

## Appendix II

### Hand-Collection Process of Securities Class-Action Lawsuits

We collect our lawsuit sample in following steps.

First, we use scraping techniques and download the lawsuit basic information from the Stanford Class Action Clearinghouse database (<http://securities.stanford.edu/>) from 1996 (the beginning year of the database) to 2019. The basics include filing date, filing name, case status, industry and sector, court name, civil docket number, class period start date, and class period end date. We have a total of 5568 lawsuit cases as the raw sample. Next, we identify the lawsuits filed before the PIPE closing date. As such, we need to match the lawsuit actions to our PIPE sample. Although ticker symbols of the firms are given by the Stanford database, ticker symbols are changeable over time (due to change of firms' names, M&As, delisting, etc). To ensure accurate matching, we manually identify the CIKs for both the litigated firms and PIPE issuers using SEC Edgar. We match 5468 CIKs for 5568 lawsuit actions and 22,338 CIKs for 23,480 PIPE placements. Using a combination of CIK and ticker symbols, we are able to identify 1135 lawsuits that were filed before the PIPE placement date.

Second, we collect lawsuit specifics and attributes. We count the number of individual defendants listed in the U.S. District Court Civil Docket document.<sup>1</sup> We collect the settlement amount (if settled), the director and officer insurance copay amount (if there is specific statement on that) in the Stipulation and Agreement of Settlement document.<sup>2</sup> In addition, we extract securities class-action lawsuits data from the Audit Analytics Litigation database. We match the AA database with the Stanford lawsuit database by filing the date, court name, and civil docket number. We find that the AA database has 4232 overlapped cases with the Stanford database. Although the AA database provides the settlement amount and allegation types., we find that the the allegation types in the AA database are too extensive and the settlement amount is often missing and sometimes incorrectly entered (according to the official documents released from the court). Therefore, we reclassify the allegation types by reading the class action complaints and then collect the settlement amount in the court documents published on the SCAC website.

After careful consideration, we classify the securities class-action lawsuits into 10 categories: (1) Misleading and false statements, failure to disclose, or omission about important adverse facts (which accounts for most of our sample); (2) Business, Product, Technology, or Patent related (could be a subset of the first category); (3) Financial Misreporting or Accounting Malpractice (violation of GAAP standards falls into this category); (4) Restatement (if the accounting malpractice leads to a restatement of the old financial reports, which could be a subset of category 3); (5) IPO/SEO/Security offerings related (including debt offerings and private placements); (6) M&A related; (7) Insider trading (identified by individual defendants who are usually firm directors and officers and their related family members that sold shares during the inflated stock price period); (8) Analysts/Stock promoters/Third party (i.e., a broker firm that gives false encouraging recommendations on buying a firm's stock); (9) Auditor litigated (if the external auditor is listed as a defendant); and (10) Others (i.e., breaching fiduciary duty).

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<sup>1</sup> The number of listed individual defendants listed be different in the first-identified class action complaint and consolidated amended class-action complaint. Plaintiffs may add more related individuals as defendants as the investigation proceeds.

<sup>2</sup> The documents that help us identify the settlement amounts include but are not limited to "Notice of Pendency and Proposed Settlement of Class Action," "Proposed Order Preliminary Approving Settlement and Scheduled Final Settlement Hearing," "Order Approving Plan of Allocation of Settlement Proceeds," and so forth based on availability.

These allegations could be related and overlap. For example, restatement and auditor litigated are likely to come together with financial reporting/accounting malpractice. Mergers and acquisitions could be related to a firm's business information it was supposed to release or communicate in the proxy statement (to all of its shareholders). Most notably, it is prevalent that the defendants are alleged to have misrepresented or released false and misleading information and failed to disclose material adverse facts about the firm to inflate its stock price. During the inflated stock-price period, it is observed that the defendants usually sold their withholding shares (insider trading), issued new securities, or raised new capital at the inflated price, or make mergers and acquisitions using the inflated shares as a currency. Among those, insider trading is identified most frequently in our sample. Therefore, the defendants seemed to have made these plans *ex ante* as initial motives to push up the share price by misrepresenting or releasing misleading information about the firm.

In addition, we further collect the specifics on whether: (a) the case was consolidated, (b) the entire board was sued, (c) the case is IPO/SEO/Security offerings related, or (d) the underwriter was litigated.<sup>3</sup> Our classification of the allegation types is substantially different from the AA database and we supplement the missing settlement amount in the AA database to a large extent.

Lastly, we note that among the 1135 collected lawsuits, 103 of them belong to a large group of long-running IPO laddering litigation. All of these lawsuits were filled in 2001, but achieved settlement in 2009. The global gross amount of the settlement was \$586 million. We identify them in the allegation type as well. The lawsuit summary statistics of the 1135 cases are presented below (before excluding the financial and utility firms).

Panel A: Lawsuit summary statistics					
Year filed	Freq.	Percent	FF12 Industries	Freq.	Percent
1996	16	1.41	Nondurables	27	2.38
1997	30	2.64	Durables	15	1.32
1998	47	4.14	Manufacturing	45	3.96
1999	39	3.44	Energy	29	2.56
2000	56	4.93	Chemicals	24	2.11
2001	160	14.1	Business Equipment	318	28.02
2002	61	5.37	Telecom	43	3.79
2003	47	4.14	Utilities	18	1.59
2004	64	5.64	Wholesale, retail, laundries, and repair shops	65	5.73
2005	50	4.41	Healthcare, medical equipment, and drugs	264	23.26
2006	34	3.00	Finance	153	13.48
2007	47	4.14	Other	134	11.81
2008	48	4.23	Total	1135	100
2009	27	2.38	Lawsuit Allegation Types	Freq.	Percent
2010	35	3.08	Misleading and False statements/Failure to disclose	1089	95.95
2011	42	3.70	Business/Product/Patent/Technology related	581	51.19
2012	38	3.35	Financial misreporting/Accounting malpractice	622	54.80
2013	41	3.61	Restatements	198	17.44

<sup>3</sup> The court will often order all the cases involving the same allegations of the defendant firm to be consolidated into one case number.

2014	42	3.7	Insider trading	383	33.74
2015	49	4.32	IPO/SEO/Security offerings	495	43.61
2016	39	3.44	Mergers and Acquisitions related	276	24.32
2017	57	5.02	Analyst/Stock Promoter/Third party related	61	5.37
2018	37	3.26	IPO 300 laddering lawsuits	103	9.07
2019	29	2.56	Others	46	4.05
<b>Total</b>	<b>1135</b>	<b>100</b>	<b>Total</b>	<b>1135</b>	<b>100</b>

Panel B: Summary Statistics of Lawsuits' Attributes and Outcomes

	Count	Mean	SD	p25	Median	p75
Settlement amount (in millions)	606	23.93	123.33	1.95	4.25	10.5
Insurance carrier paid amount (in millions)	363	8.66	36.01	1.70	1.95	6.5
Problem duration (days from class begin date to class end date)	1133	440.91	432.27	156	307	580
Action duration (days from class end date to filing date)	1133	104.44	169.22	4	20	152
Settlement duration (days from filing date to settlement/case status date)	606	1667.571	894.23	906	1326	2638
Number of individual defendants (First complaint)	1128	3.93	3.77	2	3	5
Number of individual defendants (Reference complaint)	1058	5.12	6.20	2	4	7
Consolidated case	825	0.73	0.45	0	1	1
Entire board litigated	183	0.16	0.37	0	0	0
Underwriter litigated	243	0.21	0.41	0	0	0
Auditor litigated	65	0.06	0.23	0	0	0
Case Status (as of Dec 2019)	Freq.	Percent				
Settled	623	54.9				
Dismissed	441	38.85				
Ongoing	71	6.25				
<b>Total</b>	<b>1135</b>	<b>100</b>				