Connolly Network Insight

October 2016 Update

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Big Four Summary - Third Quarter Results

The Big Four continued their success this quarter, collectively generating revenues of $109 billion and net income of almost $17 billion. While Apple had negative growth, the other three had double-digit revenue growth, with triple-digit net income growth for Amazon and Facebook. Apple remains a profit machine, generating more net income than the other three combined.

With Apple and Google market cap roughly flat this year, Amazon and Facebook have added $130 billion in market cap.

Company	Revenue	Growth Rate (YOY)	Net Income	Growth Rate (YOY)	Market Cap
Apple	$46.9B	<9%>	$9.0B	<19%>	$587B
Amazon	$32.7B	29%	$0.25B	219%	$358B
Google	$22.5B	20%	$5.1B	27%	$531B
Facebook	$7.0B	56%	2.4B	166%	$347B
	$109.1B		$16.75B		$1.82 Trillion

Following are highlights from The Big Four earnings calls, with emphasis on their plans to enter the Pay-TV space.

Apple:

Apple stressed the value of their services business, which grew 24% year-over-year to $6.3 billion. By 2017, this business on its own would be a Fortune 100 company. They also stressed the excellent acceptance of the iPhone 7 and iPhone 7 Plus and the new features in iOS 10, including more functionality for Siri, based on their strong investment in machine learning. Looking forward, they talked about the importance of India and Enterprise for future growth.

During the Q&A, Tim Cook was asked about their interest in television and content. He replied that there was an "intense interest" in television and that content ownership and creation was a great opportunity. That said, their business model is to enter a market only when they can create a superior user experience, based on their technology and innovation.

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With R&D having doubled over the past three years, Mr. Cook stated that their future product pipeline had never been stronger. He would not comment on the automobile space other than to say it was interesting to Apple. Regarding digital butlers and the competition from Amazon and Google, he felt that while a home device was an interesting market, the smart phone is the preferred device for this capability because of its mobility. He emphasized their approach is on a worldwide basis.

Amazon:

Amazon's common theme during their call focussed on providing additional value to their Prime customer base, who spend over twice as much as non-Prime customers. Analysts estimate US Prime membership at 65 million, just over half of their customer base, and up 38% year-over-year. Amazon focused on music, video, and enhancements to commerce, offering both services, and devices in the home that support these services.

They introduced a subscription-based streaming music service to compete head on with Spotify and Apple Music. They released a wide range of original video content, including both theatrical releases and original series for their streaming service. They are spending more than HBO this year on content and I expect will become more disruptive to the industry over the next few quarters. On the commerce side they have increased warehousing space by 30% this year and continue rolling out innovations such as AmazonFresh for groceries, and Handmade at Amazon for artisan items. They continue to dominate the cloud business with Amazon Web Services, which actually generates most of their current profit.

Facebook:

The phenomenal growth experienced by Facebook since its IPO in 2010 has been driven primarily by adopting a “mobile first” mentality and dominating mobile ad spending, which represented 84% of their total ad revenue. They now have over 1 billion mobile daily active users. On their call, Facebook CEO Mark Zuckerberg led his comments by talking about putting "Video First" across their Family of apps to drive the next stage of growth. Through Facebook Live, Instagram Stories, and camera and video features in Messenger, video is beginning to permeate the way their 1.8 billion users communicate and share. The camera will replace the text box as the primary interface over time. There are now more than four million active advertisers on Facebook and 500,000 active advertisers on Instagram. More and more of the ads they generate are video ads. Right now a typical advertiser will segment their business between digital action ads and television-based brand ads. As more Pay-TV content begins to flow over channels such as Facebook's apps (e.g. election coverage) the targeting capabilities of the apps will become of increasing value, since the Pay-TV space has done such a poor job of implementing even rudimentary targeting. This brings the $80 billion per year television ad budget into play over time, making video even more attractive.

Alphabet:

Alphabet attributed their excellent quarterly performance to mobile search, YouTube, programmatic advertising, and Google Play. Revenues for YouTube were not broken out but it

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has been consistently highlighted over the past several Quarters as a success story. No break out was provided of the YouTube Red subscription service, or any plans to enter the V – MVPD space. The launch of Google Assistant, their response to Siri and Alexa, was highlighted as having been built on years of experience and significant resources spent on Machine Learning. Their Knowledge Graph, for example, understands over 70 billion facts about people, places and things in the real world. They also rolled out a new messaging app, Allo, where they have been a non-player to date, and a new video chat app Duo. They also launched a Made By Google smart phone, the Pixel, with Google Assistant at its core, recognizing the importance of integrated hardware and software. See below for a detailed analysis of this potential pivot to the Apple business model. Despite several questions from analysts, the Alphabet executives insisted they could continue to support a generic android interface for dozens of third-party smart phone makers, and drive their Made By Google strategy as well. Time will tell whether this potentially awkward approach will work. Finally, their pull back on Google Fiber seems to be a combination of fiscal restraint and a pause to examine potential technology advances in fixed wireless.

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A Crack In The Mega Sports Citadel

NBCU reported this month a $250 million profit from the Rio Olympic Games. This was a little over double the profit made from the London games in 2012. Ad sales for the Rio games were $1.2 billion, up 20% from the London games. While this sounds hugely successful, alarm bells were set off by viewership, which was down 15%. Significant "make goods" had to be provided to advertisers for ratings shortfalls, but this was accommodated by the ample inventory over 17 days of continuing coverage.

A similar set of alarm bells have been ringing for NFL coverage, with double-digit rating declines through the first four weeks, leaving the networks scrambling to deliver "make goods" in compensation. I've heard eleven reasons postulated by analysts and the league itself for this drop:

1. Presidential election cycle
2. Over-saturation (especially Thursday night)
3. Mid-market teams in prime time
4. Missing icons (Manning, Brady, Roethlisberger)
5. Commercials avoidance mentality (post Netflix)
6. Excessive flags/replay delays
7. League response on concussions/player discipline
8. Anthem protest reaction
9. Social media/Digital streaming bleed off
10. Red Zone
11. Poor play

A game taking three hours to watch live requires roughly 100 commercial viewings and features about 11 minutes of playing action.

I believe the average consumer is now trained to multitask and accept stimuli in small increments. The availability of so many consumer choices leaves many without the patience or desire to commit their full attention for an afternoon or evening.

Interestingly, while the first seven championship baseball playoff games were also down 8% this year, college football viewership is up. Attendance at NFL games was down 0.5% last year to 17.5 million people. Merchandise sales increased 3.4% to $3.4 billion.

So why is this decline in sports viewership so significant? The Pay-TV industry has been in an increased spending cycle for some time now and enormous amounts of capital are committed to the ongoing growth and success of Professional sports, especially the NFL. NBC, Disney, CBS, and Fox have together paid $5.25 billion this year for NFL broadcast rights, with contractual commitments through 2022 of $40 billion. A bidding war for broadcast rights was initiated through Fox's decision two years ago to take on ESPN with their launch of FS1 for supremacy in major sports broadcasting. This month, Fox proclaimed victory with

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Nielsen rating FS1 as number one cable network in prime time, number one sports network for live events, and number one sports network for total day.

So the broadcasters have made their bed at least through the next six years and need to be able to continue to use this content to secure their revenues. Whether the fan base cooperates remains to be seen.

Going forward, an interesting contest is shaping up between the NBA and the NFL. NBA revenue is projected at $8 billion this year, verses $13 billion for the NFL. Basketball seems to be doing a better job, however, at embracing social media, virtual reality, and the potential of a global offering. They are working hard to find ways to get average game time under two hours and their television rights are locked in through 2025. It will be interesting to see how both sports deal with viewership declines and the potential to improve their product in a post "broadcast-dominated" world.

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Alphabet's Pivot to Apple's Business Model

Alphabet, parent company of Google, is one of the most successful companies in history. In Q316, Alphabet generated $22.5 billion of revenue, up 20% year-over-year, and generated operating income of $6.8 billion, up 17% year-over-year. Almost all of their revenue comes from digital advertising. A growing portion of this revenue comes from mobile devices. Their strategy for mobility has been to give away the operating system software, with preloaded Google apps, and make their money from the advertising consumed by users of the device. With 80% of the worlds' smart phones using their software, this has been a highly successful strategy.

This month, however, Google has embarked on a new approach by introducing their own designed-and-branded smart phone, the Pixel. Having had poor results in the past with their own Nexus phones, why would Google do this?

The answer lies primarily in the future growth generators for mobility, namely Digital Butlers and virtual/augmented reality. Google's CEO spoke at product launch of the evolution from a mobile-first to an-AI first world. They believe their experience in search, mapping, and the Knowledge Graph gives them an edge in AI-powered systems.

Apple has utilized a tightly integrated hardware and software strategy from the beginning of their existence. This has allowed them to generate significant profitability from their installed base as their ecosystem of Services continues to grow. In 2015, for example. Apple installed 23 billion apps versus 96 billion for Google, and yet with an average price of $.85 per Apple app versus Google's $.12 per app, Apple generated $20 billion of revenue versus Google's $12 billion. Apple's recently introduced iOS 10 is already running on 50% of the iPhone base while Google has less than 20% of android phones running the-year-old Android 6.

Apple has deployed their Digital Butler, Siri, not only on their smart phones and tablets but also more recently on their Macs and their AirPod devices, bringing the power of conversational artificial intelligence in a persistent user-friendly way everywhere.

Google's Pixel phone features their own Digital Butler, Google Assistant, at the heart of its design. This capability will not be extended, at least for now, to any other android phone. To augment this differentiation, Google have introduced a new virtual reality platform, Daydream, which will work in conjunction with the Pixel phone.

At the same time, Google has introduced a Digital Butler for the home, cleverly named "Home" to compete with Amazon's Echo. They have also built a pop-up store in New York to introduce these products. (A possible portend of a "bricks and mortar" strategy?) Finally, Google has introduced the Allo messaging system, and are using Google assistant to try and differentiate it. Messaging is another huge battle for consumer attention shaping up between the major players, and Google has been a non player here to date. Messaging will be reviewed in detail in my next report.

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Analysts expect Google to ship 3 to 4 million Pixel phones (assembled by HTC), in the second half of 2016. Apple will ship that number in less than a week.

As demanding new applications like Digital Butlers and virtual reality, which are powering future industry growth, become more sophisticated and more valuable, tight interaction of the hardware and software will become critical. Apple have known this from day one, enjoying an amazing 103% of the profitability of the entire smart phone industry in 3Q2016, for example. It appears that Alphabet has taken notice.

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Netflix Strategy and Outlook

Netflix reported 3Q16 results this month, with revenues of $2.2 billion, up 36 percent year-over-year, and net income of $52 million, up 21% year-over-year. US customers, representing 55 percent of total membership, generated 60 percent of total revenues and the grandfathered price increase is 75% complete. Launch of services over the past year in 130 countries has understandably strained international performance, with contribution loss of 8% versus 36.4% positive margin in the US. For the first nine months of this year, Netflix has added 12 million global members, which is equivalent to the additions in the first nine months of 2015.

Netflix' content strategy has been skewing more and more towards original content with an announced intent to deliver 1000 hours of premium original programming in 2017, a 67% increase from this year's 600 hours. Their bias is towards self producing rather than licensing, which gives increasing control and long-term value, but puts a tremendous strain on free cash flow, which was -$506 million, vs -$252 million in 3Q15. Content costs are forecasted to be $6 billion in 2017. Streaming content obligations are $14.4 billion, up $1 billion sequentially.

Clearly, the quality of content is essential to Netflix' continued success. This year they won nine Emmys out of 54 nominations and are rumored to have spent $100 million on their new series The Crown (produced by Sony and very good, based on the first two episodes I've seen). They have just signed a distribution deal for the simultaneous theatrical release of their original movies with iPic, a small but influential luxury theater chain. The Internet delivery model allows Netflix to target both mass markets and small niche areas, effectively personalizing the service for every user. They are striving hard to develop content, such as "Narcos," with global appeal to support their worldwide expansion.

Having been the feared disruptor of the pay-TV industry, Netflix is settling into a somewhat symbiotic relationship with a pay-TV establishment. Comcast and Liberty Global, as well as many smaller players, have integrated Netflix into their own offerings in an attempt to continue to "own the home."

With growth slowing and content costs continuing to dominate their P&L, the question becomes where does Netflix go?

With all of their revenue coming from subscriptions, I don't see a step towards an advertising model as viable. The clear preference by consumers, in both the music and OTT video markets, is trending toward subscription over advertising. Another option for Netflix would be to expand into the V - MVPD space, competing with Hulu, DirecTV Now, and potential entries from Apple, Alphabet, and Amazon. This is shaping up, however, to be a very competitive and likely low margin business and hence probably not attractive for Netflix at this point.

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They could look at acquiring more content by scooping up some of the smaller channels at an attractive price (e.g. AMC) that will likely be victims of the shift to skinny bundles

Even with a market cap of $52 billion following a huge run up in 2015, Netflix could be an attractive acquisition target. Potential buyers could include Apple, Alphabet, Amazon, Disney, or AT&T (should their Time Warner acquisition fall through). Netflix would bring great content, a strong brand, a global infrastructure (excluding China), and detailed knowledge of their 87 million subscribers. These would all be valuable assets to an acquirer driving a broader video strategy, especially one targeting the lucrative $80 billion pay-TV advertising base.

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AT&T/TWC: Playing Offense with Comcast?

There has been massive reporting by both the financial and industry press on the sudden emergence of AT&T's deal to acquire Time Warner. Even though it's a vertical rather than horizontal integration, it will face tough regulatory scrutiny. At $85 billion the deal will put a strain on AT&T's investment grade credit rating, with their existing $120 billion of net debt and 5.1% dividend yield. So why are they doing it?

To me, the deal makes most sense as a long-term play if you consider the endgame competition as being AT&T versus Comcast, head to head for communication, data and video services to consumers nationwide.

AT&T, having dipped an expensive toe in the video waters with U-verse, became a major player with their acquisition of DirecTV. What they got with this acquisition was the largest video customer base but also an expensive and aging satellite network that will clearly not play over the long-term. This is why it made sense for them to launch the DirecTV Now service and to price it very aggressively at $35, aiming to become the leading player in this new delivery system. Long term, IP streaming will clearly be the dominant delivery mechanism to which they need to migrate both their U-verse and DirecTV base. By being the leader in this space they can better dictate the timing and economics of their internal transition.

The next question becomes whether they need ownership of the kind of content assets Time Warner brings? Here I would argue that the reason they are leaning toward yes is the long-term competitive position of Comcast. Having gone through the content acquisition process with NBC Universal, Comcast has acquired the core capability of managing such a very different type of business. Furthermore, Comcast are making sizable bets toward entering the wireless space both for 4G, with a hybrid Wi-Fi hotspot and Verizon MVNO network, and longer-term with their own 5G network, possibly aided by the acquisition of Sprint or T-Mobile. (See Sept 2016 report for more details). On the wired network side, the MSOs have been clearly winning the broadband connection battle, although limited to each MSO's home territory.

I think this is what concerns AT&T the most - A competitor, in Comcast ,whose core DNA is Video, who has acquired content management DNA, and will enter the wireless space in the future as a direct competitor, hence becoming an existential threat. Acquiring Time Warner will give AT&T the essential content management DNA needed to meet this threat head on.

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