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August 20, 2018

Netflix: Have We Seen This Movie Before?

The Third in a Series on FAANG Stocks

Precedents and Parallels

- This is our third in a series of reports focusing on the FAANG stocks. The first dug into Amazon and focused on its four recurring revenue streams. The second studied GOOG and FB by framing the market for online advertising. This report uses historical precedents and parallels to analyze Netflix. We're keen to understand if the company's addressable market is big enough and profitable enough to support the lofty expectations built into the stock.
- Comparisons to HBO and Blockbuster help frame the growth opportunity. To assess risk we employ four factors that help illustrate the stock's underlying character. As strategists we don't have formal views on individual stocks, but the factors we've examined suggest investors won't be as patient with NFLX as they'd be with the other FAANGs if each hit a soft patch. Deeply negative free cash flow and competitive concerns might account for that difference.

HBO and Blockbuster Inform the Netflix Investment Case

- Original content has been a key factor driving subscriber growth at Netflix. It represented 5% of overall content a few years ago, but it's poised to reach 30% this year. HBO has historically been closer to 50%. Netflix's domestic subscriber base used to pale in comparison to HBO, but it's now higher by 10% in part due to a renewed focus on originals. It'll be important for Netflix to increase the yield it derives from content. At the moment, yields seem to be far lower than HBO's.
- We're not sure that Netflix has redefined the cost of producing content, but their threshold for quality is high as is their appetite for risk. One thing is for sure – the cost of distributing content has fallen so the customer is better off. In the Blockbuster era consumers needed to invest three-times as much to buy a device, build a library and watch a weekly flick. Netflix offers a superior proposition yet their domestic sales and subscriber counts are only slightly higher than Blockbuster's were at its peak after adjusting for inflation. This bodes well for growth.
- In some ways, the SVOD industry feels like an all-you-can-eat buffet. Consumers are opting for multiple streaming devices (Fire TV, Roku and Apple TV). They're also opting for multiple services (Netflix, Hulu, Prime Video). In the past they'd have been forced to choose between formats. Streaming also accounts for only 10% of total TV viewing so the consumer can continue to binge – that is, so long as a content arms race doesn't spoil the party.
- Content commitments at the aggregate level don't appear to be concerning, but their shape has become front-end loaded. The value of content that's due to be produced over the next three years is +8% higher than a year ago and +15% higher than 2015. Consumers are devoting more time to media, so an uptick in content isn't as alarming as the retail industry where capacity has built in pursuit of eCommerce. Our view is that retailers should've followed Netflix's lead and built brands through exclusive content rather than build DCs to sell the same stuff in more ways.

Valuing Content (and Netflix) Is Hard

- Like all forms of inventory, content is hard to value. It is however, interesting to note that enterprise values for some of the largest media companies have historically implied a steady multiple of content commitments, 2.3x. The EV of Netflix is more than 7x the value of its content commitments. TWX peaked at 4x and was last seen at 2.5x. Netflix is the smallest of the FAANGs. A relatively narrow focus on video streaming coupled with a capital intensive growth strategy will probably keep it that way.
- To us, Amazon, Google and Apple are more transformational. A focus on delivering free cash flow is also likely to offer their investors a greater margin of safety. Apple might've crossed the trillion-dollar threshold, but its share of total capitalization is still half what IBM's once was. Amazon might be worth more than Wal-Mart, but excluding AWS tells a different story. Netflix feels like a more traditional growth story to us.

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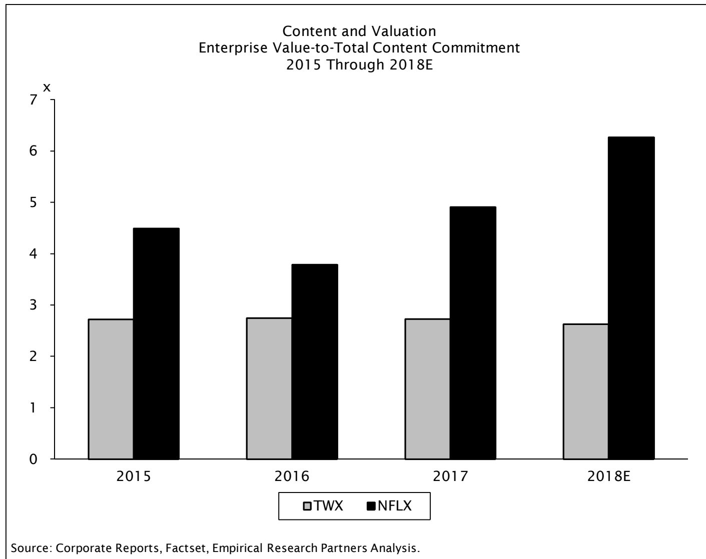
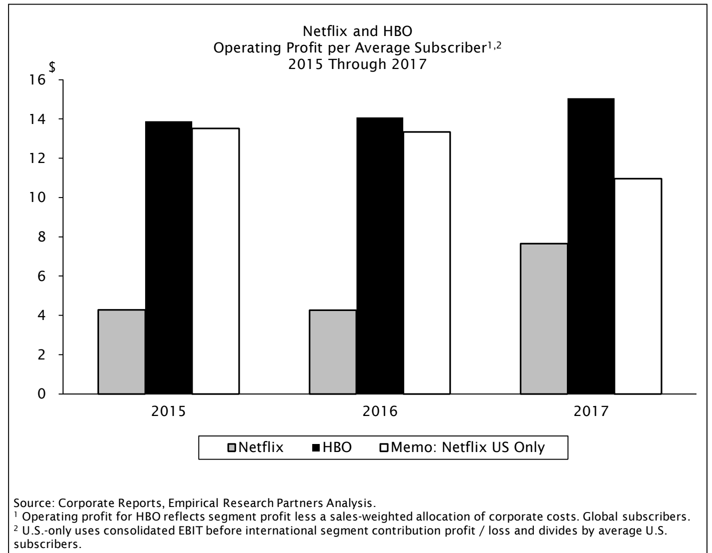
Conclusions in Brief

- The market's implicitly ascribed a high value to NFLX content…



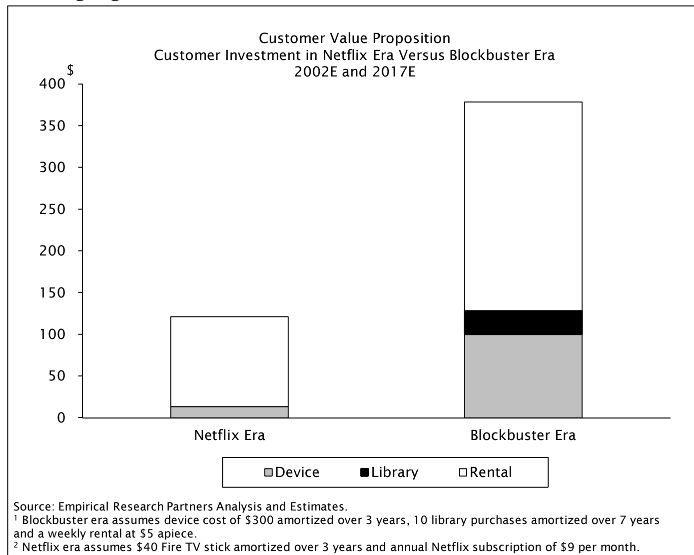
Source: Corporate Reports, Factset, Empirical Research Partners Analysis.

- …Though NFLX doesn't seem to earn the same return on content as HBO:



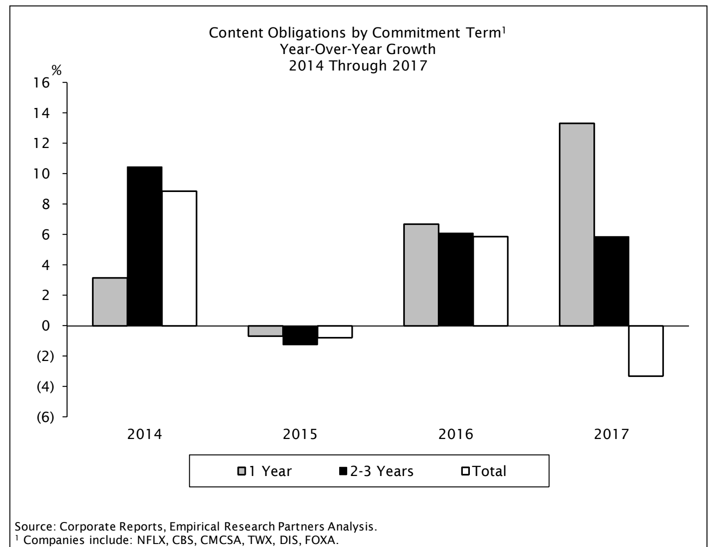
Source: Corporate Reports, Empirical Research Partners Analysis.
[1] Operating profit for HBO reflects segment profit less a sales-weighted allocation of corporate costs. Global subscribers.
[2] U.S.-only uses consolidated EBIT before international segment contribution profit / loss and divides by average U.S. subscribers.

- Relatively cheap subscription fees should allow for continued binging…



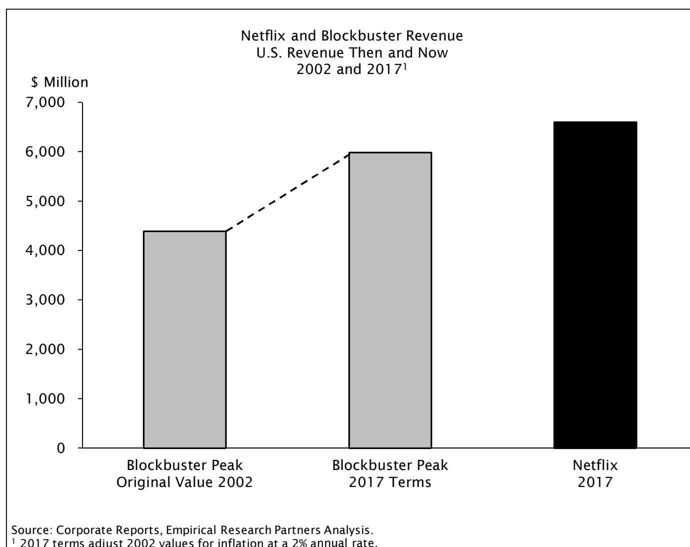
Source: Empirical Research Partners Analysis and Estimates.
[1] Blockbuster era assumes device cost of $300 amortized over 3 years, 10 library purchases amortized over 7 years and a weekly rental at $5 apiece.
[2] Netflix era assumes $40 Fire TV stick amortized over 3 years and annual Netflix subscription of $9 per month.

- …That is, unless a content arms race spoils the party:



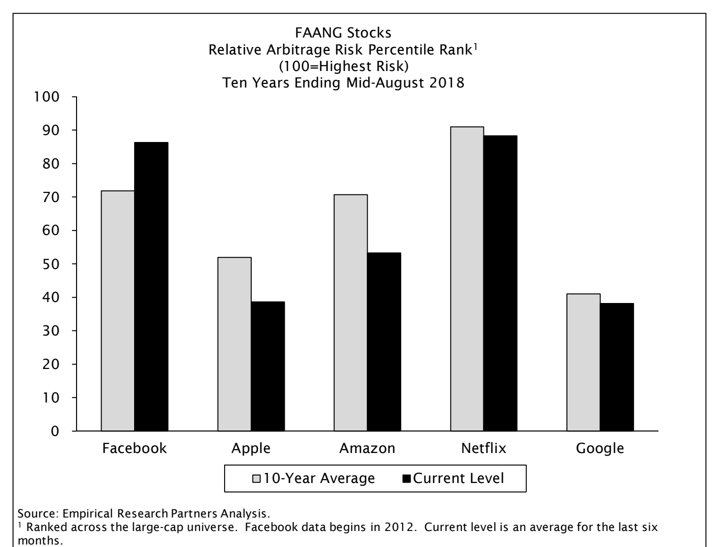
Source: Corporate Reports, Empirical Research Partners Analysis.
[1] Companies include: NFLX, CBS, CMCSA, TWX, DIS, FOXA.

- NFLX is barely bigger than Blockbuster was at it's peak, a bullish sign for growth…



Source: Corporate Reports, Empirical Research Partners Analysis.
[1] 2017 terms adjust 2002 values for inflation at a 2% annual rate.

- …But the risk profile for NFLX is higher than other FAANGs on multiple measures:



Source: Empirical Research Partners Analysis.
[1] Ranked across the large-cap universe. Facebook data begins in 2012. Current level is an average for the last six months.

The Third in a Series on FAANG Stocks

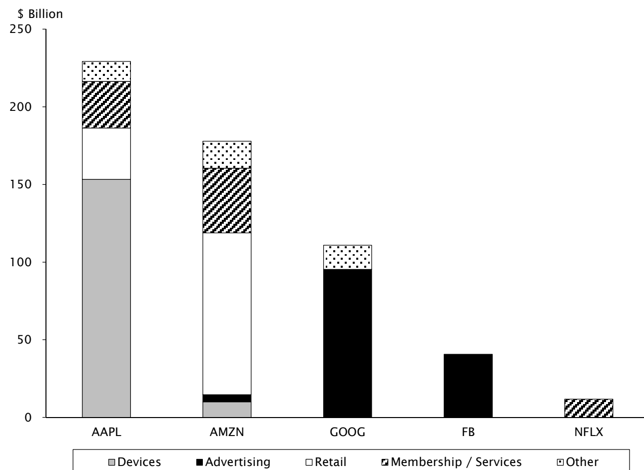
Parallels and Precedents

Of the five FAANG stocks, Apple and Amazon have the most diversified revenue streams spanning services, devices, subscriptions and retail sales. Facebook and Google meanwhile derive nearly all of their revenue from a singular line of business, online advertising. We examined this increasingly controversial topic in a recent report. Netflix eschews advertising as a source of revenue in favor of driving subscription fees (see Exhibit 1). By being transparent to the customer, Netflix earns trust that it can ultimately wield into pricing power. Netflix is destined to remain the smallest of the FAANG stocks as the result of a singular focus, but the more important question is whether the company's addressable market is big enough -- and profitable enough -- to support the stock's current valuation. In some ways we've seen this movie before. This report strives to put Netflix into a historical context with the aim of using parallels and precedents to inform the investment process.

Have We Seen This Movie Before?

Apple and IBM each revolutionized tech hardware, and one or the other has ranked among the market's top 10 stocks by market capitalization in 50 of the past 60 years. IBM was a dominant force for longer as it's accounted for at least 1% of all U.S. capitalization since 1954, a feat that Apple has only accomplished since 2009. It's interesting to note that AAPL has recently crossed the trillion-dollar threshold, but in relative terms it's not nearly as dominant as the headlines suggest. In fact, Apple's value is not far off the pace set by IBM over a similar timeframe (see Exhibit 2). IBM eventually grew to represent 6% of the market, double AAPL's current share. Of course, the tech sector was a different beast 50 years ago.

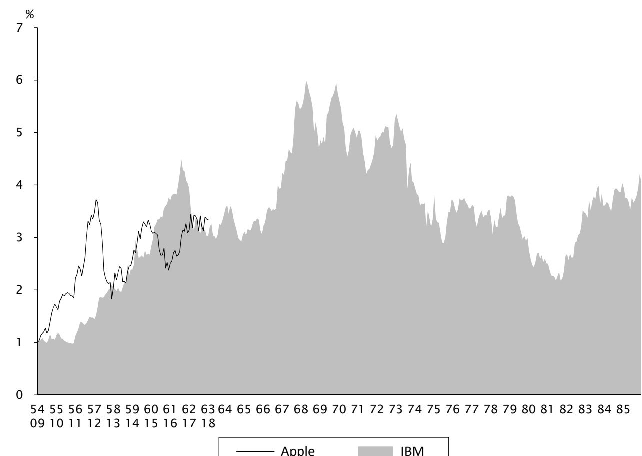
Exhibit 1: FAANG Stocks
Annual Revenue Sources by Company
2017[1]



Source: Corporate Reports, eMarketer, Empirical Research Partners Analysis and Estimates.

[1] Data from most recent fiscal year.

Exhibit 2: Apple and IBM
Share of the Large-Cap Market's Enterprise Value[1]
1954 Through July 2018



Source: Empirical Research Partners Analysis and Estimates.

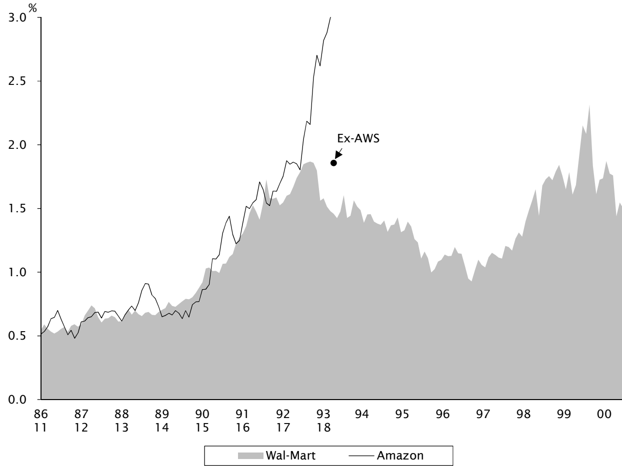
[1] Beginning points triggered by crossing 1.0% of large-cap enterprise value excluding financials.

Wal-Mart crossed 0.5% of overall capitalization in 1986 as its supercenter strategy was gaining steam. By transforming the retail landscape, WMT's value grew to account for 2% of the market's value before peaking out at nearly 3% in 2003. Amazon has outstripped Wal-Mart's arc, but that's in part due to a hefty contribution from AWS. If we exclude the cloud computing segment to focus exclusively on the value of the two retail businesses, the likeness becomes quite striking (see Exhibit 3). We dug into this similarity in a recent report entitled "Amazon: The Law of Large Numbers".

Time Warner shares were the poster child of Internet exuberance thanks to AOL's infamous purchase of the media giant. That ill-fated transaction thrust TWX high enough to account for 2% of all capitalization, at least for a short period of time. Netflix shares represent just over 0.5% of U.S. capitalization today, a far cry from what Time Warner achieved at its height. If we exclude the dotcom era from the assessment however, NFLX shares are more in line with what we've seen from TWX historically (see Exhibit 4). It's been well-documented that NFLX is now worth

more than the parent of HBO, Turner Networks and Warner Brothers studios. The market's enthusiasm is underpinned by expectations that sales and margins will both triple in the coming years, a feat that would increase earnings eight-fold.

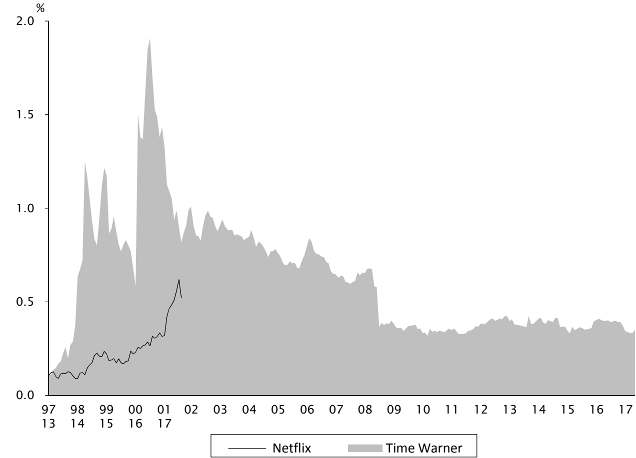
Exhibit 3: Amazon and Wal-Mart[1]
Share of the Large-Cap Market's Enterprise Value[2]
1986 Through July 2018



Source: Empirical Research Partners Analysis and Estimates.

[1] Amazon retail subtracts AWS using 6x forward sales.
[2] Beginning points triggered by crossing 0.5% of large-cap enterprise value excluding financials.

Exhibit 4: Netflix and Time Warner
Share of the Large-Cap Market's Enterprise Value[1]
1997 Through July 2018



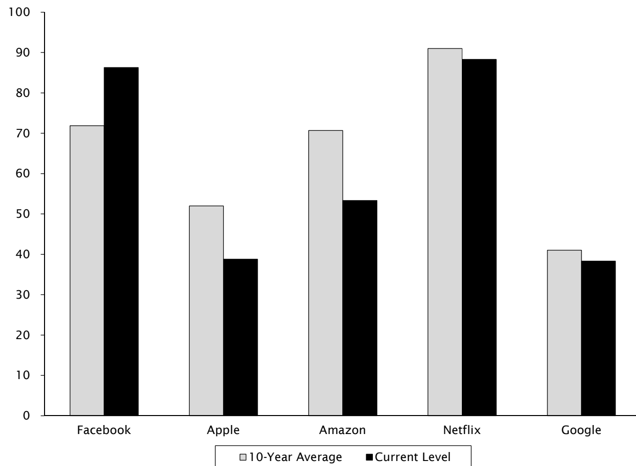
Source: Empirical Research Partners Analysis and Estimates.

[1] Beginning points triggered by crossing 0.1% of large-cap enterprise value excluding financials.

Assessing the Risk Profile

Technically, the market ought to be risk-adjusting Netflix's outlook and underwriting the most likely scenario, but that's not always the way it works. We dig a bit deeper into NFLX's character using four factors that could help assess the stock's current risk profile – arbitrage risk, estimate dispersion, aggressive ownership and short pressure. Arbitrage risk measures a stock's idiosyncratic risk, or risk that can't be ascribed to the market or the stock's beta. This factor does a good job representing the level of controversy embedded in a stock. On this measure, NFLX's risk profile is usually higher than the other FAANGs, though Facebook has been catching up to it lately (see Exhibit 5). The dispersion of analyst estimates offers additional insight into the underlying stability of an equity. On this account NFLX is similar to its brethren -- dispersion is high across the board.

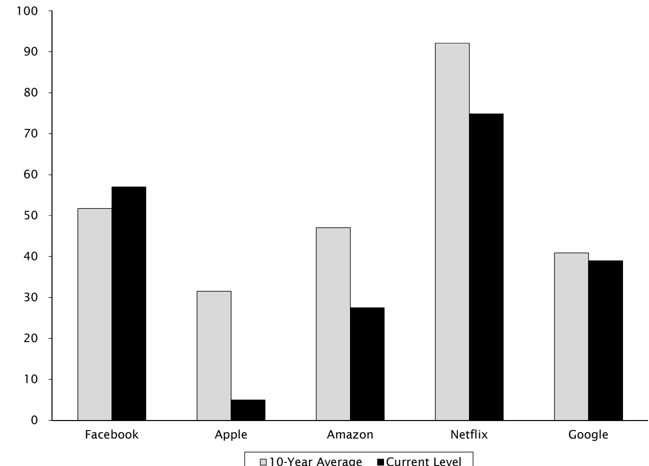
Exhibit 5: FAANG Stocks
Relative Arbitrage Risk Percentile Rank[1]
(100=Highest Risk)
Ten Years Ending Mid-August 2018



Source: Empirical Research Partners Analysis.

[1] Ranked across the large-cap universe. Facebook data begins in 2012. Current level is an average for the last six months.

Exhibit 6: FAANG Stocks
Relative Aggressive Ownership Percentile Rank[1]
(100=Highest Aggressive Ownership)
Ten Years Ending Mid-August 2018



Source: Empirical Research Partners Analysis.

[1] Ranked across the large-cap universe. Facebook data begins in 2012. Current level is an average for the last six months.

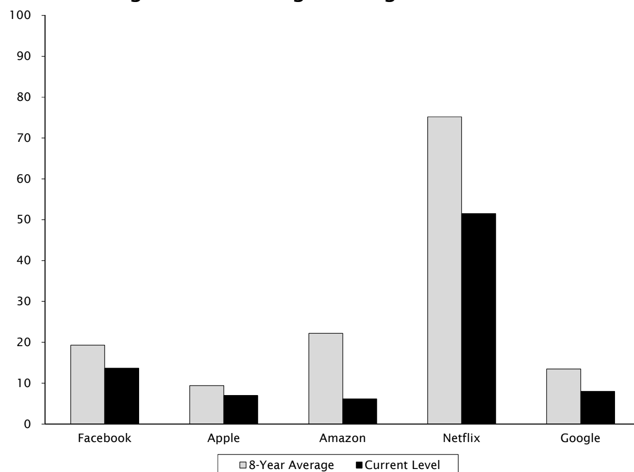
Understanding who owns the shares can matter a lot when it comes to framing risk. We measure aggressive ownership, or the share of stock owned by hedge funds and high-turnover mutual funds, for all stocks. NFLX is high on this account both relative to the market and to the FAANGs as a group (see Exhibit 6 overleaf). Of course, it also behooves us to know who's betting against the stock. For this we rely on a relatively new factor we've espoused called short pressure, a ratio that measures what capacity of 'short-able' stock has been utilized (see Exhibit 7). High short pressure has historically been a precursor to underperformance.

As consumer strategists, we don't have formal views on individual stocks, but underlying dynamics such as the ones listed above suggest that investors won't be as patient with NFLX as they would with AMZN or GOOG if each were to hit a soft patch. Deeply negative free cash flow and concerns about competitive intrusion might account for the difference. According to NFLX's own investor website, "with continued success, we will invest more in originals, which would continue to weigh on FCF, even after we achieve material global profitability. As a result, we anticipate being free cash flow negative for many years." With that as a core philosophy it may not be reasonable for investors to expect a smooth ride. Plot twists might still be lying in wait.

The Netflix and HBO Parallel

Fundamentally speaking, Netflix has more in common with HBO than almost any other media asset. Both are focused exclusively on generating subscription fees that represent all of NFLX's revenue and 90% of HBO's. Neither of the two businesses earns anything from advertising as they've preferred to compete on content, a virtue that's earned them both more than 50 million subscribers in the U.S. alone. Original content has been particularly important to that success. Data from TWX filings suggests that HBO has historically struck a 50/50 balance between original and redistributed content almost as if by design. NFLX is only beginning to catch up having shifted from 5% originals in 2015 to 20% in 2017, a figure that's likely to reach 30% by the end of 2018 (see Exhibit 8). This increased focus on exclusivity has been helpful in growing Netflix subscribers. Today its U.S. subscriber base is 10% higher than HBO's even though it paled in comparison just a few years ago (see Exhibit 9).

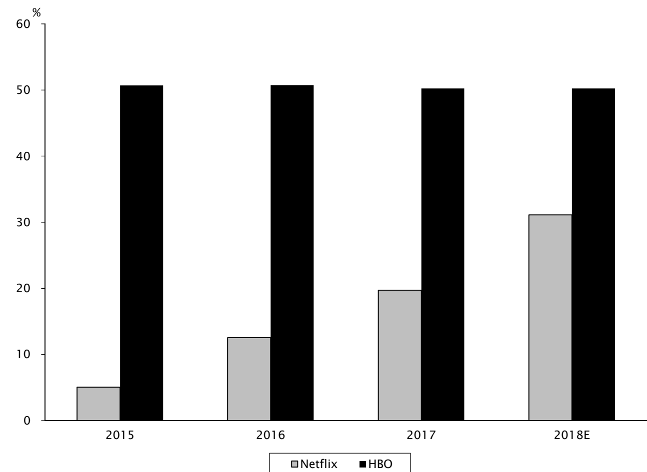
Exhibit 7: FAANG Stocks
Relative Short Pressure Percentile Rank[1]
(100=Highest Pressure)
Eight Years Ending Mid-August 2018



Source: Empirical Research Partners Analysis.

[1] Ranked across the large-cap universe. Facebook data begins in 2012. Current level is an average for the last six months.

Exhibit 8: Netflix and HBO
Original Content as a Share of Total Content[1]
2015 Through 2018E

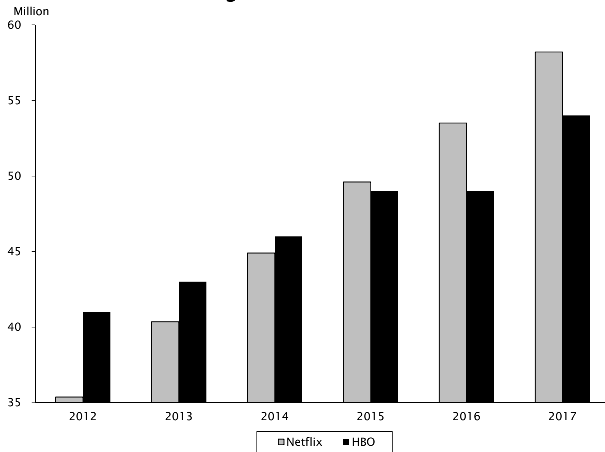


Source: Corporate Reports, Empirical Research Partners Analysis.

[1] HBO estimate uses originals and sports programming costs as a proxy.

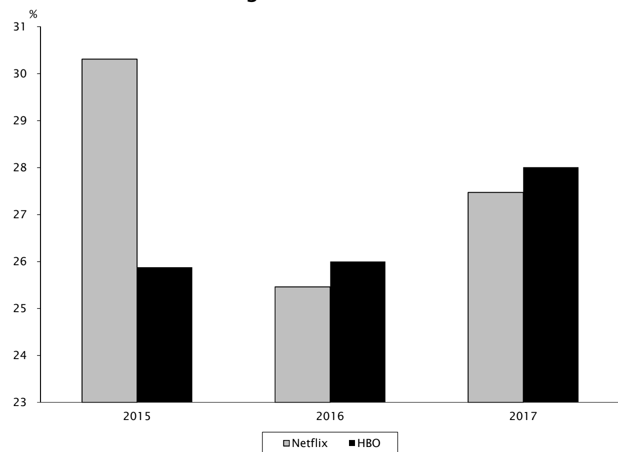
Netflix does not appear to derive as high a yield from its content as HBO does, though comparing the two is challenging given differences that might arise from operational tactics (e.g. joint ventures) and from accounting differences (e.g. content amortization schedules). On a reported basis, the two appear evenly matched if we look only at gross profit dollars earned per dollar of content (see Exhibit 10). At the EBIT level however, Netflix earns only a 6% 'return on content' versus 18% at HBO (see Exhibit 11). The discrepancy is distorted by heavy investments Netflix is making in international markets, so the best way to compare the two may be to use NFLX's more mature U.S. market as a guide. In Exhibit 12 we show how operating profit per subscriber at NFLX might look in comparison to HBO after stripping out NFLX's marginally profitable international segment. If NFLX can replicate the success it's had in the U.S. in these international arenas, it might ultimately be able to grow into its valuation.

Exhibit 9: Netflix and HBO
U.S. Subscriber Count
2012 Through 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

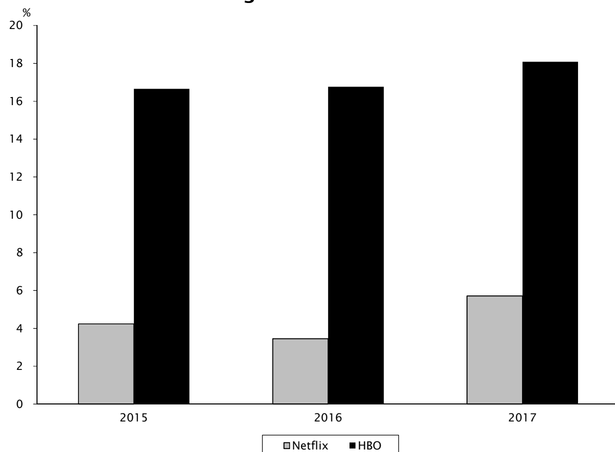
Exhibit 10: Netflix and HBO
Gross Profit per Dollar of Content[1]
2015 Through 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Gross profit for HBO reflects segment disclosure in 10-K.

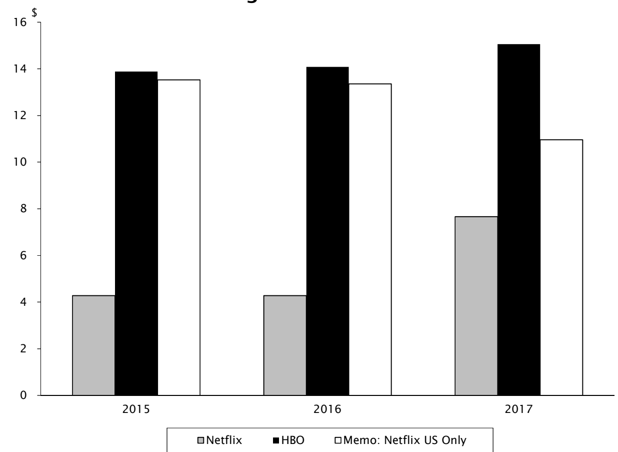
Exhibit 11: Netflix and HBO
Operating Profit per Dollar of Content[1]
2015 Through 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Operating profit for HBO reflects segment profit less a sales-weighted allocation of corporate costs.

Exhibit 12: Netflix and HBO
Operating Profit per Average Subscriber[1,2]
2015 Through 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

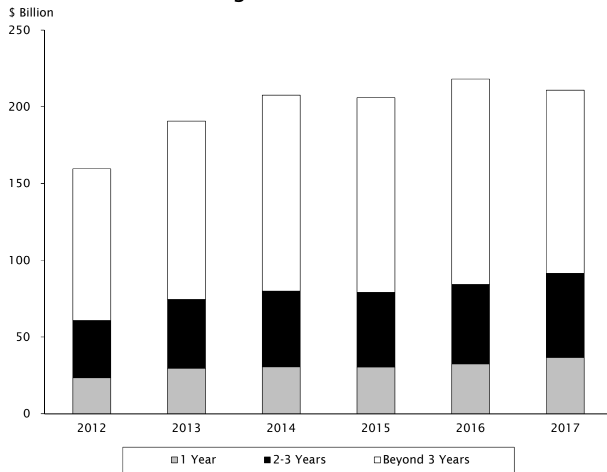
[1] Operating profit for HBO reflects segment profit less a sales-weighted allocation of corporate costs. Global subscribers.
[2] Netflix U.S. uses consolidated EBIT before international contribution profit / loss and divides by average U.S. subscribers.

Assessing the Possibility of an Arms Race

Netflix's CEO Reed Hasting has repeatedly stated that the success of original content will be a critical factor in the company's future success. It's fair to say that this philosophy has helped Netflix revolutionize the pace of innovation across the entire media landscape. After all, it wasn't that long ago that incumbent media businesses would routinely fill in programming gaps with re-runs. Netflix and others like Hulu and Amazon have responded by offering the customer more interesting choices. Netflix however, does not operate in a vacuum. And as others attempt to mimic their winning formula we'll be interested to see if it sparks an arms race of sorts.

To measure that risk, we've relied on the content commitments disclosed by large media companies in their SEC filings. The reports divulge both aggregate commitment levels as well as their shape, or term. As a group, they're on the hook to produce $200 billion worth of content. Of that amount, 15% is due to be spent in the current year and an additional 25% is due to be spent in the following two years (see Exhibit 13). Fox and Disney lead the way with a heavy helping of sports. They're followed by NBC Universal (owned by Comcast) and Time Warner. Netflix is small by comparison in part due to a lack of expensive sports content (see Exhibit 14). Amazon and Hulu are harder to measure, but they probably wouldn't move the needle too much at the aggregate level. The growth in content commitments has not been dramatic overall, but the shape has become a bit more front-end loaded. The acceleration we've seen in the shorter-term window has definitely caught our attention (see Exhibit 15).

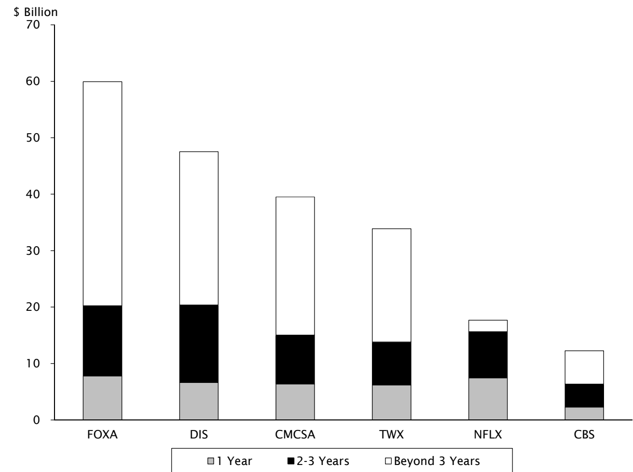
Exhibit 13: Content Obligations
Dollars by Commitment Term[1]
2012 Through 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

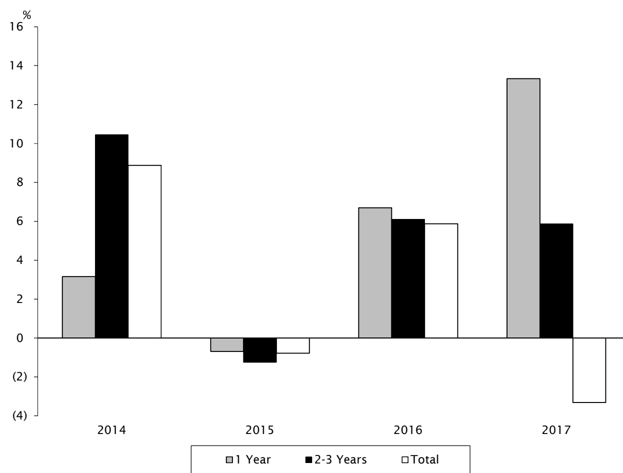
[1] Companies include: NFLX, CMCSA, CBS, TWX, DIS, FOXA.

Exhibit 14: Content Obligations by Company
Dollars by Commitment Term
As of 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

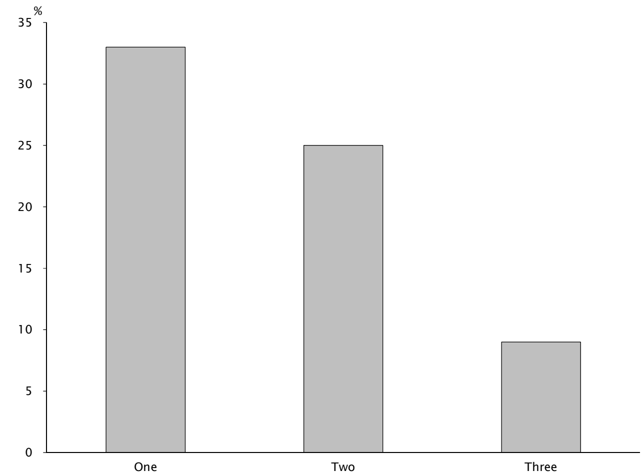
Exhibit 15: Content Obligations by Commitment Term[1]
Year-Over-Year Growth
2014 Through 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Companies include: NFLX, CBS, CMCSA, TWX, DIS, FOXA.

Exhibit 16: Streaming Devices[1]
Share of TV Households With One or More Device
As of March 2018



Source: Nielsen, Empirical Research Partners Analysis.

[1] TV connected devices ownership as a share of TV households.

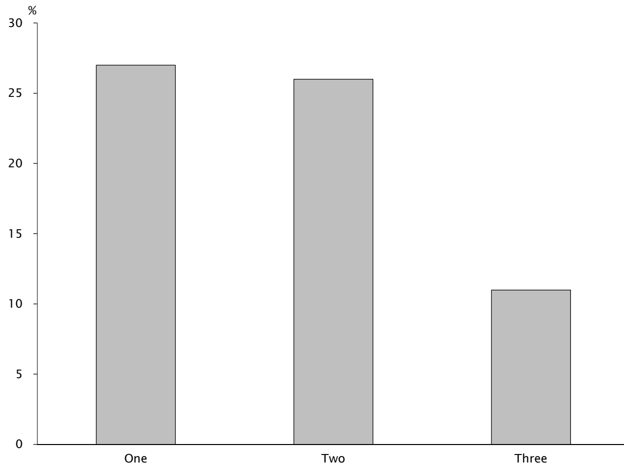
Netflix and Blockbuster

Greater capacity of media content is concerning, but it's not nearly as bad an affliction as what retailers are confronting. Retailers – with some exceptions – are essentially adding fixed capacity in the form of distribution centers that's serving to commoditize an already homogenous set of goods. These additions are coming despite the fact that consumers are choosing to spend less time shopping. The opposite is true for media where consumption is up. What's more, today's consumers are hungry enough to manage multiple formats, something they were loath to do in the past. Roughly half of all households that own a streaming device own more than one (see Exhibit 16). The same is true when it comes to streaming services such as Netflix, Hulu and Amazon (see Exhibit 17).

Barriers to entry have fallen in media, but we're not sure if Netflix has a structural cost advantage or if it just has a higher threshold for quality and a greater appetite for risk (read: negative free cash flow). One thing is for sure --the cost to the consumer is much lower in the Netflix era than it was during the Blockbuster era. In the old days it might've cost the consumer $300 to buy a DVD player, or $100 per year after accounting for a three-year useful life. A weekly rental from Blockbuster would've cost another $250 per year, and building a personal video library would have increased the consumer's up-front spend a bit more. Today the investment consists of a Fire TV stick and a subscription to Netflix that together cost about one-third as much as renting movies in the Blockbuster era (see Ex-

hibit 18). Netflix's ARPU tells the story. Over the course of a year, a Netflix customer will spend one-fourth what a Macy's customer will spend in its stores, and they'll probably derive a whole lot more enjoyment in the process (see Exhibit 19). At some point in time, investors will need to determine whether Netflix is advantaged relative to Hulu and Amazon. For now they're all likely to make inroads since the format is no more penetrated than DVD players that are an inherently less attractive option (see Exhibit 20).

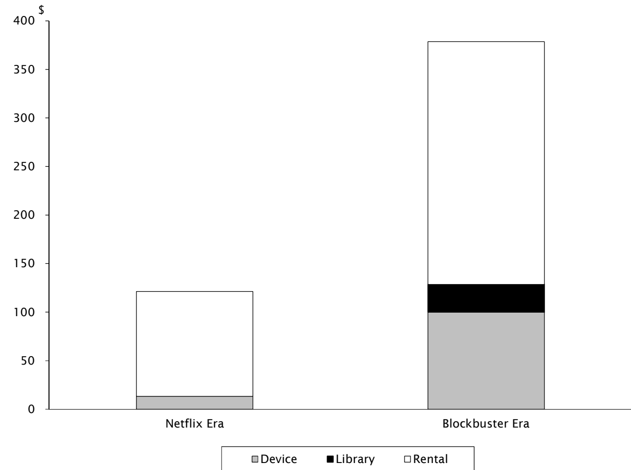
Exhibit 17: Streaming Services[1]
Share of TV Households Using One or More Service
As of March 2018



Source: Nielsen, Empirical Research Partners Analysis.

[1] Subscription video-on-demand penetration as a share of TV households.

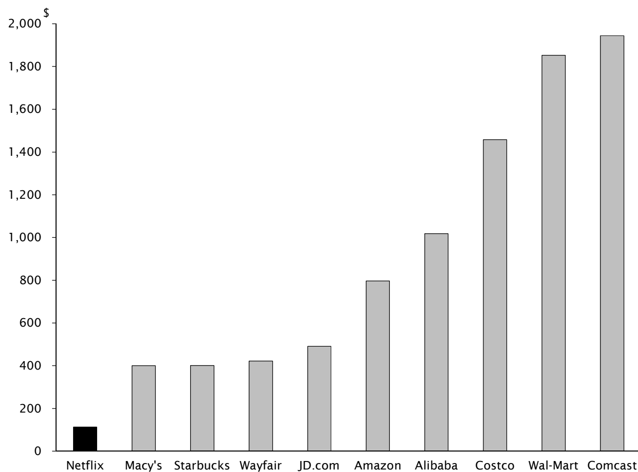
Exhibit 18: Customer Value Proposition
Customer Investment in Netflix Era Versus Blockbuster Era[1,2]
2002E and 2017E



Source: Empirical Research Partners Analysis and Estimates.

[1] Blockbuster era assumes device cost of $300 amortized over 3 years, 10 library purchases amortized over 7 years and a weekly rental at $5 apiece.
[2] Netflix era assumes $40 Fire TV stick amortized over 3 years and annual Netflix subscription of $9 per month.

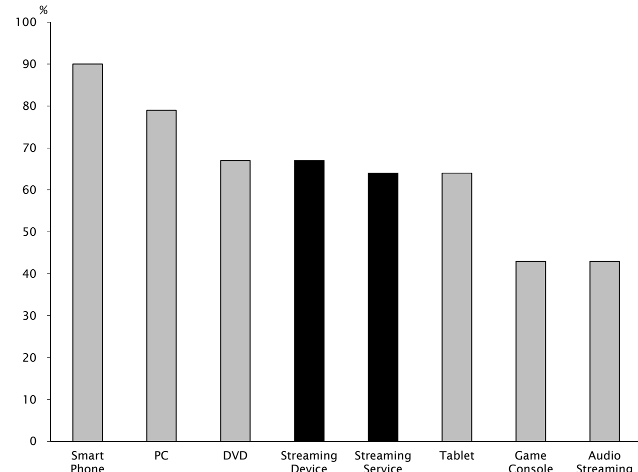
Exhibit 19: Netflix and Select Consumer Goods and Services
Annual Revenue Per User[1]
2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Amazon, JD and BABA reflect global GMV.

Exhibit 20: Penetration Rates by Device / Service
Share of TV Households
As of March 2018

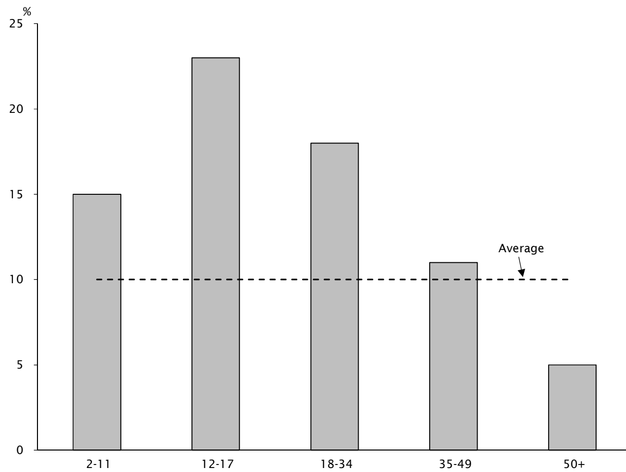


Source: Nielsen, Empirical Research Partners Analysis.

The growth opportunity is further illustrated by the fact that despite making significant inroads, streaming video still accounts for only 10% of all TV viewing time (see Exhibit 21). Younger generations are further along by a factor of two, so it'll be especially important to watch how their viewership develops. It's unlikely that NFLX stock will work based solely on the 50 year-old cohort catching up to Millennials' habits.

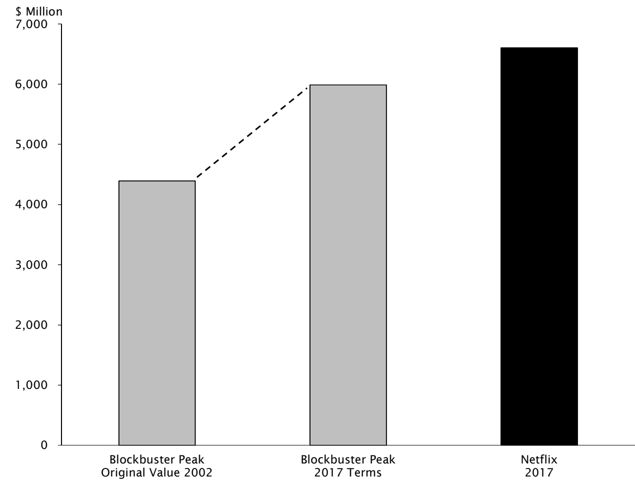
The Blockbuster era was nothing short of a bad memory for many consumers, yet the defunct company still managed to rack up $4.5 billion in annual domestic revenue at its peak in 2002. In today's dollars that's the equivalent of $6 billion. Surprisingly, that figure is not that far off the $6.6 billion U.S. revenue figure NFLX reported in 2017 (see Exhibit 22). Blockbuster did not disclose its membership base on a consistent basis, but in 2000 it indicated that active accounts in North America were 48 million. After accounting for population growth, that would amount to 54 million customers in today's terms. Netflix ended 2017 with a strikingly similar amount of U.S. subscribers, at 58 million (see Exhibit 23). In a way, this might serve as a lower bound when it comes to framing the Netflix investment case. It means that NFLX can still grow its U.S. revenues by +15% in each of the next 4 years and still be less than twice as big as Blockbuster was at its peak. That doesn't even account for the fact that Netflix will probably own more than $5 billion in exclusive content at the end of 2018. Blockbuster owed none of its own and it topped out at $450 million in licensing rights.

Exhibit 21: Time Spent Streaming by Age
Share of Total TV Usage
As of March 2018



Source: Nielsen, Empirical Research Partners Analysis.

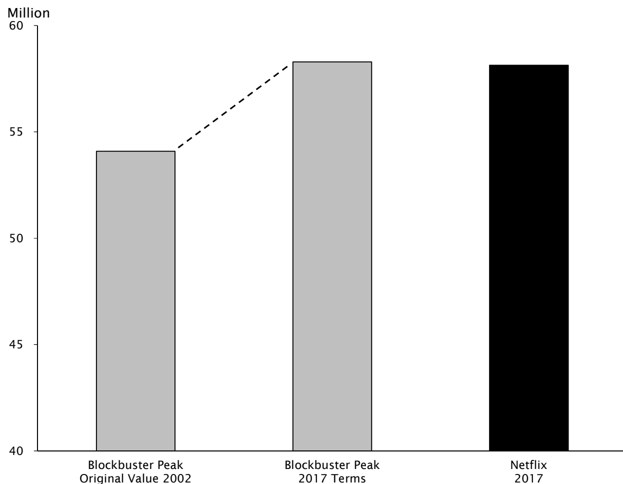
Exhibit 22: Netflix and Blockbuster Revenue
U.S. Revenue Then and Now
2002 and 2017[1]



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] 2017 terms adjust 2002 values for inflation at a 2% annual rate.

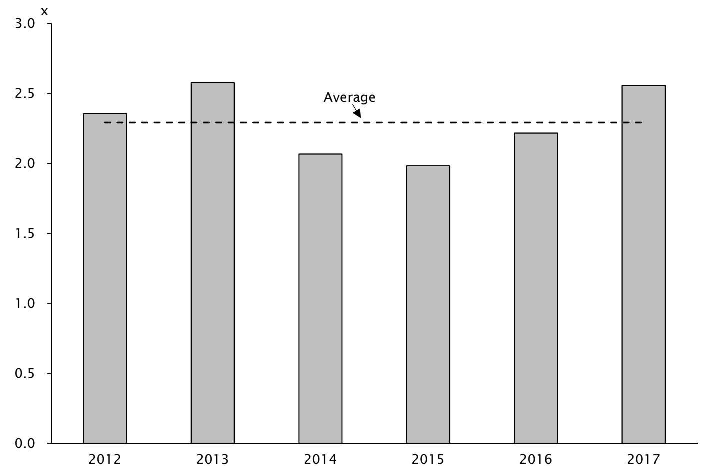
Exhibit 23: Netflix and Blockbuster Members
U.S. Members Then and Now
2002 and 2017[1]



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] 2017 terms adjust 2002 values for population growth using a 0.5% annual rate.

Exhibit 24: Content and Valuation
Enterprise Value as a Multiple of Content Commitments[1]
2012 Through 2017



Source: Factset, Corporate Reports, Empirical Research Partners Analysis.

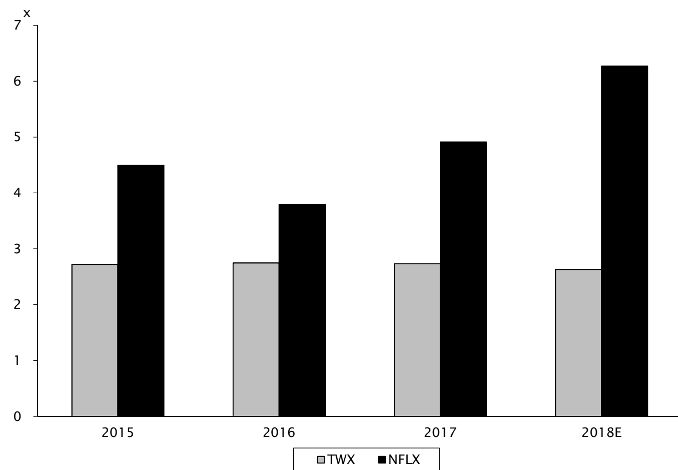
[1] Companies include: NFLX, TWX, FOXA, CBS, NWSA. Average of current and previous year's content.

EV-to-Content

Media companies – like retailers – report their contractual obligations annually to the SEC. Retailer obligations tend to take the form of operating lease commitments. Rating agencies and investors treat these like debt -- and for good reason. Content commitments are a different story, but of course, they're not all created equal. Licensed content for example, is akin to a retailer with a short-term lease. It offers a means through which to generate revenue, but it's not durable or exclusive. Original content on the other hand, can differentiate a business long-term and may therefore be helpful in underpinning equity valuations.

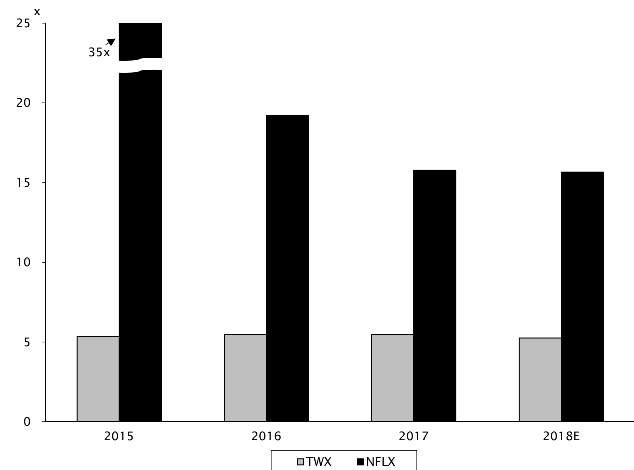
Netflix is likely to report $20 billion of content on its balance sheet at year-end, of which $15 billion or so will probably be classified as licensed content. The remaining $5+ billion would represent original content. We're not espousing using content as a means to value stocks in the media sector, but it's interesting to see how the market might be viewing it over time. Exhibit 24 (overleaf) seems to indicate that the ratio of enterprise value-to-content has been 2.3x with minimal variation over the past six years. Netflix has been pulling the average up as evidenced by a gap that's has opened up between it and TWX (see Exhibit 25). The differential is more pronounced if we look at only original content (see Exhibit 26). On this basis, as on most other's we've looked at, NFLX might need to grow into its valuation.

Exhibit 25: Content and Valuation
Enterprise Value-to-Total Content Commitment
2015 Through 2018E



Source: Corporate Reports, Factset, Empirical Research Partners Analysis.

Exhibit 26: Original Content and Valuation
Enterprise Value-to-Original Content Commitment[1,2]
2015 Through 2018E



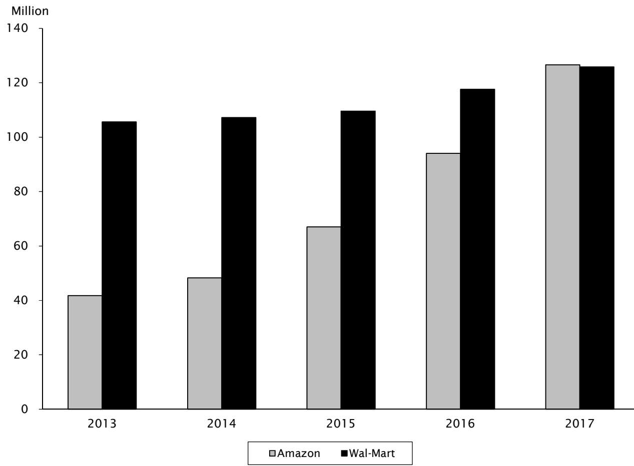
Source: Corporate Reports, Factset, Empirical Research Partners Analysis.

[1] HBO estimate uses originals and sports programming costs as a proxy.
[2] Netflix uses forward-year originals share to estimate originals commitment.

Conclusion: The Netflix Paragon

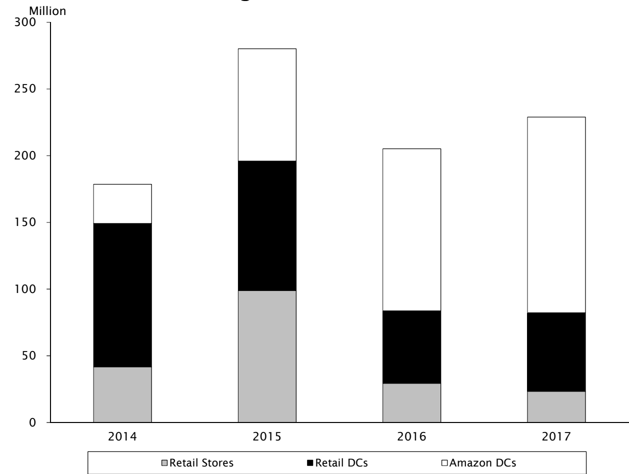
We may not be tempted by NFLX valuation, but we are gripped by the company's strategy and evolution. In our view, Netflix represents a microcosm of the retail industry's struggle with eCommerce. Many retailers would do well to follow NFLX's lead. As recently as 2010, Netflix was generating the majority of its revenue by renting physical DVDs through the U.S. mail. Can you picture anything less evolved? But Netflix learned fast, partly from their own mistakes. Their Solomonic decision to split the company into two – DVDs and streaming – was a well-documented disaster. Reuniting them lent credence to the notion of "omni-channel" retailing, but that was not its Eureka moment. Rather, a focus on original content is what helped propel it to new heights. Retailers face the same decision. Few have prioritized original content as a strategy like Netflix has, but we think it's a far better option than replicating capacity simply to sell the same stuff in new ways. Don't forget, Amazon has already built a distribution network that rivals Wal-Mart's (see Exhibit 27). In our view, by laying even more bricks to support eCommerce, retailers are making matters worse, not better (see Exhibit 28). We think they'd have been much better served if they repurposed funds to build brands instead of distribution centers.

Exhibit 27: Amazon and Wal-Mart
U.S. Distribution Center Square Footage
2013 Through 2017



Source: Corporate Reports, MWPVL International, Empirical Research Partners Analysis and Estimates.

Exhibit 28: Retail Effective Capacity Growth[1]
Incremental Retail and Distribution Square Footage at Retail Equivalence[2]
2014 Through 2017



Source: Corporate Reports, MWPVL International, Empirical Research Partners Analysis and Estimates.

[1] Retailers include: WMT, TGT, ROST, DG, ORLY, DLTR, BBY, ULTA, AZO, LB, TIF, GPS, AAP, M, KSS, TSCO, FL.
[2] Distribution square footage multiplied by 4.5 to arrive at retail equivalence.