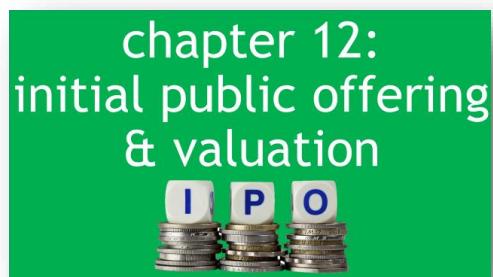
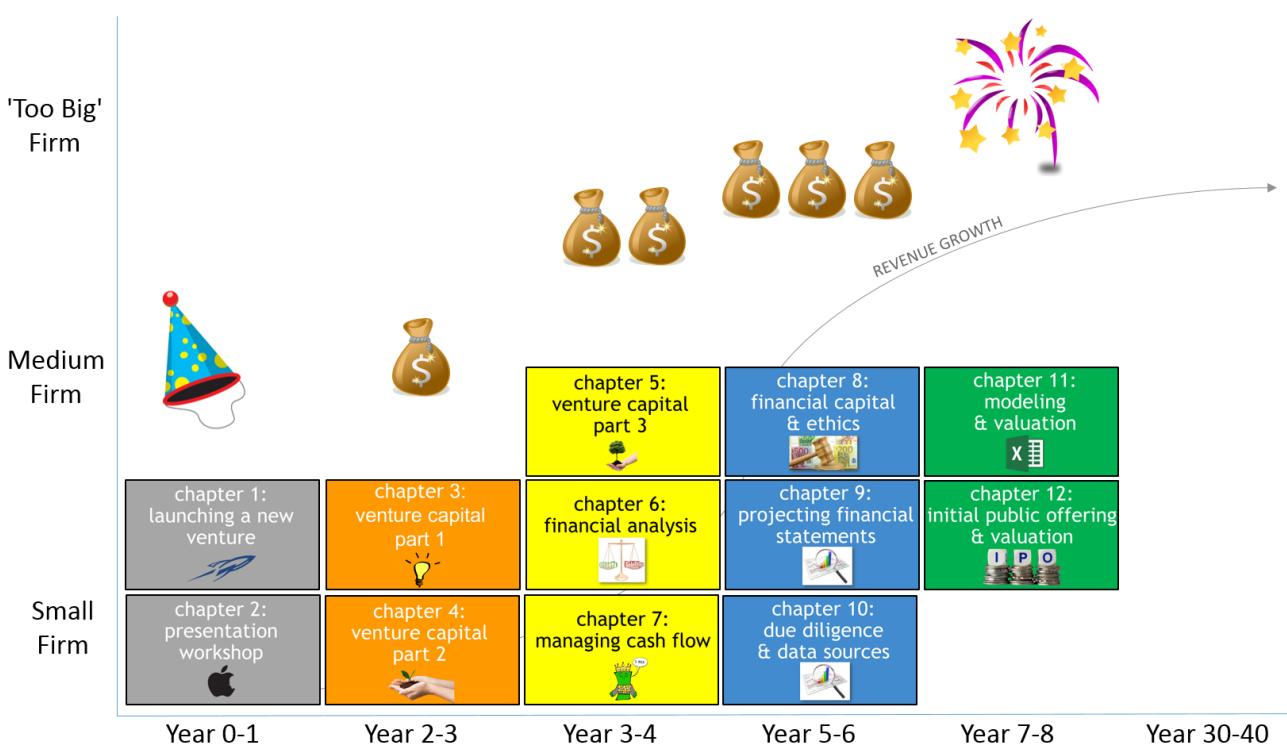
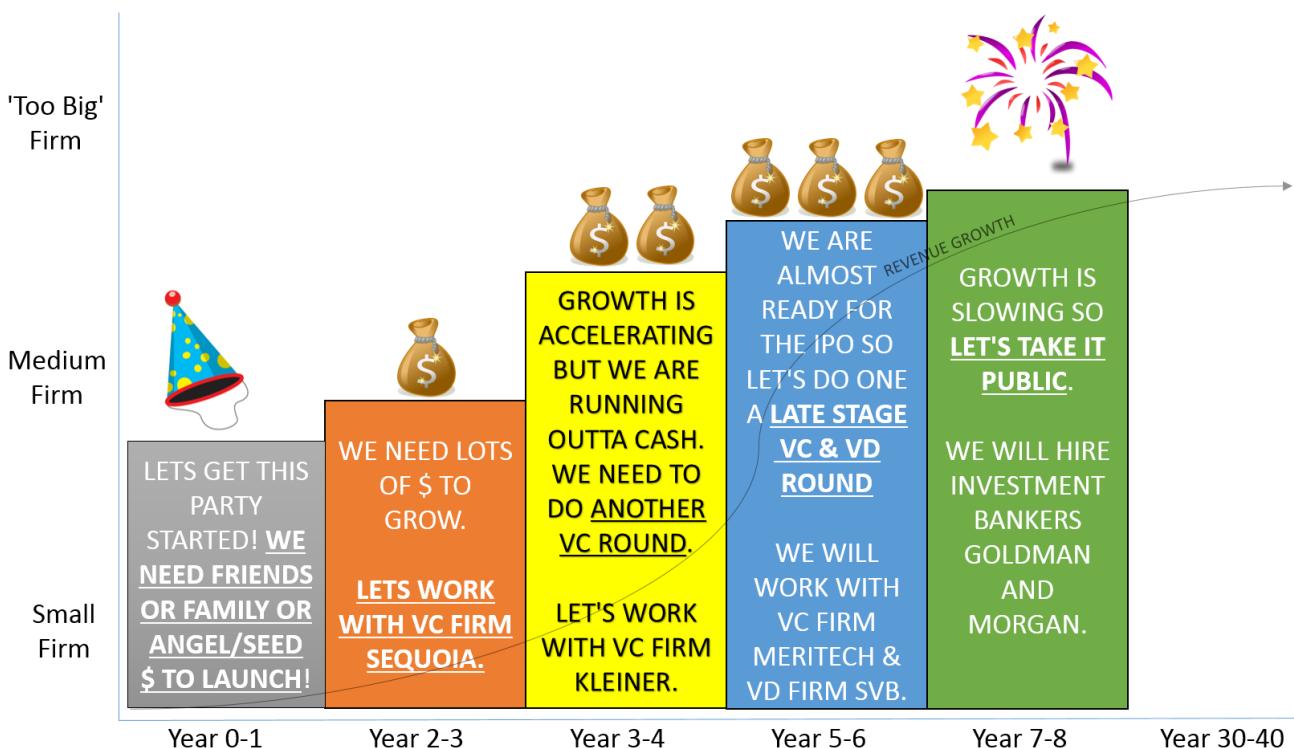


CHAPTER 12: INITIAL PUBLIC OFFERING AND VALUATION

“The New York Stock Exchange is the only store in the world where consumers sell stuff when it goes on sale.”

- Warren Buffett





Microsoft offered us \$1bn in cash to buy our company! Screw that though cuz we is worth way more than that!

Before we talk about how Goldman Sachs is going to take our firm public, let's try to understand tech valuations through a quick case study on Facebook's purchase of Instagram:



Before we jump in, let's see what Mark Zuckerberg has to say about the acquisition: www.tiny.cc/chris87

The screenshot shows a web browser window with multiple tabs open at the top. The visible tabs include 'kmarks', 'My eBay Sold', 'VB VentureBeat | Tech...', 'Engadget', 'Welcome to the Qui...', 'Qu Projects - Quid Web', and 'TechCrunch'. Below the tabs, there is a navigation bar with 'HOME' and 'SEARCH' buttons. The main content area features several news headlines:

- ROBOTICA EPISODE 4: A Talking Teddy Bear Practicing in the Pediatric Hospital (with a small image of a teddy bear)
- Yahoo Wins Rights to Live Stream Bills-Jaguars N.F.L. Game (with a small image of a football game)
- Showtime to Introduce Net Streaming Service on July 12 (with a small image of a woman)

Below these, the 'DealBook' logo is prominently displayed, followed by the text 'WITH FOUNDER ANDREW ROSS SORKIN'. A horizontal menu bar below the logo includes 'MERGERS & ACQUISITIONS', 'INVESTMENT BANKING', 'PRIVATE EQUITY', 'HEDGE FUNDS', and 'I.P.O./OFFERING'.

The main article headline is 'Facebook Buys Instagram for \$1 Billion', written by Evelyn M. Rusli on April 9, 2012, at 1:15 PM. It has 36 comments. The article text begins with 'Facebook is not waiting for its initial public offering to make its first big purchase.' To the right of the text, there is a photo of Kevin Systrom, co-founder of Instagram, speaking at a conference. The caption below the photo reads 'Keith Bedford/Bloomberg News'.

\$1bn for Instagram which had no revenue is a HUGE bargain when Facebook bought them in 2012! Why?

2011 instagram users of 1mn
and over 100mn in 2012!

facebook market cap
/
facebook users ("subs")
=
value per sub

\$231,000,000 (then)
/
1,400,000,000
=
\$165 per subscriber!

instagram acquisition price
/
instagram subs
=
value per sub

\$1,000,000,000
/
100,000,000 (in 2012)
=
\$10 per subscriber!

Facebook only paid \$10 per subscriber versus its own valuation of much much higher per Facebook subscriber!

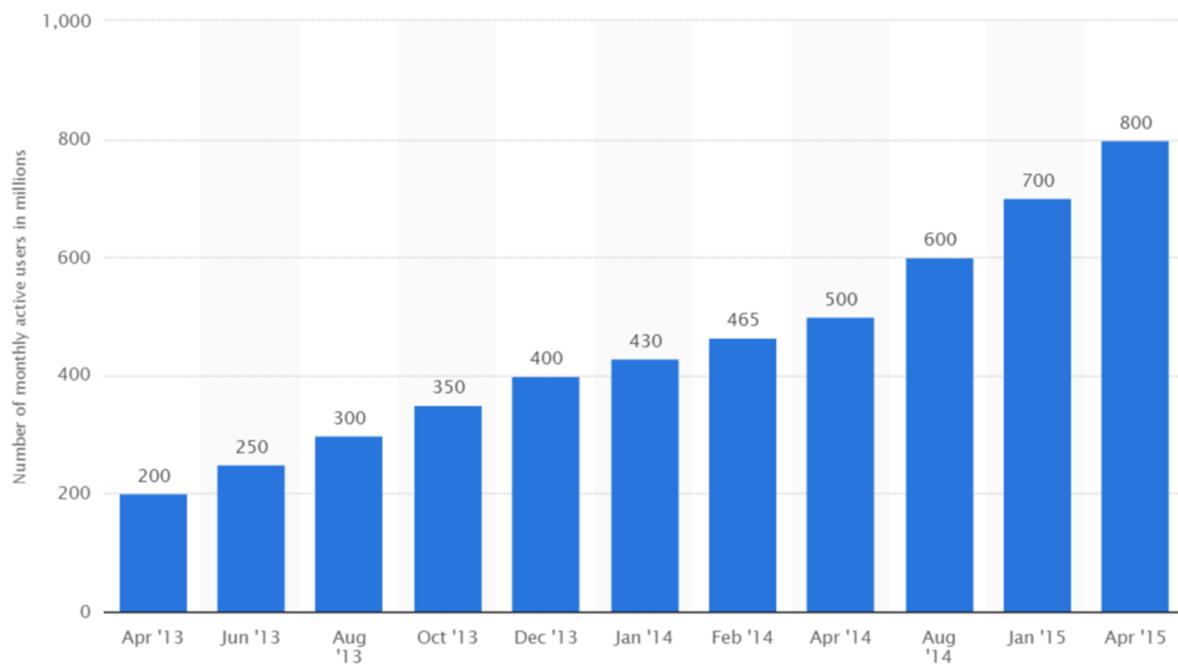
\$1,000,000,000
/
300,000,000+ (today)
=
<\$5 per subscriber!

if facebook was valued at \$165 per subscriber....
...and assuming instagram is worth at least \$80 per sub...

\$80 per sub times 200m subs= \$16bn+ valuation for instagram today!

instagram is worth \$16bn-\$32bn

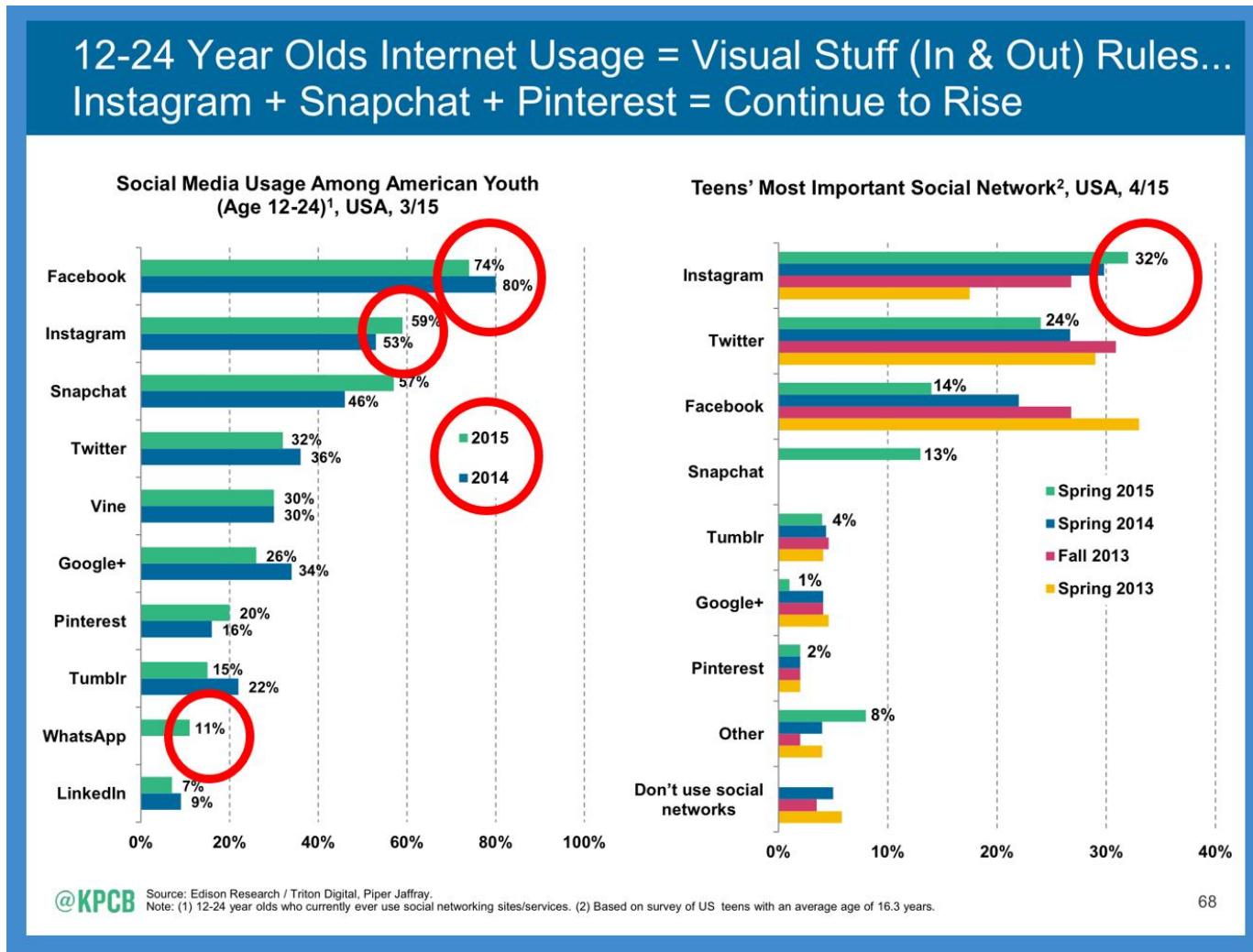
That \$1bn acquisition was very acretive per sub acquired for Facebook. Check out Instagram's user growth:



ok i get it. valuation for high growth consumer tech is based on subs.
what did facebook pay for what's app?

~\$20bn

Facebook had to buy Instagram and they had to buy Sequoia backed WhatsApp as Facebook's growth is decelerating. Facebook is much less relevant to younger demographics.



~\$20bn/700mn subs
= \$28 per sub!

Facebook got another bargain by paying only \$28 per subscriber for WhatsApp. This deal was “accretive” to Facebook’s value per subscriber.

valuation methodologies differ based on the industry

Valuing companies in the short term always differs based on the sector that the company competes in. In consumer technology, we look at the value per subscriber.

VALUATION DRIVERS

short term valuation drivers:

- consumer tech = subs
- enterprise tech = revenue
- semis tech = earnings
- hotels = revpar

short term valuation drivers:

- industrials = earnings & volume
- telco = arpu
- retail = earnings & SSS
- biotech = FDA approval

The hotel industry's valuation driver is "REVPAR" which stands for Revenue Per Available Room. In the telco market we look at "ARPU" which stands for Average Revenue Per User. In biotech we look at the probability a company will get FDA approval, which is why investing in biotech stocks is like a binary event at times. In the retail sector, we look at "SSS" which stands for Same Store Sales as we only care about the growth of each individual store on a YoY or year over year basis. This is why investors loved it when McDonald's started serving food 24 hours a day or when McDonald's started selling high margin coffee beverages.

long term valuation drivers:

- tech and telco = earnings & cf
- financials = earnings & cf
- retail = earnings & cf
- all sectors = earnings & cf

In the long run all we care about from a valuation perspective in all industries is earnings and cash flow.

additional valuation methods.	we are in late 2019 now.
our private company's valuation	we turned down microsoft's ' insulting ' \$1bn acquisition offer. go big or go home! let's put a dent in the universe. <u>we want to go public now.</u>

Let's take the plunge! Let's go public!!!!!!



We will ask our awesome VC investors Sequoia, Kleiner and Meritech who we should select for our initial public offering (IPO). They all tell us to go with Goldman Sachs as they are the best company when it comes to helping technology firms go public. Goldman puts together a group of investment banks to work with for the IPO, which is called the IPO syndicate. They do this as our IPO is going to be massive and Goldman wants to spread the risk by partnering with and sharing the economics with several firms. We also want to decide whoever does the best job of all the investment banks in the syndicate who to compensate a bit more so than the others. Competition is always good for us, the consumer.

we just hired goldman sachs
for the IPO

what do the employees at
goldman do for our private firm?

explain the anatomy of an ipo

investment bankers “underwrite” the IPO
(legal documents, excel valuation etc)



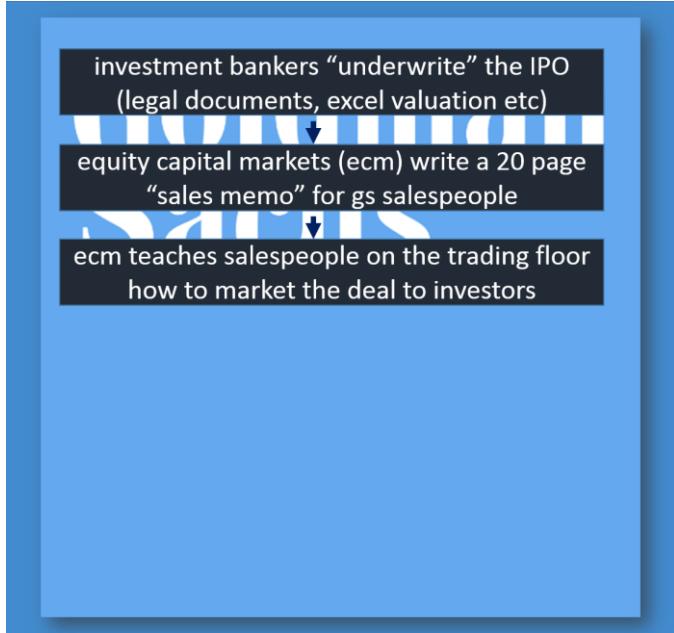
Investment bankers work with lawyers and create all the legal documents required to take us public. They list all of the risks as well in the legal filings so that our investors can't sue us or Goldman if something goes wrong.

Recall when we went to www.sec.gov when we were building our model we used the 10-k (the annual report) to analyze the company we were modeling. At the same website we can search for an “S-1” which is legal filing code for the IPO document that contains everything investors need to know about our firm in order to make an intelligent decision on whether or not to buy our stock in the IPO!

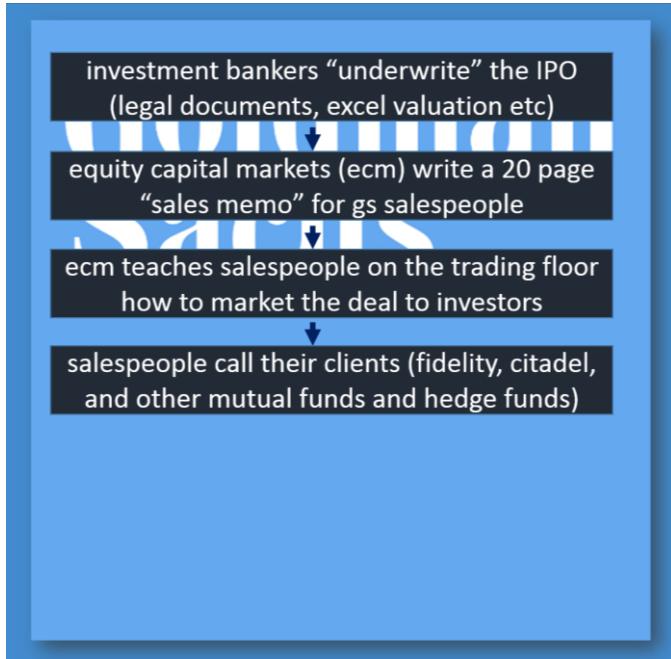
Here is the actual S-1 filing for Facebook's IPO: www.tiny.cc/chris88. You can see that Morgan Stanley is listed first so they led the IPO for Facebook.



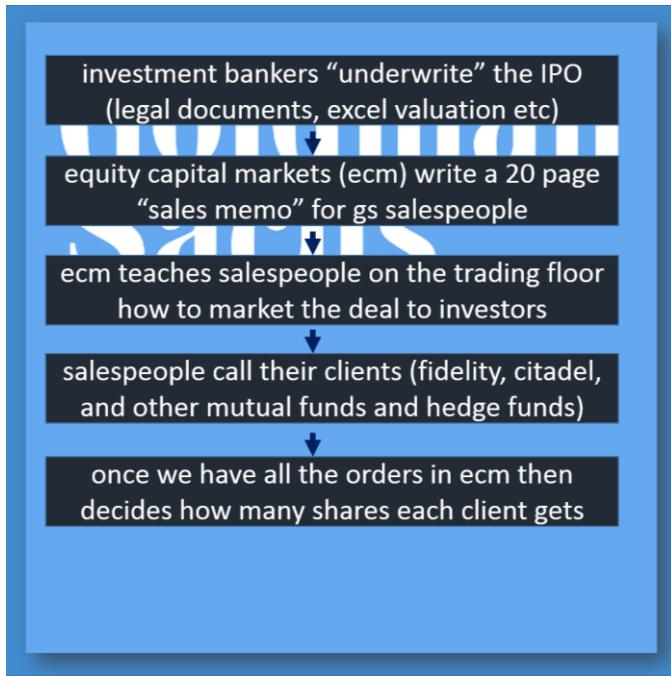
Goldman's investment bankers work with our management team and advise us on how to go public and when to go public and who to sell our shares to. At Goldman there is a team called ECM or Equity Capital Markets that summarize the lengthy S-1 that the bankers created into a few pages called the Sales Memo.



ECM then teaches the salesforce at Goldman how to sell the company going public to their clients. The Goldman salesforce works on the Goldman trading floor beside Goldman's army of traders. ECM tells the Salesforce what the risks are with the investment in our company as well as the positive selling points.



Then the Goldman salesforce calls their customers and market the deal to their mutual fund and hedge fund clients (their clients manage billions of dollars in retirement savings, pension fund money, endowment money and rich people's money etc.).



The Goldman salesforce then collects all the orders for the IPO from their customers and articulates the orders to ECM. The larger customers like Fidelity or T.Rowe or Citadel get larger allocations as they pay Goldman more via trading commissions over time. Some companies going public tell the salespeople at Goldman that they only want to participate if the price is low. Others say they don't care about the price and they will buy a large chunk of the IPO with little pricing sensitivity.

Customers know that a deal is hot if they don't get the amount of shares that they ask for. When I used to work at a prominent hedge fund, if a salesperson during an IPO process called me to tell me that I should be happy that I got allocated exactly what I asked for in a deal, then I would be worried as this basically signals that demand for the IPO was anemic (watch out for signals)!

ECM and the company going public ultimately get to decide which clients get which allocations. Management of the company going public usually wants the potential shareholders that they met with that have the best understanding of the business model in the long run to receive large allocations. Why?

Because they are less likely to be tourists in the stock and panic if it goes down and sell it. Goldman will help the company understand which shareholders stick around in IPOs in the long run and which firms 'flip' or quickly sell previous IPOs. Since companies that buy stocks have to file their long position holdings every 3 months or so, it is quite easy to track this information online.



Then the traders on the Goldman trading floor distribute the shares to customers like Fidelity and the Goldman salespeople call their customers to inform them what their allocation was. Then 30 days later the Goldman equity research analyst can initiate coverage on the company with a Buy, Hold or Sell rating which is dependent of course on the valuation of the underlying company at the point of initiation.

after the process is done,
goldman wires the ipo proceeds
to us (less fees)

oh no.....

goldman tells us that a few
mutual funds need to see a dcf
which ecm wants to put in their
ipo sales memo for the
salesforce.

ugh.
fine. but many investors
prefer p/e or p/s
we will take an average p/e,
p/s and dcf for our valuation

so many indep variables in dcf
is problem.

There are so many independent variables when calculating a DCF, which is an issue. If I told you that $X+1=3$, of course you know that X is 2. If I told you that $X+T+Y+Q=3$, then you have no idea what X is! The same can be said for DCF as there are so many independent variables like the WACC, the Terminal Value etc.

after dcf done we triangulate
p/e and p/s and get average.

dcf is pretty easy...as our
company's net income is very
close to cash flows anyway.

lets do a dcf for our firm

dcf is the value of all future
cash flows discounted

we need to look at the cf from
years 2020-2025

but first we need to calculate
the wacc

wacc =

cost of equity
+
cost of debt

We have no debt so there is no need to account for the cost of debt in our DCF.

wacc =

cost of equity
+
~~cost of debt~~

cost of equity =

risk free rate

+

(stock market return - risk free rate)
*
beta (how volatile our company is)

cost of equity =

1%

+

(12% - 1%)

*

beta (how volatile our company is)

what is our beta?

For some reason, the investment bankers think that our beta should be similar to storage company betas as there is a storage element to our product. Fine. We will take the average beta of a few storage companies and that is the beta we will use in our wacc when calculating our DCF valuation.

LNKD: Summary for LinkedIn

finance.yahoo.com/q?s=lnkd&q=l

Chris

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 WDC AX WESTFIELD STAPLED Equity - Australian
 WDC150619P0009 WDC Jun 2015 put 98.000 Option - OPR
 WDC.F WESTERN DIGITAL Equity - Frankfurt
 WDC.MX WESTERN DIGITAL Equity - Mexico
 WDC170120C0005 WDC Jan 2017 call 55.000 Option - OPR
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WDC: Summary for Western Digital Corporation (WDC)

finance.yahoo.com/q?s=WDC&q1=1

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Competitors Industry Components ANALYST COVERAGE Analyst Opinion Analyst Estimates OWNERSHIP Major Holders Insider Transactions Insider Roster FINANCIALS Income Statement Balance Sheet Cash Flow

Quotes delayed, except where indicated otherwise. Currency in USD.

Headlines

- Western Digital-SanDisk Now Makes More Sense at Barrons.com (Fri, May 29)
- [video]Western Digital Shares Jump Following Goldman Sachs Upgrade at TheStreet (Thu, May 28)
- Western Digital Shares Jump Following Goldman Sachs Upgrade at TheStreet (Thu, May 28)
- Goldman Sachs upgrades behind S&P 500's top gainers at MarketWatch (Thu, May 28)
- Jim Cramer -- Seagate Technology, Western Digital Shares Are Going to Fly at TheStreet (Thu, May 28)
- Cramer's Mad Dash: These stocks are going to fly CNBC (Thu, May 28)
- WD Redesigns World's No. 1 Selling Portable Hard Drive PR Newswire (Wed, May 27)
- Western Digital Under Pressure at TheStreet (Tue, May 26)
- Western Digital to Participate in Investor Event PR Newswire (Thu, May 21)
- Mariko Gordon Sells Lumber Liquidators, Western Digital Gurufocus (Tue, May 19)
- Plex Media Server Now Available On WD's My Cloud NAS Series PR Newswire (Tue, May 19)
- WESTERN DIGITAL CORP Financials EDGAR Online Financials (Sat, May 16)
- 10-Q for Western Digital Corp. Company Spotlight (Thu, May 14)
- Stocks too hot to handle? CNBC (Thu, May 14)
- WD® Drives Solutions And Rewards With Enhanced myWD™ Channel Partner Program PR Newswire (Thu, May 14)

» More Headlines for WDC

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Real-time interactive charts. View full chart

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Compare Brokers

Comparison

Symbol	% Chg	Mkt Cap
WDC	↓0.56%	21.91B
EMC	↑1.22%	53.10B
STX	↓0.20%	17.28B
TOSBF	↓0.55%	N/A

» More Competitors

Key Statistics

Forward P/E (1 yr):	11.60
P/S (ttm):	1.47
Ex-Dividend Date:	30-Jun-15

» More Key Statistics

finance.yahoo.com/q?s=STX

11:25 AM 6/6/2015

STX: Summary for Seagate Technology Public Limited Company (STX)

finance.yahoo.com/q?s=STX

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Enter Symbol

Sat, Jun 6, 2015, 2:25PM EDT - U.S. Markets closed Report an issue

Dow ↓0.31% Nasdaq ↑0.18%

More On STX

QUOTES

- Summary
- Order Book
- Options
- Historical Prices

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- Press Releases
- Company Events
- Message Boards
- Market Pulse

COMPANY

- Profile
- Key Statistics
- SEC Filings
- Competitors
- Industry
- Components

ANALYST COVERAGE

- Analyst Opinion

Seagate Technology Public Limited Company (STX) - NasdaqGS

54.43 ↓0.11(0.20%) Jun 5, 4:00PM EDT

After Hours : 54.50 ↑0.07 (0.13%) Jun 5, 5:12PM EDT

Prev Close: 54.54 Day's Range: 53.78 - 54.54

Open: 54.24 52wk Range: 50.44 - 69.40

Bid: 50.05 x 100 Volume: 2,500,999

Ask: N/A Avg Vol (3m): 3,347,440

1y Target Est: 64.32 Market Cap: 17.28B

Beta: 9.45 P/E (ttm):

Earnings Date: Jul 15 - Jul 20 (Est.) EPS (ttm): 5.76

Div & Yield: 2.16 (3.90%)

Add to Portfolio Like 217

Yahoo! Jun 5, 3:59pm EDT

10am 12pm 2pm 4pm Previous Close

1d 5d 1m 3m 6m 1y 2y 5y max

customise chart

Quotes delayed, except where indicated otherwise. Currency in USD.

Headlines

- Being a Clever Investor Isn't Always Smart at Kiplinger (Tue, Jun 2)

New from Yahoo Finance
Real-time interactive charts. View full chart

11:26 AM 6/6/2015

Dow **-0.31%** Nasdaq **+0.18%**

More On EMC

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- Summary
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- Options
- Historical Prices

CHARTS

- Interactive

NEWS & INFO

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- Press Releases
- Company Events
- Message Boards
- Market Pulse

COMPANY

- Profile
- Key Statistics
- SEC Filings
- Competitors
- Industry
- Components

ANALYST COVERAGE

- Analyst Opinion

Headlines

- Tech Stocks from Briefing.com Briefing.com (Sat 12:00AM EDT)

New from Yahoo Finance

Real-time

11:26 AM
6/6/2015

Ok. We calculated the average beta of companies that the bankers think are similar to us.....the average beta is 1.57.

$$\begin{aligned} \text{cost of equity} = & \\ & 1\% \\ & + \\ & (12\% - 1\%) \\ & * \\ & 1.5766666666666667 \end{aligned}$$

Our beta ends up being way above 1 which makes sense as we are a newer and riskier and likely more volatile stock, unlike Microsoft, which has a beta of under 1.

$$\begin{aligned} \text{cost of equity} = & \\ & 18.34\% \end{aligned}$$

Notice that our cost of capital or wacc is about twice as high as Microsoft's. This is the case as we are a much riskier investment. As a result, we need to discount our future net income or cash flow using a much higher interest rate. This will result in a lower valuation than if we used Microsoft's interest rate. Again, this makes a lot of sense as we are a much riskier investment than stable Microsoft (MSFT) is.

We decided to use the ticker 'BLUE' for our firm as we are huge fans of Will Ferrell.

we use 18.34% as
our discount rate = "r"

$$\text{dcf} = \frac{\text{cf2020}}{(1+r)^1} + \frac{\text{cf2021}}{(1+r)^2} + \frac{\text{cf2022}}{(1+r)^3} + \frac{\text{cf2023}}{(1+r)^4} + \frac{(\text{cf2024} + \text{tv})}{(1+r)^5}$$

$\text{tv} = \text{cf2024} / (r - g)$

assume g is our long term g
terminology: r-g is called the cap rate

$$\text{dcf} = \frac{\text{cf2020}}{(1+r)^1} + \frac{\text{cf2021}}{(1+r)^2} + \frac{\text{cf2022}}{(1+r)^3} + \frac{\text{cf2023}}{(1+r)^4} + \frac{(\text{cf2024} + \text{cf2024} / (r - g))}{(1+r)^5}$$

	2015	2016	2017	2018	2019	2020	2021	2022
Revenue	\$ 2,000,000	\$ 20,000,000	\$ 350,000,000	\$ 661,500,000	\$ 999,600,000	\$ 1,399,440,000	\$ 1,889,244,000	\$ 2,066,360,625
% YoY		900%	1650%	89%	51%	40%	35%	9%
COGS	\$ 1,800,000	\$ 16,000,000	\$ 175,000,000	\$ 264,600,000	\$ 299,880,000	\$ 279,888,000	\$ 358,956,360	\$ 371,944,913
GM pct	10%	20%	50%	60%	70%	80%	81%	82%
Gross Profit	\$ 200,000	\$ 4,000,000	\$ 175,000,000	\$ 396,900,000	\$ 699,720,000	\$ 1,119,552,000	\$ 1,530,287,640	\$ 1,694,415,713
Operating Expenses:								
S&M	\$ 500,000	\$ 4,000,000	\$ 66,500,000	\$ 112,455,000	\$ 159,936,000	\$ 209,916,000	\$ 264,494,160	\$ 268,626,881
% of sales	25%	20%	19%	17%	16%	15%	14%	13%
% YoY		700%	1563%	69%	42%	31%	26%	2%
G&A	\$ 500,000	\$ 4,000,000	\$ 66,500,000	\$ 112,455,000	\$ 159,936,000	\$ 209,916,000	\$ 264,494,160	\$ 268,626,881
% of sales	25%	20%	19%	17%	16%	15%	14%	13%
% YoY		700%	1563%	69%	42%	31%	26%	2%
R&D	\$ 4,000,000	\$ 20,000,000	\$ 25,000,000	\$ 25,000,000	\$ 40,000,000	\$ 35,000,000	\$ 35,000,000	\$ 35,000
% of sales	200%	100%	7%	4%	4%	3%	2%	2%
% YoY		400%	25%	0%	60%	-13%	0%	0%
Opex Total	\$ 5,000,000	\$ 28,000,000	\$ 158,000,000	\$ 249,910,000	\$ 359,872,000	\$ 454,832,000	\$ 563,988,320	\$ 572,253,763
Operating Profit (EBIT)	\$ (4,800,000)	\$ (24,000,000)	\$ 17,000,000	\$ 146,990,000	\$ 339,848,000	\$ 664,720,000	\$ 966,299,320	\$ 1,122,161,950
% of sales	-240%	-120%	5%	22%	34%	47%	51%	54%
Interest	\$ -	\$ 85,000	\$ 734,950	\$ 1,699,240	\$ 9,970,800	\$ 14,494,490	\$ 16,832,429	\$ 16,71
Tax	\$ -	\$ 4,250,000	\$ 36,747,500	\$ 84,962,000	\$ 166,180,000	\$ 241,574,830	\$ 280,540,488	\$ 278,62
% of EBIT	0%	0%	25%	25%	25%	25%	25%	25%
Net Income	\$ (4,800,000)	\$ (24,000,000)	\$ 12,835,000	\$ 110,977,450	\$ 256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,453,892
% of sales	-240%	-120%	4%	17%	26%	36%	39%	42%
% YoY		400%	-153%	765%	131%	98%	45%	16%
assumptions and revenue drivers	pro forma income statement		analysis ratios	ipo valuation	(+)	:	◀	▶
			AVERAGE 2020	COUNT 5	SUM 101,610			

H	I	J	K	L	M	N
2019	2020	2021	2022	2023	2024	
\$256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,453,892	\$ 852,582,476	\$ 943,499,096	
26%	36%	39%	42%	44%	46%	
131%	98%	45%	16%	-1%	11%	
dcf each year=	\$ 429,703,228	\$ 527,849,336	\$ 517,991,077	\$ 434,720,521	=M27/(1+0.183%)^5	

	C	D	E	F	G	H	I	J	K
	2015	2016	2017	2018	2019	2020		2021	
Net Income	\$ (4,800,000)	\$ (24,000,000)	\$ 12,835,000	\$ 110,977,450	\$ 256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,45	
% of sales	-240%	-120%	4%	17%	26%	36%		39%	
% YoY		400%	-153%	765%	131%	98%		45%	
					dcf each year=	\$ 429,703,228	\$ 527,849,336	\$ 517,99	
					tv=	=M27/(0.1834-0.05)			

B	C	D	E	F	G	H	I	J
		2015	2016	2017	2018	2019	2020	
Net Income	\$ (4,800,000)	\$ (24,000,000)	\$ 12,835,000	\$ 110,977,450	\$ 256,585,240	\$ 508,510,800	\$ 739,	
% of sales	-240%	-120%	4%	17%	26%	36%		
% YoY		400%	-153%	765%	131%	98%		
					dcf each year = \$ 429,703,228	\$ 527,		
					tv = \$ 7,072,706,867			
					discount tv = $=I33/(1+0.1834)^5$			

H	I	J	K	L	M	
2018	2019	2020	2021	2022	2023	2024
\$,450	\$ 256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,453,892	\$ 852,582,476	\$ 943,499,096
17%	26%	36%	39%	42%	44%	46%
765%	131%	98%	45%	16%	-1%	11%
dcf each year= \$ 429,703,228 \$ 527,849,336 \$ 517,991,077 \$ 434,720,521 \$ 406,514,635						
tv=	\$ 7,072,706,867					
discount tv	\$ 3,047,388,569					
fcf=	=I34+sum(I31:M31)					
	SUM(number1, [number2], ...)					

H	I	J	K	L	M	
8	2019	2020	2021	2022	2023	2024
0	\$ 256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,453,892	\$ 852,582,476	\$ 943,499,096
%	26%	36%	39%	42%	44%	46%
%	131%	98%	45%	16%	-1%	11%
dcf each year=	\$ 429,703,228	\$ 527,849,336	\$ 517,991,077	\$ 434,720,521	\$ 406,514,635	
tv=	\$ 7,072,706,867					
discount tv	\$ 3,047,388,569					
fcf=	\$ 5,364,174,366					
	seems logical....but let's compare it to our other valuation methodologies fr					

Our DCF valuation tells us that our company should be worth \$5.4bn. Hmm ok let's compare this to what our P/Revenue and P/E valuation targets are.

assume IPO in 2020								
growth investors to pay 10x revs								
\$ 13,994,400,000								
value investors (who suck at tech) pay 10x's earnings (which is way too low given the growth rate)							dfcf=	\$ 5,364,174,366
\$ 5,085,108,000								
ok...we are in a bull market now....let's hair cut these by 25% to be conservative and assume we could be in a bear market then								
\$ 6,997,200,000								
\$ 2,542,554,000								
\$ 4,769,877,000								
we invested at \$350mn valuation								
\$ 13.63								
this means a 14 bagger....and this is very conservative.								
what does a mature large cap growth company like salesforce trade at?								
wow 9x revenue for salesforce.....and growth is way slower for them....								
this \$350mn valuation is a bargain!								

assume IPO in 2020								
growth investors to pay 10x revs								
\$ 13,994,400,000								
value investors (who suck at tech) pay 10x's earnings (which is way too low given the growth rate)							dfcf=	\$ 5,364,174,366
\$ 5,085,108,000								
ok...we are in a bull market now....let's hair cut these by 25% to be conservative and assume we could be in a bear market then								
\$ 6,997,200,000								
\$ 2,542,554,000								
\$ 4,769,877,000								
we invested at \$350mn valuation								
\$ 13.63								
this means a 14 bagger....and this is very conservative.								
what does a mature large cap growth company like salesforce trade at?								
wow 9x revenue for salesforce.....and growth is way slower for them....								
this \$350mn valuation is a bargain!								

assume IPO in 2020			
growth investors to pay 10x revs			
\$ 13,994,400,000			
value investors (who suck at tech) pay 10x's earnings (which is way too low given the growth rate)			
\$ 5,085,108,000		dfcf=	\$ 5,364,174,366
ok...we are in a bull market now....let's hair cut these by 25% to be conservative and assume we could be in a bear market then			
\$ 6,997,200,000			
\$ 2,542,554,000			
\$ 4,769,877,000			
we invested at \$350mn valuation		let's take an average of all 3 methodologies for the sales memo	
\$ 13.63		8.15E+09	
this means a 14 bagger....and this is very conservative.			
what does a mature large cap growth company like salesforce trade at?			
wow 9x revenue for salesforce.....and growth is way slower for them....			
this \$350mn valuation is a bargain!			

assume IPO in 2020			
growth investors to pay 10x revs			
\$ 13,994,400,000			
value investors (who suck at tech) pay 10x's earnings (which is way too low given the growth rate)			
\$ 5,085,108,000		dfcf=	\$ 5,364,174,366
ok...we are in a bull market now....let's hair cut these by 25% to be conservative and assume we could be in a bear market then			
\$ 6,997,200,000			
\$ 2,542,554,000			
\$ 4,769,877,000			
we invested at \$350mn valuation		let's take an average of all 3 methodologies for the sales memo	
\$ 13.63		\$ 8,147,894,122	
this means a 14 bagger....and this is very conservative.			
what does a mature large cap growth company like salesforce trade at?			
wow 9x revenue for salesforce.....and growth is way slower for them....			
this \$350mn valuation is a bargain!			

our goldman bankers think
the company is worth
\$8.15bn

but IPOs are priced at a
discount....

gs wants to look good and wants a 30% pop on day 1!

$\$8.15\text{bn} * 0.70 = \5.7bn

is there an easier way to do dcf?

npv formula in excel.

H	I	J	K	L	M
2019	2020	2021	2022	2023	2024
\$ 256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,453,892	\$ 852,582,476	\$ 943,499,096
26%	36%	39%	42%	44%	46%
131%	98%	45%	16%	-1%	11%
dcf each year=	\$ 429,703,228	\$ 527,849,336	\$ 517,991,077	\$ 434,720,521	\$ 406,521,635
tv=	\$ 7,072,706,867				
discount tv	\$ 3,047,388,569				
dfcf=	\$ 5,364,174,366				
	seems logical....but let's compare it to our other valuation methodologies from last class.				
=npv(0.1834,I27:M27)					
	NPV(rate, value1, [value2], [value3], ...)				

We covered this before, but it is worth revisiting.

H	I	J	K	L	M	
8	2019	2020	2021	2022	2023	2024
\$ 256,585,240	\$ 508,510,800	\$ 739,218,980	\$ 858,453,892	\$ 852,582,476	\$ 943,499,096	
26%	36%	39%	42%	44%	46%	
131%	98%	45%	16%	-1%	11%	
dcf each year=	\$ 429,703,228	\$ 527,849,336	\$ 517,991,077	\$ 434,720,521	\$ 406,521,635	
tv=	\$ 7,072,706,867					
discount tv	\$ 3,047,388,569					
dfcf=	\$ 5,364,174,366					
	seems logical....but let's compare it to our other valuation methodologies from last class.					
	+ \$ 5,364,174,366.17					

adding complexity to our dcf
deduct non cash items like depreciation.
deduct dividends from cf etc.

how do we look at comps?
a comp for our firm is nmbl
see sec.gov

Comps means comparative or similar companies. We need to look at them so we can make sure that the financial statements we have prepared are not dramatically different. Looks like there is a company Called Nimble Storage, which Sequoia invested in before with an amazing management team and investment syndicate. We can look at Nimble's financials to see if we are thinking about modeling our company the right way. As always, we get this information from www.sec.gov

www.sec.gov/Archives/edgar/data/1452751/000119312513403444/d563804ds1.htm

S-1 1 d563804ds1.htm S-1

[Table of Contents](#)

As filed with the Securities and Exchange Commission on October 18, 2013

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM S-1
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NIMBLE STORAGE, INC.

Nimble Storage, Inc.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended January 31,			Six Months Ended July 31,	
	2011	2012	2013	2012	2013
Revenue:					(unaudited)
Product	\$ 1,632	\$ 13,113	\$ 49,765	\$ 17,731	\$ 45,766
Support and service	49	900	4,075	1,378	4,836
Total revenue	1,681	14,013	53,840	19,109	50,602
Cost of revenue:					
Product	604	5,233	17,266	6,073	15,375
Support and service	230	1,045	3,184	995	3,466
Total cost of revenue	834	6,278	20,450	7,068	18,841
Gross profit	847	7,735	33,390	12,041	31,761
Operating expenses:					
Research and development	4,415	7,903	16,135	6,714	14,376
Sales and marketing	2,934	12,863	39,851	13,868	31,428
General and administrative	325	3,756	5,168	1,999	5,342
Total operating expenses	7,674	24,522	61,154	22,581	51,146
Loss from operations	(6,827)	(16,787)	(27,764)	(10,540)	(19,385)
Interest income	5	6	32	12	22
Other expense, net	—	(4)	(26)	(28)	(295)
Loss before provision for income taxes	(6,822)	(16,785)	(27,758)	(10,556)	(19,658)
Provision for income taxes	—	5	99	12	176
Net loss	(6,822)	(16,790)	(27,857)	(10,568)	(19,834)
Accretion of redeemable convertible preferred stock	(16)	(23)	(34)	(14)	(21)
Net loss attributable to common stockholders	\$ (6,838)	\$ (16,813)	\$ (27,891)	\$ (10,582)	\$ (19,855)
Net loss per share attributable to common stockholders, basic and diluted	\$ (0.47)	\$ (1.04)	\$ (1.53)	\$ (0.60)	\$ (0.98)

	2014	2013
Working capital	29,787	37,420
Total assets	37,420	2,028
Deferred revenue, current and non-current	57,921	
Redeemable convertible preferred stock		
Total stockholders' deficit	(29,741)	

lots of detail on sec.gov

S1 = IPO filing document

but there is a lot more...

www.sec.gov is an amazing resource. We find S1 IPO filing documents there as well as annual reports (called 10-k's), quarterly reports (called 10-q's) and press releases that companies must disclose (called 8-k's). The beautiful thing about being an individual investor is that we all now have the exact same access to information that the Fidelity's of the world have as well (and at the exact same) time!

Questions Based on Chapter 12:

1: Investment banks usually price IPOs at a discount to what they believe the fair value is of the underlying company.

True or False

2: The NPV formula makes calculating a DCF much easier.

True or False

3: A company with a high beta is less risky and less volatile than a company with a low beta.

True or False

CHAPTER SUMMARY



Chris Haroun @chris_haroun

short term valuation methodologies differ by sector. in the very long run it is all about earnings and cash flow. triangulate different valuation methodologies for IPOs.

