Estimating Damages in Settlement Outcome Modeling

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A key factor in a meaningful analysis of settlement outcomes is a proxy for damages claimed by plaintiffs. In fact, our research, most recently reported in *Securities Class Action Settlements–2016 Review and Analysis*, has found that a proxy for damages is the most important determinant in predicting settlement amounts.

"ESTIMATED DAMAGES" AND "TIERED DAMAGES"

In this article, we highlight a plaintiff-style damages proxy that is an alternative to the one that has been widely used in settlement research for more than twenty years.[1] Our focus on this alternative measure is driven by the current environment of securities class action litigation. In particular, in place of the traditional proxy for damages used by us and others performing settlement research, we are shifting to a "tiered damages" method tied to specific dates during the alleged class period that is more reflective of industry practices.[2]

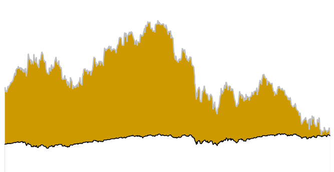
Figure 1. Summary Statistics
2006–2016

	"Estimated Damages"	"Tiered Damages"
Median	$401 million	$177 million
Average	$3.9 billion	$1.5 billion

Adjusted for inflation; 2016 dollar equivalent figure used.

Historically, our research on post–Reform Act settlements has included a measure referred to as "estimated damages." "Estimated damages" is a simplified measure of potential shareholder losses.

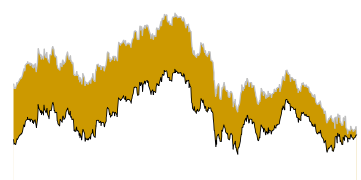
Illustration 1: "Estimated damages" using a market-index value line for Company A



This was closely aligned, at one time, with plaintiffs' methodologies and is similar to methods that continue to be used in settlement research today. The calculation of "estimated damages" is applied to common stock only and is based on the daily deviations of an issuer defendant's stock price from a market index. Changes in the market index are used to create a hypothetical "value line" (an estimate of the "true value" of the stock during the alleged class period).[3]

For a number of years, in addition to "estimated damages," we have also been calculating "tiered damages." This measure is based on the dollar value of an issuer defendant's stock price movements on the specific dates listed in the plan of allocation detailed in the settlement notice. "Tiered damages" is calculated with a *constant dollar value line* that reflects the price change at the end of the class period when there is one alleged corrective disclosure date or a *tiered dollar value line* that reflects the cumulative price changes associated with multiple dates identified in the settlement notice.[4]

Illustration 2: "Tiered damages" using a value line based on specific dates in the plan of allocation for Company A



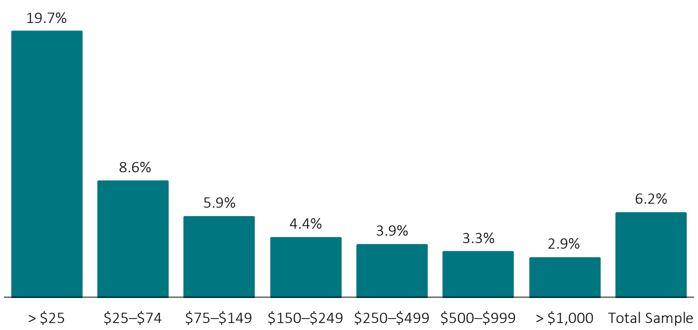
As a measure that is based on specific company stock price movements, rather than daily deviations from returns on an index, "tiered damages" is conceptually more closely aligned with the current approaches typically used by plaintiffs to estimate damages. The methodology for "tiered damages" is also more consistent with certain considerations of the landmark decision in *Dura*[5] whereby damages must be linked to price changes caused by the alleged fraud (and thus, as generally interpreted by U.S. courts, cannot be associated with shares sold before information regarding the alleged fraud reaches the market).[6]

SETTLEMENTS AS A PERCENTAGE OF DAMAGES MEASURES

Generally, "tiered damages" is smaller than the corresponding "estimated damages" due to constraints applied to the value lines. Specifically, whereas the "estimated damages" approach allows all price movements other than those related to changes in a market index to be included as inflation, "tiered damages" limits inflation to company stock price movements based on specific dates in settlement materials. (See Illustrations 1 and 2)

Figure 2. Median Settlements as a Percentage of "Tiered Damages" by "Tiered Damages" Ranges

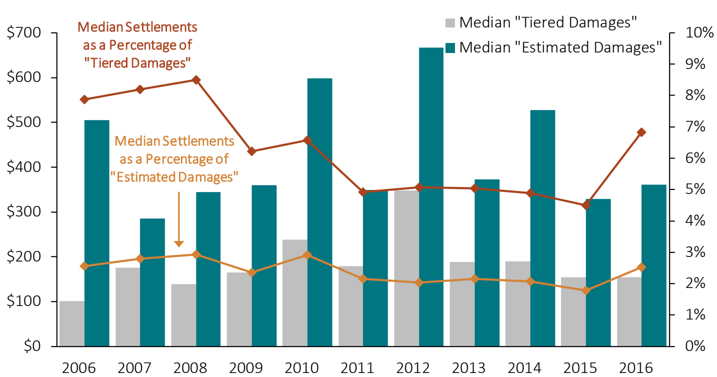
(Dollars in Millions)



Overall, settlements as a percentage of "tiered damages," like settlements as a percentage of "estimated damages," are smaller when damages measures are larger. As a result, when overall damages increase, settlements as a percentage of those damages typically decrease.

Figure 3. Comparison of "Estimated Damages" and "Tiered Damages"

(Dollars in Millions)



SETTLEMENT OUTCOME MODEL USING "TIERED DAMAGES"

Our research applies regression analysis to examine which characteristics of securities class actions are important determinants of predicted settlement amounts. The regression analysis is designed to better understand and predict total settlement amounts, given the characteristics of a particular securities case.

"Tiered damages," like "estimated damages," is correlated with settlement amounts, on average—although varying considerably by case—and has explanatory power comparable to "estimated damages" in our regression analyses of settlement amount determinants.

Applying a "tiered damages" calculation in place of "estimated damages" and using a sample of post–Reform Act cases that settled from 2006 through 2016, the factors that are important determinants of settlement amounts include:

- "Tiered damages"
- Maximum dollar loss (MDL)
- Most recently reported total assets of the defendant firm
- The year in which the settlement occurred
- Whether a restatement of financial statements related to the alleged class period was announced
- Whether there was a corresponding SEC action against the issuer, other defendants, or related parties
- Whether the plaintiffs alleged that securities other than common stock were damaged
- Whether criminal charges/indictments were brought with similar allegations to the underlying class action
- Whether the plaintiffs named an underwriter as a codefendant
- Whether the plaintiffs named an auditor as a codefendant
- Whether a companion derivative action was filed
- Whether a public pension was a lead plaintiff

Settlements are higher when "tiered damages," MDL, and defendant asset size are larger.

Settlements are also higher in cases involving financial restatements, a corresponding SEC action, a codefendant (underwriter and/or auditor), an accompanying derivative action, a public pension involved as lead plaintiff, filed criminal charges, or securities other than common stock alleged to be damaged.

CONCLUSION

Like “estimated damages,” “tiered damages” is correlated with settlement amounts and, when considered in connection with other significant variables, is the most important factor in predicting settlement outcomes based on observable data.

Unlike “estimated damages,” “tiered damages” is tied to specific dates identified in the settlement materials. Because it may be smaller than the corresponding “estimated damages,” the settlement as a percentage of “tiered damages” will be higher than as a percentage of “estimated damages.”

While “estimated damages” remains a statistically significant predictor of settlement amounts, the “tiered damages” method is more reflective of the current environment.

RESEARCH SAMPLE AND DATA SOURCES

The database used in this article focuses on cases alleging fraudulent inflation in the price of a corporation’s common stock (i.e., excludes cases with alleged classes of only bondholders, preferred stockholders, etc., and excludes cases alleging fraudulent depression in price and M&A cases).

- The sample is limited to cases alleging Rule 10b-5, Section 11, and/or Section 12(a)(2) claims brought by purchasers of a corporation’s common stock. These criteria are imposed to ensure data availability and to provide a relatively homogeneous set of cases in terms of the nature of the allegations.
- Our current sample includes 1,621 post–Reform Act securities class actions settled from 1996 through 2016. The “tiered damages” analysis discussed herein uses a sample of 867 cases settled between 2006 and 2016. These settlements are identified based on a review of case activity collected by Securities Class Action Services LLC (SCAS).[7]
- In addition to SCAS, data sources include Dow Jones Factiva, Bloomberg, the Center for Research in Security Prices (CRSP) at the University of Chicago Booth School of Business, Standard & Poor’s Compustat, court filings and dockets, SEC registrant filings, SEC litigation releases and administrative proceedings, LexisNexis, and public press.

ABOUT THE AUTHORS

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ENDNOTES

1 This article discusses two proxies for plaintiff-style damages, referred to here as "estimated damages" and "tiered damages." Inclusion of a proxy for damages is a standard component of securities class action research. While methodologies used by researchers may vary, it is important to note that these estimates are not necessarily linked to the allegations in the associated court pleadings and are not intended to be indicative of actual economic losses borne by shareholders. For more information on securities class action research see www.cornerstone.com/Publications.

2 Damages calculations have two components, an estimate of the inflation per share and an estimate of the number of shares damaged. Both "estimated damages" and "tiered damages" utilize the same methodology to estimate the number of shares damaged based on reported trading volume and the number of shares outstanding. Specifically, reported trading volume is adjusted using volume reduction assumptions based on the exchange on which the issuer's common stock is listed. No adjustments are made to the underlying float for institutions, insiders, or short-selling activity. Because of these and other simplifying assumptions, the damages measures used in our settlement outcome modeling are overstated relative to damages estimates developed in conjunction with case-specific economic analysis.

3 The market-index value line is applied to cases with Rule 10b-5 claims. For cases involving only Section 11 and/or Section 12(a)(2) claims (1933 Act Claims), damages are calculated using a model that caps the purchase price at the offering price.

4 As similarly noted above, the constant dollar and tiered dollar value lines are only applied to cases with Rule 10b-5 claims. The dates used to identify the applicable value line bands may be supplemented with information from the operative complaint at the time of settlement.

5 Dura Pharmaceuticals Inc. v. Broudo, 544 U.S. 336 (2005).

6 "Tiered damages" is calculated for cases that settled after 2005. Importantly, the "tiered damages" approach used for purposes of settlement research does not examine the mix of information associated with the specific dates listed in the plan of allocation but simply applies the stock price movements on those dates to the calculated value line.

7 Available on a subscription basis.