

Hard and Soft Information: Firm Disclosure, SEC Letters, and the JOBS Act

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RESEARCH QUESTION

- How does the reduction in disclosure requirements for IPO firms under the JOBS Act impact:
 - 1. IPO firms' disclosures of hard and soft information
 - 2. The behavior of the **SEC** in its comment letters to the firms, and
 - 3. The reaction by **investors** (market) on the IPO date and upon the publication of the comment letters?



THE JOBS ACT BECAME LAW ON APRIL 5, 2012

"Jumpstart Our Business Startups Act"

To increase American job creation and economic growth by improving access to the public capital markets for emerging growth companies.

Emerging Growth Company (EGC): < \$1B revenues in fiscal year

Aim to reduce costs of IPOs to EGCs by:

- Reducing mandatory financial disclosure requirements:
 - 2 yrs (vs. 3) of audited financial statements
 - 3 yrs (vs. 5) of selected financial variables
- Reducing mandatory disclosure of executive compensation:
 - Compensation of 3 (vs. 5) named executives
 - May omit a written discussion of compensation
- Extending time to comply with accounting standards
- Allowing Confidential Initial Filing
- Exempting from some Sarbanes-Oxley requirements
- Removing pre-and post-IPO communications restrictions

POTENTIAL IMPACT OF THE JOBS ACT

- Disclosure can reduce information asymmetry and lower the cost of capital (Easley & O'Hara, 2004)
- Hard information: verifiable, but costly (Petersen, 2004)
- Soft information: not as credible, less costly
 - Optimal mix of **hard** and **soft** disclosures (tradeoffs) taking reaction of investors into account.
- JOBS Act reduced binding constraint on hard information
- JOBS Act didn't change soft info requirements
 - Reduce disclosures of hard information
 - Change disclosures of **soft** information?



HARD VS SOFT INFORMATION: GOOGLE

Before it's IPO, Google announced that it would not provide earnings guidance as that will induce short-termism.

- Google's Founder's letter during IPO (IPO in 2004):
- "We believe that artificially creating short term target numbers serves our shareholders poorly."

"We will not shy away from high-risk, high-reward projects because of short term earnings pressure. Some of our past bets have gone extraordinarily well, and others have not. ... For example, we would fund projects that have a 10% chance of earning a billion dollars over the long term. Do not be surprised if we place smaller bets in areas that seem very speculative or even strange when compared to our current businesses. ... as the ratio of reward to risk increases, we will accept projects further outside our current businesses.."



HARD VS SOFT INFORMATION: TWITTER

70,000,000 Shares



Twitter, Inc.

Common Stock

This is an initial public offering of shares of common stock of Twitter, Inc.

Prior to this offering, there has been no public market for the common stock. The initial public offering price per share is \$26.00. Our common stock has been approved for listing on the New York Stock Exchange under the symbol "TWTR".

We are an "emerging growth company" as defined under the federal securities laws and, as such, may elect to comply with certain reduced public company reporting requirements for future filings.

We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. If some investors find our common stock less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our common stock and the price of our common stock may be more volatile.

TWITTER, INC. CONSOLIDATED BALANCE SHEETS (In thousands, except par value)

December 31,		
2011	2012	
\$218.996	\$203.328	

330.543

221,528

28, \$1,280 and \$1,261 as of December 31, 2011

Summary Compensation Table

The following table provides information regard individual who served as our principal executive officer serving as executive officers as of December 31, 2012

Name and Principal		Salary
Position	Year	(S)
Richard Costolo		0.10
Chief Executive Officer	2012	200,000(3)
Adam Bain President of Global Revenue	2012	200.000
Christopher Fry		
Senior Vice President of		
Engineering	2012	145,513



POTENTIAL IMPACT OF THE JOBS ACT

- Impact of reduction in hard disclosures and change in soft disclosures:
 - Easley & O'Hara (2004):
 - Less hard info
 More underpricing
 And/Or
 - Bertomeu & Marinovic (2015):
 - Some risky firms reveal type via soft information to avoid costs of hard disclosures
 - Some hide with low risk firms using soft info, but must also disclose hard info.
 - Soft info related to underpricing.



PREVIEW OF RESULTS

Under the JOBS Act:

JOBS Act IPO Firms:

- Reduce disclosures of hard information
- Change their disclosures of soft information

• The SEC:

- Uses more forceful language in its comment letters
- Focuses more on quantitative items in its letters

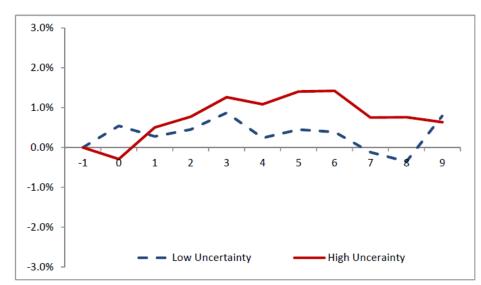
• Investors:

- Focus on soft information when pricing the IPO
- Place more emphasis on the content of the SEC letters when pricing the stock.

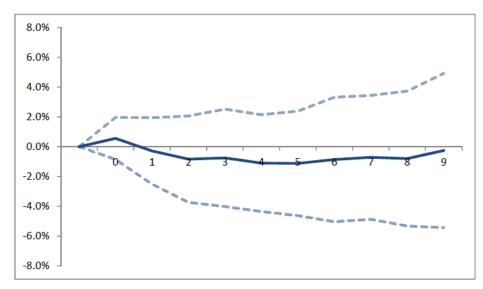


PREVIEW OF RESULTS

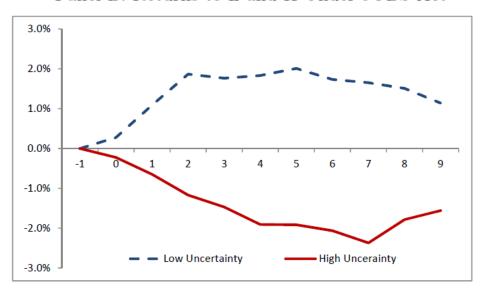
Panel A: Returns to L and H Before JOBS Act



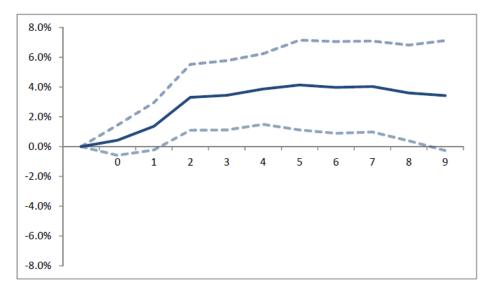
Panel E: Diff. in Abn. Rets Before JOBS Act



Panel B: Returns to L and H Under JOBS Act



Panel F: Diff. in Abn. Rets Under JOBS Act



HYPOTHESES

- H1: <u>Optimal Firm Disclosure</u>
 - Change soft information at the firm level
- H2: <u>IPO Underpricing/Cost of Capital</u>
 - Underpricing higher under JOBS Act
 - Non-disclosure of hard information not priced by market
 - Only soft information is priced
- H3: Change in SEC's behavior/role (comment letters)
 - SEC will change its letter-writing behavior under the JOBS Act
 - Letter content priced by the market only under the JOBS Act



DATA

SEC:

- Firm-level variables
- IPO-level variables
- JOBS Act accommodations (Hard disclosures)
- EDGAR hits from server logs
- Text of filings (soft disclosures)
- SEC comment letters

SDC Platinum:

- Venture capital backing
- Lead underwriter

CRSP:

Stock returns, industry codes

I/B/E/S:

Analyst coverage/recommendations



SUMMARY STATISTICS: IPO- AND FIRM-LEVEL VARIABLES

Variable	Pre JOBS Act	JOBS Act
Offer Size (\$B)	0.13	0.14
, ,	(0.13)	(0.19)
StarUnderwriter	0.44	0.43
	(0.50)	(0.50)
VCbacked	0.57	0.59
	(0.50)	(0.49)
1-day IPO ret	0.16	0.20**
	(0.22)	(0.31)
Total Assets (\$M)	184	359**
	(415)	(1154)
Total Liabilities (\$M)	118	249**
	(282)	(829)
Revenues (\$M)	107	99
	(149)	(164)
R&D Expenses (\$M)	17	17
	(15)	(85)
Investment in PP&E (\$M)	9	6
	(33)	(19)
N	127	271



DATA: HARD AND SOFT DISCLOSURES

Hard disclosures:

JOBS Act accommodations

Soft disclosures:

- Text of the prospectus: "Risk Factor" Section
 - Has been shown to affect underpricing
 - Important: makes up large part of filing
- Which risks are disclosed/emphasized?
- We use a topic model (LDA) to identify the set of risks...
 - A comprehensive set of latent (risk factor) topics made up of words that tend to appear together:
 - Probability distribution of words
- ... and to classify the documents using the topics
 - Each risk factor section is drawn from topics:
 - Probability distribution of topics
- Maximize the likelihood of observing the set of documents



TOPIC MODELS

- $ProdAppro$	oval	ProductDev	L	ProductDev2	
word	p	word	p	word	p
product	4.4	product	9.5	product	7.1
approval	3.6	new	4.5	development	4.4
clinical	3.5	technology	4.1	candidate	2.3
trial	2.9	$_{ m market}$	2.9	research	2.1
fda	2.7	develop	1.8	develop	1.7
regulatory	2.6	change	1.7	marketing	1.4
drug	1.5	customer	1.5	partner	1.3
obtain	1.4	services	1.4	sales	1.2
candidate	1.4	development	1.4	party	1
require	1.1	software	1.2	commercialize	1
result	1.1	technological	1.1	commercialization	1
delay	1	industry	1.1	collaboration	0.9
study	0.9	acceptance	1	market	0.9
market	0.9	ability	0.9	commercial	0.9
approve	0.8	exist	0.9	license	0.9
use	0.8	competitor	0.9	drug	0.9
include	0.8	competitive	0.8	effort	0.8
patient	0.7	introduce	0.8	revenue	0.8
process	0.7	standard	0.8	collaborator	0.8
safety	0.6	solution	0.8	technology	0.8

WORD-TOPIC DISTRIBUTIONS

	Accountin	g	Competiti	on	Contractu	al	Costs		Credit		Demand	l	Disclosur	e	EnviroReg	g
rank	word	p	word	p	word	p	word	p	word	p	word	p	word	p	word	p
1	financial	4.2	company	7.7	agreement	5.9	costs	3.8	credit	3.4	result	3.7	risk	6.5	environmental	3.2
2	control	3.5	customer	2.9	contract	4.9	increase	2.9	debt	3.3	economic	$^{2.4}$	statement	4.6	regulation	2.6
3	internal	2.5	competitor	2.6	terms	1.6	cost	2.1	facility	2.3	affect	2.4	result	3.4	laws	2
4	reporting	2.3	market	2.3	terminate	1.5	project	2	cash	2	conditions	2.1	forward	2.8	operations	1.6
5	accounting	$^{2.2}$	competition	2.2	lease	1.3	result	1.9	note	1.9	business	2.1	factor	2.6	costs	1.4
6	result	1.8	services	2.1	plan	1.3	labor	1.7	indebtedness	1.9	customer	2	looking	$^{2.5}$	material	1.4
7	report	1.7	compete	2	provide	1.2	equipment	1.4	ability	1.8	sales	1.8	financial	$^{2.4}$	subject	1.2
8	require	1.7	competitive	1.7	obligation	1.1	operations	1.3	capital	1.8	demand	1.4	business	$^{2.4}$	facility	1.2
9	company	1.5	business	1.6	certain	1.1	employee	1.2	financial	1.4	impact	1.4	operations	1.9	require	1.1
10	impairment	1.5	financial	1.4	enter	1.1	affect	1.1	covenant	1.3	adversely	1.4	uncertainty	1.9	state	1.1
11	assets	1.2	product	1.3	term	1	work	1.1	senior	1.2	market	1.4	include	1.6	hazardous	1.1
12	goodwill	1.2	industry	1.2	termination	1	operate	1	additional	1.1	operations	1.4	information	1.6	use	0.9
13	management	1.2	result	1.1	arrangement	0.9	construction	1	obligation	1.1	product	1.4	condition	1.6	result	0.9
14	material	1.2	greater	1.1	require	0.8	facility	0.9	flow	1.1	operate	1.3	future	1.4	permit	0.9
15	public	0.9	service	0.9	renew	0.8	adversely	0.9	require	1	financial	1.2	materially	1.4	emission	0.9
16	statement	0.9	resource	0.9	purchase	0.8	delay	0.9	financing	1	change	1.2	report	1.2	safety	0.8
17	standard	0.9	price	0.9	franchise	0.8	company	0.9	agreement	1	industry	1.2	prospectus	1.2	federal	0.8
18	intangible	0.8	increase	0.8	party	0.7	contract	0.8	business	1	factor	1.1	actual	1.1	include	0.8
19	independent	0.8	operate	0.7	restaurant	0.7	vessel	0.8	default	1	revenue	1.1	following	1.1	waste	0.8
20	procedure	0.8	offer	0.7	pension	0.6	material	0.8	operations	0.9	consumer	1.1	affect	1.1	water	0.8
	Financin	g	FinMark	et	Growth		HealthCare	:	HumanCap	ital	Insurano	e	IntellPro	p	Internation	al
rank	Financin word	g p	FinMark word	p	Growth word	p	HealthCare word	p	HumanCap word	p	Insurana word	p p	IntellPro	p p	Internation word	p
1	word acquisition	p 5.1		p 2.7	word growth	3.4		p 2.6	word personnel	p 4.9	word insurance	p 5.1	word patent	p 5.2		p 4.4
	word	p 5.1 4.9	word	p 2.7 2.6	word	3.4 2.5	word	p 2.6 2.2	word	p	word	p	word	p	word	p 4.4 3
1	word acquisition	p 5.1 4.9 2.7	word investment	p 2.7 2.6 2.5	word growth	3.4 2.5 2.3	word health	p 2.6 2.2 2.1	word personnel	p 4.9 3.8 3.6	word insurance	5.1 4.2 3.1	word patent right property	p 5.2 3.8 3.4	word foreign	9 4.4 3 2.6
1 2 3 4	word acquisition business	5.1 4.9 2.7 2.4	word investment financial market rates	2.7 2.6 2.5 2	word growth business	3.4 2.5	word health care	p 2.6 2.2 2.1 2.1	word personnel key	9 4.9 3.8 3.6 3.5	word insurance claim	5.1 4.2 3.1 2.4	word patent right	5.2 3.8 3.4 3.1	word foreign currency	9 4.4 3 2.6 2.4
1 2 3 4 5	word acquisition business acquire additional capital	5.1 4.9 2.7 2.4 2.4	word investment financial market rates credit	2.7 2.6 2.5 2 1.7	word growth business new manage operations	3.4 2.5 2.3 2.2 1.8	word health care healthcare program reimbursement	2.6 2.2 2.1 2.1 2.1	word personnel key retain employee management	9 4.9 3.8 3.6 3.5 2.8	word insurance claim liability result business	5.1 4.2 3.1 2.4 1.7	word patent right property intellectual license	5.2 3.8 3.4 3.1 2.8	word foreign currency international operations tax	9 4.4 3 2.6 2.4 2.2
1 2 3 4	word acquisition business acquire additional	p 5.1 4.9 2.7 2.4 2.4 1.9	word investment financial market rates	2.7 2.6 2.5 2 1.7 1.5	word growth business new manage	3.4 2.5 2.3 2.2 1.8 1.7	word health care healthcare program	p 2.6 2.2 2.1 2.1	word personnel key retain employee	p 4.9 3.8 3.6 3.5 2.8 2.7	word insurance claim liability result	5.1 4.2 3.1 2.4 1.7	word patent right property intellectual	5.2 3.8 3.4 3.1 2.8	word foreign currency international operations	p 4.4 3 2.6 2.4 2.2 2
1 2 3 4 5 6 7	word acquisition business acquire additional capital	p 5.1 4.9 2.7 2.4 2.4 1.9 1.8	word investment financial market rates credit	p 2.7 2.6 2.5 2 1.7 1.5	word growth business new manage operations sales expand	3.4 2.5 2.3 2.2 1.8 1.7	word health care healthcare program reimbursement product government	p 2.6 2.2 2.1 2.1 2.1 2.1 2.1	word personnel key retain employee management business attract	p 4.9 3.8 3.6 3.5 2.8 2.7 2.3	word insurance claim liability result business product coverage	p 5.1 4.2 3.1 2.4 1.7 1.7	word patent right property intellectual license technology party	p 5.2 3.8 3.4 3.1 2.8 2	word foreign currency international operations tax country exchange	p 4.4 3 2.6 2.4 2.2 2
1 2 3 4 5 6 7 8	word acquisition business acquire additional capital operations	p 5.1 4.9 2.7 2.4 2.4 1.9 1.8	word investment financial market rates credit security loan rate	p 2.7 2.6 2.5 2 1.7 1.5 1.4	word growth business new manage operations sales	3.4 2.5 2.3 2.2 1.8 1.7 1.7	word health care healthcare program reimbursement product government medical	p 2.6 2.2 2.1 2.1 2.1 2.1 2.1 4.6 1.4	word personnel key retain employee management business	p 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3	word insurance claim liability result business product coverage risk	5.1 4.2 3.1 2.4 1.7 1.6 1.6	word patent right property intellectual license technology party proprietary	p 5.2 3.8 3.4 3.1 2.8 2 2 1.8	word foreign currency international operations tax country exchange unite	p 4.4 3 2.6 2.4 2.2 2 2
1 2 3 4 5 6 7 8	word acquisition business acquire additional capital operations company financing future	p 5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5	word investment financial market rates credit security loan rate affect	2.7 2.6 2.5 2 1.7 1.5 1.5 1.4	word growth business new manage operations sales expand	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7	word health care healthcare program reimbursement product government medical medicare	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3	word personnel key retain employee management business attract officer executive	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1	word insurance claim liability result business product coverage risk financial	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3	word patent right property intellectual license technology party proprietary product	5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.8	word foreign currency international operations tax country exchange unite risk	9 4.4 3 2.6 2.4 2.2 2 2 2 1.8
1 2 3 4 5 6 7 8 9	word acquisition business acquire additional capital operations company financing future result	5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5	word investment financial market rates credit security loan rate affect bank	2.7 2.6 2.5 2 1.7 1.5 1.4 1.4	word growth business new manage operations sales expand ability increase management	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5	word health care healthcare program reimbursement product government medical medicare patient	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3	word personnel key retain employee management business attract officer executive qualify	p 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1	word insurance claim liability result business product coverage risk financial operations	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3	word patent right property intellectual license technology party proprietary product protect	5.2 3.8 3.4 3.1 2.8 2 1.8 1.8	word foreign currency international operations tax country exchange unite risk dollar	9 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5
1 2 3 4 5 6 7 8 9 10	word acquisition business acquire additional capital operations company financing future	5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5	word investment financial market rates credit security loan rate affect bank increase	2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3	word growth business new manage operations sales expand ability increase	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4	word health care healthcare program reimbursement product government medical medicare patient physician	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3 1.2	word personnel key retain employee management business attract officer executive	p 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.1 2	word insurance claim liability result business product coverage risk financial operations adverse	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1	word patent right property intellectual license technology party proprietary product protect claim	p 5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.6 1.6	word foreign currency international operations tax country exchange unite risk dollar state	p 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5 1.4
1 2 3 4 5 6 7 8 9 10 11 12	word acquisition business acquire additional capital operations company financing future result terms need	5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5 1.3	word investment financial market rates credit security loan rate affect bank increase institution	2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3 1.3	word growth business new manage operations sales expand ability increase management continue strategy	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.4	word health care healthcare program reimbursement product government medical medicare patient physician services	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2	word personnel key retain employee management business attract officer executive qualify ability company	p 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5	word insurance claim liability result business product coverage risk financial operations adverse material	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1	word patent right property intellectual license technology party proprietary product protect claim litigation	5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.6 1.6 1.2	word foreign currency international operations tax country exchange unite risk dollar state china	p 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5 1.4
1 2 3 4 5 6 7 8 9 10 11 12 13	word acquisition business acquire additional capital operations company financing future result terms need equity	5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5 1.3 1.1	word investment financial market rates credit security loan rate affect bank increase institution deposit	2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3 1.3	word growth business new manage operations sales expand ability increase management continue strategy financial	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.3	word health care healthcare program reimbursement product government medical medicare patient physician services state	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2	word personnel key retain employee management business attract officer executive qualify ability company depend	p 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5 1.3	word insurance claim liability result business product coverage risk financial operations adverse material litigation	p 5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1	word patent right property intellectual license technology party proprietary product protect claim litigation use	5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.6 1.6 1.2	word foreign currency international operations tax country exchange unite risk dollar state china result	p 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5 1.4 1.3 1.3
1 2 3 4 5 6 7 8 9 10 11 12 13	word acquisition business acquire additional capital operations company financing future result terms need equity raise	p 5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5 1.3 1.1	word investment financial market rates credit security loan rate affect bank increase institution deposit result	2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3 1.3 1.2	word growth business new manage operations sales expand ability increase management continue strategy financial operate	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.3 1.3	word health care healthcare program reimbursement product government medical medicare patient physician services state party	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2 1.1	word personnel key retain employee management business attract officer executive qualify ability company depend loss	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.1 2 1.8 1.5 1.3	word insurance claim liability result business product coverage risk financial operations adverse material litigation subject	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1	word patent right property intellectual license technology party proprietary product protect claim litigation use protection	p 5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.6 1.6 1.2 1.1	word foreign currency international operations tax country exchange unite risk dollar state china result fluctuation	p 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5 1.4 1.3 1.3
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	word acquisition business acquire additional capital operations company financing future result terms need equity raise require	p 5.1 4.9 2.7 2.4 2.4 1.9 1.8 1.6 1.5 1.3 1.1 1 0.9 0.9	word investment financial market rates credit security loan rate affect bank increase institution deposit result company	2.7 2.6 2.5 2 1.7 1.5 1.4 1.3 1.3 1.2 1.2	word growth business new manage operations sales expand ability increase management continue strategy financial operate market	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.3 1.3 1.2	word health care healthcare program reimbursement product government medical medicare patient physician services state party hospital	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2 1.1 1.1	word personnel key retain employee management business attract officer executive qualify ability company depend loss services	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5 1.3 1.3	word insurance claim liability result business product coverage risk financial operations adverse material litigation subject condition	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1 1.1 0.9	word patent right property intellectual license technology party proprietary product protect claim litigation use protection infringement	p 5.2 3.8 3.4 3.1 2.8 2 1.8 1.6 1.6 1.2 1.1 1	word foreign currency international operations tax country exchange unite risk dollar state china result fluctuation political	9 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5 1.4 1.3 1.3 1.2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	word acquisition business acquire additional capital operations company financing future result terms need equity raise require available	p 5.1 4.9 2.7 2.4 1.9 1.8 1.6 1.5 1.3 1.1 1 0.9 0.9 0.9	word investment financial market rates credit security loan rate affect bank increase institution deposit result company risk	2.7 2.6 2.5 2 1.7 1.5 1.4 1.3 1.3 1.2 1.2 1.1	word growth business new manage operations sales expand ability increase management continue strategy financial operate market system	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.3 1.3 1.2 1.1	word health care healthcare program reimbursement product government medical medicare patient physician services state party hospital payors	2.6 2.2 2.1 2.1 2.1 2 1.6 1.4 1.3 1.2 1.1 1.1 1.0.9	word personnel key retain employee management business attract officer executive qualify ability company depend loss services success	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5 1.3 1.3 1.3	word insurance claim liability result business product coverage risk financial operations adverse material litigation subject condition losses	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1 1.1 0.9 0.9	word patent right property intellectual license technology party proprietary product protect claim litigation use protection infringement infringe	5.2 3.8 3.4 3.1 2.8 2 1.8 1.6 1.6 1.2 1.1 1	word foreign currency international operations tax country exchange unite risk dollar state china result fluctuation political sales	p 4.4 3 2.6 2.4 2.2 2 2 1.8 1.5 1.4 1.3 1.3 1.2 1.1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	word acquisition business acquire additional capital operations company financing future result terms need equity raise require available include	p 5.1 4.9 2.7 2.4 1.9 1.8 1.6 1.5 1.3 1.1 1 0.9 0.9 0.9	word investment financial market rates credit security loan rate affect bank increase institution deposit result company risk value	p 2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3 1.3 1.2 1.2 1.1	word growth business new manage operations sales expand ability increase management continue strategy financial operate market system result	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.3 1.3 1.2 1.1	word health care healthcare program reimbursement product government medical medicare patient physician services state party hospital payors payment	2.6 2.2 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2 1.1 1.1 1 0.9 0.8	word personnel key retain employee management business attract officer executive qualify ability company depend loss services success senior	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5 1.3 1.3 1.2 1.1	word insurance claim liability result business product coverage risk financial operations adverse material litigation subject condition losses liabilities	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1 1.1 0.9 0.9 0.9	word patent right property intellectual license technology party proprietary product protect claim litigation use protection infringement infringe application	p 5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.6 1.6 1.2 1.1 1	word foreign currency international operations tax country exchange unite risk dollar state china result fluctuation political sales business	p 4.4 3 2.6 2.4 2.2 2 2 1.8 1.5 1.4 1.3 1.2 1.1 1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	word acquisition business acquire additional capital operations company financing future result terms need equity raise require available include able	p 5.1 4.9 2.7 2.4 1.9 1.8 1.6 1.5 1.3 1.1 1 0.9 0.9 0.9 0.9 0.9	word investment financial market rates credit security loan rate affect bank increase institution deposit result company risk value change	p 2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3 1.3 1.2 1.2 1.1 1.1	word growth business new manage operations sales expand ability increase management continue strategy financial operate market system result effectively	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.5 1.4 1.3 1.3 1.2 1.1 1.1	word health care healthcare program reimbursement product government medical medicare patient physician services state party hospital payors payment drug	2.6 2.2 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2 1.1 1.1 1.0.9 0.8 0.8	word personnel key retain employee management business attract officer executive qualify ability company depend loss services success senior chief	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5 1.3 1.3 1.2 1.1 1.1	word insurance claim liability result business product coverage risk financial operations adverse material litigation subject condition losses liabilities company	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1 1.1 0.9 0.9 0.9	word patent right property intellectual license technology party proprietary product protect claim litigation use protection infringement infringe application result	p 5.2 3.8 3.4 3.1 2.8 2 1.8 1.6 1.6 1.2 1.1 1 1	word foreign currency international operations tax country exchange unite risk dollar state china result fluctuation political sales business rates	p 4.4 3 2.6 2.4 2.2 2 2 2 1.8 1.5 1.4 1.3 1.2 1.1 1 0.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	word acquisition business acquire additional capital operations company financing future result terms need equity raise require available include	p 5.1 4.9 2.7 2.4 1.9 1.8 1.6 1.5 1.3 1.1 1 0.9 0.9 0.9	word investment financial market rates credit security loan rate affect bank increase institution deposit result company risk value	p 2.7 2.6 2.5 2 1.7 1.5 1.4 1.4 1.3 1.3 1.2 1.2 1.1	word growth business new manage operations sales expand ability increase management continue strategy financial operate market system result	3.4 2.5 2.3 2.2 1.8 1.7 1.7 1.7 1.5 1.4 1.3 1.3 1.2 1.1	word health care healthcare program reimbursement product government medical medicare patient physician services state party hospital payors payment	2.6 2.2 2.1 2.1 2 1.6 1.4 1.3 1.2 1.2 1.1 1.1 1 0.9 0.8	word personnel key retain employee management business attract officer executive qualify ability company depend loss services success senior	9 4.9 3.8 3.6 3.5 2.8 2.7 2.3 2.3 2.1 2 1.8 1.5 1.3 1.3 1.2 1.1	word insurance claim liability result business product coverage risk financial operations adverse material litigation subject condition losses liabilities	5.1 4.2 3.1 2.4 1.7 1.6 1.6 1.3 1.1 1.1 1.1 0.9 0.9 0.9	word patent right property intellectual license technology party proprietary product protect claim litigation use protection infringement infringe application	p 5.2 3.8 3.4 3.1 2.8 2 2 1.8 1.6 1.6 1.2 1.1 1	word foreign currency international operations tax country exchange unite risk dollar state china result fluctuation political sales business	p 4.4 3 2.6 2.4 2.2 2 2 1.8 1.5 1.4 1.3 1.2 1.1 1



WORD-TOPIC DISTRIBUTIONS (CONTINUED)

	Internet	t	Legal		Oil		Payout		ProdAppro	oval	ProductDev	1	ProductDev2	
rank	word	p	word	p	word	p	word	p	word	p	word	p	word	p
1	internet	3.2	action	1.5	gas	5.1	dividend	4.6	product	4.4	product	9.5	product	7.1
2	services	2.3	state	1.5	oil	4	subsidiary	4	approval	3.6	new	4.5	development	4.4
3	advertising	1.6	court	1.3	natural	3.7	pay	3.6	clinical	3.5	technology	4.1	candidate	2.3
4	brand	1.5	company	1.1	price	3.3	company	3.3	trial	2.9	market	2.9	research	2.1
5	program	1.3	prc	0.9	production	2.3	payment	2	fda	2.7	develop	1.8	develop	1.7
6	online	1.3	law	0.9	reserves	1.8	distribution	1.8	regulatory	2.6	change	1.7	marketing	1.4
7	content	1.3	federal	0.9	drilling	1.4	holding	1.6	drug	1.5	customer	1.5	partner	1.3
8	business	1.2	file	0.8	property	1.2	cash	1.6	obtain	1.4	services	1.4	sales	1.2
9	user	1.1	claim	0.8	fuel	1.2	capital	1.3	candidate	1.4	development	1.4	party	1
10	use	1	laws	0.8	result	1.1	venture	1.2	require	1.1	software	1.2	commercialize	1
11	service	1	investigation	0.7	operations	1	trust	1.1	result	1.1	technological	1.1	commercialization	1
12	consumer	1	certain	0.7	future	0.9	future	1.1	delay	1	industry	1.1	collaboration	0.9
13	increase	0.9	information	0.7	produce	0.9	ability	1.1	study	0.9	acceptance	1	market	0.9
14	revenue	0.9	security	0.7	costs	0.9	joint	1	market	0.9	ability	0.9	commercial	0.9
15	web	0.9	legal	0.7	affect	0.9	receive	0.9	approve	0.8	exist	0.9	license	0.9
16	medium	0.8	lawsuit	0.6	exploration	0.9	obligation	0.8	use	0.8	competitor	0.9	drug	0.9
17	site	0.8	include	0.6	energy	0.9	investment	0.8	include	0.8	competitive	0.8	effort	0.8
18	network	0.8	unite	0.6	commodity	0.8	make	0.8	patient	0.7	introduce	0.8	revenue	0.8
19	provide	0.7	act	0.6	estimate	0.8	funds	0.8	process	0.7	standard	0.8	collaborator	0.8
20	website	0.7	relate	0.6	activity	0.8	bank	0.7	safety	0.6	solution	0.8	technology	0.8
	RealEsta	te	Regulatio	\overline{n}	Revenue		Stakehold	er	StockPri	ce	SupplyChai	n	Systems	
rank	word	p	word	p	word	p	word	p	word	p	word	p	word	p
1	loan	7.0	regulation	۲.0	revenue	3.8	stock		stock	9.0	product	6.2	system	4.6
0			regulation	5.9	revenue	3.0	BUOCK	5.2	Stock	0.0		0.2		
2	real	2.6	laws	3.5	tax	$\frac{3.6}{2.5}$	share	$\frac{5.2}{4.5}$	price	7.1	customer	2.5	business	2.8
3	real estate										customer supplier		business information	
		2.6	laws	3.5	tax	2.5	share	4.5	price	7.1		2.5		2.8
3	estate	$\frac{2.6}{2.4}$	laws state	$\frac{3.5}{3.0}$	tax net	$\frac{2.5}{2.4}$	share common	$\frac{4.5}{3.5}$	price common	$\frac{7.1}{6.5}$	supplier	$\frac{2.5}{2.4}$	information	$\frac{2.8}{2.1}$
3 4	estate losses	2.6 2.4 1.7	laws state business	$3.5 \\ 3.0 \\ 2.4$	tax net result	$2.5 \\ 2.4 \\ 2.2$	share common stockholder	$4.5 \\ 3.5 \\ 2.7$	price common market	$7.1 \\ 6.5 \\ 6.3$	supplier manufacturing	2.5 2.4 2.2	information customer	2.8 2.1 2.1
3 4 5	estate losses increase	2.6 2.4 1.7 1.4	laws state business subject	3.5 3.0 2.4 2.2	tax net result future	2.5 2.4 2.2 1.8	share common stockholder director	4.5 3.5 2.7 2.4	price common market security	7.1 6.5 6.3 2.2	supplier manufacturing supply	2.5 2.4 2.2 1.9	information customer result	2.8 2.1 2.1 2.0
3 4 5 6	estate losses increase power	2.6 2.4 1.7 1.4 1.3	laws state business subject regulatory	3.5 3.0 2.4 2.2 2.0	tax net result future income	2.5 2.4 2.2 1.8 1.7	share common stockholder director board	4.5 3.5 2.7 2.4 1.4	price common market security trading	7.1 6.5 6.3 2.2 2.1	supplier manufacturing supply material	2.5 2.4 2.2 1.9 1.9	information customer result failure	2.8 2.1 2.1 2.0 1.8
3 4 5 6 7	estate losses increase power energy	2.6 2.4 1.7 1.4 1.3	laws state business subject regulatory change	3.5 3.0 2.4 2.2 2.0 1.9	tax net result future income year	2.5 2.4 2.2 1.8 1.7 1.6	share common stockholder director board control	4.5 3.5 2.7 2.4 1.4 1.3	price common market security trading share	7.1 6.5 6.3 2.2 2.1 1.8	supplier manufacturing supply material manufacturer	2.5 2.4 2.2 1.9 1.9 1.6	information customer result failure operations	2.8 2.1 2.1 2.0 1.8 1.7
3 4 5 6 7 8	estate losses increase power energy property	2.6 2.4 1.7 1.4 1.3 1.3	laws state business subject regulatory change federal	3.5 3.0 2.4 2.2 2.0 1.9 1.8	tax net result future income year expense	2.5 2.4 2.2 1.8 1.7 1.6 1.6	share common stockholder director board control right	4.5 3.5 2.7 2.4 1.4 1.3	price common market security trading share company	7.1 6.5 6.3 2.2 2.1 1.8 1.7	supplier manufacturing supply material manufacturer component	2.5 2.4 2.2 1.9 1.9 1.6 1.5	information customer result failure operations security	2.8 2.1 2.1 2.0 1.8 1.7
3 4 5 6 7 8	estate losses increase power energy property commercial	2.6 2.4 1.7 1.4 1.3 1.3 1.2	laws state business subject regulatory change federal requirement	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5	tax net result future income year expense operate	2.5 2.4 2.2 1.8 1.7 1.6 1.6	share common stockholder director board control right company	4.5 3.5 2.7 2.4 1.4 1.3 1.2	price common market security trading share company result	7.1 6.5 6.3 2.2 2.1 1.8 1.7	supplier manufacturing supply material manufacturer component result	2.5 2.4 2.2 1.9 1.9 1.6 1.5	information customer result failure operations security services	2.8 2.1 2.1 2.0 1.8 1.7 1.4
3 4 5 6 7 8 9	estate losses increase power energy property commercial risk	2.6 2.4 1.7 1.4 1.3 1.3 1.2 1.2	laws state business subject regulatory change federal requirement government	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5	tax net result future income year expense operate losses	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5	share common stockholder director board control right company offering	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2	price common market security trading share company result public	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5	supplier manufacturing supply material manufacturer component result increase	2.5 2.4 2.2 1.9 1.6 1.5 1.4	information customer result failure operations security services client	2.8 2.1 2.1 2.0 1.8 1.7 1.4 1.3
3 4 5 6 7 8 9 10	estate losses increase power energy property commercial risk portfolio	2.6 2.4 1.7 1.4 1.3 1.2 1.2 1.1	laws state business subject regulatory change federal requirement government operations	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4	tax net result future income year expense operate losses period	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5	share common stockholder director board control right company offering provisions	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1	price common market security trading share company result public decline	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2	supplier manufacturing supply material manufacturer component result increase manufacture	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3	information customer result failure operations security services client data	2.8 2.1 2.0 1.8 1.7 1.4 1.3 1.3
3 4 5 6 7 8 9 10 11	estate losses increase power energy property commercial risk portfolio market	2.6 2.4 1.7 1.4 1.3 1.2 1.2 1.1 1.1	laws state business subject regulatory change federal requirement government operations comply	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4 1.2	tax net result future income year expense operate losses period estimate	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5 1.5	share common stockholder director board control right company offering provisions outstanding	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1	price common market security trading share company result public decline offering	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2	supplier manufacturing supply material manufacturer component result increase manufacture production	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3	information customer result failure operations security services client data party	2.8 2.1 2.1 2.0 1.8 1.7 1.4 1.3 1.3
3 4 5 6 7 8 9 10 11 12 13	estate losses increase power energy property commercial risk portfolio market allowance	2.6 2.4 1.7 1.4 1.3 1.2 1.2 1.1 1.1 1.1	laws state business subject regulatory change federal requirement government operations comply affect	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4 1.2	tax net result future income year expense operate losses period estimate end	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5 1.5 1.3	share common stockholder director board control right company offering provisions outstanding shareholder	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1 1.1	price common market security trading share company result public decline offering fluctuation	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2 1.1	supplier manufacturing supply material manufacturer component result increase manufacture production price	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3 1.2 1.2	information customer result failure operations security services client data party service	2.8 2.1 2.1 2.0 1.8 1.7 1.4 1.3 1.3 1.1
3 4 5 6 7 8 9 10 11 12 13	estate losses increase power energy property commercial risk portfolio market allowance coal	2.6 2.4 1.7 1.4 1.3 1.2 1.2 1.1 1.1 1.1 1.0	laws state business subject regulatory change federal requirement government operations comply affect compliance	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4 1.2 1.2	tax net result future income year expense operate losses period estimate end december	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5 1.3 1.3	share common stockholder director board control right company offering provisions outstanding shareholder prefer	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1 1.1 1.0	price common market security trading share company result public decline offering fluctuation operate	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2 1.1 1.1	supplier manufacturing supply material manufacturer component result increase manufacture production price delay	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3 1.2 1.2	information customer result failure operations security services client data party service interruption	2.8 2.1 2.1 2.0 1.8 1.7 1.4 1.3 1.3 1.1 1.0
3 4 5 6 7 8 9 10 11 12 13 14	estate losses increase power energy property commercial risk portfolio market allowance coal mortgage	2.6 2.4 1.7 1.4 1.3 1.2 1.2 1.1 1.1 1.0 0.9	laws state business subject regulatory change federal requirement government operations comply affect compliance include	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4 1.2 1.2 1.1	tax net result future income year expense operate losses period estimate end december approximately	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5 1.3 1.3 1.2	share common stockholder director board control right company offering provisions outstanding shareholder prefer price	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1 1.1 1.0 0.9	price common market security trading share company result public decline offering fluctuation operate future	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2 1.1 1.1 1.0	supplier manufacturing supply material manufacturer component result increase manufacture production price delay purchase	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3 1.2 1.2 1.1 0.9	information customer result failure operations security services client data party service interruption damage	2.8 2.1 2.1 2.0 1.8 1.7 1.4 1.3 1.3 1.1 1.0 0.9
3 4 5 6 7 8 9 10 11 12 13 14 15 16	estate losses increase power energy property commercial risk portfolio market allowance coal mortgage home	2.6 2.4 1.7 1.4 1.3 1.3 1.2 1.2 1.1 1.1 1.0 0.9 0.9	laws state business subject regulatory change federal requirement government operations comply affect compliance include result	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4 1.2 1.2 1.1 1.0	tax net result future income year expense operate losses period estimate end december approximately base	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5 1.3 1.3 1.2 1.2	share common stockholder director board control right company offering provisions outstanding shareholder prefer price issue	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1 1.1 1.0 0.9 0.9	price common market security trading share company result public decline offering fluctuation operate future factor	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2 1.1 1.1 1.0 1.0	supplier manufacturing supply material manufacturer component result increase manufacture production price delay purchase order	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3 1.2 1.2 1.1 0.9	information customer result failure operations security services client data party service interruption damage disruption	2.8 2.1 2.1 2.0 1.8 1.7 1.4 1.3 1.3 1.1 1.0 0.9
3 4 5 6 7 8 9 10 11 12 13 14 15 16	estate losses increase power energy property commercial risk portfolio market allowance coal mortgage home result	2.6 2.4 1.7 1.4 1.3 1.3 1.2 1.1 1.1 1.1 1.0 0.9 0.9 0.8	laws state business subject regulatory change federal requirement government operations comply affect compliance include result require	3.5 3.0 2.4 2.2 2.0 1.9 1.8 1.5 1.4 1.2 1.2 1.1 1.0 0.9	tax net result future income year expense operate losses period estimate end december approximately base significant	2.5 2.4 2.2 1.8 1.7 1.6 1.6 1.5 1.3 1.3 1.2 1.2	share common stockholder director board control right company offering provisions outstanding shareholder prefer price issue option	4.5 3.5 2.7 2.4 1.4 1.3 1.2 1.2 1.1 1.1 1.0 0.9 0.9 0.8	price common market security trading share company result public decline offering fluctuation operate future factor investor	7.1 6.5 6.3 2.2 2.1 1.8 1.7 1.5 1.2 1.1 1.1 1.0 1.0 0.9	supplier manufacturing supply material manufacturer component result increase manufacture production price delay purchase order raw	2.5 2.4 2.2 1.9 1.6 1.5 1.4 1.3 1.2 1.1 1.0 0.9 0.9	information customer result failure operations security services client data party service interruption damage disruption loss	2.8 2.1 2.0 1.8 1.7 1.4 1.3 1.3 1.1 1.0 0.9 0.9

DISCLOSED RISK FACTORS

Increase Accounting FinMarket HealthCare Legal Payout Regulation

Decrease

Competition HumanCapital International Internet ProductDev1 RealEstate SupplyChain

	Pre J	OBS ACT	JO]	BS ACT	
Risk Factor	Mean	Std. Dev.	Mean	Std. Dev.	Diff
Accounting	4.6	2.1	5.4	2.3	0.8***
Competition	3.0	2.1	2.4	1.7	-0.6***
Contractual	2.3	1.8	2.3	1.7	0.0
Costs	1.2	2.2	0.9	1.5	-0.3
Credit	3.0	3.0	2.5	2.6	-0.5
Demand	4.0	3.3	3.5	3.4	-0.5
Disclosure	2.9	1.1	3.4	3.8	0.5
EnviroReg	1.3	2.3	1.0	1.8	-0.3
Financing	3.3	1.6	3.2	2.0	-0.1
FinMarket	1.2	3.1	2.0	4.9	0.8*
Growth	4.8	2.9	4.5	2.9	-0.3
HealthCare	1.6	2.5	2.3	3.3	0.7**
HumanCapital	2.7	1.3	2.4	0.8	-0.3**
Insurance	2.2	0.9	2.2	1.4	0.0
IntellProp	6.4	3.8	6.0	4.4	-0.4
International	2.0	2.0	1.5	1.5	-0.5***
Internet	3.6	5.6	2.2	4.2	-1.4***
Legal	1.6	1.5	2.2	2.5	0.6***
Oil	2.3	6.7	1.2	5.4	-1.1
Payout	1.2	1.1	1.6	1.7	0.4***
ProdApproval	4.2	9.0	6.4	10.2	2.2*
ProductDev1	4.8	4.1	3.9	4.1	-0.9*
ProductDev2	3.5	5.8	4.4	6.5	0.9
RealEstate	0.7	1.9	1.6	3.7	0.9***
Regulation	4.6	2.5	5.2	2.4	0.6**
Revenue	3.6	1.7	3.9	2.2	0.3
Stakeholder	8.8	2.9	9.2	4.9	0.4
StockPrice	5.4	1.7	5.2	1.9	-0.2
SupplyChain	3.5	4.2	2.5	3.3	-1.0**
Systems	4.7	3.5	4.2	3.4	-0.5

Systems 0.127 Credit 0.118 Competition 0.122 Competition 0.123 Competition 0.108 Competition 0.107 Competition 0.074 Competition 0.074 Competition 0.074 Competition 0.075 Competition 0.074 Competition 0.075 Competi	Topic	Standardized Coeff.	Topic	Standardized Coef
Credit 0.118 Oil Competition 0.122 Oil Dil 0.117 Growth 0.108 Contractual 0.082 Internet 0.078 RealEstate 0.081 Revenue 0.077 Revenue 0.073 ProductDev1 0.076 Costs 0.071 Regulation 0.075 FinMarket 0.062 Contractual 0.074 Stakeholder 0.042 International 0.069 Financing 0.024 HumanCapital 0.069 Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 Disclosure -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 Recounting -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018	Payout	0.150	Demand	0.129
Dil	EnviroReg	0.134	Systems	0.127
Internet 0.078 RealEstate 0.081 Revenue 0.077 Revenue 0.077 Revenue 0.077 Revenue 0.076 Revenue 0.077 Regulation 0.076 Regulation 0.075 Regulation 0.075 Regulation 0.075 Regulation 0.074 Regulation 0.074 Regulation 0.074 Regulation 0.074 Regulation 0.069 Regulation 0.067 Regulation 0.067 Regulation 0.067 Regulation 0.024 Regulation 0.045 Regulation 0.013 StockPrice 0.040 Regulation 0.015 FinMarket 0.032 Regulation 0.004 RealEstate 0.031 Regulation 0.024 RealEstate 0.031 Regulation 0.044 RealEstate 0.031 Regulation 0.044 Regulation 0.018 Regulation 0.049 Regulation 0.018 Regulation 0.050 Regu	Credit	0.118	Competition	0.122
RealEstate 0.081 Revenue 0.077 Revenue 0.073 ProductDev1 0.076 Costs 0.071 Regulation 0.075 FinMarket 0.062 Contractual 0.074 Stakeholder 0.042 International 0.069 Insurance 0.039 Accounting 0.067 Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.006 <tr< td=""><td>Oil</td><td>0.117</td><td>Growth</td><td>0.108</td></tr<>	Oil	0.117	Growth	0.108
Revenue 0.073 ProductDev1 0.076 Costs 0.071 Regulation 0.075 FinMarket 0.062 Contractual 0.074 Stakeholder 0.042 International 0.069 Insurance 0.039 Accounting 0.067 Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.006 International -0.012 FinvioReg -0.012	Contractual	0.082	Internet	0.078
Costs 0.071 Regulation 0.075 FinMarket 0.062 Contractual 0.074 Stakeholder 0.042 International 0.069 Insurance 0.039 Accounting 0.067 Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.045 Demand -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.006 ProductDev2 -0.058 Disclosure 0.006	RealEstate	0.081	Revenue	0.077
FinMarket 0.062 Contractual 0.074 Stakeholder 0.042 International 0.069 Insurance 0.039 Accounting 0.067 Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 Disclosure -0.003 Credit 0.045 Disclosure -0.003 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.006 ProductDev2 -0.058 Disclosure 0.006 HumanCapital -0.081 Oil -0.012	Revenue	0.073	ProductDev1	0.076
Stakeholder 0.042 International 0.069 Insurance 0.039 Accounting 0.067 Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.006 ProductDev2 -0.058 Disclosure 0.006 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 <td>Costs</td> <td>0.071</td> <td>Regulation</td> <td>0.075</td>	Costs	0.071	Regulation	0.075
Second S	$\operatorname{FinMarket}$	0.062	Contractual	0.074
Financing 0.024 HumanCapital 0.056 Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205 </td <td>Stakeholder</td> <td>0.042</td> <td>International</td> <td>0.069</td>	Stakeholder	0.042	International	0.069
Legal 0.023 Costs 0.045 Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Insurance	0.039	Accounting	0.067
Disclosure -0.003 Credit 0.045 International -0.013 StockPrice 0.040 Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Financing	0.024	HumanCapital	0.056
Compand Comp	Legal	0.023	Costs	0.045
Demand -0.015 FinMarket 0.032 Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Disclosure	-0.003	Credit	0.045
Regulation -0.024 RealEstate 0.031 HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	International	-0.013	StockPrice	0.040
HealthCare -0.035 Stakeholder 0.021 StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Demand	-0.015	FinMarket	0.032
StockPrice -0.044 Payout 0.018 Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Regulation	-0.024	RealEstate	0.031
Accounting -0.049 Legal 0.017 ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	${ m HealthCare}$	-0.035	Stakeholder	0.021
ProdApproval -0.050 Insurance 0.010 SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	StockPrice	-0.044	Payout	0.018
SupplyChain -0.054 Financing 0.009 ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Accounting	-0.049	Legal	0.017
ProductDev2 -0.058 Disclosure 0.006 Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	ProdApproval	-0.050	Insurance	0.010
Internet -0.079 SupplyChain -0.004 HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	SupplyChain	-0.054	Financing	0.009
HumanCapital -0.081 Oil -0.012 Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	ProductDev2	-0.058	Disclosure	0.006
Competition -0.102 EnviroReg -0.016 Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Internet	-0.079	SupplyChain	-0.004
Systems -0.113 IntellProp -0.126 Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	HumanCapital	-0.081	Oil	-0.012
Growth -0.131 HealthCare -0.160 ProductDev1 -0.141 ProductDev2 -0.205	Competition	-0.102	EnviroReg	-0.016
ProductDev1 -0.141 ProductDev2 -0.205	Systems	-0.113	IntellProp	-0.126
	Growth	-0.131	HealthCare	-0.160
IntellProp -0.144 ProdApproval -0.208	ProductDev1	-0.141	ProductDev2	-0.205
	IntellProp	-0.144	ProdApproval	-0.208

"PAYOUT" RISK EXAMPLES

"Because **we do not anticipate paying any cash dividends** on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain. **We have never declared or paid cash dividends** on our capital stock."

"We do not currently intend to pay dividends on our common stock following the offering. We do not anticipate paying any cash dividends on our common stock for the foreseeable future. Instead, we intend to retain future earnings to fund our growth."

"As a result, we do not expect to pay any cash dividends in the foreseeable future."

"We have **never paid cash dividends** on our share capital, and we **do not anticipate paying any cash dividends** in the foreseeable future"



"CREDIT" RISK EXAMPLES

"To the extent additional debt is added to our current debt levels, the risks described above could increase. We **may not have cash available** to us in an amount sufficient to enable us **to make interest or principal payments** on our indebtedness when due."

"We may be unable to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal and interest on our indebtedness. If our cash flow and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets, seek to obtain additional equity capital or restructure our indebtedness."

"We cannot assure you that our business will generate sufficient cash flow from operations or that future borrowings will be available to us in an amount sufficient to enable us to service our debt or to fund our other liquidity needs."



JOBS ACT ACCOMMODATIONS AND RISK FACTORS

	JOBS A	Act								
_	Provisio	ons / Factor	S		Nun	nber	Pct			
-								_		
	Hard In	<u> formation</u>								
	No Disc	cussion of E	xec. Com	p.	5	1	18%			
	Private	Accounting	Standard	ds	5	1	18%			
	<3 Yrs	of Audited	ts	12	22	45%				
	<5 Yrs	of Selected	a	7	4	27%				
	<5 Exe	cutives' Cor	on	23	33	86%				
		formation	1							
		ntial Filing			2	12	78%			
						_	, .			
JOBS Act		ExecComp	Private	<3 yr	s	<5 yrs	3	<5	Confid.	
Provisions / Factors		Discuss	Acctg	Audite	ed I	Fin Dat	a E	xecComp	Filing	factor1
Hard Information										
No Discussion of Exec	Comp									
Private Accounting St	-	-0.18								
<3 Yrs of Audited Sta		-0.47	0.09							
<5 Yrs of Selected Fir		-0.49	0.14	0.62						
<5 Executives' Compe		-0.50	0.14	0.43		0.48				
Soft Information										
Confidential Filing		-0.68	0.21	0.54		0.58		0.57		
factor1		-0.16	0.09	0.21		0.26		0.17	0.22	
factor2		0.14	-0.07	-0.19		-0.21		-0.11	-0.04	0.10

JOBS ACT ACCOMMODATIONS AND RISK FACTORS

		Dependent Variable								
		factor1			factor2					
	(1)	(2)	(3)	(4)	(5)	(6)				
Treatment	0.308 (4.08)***	0.270 (4.34)***	0.287 (5.24)***	-0.120 -(1.01)	-0.022 -(0.31)	0.146 (1.95)*				
StarUnderwriter		0.051 (0.81)	-0.056 (0.99)		-0.112 -(1.43)	-0.052 -(0.65)				
VCbacked		-0.352 (5.12)***	-0.345 (5.74)***		0.000 (0.00)	0.010 -(0.11)				
Ln(Offer Size in \$Billions)		0.037 -(0.81)	0.053 -(1.30)		-0.039 -(0.76)	0.000				
Log(Offer Size in \$Millions)		0.016	-0.008 -(1.35)		0.043	0.025 (1.67)*				
Missing Revenues		, ,	0.214 (2.31)**		, ,	0.658 (2.30)**				
Constant	-0.576 (8.87)***			0.019 -(0.19)		, ,				
Industry FE	No	Yes	Yes	No	Yes	Yes				
Adjusted R-Sq	0.040	0.490	0.490	0.000	0.540	0.520				
N	394	328	394	394	328	394				

Propensity score matching on: underwriter, venture capital backing, offer size, revenues, R&D expenditures, assets, and industry

Panel B: Disclosed Risk Factors - Matched Sample

	factor1	factor2	
SATT	0.27 (3.68)***	0.45 (3.76)***	

SEC COMMENT LETTER EXAMPLE



UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

DIVISION OF CORPORATION FINANCE LETTER DATE

March 28, 2014

Via E-mail
Darryl Rawlings
Chief Executive Officer
Trupanion, Inc.
907 NW Ballard Way
Seattle, WA 98107

Re: Trupanion, Inc.

ASSOCIATED FILING

Confidential Draft Registration Statement on Form S-1 Submitted February 28, 2014

CIK No. 0001371285

Dear Mr. Rawlings:

BOILERPLATE

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General 6 4 1

 We note that you have yet to submit several of your exhibits. Please be advised that we may have further comments upon examination of these exhibits once they have been submitted by amendment.

Please provide us proofs of all graphic, visual or photographic information you
will provide in the printed prospectus prior to its use, for example in a preliminary
prospectus. Please note that we may have comments regarding this material.

 Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do

- 11. Please include in this list your current level of indebtedness and its possible impact on your operations and the necessity of generating sufficient cash flow to satisfy your debt service obligations, as described in the risk factor on pages 30-31.
- 12. Please include in this list the possibility that litigation or regulatory action could negatively impact your business, while citing the pending inquiries from Washington State's and California's insurance agencies as described in the risk factor on page 31.
- 13. In your first bullet point, please include the net losses you have experienced over the last three fiscal years as well as your accumulated deficit to date. Please also include your accumulated deficit in the related risk factor on page 13.
- 14. In your sixth bullet point and in the related risk factor on page 15, please state the amount of current reserves you have established for claims.
- 15. In your eighth bullet point, the related risk factor on page 33-34 and the relevant disclosure on page 93, please state the minimum amount of risk-based capital APIC is required to maintain.

Risk Factors

CONTEXT

Risks Related to Our Business and Industry

"If we are unable to maintain high member retention rates, our growth prospects and revenue will be adversely affected," page 14

16. In this risk factor, please include information about your cohort retention rate on a year-to-year basis, similar to the disclosure included in your MD&A on page 58.

"We depend on key personnel to operate our business . . .," page 23

 Please identify the other key executives or employees whose departure could result in a material adverse event.

"Our indebtedness could adversely affect our business and limit our ability to expand our business or respond to changes . . ." page 30

18. Please expand this risk factor to summarize the financial and non-financial covenants you must comply with in connection with the Square 1 credit facility and note your obligations under both the Square 1 credit facility and the PEPI Capital, L.P. term loan are secured by substantially all of your assets.

"A downgrade in the financial strength rating of our insurance company may have an adverse effect on our competitive position" page 33

19. Please revise this risk factor to include the names of the rating agencies that review APIC and the current financial strength ratings they have assigned to it.

You may contact Donald Abbott at (202) 551-3608 or Lisa Vanjoske at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383, John Krug at (202) 551-3862 or me at (202) 551-3715 with any other questions.

Sincerely.

/s/ Daniel Greenspan for

Jeffrey P. Riedler Assistant Director

LETTER WRITERS

ITEMS

e: Alan Smith

JOBS ACT ACCOMMODATIONS AND RISK FACTORS

weak:
may,
might,
could,
(etc.)

strong: will, must, clearly, (etc.) Panel A: Summary Statistics

	D. IODG A.	D + IODG A +	D.a.	
Comment Letter Variable	Pre JOBS Act	Post JOBS Act	Difference	
weak/total (× 1,000)	5.20 (2.04)	4.68 (2.23)	-0.52**	<u>quant.</u>
$strong/total(\times 1,000)$	3.64	4.38	0.74***	<u>items</u> :
	(1.44)	(2.41)		"how much",
weak/strong	1.84	1.27	-0.57***	· ·
	(2.06)	(0.85)		"how many",
negative/positive	3.25	3.76	0.50**	"quantify",
	(1.78)	(2.83)		
uncertainty/total($\times 1,000$)	19.04	17.86	-1.18**	"amount",
	(5.25)	(4.79)		"range",
items	44.81	36.87	-4.24***	
	(17.94)	(15.98)		"rate",
quant. items $(\%)$	32.22	34.27	2.05**	"value",
	(8.36)	(10.58)		1
N	126	268		(etc.)

Panel B: SEC Letters - Matched Sample

	weak/total	strong/total	weak/strong	negative/positive	uncertainty/total	items	quant. items (%)
SATT	-0.74 (2.20)**	0.91 (2.55)**	-0.57 (2.98)***	0.30 -0.83	-0.22 -0.30	-4.37 -1.52	2.80 (2.30)**
24	(2.20)	(2.55)	(2.90)	-0.03	-0.50	-1.52	(2.30)

QUANTITATIVE ITEMS

	(1)	(2)	(3)	(4)
Treatment	0.05 (3.36) ***	0.04 (2.44)**	0.08 (2.95) ***	0.07 (2.67) ***
< 3 Yrs of Audited Statements			0.02	0.00
			(1.11)	(0.18)
Discussion of Executive Compensation			0.01	0.02
			(0.54)	(0.87)
Private Accounting Standards			0.01	0.02
			(0.54)	(0.91)
Num Executives' Compensation Reported			0.00	0.00
			(0.10)	(-0.62)
Num Yrs of Selected Fin Data			0.01	0.01
			(1.65)*	(1.03)
Confidential Filing			-0.04	-0.04
			(-1.72)*	(-2.23)**
factor1			0.01	0.01
			(0.35)	(0.88)
factor2			-0.01	-0.02
			(-1.30)	(-1.31)
StarUnderwriter			-0.01	-0.01
			(-0.75)	(-0.57)
VCbacked			0.01	0.01
			(0.61)	(0.61)
Ln(Offer Size \$Billions)			0.01	0.01
			(0.61)	(1.05)
Constant	0.34 (25.82)***			
Letter Writer FE?	No	Yes	No	Yes
Firm FE?	No	No	Yes	Yes
N	1,509	1,509	1,509	1,509
Adj R-Sq	0.010	0.074	0.025	0.097

IPO UNDERPRICING AND HARD AND SOFT INFORMATION

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment	0.06 (2.56)**	0.06 (2.13)**	0.03 (0.72)	0.08 (2.82)***	0.09 (3.06)***	0.06 (2.06)**	0.03 (0.92)	0.07 (1.36)	0.04 (1.35)	0.06 (1.18)
Iard Information:										
< 3 Yrs of Audited Statements		$0.00 \\ (0.01)$						-0.02 (-0.38)		-0.03 (-0.68)
Discussion of Executive Compensation			0.05 (1.09)					0.04 (0.83)		0.03 (0.62)
Private Accounting Standards				-0.04 (-1.09)				-0.04 (-1.09)		-0.04 (1.11)
Num Executives' Compensation Reported					0.02 (2.01)**			$0.02 \\ (1.74)*$		0.01 (1.23)
Num Yrs of Selected Fin Data						$0.00 \\ (0.27)$		-0.01 (-0.60)		-0.01 (-0.43)
oft Information:										
Confidential Filing							0.04 (1.22)		0.05 (1.28)	0.05 (1.19)
factor1									-0.07 (-2.44)**	-0.07 (-2.36)**
factor2									0.03 (1.37)	0.02 (1.26)
Control Variables :										
StarUnderwriter	$0.00 \\ (0.03)$	$0.00 \\ (0.03)$	$0.00 \\ (0.13)$	$0.00 \\ (0.07)$	$0.00 \\ (0.08)$	$0.00 \\ (0.02)$	$0.00 \\ (0.11)$	-0.01 (-0.30)	$0.00 \\ (0.00)$	-0.01 (-0.26)
Log Offer Size (\$B)	0.08 (4.01)***	0.08 (3.94)***	0.08 (4.04)***	0.08 (4.16)***	0.07 (3.90)***	0.08 (3.94)***	0.08 (4.01)***	0.08 (4.04)***	0.08 (4.17)***	0.08 (4.22)***
VCbacked	0.08 (2.32)**	0.08 (2.32)**	0.07 (2.25)**	0.08 (2.34)**	0.07 (2.28)**	0.08 (2.34)**	0.08 (2.32)**	0.07 (2.27)**	$0.05 \\ (1.55)$	0.05 (1.48)
Mkt-RF	0.56 (0.43)	0.56 (0.42)	0.61 (0.47)	0.47 (0.36)	0.53 (0.41)	0.61 (0.45)	0.67 (0.51)	0.54 (0.41)	0.73 (0.55)	0.62 (0.46)
AdjustedR2	0.12	$0.12^{'}$	$0.12^{'}$	0.13	0.12	0.12	0.12	0.13	0.13	0.14
N	398	398	398	397	398	398	398	397	398	397

Only soft information is priced (partial separation)



MARKET REACTION TO SEC COMMENT LETTERS

9. We note that following Facebook's acquisition of Instagram, Instagram disabled photo integration with Twitter. Please describe the consequences of Facebook's decision in terms of your service and the user experience. In addition, identify any other material third-party integration that you believe is at risk for similar elimination and the potential consequences.

THE TONE OF SEC LETTERS AND STOCK RETURNS

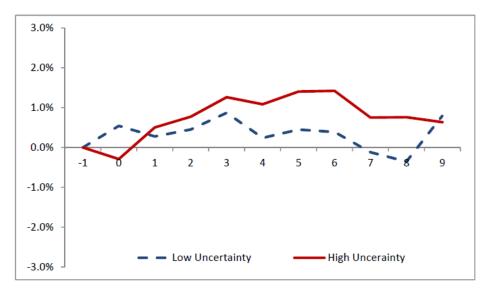
Panel A: The	Tone of SEC	Letters a	nd Stock l	Returns	
Treatment	0.080	0.008	-0.015	0.027	0.015
Uncertainty	(2.11) ** 1.546 (1.01)	(0.37)	(-0.68)	(1.02)	(0.52)
Weak	(===)	-1.574 (-0.04)			
Strong		(-2.418 (-0.53)		
Positive				6.751 (1.30)	
Negative					2.273 (1.19)
${\bf Uncertainty}{\bf \times}{\bf Treatment}$	-4.586 (-2.50)**				, ,
$Weak{\times} Treatment$		-3.295 (-0.90)			
$Strong{\times}Treatment$			2.575 (0.48)		
$Positive \times Treatment$				-6.512 (-1.16)	
$Negative \times Treatment$					-1.638 (-0.73)
Constant	-0.022 (-0.68)	0.017 (0.92)	0.017 (0.92)	-0.026 (-1.06)	-0.020 (-0.83)
N Adj R-Sq	389 0.020	389 0.011	389 0.001	389 0.008	389 0.005

SEC LETTERS AND STOCK RETURNS

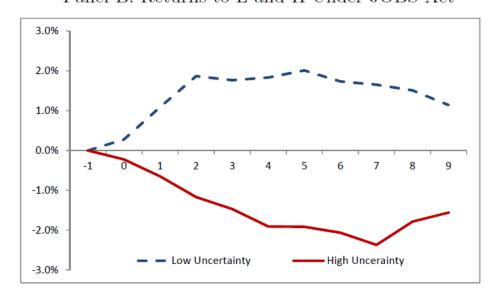
	(1)	(2)	(3)	(4)	(5)	(6)
EDGAR Hits \times Uncertainty \times Treatment				-0.286 (-2.54)**	-0.315 (-2.97)***	-0.3 (-2.77)***
Uncertainty × Treatment	-4.557 (-2.43)**	-4.472 (-2.38)**	-4.571 (-2.45)**	-1.758 (-0.83)	-1.396 (-0.67)	-1.676 (-0.81)
EDGAR Hits × Treatment				0.005 (3.05) ***	0.006 (3.50) ***	0.006 (3.27) ***
EDGAR Hits \times Uncertainty				0.12 (1.39)	0.105 (1.39)	0.112 (1.42)
EDGAR Hits				-0.002 (-1.68)*	-0.002 (-1.66)*	-0.002 (-1.70)*
Uncertainty	1.714 (1.08)	1.794 (1.19)	1.802 (1.20)	0.643 (0.37)	0.857 (0.53)	0.808 (0.49)
Treatment	0.083 (2.15) **	0.083 (2.11) **	0.081 (2.12)**	0.27 (0.65)	0.026 (0.61)	0.028 (0.67)
Num Letters	,	,	0.003 (1.08)	, ,	,	0.002 (0.76)
Words per Item			-0.001 (-1.91)*			-0.001 (-1.73)*
Number of Analyst		-0.002 (-1.28)	-0.002 (-1.13)		-0.002 (-1.82)*	-0.002 (-1.58)
Mean Analyst Recommendation		-0.02 (-2.43)**	-0.018 (-2.33)**		-0.022 (-2.86)***	-0.02 (-2.69)***
Controls, Fixed Effects, etc?	Yes	Yes	Yes	Yes	Yes	Yes
N	389	389	389	389	389	389
Adj R-Sq	0.007	0.184	0.199	0.08	0.216	0.228

MARKET REACTION TO SEC COMMENT LETTERS

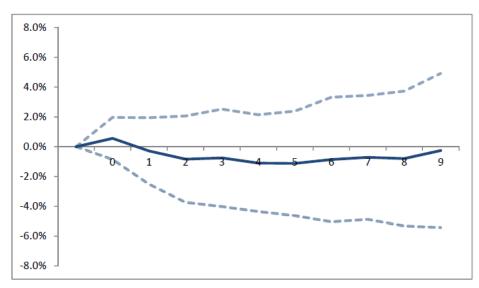
Panel A: Returns to L and H Before JOBS Act



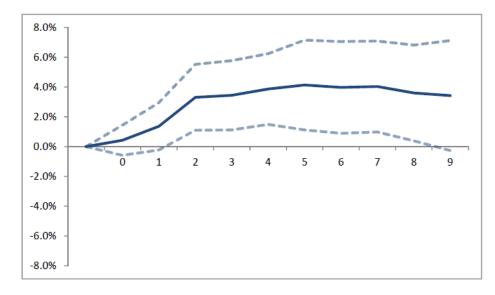
Panel B: Returns to L and H Under JOBS Act



Panel E: Diff. in Abn. Rets Before JOBS Act



Panel F: Diff. in Abn. Rets Under JOBS Act



CONCLUSION

- Firm behavior under the JOBS Act:
 - A reduction in the disclosure of hard information
 - A change in the disclosure of soft info (risk factors)
 - Market response:
 - More underpricing
 - Only related to soft information (partial separation)
- SEC behavior under the JOBS Act:
 - SEC uses more forceful language in its comment letters
 - More quantitative related requests
 - Market response:
 - Market prices the content of the SEC's letters upon release
 - Wasn't the case prior to the JOBS Act



Thank you!



HARD VS SOFT INFORMATION: GOOGLE

Before it's IPO, Google announced that it would not provide earnings guidance as that will induce short-termism.

- Google's Founder's letter during IPO (IPO in 2004):
- "We believe that artificially creating short term target numbers serves our shareholders poorly."

"We will not shy away from high-risk, high-reward projects because of short term earnings pressure. Some of our past bets have gone extraordinarily well, and others have not. ... For example, we would fund projects that have a 10% chance of earning a billion dollars over the long term. Do not be surprised if we place smaller bets in areas that seem very speculative or even strange when compared to our current businesses. ... as the ratio of reward to risk increases, we will accept projects further outside our current businesses.."



IPO PROCESS

