sep 19	$110.0	$35.8	2nd	Consumer durables
6	Orbital ATK, Inc.	12 Aug 16	07 Jun 19	$108.0	$31.5	4th	Electronic technology
7	Endo International plc	18 Aug 17	11 Dec 19	$82.5	$17.8	3rd	Health technology
8	The Bank of New York Mellon ADR FX	11 Jan 16	17 Jun 19	$72.5	$23.5	2nd	Finance
9	Heartware International, Inc.	22 Jan 16	12 Apr 19	$54.5	$13.3	2nd	Health technology
10	SanDisk Corporation (n/k/a SanDisk LLC)	30 Mar 15	26 Apr 19	$50.0	$15.0	9th	Electronic technology
	Total:			**$1,434.0**	**$345.2**		

Five of the top 10 2019 settlements were filed in the Second Circuit, specifically New York State, and were resolved three to five years after the initial complaint was filed. For the top settlements, the length of time between filing and settlement was between 2 and 7 years, with an average of 4 years. These cases were dispersed among economic sectors, with the majority filed against defendants in the retail trade, electronic technology, and heath technology sectors.

Given the absence of mega-settlements in 2019, the top 10 settlements since the passage of PSLRA remains unchanged from 2018, when the Petrobras settlement entered as the fifth highest settlement. See Table 3.

Table 3. **Top 10 Federal Securities Class Action Settlements**
As of 31 December 2019

Rank	Defendant	Filing Date	Settlement Year(s)	Codefendant Settlements			Plaintiffs' Attorneys' Fees and Expenses ($Million)	Circuit	Economic Sector
				Total Settlement Value ($Million)	Financial Institutions Value ($Million)	Accounting Firm Value ($Million)			
1	ENRON Corp.	22 Oct 01	2003–2010	$7,242	$6,903	$73	$798	5th	Industrial services
2	WorldCom, Inc.	30 Apr 02	2004–2005	$6,196	$6,004	$103	$530	2nd	Communications
3	Cendant Corp.	16 Apr 98	2000	$3,692	$342	$467	$324	3rd	Finance
4	Tyco International, Ltd.	23 Aug 02	2007	$3,200	No codefendant	$225	$493	1st	Producer mfg.
5	Petroleo Brasileiro S.A. - Petrobras	08 Dec 14	2018	$3,000	$0	$50	$205	2nd	Energy minerals
6	AOL Time Warner Inc.	18 Jul 02	2006	$2,650	No codefendant	$100	$151	2nd	Consumer services
7	Bank of America Corp.	21 Jan 09	2013	$2,425	No codefendant	No codefendant	$177	2nd	Finance
8	Household International, Inc.	19 Aug 02	2006–2016	$1,577	Dismissed	Dismissed	$427	7th	Finance
9	Nortel Networks	02 Mar 01	2006	$1,143	No codefendant	$0	$94	2nd	Electronic technology
10	Royal Ahold, NV	25 Feb 03	2006	$1,100	$0	$0	$170	2nd	Retail trade
	Total:			**$32,224**	**$13,249**	**$1,017**	**$3,368**		

Similar to the top 10 2019 settlements, many of the all-time top 10 settlements were filed in New York courts (50% of the cases). The most frequently appearing economic sector was finance, with 3 of the top 10 settlements involving defendants in this sector.

NERA-Defined Investor Losses

NERA-defined Investor Losses is a proprietary variable used as a proxy to measure the aggregate loss to investors from the purchase of a defendant's stock using publicly available data. Investor Losses are calculated based on the loss assuming an investor had alternatively purchased stock that performed similar to the S&P 500 index during the class period. NERA has examined more than 1,000 settlements and found that this variable is the most powerful predictor of settlement amount. Although losses are highly correlated with settlement values, we have found that the settlements increase at a slower rate.[17]

Based on our review of settlements between 1996 and 2019, we find that the ratio of the actual settlement amount to Investor Losses is higher for cases with lower estimated Investor Losses than for cases with higher estimated Investor Losses. For example, the median ratio of settlement amount to Investor Losses for cases with NERA-defined Investor Losses less than $20 million is 19.4%, declining to 8% for cases with Investor Losses between $20 million and $49 million and even further to 4.7% for cases with Investor Losses between $50 million and $99 million. For cases with Investor Losses more than $5 billion, the ratio is less than 1%.

Aggregate Investor Losses for Filed Cases

Aggregate NERA-defined Investor Losses declined in 2019 from the high level recorded for 2018. Investor Losses for 2019 totaled $518 billion, a 44% decline from the $929 billion for 2018 but above the 2016 value of $421 billion. See Figure 12. Although there was an increase in filings in 2017, aggregate Investor Losses showed no growth and actually declined from the level estimated for filings in 2016. For 2019, the outcome was different—the uptick in the number of standard cases filed in 2019 translated to increased aggregate Investor Losses. As illustrated in Figure 12, within the Investor Loss bins the pattern across years varies. For cases with Investor Losses less than $5 billion, the aggregate amount is higher than in any of the prior 10 years. For cases with estimated Investor Losses in the mid-range, the 2019 aggregate amounts are well within the historical range.

Figure 12. **Aggregate NERA-Defined Investor Losses**
Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, and/or Section 12
January 2010–December 2019
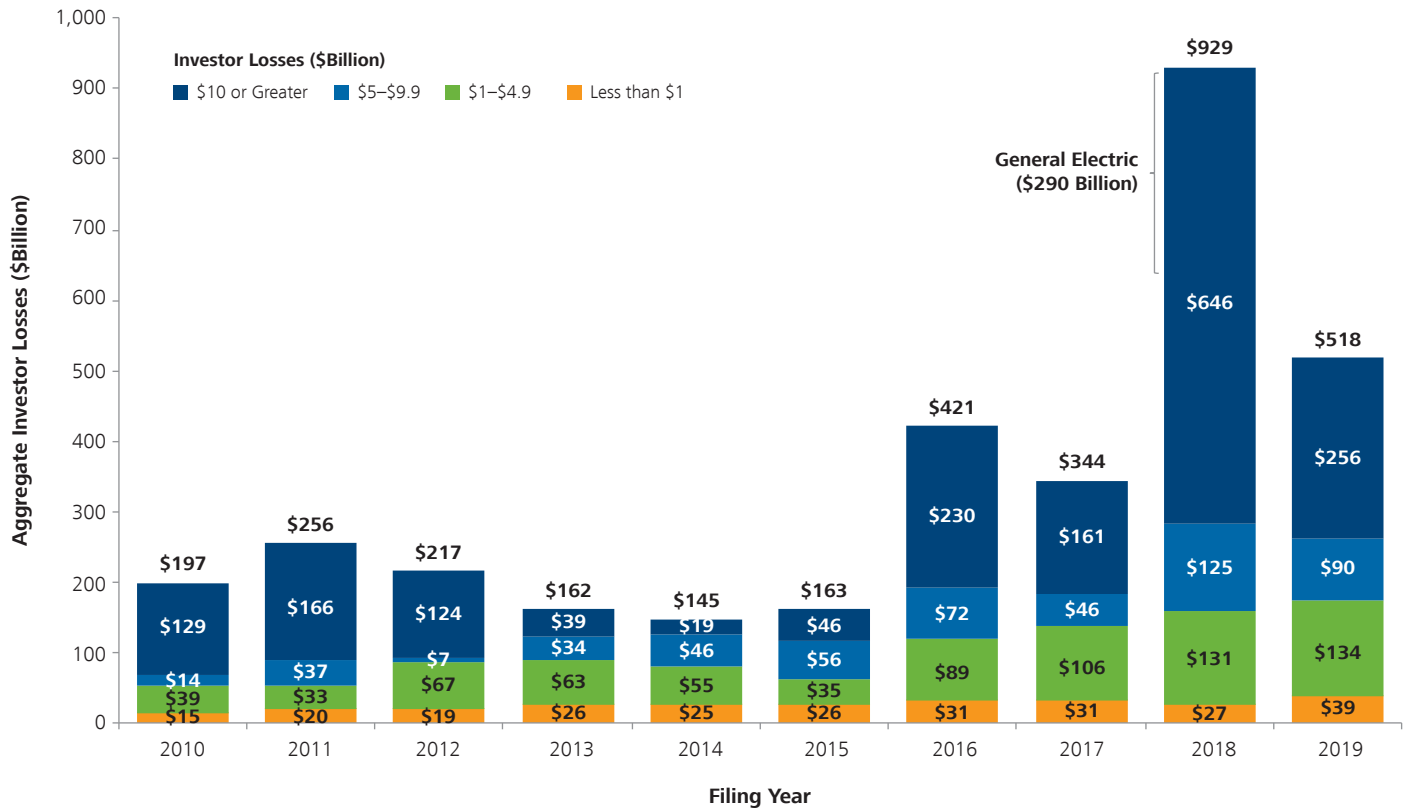
The distribution of cases across the four Investor Losses bins shifted in 2019 from the distribution observed in 2018, but was relatively in line with the 2017 mix. In 2019, 58% of the cases have estimated Investor Losses below $1 billion, compared with 50% in 2018. The proportion of cases represented in the $5 billion or more bin was 11% in 2019, 9 percentage points lower than the proportion for that group in 2018. This decline is one of the underlying drivers for the decrease in aggregate Investor Losses between 2018 and 2019.

Median Investor Losses and Median Ratio of Actual Settlement to Investor Losses

For cases settled after 2014, there have been only slight fluctuations in the median Investor Losses, with the exception of 2017, when the median Investor Losses dipped to $299 million. The median NERA-defined Investor Losses for cases settled in 2019 was $472 million, less than 2% lower than the median for 2018. See Figure 13.

Figure 13. **Median NERA-Defined Investor Losses and Median Ratio of Settlement to Investor Losses by Settlement Year**
January 2010–December 2019
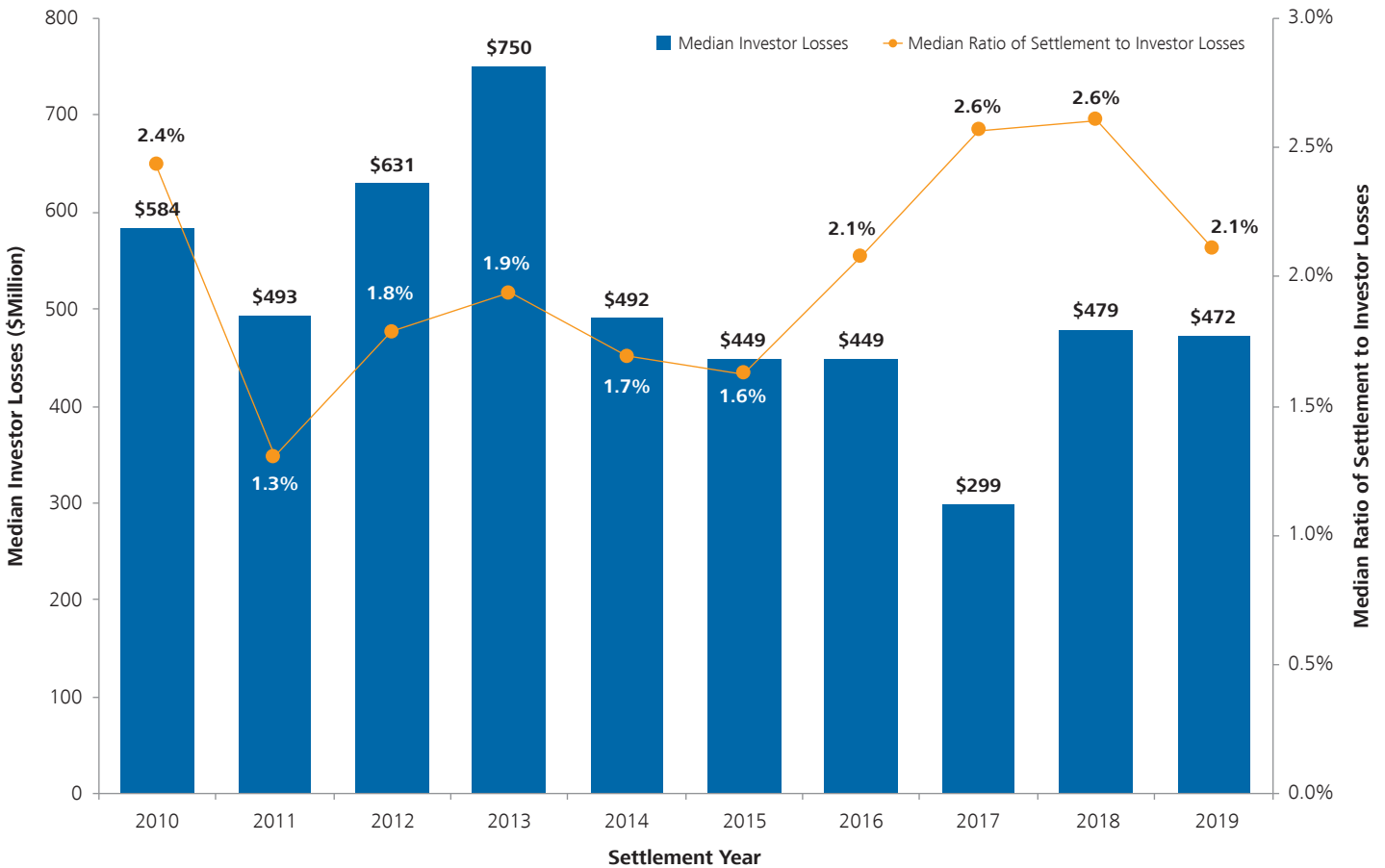
Between 2015 and 2018, the median ratio of settlements to Investor Losses steadily increased from 1.6% in 2015 to 2.6% in 2018. In 2019, this ratio declined to 2.1%, lower than 2017 and 2018 but higher than all other years after 2010.

Predicted Settlement Values

In addition to Investor Losses, NERA identified several other key factors that drive settlement amounts. These factors, when combined with Investor Losses, account for a substantial proportion of the variation observed in actual settlements in our database. For this year's report, we prepared an alternative measure of Investor Losses (alternative Investor Losses). This model calculates investor losses as the recognized claim based on the plan of allocation for the settlement of a securities class action before application of the bounce-back limitation of the PSLRA.

Using the original and alternative measures of Investor Losses in the predicted model, some of the factors that influence settlement values are:

- NERA-defined Investor Losses (a proxy for the size of the case);
- The market capitalization of the issuer immediately after the end of the class period;
- The types of securities, in addition to common stock, alleged to have been affected by the fraud;
- Variables that serve as a proxy for the merit of plaintiffs' allegations (such as whether the company has already been sanctioned by a governmental or regulatory agency or paid a fine in connection with the allegations);
- The stage of the litigation at the time of settlement; and
- Whether an institution or public pension fund is lead or named plaintiff.

For the model that incorporates the alternative measure of NERA-defined Investor Losses in predicting settlement amount, there were two more factors identified as driving settlement value:

- The existence of a parallel derivative litigation, and
- The economic sector of the defendant.

As shown in Figures 14 and 15, these factors account for a substantial amount of the variation that exists in settlement amounts for cases settled between December 2011 and December 2019.[18]

Figure 14. **Predicted vs. Actual Settlements**
Investor Losses Using S&P 500 Index

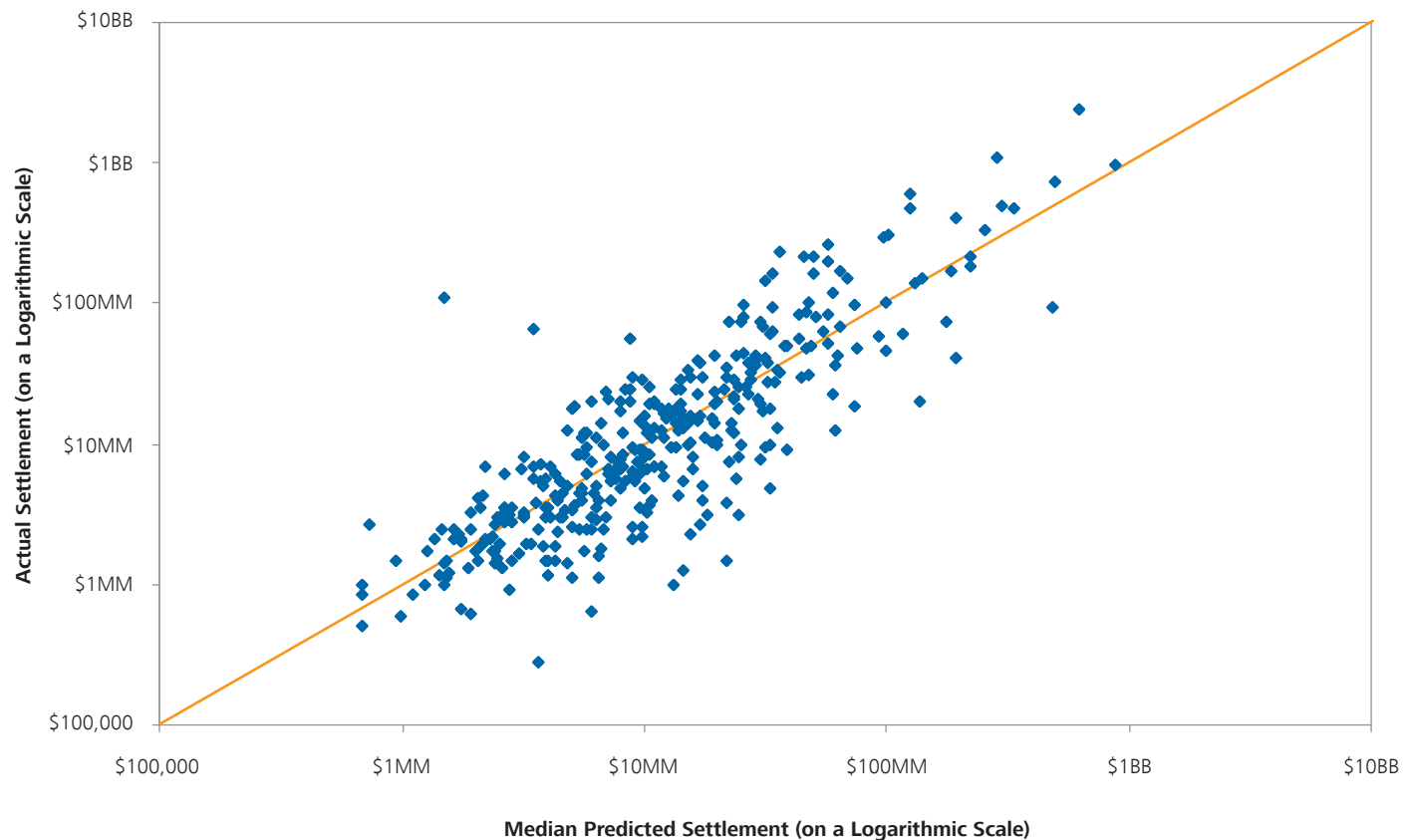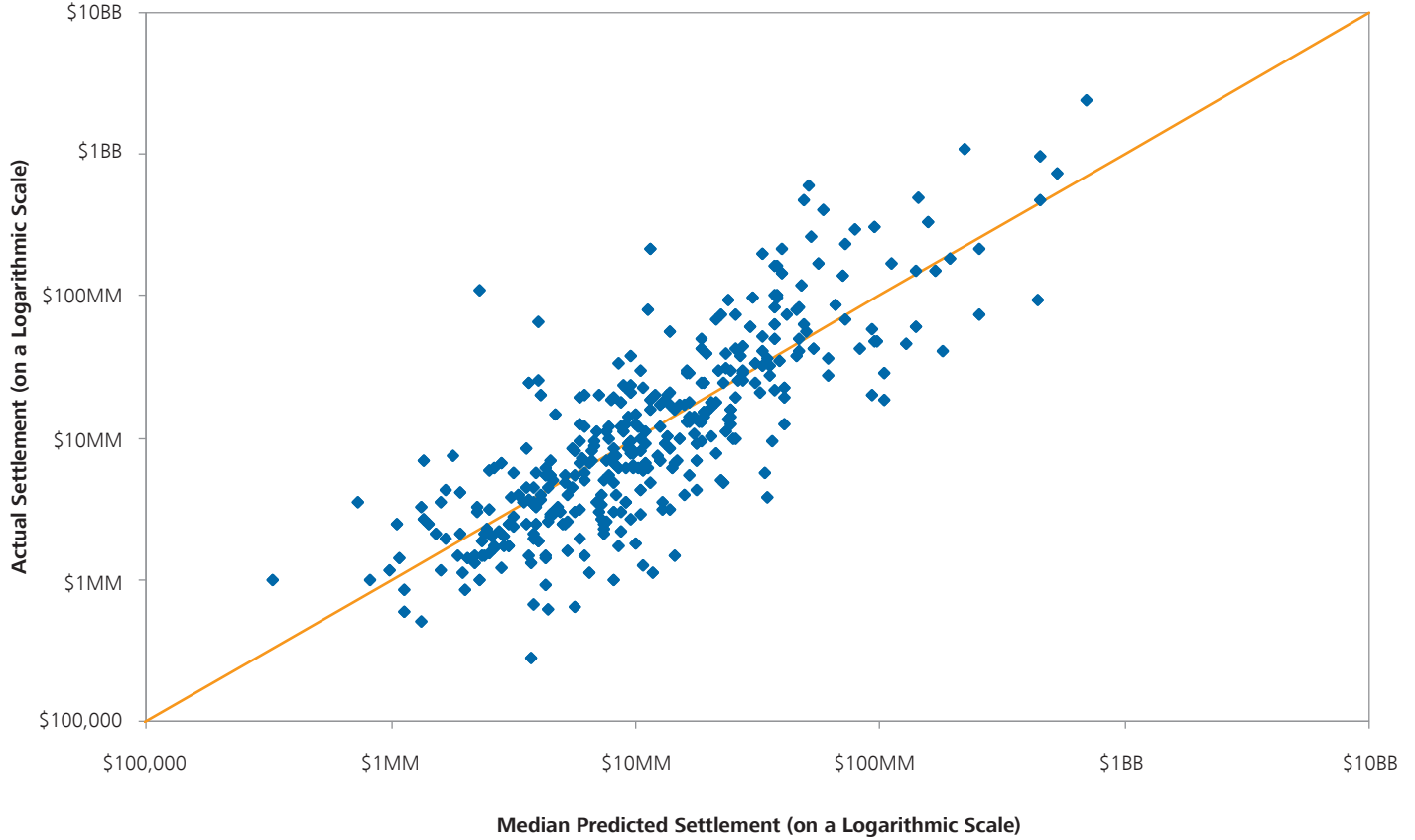**Median Predicted Settlement (on a Logarithmic Scale)**

Figure 14 uses the original Investor Losses measure and, as shown in the scatterplot, there is significant correlation between the median predicted settlement and actual settlement values.

Figure 15. **Predicted vs. Actual Settlements**
Investor Losses Based on Plan of Allocation

The median predicted value and the actual settlement amount are also highly correlated when using the prediction model that incorporates the alternative measure of investor losses.

Trends in Plaintiffs' Attorneys' Fees and Expenses

Typically, plaintiffs' attorneys receive compensation for fees and expenses as part of a settlement.[19] These attorneys' fees are often determined as a percentage of any settlement amount, and expenses are any out-of-pocket costs incurred related to work on the case.

Aggregate plaintiffs' attorneys' fees and expenses for 2019 were $612 million, falling by almost 50% from the 2018 level. This decline is attributable to two main factors. First, the absence of a mega-settlement in 2019 led to a lower aggregate settlement level for the year. Because attorneys' remuneration is a function of settlement amount, lower aggregate settlements will lead to lower fees and expenses. In 2018, payments to plaintiffs' attorneys related to a mega-settlement accounted for $205 million of the total $1,202 million for that year. Second, the aggregate payments to plaintiffs' attorneys' related to settlements between $10 million and $100 million was significantly lower in 2019 than in 2018. On the other hand, fees and expenses related to settlements less than $10 million and between $100 million and $500 million increased slightly. See Figure 16.
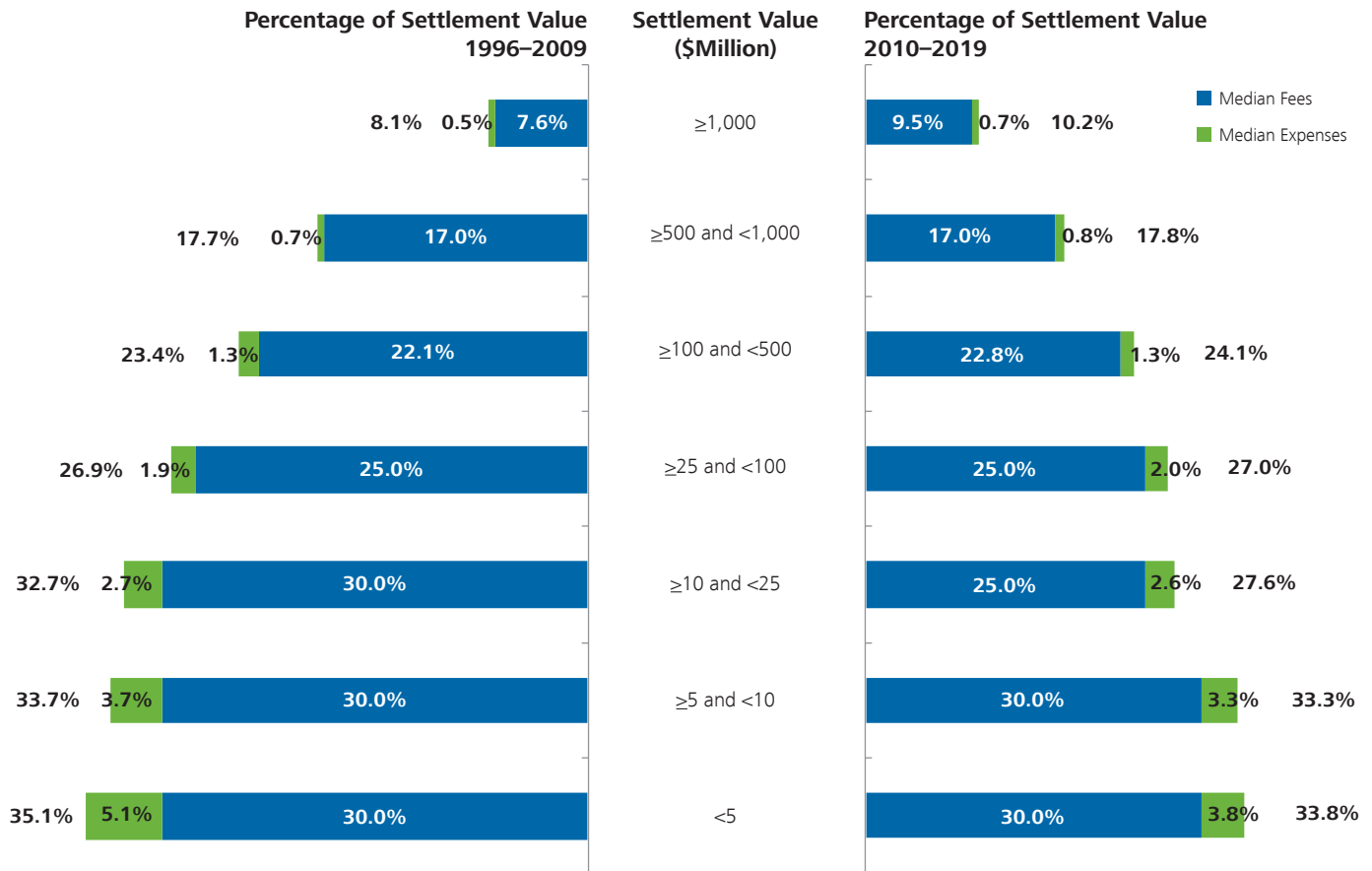
Figure 16. **Aggregate Plaintiffs' Attorneys' Fees and Expenses by Settlement Size**
January 2010–December 2019
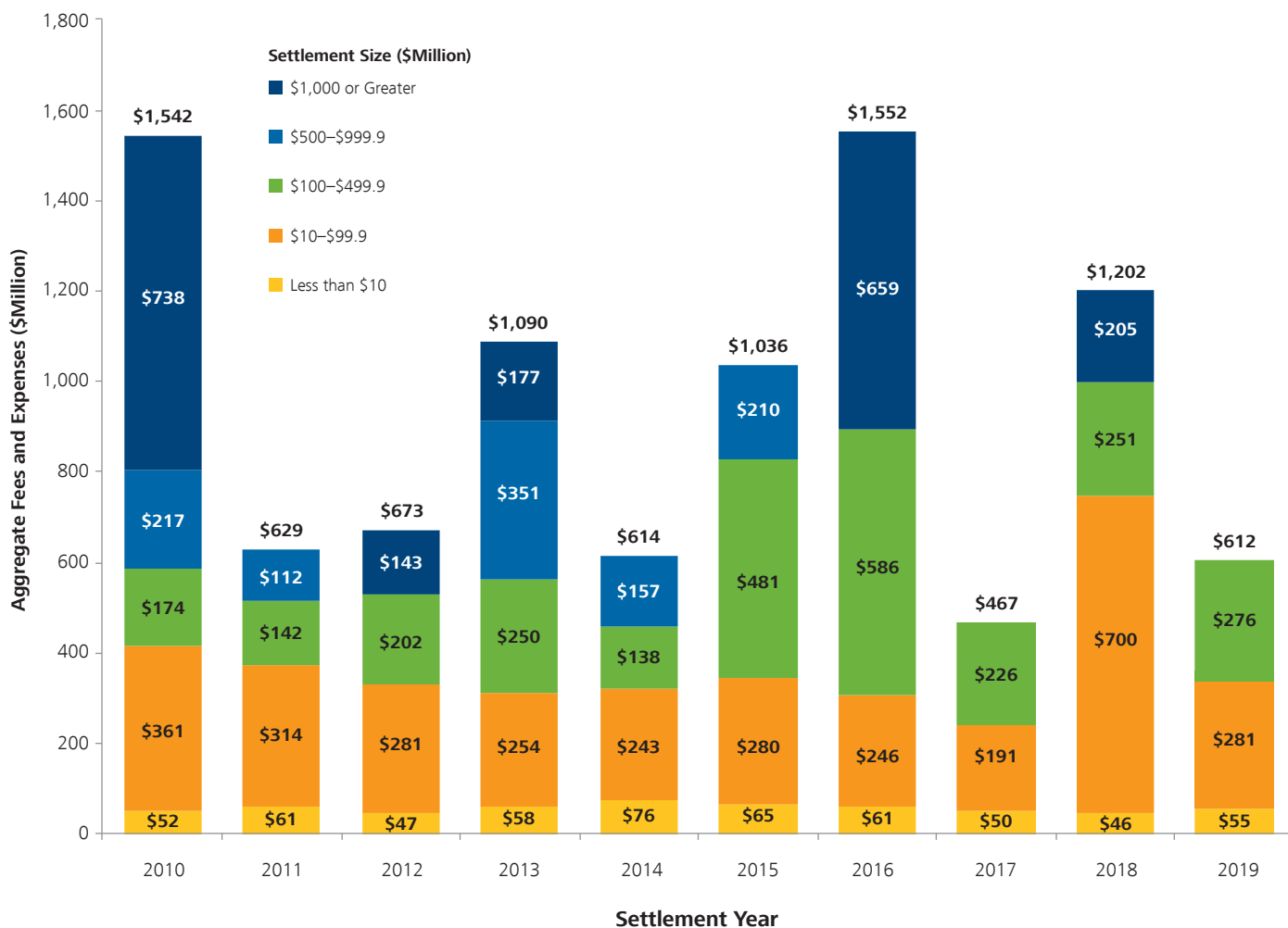
Historically, these values have shown marked variability. Over the 10-year period ending December 2019, the annual aggregate amount allocated to plaintiffs' attorneys for approved settlements has ranged from a $467 million to $1,552 million.

We reviewed these payment figures as a percentage of actual settlement value and find that attorneys' fees and expenses represent a lower percentage of settlement for settlements $500 million and higher than for settlements below this amount. This pattern is consistent in settlements reached over the past 10 years and all settlements between 1996 and 2009. For cases settled in the most recent decade, the median of plaintiffs' attorneys' payments as percentage of settlement value was 33.8% for cases with settlement value less than $5 million, 27.6% for cases with settlement value between $10 million and $25 million, and 17.8% for cases with settlements between $500 million and $1 billion. For settlements above $1 billion, attorneys' fees and expenses were only 10% of the settlement value total. See Figure 17.

Figure 17. **Median of Plaintiffs' Attorneys' Fees and Expenses by Size of Settlement**
Excludes Merger-Objections and Settlements for $0 to the Class

Percentage of Settlement Value 1996–2009	Settlement Value ($Million)	Percentage of Settlement Value 2010–2019
8.1% 0.5% 7.6%	≥1,000	9.5% 0.7% 10.2%
17.7% 0.7% 17.0%	≥500 and <1,000	17.0% 0.8% 17.8%
23.4% 1.3% 22.1%	≥100 and <500	22.8% 1.3% 24.1%
26.9% 1.9% 25.0%	≥25 and <100	25.0% 2.0% 27.0%
32.7% 2.7% 30.0%	≥10 and <25	25.0% 2.6% 27.6%
33.7% 3.7% 30.0%	≥5 and <10	30.0% 3.3% 33.3%
35.1% 5.1% 30.0%	<5	30.0% 3.8% 33.8%

Legend: Median Fees (blue), Median Expenses (green)

Notes

1 This edition of NERA's report on Recent Trends in Securities Class Action Litigation expands on previous work by our colleagues Lucy P. Allen, Dr. Vinita Juneja, Dr. Denise Neumann Martin, Dr. Jordan Milev, Robert Patton, Dr. Stephanie Plancich, and others. The authors thank Dr. David Tabak and Gary Napadov for helpful comments on this edition. We thank Zhenyu Wang and other researchers in NERA's Securities and Finance Practice for their valuable assistance. These individuals receive credit for improving this report; any errors and omissions are those of the authors. This report was updated on 12 February 2020 to incorporate additional information obtained following our initial publication.

2 Data for this report were collected from multiple sources, including Institutional Shareholder Services, complaints, case dockets, Dow Jones Factiva, Bloomberg Finance, FactSet Research Systems, Nasdaq, Intercontinental Exchange, US Securities and Exchange Commission (SEC) filings, and public press reports.

3 NERA tracks class actions filed in federal courts that involve securities. Most of these cases allege violations of federal securities laws; others allege violation of common law, including breach of fiduciary duty, as with some merger-objection cases; still others are filed in federal court under foreign or state law. If multiple actions are filed against the same defendant, are related to the same allegations, and are in the same circuit, we treat them as a single filing. However, the first two multiple actions filed in different circuits are treated as separate filings. If cases filed in different circuits are consolidated, we revise our count to reflect the consolidation. Therefore, case counts for a particular year may change over time. Different assumptions for consolidating filings would probably lead to counts that are directionally similar but may, in certain circumstances, lead observers

to draw a different conclusion about short-term trends in filings.

4 Includes companies listed on the Nasdaq and the New York Stock Exchange.

5 Historically, filings of federal shareholder class actions involving allegations of Rule 10b-5, Section 11, and/or Section 12 violations have dominated dockets. These types of cases are often referred to as "standard" cases.

6 Most securities class actions complaints include multiple allegations. For this analysis, all allegations from the complaint are included, and as such, the total number of allegations exceeds the total number of filings.

7 For example, see complaints for *Marcus Minsky v. Capital One Financial Corporation* and *Rhode Island Laborers' Pension Fund v. FedEx Corporation*.

8 For example, see complaints for *William Wilson v. Aurora Cannabis Inc., Yimin Huang v. Sundial Growers Inc.,* and *David McNear v. Trulieve Cannabis Corp.*

9 Here the word "dismissed" is used as shorthand for all cases resolved without settlement; it includes cases where a motion to dismiss was granted (and not appealed or appealed unsuccessfully), voluntary dismissals, cases terminated by a successful motion for summary judgment, or an unsuccessful motion for class certification.

10 See the section "Time from First Complaint Filing to Resolution" for a more detailed discussion on the lag between when a complaint is filed and a case is resolved.

11 Dismissals may include dismissals without prejudice and dismissals under appeal.

12 Approximately 92% of cases filed 2010–2012 have been resolved; data from this period can be used to infer trends about dismissal and settlement rates. For filings 2013 and after,

a large proportion of cases remains pending and any conclusions regarding long-term resolution trends cannot yet be substantiated.

13 See Figure 19 of the report "Recent Trends in Securities Class Action Litigation: 2018 Full-Year Review," for the December 2018 snapshot.

14 Analyses in this section exclude IPO laddering cases and merger-objection cases.

15 Unless otherwise noted, tentative settlements (those yet to receive court approval) and partial settlements (those covering some but not all nondismissed defendants) are not included in our settlement statistics. We define "settlement year" as the year of the first court hearing related to the fairness of the entire settlement or the last partial settlement. Analyses in this section exclude merger-objection cases and cases that settle with no cash payment to the class. All charts and statistics reporting inflation-adjusted values are estimated as of October 2019.

16 *In re Petrobras Securities Litigation,* case no. 14-cv-09662 (JSR).

17 NERA-defined Investor Losses is only calculable for cases involving allegations of damages to common stock over a defined class period. As such, we have not calculated this metric for cases such as merger-objections.

18 These models explain approximately 70% of the variation observed in settlements. These models are based on cases filed after 1 January 2000 and settled between December 2011 and December 2019. The axes are in logarithmic scale.

19 Analyses in this section exclude merger-objection cases and cases that settle with no cash payment to the class.

About NERA

NERA Economic Consulting (**www.nera.com**) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. We bring academic rigor, objectivity, and real-world industry experience to bear on issues arising from competition, regulation, public policy, strategy, finance, and litigation.

NERA's clients value our ability to apply and communicate state-of-the-art approaches clearly and convincingly, our commitment to deliver unbiased findings, and our reputation for quality and independence. Our clients rely on the integrity and skills of our unparalleled team of economists and other experts backed by the resources and reliability of one of the world's largest economic consultancies. With its main office in New York City, NERA serves clients from more than 25 offices across North America, Europe, and Asia Pacific.

Contacts

For further information, please contact:

Janeen McIntosh
Consultant
New York City: +1 212 345 1375
janeen.mcintosh@nera.com

Svetlana Starykh
Senior Consultant
White Plains, NY: +1 914 448 4123
svetlana.starykh@nera.com

The opinions expressed herein do not necessarily represent the views of NERA Economic Consulting or any other NERA consultant.

To receive publications, news, and insights from NERA, please visit **www.nera.com/subscribe**.

NERA
ECONOMIC CONSULTING

Visit **www.nera.com** to learn more about our practice areas and global offices.