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The U.S. Consumer: Disruptors and the Disrupted

Margins and Valuation in a World of Amazon, Netflix and Airbnb

Incremental Margins Matter

- Incremental margins can be significant determinants of stock price movement. Stocks in the best quintile of incremental margins have historically outperformed stocks in the bottom quintile by roughly +3% per annum. The figures are very similar for consumer cyclical stocks over time. In this report we analyze incremental margins dating back to 1984 with the aim of understanding how Amazon, Netflix and Airbnb might influence them going forward.

Retail: Be Lucky, Be Vertical or Be a Wholesaler

- e-Commerce has captured 65% of all retail sales growth over the past two years. Amazon alone has captured 60-70% of that. Incumbent retailers are firing back, but as a group they are not keeping pace with the aggregate growth of e-Commerce. And any profits earned in the online world of price transparency and variable costs are not likely to offset the loss of operating leverage in brick and mortar stores.
- Distribution space is also coming online faster than retail space is coming offline. Ironically, retailers are beginning to mimic wholesalers they once obsoleted. In the process, they are moving farther from the customer as Amazon is moving closer in. Wholesale margins work for Costco and Amazon, but they won't work for most retailers.

Media: Keeping a Watchful Eye on Capacity Growth

- The media world is in flux and we do not find current valuations tempting in aggregate. Profit streams though are stickier than retail and a focus on content should help operators control their own destiny. Fears are also mitigated by the facts that the overall pie is growing and entertainment is one of the least volatile areas of consumption.
- Like retail, we think the biggest factor to watch in media is capacity growth. Capital spending has been tame by historical standards, but an arms race might be brewing in content acquisition.

Hotels: Will "Do Not Disturb" Extend to "Do Not Disrupt"?

- The lodging business is not without risk, but we think it is more cyclical than secular in nature. We are more willing to underwrite the former. Retail and media are still wrestling with price transparency brought on by the internet. Hotels have already managed through that change without sacrificing much in the way of pricing power.
- Airbnb represents a host of new supply, but overlapping capacity is more limited once adjustments are made for length of stay, size of party and day of the week. The data seem to indicate that Airbnb is more of a competitor than a disruptor. RevPAR trends are soft, but weakness is stemming from segments with low exposure to room-sharing.
- Relative free cash flow yields are attractive versus history and consolidation should help long-term. Our historical work also indicates that margin volatility in the space is far less extreme than it used to be.

Valuing Disruptors and the Disrupted

- Disruptors are notoriously hard to value, but we have developed a framework using 35 years of data that helps to put Amazon and Netflix into context. We start with traditional metrics like earnings yields. We have also identified 24 stocks that serve as a historical reference. These stocks traded north of 3.0x the market's enterprise value-to-EBITDA multiple for an average of 37 months. At 89 months, Amazon has the fourth longest streak of the group. It has also outpaced this elite composite when it comes to returns.
- As it relates to the disrupted, Appendix 1 on page 16 highlights a few hotel stocks, select media stocks and a handful of retailers and brands that are either lucky or vertical. The common bond is that these stocks all score reasonably well on both our growth and value frameworks.

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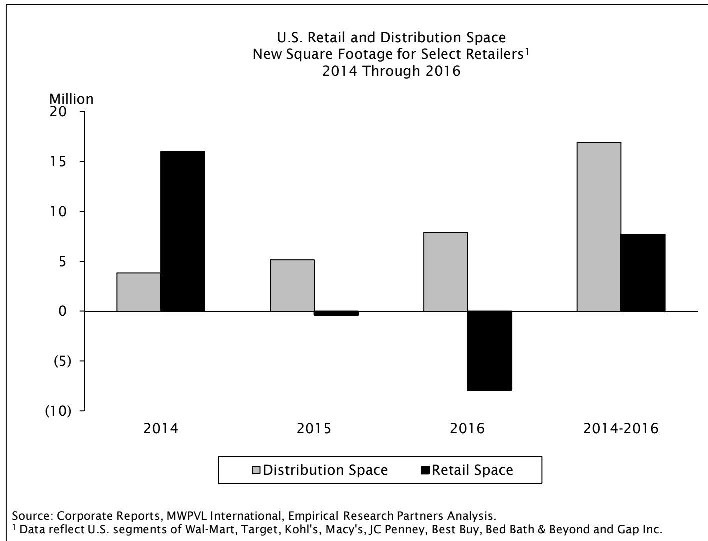
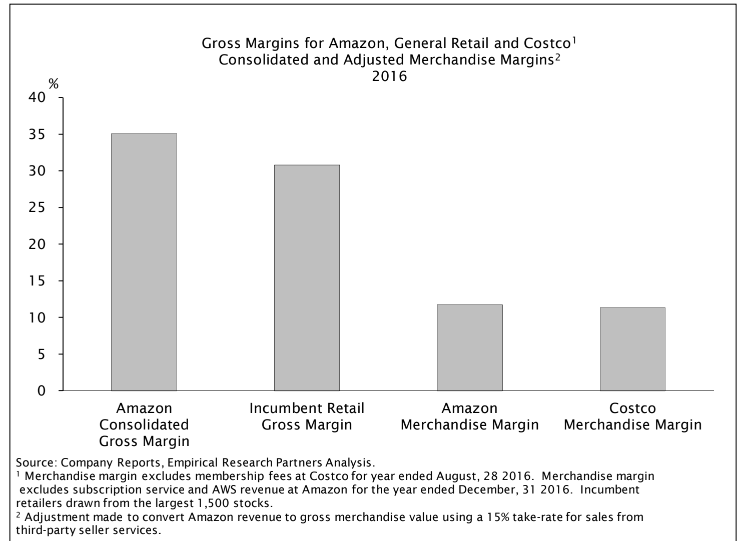
Conclusions in Brief

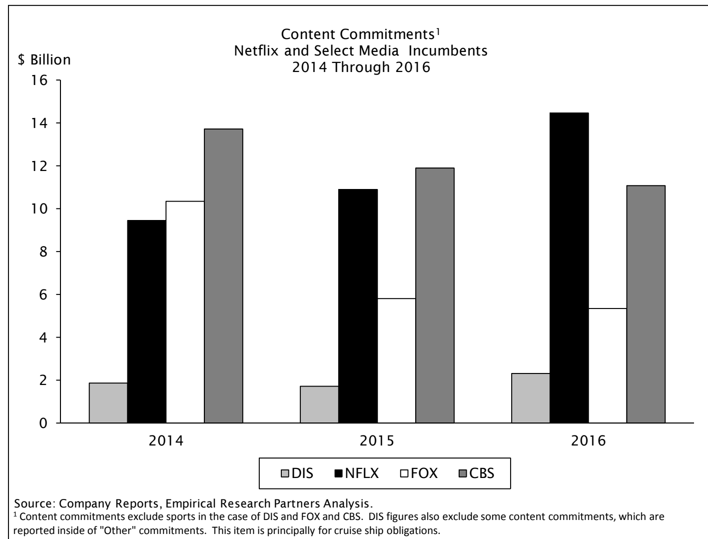
- Retailers' defensive plan calls for adding distribution capacity…



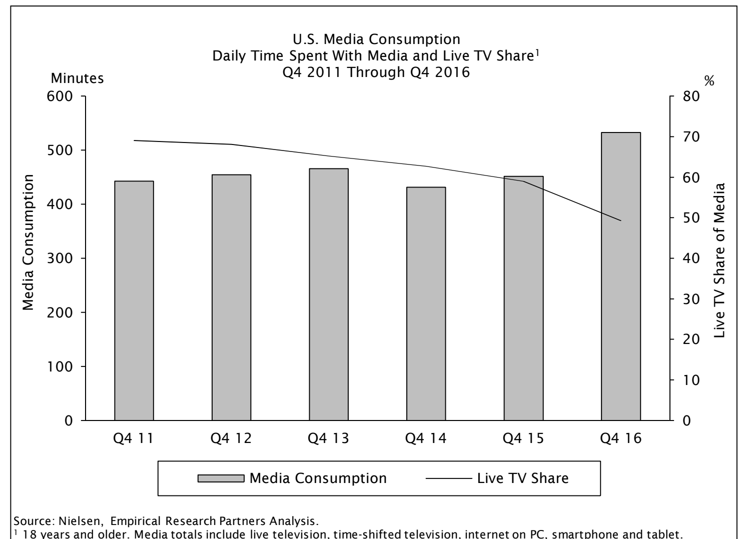
- …But they must be careful not to invite wholesale margins in the process:



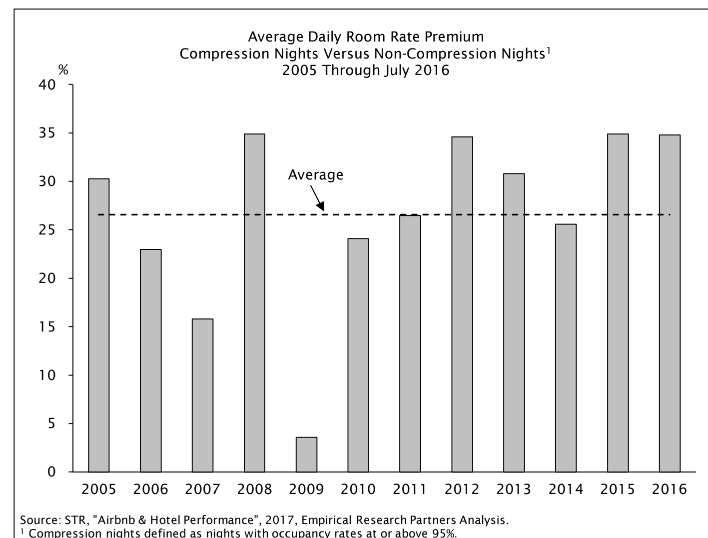
- In media, Netflix seems to be launching a content arms race…



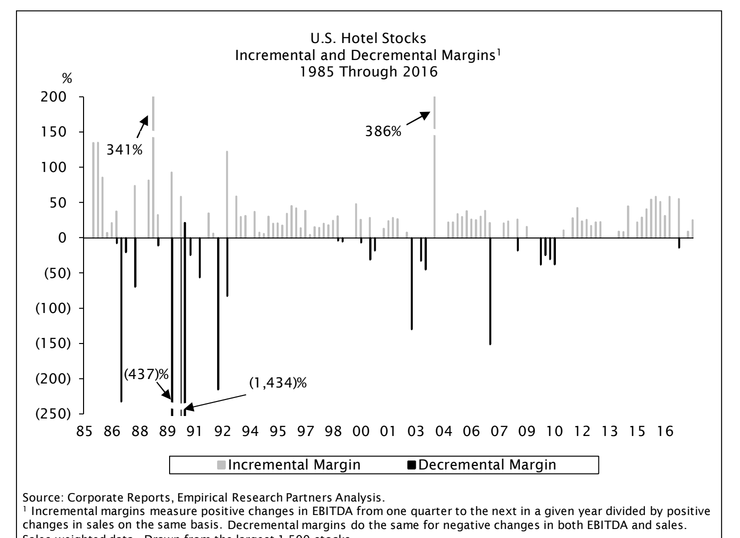
- …But at least media consumption is a growing pie:



- Hotels have maintained pricing power in the face of Airbnb…



- …And should be able to absorb cyclical risk better than they have in the past:

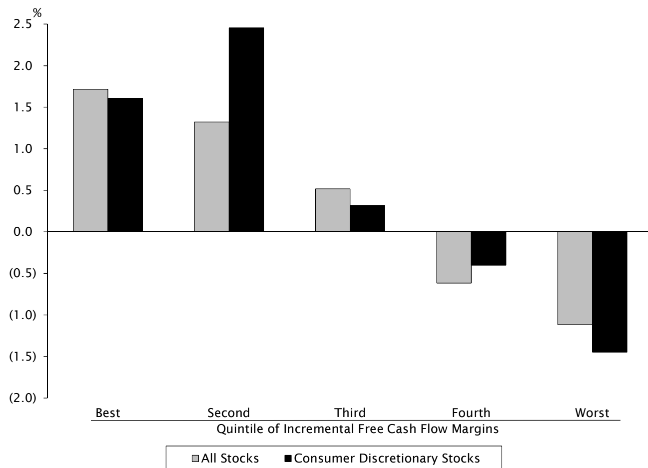


U.S. Consumer Stocks: Disruptors and the Disrupted

How Amazon, Netflix and Airbnb Might Affect Incumbent Margins

Incremental margins can be significant determinants of stock price movement. Stocks in the best quintile of incremental margins have historically outperformed the market by +1.7% while stocks in the bottom quintile of incremental margins have underperformed by (1.1)% as we show in Exhibit 1. The figures are very similar for consumer cyclicals over time (see Exhibit 2). A focus on incremental margins works best in a neutral market regime, such as the one we are in currently.

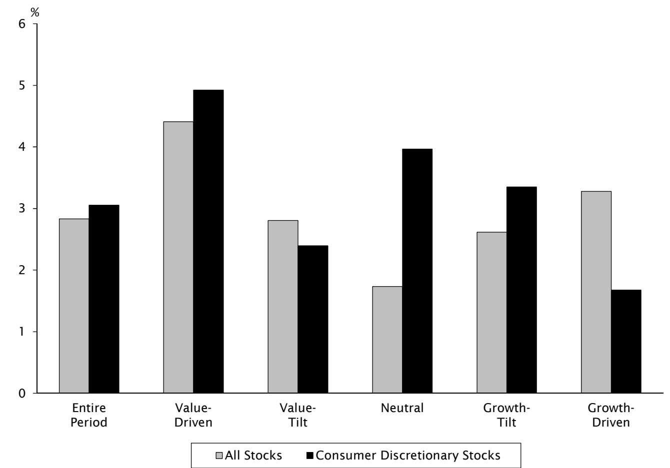
Exhibit 1: U.S. Large-Capitalization Stocks
Relative Returns to Incremental Free Cash Flow Margins by Quintile[1]
Measured Over One-Year Holding Periods
1952 Through Mid-April 2017



Source: Empirical Research Partners Analysis.

[1] Equally-weighted returns. Stocks ranked across and returns relative to the universe.

Exhibit 2: U.S. Large-Capitalization Stocks
Best-to-Worst Quintile Spread of Incremental Free Cash Flow Margins by Regime[1]
Measured Over One-Year Holding Periods
1952 Through Mid-April 2017

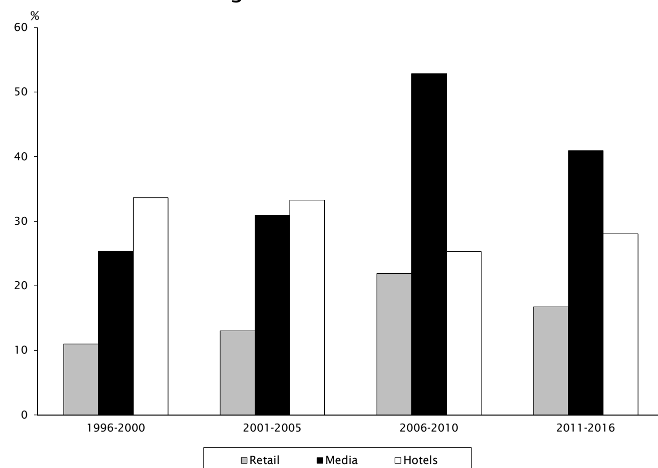


Source: Empirical Research Partners Analysis.

[1] Equally-weighted returns. Stocks ranked across and returns relative to the universe.

In Exhibit 3 we depict the history of incremental margins within three consumer cyclical sectors – retail, media and hotels. Retailers have generally seen the lowest incremental margin of the group. This is largely due to lower baseline margins. We also depict decremental margin in Exhibit 4. This pertains to periods in which both sales and profits are declining. Retail has seen the weakest pattern here.

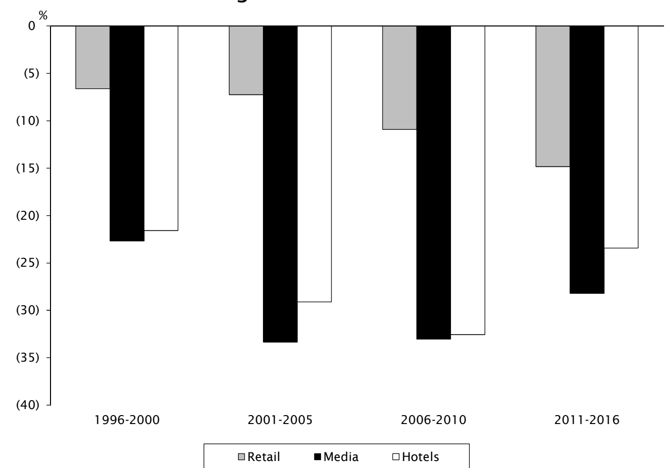
Exhibit 3: U.S. Consumer Discretionary Stocks
Incremental EBITDA Margins[1]
1996 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Incremental margins measure positive changes in EBITDA from one quarter to next in a given year divided by positive changes in sales on the same basis. Sales-weighted data. Drawn from the largest 1,500 stocks.

Exhibit 4: U.S. Consumer Discretionary Stocks
Decremental EBITDA Margins[1]
1996 Through 2016

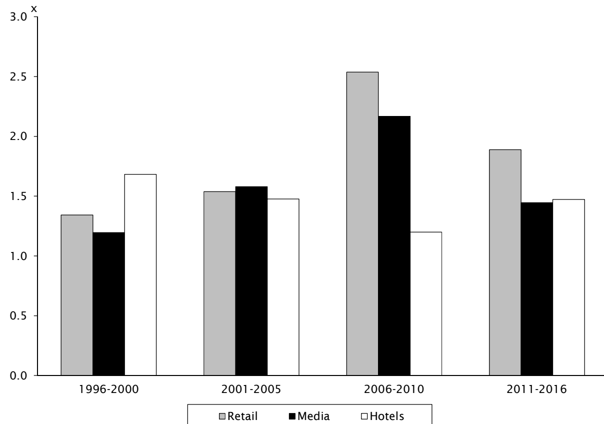


Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Decremental margins measure negative changes in EBITDA from one the quarter to the next in a given year divided by negative changes in sales on the same basis. Sales-weighted data. Drawn from the largest 1,500 stocks.

Comparing all periods to baseline profitability lets us look at operational leverage, which has moderated across all three sectors over time (see Exhibit 5). This is in keeping with the broader market that's seen incremental margins flatten out after recovering off a depressed base (see Exhibit 6). There are other factors to consider as well. Competitive forces embodied by the likes of Amazon, Netflix and Airbnb are disrupting the retail, media and hotel businesses to varying degrees. The aim of this report is to try and understand what impact these disruptive forces will have over time.

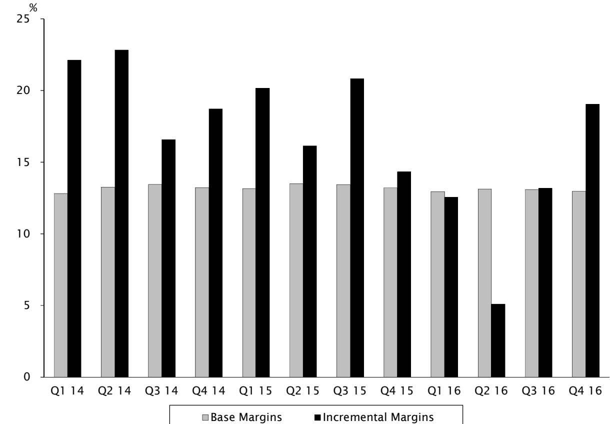
Exhibit 5: U.S. Consumer Discretionary Stocks Operational Gearing[1] 1996 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Operational gearing defined as incremental EBITDA margin divided by baseline EBITDA margin. Sales-weighted data. Drawn from the largest 1,500 stocks.

Exhibit 6: The Core of the S&P 500[1] Base and Incremental Pre-Tax Margins 2014 Through 2016



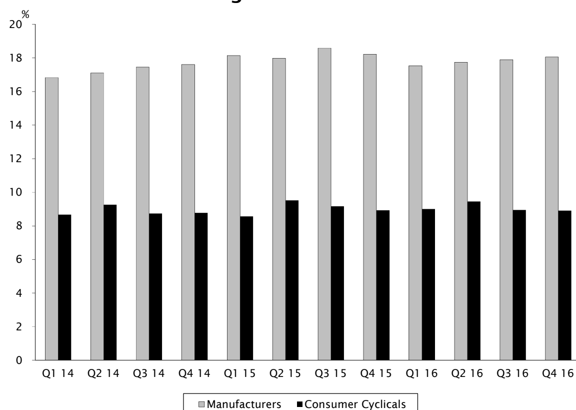
Source: Corporate Reports, Empirical Research Partners Analysis.

[1] The core excludes financials, utilities, energy and industrial commodities.

A Funny Thing Happened on the Way to the Bank

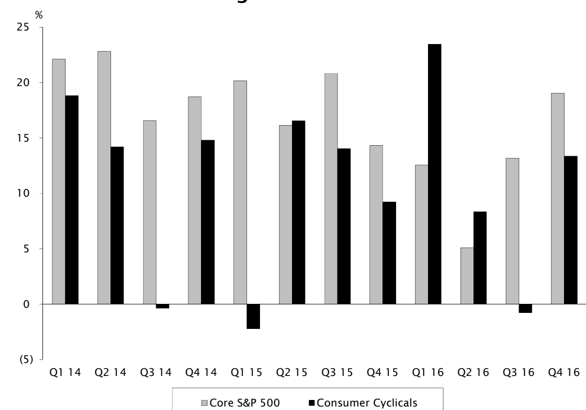
Technically speaking, there is nothing more profitable than an incremental sale. The manufacturing sector of the economy knows this better than most, as high fixed cost structures allow incremental revenue gains to flow to the bottom line at very high rates. While this can also work in reverse, a combination of operating leverage and efficiency gains has enabled manufacturers to earn pre-tax margins that are twice as high as the ones earned in consumer cyclical businesses (see Exhibit 7).

Exhibit 7: The S&P 500 Manufacturers and Consumer Cyclical Stocks Quarterly Pre-Tax Margins 2014 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

Exhibit 8: The Core of the S&P 500 and Consumer Cyclical Stocks[1] Incremental Pre-Tax Margins 2014 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] The core excludes financials, utilities, energy and industrial commodities.

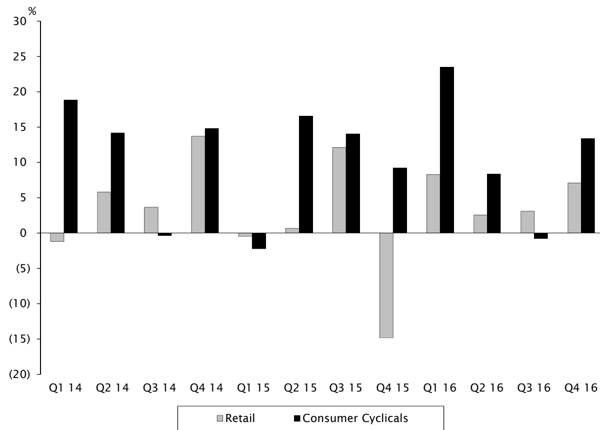
Retail, restaurant and hotel companies operate fixed structures much like manufacturing companies do. Media might not have the same physical attributes, but its business model also hinges on leveraging fixed costs. The notion that an incremental sale is the most profitable sale however, is not a given. For starters, it presumes there is incremental volume in the first place. Second, it presumes that these incremental volumes flow through existing facilities or infrastructure. Third, it presumes that added sales come without much in the way of incremental expense.

But a funny thing happened on the way to the bank. Incremental margins of the consumer cyclicals are not matching those for the core of the overall market (see Exhibit 8 overleaf). Retailers in particular have been fighting to hold onto their baseline margins (see Exhibit 9). Sector-wide revenue has grown so it is mathematically possible to calculate an incremental margin, but growth has not been flowing through their existing four-walls nor has it come cheaply. e-Commerce has been grabbing the incremental sale and holding back the expected incremental margin.

Retailers like to think of themselves as agnostic to sales that originate online or in a physical store, but the economic reality is that sales migration online is a negative event. Added profit earned in the online world of price transparency and high variable costs is simply not enough to recover the loss of operating leverage in brick and mortar stores. This shift is on whether they like it or not.

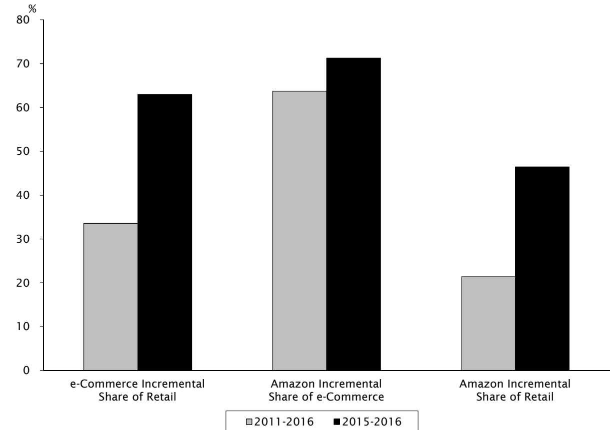
According to the Census Bureau, e-Commerce has captured 33% of all retail sales growth over the past five years and 65% over the past two years. Amazon alone captured 60-70% of that growth in e-Commerce. Despite accounting for only 4% of U.S. retail sales on a gross merchandise basis, Amazon has therefore captured 21% of all incremental retail sales over the past five years and over 40% in the last two years (see Exhibit 10).

Exhibit 9: The S&P 500 Retail and Consumer Cyclical Stocks Incremental Pre-Tax Margins 2014 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

Exhibit 10: e-Commerce and Amazon[1] Share of Incremental Retail Sales 2011 Through 2016



Source: U.S. Census Bureau, Empirical Research Partners Analysis.

[1] Revenue adjusted to gross merchandise value.

Retail Capacity Growing, Not Shrinking

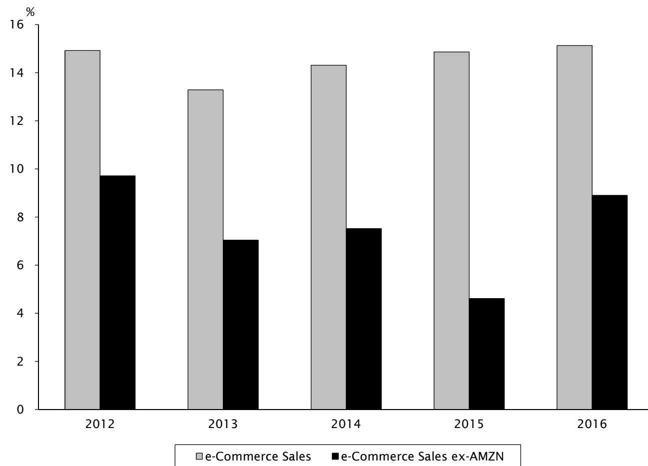
Amazon drew first blood by building capacity that took the form of ubiquitous inventory, never-ending store hours and massive distribution assets. Retailers in turn have compounded the issue by returning fire and adding an additional layer of assets and capacity to their business models. They have done so with little reward. Exhibit 11 shows that incumbents have been growing e-Commerce sales half as fast as the overall pace and one-third as fast as Amazon.

We are bullish on the prospects for the U.S consumer and we recognize that multi-line retailers are trading near the top of their relative free cash flow yield history, but we see no end in sight to the pressure caused by e-Commerce. The biggest risk we see relates to adding capacity in an already commoditizing business. Incumbent retailers are adding distribution center square footage at a faster rate than they are shedding traditional stores.

The group of retailers we analyzed in Exhibit 12 has added 8 million square feet of retail space since 2013 and 17 million square feet of warehouse space on top of that. Even in the most recent year when these companies shed 8 million square feet of retail space, they compensated by adding an equal amount of warehouse square footage. Since warehouse square footage can be three to five times as productive as retail square footage, this strategy does not resolve the capacity issues but compounds them.

At the end of 2016 Amazon operated 90 million square feet of distribution center space in the U.S. alone. Exhibit 13 shows how this compares to the logistics networks at traditional retailers. The pace at which Amazon is adding capacity is showing no signs of slowing down. Another 23 million square feet of U.S. capacity are on the way according to MWPVL International, a supply-chain and logistics consulting firm. And since Amazon generates 5 times the productivity per foot that the retailers do, its future capacity alone is equivalent to Kohl's and Best Buy put together.

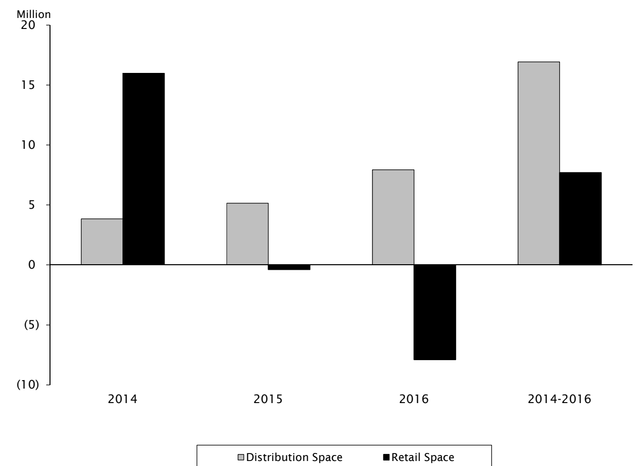
Exhibit 11: e-Commerce Sales
Year-over-Year Change
With and Without Amazon[1]
2012 Through 2016



Source: U.S. Census Bureau, Empirical Research Partners Analysis.

[1] Revenue adjusted to gross merchandise value.

Exhibit 12: U.S. Retail and Distribution Space
New Square Footage for Select Retailers[1]
2014 Through 2016

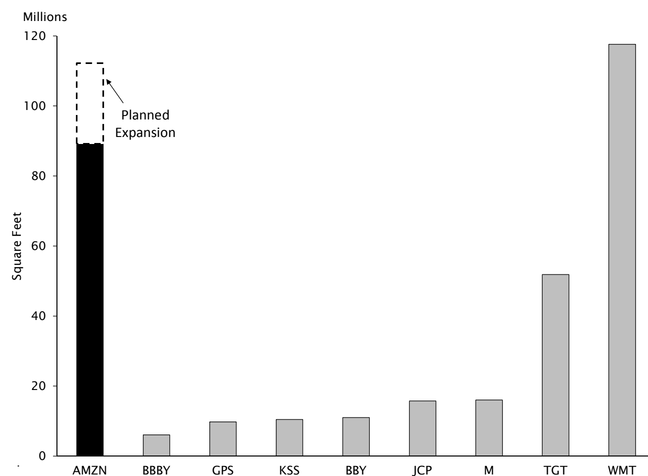


Source: Corporate Reports, MWPVL International, Empirical Research Partners Analysis.

[1] Data reflect U.S. segments of Wal-Mart, Target, Kohl's, Macy's, JC Penney, Best Buy, Bed Bath & Beyond and Gap Inc.

Our analysis indicates that the average Amazon fulfillment center is now only 45 miles away from a top 25 metropolitan area (see Exhibit 14). The facilities it runs to support Prime Now, Amazon Fresh and Pantry are even closer. Soon enough Amazon will be in our collective backyard -- drone or no drone. The take-away is that Amazon is getting closer to the customer while retailers are getting further away as they pursue a strategy favoring remote warehouses over stores.

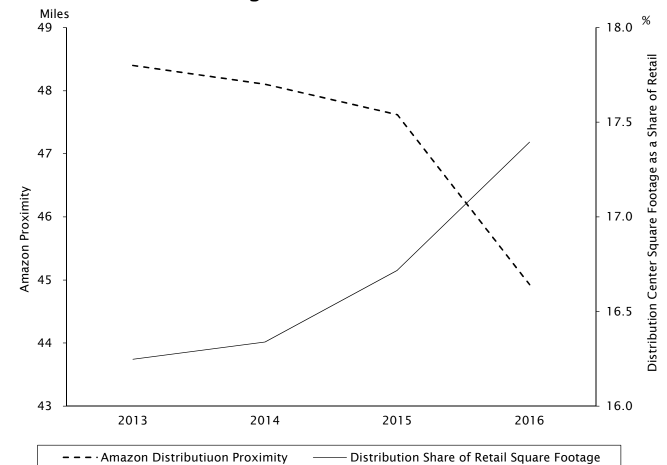
Exhibit 13: U.S. Distribution Center Square Footage
Amazon and Select Retailers[1]
2016



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

[1] Data reflect U.S. segments only. Amazon includes fulfillment centers, Pantry and Fresh DCs, regional sortation centers, delivery stations and Prime Now hubs.

Exhibit 14: U.S. Distribution Centers
Amazon Proximity to Top-25 Markets and
Select Retailers Distribution Center Space[1]
2013 Through 2016



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

[1] Data reflect U.S. segments of Wal-Mart, Target, Kohl's, Macy's, JC Penney, Best Buy, Bed Bath & Beyond and Gap Inc.

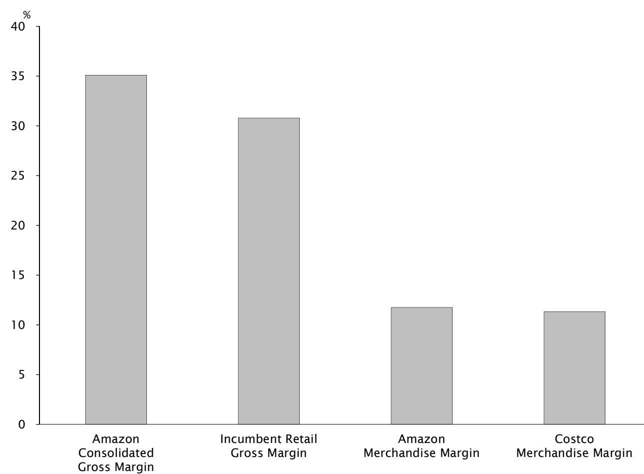
Paradigm Shift: Revenge of the Wholesaler

The fact that retailers are increasingly shaping their footprints to look more like wholesalers is ironic. That is because wholesalers, which used to be a critical force in the retail equation, were once obsoleted by the same big-box retailers. Wholesalers of yore (and some present-day ones) stocked millions of units in central locations and shipped to retailers at a modest gross margin of 10-15%. When retailers began buying direct from manufacturers and rolling out big boxes in the 80's and 90's, they were able to bring a bigger assortment closer to the customer. To compensate for the associated rent and inventory, retailers price goods to earn a 30% gross margin on average.

Amazon reported a 2016 gross margin of 35%. On the surface this sounds reasonable by comparison. But after stripping away the AWS web services division and after adjusting revenue to reflect gross merchandise value, we estimate that Amazon's retail business earned a merchandise gross margin of less than 12% in 2016. This sounds familiar. Costco – yes, the wholesale club – reports a nearly identical merchandise margin. After excluding membership fees it is just north of 11% (see Exhibit 15). In addition to sharing a Seattle residence, both operate on the same wholesale margin. This is a skill more retailers will need to acquire.

Wholesalers have historically hit up suppliers for rebates to make up for low margins, but Amazon and Costco earn membership income from the customer instead -- and they do so in equal measure. New disclosure in Amazon's most recent 10-K lets us see that membership fees represent 3.5% of retail-related revenue and 20% of retail-related gross profit dollars (see Exhibit 16). These ratios are nearly identical to those at Costco. Customers seem happy to oblige. Amazon has characterized the renewal rates on its Prime membership as very strong. Costco has been more specific citing renewal rates of 90%.

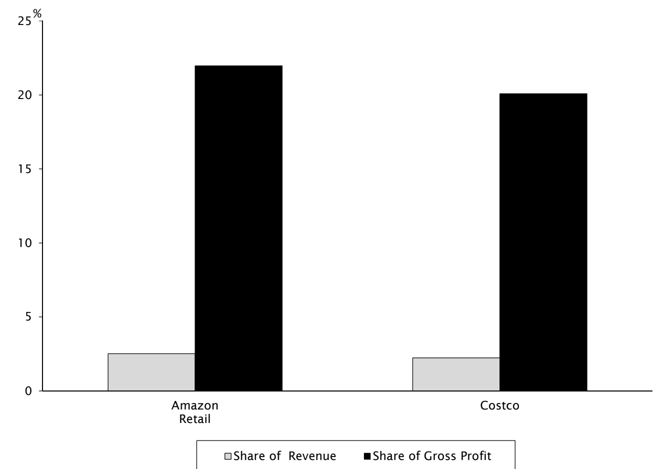
Exhibit 15: Gross Margins for Amazon, General Retail and Costco[1]
Consolidated and Adjusted Merchandise Margins[2]
2016



Source: Company Reports, Empirical Research Partners Analysis.

[1] Merchandise margin excludes membership fees at Costco for year ended August, 28 2016. Merchandise margin excludes subscription service and AWS revenue at Amazon for the year ended December, 31 2016. Incumbent retailers drawn from the largest 1,500 stocks.
[2] Adjustment made to convert Amazon revenue to gross merchandise value using a 15% take-rate for sales from third-party seller services.

Exhibit 16: Merchandise and Subscription Revenue[1]
As a Share of Revenue and Gross Profit for Amazon and Costco[2]
2016



Source: Company reports, Empirical Research Partners Analysis.

[1] Membership fees at Costco for year ended August, 28 2016, subscription service revenue for Amazon for the year ended December, 31 2016.
[2] Amazon excludes AWS web services business.

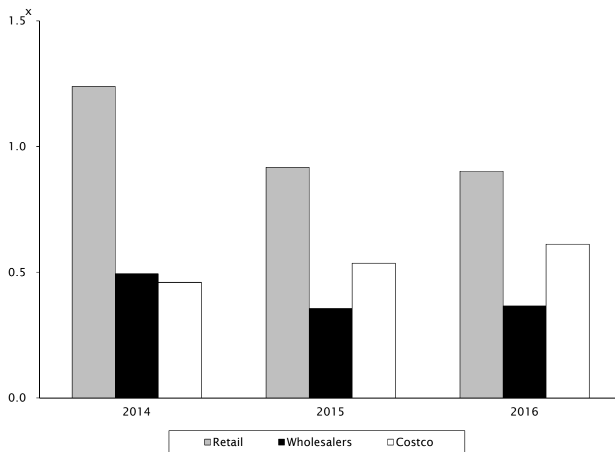
Be Lucky, Be Vertical or Be a Wholesaler

The way we see it, there are three broad outcomes for retailers when it comes to coping with e-Commerce. They can be lucky; they can be vertical or they can be wholesalers. The lucky ones operate businesses that are not terribly conducive to e-Commerce. This is a moving target, but think home improvement, drug stores and dollar stores. The vertical ones own the content. They can innovate and control distribution thereby preventing commoditization; think luxury goods and top brands. Retailers that are neither lucky nor vertical may need to operate like a wholesaler over time; think margin and valuation pressure.

With pressure likely to mount on both of these fronts, it makes sense to watch enterprise value-to-sales ratios. In Exhibit 17 we show enterprise value-to-sales multiples over time for retailers, a group of select wholesalers and for Costco. Retailer valuations have been migrating towards the wholesale group. In Exhibit 18 we show that an increasing number of retailers are starting to trade at wholesale-type multiples of revenue. The point we are making is that attractive free cash flow yields are not always worth chasing. In this case, we see a sector that is struggling to adjust to a new paradigm.

Prologis is the world's largest logistics real estate company and it leases 20 million square feet of warehouse space to Amazon. The company's CEO made the following comment at a March 2017 analyst presentation: "I think some of those commodity retail shopping center sites are going to end up being warehouse sites. Unfortunately, at much lower economics for the owner." The concept of retail stores getting redeveloped as warehouses would epitomize the wholesaler's revenge.

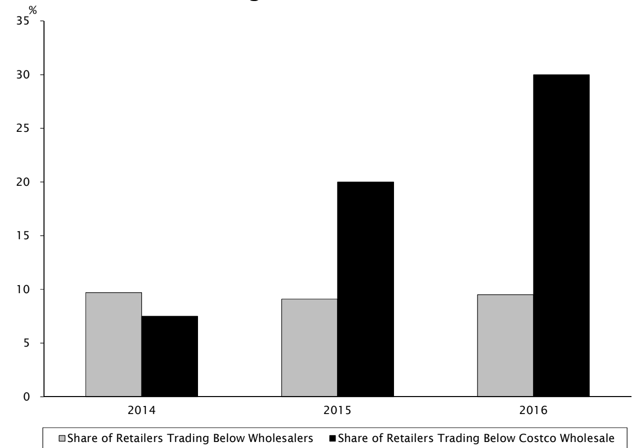
Exhibit 17: Wholesalers, Retailers and Costco[1]
Enterprise Value-to-Sales
2014 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Wholesalers include: GPC, POOL, LKQ, CORE, UNFI, ASND, MCK, SYY, USFD, CDW, ABC, CAH. Retailers drawn from the largest 1,500 stocks.

Exhibit 18: Retailers
Enterprise Value-to-Sales
Share with Ratios Below Wholesalers and Costco[1]
2014 Through 2016

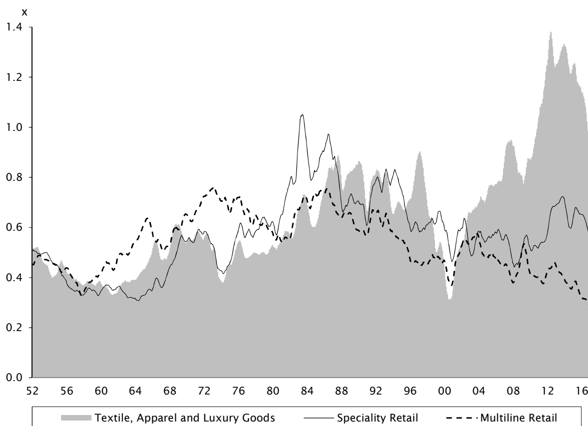


Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Wholesalers include: GPC, POOL, LKQ, CORE, UNFI, ASND, MCK, SYY, USFD, CDW, ABC, CAH. Retailers drawn from the largest 1,500 stocks.

Exhibit 19 shows that enterprise value-to-sales ratios have diverged with those of branded companies faring better than their full-line counterparts. So long as the former prioritize content and branding over basic reselling, this is likely to continue. Specialty retail, which covers both hardlines and softlines, has been steady overall, but there is no shortage of controversy just beneath the surface. Category-level risk varies significantly across these businesses and is likely to be the subject of a future report. Exhibit 20 suggests that the market has only recently become discerning in its preference for brands and content. Full-line retailers that led the change in transforming the sector in the 80s and 90s are being shunned with cause. Content is now king.

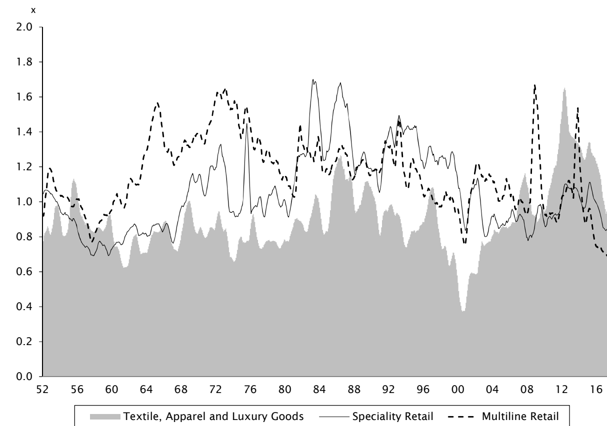
Exhibit 19: Textile, Apparel and Luxury Goods, Specialty and Multiline Retail Stocks[1]
Relative Enterprise Value-to-Sales[2]
1952 Through Mid-April 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Drawn from the largest 1,500 stocks. Comparison universe excludes financials.
[2] Smoothed over a trailing six-month basis.

Exhibit 20: Textile, Apparel and Luxury Goods, Specialty and Multiline Retail Stocks[1]
Relative Enterprise Value-to-EBITDA[2]
1952 Through Mid-April 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Drawn from the largest 1,500 stocks. Comparison universe excludes financials.
[2] Smoothed over a trailing six-month basis.

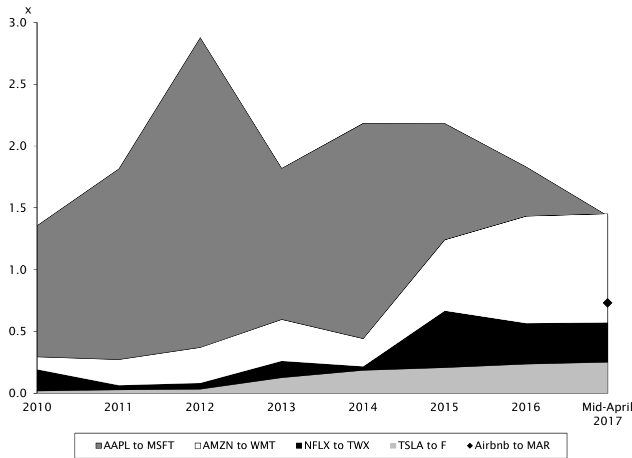
A Framework for Valuing Disruptors

At $357 billion, Amazon's enterprise value is now 50% greater than Wal-Mart's. We compare this to other disruptive situations in Exhibit 21, though the inclusion of AWS in Amazon's market capitalization clouds the relationship. For reference, we can see that Apple reached an enterprise value that was 3.0x that of Microsoft before settling in at 1.8x. Netflix, which we discuss in the next section of this report, has a market capitalization that matches Time Warner, though its relative enterprise value still falls short. The exercise is a little tougher in the lodging space since Airbnb is privately held. Recent valuation however, has been widely cited at $31 billion, or 73% of Marriott's enterprise value.

To help clients gauge the sustainability of big multiples, we studied the valuation history of Big Growers, the top decile of stocks in our growth score metric. Dating back to 1952, we have found buying stocks when they are trading at a relative multiple of 2.0 or higher has been wrong more often than it has been right. Over time these expensive entry points coincided with performance that lagged the market by (5)% over a one-year holding period.

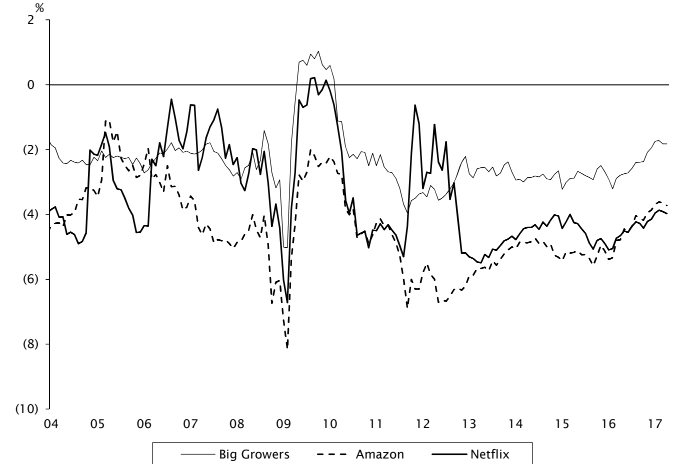
Exhibit 22 inverts the calculation to look at relative earnings yields in order to include Amazon and Netflix without blowing up the spreadsheet. On this basis Amazon looks to be a little more attractive than its historical average while Netflix looks to be in line with its historical average.

Exhibit 21: Disruptors Versus Select Incumbents
Relative Market Capitalization
2010 Through Mid-April 2017



Source: Corporate Reports, Bloomberg L.P., Empirical Research Partners Analysis.

Exhibit 22: Large-Capitalization Big Growers
Relative Trailing Earnings Yields[1]
2004 Through Mid-April 2017

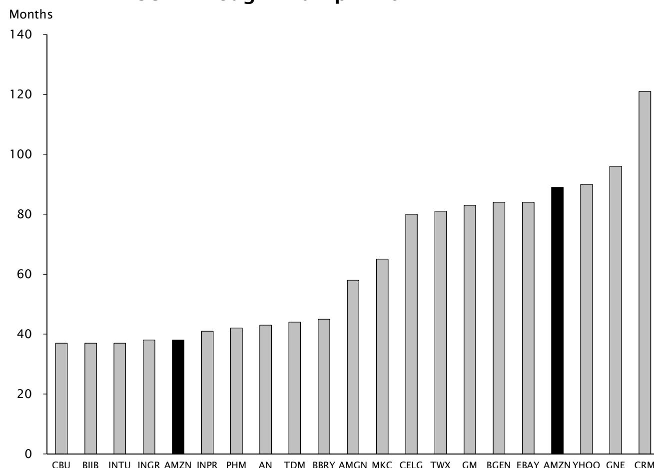


Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Equally-weighted data.

For an additional framework we looked at how long companies were able to sustain relative enterprise value-to-EBITDA multiples of 3.0x or higher. Since 1981 we have been able to identify 24 instances in which companies traded at that multiple for longer than 36 months. Amazon showed up twice. The first instance lasted 37 months. The second instance is still underway and has lasted 89 months so far. Exhibit 23 shows how this compares to other such streaks across the broader market. The average streak has lasted 59 months. Salesforce.com lays claims to the longest streak at just over 10 years.

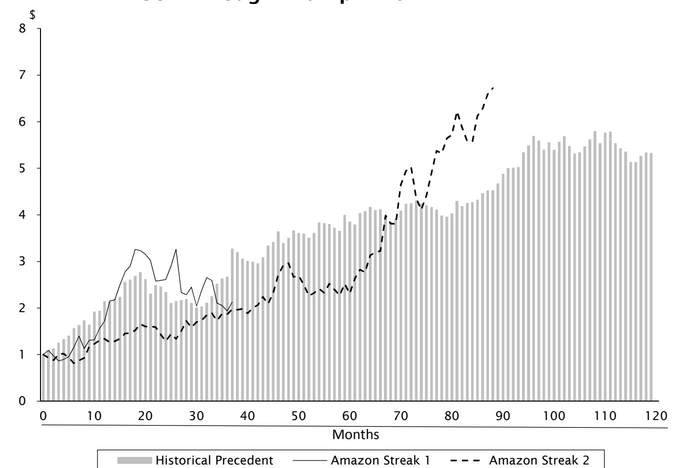
Exhibit 23: U.S. Mega-Cap Stocks[1] `
Number of Consecutive Months Trading Above 3.0x the Market[2]
1981 Through Mid-April 2017



Source: Empirical Research Partners Analysis.

[1] Includes all stocks that have traded in the top 100 by market-capitalization.
[2] Relative enterprise value-to-EBITDA. Smoothed on a trailing 12-month basis.

Exhibit 24: U.S. Mega-Cap Stocks[1]
Value of a Dollar Compounded During Streaks Trading Above 3.0x the Market[2]
1981 Through Mid-April 2017



Source: Empirical Research Partners Analysis.

[1] Includes all stocks that have traded in the top 100 by market-capitalization.
[2] Based on relative EV-to-EBITDA. Smoothed on a trailing12-month basis.

We have also calculated how the value of a dollar invested at the beginning of each streak would have compounded throughout. Investors buying Amazon the first time it sustained a 3.0x relative multiple would have tripled their money at the peak of the streak and doubled their money by the time it ended. Amazon's second streak has been more powerful as a dollar invested at the beginning of the period would have compounded to nearly $7 today, which coincides with the peak.

Exhibit 24 (overleaf) shows how this would compare to a composite of the 23 companies that have been in this elite group. Amazon's first streak generally matched the group's performance. The current streak has far outperformed the composite. The history of this group would also suggest that performance tends to moderate after being on the list for 100 months. Amazon will continue to be a disruptor for a long time and it will create investment opportunities in its wake, but the historical precedent of these streaks indicates that Amazon is currently occupying rarified air.

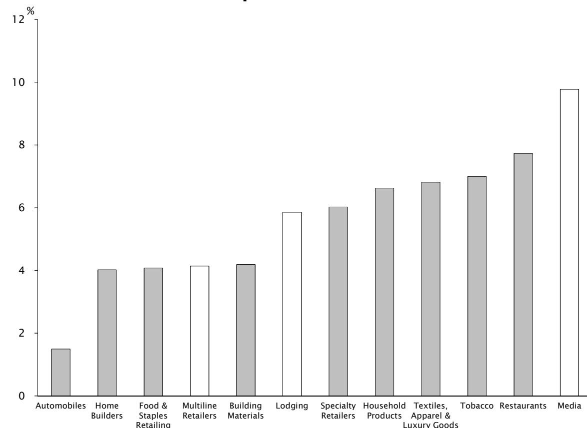
Media and Retail: A Natural Nexus

There are many similarities between the retail business and the media business. That fact is not lost on Jeff Bezos who has been straddling the two worlds since Amazon's inception. Its origin as a bookseller has transcended the digital realm, propelling Amazon to become a full-blown participant in the creation and distribution of video content. Incumbent media operators originally discounted the threat much like retailers once did, but the latest Time Warner's 10-K reads like a battle cry:

"The combination of new competitors, changes in viewing habits and declines in subscribers to traditional affiliates' multichannel video services has negatively affected overall television ratings and, as a result, television advertising revenues for the industry and certain of the Company's networks. There also has been a corresponding shift of advertising dollars to non-traditional video outlets."

Media faces many of the same challenges as retailers do. These include price discovery, unbundling and fracturing audiences. We have outlined a fairly negative view on retailers. Challenges to the media incumbents are also concerning, but in a less existential way. Current valuations for the media sector imply strong earnings growth of nearly +10% per annum over the next five years (see Exhibit 25). And when it comes to blending disruption and valuation, we find the group to be uninspiring and prefer to take cyclical risk associated with hotels, restaurants and other discretionary sectors instead of assuming secular risk (see Exhibit 26).

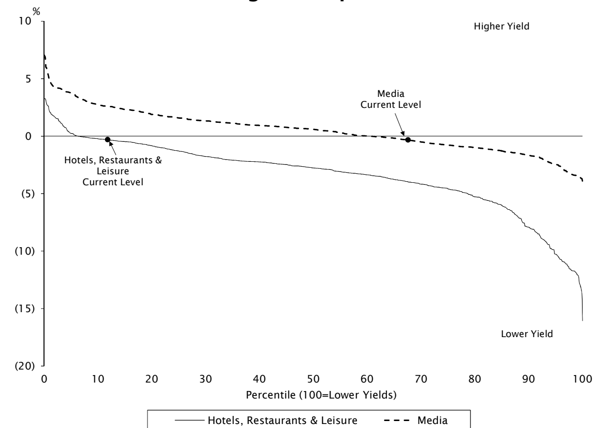
Exhibit 25: U.S. Large-Capitalization Consumer Stocks
5-Year Forward Implied Earnings Growth Rates[1]
As of Mid-April 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Capitalization-weighted data.

Exhibit 26: U.S. Large-Capitalization Media and Hotel Stocks
Relative Free Cash Flow Yields[1]
1952 Through Mid-April 2017

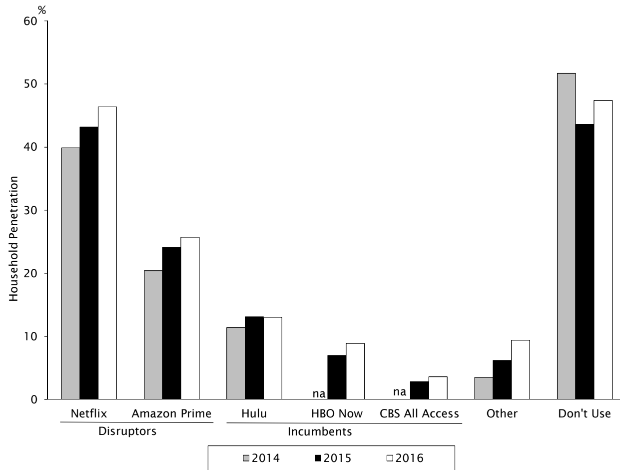


Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Capitalization-weighted data.

According to SNL Kagan, Netflix now reaches 46% of U.S. homes. Amazon Prime Video reaches 25% albeit with significant overlap. Like their retail counterparts, media incumbents have mounted a reprisal. Hulu has been a success, but most initiatives are still new or slow to gain traction (see Exhibit 27). Streaming services are ripe for adoption. Barriers to entry for content creation are falling; making it easy for new entrants to outperform re-runs that are still airing on unwatched channels. After all, cable operators currently offer more than 200 channels, much of which is marginal capacity by nature. Customers watch fewer than 20 of these channels in a given month and the coveted Millennial cohort watches fewer than 15 (see Exhibit 28).

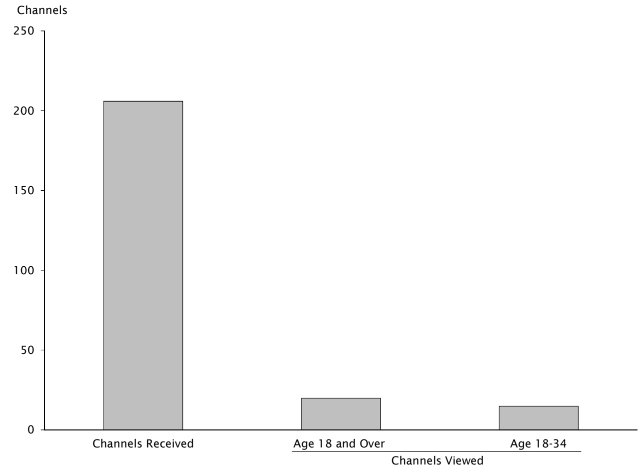
Exhibit 27: Video Subscription Services
Share of U.S. Households[1]
2014 Through 2016



Source: SNL Kagan, Empirical Research Partners Analysis.

[1] Based on the survey question: "Which of the following online video subscription services do you use?"

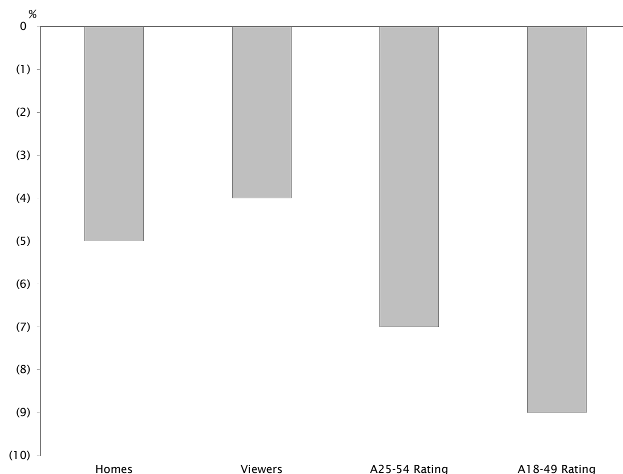
Exhibit 28: Television Channels
Received and Viewed by U.S. Households
May 2014 Through May 2016



Source: Nielsen, Empirical Research Partners Analysis.

Television viewership is also changing dramatically. Depending on the data analyzed, viewership trends are down in the neighborhood of (5)% in aggregate, but some of the most important constituents are down even more (see Exhibit 29). Younger viewers are declining faster and Nielsen data indicate that early adopters of streaming are cutting back on their viewership by as much as (10)% (see Exhibit 30). Device proliferation, time-shifting and a general migration of advertising dollars online represent considerable risk to the media sector. Our neutral stance might be too optimistic, but it hinges on the fact that the media operators have greater control over their future than retailers do.

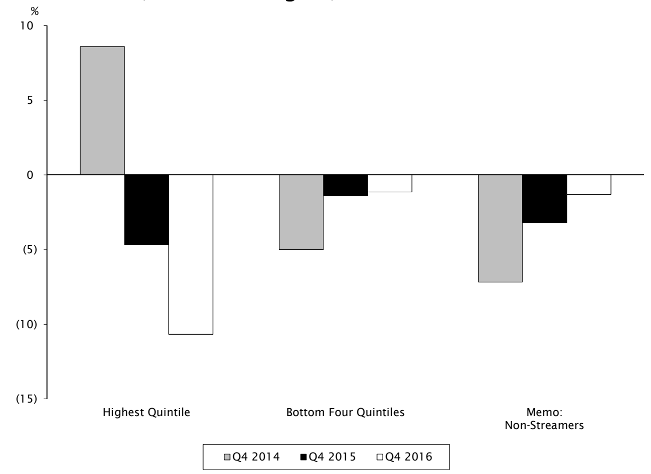
Exhibit 29: Primetime Network Total Comps
Year-over-Year Change in Live + 7 Viewership and Ratings[1]
Q4 2016



Source: Nielsen, CBS, Empirical Research Partners Analysis.

[1] Live + 7 measures live viewing and DVR viewing up to seven days later.

Exhibit 30: Television Viewing
Year-over-Year Change in Daily Minutes
by Quintile of Streaming Customer
Q4 2014 Through Q4 2016



Source: Nielsen, Empirical Research Partners Analysis.

Investors Might Be Able to Outrun Media's Challenges

Retail profits are made and lost in real time. One missed shopping trip will show up in results immediately. Media profitability is stickier. Their primary source of revenue and profit stems from affiliate fees which are negotiated over a multi-year time frame. The cord-cutting dynamic represents a tangible risk here, but investors in the stocks might still be able to out-run a slow-moving risk factor. Advertising revenue is more dynamic and bears watching as ratings suffer. This underpins the notion that media and retail companies will both be well-served if they can shift revenue towards subscription fees and away from transactional ones that are susceptible to margin decay.

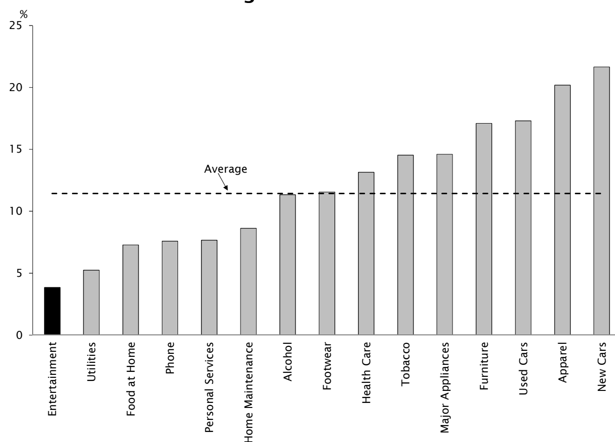
Cable companies are perhaps the best analog for retailers in the media realm. They are essentially resellers of other companies' content. But they are coping with technological disruption in a very different way than their retail counterparts. Their answer so far has been to consolidate – both horizontally and vertically. Charter Communications' purchase of Time Warner Cable is an example of the former. AT&T's pending acquisition of content-rich Time Warner is an example of the latter. We are surprised that retailers have not consolidated more to-date or tested the concept of vertical integration. We can only wonder how their fortunes might have changed if they redirected e-Commerce investments into product innovation and content creation instead of warehouses and inventory.

A Growing Pie

Consumers are likely to be more patient with media disruption. In analyzing the Consumer Expenditure Survey from the Bureau of Labor Statistics, we have calculated that spending on entertainment is surprisingly inelastic. It has exhibited a coefficient of variation of only 4% over a 15-year time period. This is one of the lowest volatility readings of any category we analyzed – even below alcohol and food. Apparel meanwhile, has exhibited volatility that is 5-times greater (see Exhibit 31).

Americans have a general proclivity to consume media. And it is better to lose share of a growing pie than to lose share of a stagnant or shrinking pie. According to the American Time Use Survey, Americans still spend over one hour per weekend day shopping or driving to the mall. Perhaps this time will ultimately be redeployed to watching even more TV. Nielsen data also shows only modest erosion in live TV viewing despite a host of new alternatives (see Exhibit 32). And in its recent Q1 16 earnings conference call, Netflix CEO Reed Hastings commented that "we're competing with sleep on the margin, and so it's a very large pool of time."

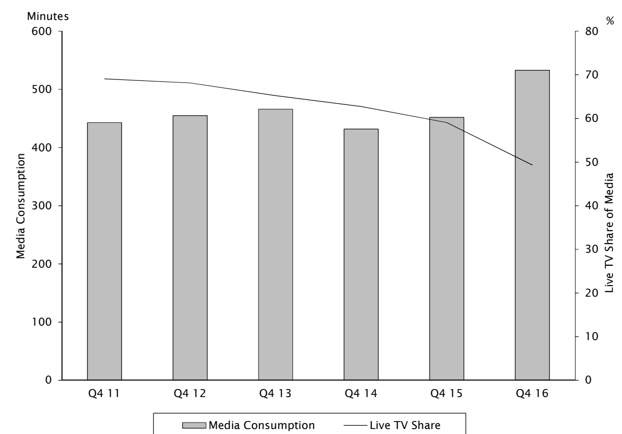
Exhibit 31: Coefficient of Variations[1]
Categories With the Highest and Lowest Volatility of Annual Expenditures Relative to Total
1986 Through 2015



Source: Consumer Expenditure Survey, Empirical Research Partner Analysis.

[1] Standard deviation divided by the mean.

Exhibit 32: U.S. Media Consumption
Daily Time Spent With Media and Live TV Share[1]
Q4 2011 Through Q4 2016



Source: Nielsen, Empirical Research Partners Analysis.

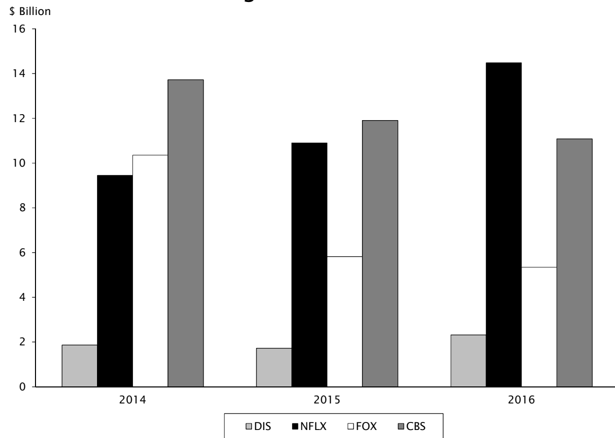
[1] 18 years and older. Media totals include live television, time-shifted television, internet on PC, smartphone and tablet.

Like retail, we think the biggest issue for investors to watch in the media space is capacity growth. Capital spending has been tame enough by historical standards, but an arms race might be brewing in content acquisition. Returning to Time Warner's 10-K risk factors, we can see that "more networks, premium pay television services and OTT services are seeking to offer distinctive programming, including sports programming, and are willing to invest more to do so. In some cases, Turner and Home Box Office have …been outbid by competitors, which could occur again in the future. In addition, the increased investments by networks, premium pay television services and OTT services in high quality original programming…could drive up talent and production costs."

Netflix is Fully Committed

In its 10-K filing, Netflix reports that it has committed to $14.5 billion of content. The figure bumped up to $15.3 billion in the most recent quarter and nearly matches the sum of both CBS and FOX if we exclude sports from the mix (see Exhibit 33). It also amounts to 17% of the combined revenue for Disney, Fox, CBS, Time Warner and Viacom. This is up from 10% two years ago (see Exhibit 34). Amazon is not far behind. By our estimate, Amazon recorded $1.8 billion of content amortization in its 2016 financial statements. Content commitments are probably a multiple of that – and climbing.

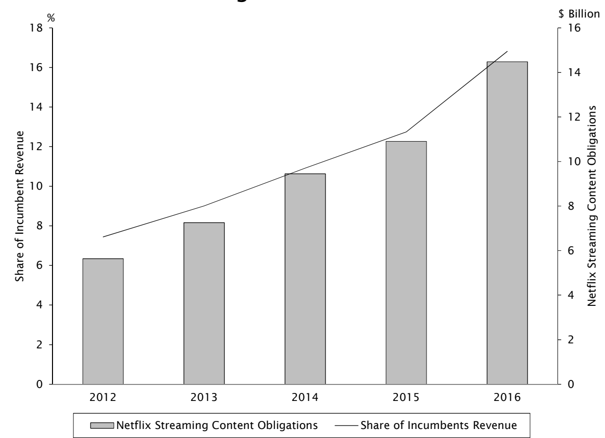
Exhibit 33: Content Commitments[1]
Netflix and Select Media Incumbents
2014 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Content commitments exclude sports in the case of DIS and FOX and CBS. DIS figures also exclude some content commitments, which are reported inside of "Other" commitments. This item is principally for cruise ship obligations.

Exhibit 34: Netflix Streaming Content Obligations
Dollars and Share of Incumbent Operator Revenue[1]
2012 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Incumbents include Walt Disney, Twenty-First Century Fox, CBS, Viacom and Time Warner. Disney revenue excludes parks and resorts and consumer products.

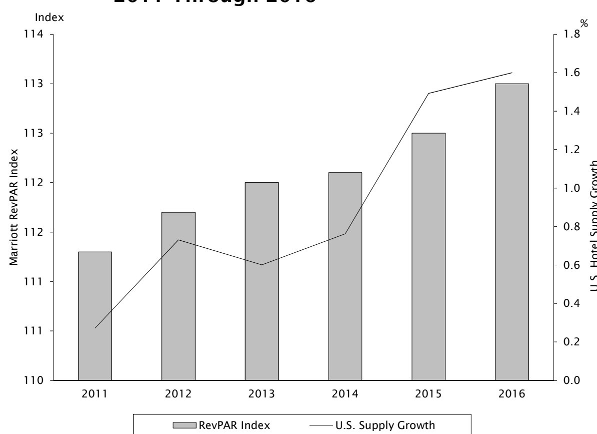
Media stocks are implying future growth rates of nearly +10% in their valuations and are offering less value than normal using relative free cash flow yields as a guide. Given the multi-front battle they are waging, we are not interested in underwriting that type of growth.

Hotel stocks meanwhile, are embedding earnings growth of only +6% and are trading at their 90th percentile of historical value. We recognize that RevPAR trends and other fundamental factors are not all in their favor at present, but our preference is to take cyclical risk over secular risk when necessary. The former can be dimensionalized; the latter cannot.

Hotels: Will a "Do Not Disrupt" Sign Do the Trick?

Hotel stocks have already confronted the structural risk of price transparency brought on by the internet and online travel agencies. They have maintained pricing power throughout. Exhibit 35 shows Marriott's RevPAR Index that it discloses annually in its proxy statement. A reading over 100 reflects a premium to the competition.

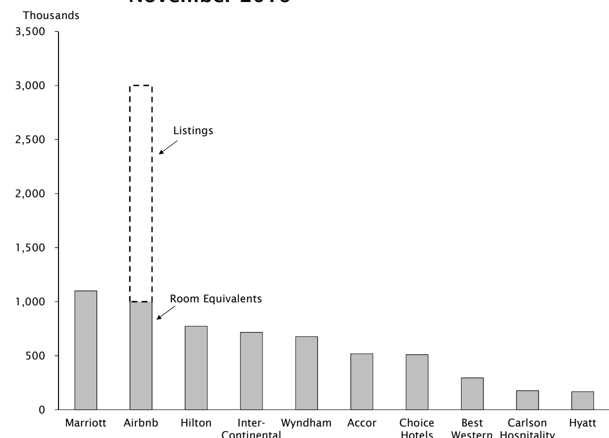
Exhibit 35: Hotel Pricing Power[1]
Marriott RevPAR Index and U.S. Hotel Supply Growth
2011 Through 2016



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

[1] Marriott RevPAR index measures its hotels price premium to global competition.

Exhibit 36: Largest Lodging Companies
Ranked by Rooms / Listings[1]
November 2016



Source: STR, "Airbnb & Hotel Performance", 2017, Empirical Research Partners Analysis.

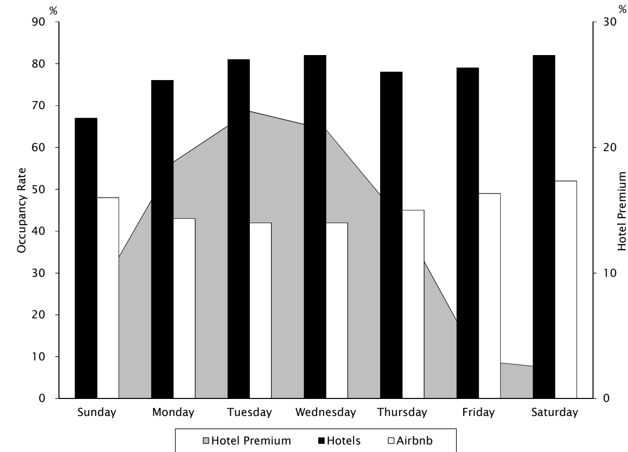
[1] Airbnb listings adjusted to exclude unavailable rooms, shared rooms, private rooms and large listings.

When it comes to room-sharing, we believe that Airbnb and others like it are more akin to a new competitor than an existential disruptor. With 3 million listings worldwide, Airbnb is a significant player. The threat however, is not as big as it sounds. For starters, only about one-third of Airbnb's listings are reasonable substitutes for a hotel offering (see Exhibit 36). The clientele is also quite different with 90% of bookings made by leisure travelers. For this

reason, occupancy rates at hotels are nearly twice as high in the middle of the week as they are for Airbnb (see Exhibit 37). We find it encouraging that hoteliers still exhibit enough pricing power to command room rate premiums mid-week.

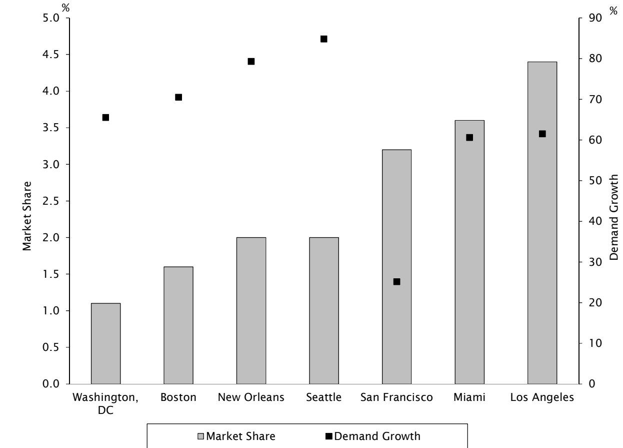
After adjusting for room night availability, comparable room type and day of the week we believe that Airbnb's actual overlapping supply is more like 600,000 rooms globally than the 3 million that are listed. Demand growth for Airbnb remains strong as shown in Exhibit 38. Nonetheless, new listings are likely to represent less than 1% of supply in any given year.

Exhibit 37: U.S. Hotel Industry and Airbnb
Occupancy Rates and Average Daily Room Rate Differentials
July 2016



Source: STR, "Airbnb & Hotel Performance," 2017, Empirical Research Partners Analysis.

Exhibit 38: Airbnb Competitive Position
Market Share and Demand Growth in Seven U.S. Markets[1]
July 2015 Through July 2016

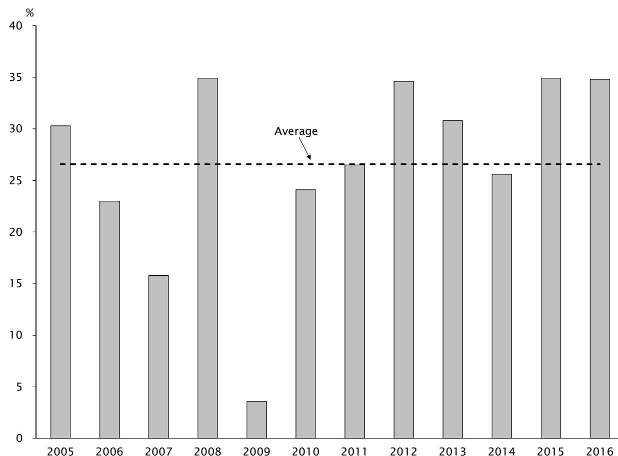


Source: STR, "Airbnb & Hotel Performance", 2017, Empirical Research Partners Analysis.

[1] Share of rooms demanded through Airbnb, not share of rooms supplied.

Some studies have indicated that Airbnb will pressure room rates for the incumbents, especially around key events. Perhaps the most important finding of a study conducted from 2007 through 2014 was that pricing power of hotels appeared to erode at peak demand times. However, even as Airbnb continues to gain share in some of the nation's top markets, the empirical evidence is that hotel RevPAR premiums have held up well on these high demand nights (see Exhibit 39). Using these compression nights as a proxy, it appears as if pricing power has edged higher since the end of 2014, not lower.

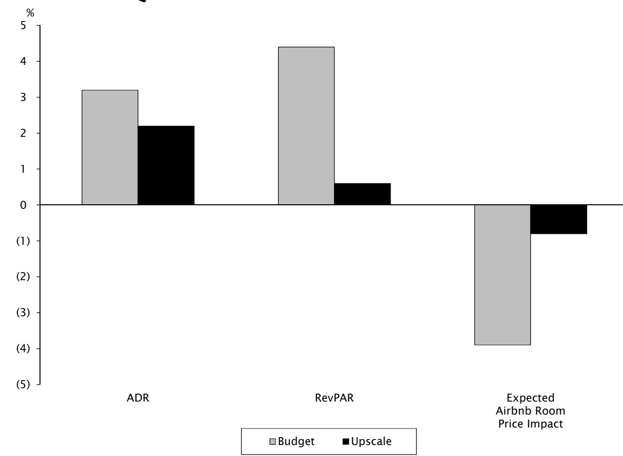
Exhibit 39: Average Daily Room Rate Premium
Compression Nights Versus Non-Compression Nights[1]
2005 Through July 2016



Source: STR, "Airbnb & Hotel Performance", 2017, Empirical Research Partners Analysis.

[1] Compression nights defined as nights with occupancy rates at or above 95%.

Exhibit 40: U.S. Hotel Industry
Average Daily Room Rate and RevPAR by Segment and the Expected Room Rate Impact Due to Airbnb Supply Additions[1]
Q4 2016



Source: Byers, J., Proserpio, D. and Georgios Zervas, 2016. "The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry," Working Paper, STR, Empirical Research Partners Analysis.

[1] Expected room rate impact is what authors expected given a 10% rise in Airbnb supply.

The study also predicted that budget and economy providers were more at risk. This finding is hard to see in the current soft patch. In fact, the budget and economy segments of the market are faring the best and upscale hotels are faring worst (see Exhibit 40 overleaf). This is the opposite of what the impact of Airbnb is supposed to have. At the end of the day, we think current trends are reflective of a cyclical move in RevPAR, not a structural one.

Conclusion: Hotels Before Media and Media Before Retail

Like many industries, the retail, media and hotel businesses are undergoing significant change. We would argue that the retail sector is in the midst of a paradigm shift. There are always opportunities to make selective investments, but we would limit those to retailers that are lucky, vertical or able to manage with wholesale-type gross margins.

The media world is in flux and we do not find current valuations tempting in aggregate. With that said, media woes are not likely to match those of retail thanks to a stickier profit base and a heavy content-orientation. Consolidation -- both horizontal and vertical – is also likely to prevent equity prices from falling too dramatically.

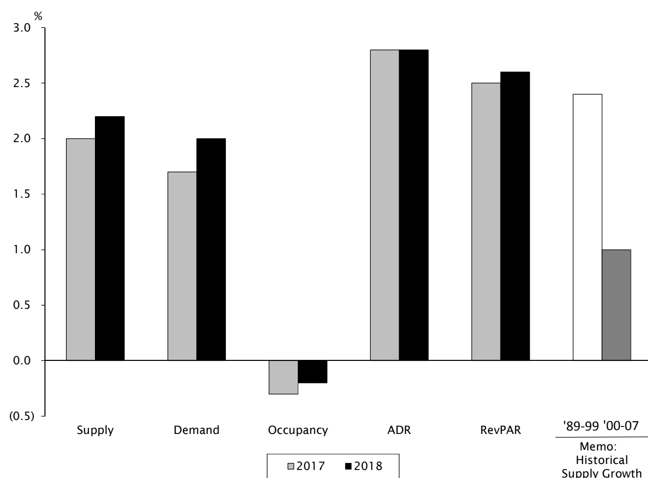
Hotels are the goldilocks of the groups we analyze in this report. The stocks are cheap enough to take on some cyclical risk. Evidence of structural risk is scant so far. Consolidation such as Marriott's recent purchase of Starwood should also underpin industry profitability.

It is true that a hangover from a small acceleration in hotel supply growth will take a toll (see Exhibit 41). But the good news is that hotels are not quite as leveraged to downturns in revenue as they once were thanks in part to a more asset-light approach to the business. Exhibit 42 depicts both incremental and decremental margins for a group of hotel stocks dating back to 1984. The data indicate that hoteliers have been able to improve margin volatility over time.

When it comes to investing in big growth disruptors like Amazon and Netflix, there are no hard and fast rules and their beauty is likely to reflect the eye of the beholder. Neither of the stocks screen well on any of the frameworks we deployed.

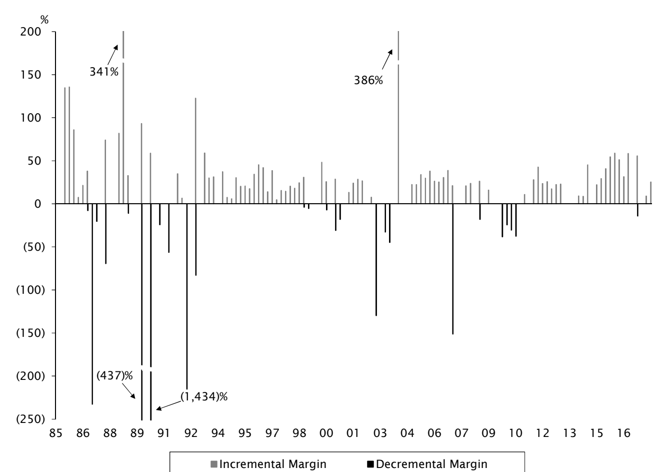
We can however, value retail, media and hotel incumbents a bit more conventionally. Appendix 1 on page 16 highlights companies that score well on both growth and value frameworks. This GARP-y approach is appropriate for the current market setting, or regime.

Exhibit 41: U.S. Hotel Industry
Forecast Year-Over-Year Changes in Select Metrics
2017 and 2018



Source: STR, Tourism Economics, Empirical Research Partners Analysis.

Exhibit 42: U.S. Hotel Stocks
Incremental and Decremental Margins[1]
1985 Through 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Incremental margins measure positive changes in EBITDA from one quarter to the next in a given year divided by positive changes in sales on the same basis. Decremental margins do the same for negative changes in both EBITDA and sales. Sales-weighted data. Drawn from the largest 1,500 stocks.

Appendix 1: Consumer Stocks
Attractive Growth with Strong Free Cash Flow Production
Sorted by Industry and Average of the Five Factors
As of Mid-April 2017

			Quintiles (1=Best; 5=Worst)								
Symbol	Company	Price	Growth Score	Free Cash Flow-to-Enterprise Value	Incremental: Free Cash Flow Margin	Free Cash Flow Margin Above Trend	Free Cash Flow Surprise	Average of the Five Factors	Forward P/E-Ratio	YTD Returns	Market Capitalization ($ Million)
Hotels, Restaurants & Leisure											
WYN	WYNDHAM WORLDWIDE CORP	$87.82	1	2	1	2	2	1.6	14.1 x	15.8 %	$9,272
VAC	MARRIOTT VACATIONS WORLDWIDE	99.32	2	3	1	2	2	2.0	18.8	17.5	2,695
NCLH	NORWEGIAN CRUISE LINE HLDGS	48.96	3	4	1	1	1	2.0	12.8	15.1	11,126
CHH	CHOICE HOTELS INTL INC	62.60	1	3	2	3	3	2.4	22.1	12.1	3,528
Media											
SNI	SCRIPPS NETWORKS INTERACTIVE	$74.82	1	1	1	2	2	1.4	13.8 x	5.2 %	$9,705
LGF.A	LIONS GATE ENTERTAINMENT CP	25.61	3	2	1	1	1	1.6	23.2	(4.8)	5,294
SIRI	SIRIUS XM HOLDINGS INC	5.05	3	2	2	1	1	1.8	28.1	13.7	23,942
LYV	LIVE NATION ENTERTAINMENT	30.89	3	1	1	2	2	1.8	171.6	16.1	6,304
SBGI	SINCLAIR BROADCAST GP -CL A	38.95	3	1	2	2	1	1.8	17.9	17.3	3,992
MDP	MEREDITH CORP	62.70	3	1	2	2	1	1.8	17.2	6.9	2,809
CABO	CABLE ONE INC	639.82	1	3	1	3	na	2.0	26.8	3.2	3,660
NXST	NEXSTAR MEDIA GROUP	66.45	1	2	2	2	3	2.0	19.1	5.5	3,130
VIAB	VIACOM INC	43.96	3	2	1	2	2	2.0	11.3	25.8	17,546
TWX	TIME WARNER INC	99.17	3	2	3	2	1	2.2	16.7	3.2	76,791
DISH	DISH NETWORK CORP	58.79	2	1	1	4	4	2.4	21.2	1.5	27,360
Retail											
DLTR	DOLLAR TREE INC	$76.83	3	2	2	2	1	2.0	15.4 x	(0.5) %	$18,155
TSCO	TRACTOR SUPPLY CO	63.55	2	3	2	2	1	2.0	18.4	(15.9)	8,312
LOW	LOWE'S COMPANIES INC	81.95	1	2	3	3	2	2.2	15.6	15.8	70,969
TJX	TJX COMPANIES INC	76.48	1	2	3	3	2	2.2	18.3	2.1	49,430
BURL	BURLINGTON STORES INC	91.54	1	2	2	3	4	2.4	20.5	8.0	6,428
Textiles, Apparel & Luxury Goods											
SKX	SKECHERS U S A INC	$25.55	1	1	1	2	2	1.4	14.6 x	3.9 %	$4,045
COLM	COLUMBIA SPORTSWEAR CO	58.81	3	2	1	1	1	1.6	21.0	1.2	4,109
KATE	KATE SPADE & CO	19.40	1	1	1	2	3	1.6	22.3	3.9	2,489
HBI	HANESBRANDS INC	21.33	2	2	2	1	1	1.6	10.8	(0.4)	8,077
GIL	GILDAN ACTIVEWEAR INC	27.49	3	2	3	1	1	2.0	16.3	8.8	6,334
SHOO	MADDEN STEVEN LTD	36.30	2	1	3	2	2	2.0	16.7	1.5	2,193
CRI	CARTER'S INC	89.41	1	2	1	4	4	2.4	16.0	3.9	4,377
NKE	NIKE INC	56.24	2	4	2	2	2	2.4	22.5	11.0	93,034
LULU	LULULEMON ATHLETICA INC	52.00	1	4	3	2	2	2.4	19.9	(20.0)	7,636

Source: Empirical Research Partners Analysis.