Some additional random thoughts on Netflix $NFLX

Last night, we did a podcast on Netflix's Q3'17 earnings (in addition to the PG / Trian proxy battle). I've found podcasting is good for talking about broader topics and poor for diving into specific investment thoughts / details, so I wanted to type up a few more investing /stock specific thoughts that popped up from their Q3'17 earnings call.

- Movies
    - The quotes
        - "Yes, definitely. And we're really excited, we will wrap up this year with our biggest original film project Bright, which is Will Smith starring with Joel Edgerton and directed by David Ayer's. And it's a big budget event movie that I think people will start seeing the potential for this original movie initiative that it can be done on the big -- on the enormous scale that we have on the television side. What I'm also really excited about is we're ramping up our local language original production, so you're seeing new series in local languages just recently in Italy, upcoming in Germany with Dark and we've had incredible success in those markets with those shows. And they could -- those shows are continuing to travel outside, which is really exciting for us that those shows we can put more production scale behind them, because they're being watched in markets much larger than just a country of origin. That on top of our kind of steady drumbeat of new original series that is yes you are correct it's becoming a much more competitive marketplace, but we've been really happy with our results in that competitive marketplace."
        - "We plan on about 80 coming up next year and they range anywhere from the million-dollar Sundance hit, all the way up to something on a much larger scale, like we are seeing on Bright, at the end of this year and Irishman that's a in production right now with Martin Scorsese that should be in early '19."
    - I mentioned this a bit on the podcast, but these are simply mind-boggling numbers. There's something like 600-800 films released in the U.S. every year, so Netflix is basically ramping up to be 10% of the industry's volume within one year. I get this is a bit apples to oranges, as I'm sure a lot of

the films will be much smaller budget things that may not have even been made without Netflix or released into theaters if they were made, but it's still a crazy number

        - I've discussed an investment in AMC (disclosure: long) a [few times](#) on [this blog](#). Most worries about AMC seem to be related to this year's box office weakness and the potential for film window shortening; neither of those worry me too much in the long run. My biggest concern remains that Netflix and other streaming services decide to bypass the movie theaters entirely in order to draw people to their streaming services.
- Wireless / broadband speeds
    - The quote
        - "So we're definitely focused on making mobile both effective from a user acquisition perspectives, the new members but also from a member engagement perspective. So, for those members who don't have a smart TV at home or maybe want to watch something while there on the go, we want to make that a great experience. So as you mentioned, one of the things that we are working very hard on is making sure that the encodes that we're using are superefficient, so that we can provide a really, really high quality video experience with lesser and lesser bits. And to give you an example one data point as to how low we've gotten this. You take something like anime, which is superefficient from a coding perspective. We can now provide an amazing quality -- video quality experience on mobile for anime titles at 150 kilobits per second, which is practically unheard of previously. So we're super excited about pushing those numbers down and making that mobile experience is great as we can."
    - This is the type of "[Pied Piper](#)" type risk that terrifies me as [a cable investor](#): technology advances enough that we can compress files so small that the need for high speed connections diminishes materially. Streaming video currently takes about ~[5 Mbps](#), which is roughly [what 4G delivers](#) (for comparison, 150 Kbps is the lowest end of 3G speeds).
        - These are rough numbers off the top of my head, but something like ~60% of internet data usage is currently for streaming video (and growing), and ~80% of data is sent over a broadband connection (without broadband handling that much, wireless connections would be hopelessly clogged). The bullish (and perhaps base) case for cable has always been something like "broadband handles way more data than wireless networks and gets paid way less per bit; as demand for speed and data transmission grows broadband can capture more wallet share." If, in the future, all

video could be streamed in great quality at 150 Kbps instead of 5 Mbps today, that "bull" case for cable collapses as both wireless network congestion and the need for speed disappear.

   - Cableone's website has a data calculator that is useful for visualizing how much of a data hog video is. Go play with it / move things around- really the only thing that moves the needle is video streaming. Imagine how little speed you need if video can be streamed at a fraction of today's data needs.
   - In fact, in this scenario (where we can stream video at a fraction of today's data needs), isn't it possible entire telecom infrastructure collapses? Think about it- if 60% of data is currently video streaming and all the sudden it takes 3% as much capacity to stream data (150 Kbps / 5 Mbps = 3%), suddenly capacity needs have dropped by 57% (60% * (1-3%) = 57%). Do we even need all the fiber and small cells people are building in such a future? Does today's 3g / 4g infrastructure handle almost every use case for consumers in that world for years to come? Aren't we looking at huge pricing wars as wireless companies, flooded with excess capacity and costs dropping exponentially, try to steal consumers of all sorts?
- Here's where I take comfort as a cable investor
   - Today, the main use case for speed is video download. Maybe video downloads can be compressed in the future. Maybe not. Who knows? But who can definitively say that video streaming is the main use case in the future? Could the main use case be second by second health data sent from a tracker that can't be easily compressed? Could it be every device in our home sends data in real time so even though the data is compressed, we still need tons of capacity just given the pure quantity? Or that we have real time AR that provides data on everything we see? I guess my overall point is right now, the dominant data usage comes from streaming video- I'd be surprised if that's the case in the future.
   - Also, if I look at the history of computers, we have not seen better compression of data; instead, we've seen data / memory needs explode as memory sizes went up markedly. For example, the original Super Mario took up ~31 KB, while

videogames today routinely take up 2-3 Gigs of memory. Perhaps this trend reverses in the future (i.e. 20 years from now we're delivering fully 3D games in interactive environments that take <1 Gig of memory), but if I had to guess I would bet on data / memory needs continuing to grow and that more memory / internet speed is critical to offsetting that growth.

- Again, I'm no expert in the space, and I understand that analogy is not perfect, so if someone can point out a problem / error here, I'm very open to hearing otherwise, but I think both history and the way companies are investing (talking about building small cells on every corner, the need for tons of fiber to handle data explosions, etc.) suggest most industry insiders think speed and capacity, not better compression, is the future.
- I found this interview interesting on both sides- the key quote for me was "bandwidth requirements expand to fill the space sort of like processor requirements with software".
    - Overall, the interview is mainly super bearish on cable companies, while I'm bullish- I think the difference is explained by the build out requirements for small cells (the interviewees treat it as easy for the wireless carriers, while I think cable's infrastructure would position them best to do it. Also, 5G will have issues with penetration through walls and such, so having in home solutions probably remains critical, another point up for cable companies).

- Sports rights
    - The quote
        - Analyst Question
            - "So, I think I sort of know what the answer is going to be upfront, but I still wanted to position the question. So I want it -- I was hoping you would engage on it and that is that

you just had Facebook bid $0.5 billion for multiyear digital rights for the IPL in India. Obviously, Amazon is on the air right now with Thursday Night Football here in the United States. I think this in anticipation by investors that there will be more and more bidding by video platforms on sports rights. And of course we all know that Netflix has indicated in the past that its sort of not right for you, but it reminds me a little bit of when you were switching from DVDs to streaming that you really sort of waited back not obviously so much in the weeds, but for the marketplace to evolve to the point where it was the right time for you to pursue it. So I'm trying to understand just what the trigger points are for Netflix as it looks longer term at sports content?"

- Netflix's Answer
    - "Well, I have to see over the next 10 years, Doug, what those trigger points might be hypothetically at some point in the near-term. We have so much going on in the global expansion of movies, unscripted, series, documentaries, we're just running a 100 miles an hour doing our thing around the world. And so nothing to really talk about that's interesting in the near-term."
- I found this answer interesting for two reasons: one Netflix specific and one for sports rights in general.
    - Netflix specific: As recently as this summer, Netflix has pretty much said "never" to sports rights. And it makes sense: sports are generally consumed in the moment and loses its value quickly (who wants to go back and watch a Knicks game from 2015?) and Netflix is more focused on "evergreen" content that has value regardless of when it's watched (House of Cards season 1 is just as valuable to a new sub one year from now as it is today). So for Netflix to say they aren't interested in sports right "in the near-term" strikes me as an interesting change of tone. Maybe I'm reading too much in to it, but perhaps they see early signs of success with the experiments other platforms are having with sports (Amazon NFL Thursday, Twitter streaming MLB, Facebook collecting some college football, etc.)?
        - Netflix is also dipping their toes into sports documentaries- wouldn't combining live sports with different documentary angles start getting

them closer to the "evergreen" content they're looking for?

    - For example, people love documentaries on old sports teams. If Netflix owned streaming rights to, say, the NFL and then released a documentary capturing every team every season, isn't that pretty close to evergreen for a football fan?

- Sports rights generally: The big bear case for sports team has been "sports are currently overearning because of the cable bundle; as the bundle collapses, sports rights go down and franchise values collapse". It's something I've thought about a lot in relation to my investment in MSG (disclosure: long). And everything I've seen to date from tech companies suggests that these sports rights are going to remain hugely valuable as they are the one thing guaranteed to drive people to your platform.
  - What if it turns out the reverse is true- that sports isn't overearning due to the bundle, but the bundle (and specifically the tail end smaller channels that get a nickel or so per viewer) is actually overearning due to sports (so sports are under-earning their potential)? Maybe that's a bit out there / crazy, but I see a lot of signs of it. There's a reason Viacom is the first channel to get blacked out of every cable package (they have no sports). And there's a reason Altice caved to Disney- they have sports at ABC and ESPN, and blacking them out during football season would cause huge churn / customer complaints.
  - Let me put that a bit differently- CBS is a ~$30B EV company right now; that includes value for some things other than CBS but CBS is the main driver so bear with me. In the next decade, if CBS lost the rights to the NFL and college football, what does their future look like? Does anyone really care if they get CBS at that point? How much different than, say, the USA network are they without sports? Maybe I'm underestimating the power of local news and the NCIS franchise, but from a distance it seems like the whole network falls apart without the anchor of sports. If that's the case, are the sports teams really extracting enough value from the networks in their sports rights fees? It's something I'm still thinking

about, but it's certainly an interesting question.

        - I think CBS management knows how much their franchise is based on sports too- I listened to them at a recent conference where they talked about how every blackout threat ends the Friday before a football game, so they certainly understand the power of sports and how vulnerable they are without it.
        - Also, can't an internet service that directly bills customers (and thus has all their personal information) pay way more than a CBS simply because the ad targeting is so much better (i.e. maybe it's better to show a viewer a commercial break without car advertisements if they bought car last month, or maybe you don't need to advertise for Viagra if the viewer is a woman)? It's certainly something Amazon is thinking about.

- Netflix in general thoughts
    - Look, I get all the bear arguments on Netflix (the stock looks expensive, competition is looming (Disney streaming service, Apple investing in content, Amazon / Hulu already there), they have massive operating / financial leverage which kills them if competition dents them a bit), but I just don't understand how anyone could short Netflix. Just think about this- a Netflix subscription, even after the new price raise, will cost less than $15/month (still cheaper than HBO!). The average cable subscriber pays ~$85/month for their video subscription. Netflix has a massive library that you can watch anywhere at any time with no commercials; cable can only be watched in your home and on their schedule (with ads!). How is it even a comparison in terms of value? I would guess Netflix has significant pricing power long term; how expensive does Netflix (the stock) look if you tack on another dollar or two per month to their entire user base?
        - And that pricing power argument ignores the global nature of Netflix's business. Netflix is already at 110m global subs paying them just under $10/month (just using their Q4 forecast); as that library grows what's the limit to their user numbers? Who cares if they invest $10B/year in content if the content is globally relevant evergreen content that grows their user base to 200m subs paying $15/month? Heck, who cares if they invest $20B in that scenario? Throw in another $6B for all other costs (G&A, marketing, tech,

etc.), and Netflix is earning ~$10B in EBIT in that scenario (and given the level of content spend and data they have on users, you have to wonder what caps them at 200m subs in that scenario…).

- Also- cable doesn't really have a password sharing problem, while Netflix does. How many Netflix users are sharing passwords? While the headline price is ~$15/user, what's Netflix's price/user when adjusted for password sharing? Does that suggest even more pricing power long term if they crack down a bit?
- I'm not suggesting this is the definitive answer or anything. I'm just throwing out that when I look at Netflix, I see a service that I think prices way under its value when compared to what old media gets. I think the best way to have a short rip your face off is to be short a business that looks expensive on current numbers but scales incredibly well and has significant untapped pricing power. To me, Netflix checks all of those boxes.