

Data/Methods Update

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Dataset

The IPO dataset I have consolidated thus far contains information for 2515 IPO companies in the United States between 1997-2019. Although more variables are still in the process of retrieval, there are currently 58 variables. Some of the main characteristics of each IPO company include its Filing Date, Issue Date, Company Name, main SIC code, ticker symbol, offer price, shares offered, stock price at close of offer, and 9-digit CUSIP number. These variables came from SDC Platinum, which offers a variety of financial databases. Information about stock prices were retrieved from CRSP's WRDS database and the "use of proceeds" documents were obtained from SEC's EDGAR. Sentiment information was computed based upon Tim Loughran and Bill McDonald's sentiment word lists.

We are interested in investigating how the sentiment of an IPO company's "use of proceeds" document along with the categorization of company intentions is associated with its IPO underpricing. Below, we list summary statistics of our key variables of interest.

Summary Statistics

Category Proportions

We calculated the proportion of words related to 4 categories of company intentions within each IPO company's "use of proceeds" text using the word length of each text document. Note that c1=Acquisitions, c2=Financing Transactions, c3=Growth Investment, and c4=Production Investment.

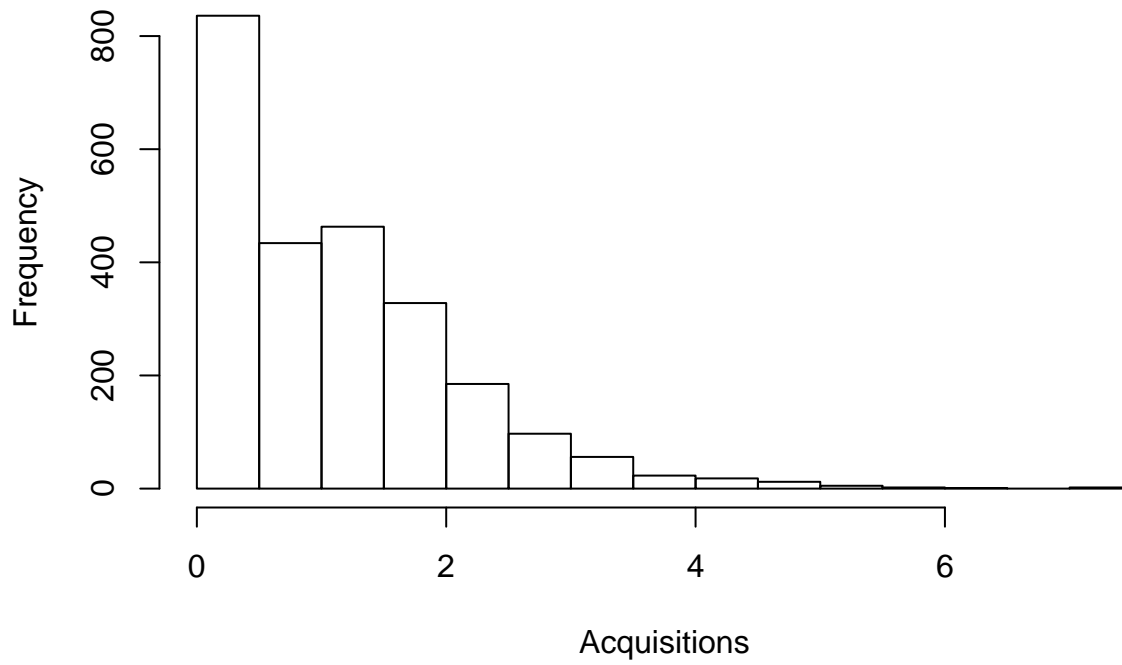
Table 1: Table continues below

word_length	c1	c2	c3
Min. : 1.0	Min. :0.0000	Min. : 0.000	Min. :0.0000
1st Qu.: 124.0	1st Qu.:0.0000	1st Qu.: 2.069	1st Qu.:0.0000
Median : 167.0	Median :0.9657	Median : 3.226	Median :0.0000
Mean : 192.8	Mean :1.0820	Mean : 3.504	Mean :0.4319
3rd Qu.: 234.5	3rd Qu.:1.6393	3rd Qu.: 4.622	3rd Qu.:0.7456
Max. :1210.0	Max. :7.4766	Max. :13.423	Max. :7.1429
NA's :3	NA	NA	NA

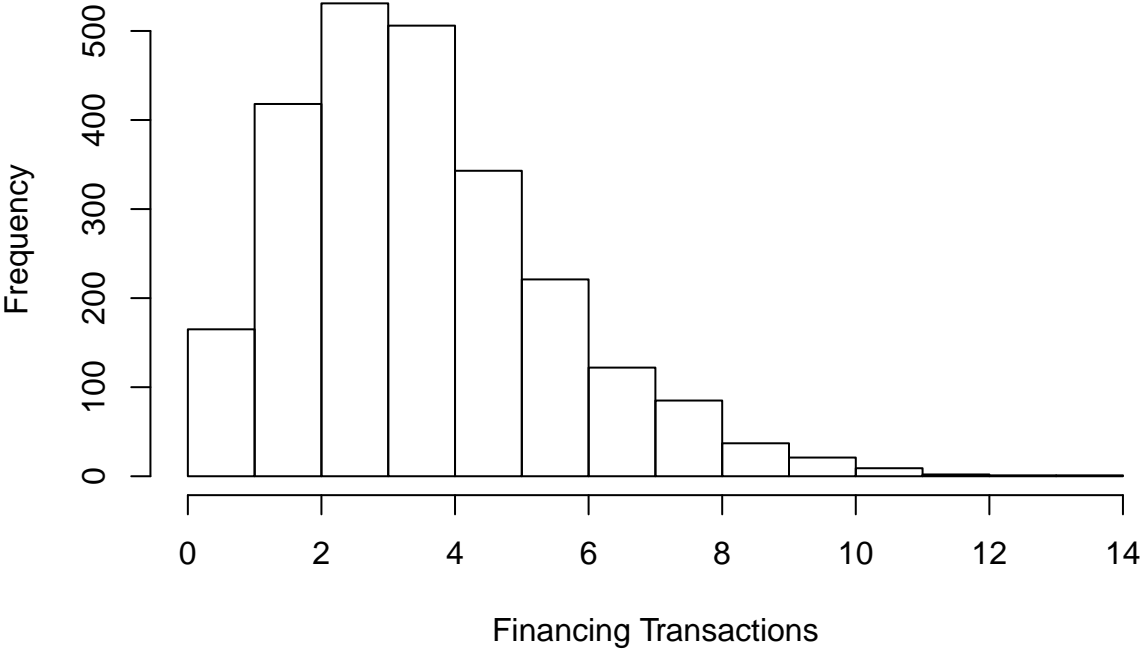
c4
Min. : 0.0000
1st Qu.: 0.7576

c4
Median : 1.7544
Mean : 1.9768
3rd Qu.: 2.8930
Max. :15.0000
NA

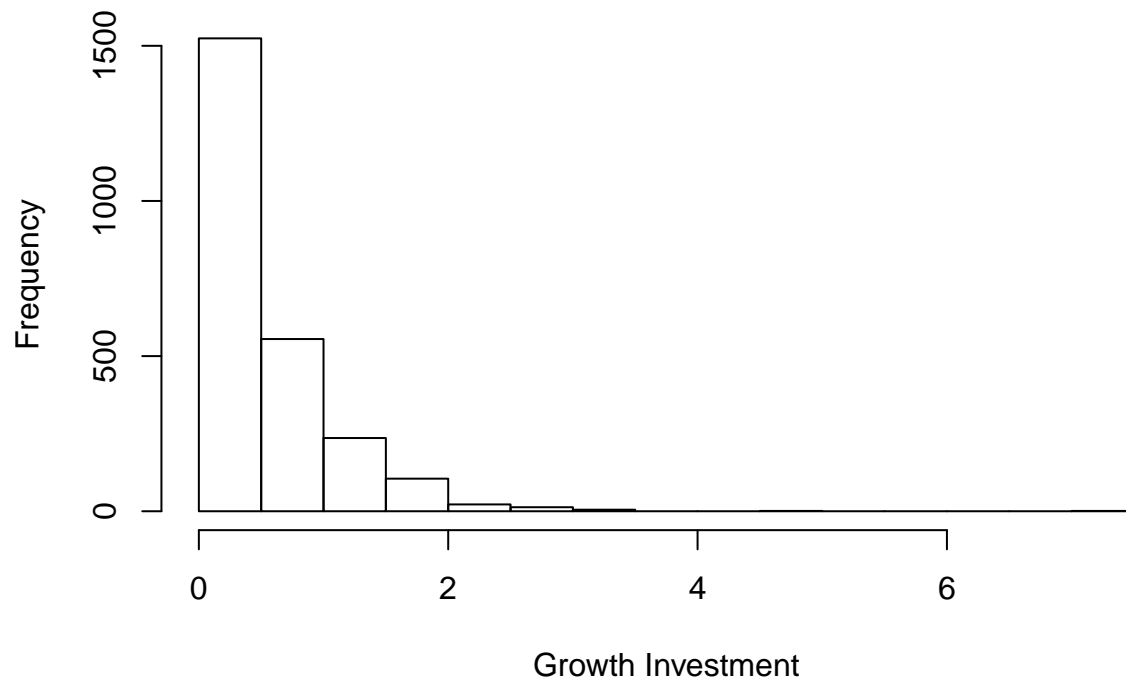
Distribution of Acquisitions



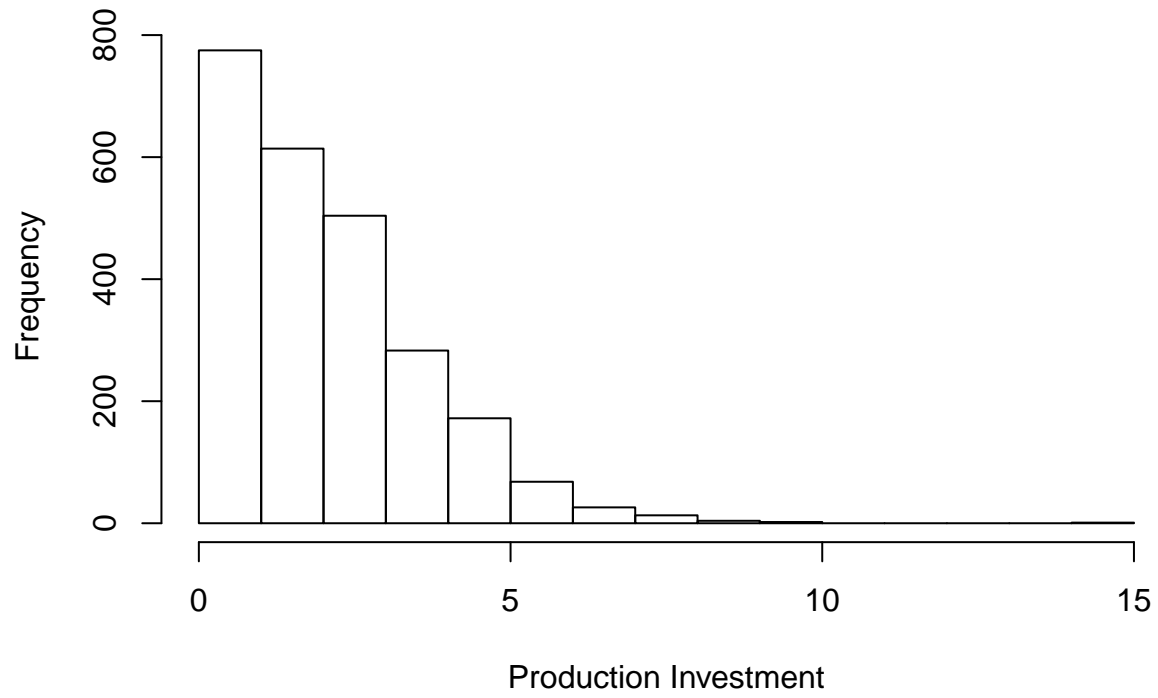
Distribution of Financing Transactions



Distribution of Growth Investment



Distribution of Production Investment



Distribution of Underpricing

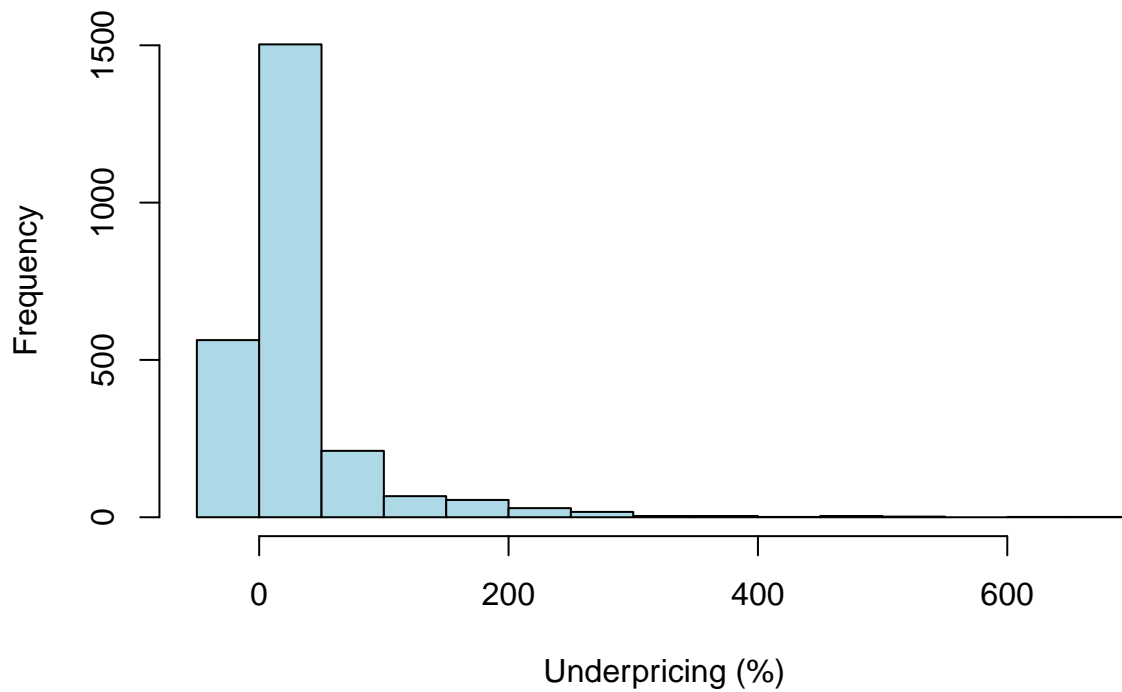


Table 3: Table continues below

Filing Date	Issue Date	Issuer	Main SIC Code
7/28/92	6/26/98	Cumulus Media Inc	4832
11/9/94	2/20/97	Brylane Inc	5961
1/26/95	8/10/98	Pilot Network Services	7373
6/8/95	6/9/99	Skechers USA Inc	3143
9/15/95	1/28/97	Administaff Inc	7363
5/17/96	2/18/97	VDI Media	7812

Table 4: Table continues below

Ticker Symbol	Bookrunner(s)	Gross spread (\$)	Gross Spread as % of Prncpl Amt - in this Mkt
CMLS	LEH	0.98	7
BYL	MERRILL	1.68	7
PILT	CS-FB	0.98	7
SKX	BT-ALEX- BROWN	0.77	7
ASF	MS	1.19	7
VDIM	PSI	0.49	7

Table 5: Table continues below

Proceeds Amt - in this Mkt (\$ mil)	Offer Price	Type of Security	9-Digit Cusip
83.8	14	Class A Shares	231082108
96	24	Common Shares	117661108
38.2	14	Common Shares	721596104
60.8	11	Class A Shares	830566105
51	17	Common Shares	7094105
19.6	7	Common Shares	917916108

Table 6: Table continues below

Primary Exchange Where Issuer's Stock Trades	Management Fee as % of Prncpl Amt - in this Mkt
Nasdaq	1.429
New York	1.417
Nasdaq	1.357
New York	1.455
New York	1.412
Nasdaq	1.429

Table 7: Table continues below

Underwriting Fee as % of Prncpl Amt - in this Mkt	Selling Concession as % of Prncpl Amt - in this Mkt	Marketplace
1.643	3.929	U.S. Public
1.417	4.167	U.S. Public
1.429	4.214	U.S. Public
1.727	3.818	U.S. Public
1.412	4.176	U.S. Public
1.714	3.857	U.S. Public

Table 8: Table continues below

Original High Filing Price	Original Low Filing Price
NA	NA
NA	NA
NA	NA
15	13
15	15
13	11

Table 9: Table continues below

Shares Filed - in this Mkt	Amt Filed - in this Mkt (\$ mil)
NA	100
3500000	NA
NA	56.1

Shares Filed - in this Mkt	Amt Filed - in this Mkt (\$ mil)
NA	115.1
NA	45
2300000	27.6

Table 10: Table continues below

Primary Shares Offered - in this Mkt	Secondary Shs Ofrd- in this Mkt
5064782	921790
4e+06	NA
2607615	117385
5530000	NA
3e+06	NA
2600000	2e+05

Table 11: Table continues below

Lock up Expiration Date	Percent of Shares Outstanding Subject to Lockup Agreement	Lockup Days
NA	NA	NA
5/21/97 0:00	NA	90
NA	NA	NA
NA	NA	NA
7/27/97 0:00	NA	180
8/17/97 0:00	NA	180

Table 12: Table continues below

Lockup Shares	Depository	Units	Venture Backed	Spin-off Parent Ticker
NA	No	No	No	NA
12905000	No	No	No	NA
NA	No	No	Yes	NA
NA	No	No	No	NA
NA	No	No	Yes	NA
6260400	No	No	No	NA

Table 13: Table continues below

Spinoff's Parent	Number of Bookrunners	RANK_NO_LEADS
NA	1	1
NA	1	1
NA	1	1
NA	1	1
NA	1	1
NA	1	1

Table 14: Table continues below

Number of Lead, Co-lead, & Co-managers	Stock Price at Close of Offer/1st Trade	permno	cusip
3	14	86155	23108260
3	1.13	84573	11766110
3	13.63	86342	72159610
2	10.63	86949	83056610
2	22	84385	45778Q10
2	7.38	84565	73069810

Table 15: Table continues below

comnam	ticker	begprc	prc	diff date	mid
CUMULUS MEDIA INC	CMLS	6/26/98	14	3	0
BRYLANE INC	BYL	2/21/97	24	0	0
PILOT NETWORK SERVICES INC	PILT	8/11/98	13.62	0	0
SKECHERS U S A INC	SKX	6/9/99	10.62	1	14
ADMINISTAFF INC	ASF	1/29/97	22	0	15
V D I MEDIA	VDIM	2/19/97	7.375	0	12

Table 16: Table continues below

c1	c2	c3	c4	word_length	negative	positive
4.225	5.634	0	1.408	142	0	0
0	6.186	0	1.031	97	0	0
0	5.238	0.4762	0.9524	212	0.009434	0
0	2.137	0.4274	0.4274	234	0.008547	0
2.419	3.629	0.8065	2.419	249	0	0.01606
3.093	3.608	0	1.031	195	0	0

Table 17: Table continues below

uncertainty	litigious	strongmodal	weakmodal	constraining	internet
0.04225	0	0.01408	0	0.01408	0
0.01031	0.01031	0	0	0	0
0.03302	0.004717	0.01415	0.004717	0.004717	1
0.02137	0	0.004274	0	0	0
0.03614	0.004016	0.01205	0.008032	0	0
0.01026	0.005128	0.02051	0	0.01538	0

underpricing	underpricing_pct
0	0
0	0
-0.02679	-2.679
-0.03409	-3.409

underpricing	underpricing_pct
0.2941	29.41
0.05357	5.357

Sentiment Proportions

We calculated the proportion of sentiment within each IPO company’s “use of proceeds” text using Tim Loughran and Bill McDonald’s 7 sentiment word lists, which classifies a financial word into one of 7 categories: negative, positive, uncertainty, strong modal, weak modal, litigious, and constraining. It appears that there is a higher proportion of uncertainty in the “use of proceeds” text of IPO companies’ filings.

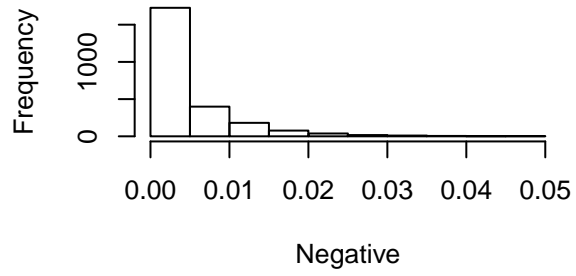
```
## Warning: replacing previous import 'vctrs::data_frame' by 'tibble::data_frame'
## when loading 'dplyr'
```

Table 19: Table continues below

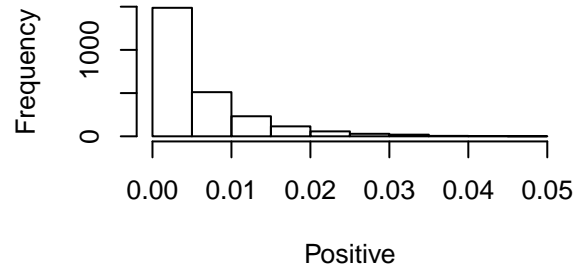
negative	positive	uncertainty	litigious
Min. :0.000000	Min. :0.00000	Min. :0.00000	Min. :0.000000
1st Qu.:0.000000	1st Qu.:0.00000	1st Qu.:0.01613	1st Qu.:0.000000
Median :0.000000	Median :0.00000	Median :0.02410	Median :0.000000
Mean :0.003819	Mean :0.00507	Mean :0.02516	Mean :0.003339
3rd Qu.:0.006079	3rd Qu.:0.00813	3rd Qu.:0.03307	3rd Qu.:0.005556
Max. :0.050000	Max. :0.05000	Max. :0.09091	Max. :0.083333
NA's :3	NA's :3	NA's :3	NA's :3

strongmodal	weakmodal	constraining
Min. :0.00000	Min. :0.000000	Min. :0.000000
1st Qu.:0.01441	1st Qu.:0.000000	1st Qu.:0.000000
Median :0.02174	Median :0.006803	Median :0.006897
Mean :0.02363	Mean :0.007412	Mean :0.007466
3rd Qu.:0.03023	3rd Qu.:0.011123	3rd Qu.:0.011934
Max. :0.25000	Max. :0.062500	Max. :0.050000
NA's :3	NA's :3	NA's :3

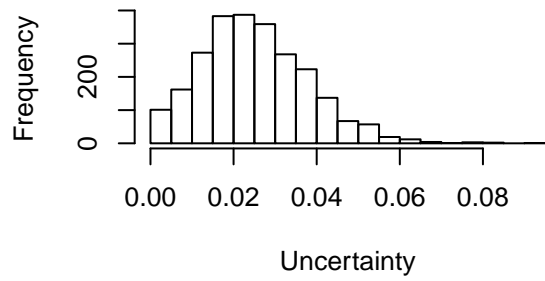
Distribution of Negative



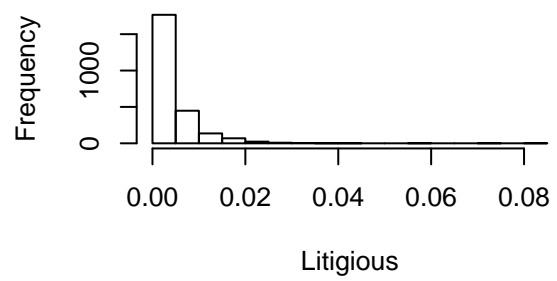
Distribution of Positive

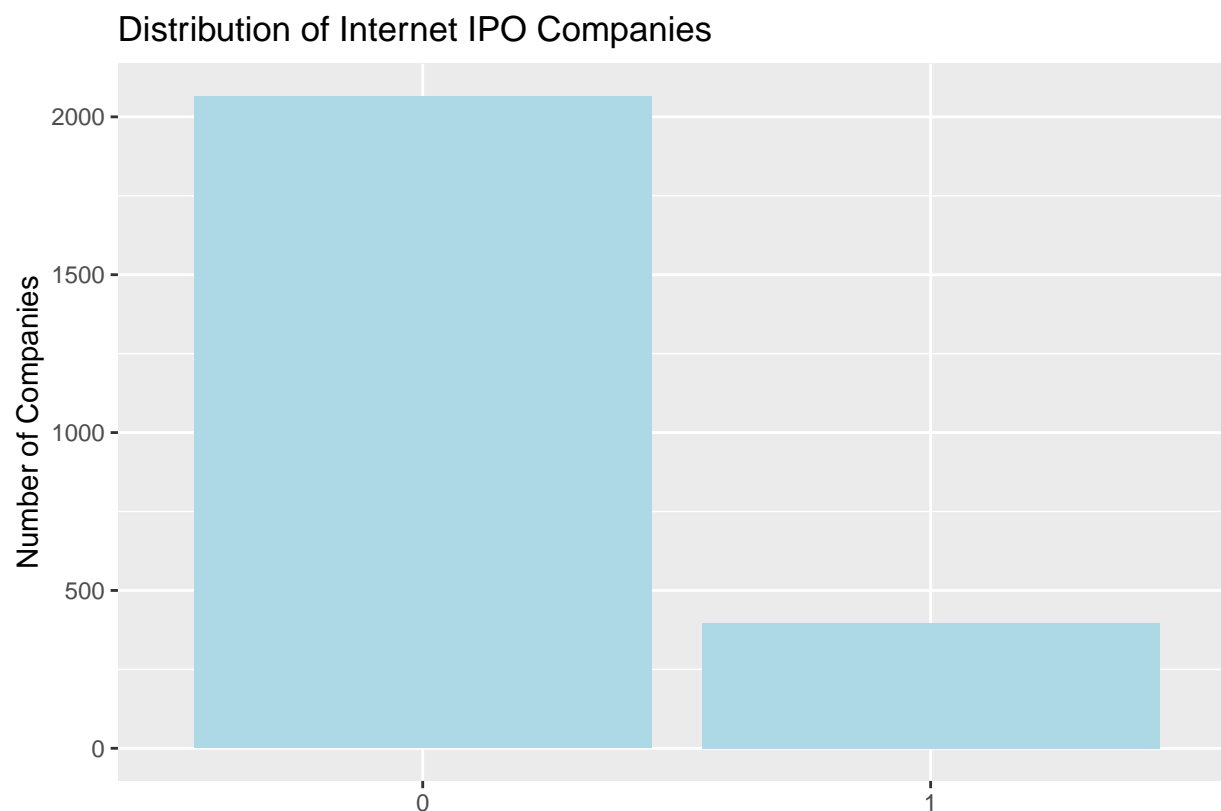


Distribution of Uncertainty



Distribution of Litigious





Underpricing

Here, we define IPO underpricing as the increase in stock value from the initial offering price to the first-day closing price. Thus, our response variable is underpricing. Below, prc= first-day closing price.

underpricing	prc	offer_price
Min. :-0.432692	Min. : 3.938	Min. : 5.00
1st Qu.: 0.004449	1st Qu.: 11.000	1st Qu.:10.00
Median : 0.118865	Median : 15.500	Median :14.00
Mean : 0.296093	Mean : 19.389	Mean :14.19
3rd Qu.: 0.317922	3rd Qu.: 22.000	3rd Qu.:17.00
Max. : 6.975000	Max. :280.000	Max. :97.00

Other variables

Below is a list of all the variables in the IPO dataset thus far.

```
## [[1]]
## [1] "Filing Date"
## [2] "Issue Date"
## [3] "Issuer"
## [4] "Main SIC Code"
## [5] "Ticker Symbol"
```

```

## [6] "Bookrunner(s)"
## [7] "Gross spread ($)"
## [8] "Gross Spread as % of Prncpl Amt - in this Mkt"
## [9] "Proceeds Amt - in this Mkt ($ mil)"
## [10] "offer_price"
## [11] "Type of Security"
## [12] "9-Digit Cusip"
## [13] "Primary Exchange Where Issuer's Stock Trades"
## [14] "Management Fee as % of Prncpl Amt - in this Mkt"
## [15] "Underwriting Fee as % of Prncpl Amt - in this Mkt"
## [16] "Selling Concession as % of Prncpl Amt - in this Mkt"
## [17] "Marketplace"
## [18] "Original High Filing Price"
## [19] "Original Low Filing Price"
## [20] "Shares Filed - in this Mkt"
## [21] "Amt Filed - in this Mkt ($ mil)"
## [22] "Primary Shares Offered - in this Mkt"
## [23] "Secondary Shs Ofrd- in this Mkt"
## [24] "Lock up Expiration Date"
## [25] "Percent of Shares Outstanding Subject to Lockup Agreement"
## [26] "Lockup Days"
## [27] "Lockup Shares"
## [28] "Depository"
## [29] "Units"
## [30] "Venture Backed"
## [31] "Spin-off Parent Ticker"
## [32] "Spinoff's Parent"
## [33] "Number of Bookrunners"
## [34] "RANK_NO_LEADS"
## [35] "Number of Lead, Co-lead, & Co-managers"
## [36] "Stock Price at Close of Offer/1st Trade"
## [37] "permno"
## [38] "cusip"
## [39] "comnam"
## [40] "ticker"
## [41] "begprc"
## [42] "prc"
## [43] "diff date"
## [44] "mid"
## [45] "c1"
## [46] "c2"
## [47] "c3"
## [48] "c4"
## [49] "word_length"
## [50] "negative"
## [51] "positive"
## [52] "uncertainty"
## [53] "litigious"
## [54] "strongmodal"
## [55] "weakmodal"
## [56] "constraining"
## [57] "internet"
## [58] "underpricing"
## [59] "underpricing_pct"

```