Connolly Network Insight

March/April 2018 Update

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The Big Four - 1Q18 Results

The Big Four, despite political and PR turbulence, continued their impressive success for yet another quarter, collectively generating revenues of $155 billion and net income of almost $30 billion. Apple, seen by some as taking a risky bet on a $1000 price point for iPhone X, had a blowout quarter, and the other three players all continued to grow aggressively in both revenues and profits.

Although Facebook took a significant market cap hit with their poor handling of user privacy needs, the Big Four's collective market cap grew by another $21 billion in the quarter, continuing to fuel their dominant market positions, continued growth, and expansion into new businesses.

Company	1Q18 Revenue	Growth Rate (YOY)	1Q18 Net Income	Growth Rate (YOY)	Market Cap
Apple*	$61.1B	16%	$13.8B	26%	$851B
Amazon	$51.1B	43%	$1.6B	121%	$701B
Alphabet	$31.1B	26%	$9.4B**	74%	$755B
Facebook	$12.0B	49%	$5.0B	63%	$464B
	$155.2B		**$29.8B**		**$2.77 Trillion**

*F2Q18

**$2.4B Accting Change

Following are highlights from their earnings calls with emphasis on their plans to enter the Pay-TV space:

Apple

Apple had a blowout quarter, setting records in virtually every metric, including 21% revenue growth in China, where they supply the top three smartphones. Apple continues to do an outstanding job of monetizing their installed base, with service revenues growing over 30%. They added 100 million paid subscriptions in the last year, for a total of 270 million paid subscriptions on an installed base of 1.3 billion active iOS devices. Their wearables business, including Beats headphones, Air Pods, and Apple Watch, is now the size of a Fortune 300 company, and growing rapidly.

Q&A focussed mainly on potential areas of smartphone market opportunity such as India, gross margins, and services growth, as analysts try to predict whether these stellar results are sustainable.

No questions were raised by analysts on video topics.

Amazon

Amazon had a great quarter with net revenues up 43% to $51B and net income up 121% to $1.6B. Their cloud business, AWS, continued to drive the financials, with only 11% of revenues, but 73% of operating income. The international retail business still runs at a loss as significant investments for this segment are made.

Alexa, their digital butler, grew in power with 40,000 external skills, and a wide reach of functionality through many partners. Amazon Prime subs were finally quantified at 100 million globally, and a price increase of 20% was announced.

NFL Thursday Night Football on Amazon Prime Video was renewed for 11 games in the upcoming season. Amazon Music Unlimited subscriptions grew more than 100% over the last two quarters.

Analyst questions covered a wide range of topics including capital spend, Alexa, shipping, and AWS. Video was once again highlighted as an essential benefit of Amazon Prime, and an increase in video content spending, both for movies and series, is forecast for this year.

Facebook

Despite a deluge of negative press, Facebook had another outstanding quarter with revenue growth of 49% and net income growth of 63%. Mobile ads represented 91% of total ad revenue. Price per ad increased 39% and number of ad impressions increased by 8%.

Mr. Zuckerberg stressed the seriousness of security, fake users, and malicious use of their networks. He acknowledged that they had failed to address these issues sufficiently and outlined a number of remedies the company is undertaking over the next three years. Since the Cambridge Analytica issue hit late in the quarter, the impact has already clobbered their market cap, but next quarters' results will really tell the tale.

I recently gave three lectures to undergrads at a business school in Georgia and polled the roughly 150 attendees, who were virtually all Facebook users, as to how many had deleted their account. Zero had done so. Most had not heard of Cambridge Analytica, and one offered that this sounded like "an old persons issue".

Analyst questions focussed on several topics, with the most prominent being the expected impact of the upcoming GDPR requirement in Europe. Facebook executives expressed some caution regarding potential drop in user base. Much discussion centered around the messaging, calling and video calling capabilities of Instagram, Messenger, and WhatsApp, and their importance to future growth.

On the video side, the Watch capability is being used to generate a socially interactive professional content viewing process, and they seem pleased with results to date.

Finally, Mr Zuckerberg sees AR/VR as the next "operating system" and clearly wants to own its definition and roll out as a long term play.

Alphabet

Alphabet had another strong quarter, despite all the concern raised re user privacy in the industry. Mobile search and programmatic ads were highlighted as financial strengths. An accounting change, allowing them to state make-to-market numbers for investments in companies such as Uber, increased their net earnings by $2.4B.

Sundar Pichai, the Google CEO, highlighted their $300M investment in Google News, and the innovations happening in Cloud and YouTube as company focus points. Capex was up significantly, with a $2.4B real estate investment in New York, and new data centers in Tennessee and Alabama.

The Q&A was mainly focused on advertising topics, compliance with the upcoming GDPR regulation in Europe, and cloud. The issue of hardware focus was raised, and Sundar rightly indicated that success here would be a multi-year effort, but that they now possessed end-to-end hardware expertise to match their software capabilities. Time will tell if this is true, but it is absolutely the right thing to do, in my opinion. From a video perspective, questions were raised about subscription vs advertising models (they are clearly expanding into subscription) and original content acquisition (question not answered).

YouTube numbers were still not broken out separately. It is estimated by several analysts that YouTube revenues in 2017 were around $14B, slightly higher than those of Netflix, but given Googles overall advertising operating margins, the profitability of Google vs. Netflix is likely much, much higher.

Content Battles - The Race for Leadership

One of the key concepts at play in the Pay-TV space right now is the potential advantage of linking ownership of content to distribution. For the major streaming players - Netflix, Amazon and Hulu, this has emerged as a key differentiator and their spending on original content, expected to be collectively over $15B this year, clearly reflects this importance. Their business model is largely based on exclusivity of this content.

In the broader Pay-TV space, things are not so simple. Multi-channel Pay-TV operators, whether traditional players, or the newer vMVPD operators, use a mix of original and common content, and a mix of subscription fees, or advertising, or both to satisfy their business models. The unique twist here is the question of what advantage a Pay-TV operator has in owning content which is distributed more broadly than through their own systems.

There are three major cases to examine here; Comcast-NBCU, AT&T-Time Warner and Disney-Fox (or possibly Comcast-Fox). The first has been operating for seven years, the second is awaiting a judicial ruling in June, and the third is in play right now.

Looking first at the Comcast acquisition of NBC Universal in 2011, we can see what lessons have been learned. Comcast, coveting ESPN, was rebuffed in a hostile $41B takeover attempt of Disney in 2004. In 2009, they announced an intent to acquire a majority interest in NBC Universal from General Electric, valuing the property at $30B. At that time, Universal Pictures was performing poorly and NBC was the fourth and lowest ranked national broadcast network, although the cable channel portfolio was doing quite well.

The deal was approved by the Justice department and the FCC, and Comcast signed the consent decree in 2011. In March 2013, Comcast acquired the remaining GE interest, becoming the sole owner.

In order to gain approval, Comcast agreed to 150 conditions, broadly centered on making its content fairly available to all parties, not restricting competitive content on its systems, providing low cost broadband access to 2.5 million low income households, and taking steps to ensure continued availability of local content, childrens content, ethnic content and PEG channels. They have struggled to meet the standalone data condition, and there have been some complaints from rivals, but by and large, the purpose of preventing harm to the changing video industry has been met. These conditions have begun expiring and will be completely removed in September this year, unless the government intervenes.

So how has it worked out for Comcast? I'd say it's been successful overall, with the integration of sports channels being a major benefit (Olympics, Super Bowl, golf, regional sports channels), and the cross promotion of broadcast and cable channels playing well. The constraint on ability to push changes at Hulu (objecting to an ad-free version, for example)

has been an irritant for them. The “Universal” piece (movies and theme parks) still seems largely separate, but both are profitable and growing.

As the Pay-TV business shifts inevitably to a streaming model, the content they acquired with the deal will no doubt pay off for them, and hence their interest in jumping into the middle of the Disney/Fox deal.

With both the wireless and Pay-TV markets in the U.S. stagnating, in October 2016, AT&T announced a deal to acquire Time Warner Inc. for $85B, the second deal we’ll examine here. The driver behind this was for AT&T to combine detailed customer knowledge via its wireless subscriber base, and match it to high quality content to offer targeted video advertising (at premium prices) to both its DirecTV and wireless subs. This was something the Pay-TV industry had failed at miserably, while companies like Google and Facebook were succeeding at spectacularly, and hence threatening both traditional Pay-TV advertising budgets, and the emerging streaming video ad budget. AT&T rightly sees these companies, along with Amazon and Apple as their true competition, particularly as they need to migrate their DirecTV and U-Verse video base to a streaming platform, despite paying $49B for DirecTV in 2015. This new deal is about scaling up to compete in a new and very different internet fueled world. AT&T is the largest U.S. Pay-TV operator, with 25 million subs, and second largest wireless operator, with 93 million subs. Time Warner has an 11% share of live/DVR viewing, and 54 million subs for its premium subscription HBO/Cinemax channels.

The justice department took the unusual step of opposing this vertical merger, and after much back and forth, ended up at trial. The government position was that AT&T could withhold or increase prices for their newly acquired content to competing video distributors, both traditional and streamed. Given the scale of the powerful new entrants and broadening customer choice, this argument made no economic sense. More than half of Time Warners’ revenue comes from fees from distributors, of which 85% are non-AT&T based. Furthermore AT&T offered to agree to arbitration for a seven year period. A decision is due on June 12 (from the same judge who presided over the Comcast/NBCU deal) and all signs point to a ruling in AT&T’s favor.

Aside from the delays imposed by this legal action, the process is also expensive. In 2011, AT&T paid a $4B breakup fee following an abandoned T-Mobile acquisition attempt. For the current deal the interest fees and legal costs are $1.5B and counting, plus a $500M breakup fee if the deal is not permitted to proceed.

The third deal we’ll review here is Disney’s announced acquisition of the entertainment assets of 21st Century Fox. This is a more complex and potentially more impactful deal, actually involving four companies and two governments.

In December 2017, Disney announced an agreement to acquire the entertainment assets of Fox for $52.4B. Fox had previously rejected a offer by Comcast for these assets, even though that offer was 16% higher. The reason given was concern that the Comcast deal would not likely get government approval. Comcast was not willing to provide a breakup fee.

So first of all what are the assets in play? They consist of Fox's film and TV studios, cable networks, international properties, including Star India and a 39% stake in Sky, 30% of Hulu, and 22 regional sports networks. After selling these, Fox will focus on their broadcast network, news, and sports. Fox Sports 1 has been pushing hard to supplant ESPN as the premiere major sports provider, in the process bidding up sports rights such as NFL games even as viewership sinks.

Unlike Comcast, which was a distributor acquiring content with their NBCU deal, Disney is a content player today, with distribution aspirations (via streaming), and is looking to strengthen both sides of the business with this deal. Disney already has a commanding position in the theatrical movie segment and adding Fox franchises such as X-Men and Avatar will strengthen this even more (but may in fact produce regulatory approval problems). These studios, along with the cable channels and Hulu stake, all line up quite well with Disney's strategy to lead the shift to a streamed world for Pay-TV. Disney will likely end up with three complementary streamed offerings over the next two years - Sports, Disney family content, and Disney adult (likely labelled Hulu). The deal helps all three, by adding regional sports nets, bolstering the mainline entertainment (while keeping content away from Netflix) and giving Disney control of Hulu via 60% ownership.

The international properties, and in particular the Sky stake, add a significant degree of complexity. Fox owns 39% of Sky, and has been trying, unsuccessfully to date, to acquire the remaining 61%. British regulators have been reluctant to approve this, given the dominant position in British media (newspapers and TV news) of the Murdoch family. Sky is both a distributor and a content creator, but uses satellite for its broadcast services, meaning a technology migration (similar to DirecTV) is inevitable. Disney has made an offer to by all of Sky, independent of its success in the Fox deal. To further complicate things, Comcast has made a higher offer for Sky, and in rumored to be planning another attempt to outbid Disney for the overall Fox deal, particularly if the AT&T/Time Warner Inc deal is approved.

Both Disney and Fox see the international customer base, given saturating U.S. markets, as attractive.

So how will it all play out? My bet is on Disney. Comcast doesn't have stock as a viable option, given the recent drop in their share price, and a cash offer causes tax and lack of subsequent influence problems for the Murdochs. Maybe Comcast would try to get Sky or Hulu, but I don't see Disney agreeing to that.

If Disney wins, they have a much better change of leading the pace of migration to an all streamed world. This will pit them more directly against AT&T and Comcast, who both have the same goal.

Even if Disney wins, becoming the big fish, there is a bigger one named Apple lurking to potentially gobble them up.

Pay-TV Update - Still Hanging In There

The Pay-TV industry in the US is driven by both consumer subscription spending, and advertising spending. Therefore, the two ongoing points to consider are subscriber growth/ cord cutting/shaving and advertising growth or decline.

The first quarter of 2018 continued to see cord cutting with the top seven operators, covering over 90 million homes, losing 688K subs, offset by (much lower margin) vMVPD gains of 403K subs, for a net loss of 285K subs. Satellite losses represented 54% of total declines. Of more concern to the MSOs, the growth rate of their crown jewel, high speed residential broadband, continued to slow.

Big events in the quarter, including the Winter Olympics, Oscars (down 19%), and NFL Playoffs, all suffered ratings declines, boding ill for advertising revenues going forward. A number of operators continued talking about lowering the number of prime time commercials, to be offset (hopefully) by higher charges. The coming “upfronts" in May will shed some light on the acceptance of this approach by the advertising community.

Comcast had a good first quarter, with revenues up 10.7% and adjusted eps growth of 17%. On the NBCUniversal side, theme parks and movies are growing and profitable and Broadcast and cable networks saw benefits from the Winter Olympics and Super Bowl. On the cable side, 96K video subs were lost, and advertising revenue was down, but overall revenue growth was maintained by strong performance in high speed data and business services.

Mediacom, having embarked on a data and business services focused strategy, saw 3.4% revenue growth, with 59% of total revenues in 1Q18 now being non-video based.

Cable ONE, pursuing a similar strategy, saw solid growth in 1Q18 revenues, even excluding Residential data and business services represented 72% of their total revenues, so the dependance on video services is being significantly marginalized.

The wireless ambitions of the MSOs have gone a bit quiet, given the other big industry shifts and mergers.

Disney saw their F2Q18 operating income for media networks drop 6% on revenue growth of 3%. Broadcasting revenues were flat, while cable networks grew 5%.

As I said last report, Disney is clearly shifting to offense in their quest to migrate to a streaming world. Investments in BAMTech and Hulu, severing their Netflix connection, and the Fox asset purchase all set them up to accelerate the transition. Interestingly, however, with ESPN, they have no choice but to continue to defend the existing Pay-TV model, given huge contractual commitments for the next few years for content, continued pressure on their dominance by Fox Sports1, and, despite subscriber loss, being the most valuable content

channel in the Pay-TV world by a large margin. Getting the timing right for the shift from defense to offense for this crown jewel in their business will be a huge factor in the ultimate success of Disney's business.

21st Century Fox Inc. doubled down on sports programming as it positions itself for a "post Disney/Comcast sale" world. Fox paid $3.3B for a five year deal with the NFL for Thursday night football, a 47% jump over the existing shared NBC/CBS deal. This in spite of ratings declines last season for TNF of 12%.

Time Warner Inc. had a good quarter, boding well for their potential contribution to AT&T, should that deal be approved in June. TWI had 3% revenue growth, with solid subscription growth of 8% for Turner networks, and 10% for HBO.

The Scripps/Discovery deal was approved, and Viacom and CBS continue to do a personality driven dance on merger possibilities.

We continue to see an industry lurching towards a post "Traditional Pay-TV" world, with some players proactively planning for a new future, and others hoping to extend the status quo.

Streaming Video - Big Shifts Ahead

The introduction to this topic in my last report still holds true, and I'll repeat it here. Streaming video is clearly the long term end point for all successful players, but the key issues are the timing of this transition, and who emerges from the current ecosystem as winners or losers in this long term shift. It's useful to consider streaming players in two broad categories - OTT providers, and vMVPD ("skinny bundle") providers. Over time this distinction will blur, but the best way to think of these categories right now is as outside attackers (replace traditional Pay-TV with something entirely new) and inside defenders (evolve the Pay-TV model to keep it successful).

There were 114 million streaming video subscriptions in the U.S. at the end of 2017, generating almost $13B in annual subscription fees, per the Consumer Technology Association. The top three, Netflix (52.8M) Amazon (26.0M) and Hulu (17.0M) represented 84% of the total. Of the remaining subscriptions, 4.5 million were vMVPD or "skinny bundle" subscriptions, a small but growing and important segment.

Netflix continued its global growth in 1Q18, adding 7.41 million net new subs, for a total of 125 million global subs. This puts them ever closer to HBO's 140 million subs. They generated revenues of $3.7B, up 43% YoY, and net income of $290M, up 63% YoY. They ended the quarter with 55.1 million subscribers in the U.S.

The street continues to look favorably on their growth, with their market cap up 54% through the first quarter of 2018.

I still believe, in spite of this broad vote of confidence, that their business model has long term problems. They did increase prices without a major base disruption and this drove their operating margin to 12.1%, but this is still a low number. Although Alphabet doesn't break out YouTube numbers, many some analysts project their 2017 revenues at around $11-$20B, or at least roughly comparable to Netflix in volume. Again, YouTube specific operating margins are not available, but Google's overall operating margins are 27%.

Netflix are significantly "free cash flow" negative, and predict to remain so for several more years. As I said in my last report, their cost of content will continue to grow as they add more subs, and work hard to keep the subs they have. They have $17.9B in content obligations. They are currently competing with Amazon and Google, with Apple and Facebook potentially jumping in as well. None of these players lives or dies by the streaming service in isolation, but rather uses video to enhance their broader business goals. Finally Disney are withdrawing their content as soon as contractually possible in order to compete directly in this space. They launched their first service - ESPN+ at $5 per month. It will complement, rather than compete with, their pressured but still lucrative ESPN family of Pay-TV channels.

For all of these reasons, I believe Netflix cannot rely purely on growth to thrive, but must also find a way to significantly increase revenue per sub, while facing stiff competition from a growing number of powerful competitors, not least of which is Disney, which takes away some of Netflix' most popular content, using it instead to directly compete.

Amazon recently disclosed, for the first time, that there are 100 million Prime subscribers globally. The 26 million U.S. number cited above is probably conservative. Hulu announced it has passed the 20 million subscriber mark, while rolling out a vMVPD offering as well. HBO has passed the 5 million mark, making the streaming service of growing significance to their future. CBS continues to aggressively embrace the streaming model, augmenting it's two successful subscription launches (CBS All Access and Showtime at 2.5 million subs each) with ad-supported news and sports offerings. 25% of the All Access subs choose to pay $10 per month vs $6 to skip ads. The service is launching internationally this year, as is also now available on Amazon Channels.

Customer churn is a key issue for this market, give the extreme ease for a customer to subscribe or unsubscribe. Netflix has about a 7% churn rate, and Amazon Prime and Hulu are also both low, per Parks Associates. For smaller operators, however, churn can be 50% or higher, reeking havoc with their profitability prospects.

Several new players launched or announced service. The Church of Scientology launched it's steaming service, as did ESPN as noted above with its ESPN Plus service, at $4.99 per month. Fox News is launching Fox Nation later this year, as will Viacom with an ad supported service by September. Apple, with twelve original content projects current in the works, plans to launch its streaming service as early as March 2019. Finally, the most innovative plan will potentially emerge from a partnership with the NBA, Turner Sports, and Magic Leap, to live stream games for a "courtside watching experience". Stay tuned for details.

Turning now to the vMVPD segment, there are now 5.3 million subscriptions in the U.S. as of April 2018.

DirecTV Now, critical to AT&T's long term migration path, passed the 1.5M sub mark. They are now growing this segment faster than their linear video losses, and still assert that advanced advertising opportunities will offset margin losses, but this remains to be seen. They put a focus on 4K HDR sports offerings to differentiate, including NBA and MLB games, the Winter Olympics, and the Masters. Notwithstanding this, they are rumored to be considering a "Non-sports" offering at $15 per month.

Sling-TV added 91K subs in 1Q18, (partially offsetting the loss of 185K Dish subs). Relatively low downloads of their app suggest they may not be as focused as required on mobile subs, key for ongoing growth.

YouTube added Turner channels and bumped their monthly fee by $5 to $40 per month. They are rumored to have about 300K subs.

Hulu are using the Stanley Cup Playoffs to differentiate their vMVPD offering.

T-Mobile disclosed that they paid $325M for Layer3 TV, and intend to use this to disrupt the Pay-TV market, just as they did in the wireless space. T-Mobile's main focus I'm sure will be on their Sprint acquisition, if they can somehow get this approved (of which I am highly skeptical).

fuboTV raised another $75M as they try and ramp up their system. I don't see them being a major player (they have around 100k subs), but they do count content owners such as AMC, Fox and Discover among their investors. They too are increasing pricing to $45 per month as they add AMC to their offering.

In summary, the segment continues to ramp up as potentially the biggest threat to the Pay-TV ecosystem. A big issue they all face are the margin pressures as customers expect low prices, and content costs remain high.