

# **Exhibit 10**

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NERA Economic Consulting,  
Recent Trends in Securities Class Action  
Litigation: 2018 Full-Year Review (Jan. 29, 2019)**

29 January 2019



# Recent Trends in Securities Class Action Litigation: 2018 Full-Year Review

Record Pace of Filings, Despite Slower Merger-Objection Growth

Average Case Size Surges to Record High

Settlement Values Rebound from Near-Record Lows

By Stefan Boettrich and Svetlana Starykh

## Foreword

I am excited to share NERA's *Recent Trends in Securities Class Action Litigation: 2018 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 how post-class-period stock price movements relate to voluntary dismissals. While 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

A handwritten signature in white ink, appearing to read 'D. Tabak', is positioned above a grid of blue 3D cubes. One cube in the lower-left foreground is highlighted in a bright yellow color.

## Recent Trends in Securities Class Action Litigation: 2018 Full-Year Review

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### Introduction and Summary<sup>2</sup>

In 2018, the pace of securities class action filings was the highest since the aftermath of the 2000 dot-com crash, with 441 new cases. While merger objections constituted about half the total, filing growth of such cases slowed versus 2017, indicating that the explosion in filings sparked by the *Trulia* decision may have run its course.<sup>3</sup> Filings alleging violations of Rule 10b-5, Section 11, and/or Section 12 of the Securities Act of 1933 (“Securities Act”) were roughly unchanged compared to 2017, but accelerated over the second half of the year, with the fourth quarter being one of the busiest on record.

The steady pace of new securities class actions masked fundamental changes in filing characteristics. Aggregate NERA-defined Investor Losses, a measure of total case size, came to a record \$939 billion, nearly four times the preceding five-year average. Even excluding substantial litigation against General Electric (GE), aggregate Investor Losses doubled versus 2017. Most growth in Investor Losses stemmed from cases alleging issues with accounting, earnings, or firm performance, contrasting with prior years when most growth was tied to regulatory allegations. Filings against technology firms jumped nearly 70% from 2017, primarily due to cases alleging accounting issues or missed earnings guidance.

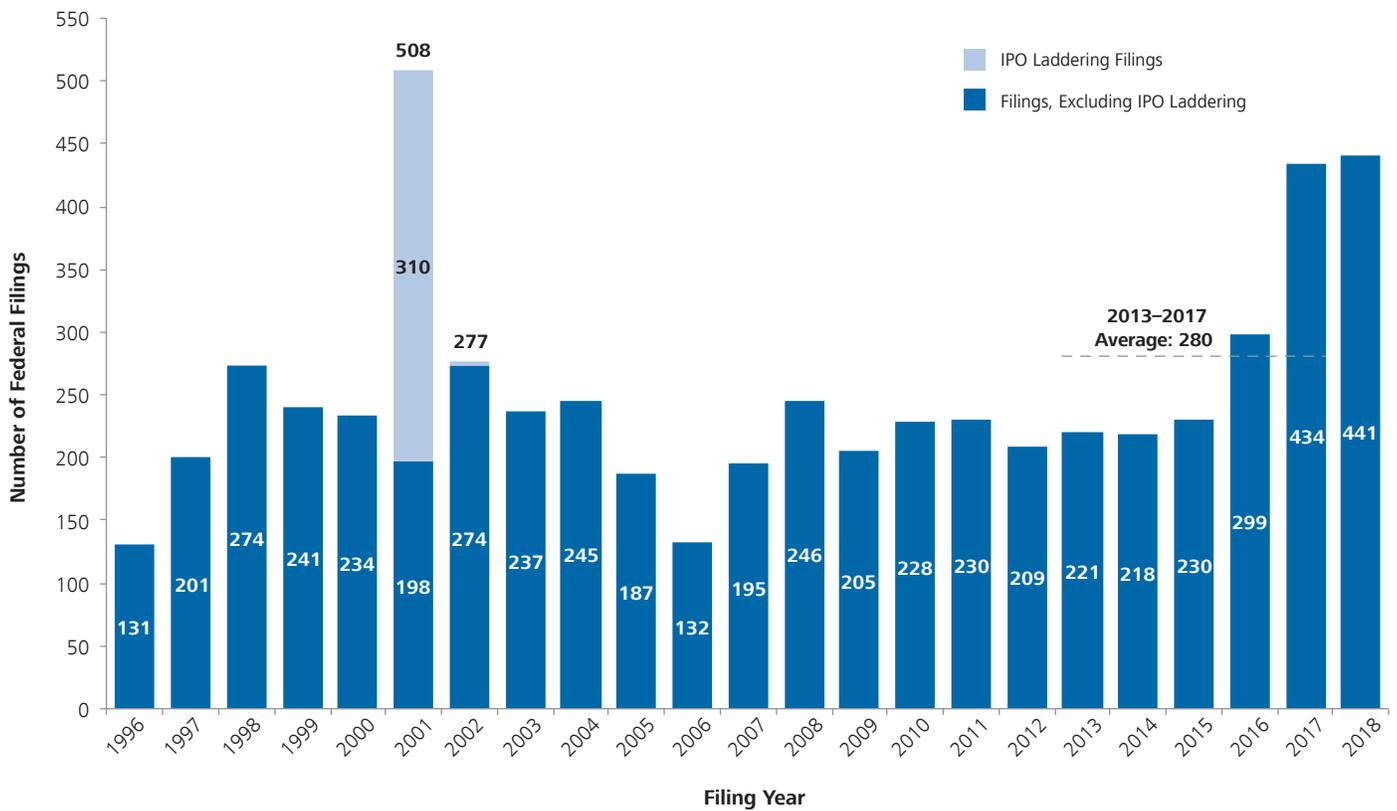
The average settlement value rebounded from the 2017 near-record low, mostly due to the \$3 billion settlement against *Petróleo Brasileiro S.A.—Petrobras*. The median settlement nearly doubled, primarily due to higher settlements of many moderately sized cases. Despite a rebound in settlement values in 2018, the number of settlements remained low, with dismissals outnumbering settlements more than two-to-one. An adverse number of cases were voluntarily dismissed, which can partially be explained by positive returns of targeted securities during the PSLRA bounce-back periods. The robust rate of case resolutions has not kept up with the record filing rate, driving pending litigation up more than 6%.

## Trends in Filings

### Number of Cases Filed

There were 441 federal securities class actions filed in 2018, the fourth consecutive year of growth (see Figure 1). The filing rate was the highest since passage of the PSLRA, with the exception of 2001 when new IPO laddering cases dominated federal dockets. The dramatic year-over-year growth seen in each of the past few years resulted in a near doubling of filings since 2015, but growth moderated considerably in 2018 to 1.6%. The 2018 filing rate is well above the post-PSLRA average of approximately 253 cases per year, and solidifies a departure from the generally stable filing rate in the years following the 2008 financial crisis.

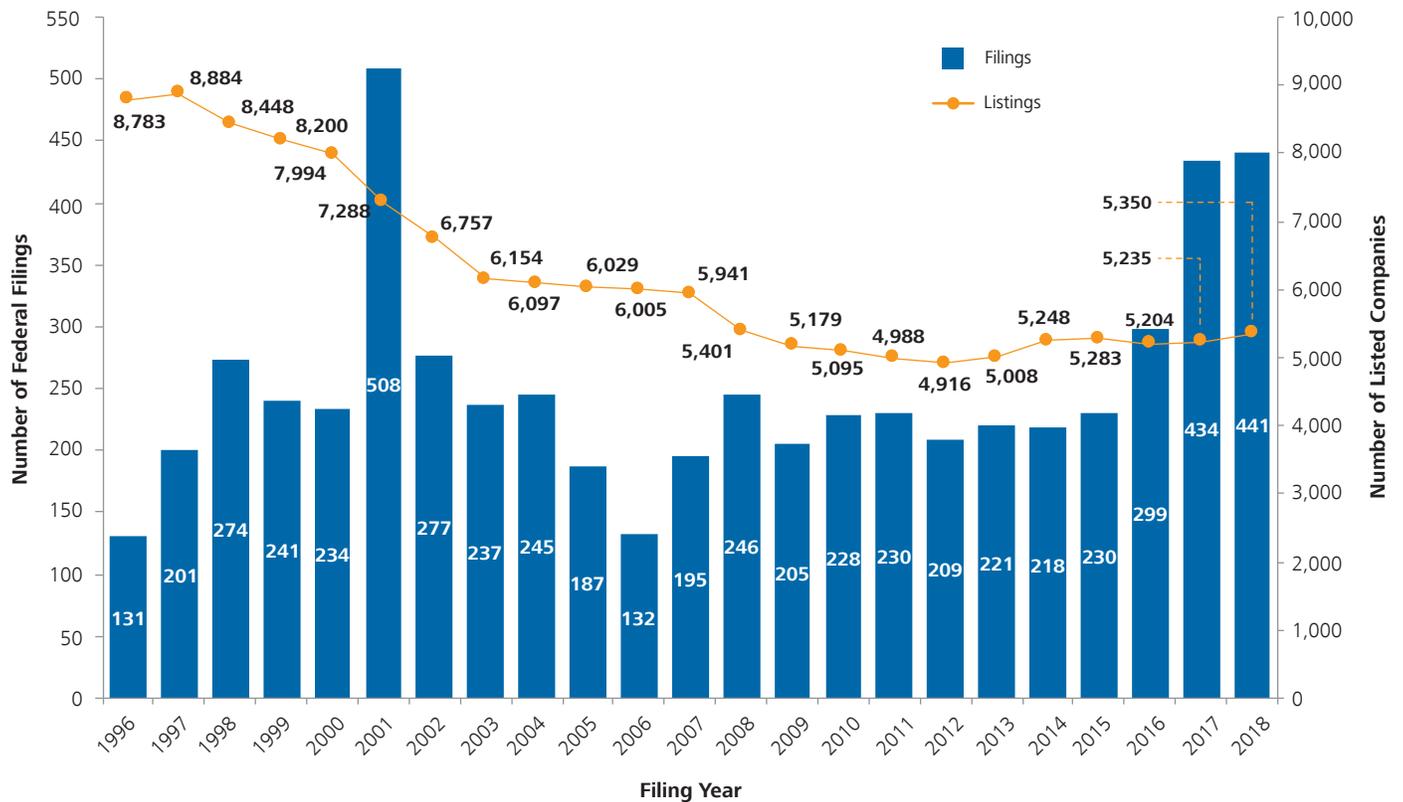
Figure 1. **Federal Filings**  
January 1996–December 2018



As of November 2018, there were 5,350 companies listed on the major US securities exchanges (see Figure 2). The 441 federal securities class action suits filed in 2018 involved approximately 8.2% of publicly listed companies. The overall risk of litigation to listed firms has increased substantially since early in the decade, when only about 4.0% of public companies listed on US exchanges were subject to a securities class action.

Broadly, the chance of a publicly listed company being subject to securities litigation depends on the number of filings relative to the number of listed companies. While the number of listed companies has increased by 7% over the last five years, the longer-term trend is toward fewer listings. Since the passage of the PSLRA in 1995, the number of listings on major US exchanges has steadily declined by about 3,000, or nearly 40%. Recent research attributed this decline to fewer new listings and an increase in delistings, mostly through mergers and acquisitions.<sup>4</sup>

Figure 2. **Federal Filings and Number of Companies Listed in the United States**  
January 1996–December 2018



Note: Listed companies include those listed on the NYSE and Nasdaq. Listings data from 2016 through 2018 were obtained from World Federation of Exchanges (WFE). The 2018 listings data is as of November 2018. Data for prior years was obtained from Meridian Securities Markets and WFE.

Despite the long-term drop in the number of listed companies, the average number of securities class action filings has *increased* from 216 per year over the first five years after the PSLRA to about 324 per year over the past five years. The long-term trend toward fewer listed companies coupled with more class actions implies that the average probability of a listed firm being subject to such litigation has increased from about 2.6% after passage of the PSLRA to 3.7% over the past five years, and 8.0% over the past two years.

Recently, the rising average risk of class action litigation was driven by dramatic growth in merger-objection cases that, prior to 2016, were mostly filed in various state courts. Since then, state court rulings have driven such litigation onto federal dockets. Hence the increase in the typical firm's litigation risk might be less than indicated above, since 1) the risk of merger-objection litigation is specific to firms planning or engaged in M&A activity and 2) many merger-objection cases would otherwise have been filed in state courts.

The average probability of a firm being targeted by what is often regarded as a "Standard" securities class action—one that alleges violations of Rule 10b-5, Section 11, and/or Section 12—was only 4.0% in 2018, albeit higher than the average probability of about 2.6% following the PSLRA and 3.5% between 2013 and 2017.

### **Filings by Type**

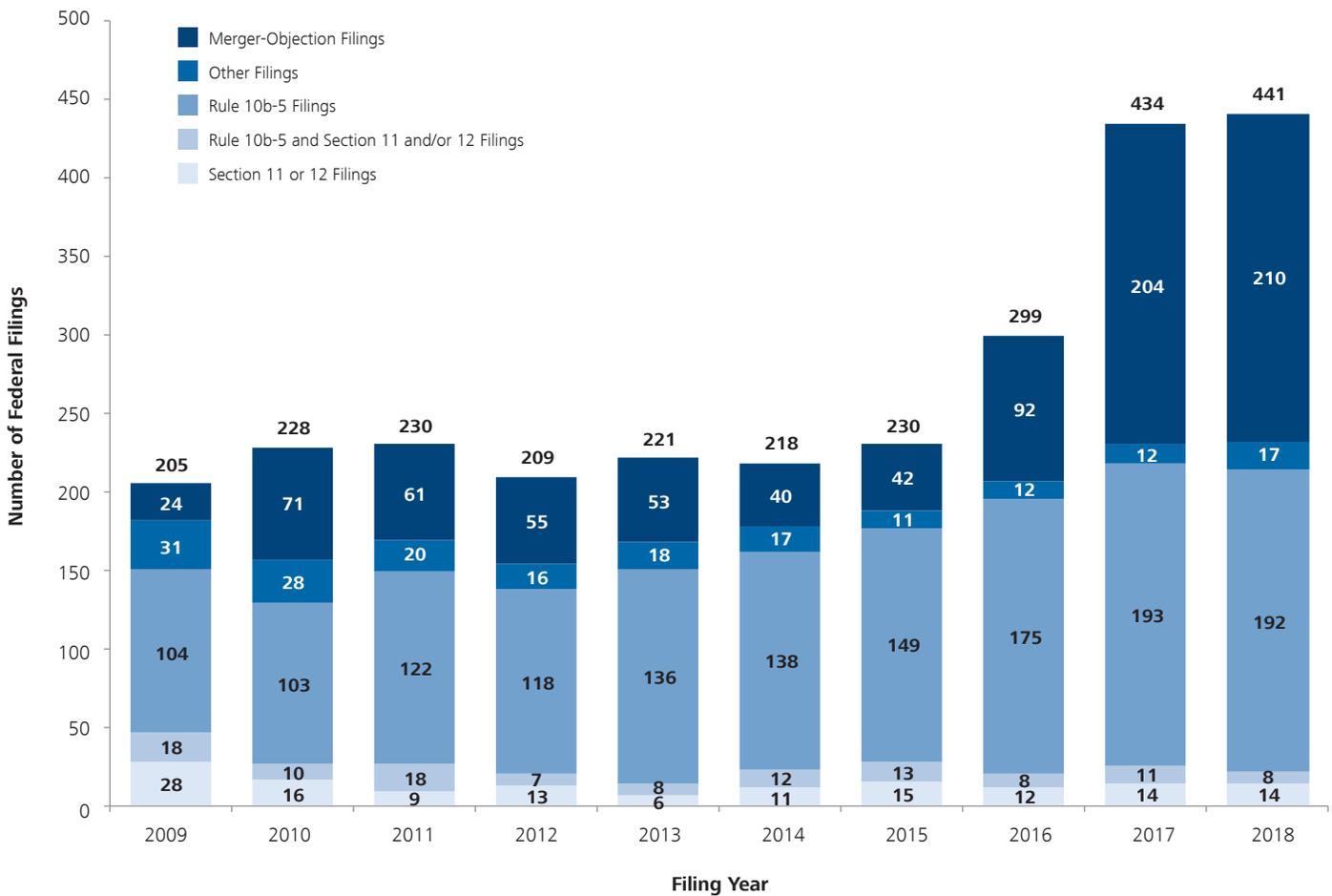
In 2018, the 441 securities class action filings were about evenly split between Standard securities class actions and merger objections, roughly matching the number seen in 2017 (see Figure 3). There were 214 Standard securities cases filed, down slightly from 2017. Prior to 2018, Standard filings grew for five consecutive years, the longest expansion on record, and by over 50% since 2013. Despite the slowdown in 2018, monthly filing growth over the second half of the year was robust, and capped by 64 filings in the fourth quarter, one of the busiest quarters on record.

Despite the 210 merger-objection filings in 2018 making up about half of all filings, yearly filing growth of such cases slowed to almost zero, as the number of filings roughly matched the level seen in 2017. The tepid filing growth implies that the rapid growth following various state-level decisions limiting "disclosure-only" settlements (including the *Trulia* decision) has likely run its course.<sup>5</sup> Rather, the stagnant growth in federal merger-objection filings was likely driven by relatively stagnant M&A activity.<sup>6</sup>

Although aggregate merger-objection filings (including those at the state level) may correspond with the rate of mergers and acquisitions, such deal activity does not appear to have historically been the primary driver of federal merger-objection filings over multiple years. The number of federal merger-objection filings generally fell between 2010 and 2015, despite increased M&A activity. The higher filing counts in 2016 and 2017 likely stemmed from trends in the choice of jurisdiction rather than trends in deal volume.<sup>5</sup>

Besides Standard and merger-objection cases, a variety of other filings rounded out 2018. Several filings alleged fraudulent initial coin and cryptocurrency offerings, manipulation of derivatives (e.g., VIX products and metals futures), and breaches of fiduciary duty (including client-broker disputes involving churning and improper asset allocation).

Figure 3. **Federal Filings by Type**  
January 2009–December 2018



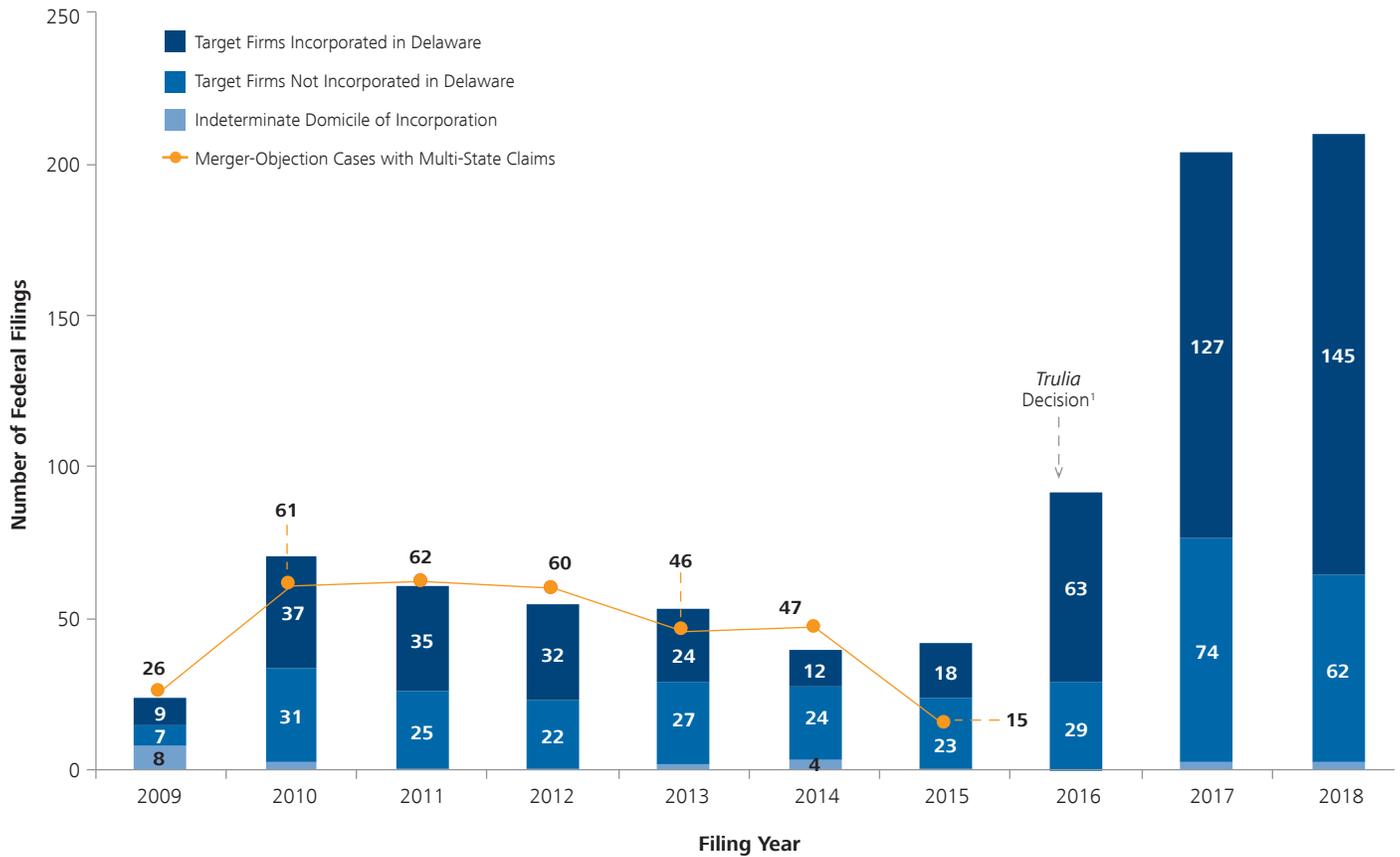
### Merger-Objection Filings

In 2018, federal merger-objection filings were relatively unchanged versus 2017 (see Figure 4). Growth in federal merger-objection filings in 2016 and 2017 largely followed various state court rulings barring disclosure-only settlements, the most notable being the 22 January 2016 *Trulia* decision in the Delaware Court of Chancery.<sup>7</sup> Research suggested that such state court decisions would simply drive merger objections to alternative jurisdictions, such as federal courts.<sup>8</sup> This has largely been borne out thus far.

The dramatic slowdown in merger-objection filings growth implies that plaintiff forum selection is less of a growth factor; in 2018 and going forward, merger and acquisition activity will likely be the primary driver of federal merger-objection litigation. This assumes, however, that corporations don't increasingly adopt forum selection bylaws, and that federal courts don't increasingly follow the Delaware Court of Chancery's lead on rejecting disclosure-only settlements.<sup>9</sup> For instance, after the Seventh Circuit ruled strongly against a disclosure-only settlement in *In re: Walgreen Co. Stockholder Litigation*, the proportion of merger objections filed in that circuit fell by more than 60% the following year.<sup>10</sup>

Federal merger-objection filings typically allege a violation of Section 14(a), 14(d), and/or 14(e) of the Securities Exchange Act of 1934, and/or a breach of fiduciary duty by managers of a firm being acquired. Such filings are frequently voluntarily dismissed.

Figure 4. **Federal Merger-Objection Cases and Merger-Objection Cases with Multi-State Claims**  
January 2009–December 2018



Notes: Counts of merger-objection cases with multi-state claims based on data obtained from Matthew D. Cain and Steven D. Solomon, "Takeover Litigation in 2015," Berkeley Center for Law, Business and the Economy, 14 January 2016. Data on multi-state claims unavailable for 2016–2018. State of incorporation obtained from the Securities and Exchange Commission.

<sup>1</sup>In re Trulia, Inc. Stockholder Litigation, C.A. No. 10020-CB (Del. Ch. Jan. 22, 2016).

### **Filings Targeting Foreign Companies**

Foreign companies with securities listed on US exchanges have been disproportionately targeted in Standard securities class actions since 2010 (see Figure 5).<sup>11</sup> In 2018, foreign companies were targeted in about 25% fewer cases than in 2017, and in only about 20% of complaints, just above the share of listings. This contrasts with persistent growth in foreign firm exposure to securities litigation over the preceding four years.

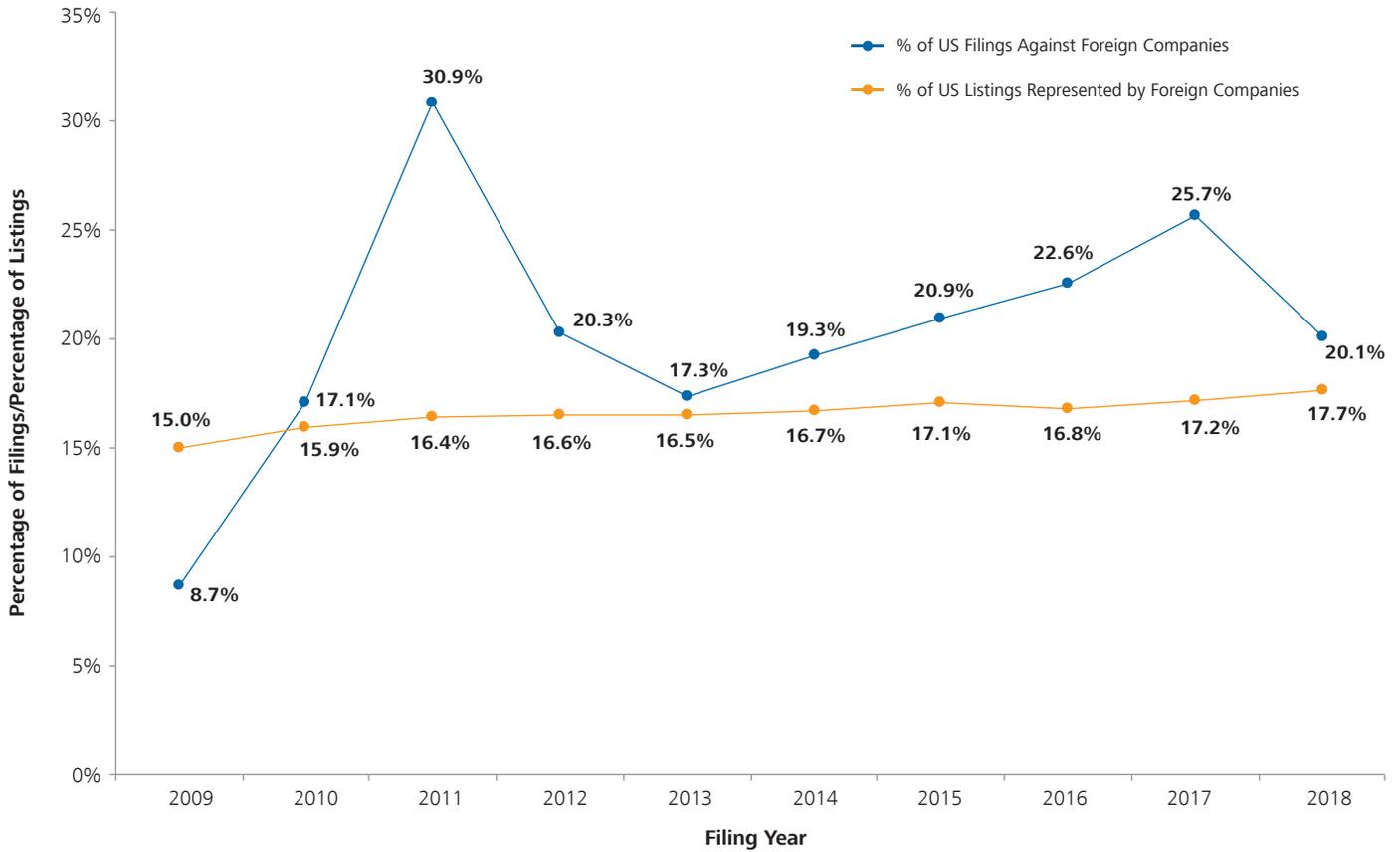
The reversion in claims against foreign firms mirrors a wider slowdown in filings with regulatory allegations. Over the last few years, growth in regulatory filings explained much of the growth in foreign filings, with 50% to 80% of new foreign cases including such allegations. That trend has reversed; in 2018, 75% of the drop in foreign filings stemmed from fewer claims related to regulation.

The slowdown in foreign regulatory filings can also be tied to fewer complaints in 2018 alleging similar regulatory violations, which adversely targeted foreign firms and particularly those domiciled in Europe. For instance, in 2017 there were multiple filings related to pharmaceutical price fixing, emissions defeat devices, and financing schemes by Kalani Investments Limited.

Filings against foreign companies spanned several economic sectors, led by a considerable jump against firms in the Electronic Technology and Technology Services sector (accounting issues were most common). Filings against foreign companies in the Health Technology and Services sector dropped by half. In past years, such filings usually claimed regulatory violations; none did in 2018.

In 2011, a record 31% of filings targeted foreign companies, mostly due to a surge in litigation against Chinese companies, which was mainly related to a proliferation in so-called “reverse mergers” years earlier. A reverse merger is a merger in which a private company merges with a publicly traded company listed in the US, thereby enabling access to US capital markets without going through the process of obtaining a new listing.

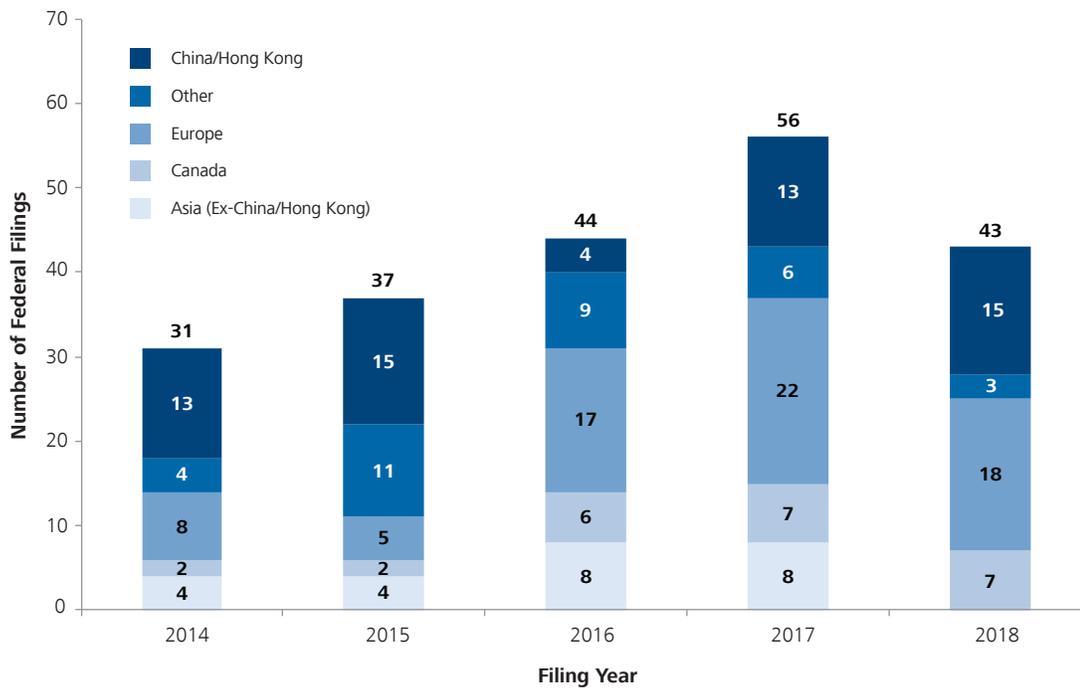
Figure 5. **Foreign Companies: Share of Filings and Share of Companies Listed on US Exchanges**  
 Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, and/or Section 12  
 January 2009–December 2018



Note: Foreign issuer status determined based on location of principal executive offices.

Internationally, only Chinese firms listed on US exchanges were subject to more securities class actions in 2018 than in 2017 (see Figure 6). Filings against European firms slowed, partially due to fewer regulatory filings. There were zero filings against Israeli companies, despite an increase in listings and litigation against such companies in previous years.

Figure 6. **Filings Against Foreign Companies**  
 Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, and/or Section 12 by Region  
 January 2014–December 2018



Note: Foreign issuer status determined based on location of principal executive offices.

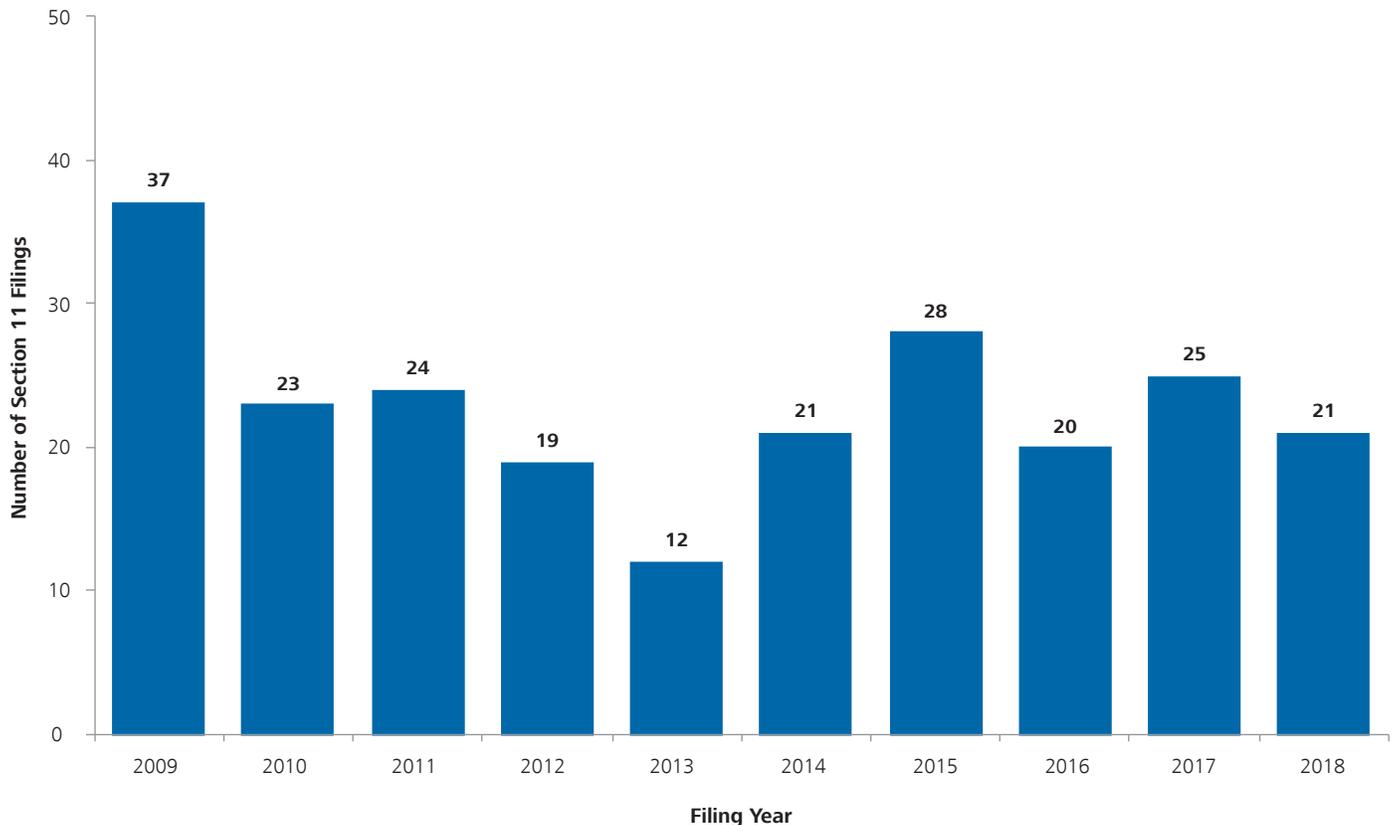
### Section 11 Filings

There were 21 federal filings alleging violations of Section 11 in 2018, which approximates the five-year average (see Figure 7).

On 20 March 2018, the US Supreme Court ruled in *Cyan, Inc. v. Beaver County Employees Retirement Fund* that state courts have jurisdiction over class actions with claims brought under the Securities Act.<sup>12</sup> The ruling allows plaintiffs to litigate Section 11 claims in state courts, including plaintiff-friendly California state courts.

The full effect of the *Cyan* decision on federal filing trends remains to be seen, but of the 21 Section 11 filings in 2018, 14% involved firms headquartered in California, down from a quarter in 2016 (prior to the US Supreme Court granting certiorari). Of the three California firms, at least two have stated in filings with the SEC that claims under the Securities Act must only be brought in federal courts.<sup>12</sup>

Figure 7. **Section 11 Filings**  
January 2009–December 2018



### Aggregate NERA-Defined Investor Losses

In addition to the number of cases filed, we also consider the total potential size of these cases using a metric we label “NERA-defined Investor Losses.”

NERA’s Investor Losses variable is a proxy for the aggregate amount that investors lost from buying the defendant’s stock, rather than investing in the broader market during the alleged class period. Note that the Investor Losses variable is not a measure of damages because any stock that underperforms the S&P 500 would have Investor Losses over the period of underperformance; rather, it is a rough proxy for the relative size of investors’ potential claims. Historically, Investor Losses have been a powerful predictor of settlement size. Investor Losses can explain more than half of the variance in the settlement values in our database.

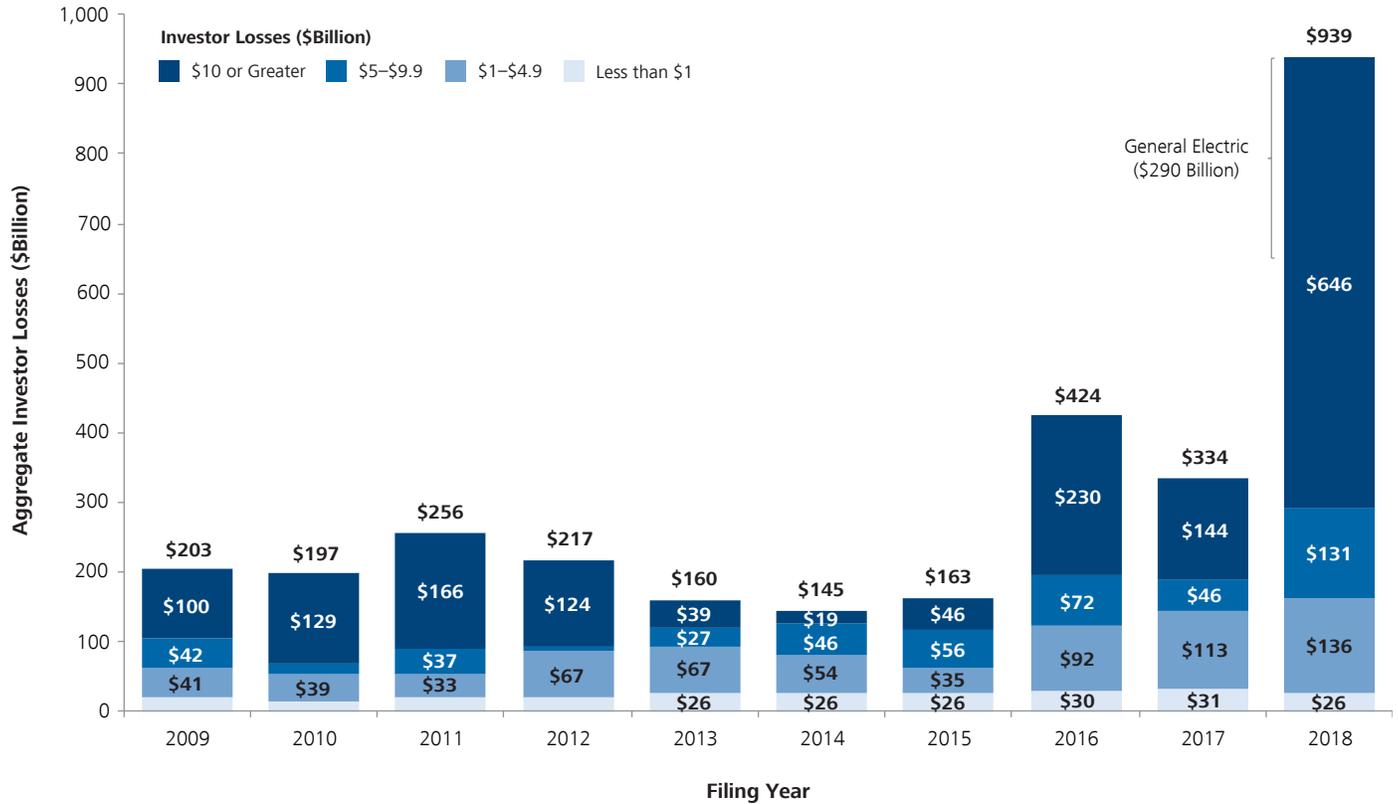
We do not compute NERA-defined Investor Losses for all cases included in this publication. For instance, class actions in which only bonds and not common stock are alleged to have been damaged are not included. The largest excluded groups are IPO laddering cases and merger-objection cases.

Despite a relatively constant rate of Standard filings in 2018, the size of those filings (as measured by NERA-defined Investor Losses) surged to nearly \$1 trillion (see Figure 8). Total Investor Losses were dominated by litigation against GE, equal to about 45% of Investor Losses from all other cases combined, an especially impressive metric given the record aggregate case size.

NERA-defined Investor losses in 2018 totaled \$939 billion, more than double that of any prior year and nearly four times the preceding five-year average of \$245 billion. The total size of filings in all but the smallest strata grew, led by cases with more than \$10 billion in Investor Losses. Coupled with the relatively stable overall filing rate, this suggests a systematic shift toward larger filings. In 2018, there were a record number of filings in each of the three largest strata, while only 88 cases had Investor Losses less than \$1 billion, a record low.

Once again, there were several very large filings alleging regulatory violations, including a stock drop case against Johnson & Johnson related to claims of allegedly carcinogenic talcum powder, and a data privacy case against Facebook. Besides cases alleging regulatory violations, other very large cases included a filing against NVIDIA regarding excess inventory of GPUs (used for cryptocurrency mining) and large drug development cases against Bristol-Myers Squibb and Celgene.

Figure 8. **Aggregate NERA-Defined Investor Losses**  
 Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, and/or Section 12  
 January 2009–December 2018



Over the past couple of years, growth in aggregate Investor Losses was concentrated in filings alleging regulatory violations, a substantial number of which were also *event-driven* securities cases (i.e., stock drop cases stemming from a specific event or occurrence). Between 2015 and 2017, growth in the total size of regulatory cases was due to an increased filing rate (from 31 to 57 cases) and higher median Investor Losses (from \$308 million to \$811 million).

In 2018, regulatory cases were again large (half had Investor Losses greater than \$4 billion), but the vast majority of total Investor Losses stemmed from what have historically been more typical securities cases, namely those that allege accounting issues, misleading earnings guidance, and/or firm performance issues.<sup>14</sup> This was led by litigation related to accounting issues at GE. Excluding GE, aggregate Investor Losses of such cases nearly doubled to a record \$258 billion (see Figure 9).

Growth in the total size of cases alleging accounting, earnings, and/or performance issues primarily stems from growth in individual case size, as opposed to more filings. The median case with such allegations had more than \$650 million in Investor Losses, about twice the average of \$322 million over the preceding five years.

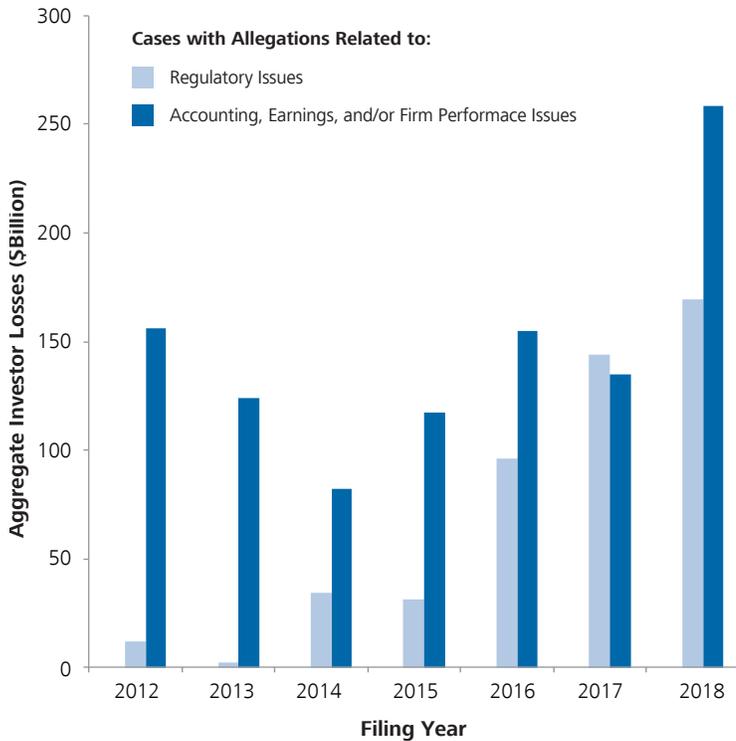
Details of the size of cases with specific types of allegations are discussed in the *Allegations* section below.

Figure 9. **NERA-Defined Investor Losses**

Filings Alleging Accounting Issues, Missed Earnings Guidance, and/or Misleading Future Performance  
Excludes 2018 GE Filings

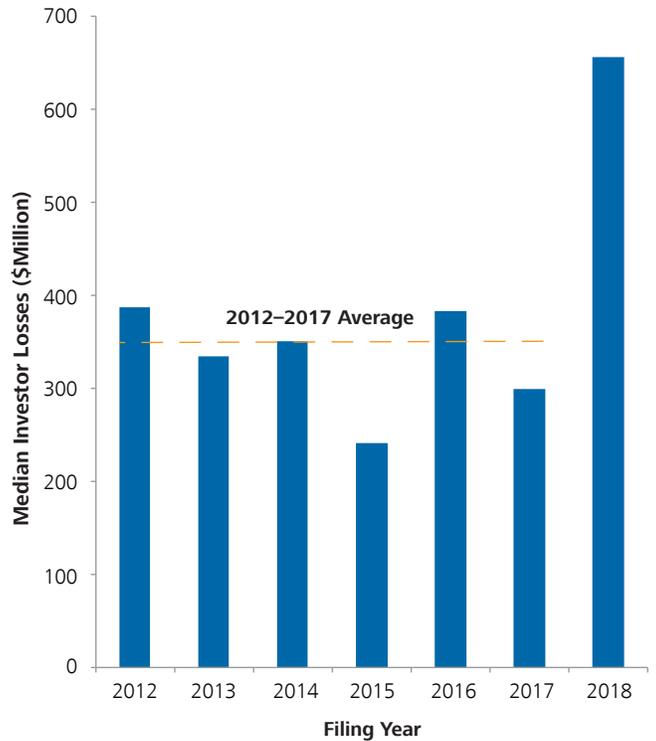
**Aggregate NERA-Defined Investor Losses**

January 2012–December 2018



**Median NERA-Defined Investor Losses**

January 2012–December 2018



Note: Regulatory cases with parallel accounting, performance, or missed earnings claims are excluded.

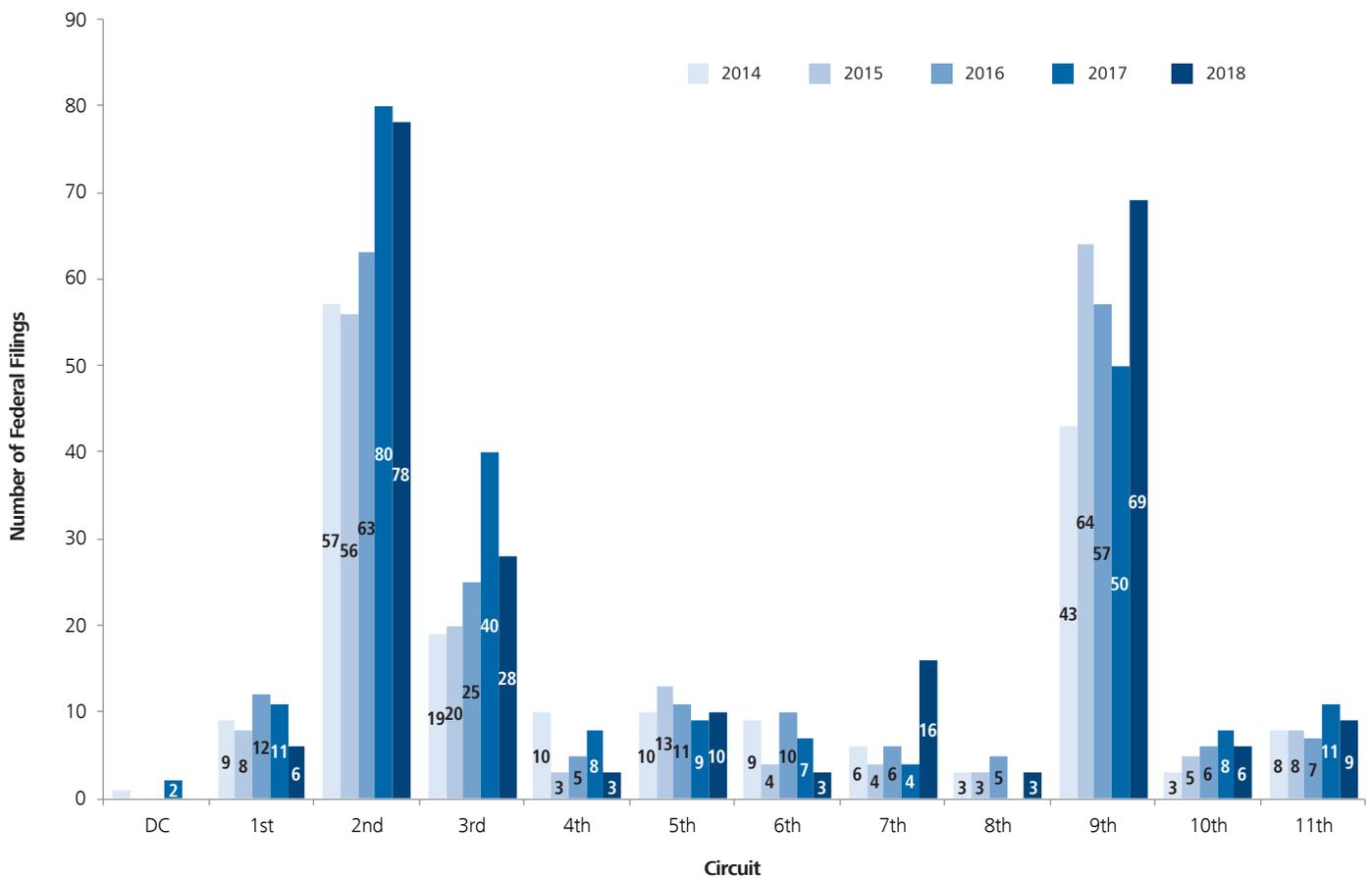
### Filings by Circuit

Filings in 2018 (excluding merger objections) were again concentrated in the Second and Ninth Circuits. The concentration of filings in these circuits has increased in 2018, during which they received 64% of filings, up from an average of 57% over the prior two years (see Figure 10). While the Second Circuit received the most filings, the most growth was in the Ninth Circuit, which includes Silicon Valley, mostly due to more litigation against firms in the Electronic Technology and Technology Services sector.

Merger-objection filings, not included in Figure 10, have become increasingly active in the Third Circuit, which includes Delaware. The Third Circuit received 82 merger-objection cases in 2018, double the number in 2017 and more than an eightfold increase over 2016. Nearly four-in-ten merger-objection cases were filed in the Third Circuit, twice the concentration of 2017 and coming amidst only a slight increase in the percentage of target firms incorporated in Delaware (see Figure 4). This corresponds with a decline in filings in every other circuit except the Second Circuit, where filings increased from 15 to 26.

Figure 10. **Federal Filings by Circuit and Year**

Excludes Merger Objections  
January 2014–December 2018

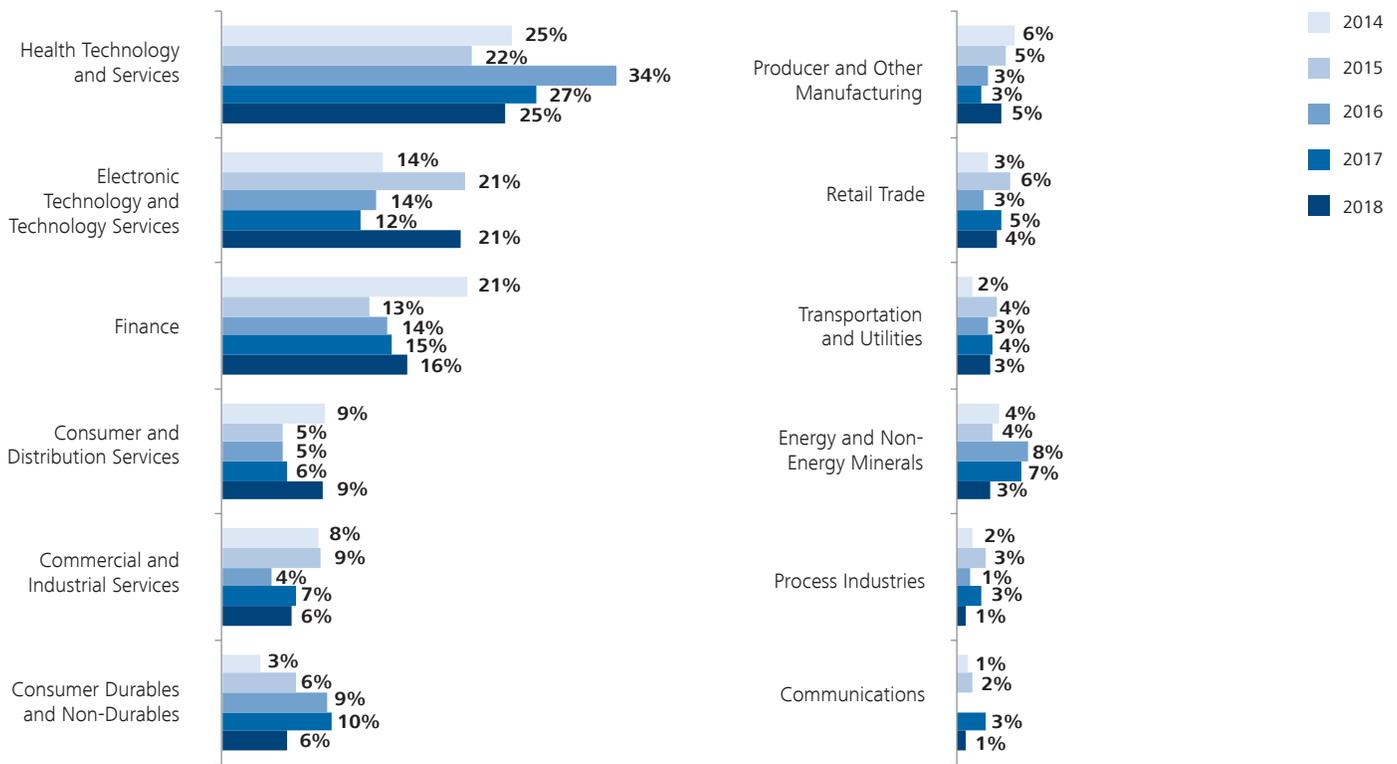


### Filings by Sector

In 2018, filing counts were highest in the three historically dominant sectors, which include firms involved in health care, technology, and financial services (see Figure 11). The share of filings in these sectors increased to 62% in 2018 from about 54% in 2017, primarily due to a surge in filings against firms in the technology sector. Despite the drop in the percentage of health care companies targeted, the percentage of targeted firms in the Drugs industry (SIC 283) was nearly unchanged from 2017.

Firms in technological industries were especially at risk of securities class actions alleging accounting issues, misleading earnings guidance, or firm performance issues.<sup>15</sup> The industry with the highest percentage of constituent companies targeted with such allegations was the Computer and Office Equipment industry (SIC 357), with more than 9% of listed companies subject to litigation. This was followed by the Electronic Components and Accessories industry (SIC 367), with 6% of firms targeted. In the Drugs industry (SIC 283), 5% of firms were targeted with a filing with such claims (mostly related to misleading announcements regarding future performance).

Figure 11. **Percentage of Filings by Sector and Year**  
 Excludes Merger Objections  
 January 2014–December 2018



Note: This analysis is based on the FactSet Research Systems, Inc. economic sector classification. Some of the FactSet economic sectors are combined for presentation.

### Allegations

In contrast with growth observed in recent years, filings with regulatory claims (i.e., those alleging a failure to disclose a regulatory issue) slowed to 41 in 2018 from 57 in 2017, a drop from 26% of Standard cases to 19% (see Figure 12). While fewer regulatory cases were filed, the median case size grew fourfold to over \$4 billion (as measured by NERA-defined Investor Losses). The slowdown in regulatory filings was partially offset by more allegations of accounting issues and missed earnings guidance, which grew 8% and 13%, respectively.

While the size of filed cases (as measured by NERA-defined Investor Losses) grew in each allegation category, those alleging accounting issues and missed earnings guidance were especially large and more frequently targeted technology firms. The median size of accounting claims exceeded \$600 million in 2018 (a level not seen since 2008), with filings over the second half of the year being especially large. Firms in the technology sector had the most accounting claims, making up 29% of the total (up from 21% in 2017). Moreover, more than one-in-three filings against firms in the technology sector alleged accounting issues.

Filings claiming missed earnings guidance grew for the second straight year. Although the percentage of filings alleging missed guidance roughly matched that of 2015, the median case size (as measured by Investor Losses) was three times larger in 2018 than in 2015. Filings against firms in the technology sector with missed earnings guidance claims grew 70% since 2017 and constituted the largest share of such claims (at 27%).

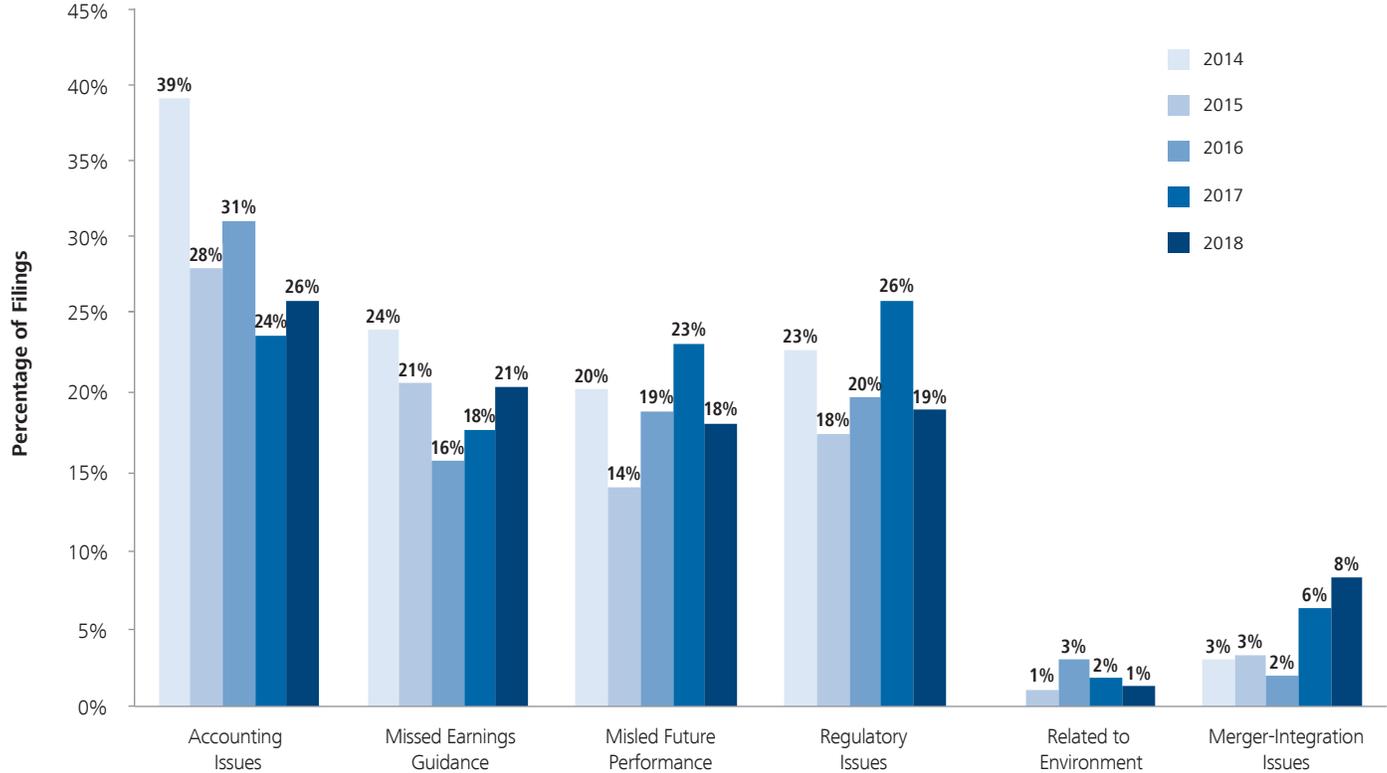
In 2018, 8% of filings included merger integration allegations (i.e., claims of misrepresentations by a firm involved in a merger or acquisition). The substantial increase in litigation in 2017 corresponded with a 14% increase in announced M&A deals with US targets.<sup>16</sup> However, in 2018, despite a 12% slowdown in announced deal activity over the first three quarters, the number of federal merger integration filings rose.<sup>17</sup> The largest merger integration filing related to the failed Tribune Media/Sinclair merger, making up 20% of total Investor Losses.

As in prior years, most allegations related to misleading firm performance in 2018 were against firms in the health care sector. Within health care, firms in the Drugs industry (SIC 283) were subject to two-in-three filings.

Most complaints include a wide variety of allegations, not all of which are depicted here. Due to multiple types of allegations in complaints, the same case may be included in multiple categories.

Figure 12. **Allegations**

Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, and/or Section 12  
January 2014–December 2018

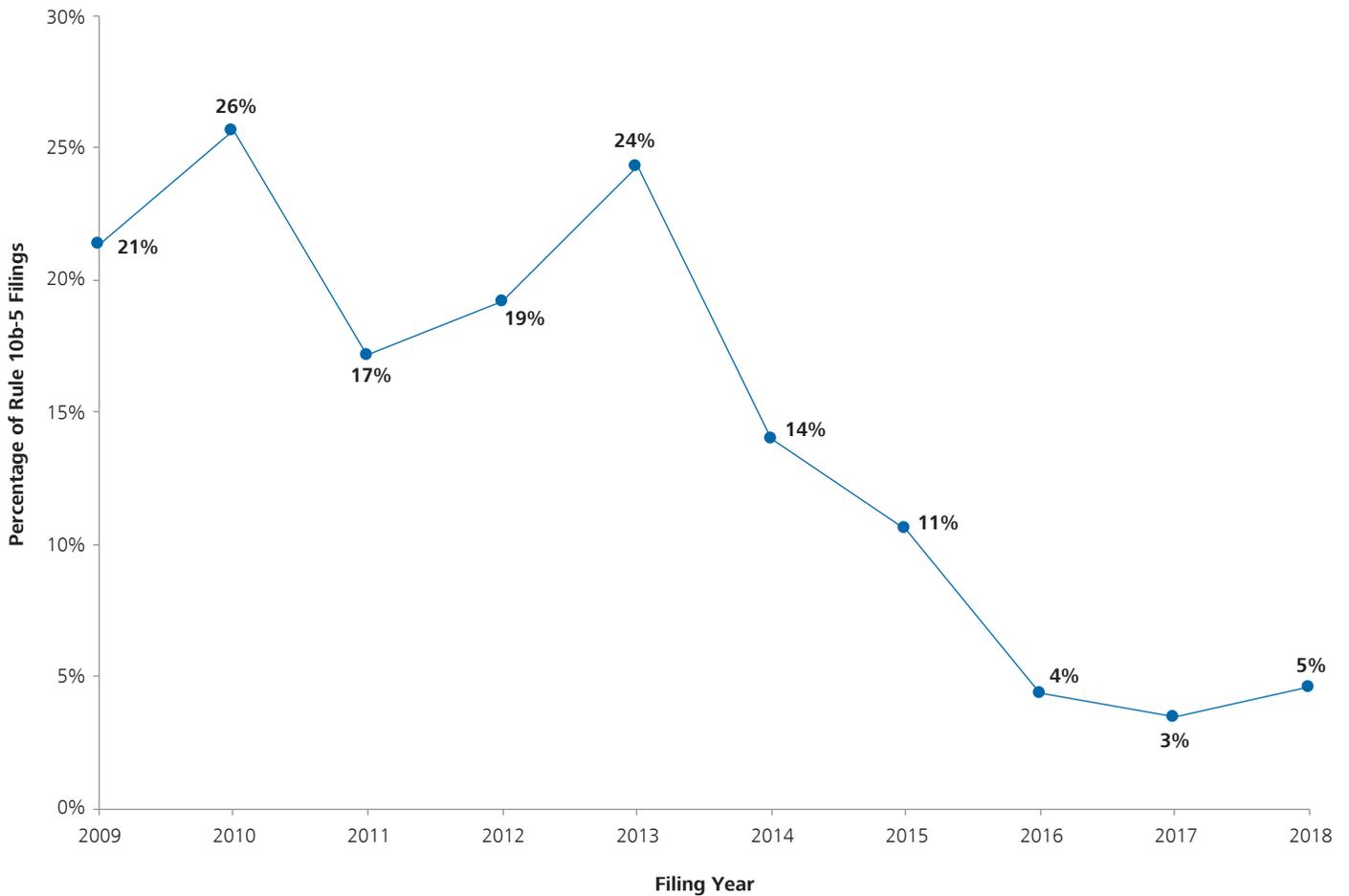


### Alleged Insider Sales

Historically, Rule 10b-5 class action complaints have frequently alleged insider sales by directors and officers, usually as part of a scienter argument. Since 2013, in the wake of a multiyear crackdown on insider trading by prosecutors, the percentage of 10b-5 class actions that alleged insider sales has decreased nearly every year (see Figure 13).<sup>18</sup> This trend also corresponds with increased corporate adoption of 10b5-1 trading plans, allowing insiders to plan share sales while purportedly not in possession of material non-public information.<sup>19</sup>

Cases alleging insider sales were more common in the aftermath of the financial crisis, when a quarter of filings included insider trading claims. In 2005, half of class actions filed included such claims.

Figure 13. **Percentage of Rule 10b-5 Filings Alleging Insider Sales by Filing Year**  
January 2009–December 2018



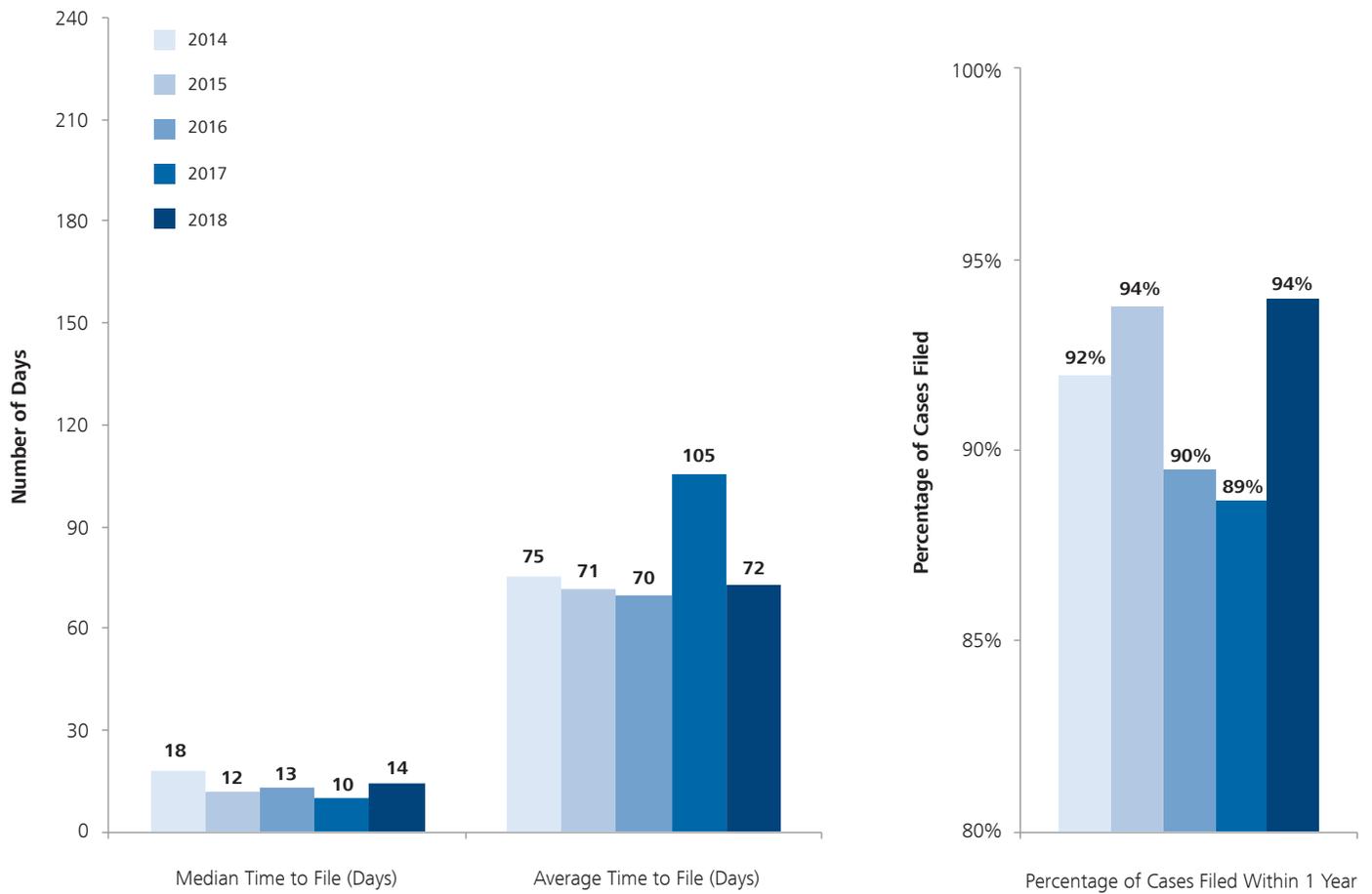
### Time to File

The term “time to file” denotes the time that has elapsed between the end of the alleged class period and the filing date of the first complaint. Figure 14 illustrates how the median time and average time to file Rule 10b-5 cases (in days) have changed over the past five years.

The median time to file fell by about half over the last decade, to 14 days in 2018, indicating that it took 14 days or less to file a complaint in 50% of cases. Since the beginning of the decade, there has been a lower frequency of cases with long periods between the point when an alleged fraud was revealed and the filing of a related claim. The average time to file has followed a similar trajectory, but in 2017 was affected by 10 cases with very long filing delays. In 2017, one case against Rio Tinto, regarding the valuation of mining assets in Mozambique, took more than 4.5 years to file and boosted the average time to file by nearly 9%.<sup>20</sup>

Despite the small minority of cases with very long times to file, the data generally point toward a lower incidence of cases with long periods between revelations of alleged fraud and the date a related claim is filed.

Figure 14. **Time to File Rule 10b-5 Cases from End of Alleged Class Period to File Date**  
January 2014–December 2018



Note: This analysis excludes cases where the alleged class period could not be unambiguously determined.

## Analysis of Motions

NERA’s statistical analysis has found robust relationships between settlement amounts and the stage of the litigation at which settlements occur. We track filings and decisions on three types of motions: motion to dismiss, motion for class certification, and motion for summary judgment. For this analysis, we include securities class actions in which purchasers of common stock are part of the class and in which a violation of Rule 10b-5, Section 11, and/or Section 12 is alleged (i.e., Standard cases).

As shown in the figures below, we record the status of any motion as of the resolution of the case. For example, a motion to dismiss that had been granted but was later denied on appeal is recorded as denied.

Motions for summary judgment were filed by defendants in 7.1%, and by plaintiffs in only 1.9%, of the securities class actions filed and resolved over the 2000–2018 period, among those we tracked.<sup>21</sup>

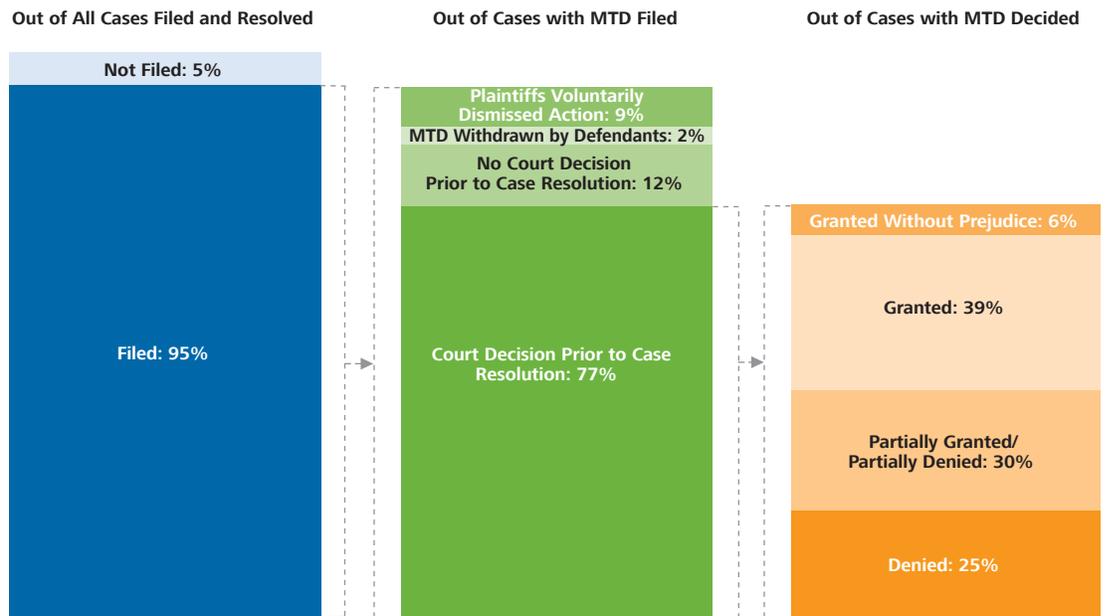
Outcomes of motions to dismiss and motions for class certification are discussed below.

**Motion to Dismiss**

A motion to dismiss was filed in 95% of the securities class actions tracked. However, the court reached a decision on only 77% of the motions filed. In the remaining 23% of cases, either the case resolved before a decision was reached, plaintiffs voluntarily dismissed the action, or the motion to dismiss was withdrawn by defendants (see Figure 15).

Out of the motions to dismiss for which a court decision was reached, the following three outcomes classify all of the decisions: granted with or without prejudice (45%), granted in part and denied in part (30%), and denied (25%).

Figure 15. **Filing and Resolutions of Motions to Dismiss**  
Cases Filed and Resolved January 2000–December 2018



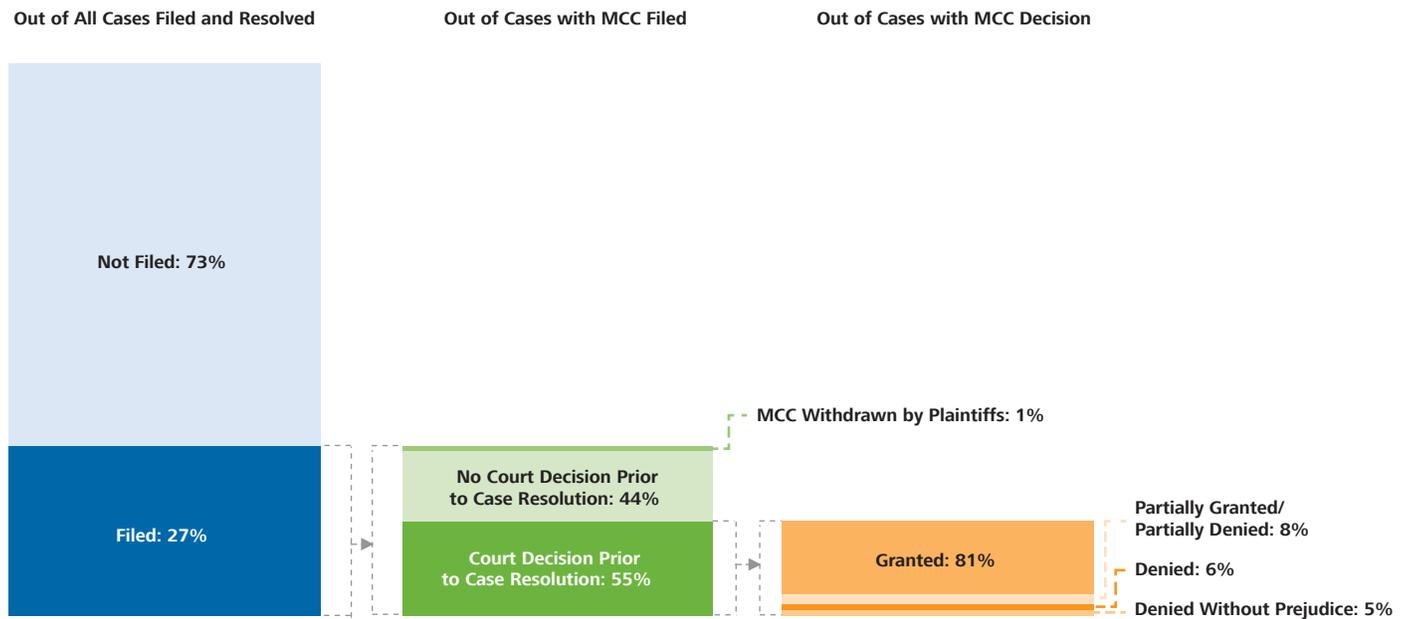
Note: Includes cases in which holders of common stock are part of the class and a Rule 10b-5, Section 11, and/or Section 12 is alleged. Excludes IPO laddering cases.

**Motion for Class Certification**

Most cases were settled or dismissed before a motion for class certification was filed: 73% of cases fell into this category. Of the remaining 27% (in which a motion for class certification was filed), the court reached a decision in only 55% of cases. Overall, only 15% of the securities class actions filed (or 55% of the 27%) reached a decision on the motion for class certification (see Figure 16).

According to our data, 89% of the motions for class certification that were decided were granted partially or in full.

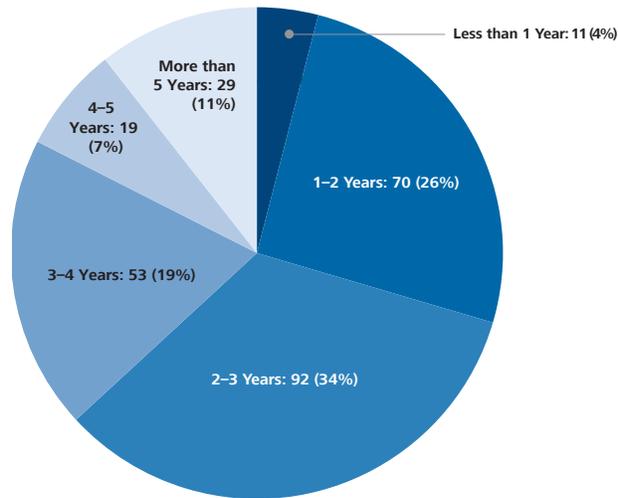
Figure 16. **Filing and Resolutions of Motions for Class Certification**  
Cases Filed and Resolved January 2000–December 2018



Note: Includes cases in which holders of common stock are part of the class and a Rule 10b-5, Section 11, and/or Section 12 is alleged. Excludes IPO laddering cases.

Approximately 64% of the decisions handed down on motions for class certification were reached within three years of the complaint's original filing date (see Figure 17). The median time was about 2.5 years.

Figure 17. **Time from First Complaint Filing to Class Certification Decision**  
Cases Filed and Resolved January 2000–December 2018



Note: Includes cases in which holders of common stock are part of the class and a 10b-5 or Rule 10b-5, Section 11, and/or Section 12 is alleged. Excludes IPO laddering cases.

## Trends in Case Resolutions

### Number of Cases Settled or Dismissed

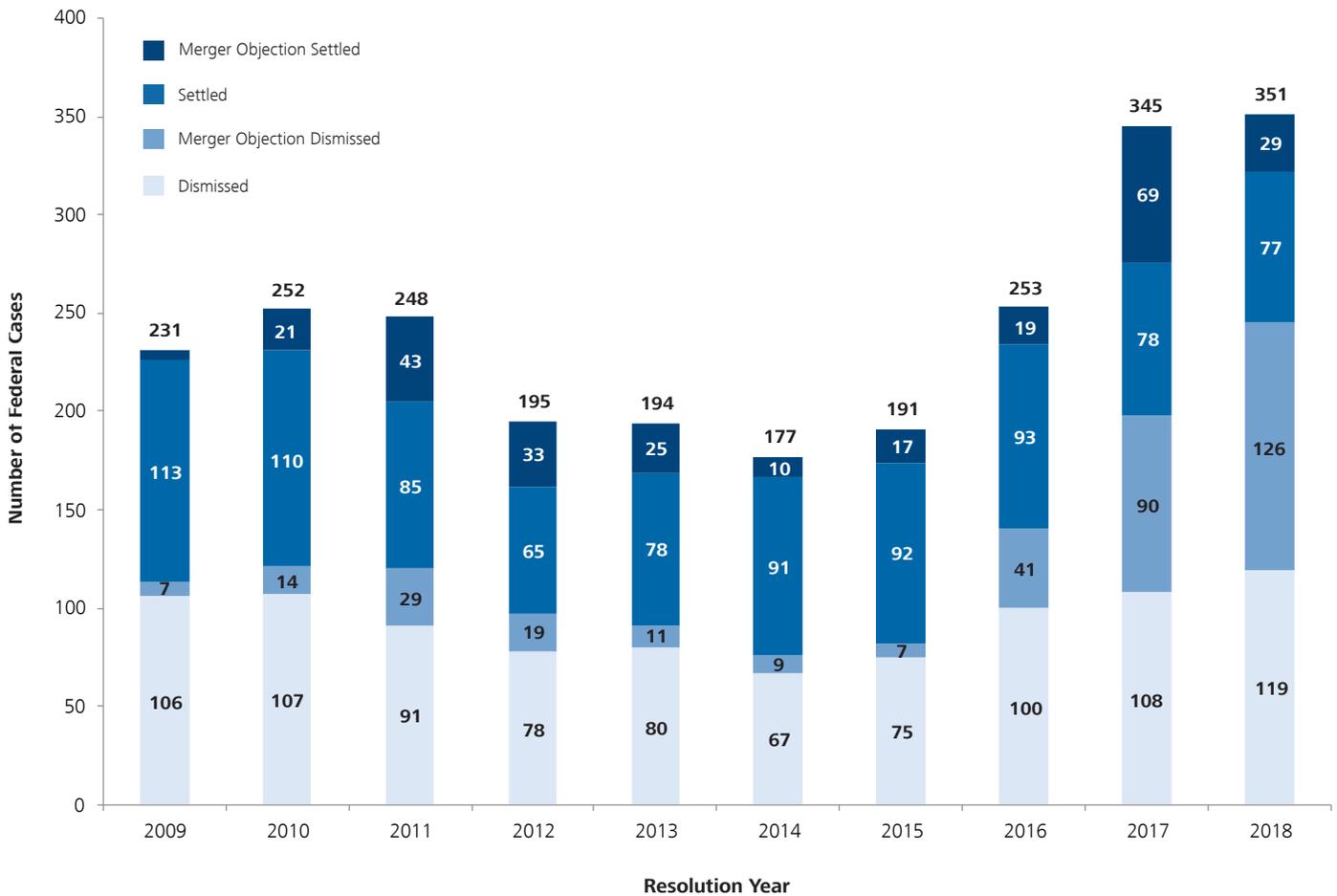
In total, 351 securities class actions were resolved in 2018, the second consecutive year in which a record number of cases concluded (see Figure 18). Resolution numbers were once again dominated by a record number of dismissals, which outnumbered settlements two-to-one for the first time.

Of the 351 resolutions, slightly less than half were resolutions of merger-objection cases (most of which were voluntarily dismissed). The uptick in resolutions over the last few years is largely due to the surge of federal merger-objection cases in the wake of the *Trulia* decision in early 2016.<sup>22</sup> Prior to *Trulia*, only about 13% of resolutions concerned merger-objection litigation. Merger objections had an outsized impact on resolution statistics: despite making up only about 33% of all active cases, they constituted 44% of resolutions.<sup>23</sup>

In 2018, 196 resolutions were of “Standard” securities class actions—those alleging violations of Rule 10b-5, Section 11, and/or Section 12. Standard settlement and dismissal counts closely matched those of 2017, and again more cases were dismissed than settled.

For the second consecutive year, an inordinate number of Standard cases were dismissed within a year of filing, most of which were voluntary dismissals. As shown in Figure 31, the decision to voluntarily dismiss litigation may change with the size of estimated damages to the class. For instance, plaintiffs may be more likely to voluntarily dismiss litigation if the price of the security at issue subsequently increases during the PSLRA bounce-back period.

Figure 18. **Number of Resolved Cases: Dismissed or Settled**  
January 2009–December 2018



### Case Status by Year

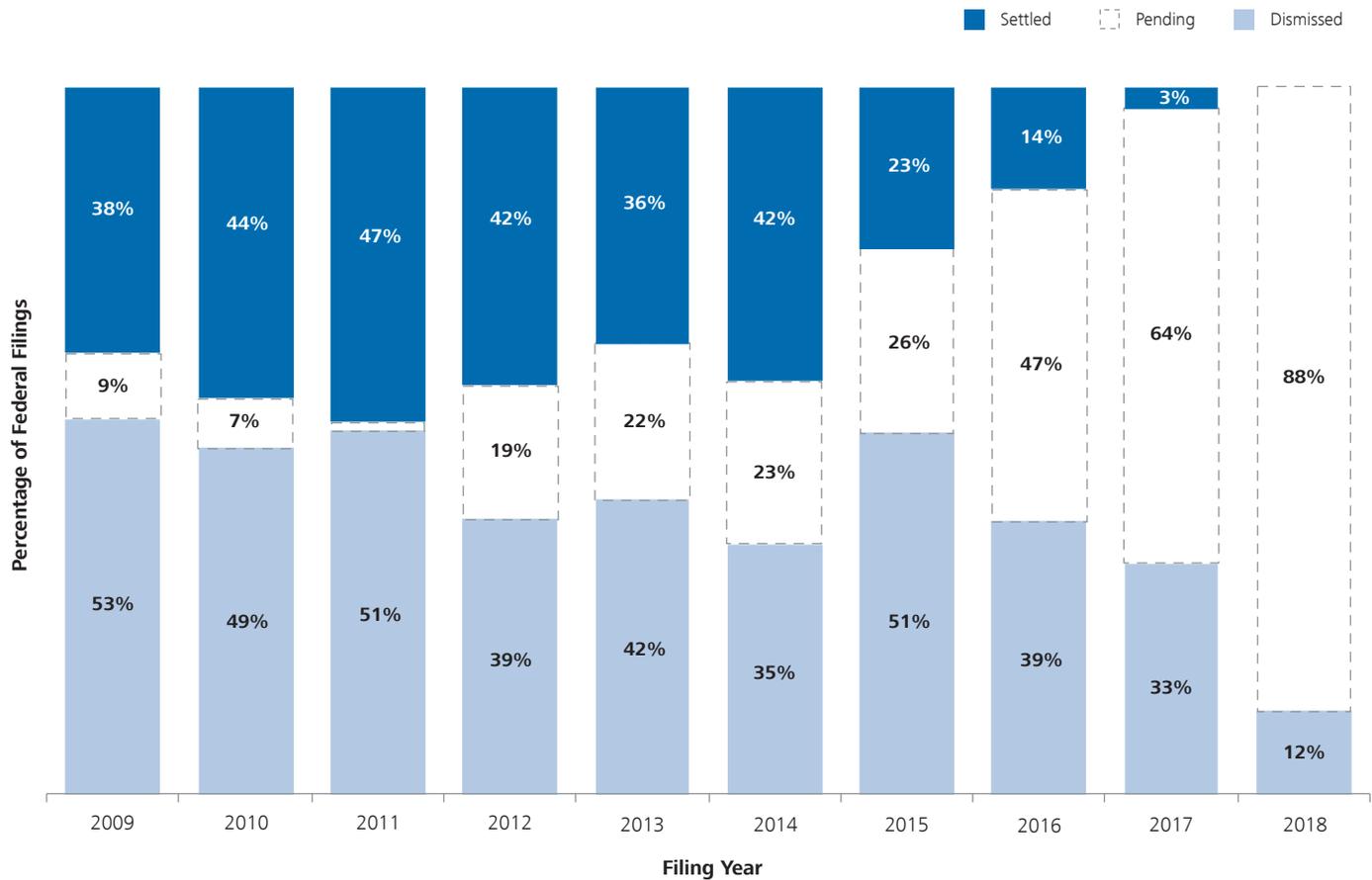
Figure 19 shows the current resolution status of cases by filing year. Each percentage represents the current resolution status of cases filed in each year as a proportion of all cases filed in that year. Merger-objection cases are excluded, as are verdicts.

Historically, more cases settled than were dismissed. However, the rate of case dismissal has steadily increased. While only about a third of cases filed between 2000 and 2002 were dismissed, in 2015, the most recent year with substantial resolution data, at least half of filed cases were dismissed.<sup>24</sup>

While dismissal rates have been climbing since 2000, the ultimate dismissal rate for cases filed in more recent years is less certain. On one hand, the dismissal rate may increase further, as there are more pending cases awaiting resolution. On the other hand, it may decrease because recent dismissals have more potential than older ones to be appealed or re-filed, and cases that were recently dismissed without prejudice may ultimately result in settlements.

Figure 19. **Status of Cases as Percentage of Federal Filings by Filing Year**

Excludes Merger Objections and Verdicts  
January 2009–December 2018



Note: Dismissals may include dismissals without prejudice and dismissals under appeal.

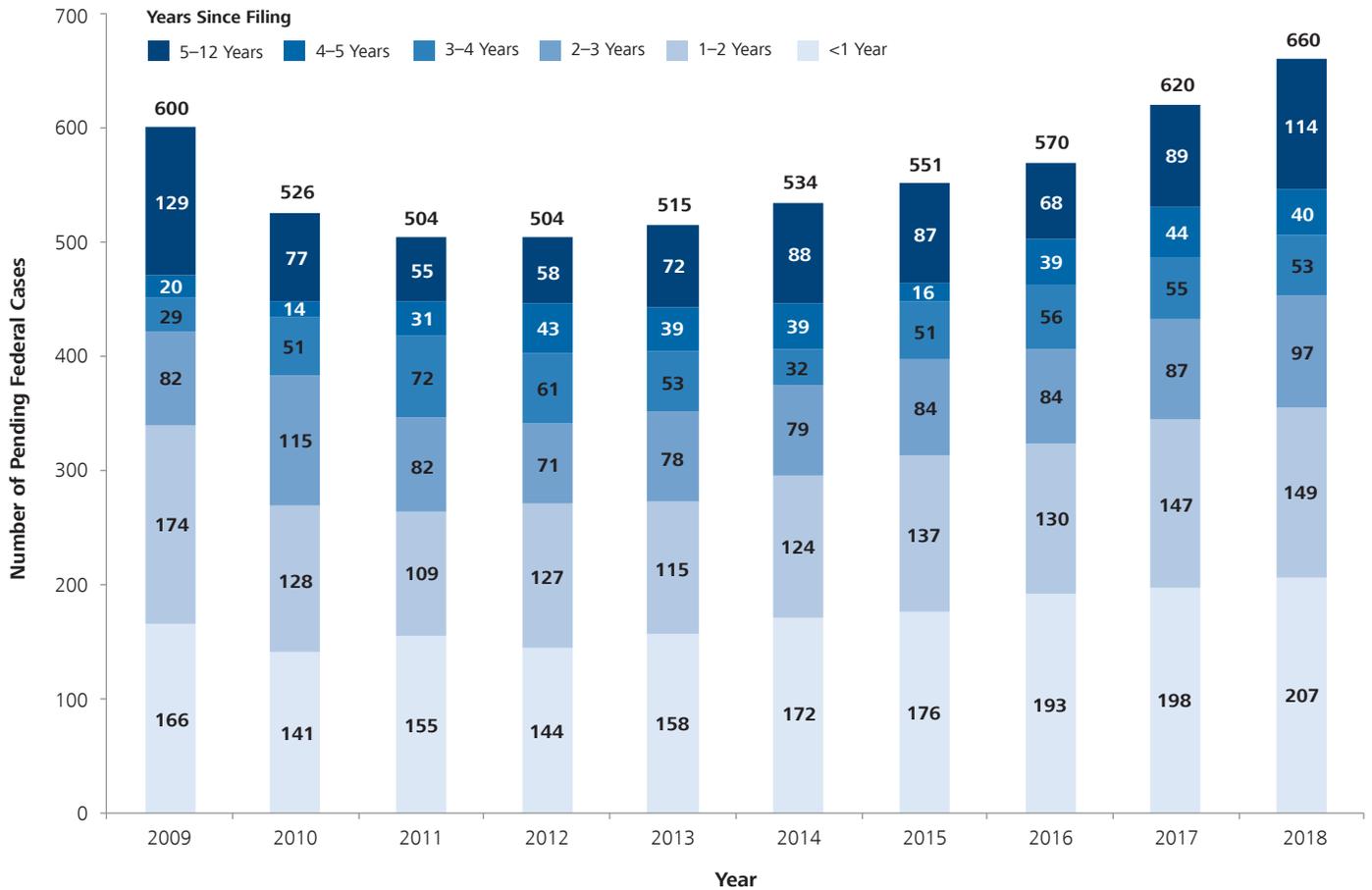
### Number of Cases Pending

The number of Standard securities class actions pending in the federal system has steadily increased from a post-PSLRA low of 504 in 2012 (see Figure 20).<sup>25</sup> Since then, pending case counts have increased between 2% and 9% annually. In 2018, the number of pending Standard cases on federal dockets increased to 660, up 6% from 2017 and 31% from 2012.

Generally, since cases are either pending or resolved, a change in filing rate or a lengthening of the time to case resolution potentially contributes to changes in the number of cases pending. If the number of new filings is constant, the change in the number of pending cases can be indicative of whether the time to case resolution is generally shortening or lengthening.

About 50% of the long-term growth in pending litigation can be explained by recent filing growth (filed over the past two years), the vast majority of which is simply due to more cases being filed that have yet to be resolved. Delayed resolution of older filings (i.e., cases filed before 2017) explains the other 50% or so of growth in pending litigation since 2011. More old cases on federal dockets has driven the median age of pending cases up 14% since 2015 to about 1.9 years, the highest since 2010.<sup>26</sup>

Figure 20. **Number of Pending Federal Cases**  
 Excludes Merger Objections  
 January 2009–December 2018



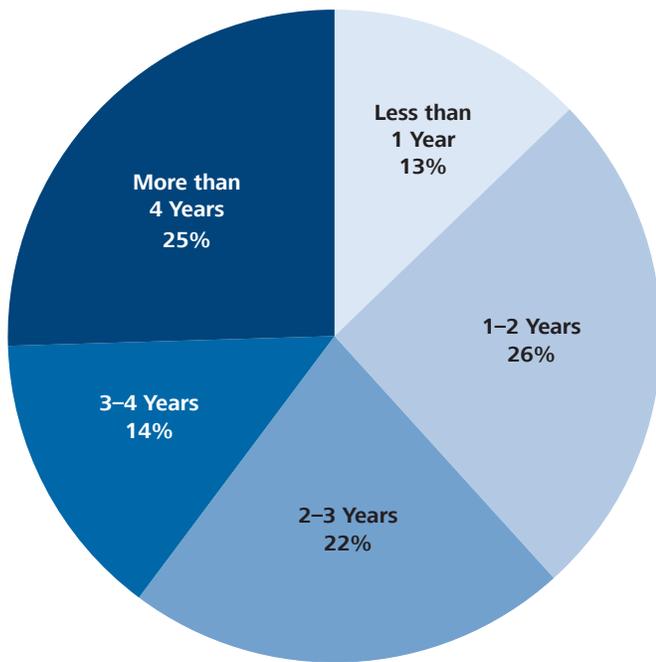
Note: The figure excludes, in each year, cases that had been filed more than 12 years earlier. Years since filing are end-of-year calculations. The figure also excludes IPO laddering cases. The 12-year limit ensure that all pending cases were filed post-PSLRA.

### Time to Resolution

The term “time to resolution” denotes the time between the filing of the first complaint and resolution (whether through settlement or dismissal). Figure 21 illustrates the time to resolution for all securities class actions filed between 2001 and 2014, and shows that about 39% of cases are resolved within two years of initial filing and about 61% are resolved within three years.<sup>27</sup>

The median time to resolution for cases filed in 2016 (the last year with sufficient resolution data) was 2.3 years, similar to the range over the preceding five years. Over the past decade, the median time to resolution declined by more than 10%, primarily due to an increase in the dismissal rate (dismissals are generally resolved faster than settlements).

Figure 21. **Time from First Complaint Filing to Resolution**  
Cases Filed January 2001–December 2014



## Trends in Settlements

We present several settlement metrics to highlight attributes of cases that settled in 2018 and to compare them with cases settled in past years. We discuss two ways of measuring average settlement amounts and calculate the median settlement amount. Each calculation excludes merger-objection cases and cases that settle with no cash payment to the class, as settlements of such cases may obscure trends in what have historically been more typical cases.

In 2018, the average settlement rebounded to \$69 million from a near-record low in 2017, largely due to the \$3 billion settlement involving *Petróleo Brasileiro S.A.—Petrobras*, the fifth-highest settlement ever. Even excluding *Petrobras* (the only settlement of the year exceeding \$1 billion), the average settlement exceeded \$30 million, which is about average in the post-PSLRA era (after adjusting for inflation). The median settlement in 2018 was more than twice that of 2017, primarily due to higher settlements of many moderately sized cases and, generally, fewer very small settlements.

The upswing in 2018 settlement metrics may be a prelude to higher settlements in the future. Aggregate NERA-defined Investor Losses of pending cases, a factor that has historically been significantly correlated with settlement amounts, increased for the third consecutive year and currently exceeds \$1.4 trillion (or \$1.1 trillion excluding 2018 litigation against GE). Excluding GE, average Investor Losses of pending Standard cases have also increased for the third consecutive year to \$2.4 billion, but have receded from a 10-year high of \$3.8 billion in 2011.

To illustrate how many cases settled over various ranges in 2017 compared with prior years, we provide a distribution of settlements over the past five years. We also tabulated the 10 largest settlements of the year.

### Average and Median Settlement Amounts

The average settlement exceeded \$69 million in 2018, somewhat less than three times the \$25 million average settlement in 2017 (see Figure 22). Infrequent large settlements, such as the 2018 Petrobras settlement, are generally responsible for the wide variability in average settlements over the past decade. Similar spikes to the one observed this year were also seen in 2010, 2013, and 2016, each primarily stemming from mega-settlements.

Figure 22. **Average Settlement Value**  
 Excludes Merger Objections and Settlements for \$0 to the Class  
 January 2009–December 2018

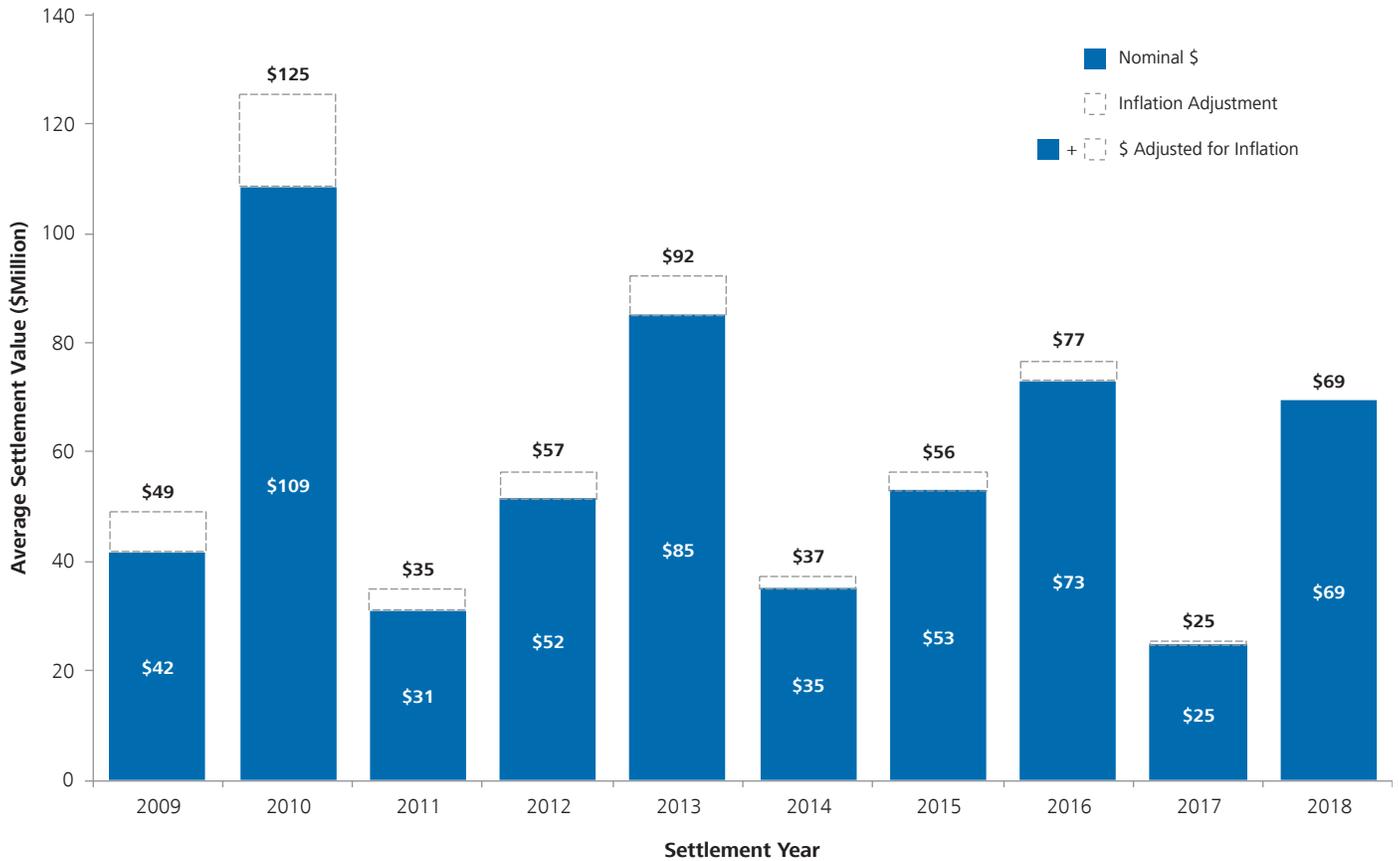
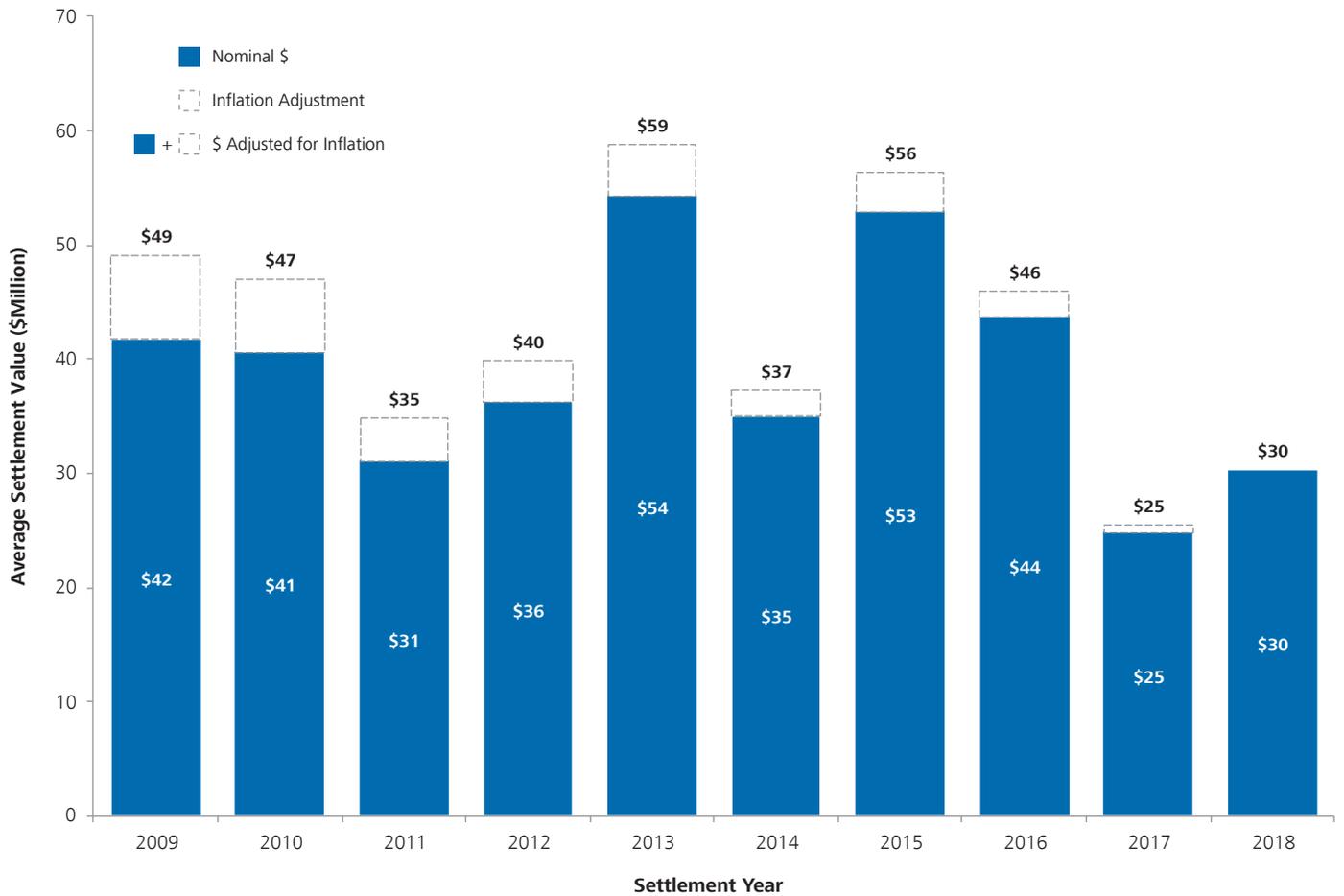


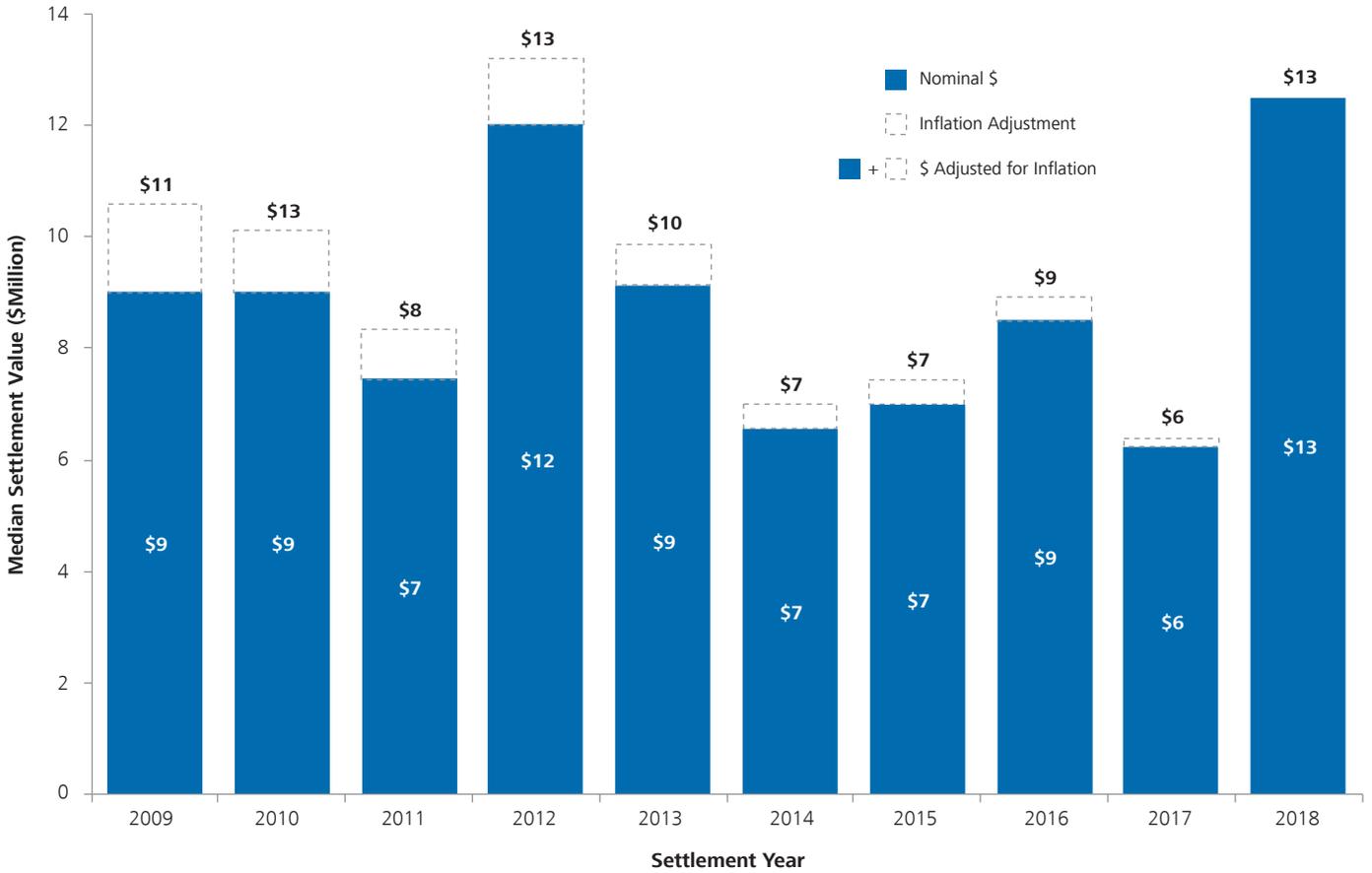
Figure 23 illustrates that, excluding settlements over \$1 billion, the average settlement rebounded from the record low seen in 2017 to \$30 million. Despite this rebound, and setting aside the \$3 billion Petrobras settlement, the 2018 average settlement remained below average compared to the past decade. The metric would have roughly matched the near-record low seen in 2017 but for the \$480 million Wells Fargo settlement that was finalized in mid-December 2018.

Figure 23. **Average Settlement Value**  
 Excludes Settlements over \$1 Billion, Merger Objections, and Settlements for \$0 to the Class  
 January 2009–December 2018



The 2018 median settlement was a near-record \$13 million. This was driven primarily by relatively high settlements of moderately sized cases (as measured by NERA-defined Investor Losses). Cases of moderate size not only made up the bulk of settlements in 2018 but also had a median ratio of settlement to Investor Losses more than 50% higher than in past years. Moreover, unlike 2017, there were generally few very small settlements.

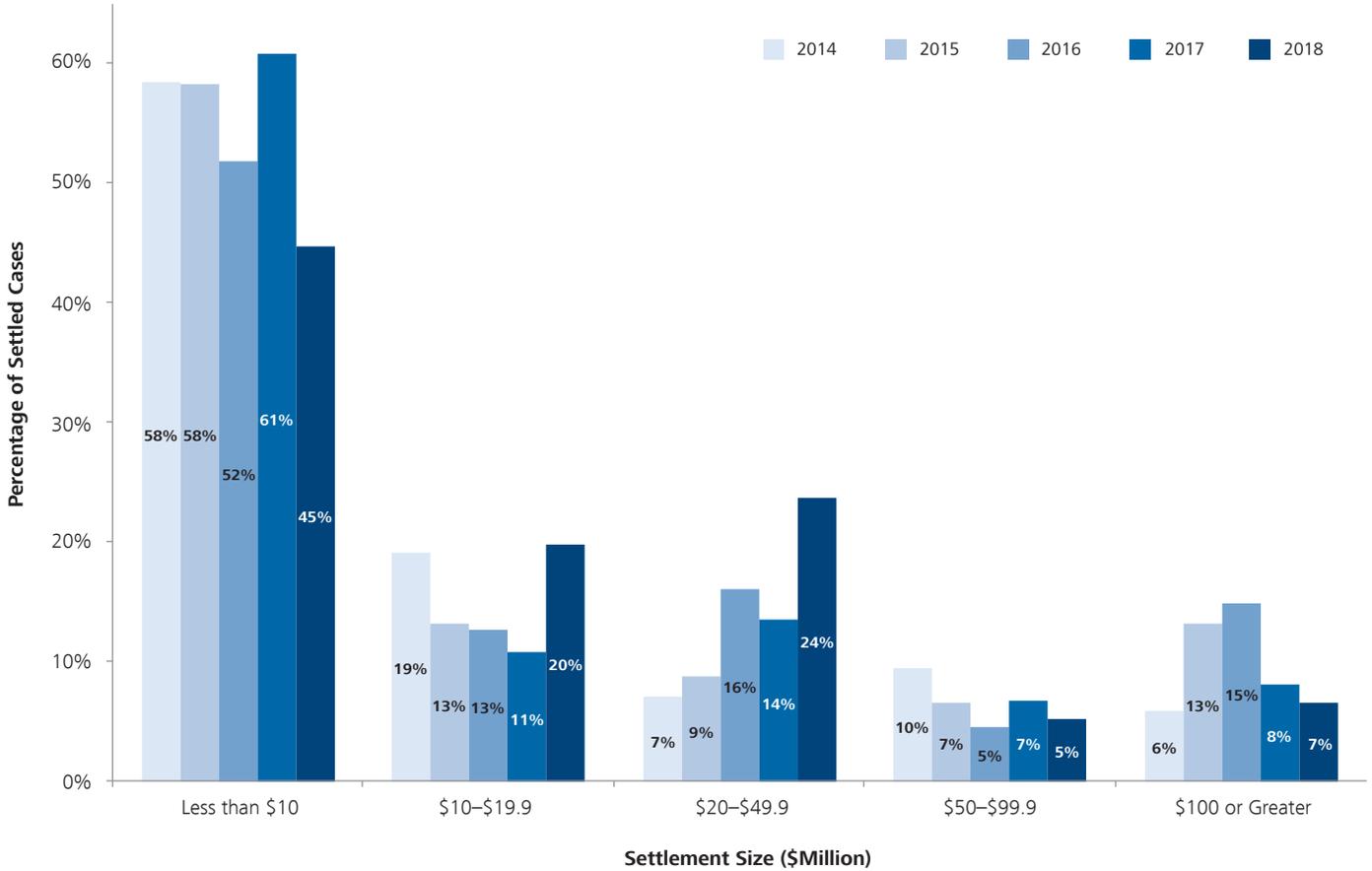
Figure 24. **Median Settlement Value**  
 Excludes Settlements over \$1 Billion, Merger Objections, and Settlements for \$0 to the Class  
 January 2009–December 2018



### Distribution of Settlement Amounts

The relatively high settlements of moderately sized cases in 2018 are also captured in the distribution of settlement values (see Figure 25). In 2018, fewer than 45% of settlements were for less than \$10 million (the lowest rate since 2010), which stands in stark contrast with 2017, when more than 60% of settlements were in the smallest strata (the highest rate since 2011).

Figure 25. **Distribution of Settlement Values**  
 Excludes Merger Objections and Settlements for \$0 to the Class  
 January 2014–December 2018



### The 10 Largest Settlements of Securities Class Actions of 2018

The 10 largest securities class action settlements of 2018 are shown in Table 1. The two largest settlements, against Petrobras and Wells Fargo & Company, are among many large regulatory cases filed in recent years. Three of the 10 largest settlements involved defendants in the Finance sector. Overall, these 10 cases accounted for about \$4.4 billion in settlement value, a near-record 84% of the \$5.3 billion in aggregate settlements.

Despite the size of the Petrobras settlement, it is not even half the size of the second-largest settlement since passage of the PSLRA, WorldCom, Inc., at \$6.2 billion (see Table 2).

Table 1. **Top 10 2018 Securities Class Action Settlements**

Ranking	Case Name	Total Settlement Value (\$Million)	Plaintiffs' Attorneys' Fees and Expenses Value (\$Million)
1	Petróleo Brasileiro S.A.—Petrobras (2014)	\$3,000.0	\$205.0
2	Wells Fargo & Company (2016)	\$480.0	\$96.4
3	Allergan, Inc.	\$290.0	\$71.0
4	Wilmington Trust Corporation	\$210.0	\$66.3
5	LendingClub Corporation	\$125.0	\$16.8
6	Yahoo! Inc. (2017)	\$80.0	\$14.8
7	SunEdison, Inc.	\$73.9	\$19.0
8	Marvell Technology Group Ltd. (2015)	\$72.5	\$14.1
9	3D Systems Corporation	\$50.0	\$15.5
10	Medtronic, Inc. (2013)	\$43.0	\$8.6
	<b>Total</b>	<b>\$4,424.4</b>	<b>\$527.4</b>

Table 2. **Top 10 Securities Class Action Settlements**  
As of 31 December 2018

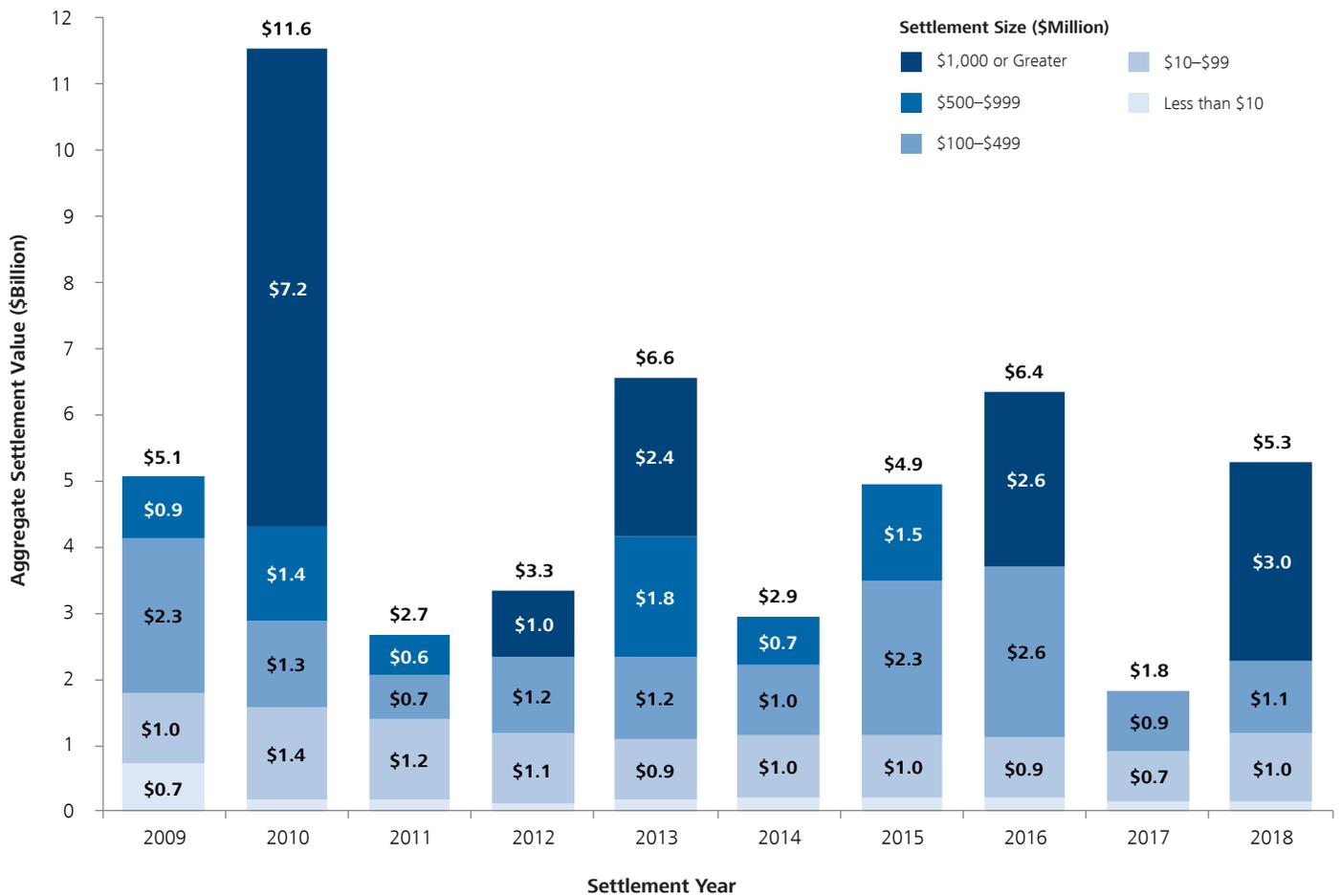
Ranking	Defendant	Settlement Year(s)	Total Settlement Value (\$Million)	Codefendant Settlements		Plaintiffs' Attorneys' Fees and Expenses Value (\$Million)
				Financial Institutions Value (\$Million)	Accounting Firms Value (\$Million)	
1	ENRON Corp.	2003–2010	\$7,242	\$6,903	\$73	\$798
2	WorldCom, Inc.	2004–2005	\$6,196	\$6,004	\$103	\$530
3	Cendant Corp.	2000	\$3,692	\$342	\$467	\$324
4	Tyco International, Ltd.	2007	\$3,200	No codefendant	\$225	\$493
5	Petróleo Brasileiro S.A.—Petrobras	2018	\$3,000	\$0	\$50	\$205
6	AOL Time Warner Inc.	2006	\$2,650	No codefendant	\$100	\$151
7	Bank of America Corp.	2013	\$2,425	No codefendant	No codefendant	\$177
8	Household International, Inc.	2006–2016	\$1,577	Dismissed	Dismissed	\$427
9	Nortel Networks (I)	2006	\$1,143	No codefendant	\$0	\$94
10	Royal Ahold, NV	2006	\$1,100	\$0	\$0	\$170
	<b>Total</b>		<b>\$32,224</b>	<b>\$13,249</b>	<b>\$1,017</b>	<b>\$3,368</b>

### Aggregate Settlements

We use the term “aggregate settlements” to denote the total amount of money to be paid to settle litigation by (non-dismissed) defendants based on the court-approved settlements during a year.

Aggregate settlements rebounded to nearly \$5.3 billion in 2018, more than double the 2017 total (see Figure 26). More than 80% of the growth stems from the \$3.0 billion Petrobras settlement. Excluding Petrobras and Wells Fargo, aggregate settlements are near the 2017 record low, reflecting a persistent slowdown in overall settlement activity.

Figure 26. **Aggregate Settlement Value by Settlement Size**  
January 2009–December 2018



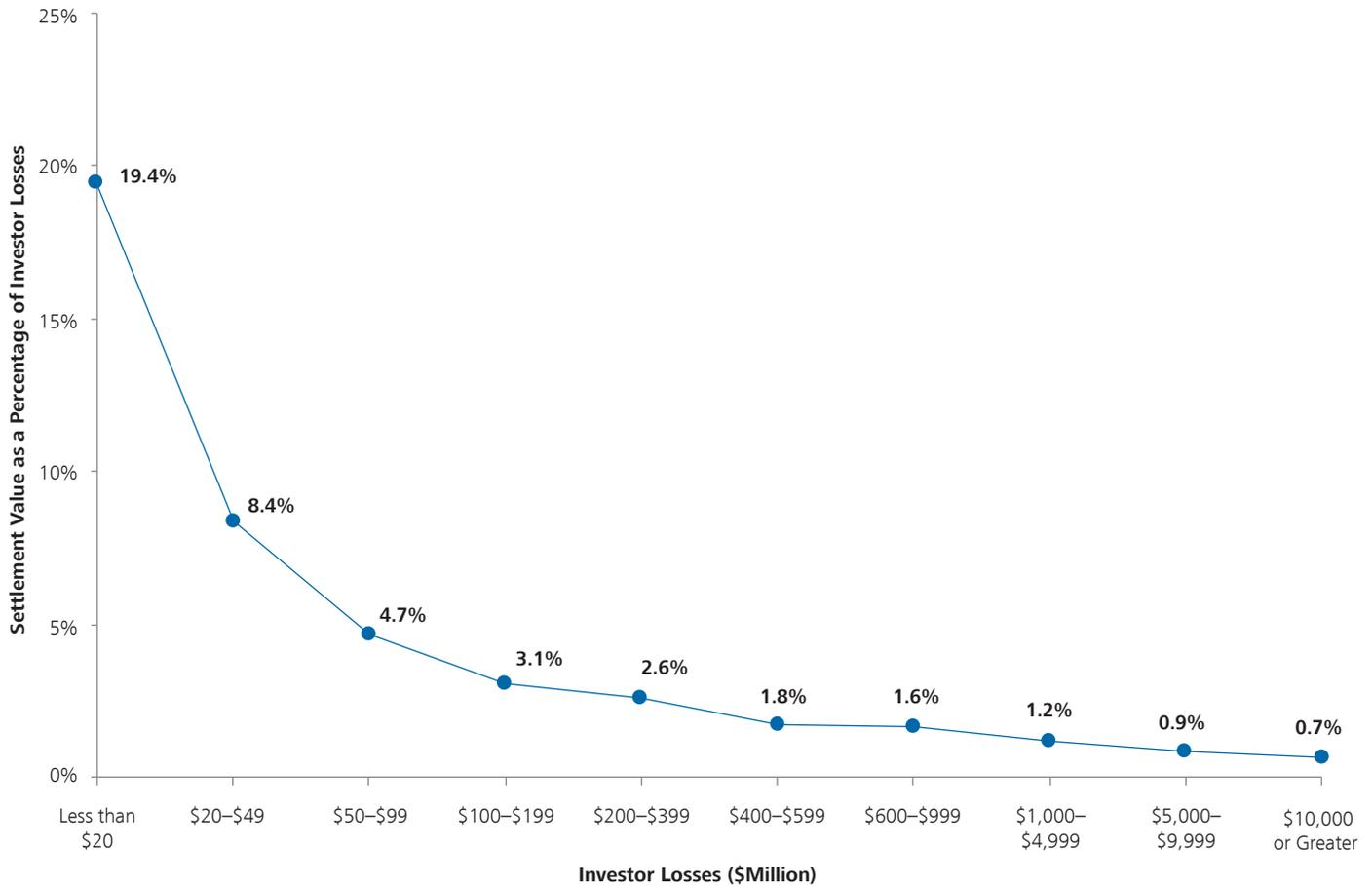
**NERA-Defined Investor Losses vs. Settlements**

As noted above, our proxy for case size, NERA-defined Investor Losses, is a measure of the aggregate amount investors lost from buying the defendant’s stock rather than investing in the broader market during the alleged class period.

In general, settlement size grows as NERA-defined Investor Losses grow, but the relationship is not linear. Based on our analysis of data from 1996 to 2018, settlement size grows less than proportionately with Investor Losses. In particular, small cases typically settle for a higher fraction of Investor Losses (i.e., more cents on the dollar) than larger cases. For example, the ratio of settlement to Investor Loss for the median case was 19.4% for cases with Investor Losses of less than \$20 million, while it was 0.7% for cases with Investor Losses over \$10 billion (see Figure 27).

Our findings about the ratio of settlement amount to NERA-defined Investor Losses should not be interpreted as the share of damages recovered in settlement, but rather as the recovery compared to a rough measure of the “size” of the case. Notably, the percentages given here apply *only* to NERA-defined Investor Losses. Using a different definition of investor losses would result in a different ratio. Also, the use of the ratio alone to forecast the likely settlement amount would be inferior to a proper all-encompassing analysis of the various characteristics shown to impact settlement amounts, as discussed in the section *Explaining Settlement Values*.

Figure 27. **Median of Settlement Value as a Percentage of NERA-Defined Investor Losses by Level of Investor Losses**  
 Excludes Settlements for \$0 to the Class  
 January 1996–December 2018

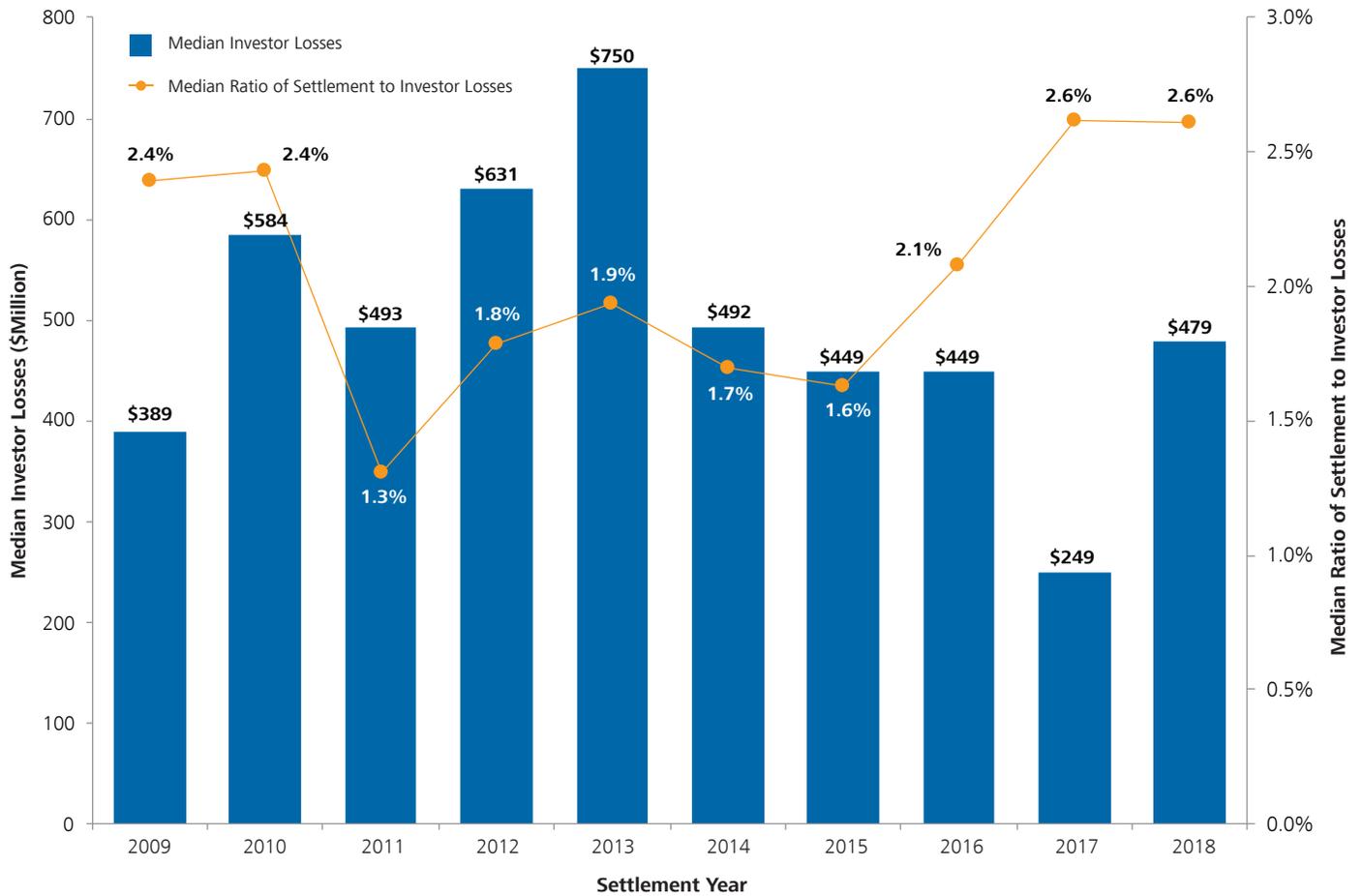


### Median NERA-Defined Investor Losses over Time

Prior to 2014, median NERA-defined Investor Losses for settled cases had been on an upward trajectory since the passage of the PSLRA. As described above, the median ratio of settlement size to Investor Losses generally decreases as Investor Losses increase. Over time, the increase in median Investor Losses coincided with a decreasing trend in the median ratio of settlement to Investor Losses. Of course, there are also year-to-year fluctuations.

As shown in Figure 28, the median ratio of settlements to NERA-defined Investor Losses was 2.6% in 2018. This was the third consecutive year of at least a short-term reversal of a long-term downtrend of the ratio between passage of the PSLRA and 2015.

Figure 28. **Median NERA-Defined Investor Losses and Median Ratio of Settlement to Investor Losses by Settlement Year**  
January 2009–December 2018



### Explaining Settlement Amounts

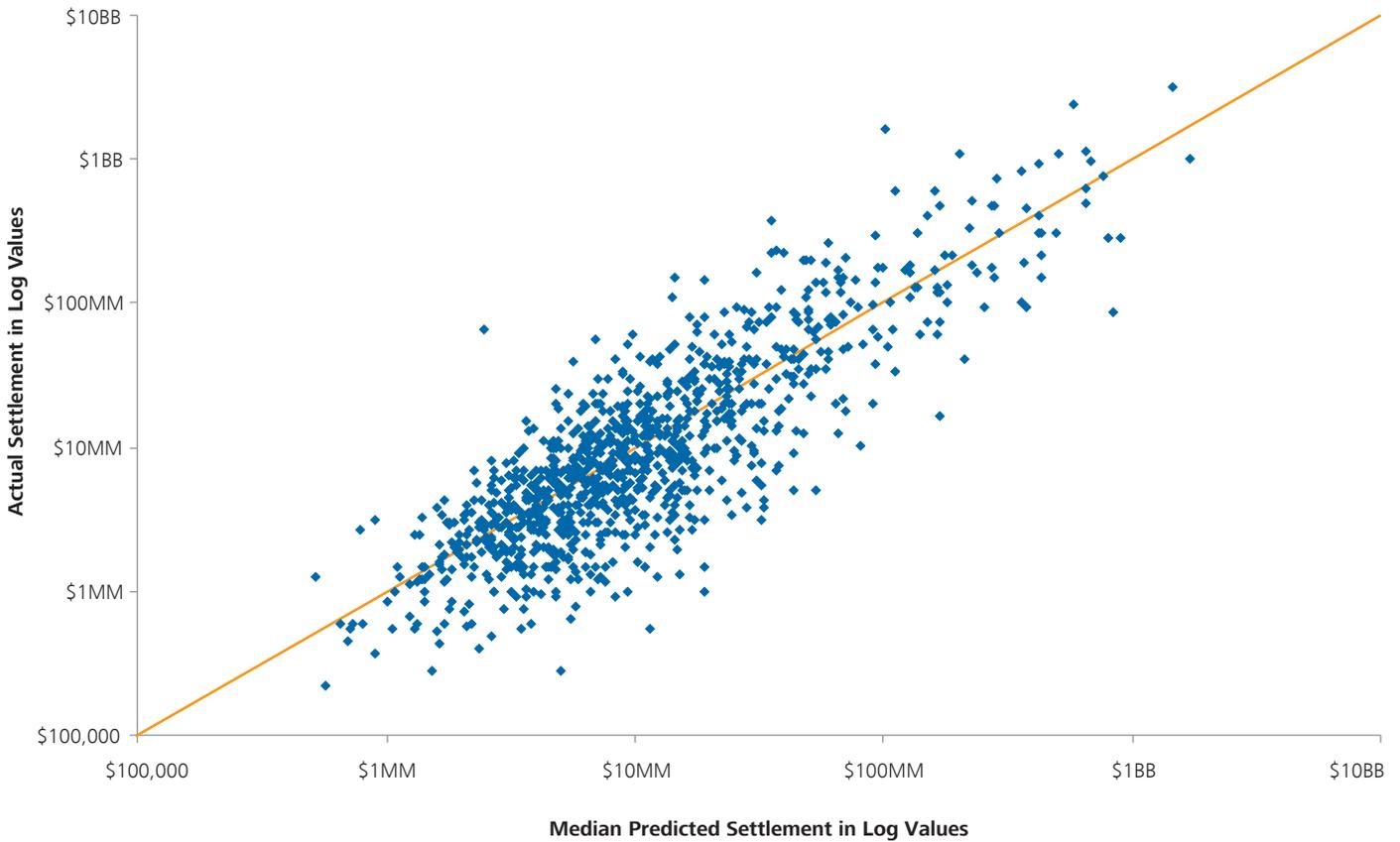
The historical relationship between case attributes and other case- and industry-specific factors can be used to measure the factors correlated with settlement amounts. NERA has examined settlements in more than 1,000 securities class actions and identified key drivers of settlement amounts, many of which have been summarized in this report.

Generally, we find that the following factors have historically been significantly correlated with settlements:

- NERA-defined Investor Losses (a proxy for the size of the case);
- The market capitalization of the issuer;
- Types of securities 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);
- Admitted accounting irregularities or restated financial statements;
- The existence of a parallel derivative litigation; and
- An institution or public pension fund as lead plaintiff.

Together, these characteristics and others explain most of the variation in settlement amounts, as illustrated in Figure 29.<sup>28</sup>

Figure 29. **Predicted vs. Actual Settlements**

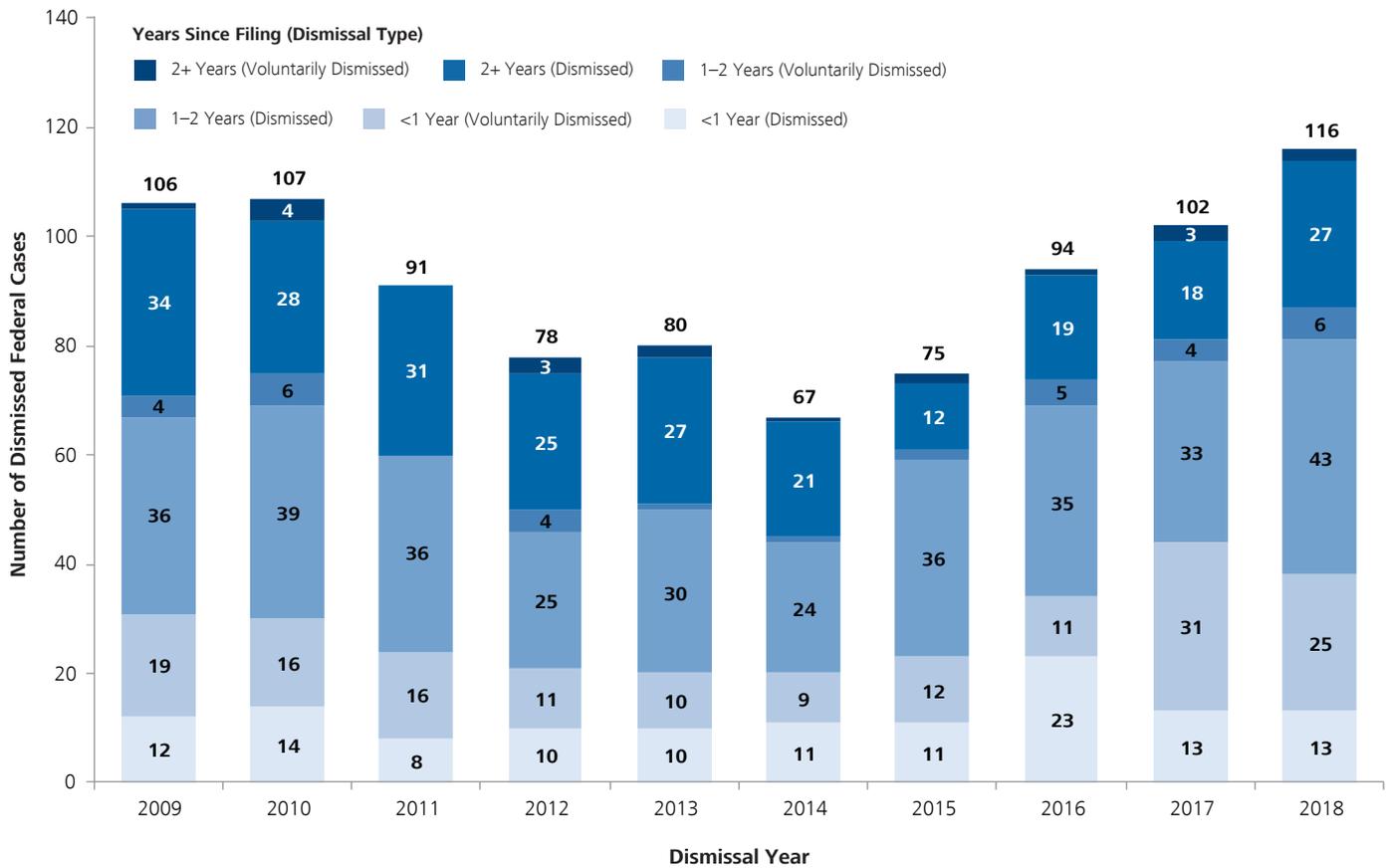


## Trends in Dismissals

The elevated rate of case dismissal persisted in 2018 (excluding merger objections), with more than 100 dismissals for the second consecutive year (see Figure 30). This partially stems from more cases being filed over the past couple of years, as 75% of dismissals are of cases less than two years old. Additionally, there were 25 voluntary dismissals within a year of filing, an elevated rate for the second year in a row.

Figure 30. **Number of Dismissed Cases by Case Age**

Excludes Merger Objections  
January 2009–December 2018



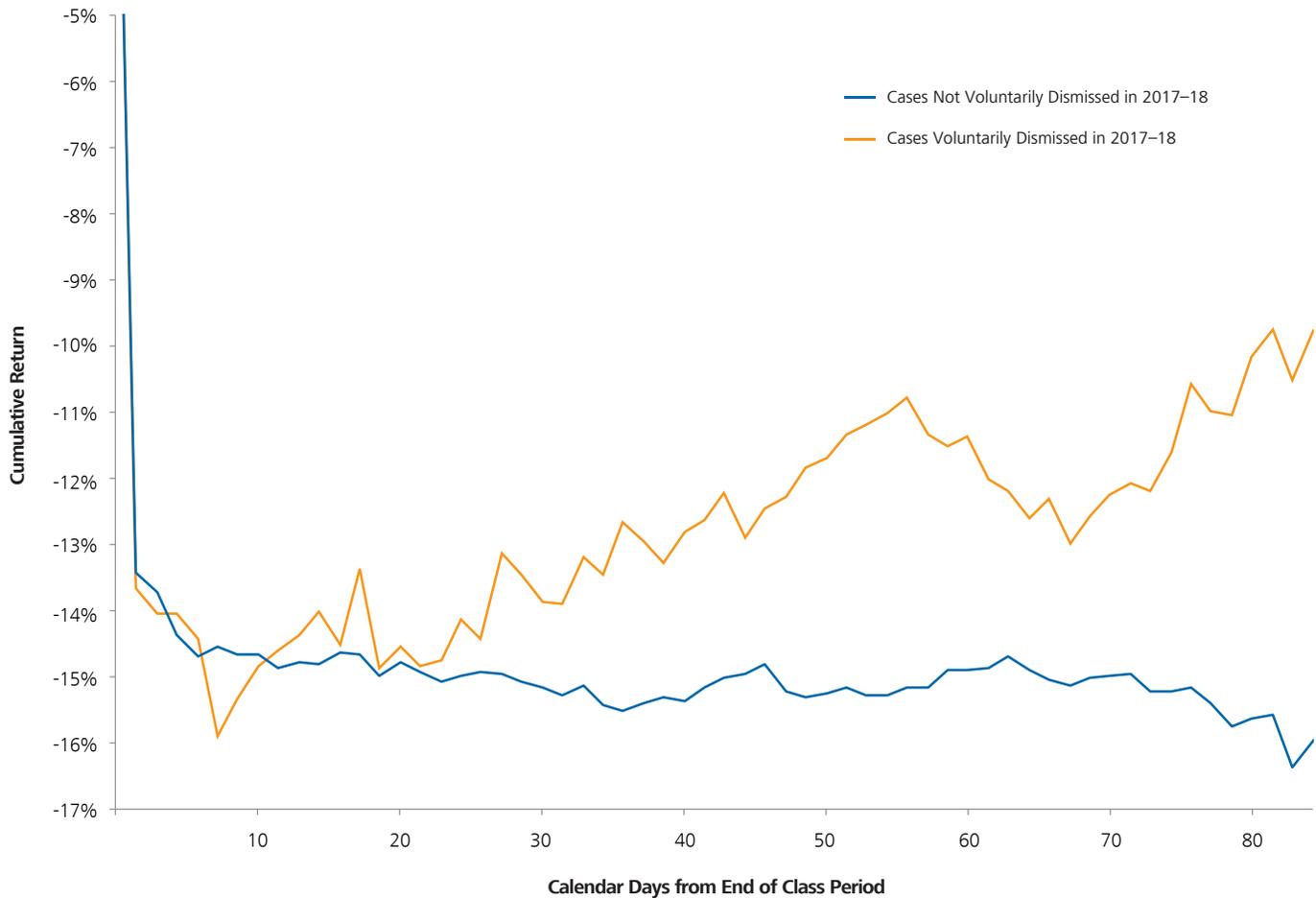
In 2018, about 12% of Standard cases were filed and resolved within the same calendar year, the second-highest rate in at least a decade (after 2017). By the end of the year, 8% of cases were voluntarily dismissed (down from 11% in 2017, but double the 2012–2016 average). Plaintiffs' voluntary dismissal of a case may be a result of perceived case weakness or changes in financial incentives. Recent research also documented forum selection by plaintiffs as a driver of voluntary dismissal without prejudice.<sup>29</sup>

The incentive for plaintiffs (and/or their counsel) to proceed with litigation may change with estimated damages to the class and expected recoveries since filing. For instance, the PSLRA 90-day bounce-back provision caps the award of damages to plaintiffs by the difference between the purchase price of a security and the mean trading price of the security during the 90-day period beginning on the date of the alleged corrective disclosure.

Since most securities class actions are filed well before the end of the bounce-back period (see Figure 14 for time-to-file metrics), plaintiffs may be more likely to voluntarily dismiss litigation if the price of the security at issue subsequently increases. As shown in Figure 31, in 2017 and 2018, the 90-day return of securities underlying cases voluntarily dismissed was about seven percentage points greater, on average, than securities underlying cases not voluntarily dismissed.<sup>30</sup>

The rate of voluntary dismissals was not particularly concentrated in terms of jurisdiction or the specific allegations we track.

Figure 31. **Average PSLRA Bounce-Back Period Returns of Voluntary Dismissals**  
 Shareholder Class Actions with Alleged Violations of Rule 10b-5, Section 11, or Section 12  
 January 2017–December 2018



Note: To control for the impact of outliers on the average of each group, for each day the most extreme 5% of cumulative returns are dropped. Observations on the three final trading days of the bounce-back period for each category are dropped due to incomplete return data.

## Trends in Attorneys’ Fees

### Plaintiffs’ Attorneys’ Fees and Expenses

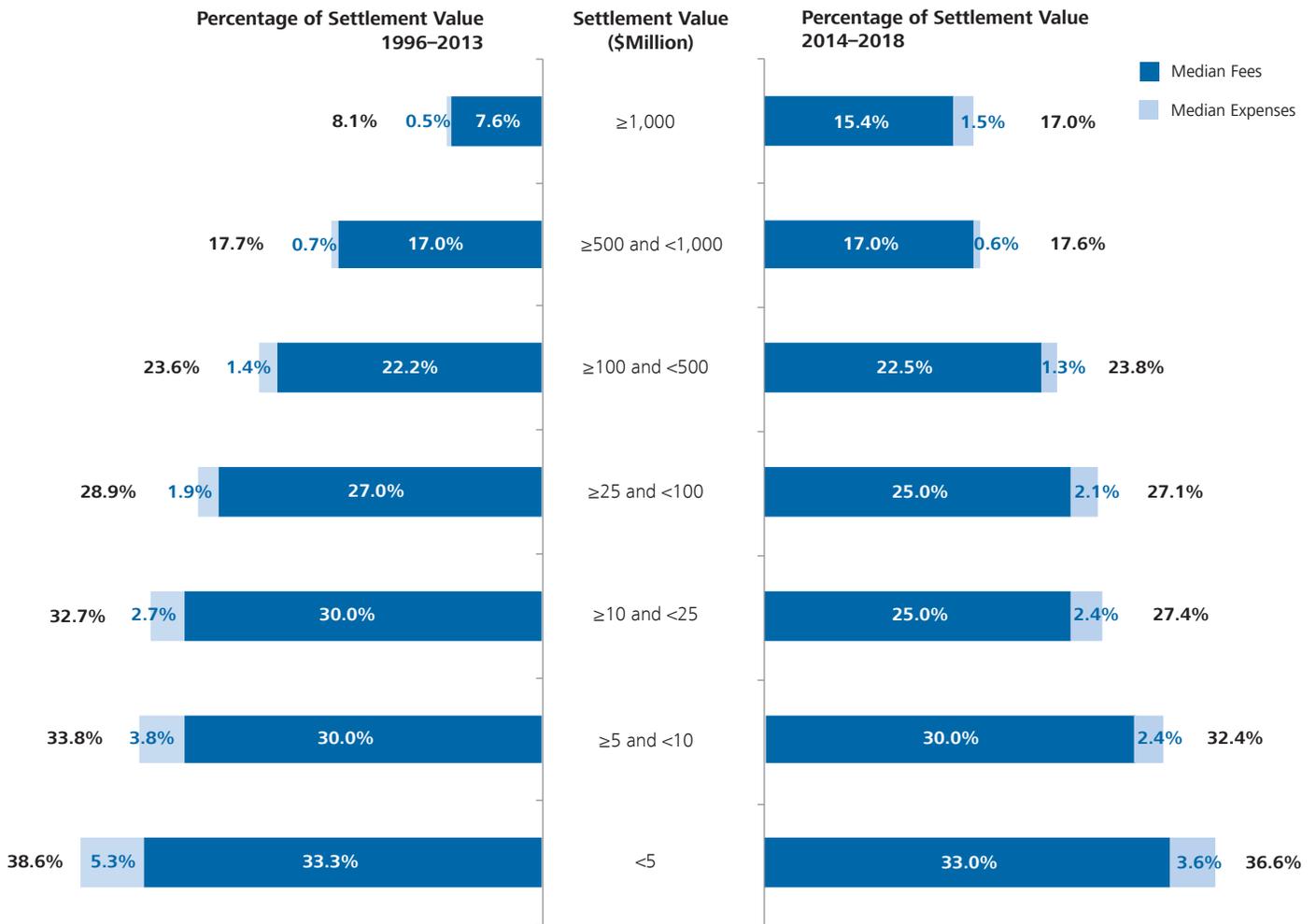
Usually, plaintiffs’ attorneys’ remuneration is determined as a fraction of any settlement amount in the form of fees, plus expenses. Figure 32 depicts plaintiffs’ attorneys’ fees and expenses as a proportion of settlement values over ranges of settlement amounts. The data shown in this figure excludes settlements for merger-objection cases and cases with no cash payment to the class.

A strong pattern is evident in Figure 32; typically, fees grow with settlement size, but less than proportionally (i.e., the fee percentage shrinks as the settlement size grows).

To illustrate that the fee percentage typically shrinks as settlement size grows, we grouped settlements by settlement value and reported the median fee percentage for each group. While fees are stable at around 30% of settlement values for settlements below \$10 million, this percentage declines as settlement size increases.

We also observe that fee percentages have been decreasing over time, except for fees awarded on very large settlements. For settlements above \$1 billion, fee rates have increased.

Figure 32. **Median of Plaintiffs’ Attorneys’ Fees and Expenses by Size of Settlement**  
Excludes Merger Objections and Settlements for \$0 to the Class



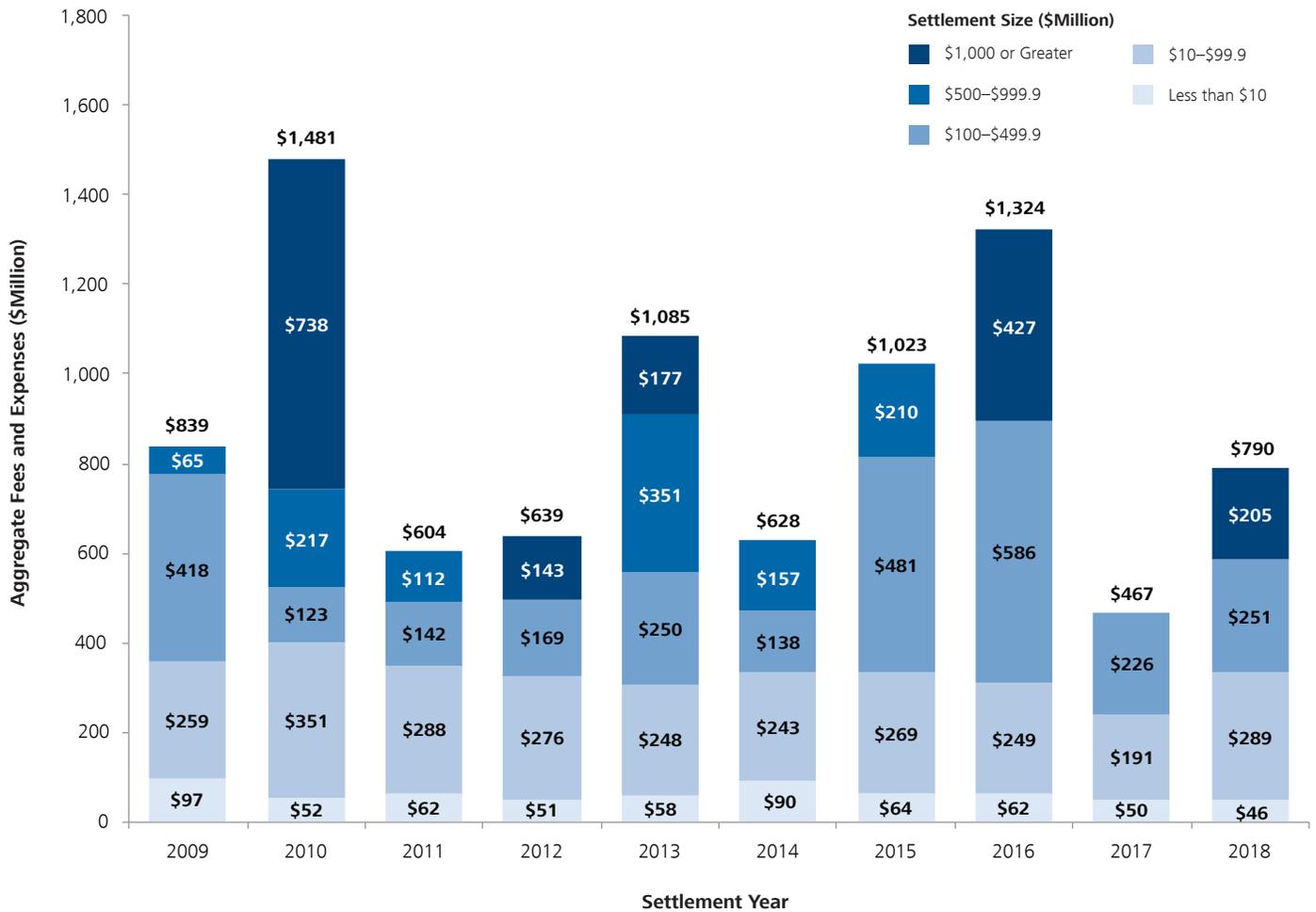
### Aggregate Plaintiffs’ Attorneys’ Fees and Expenses

Aggregate plaintiffs’ attorneys’ fees and expenses are the sum of all fees and expenses received by plaintiffs’ attorneys for all securities class actions that receive judicial approval in a given year.

In 2018, aggregate plaintiffs’ attorneys’ fees and expenses were \$790 million, about 70% higher than in 2017 (see Figure 33). The increase in fees partially reflects the rebound in settlements, but fees grew substantially less than the near-tripling of aggregate settlements. This is partially due to the outsized impact of the \$3 billion Petrobras settlement, one of several mega-settlements that historically generates lower fees as a percentage of settlement value.

Note that Figure 33 differs from the other figures in this section because the aggregate includes fees and expenses that plaintiffs’ attorneys receive for settlements in which no cash payment was made to the class.

Figure 33. **Aggregate Plaintiffs’ Attorneys’ Fees and Expenses by Settlement Size**  
January 2009–December 2018



## Notes

- <sup>1</sup> This edition of NERA's report on recent trends in securities class action litigation expands on previous work by our colleagues Lucy Allen, Dr. Vinita Juneja, Dr. Denise Neumann Martin, Dr. Jordan Milev, Robert Patton, Dr. Stephanie Planchich, and others. The authors also thank Dr. Milev for helpful comments on this edition. These individuals receive credit for improving this paper; all errors and omissions are ours.
- <sup>2</sup> Data for this report are collected from multiple sources, including Institutional Shareholder Services Inc., complaints, case dockets, Dow Jones Factiva, Bloomberg Finance L.P., FactSet Research Systems, Inc., Nasdaq, Inc., Intercontinental Exchange, Inc., US Securities and Exchange Commission (SEC) filings, and public press reports.
- <sup>3</sup> *In re Trulia, Inc. Stockholder Litigation*, C.A. No. 10020-CB (Del. Ch. Jan. 22, 2016).
- <sup>4</sup> Craig Doidge, G. Andrew Karolyi, and René M. Stulz, "The U.S. Listing Gap," National Bureau of Economic Research Working Paper No. 21181, May 2015.
- <sup>5</sup> *In re Trulia, Inc. Stockholder Litigation*, C.A. No. 10020-CB (Del. Ch. Jan. 22, 2016).
- <sup>6</sup> For M&A statistics, see "Mergers & Acquisitions Review: First Nine Months 2018," Thomson Reuters, October 2018, available at [http://dmi.thomsonreuters.com/Content/Files/3Q2018\\_MA\\_Legal\\_Advisor\\_Review.pdf](http://dmi.thomsonreuters.com/Content/Files/3Q2018_MA_Legal_Advisor_Review.pdf).
- <sup>7</sup> *In re Trulia, Inc. Stockholder Litigation*, C.A. No. 10020-CB (Del. Ch. Jan. 22, 2016).
- <sup>8</sup> Matthew D. Cain and Steven D. Solomon, "Takeover Litigation in 2015," Berkeley Center for Law, Business and the Economy, 14 January 2016.
- <sup>9</sup> Warren S. de Wied, "Delaware Forum Selection Bylaws After Trulia," Harvard Law School Forum on Corporate Governance and Financial Regulation, 25 February 2016.
- <sup>10</sup> *In re: Walgreen Co. Stockholder Litigation*, No. 15-3799 (7th Cir. Aug. 10, 2016).
- <sup>11</sup> Federal securities class actions that allege violations of Rule 10b-5, Section 11, and/or Section 12 have historically dominated federal securities class action dockets and often been referred to as "Standard" cases.
- <sup>12</sup> *Cyan, Inc. v. Beaver County Employees Retirement Fund*, Supreme Court No. 15-1439.
- <sup>13</sup> See Restoration Robotics Inc. SEC Form 8-K, filed 17 October 2017, and Snap, Inc. SEC Form S-1, filed 2 February 2017.
- <sup>14</sup> Regulatory cases with parallel accounting, performance, or missed earnings claims are excluded.
- <sup>15</sup> Industries with fewer than 25 firms listed on US exchanges are dropped.
- <sup>16</sup> For M&A statistics, see "Mergers & Acquisitions Review, Full Year 2017," Thomson Reuters, December 2017.
- <sup>17</sup> For M&A statistics, see "Mergers & Acquisitions Review, First Nine Months 2018," Thomson Reuters, October 2018.
- <sup>18</sup> "SAC to pay \$1.8 billion to settle insider trading charges," Chicago Tribune, 4 November 2013, available at <https://www.chicagotribune.com/business/ct-xpm-2013-11-04-chi-sac-to-pay-18-billion-to-settle-insider-trading-charges-20131104-story.html>.
- <sup>19</sup> Filings indicate that most firms in the SP 500 have adopted 10b5-1 plans as of 2014. See "Balancing Act: Trends in 10b5-1 Adoption and Oversight Article," Morgan Stanley, 2019.
- <sup>20</sup> This case was filed after the SEC filed a complaint, more than four years after the end of the proposed class period, which plaintiffs in the class action state first revealed the alleged fraud.
- <sup>21</sup> Outcomes of the motions for summary judgment are available from NERA but are not shown in this report.
- <sup>22</sup> *In re Trulia, Inc. Stockholder Litigation*, C.A. No. 10020-CB (Del. Ch. Jan. 22, 2016).
- <sup>23</sup> Active cases equals the sum of pending cases at the beginning of 2018 plus those filed during the year.
- <sup>24</sup> Nearly 90% of cases filed before 2012 have been resolved, providing evidence of longer-term trends about dismissal and settlement rates. Data since then is inconclusive given pending litigation.
- <sup>25</sup> We only consider pending litigation filed after the PSLRA.
- <sup>26</sup> These metrics exclude merger objections.
- <sup>27</sup> Each of the metrics in the *Time to Resolution* sub-section exclude IPO laddering cases and merger-objection cases because the former usually take much longer to resolve and the latter are usually much shorter to resolve.
- <sup>28</sup> The axes are in logarithmic scale, and the two largest settlements are excluded from this figure.
- <sup>29</sup> Commentary regarding a 2017 ruling in the Southern District of New York indicated that "[p]laintiffs in [*Cheung v. Bristol-Myers Squibb*] had originally filed their lawsuits in a federal district court, but after the federal district court issued a ruling that was unfavorable for the plaintiffs, the plaintiffs voluntarily dismissed their lawsuits without prejudice and then refiled them in Delaware state court." See Colin E. Wrabley and Joshua T. Newborn, "Getting Your Company's Case Removed to Federal Court When Sued in Your 'Home' State," *The Legal Intelligencer*, 19 December 2017. The case referred to is *Cheung v. Bristol-Myers Squibb*, Case No. 17cv6223(DLC), (S.D.N.Y. Oct. 12, 2017).
- <sup>30</sup> To control for the impact of outliers on the average of each group, for each day the most extreme 5% of daily cumulative returns are dropped. Observations on the three final days of the bounce-back period for each category are dropped due to incomplete return data.

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