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Autos & Shared Mobility

The Shared Autonomous 30: A Diversified Way to Play Auto 2.0

Disruption in the auto industry involves a once-in-a-generation reallocation of capital. Analysts across thirteen industries have identified a selection of companies that we believe will be best positioned in a world moving toward shared mobility, autonomous driving, and electrification.

The investment significance of shared and automated transport. The 100-year-old auto industry business model is facing unprecedented technological disruption, starting with the very definition of the market itself – moving from "millions of units sold" to "trillions of miles traveled" annually by the global car parc. Shared, autonomous and electric mobility addresses many of the shortcomings of the current industry model, including low utilization, consumption of finite resources and public safety (more than 3,500 traffic fatalities per day globally). What if there were a drug that could save 1.3 million lives and prevent serious or incapacitating injury to tens of millions of people annually? What would that drug be worth? Shared and automated transport also unlocks the more than 600bn hours of driver and passenger time currently spent in vehicles (equal to 68 million years of time annually), by itself representing an economic opportunity for content and data worth potentially trillions of dollars.

Numerous industry events over the past year have accelerated the stock market's appetite for companies best exposed to the trends behind Auto 2.0. Shortly after publication of our first Autonomous 30 list in September 2016, Harman was acquired by Samsung for $11bn. Soon after, Intel announced the acquisition of Mobileye for >$15bn (roughly $30mm per employee). Numerous suppliers announced restructurings of their business portfolio (Delphi, Autoliv) in part due to Auto 2.0. Apple CEO Tim Cook described autonomous cars as 'the mother of all AI projects' and a 'core technology' for Apple. GM launched the Bolt Electric Vehicle (EV) and Tesla surprised industry skeptics, successfully launching the Model 3 last summer. Summing it up: We've seen increasing momentum in the drive toward Auto 2.0. Public policy and the right partnerships will be critical to the outcome for a region's or city's economic growth, population development, and public health and safety. While many of the full benefits of a shared, electric, and autonomous ecosystem may take decades to fully play out, we believe industry developments and investor appreciation of the technological path can have a material impact on share prices of select companies even over a two-year horizon.

The industry implications for recasting the global mobility model extend far beyond just the auto industry, affecting large tranches of the economy and the

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Autos & Shared Mobility

North America

IndustryView **Cautious**

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investment landscape. To arrive at "The Shared Autonomous 30", we asked our US research colleagues a simple question they are familiar with from prior collaboration on this theme: "Which of the names under your coverage would be best positioned in a world moving towards shared mobility, autonomous driving, and electrification?" Morgan Stanley's US Research team settled on 30 US stocks, all rated either Overweight or Equal-weight, across 13 industries, that they believe are favorably exposed to growth opportunities in the execution of a shared, autonomous, electric ecosystem, or are favorably positioned to the adjacent data and content opportunities that are enabled by a business model that liberates hundreds of billions of consumer hours for monetization.

- **Auto OEMs & Suppliers** face new competitors with advantages in software, consumer electronics, and cost of capital – and may struggle to attract and retain the best talent. However, we see several that possess unique attributes for long-term growth including **Visteon** (VC) and **Tesla Motors** (TSLA). We see **Goodyear** (GT) as a tech-agnostic play on the growth in miles traveled.

- **Transport:** Autonomous trucks offer substantial growth, cost-cutting and consolidation opportunities to the fleet operators that can apply the optimal technologies to transform their existing networks. Our Freight Transport team have written extensively on this topic and have selected **Schneider** (SNDR), **Old Dominion** (ODFL), and **XPO Logistics** (XPO) for the list.

- **Chemicals.** Significant lithium capacity additions now risk lithium supply coming ahead of EV demand, which could materially loosen the lithium S&D balance, and upset the current pricing architecture. We think most projections of EV demand look aggressive versus current consumer run rate demand, and in many cases assume blue sky scenarios that do not contemplate any risk of consumer adaption as they focus solely on manufacturer production plans. At current levels, we believe **Albemarle** (ALB) shares leave no room for error on the demand side of the equation.

- **Electric Utilities:** By 2040, EVs are estimated to represent ~27% of incremental demand growth in the United States. We believe this creates attractive and sizeable opportunities for electric utilities to invest in the required associated charging infrastructure and grid modernization to support the wide-spread development of EVs. Due to the state of California's ambitious renewable energy and Zero Emission Vehicle (ZEV) goals, the Utilities team selected **PG&E** (PCG) and **Edison International** (EIX) as the best positioned stocks under their coverage to play this theme.

- **Semiconductors.** Autonomous cars represent a sophisticated blend of compute power and artificial intelligence for navigating the countless number of real-world driving scenarios…in real time. This field has already attracted much attention in the semis universe and our team selected **Ambarella** (AMBA), **NVIDIA** (NVDA), **Intel** (INTC) and **Xilinx** (XLNX) for the list.

- **IT Hardware/Software/Internet/Media**. 600bn hours is a lot of time spent

inside a car that you're not driving... it´s not surprising that so many firms are directing significant strategic efforts and investment toward delivering, monetizing and storing the content and data opportunities. **IBM** (IBM) applies cognitive computing/AI to connected cars, **Apple** (AAPL) has the potential for full integration with autonomous vehicles and to provide services, and **Pure Storage** (PSTG) is delivering all-flash storage that powers self-driving capabilities. **Microsoft** (MSFT) has long made auto a strategic priority, while our Software team sees **Red Hat** (RHT) as best-positioned in open source software development. Our Internet team selected **Amazon** (AMZN), **Alphabet** (GOOGL), and **Facebook** (FB) for their dominance in capturing commercial value and time spent by consumers enclosed in a mobile, connected, supercomputing environment. Our Media team nominated **Netflix** (NFLX) and **Disney** (DIS) as beneficiaries of the incremental content consumption opportunity up for grabs. As a holder of massive nationwide spectrum potentially ideal for IoT network deployment, we believe **DISH Network** (DISH) could also benefit.

- **Telecom/Communications Systems.** The shared, autonomous ecosystem will require a transformation of the supporting infrastructure to connect vehicles to other vehicles and vehicles to infrastructure, handling high amounts of data reliably and securely. Our Telecom team picked **American Tower** (AMT) and **SBA Communications** (SBAC) for the list, while our Comms Systems team select **Cisco Systems** (CSCO) and **Qualcomm** (QCOM).

- **Beverages/Restaurants.** There are around 1.2 million DUIs (driving under the influence) issued in the US every year. The average American consumes nearly 500 alcoholic drinks per year. Over the course of a year, how many more drinks might be consumed if people were completely freed from the responsibility of driving? Moreover, how many more drinks could be consumed during the 400 billion global hours humanity currently spends behind the wheel? And how many lives could be saved? Following our ***September 7, 2017 work*** on this topic, our US beverages team selected **Constellation** (STZ) as the best-positioned US company for the growth opportunity in high-end, on-trade alcohol consumption. Our restaurants team highlighted **Domino's Pizza** (DPZ), whose pizza delivery business should be a beneficiary of autonomous driving - Domino's has tested driverless cars in Australia, and more recently announced a test in Ann Arbor, Michigan.

We'd note that these stocks are not pure plays on shared, autonomous mobility. While we believe each of them offers exposure to a key element of the ecosystem we expect to develop around the new model of transportation, their current and likely future business mixes include significant revenue streams unrelated to the theme of shared mobility.

Further, the speed, and extent, of the move toward shared mobility, autonomous driving, and electrification remain uncertain. The growth of the ecosystem we envision will be affected by numerous uncertainties, including regulatory developments, the competitive environment, the pace of consumer adoption, technological factors, and management execution.

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The Shared Autonomous 30: Key Financial Data

Ticker	Company	Stock Rating	Share Price, Last Close	Revenue 3-Yr CAGR ('16-19e)	EPS 3-Yr CAGR ('16-19e)	EBIT Margin (%) 2017e	EBIT Margin (%) 2019e	RNOA (%) 2017e	RNOA (%) 2019e	Net Debt / EBITDA 2017e	Interest Cover 2017e	P/E 2017e	EV/EBITDA 2017e	FCF Yld 2017e	Up / Down to PT
ALB.N	Albemarle Corporation	E	132.32	7%	13%	23.0% e	23.9% e	12.2% e	12.3% e	0.7 e	11.1x	30.5 e	17.9 e	(0.7%) e	-24%
GOOGL.O	Alphabet Inc.*	O	964.81	18%	20%	24.1%	27.4%	51.6% e	69.0% e	NM	NM	31.3	16.2	3.2%	8%
AMZN.O	Amazon.com Inc	O	956.40	26%	31%	1.4% e	3.4% e	164.7% e	132.6% e	NM	4.4x	382.5 e	34.7 e	1.0% e	20%
AMBA.O	Ambarella Inc	O	48.47	7%	-6%	7.3% e	11.8% e	28.3% e	46.0% e	NM	NM	25.3 e	55.1 e	4.4% e	24%
AMT.N	American Tower Corp.*	O	136.10	10%	25%	34.3%	38.1%	6.0% e	7.7% e	4.5 e	3.1x	43.0 e	19.5 e	3.9% e	10%
AAPL.O	Apple, Inc.	O	153.28	10%	14%	26.6% e	26.6% e	NM	NM	NM	NM	17.1 e	9.0 e	6.0% e	27%
CSCO.O	Cisco Systems Inc	O	33.35	1%	5%	31.6%	32.0% e	37.2%	38.8% e	NM	NM	13.1	7.0	8.1%	17%
STZ.N	Constellation Brands Inc	O	199.30	6%	15%	32.8% e	34.5% e	12.2% e	13.1% e	3.1 e	7.4x	24.0 e	17.2 e	2.4% e	9%
DISH.O	DISH Network*	O	53.01	-4%	-16%	14.8% e	11.7% e	8.2% e	4.8% e	4.7 e	20.8x	21.7	1.6	(11.9%) e	41%
DPZ.N	Dominos Pizza Inc.	E	197.04	10%	23%	18.5% e	19.4% e	158.6% e	139.3% e	5.4 e	4.2x	34.6 e	21.2 e	2.4% e	7%
EIX.N	Edison International	E	77.57	3%	7%	20.4% e	24.5% e	7.7% e	7.4% e	3.3 e	4.0x	18.3 e	8.9 e	0.7% e	19%
FB.O	Facebook Inc*	O	168.73	33%	26%	46.3%	45.1%	66.0% e	59.0% e	NM	NM	30.9	17.5	2.1%	16%
GT.O	Goodyear Tire & Rubber Company	O	33.06	2%	2%	9.7% e	11.8% e	10.6% e	13.2% e	1.8 e	4.1x	10.8 e	5.6 e	4.0% e	39%
IBM.N	IBM	O	145.66	-1%	1%	18.9% e	19.4% e	28.4% e	25.9% e	0.3 e	43.4x	10.6 e	7.3 e	10.0% e	32%
INTC.O	Intel Corporation	E	37.83	1%	2%	29.2% e	28.9% e	17.6% e	15.9% e	0.2 e	NM	12.7 e	7.4 e	4.6% e	0%
MSFT.O	Microsoft	O	73.87	9%	10%	30.4%	31.6% e	148.0%	73.7% e	NM	35.1x	21.0	12.9	5.7%	8%
NFLX.O	Netflix Inc	O	180.70	24%	103%	7.3% e	14.7% e	11.8% e	13.9% e	4.4 e	3.3x	146.9 e	92.5 e	(3.3%) e	16%
NVDA.O	NVIDIA Corp.	E	175.68	20%	23%	30.3% e	34.6% e	179.2% e	134.7% e	NM	483.0x	48.1 e	40.8 e	2.2% e	-4%
ODFL.O	Old Dominion Freight Line Inc	O	108.75	9%	15%	17.2% e	18.3% e	18.8% e	20.2% e	NM	185.6x	26.0 e	11.6 e	2.0% e	-20%
PCG.N	PG&E Corp	O	68.05	2%	2%	20.0% e	22.3% e	6.3% e	6.8% e	3.0 e	4.0x	18.6 e	8.5 e	(1.0%) e	12%
PSTG.N	Pure Storage Inc	E	15.94	32%	NM	(5.2%) e	1.6% e	NM	NM	NM	NM	NM	NM	(0.4%) e	-6%
QCOM.O	Qualcomm Inc.	E	51.75	-1%	-10%	29.9% e	24.7% e	54.5% e	30.5% e	NM	NM	12.4 e	8.2 e	4.0% e	16%
RHT.N	Red Hat, Inc.	E	109.59	15%	20%	23.8% e	24.6% e	NM	NM	NM	NM	39.3 e	23.4 e	4.2% e	9%
SBAC.O	SBA Communications*	O	143.76	6%	56%	27.0%	33.5%	5.0% e	7.1% e	7.5 e	1.5x	152.7 e	22.6 e	3.5% e	11%
SNDR.N	Schneider National Inc.	O	24.59	7%	8%	6.9% e	8.1% e	11.6% e	16.2% e	NM	17.6x	24.7 e	7.7 e	5.1% e	6%
TSLA.O	Tesla Motors Inc.	E	339.60	47%	NM	(11.2%) e	1.1% e	(10.9%) e	1.5% e	12.6	NM	NM	163.3 e	(5.9%) e	-7%
VC.N	Visteon Corporation	O	123.68	1%	9%	9.0% e	9.6% e	48.4% e	44.3% e	NM	17.8x	20.6 e	9.6 e	4.5% e	-9%
DIS.N	Walt Disney Co*	O	98.05	4%	8%	26.4%	27.8%	15.5% e	17.2% e	1.2 e	37.9x	16.7 e	10.5 e	4.4% e	33%
XLNX.O	Xilinx	O	70.19	6%	11%	29.3% e	31.1% e	542.3% e	93.8% e	NM	NM	27.1 e	22.4 e	4.3% e	3%
XPO.N	XPO Logistics, Inc.	O	66.26	5%	60%	4.9% e	6.4% e	17.0% e	21.3% e	2.9 e	2.4x	34.6 e	9.1 e	4.4% e	13%

Source: Morgan Stanley Research ModelWare.
Share prices as of September 28th. Metrics are calculated using the 'for consensus' & 'fiscal-aligned' methodology. NA = Not Applicable; NM = Not Meaningful. *DIS: Disney reports EBIT including equity income from affiliates. *DISH: Enterprise Value excludes estimated value of spectrum assets and includes in cash its balance of marketable securities. *GOOGL: Using our GAAP estimates. *FB: Using our GAAP estimates. *AMT: Our EBIT metrics are inclusive of certain non-cash and non-recurring items. *SBAC: Our EBIT metrics are inclusive of certain non-cash and non-recurring items. *For GOOGL and FB we use our GAAP estimates to be consistent with consensus.

The Shared Autonomous 30: Attribution and Exposures

Exhibit 1: Attribution- 'The Shared Autonomous 30' vs. S&P 500 (as of Sep 29, 2017)

	Factor	Portfolio	Benchmark	Portfolio vs Benchmark
Valuation	Price-to-Book	4.7x	3.1x	1.5x
	Price-to-Fwd. Earnings	23.2x	17.9x	1.3x
	Price-to-Sales	2.5x	2.1x	1.2x
	Price-to-Oper. Cash flow	15.5x	13.8x	1.1x
	EV-to-EBIT	21.7x	18.6x	1.2x
	EV-Free Cash Flow	35.2x	25.6x	1.4x
	Dividend Yield	1.1%	2.3%	(1.2%)
	Total Yield	2.3%	4.2%	(1.8%)
	Free Cash Flow Yield	3.0%	4.3%	(1.3%)
Capital Use and Profitability	Cash-to-Market Capitalization	10.0%	8.6%	117.1%
	Capex-to-Sales	9.0%	7.6%	118.4%
	Accruals	6.3%	5.6%	113.5%
	Incremental Margin	21.2%	17.9%	3.4%
	Asset Turnover	0.74	0.72	1.03
	Gross Margin	43.3%	43.5%	(0.1%)
Growth and Investor Sentiment	9-Month Price Momentum	0.27	0.18	0.09
	3-Month Smoothed Earnings Revisions	1.8%	0.2%	1.6%
	Up-to-Down Revisions	(0.9%)	(4.1%)	3.2%
	Sales Stability	23.8%	10.0%	13.8%
	Beta	1.11	1.01	1.10
Size	Market Cap	142,070	45,702	3.1x

Source: ClariFi, FactSet, Thomson Reuters, and Morgan Stanley's Global Head of Quantitative Equity Research Brian Hayes and Team
*Assumes equally weighted list vs. equal-weighted benchmark

Exhibit 2: 'The Shared Autonomous 30' vs. S&P 500:
Exposures to Investment Quality and Sectors (as of Sep 29, 2017)

Exposure	Group	Portfolio	Benchmark	Portfolio vs Benchmark
Size	Mega-Cap Stocks	30.0%	9.6%	20.4%
	Large-Cap Stocks	30.0%	46.9%	(16.9%)
	Mid-Cap Stocks	26.7%	43.3%	(16.6%)
	Small-Cap Stocks	10.0%	0.0%	10.0%
Quality	High	46.7%	57.3%	(10.6%)
	Medium	13.3%	18.8%	(5.5%)
	Low	6.7%	4.4%	2.3%
	Junk	33.3%	19.4%	13.9%
Style	Growth	53.3%	31.7%	21.7%
	Value	23.3%	33.7%	(10.3%)
Cyclical/ Defensive	Cyclical	53.3%	38.3%	15.1%
	Defensive	16.7%	27.3%	(10.6%)
Sectors	Energy	0.0%	6.1%	(6.1%)
	Materials	3.3%	3.0%	0.4%
	Industrials	10.0%	10.2%	(0.2%)
	Consumer Discretionary	26.7%	11.8%	14.8%
	Consumer Staples	3.3%	8.2%	(4.9%)
	Health Care	0.0%	14.5%	(14.5%)
	Financials	0.0%	14.6%	(14.6%)
	Information Technology	43.3%	23.2%	20.1%
	Telecommunication Services	0.0%	2.2%	(2.2%)
	Utilities	6.7%	3.1%	3.5%
	Real Estate	6.7%	3.0%	3.7%

Source: ClariFi, FactSet, Thomson Reuters, and Morgan Stanley's Global Head of Quantitative Equity Research Brian Hayes and Team
* "The Shared Autonomous 30" is equally weighted. The benchmark portfolio assumes an equally-weighted portfolio for the size, quality, style and cyclical-defensive categories. Sectors use the actual S&P 500 sector weights..

Albemarle: Risk-Reward

Pace of EV Demand Is the Key Driver of Lithium's Growth Prospects

Source: Thomson Reuters (historical share price data), Morgan Stanley Research estimates

Price Target **$100**

Sum of the parts, given the unique characteristics of Albemarle's segments.

Bull **$155**

SOTP (implied ~15x NTM bull case EBITDA)

EV and portable electronics demand come in better than our expectations. Tesla and other auto manufacturers demonstrate that consumer EV demand is real at the low end of the market. Consumer & electronics lithium demand compound at a double-digit rate. Refinery customers revert back to higher-priced catalysts. Strong server demand supports bromine volume and prices.

Base **$100**

SOTP (implied ~14x NTM base case EBITDA)

Lithium supply and demand eases from period of max tightness. Whether consumer EV demand will match bullish forecasts becomes more of a question in the investment community. Bromine market stable to positive with modest demand growth. Catalyst business rebounds on increased orders in FCC and less competitive pressure in CFT.

Bear **$70**

SOTP (implied ~12x NTM bear case EBITDA)

Lithium supply comes well before EV demand, pushing industry capacity utilisation lower. ALB's multiple contracts as a result. Bromine pricing environment weakens as low drilling fluid demand compounds modest electronics growth. Refiners are able to delay catalyst change out further than expected, eroding the pricing environment.

Why Equal-weight?

- **While we find lithium attractive in the near term, we also think there is more risk than the market recognises that there could be an imbalance of lithium supply and EV demand in 2018+.** If that proves to be the case, we think that Albemarle's earnings and multiple will be at risk. To this point, investors have begun to look through the near to medium term and instead focus on EV penetration rates in 2025+, which is too far away for us to have conviction in either direction at today's valuation.

Key Value Drivers

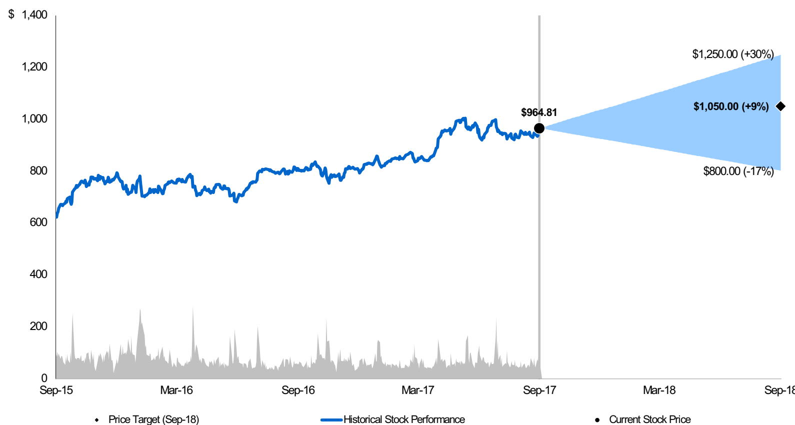
- **Refining and polyolefin catalysts demand**, driven by the confluence of: i) Middle East / Asian expansion of refining and polyolefin production; ii) refining margins in the US; and iii) a long-term shift toward heavier crude oil.
- **Lithium:** Global EV penetration must increase at a rapid pace as incremental lithium supply will hit the market in earnest by 2018. This would mean more than just Tesla – all automakers would have to contribute such that there are multiple successful mass-market EVs. Chinese environmental issues will likely drive significant in-country growth. The key questions are: how long will all of this take, and will supply arrive ahead of demand?
- **Bromine value chain:** Increasing demand for mobility, server demand and electronics required in vehicles could support bromine demand. Lower oil prices have added to competitive challenges in the industry.

Risks to Achieving Price Target

- EV penetration rates could fall short of expectations. Lower oil prices could erode the development of EV markets.
- Oil decline has introduced mix shifts among refining customers to lower priced catalysts.
- Continued lower oil prices influences capital decisions by refiners, resulting in delayed turnarounds.
- Electronics demand could weigh on lithium (i.e., 40% of demand) and bromine.

Alphabet: Risk-Reward

Websites' Growth Likely to Surprise to the Upside, Driving Upward Earnings Revisions Even Through Continued Investment



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$1,050**

Our $1,050 price target is based on our discounted cash flow valuation and implies ~13X 2018 adjusted EBITDA of ~$53bn. We then deduct the present value of the "Other Bets" losses, arriving at our price target of $1,050. We use a ~7% WACC and a ~2% terminal growth rate (in line with other growth-oriented internet companies).

Bull **$1,250**

~15X 2018 bull case EBITDA of ~$54bn less the present value of the "Other Bets" losses

Better than expected expense discipline and share repurchases lead to multiple expansion and higher earnings power. Mobile monetization proves highly incremental to core search revenue growth and search takes more share of global budgets. YouTube becomes an even bigger contributor to top-line growth, and operates at a higher margin than in our base case.

Base **$1,050**

~13X 2018 base case EBITDA of ~$53bn less the present value of the "Other Bets" losses

GOOGL's core Websites business grows ~21% (ex-FX) in 2017 and non-GAAP operating losses in "Other Bets" moderate. Assumes mid-teens search revenue growth through 2017, as mobile device proliferation leads to search advertising taking share of global ad budgets. Mobile search continues to drive forward growth while desktop search also contributes and YouTube gains online video share.

Bear **$800**

~11X 2018 bear case EBITDA of ~$50bn less the present value of the "Other Bets" losses.

Global ad growth slows...investment spend leads to margin compression too. Assumes slower search advertising growth through 2018, lower revenue compared to our base case in 2018 as growth in ad budgets slows, as search takes less share of budgets. Expense discipline fails to materialize leading to lower than expected adj. EBITDA.

Investment Thesis

- Google Websites growth is likely to surprise to the upside as we believe there are several underappreciated drivers – mobile search, strong YouTube contribution, and continued innovation, such as Maps monetization in 2017.
- Continued expense discipline leads to margin expansion and upward revisions on EPS estimates.
- Our $1,050 price target implies ~13x 2018 Google EBITDA of $53bn less the PV of the Alphabet investment losses.

Key Value Drivers

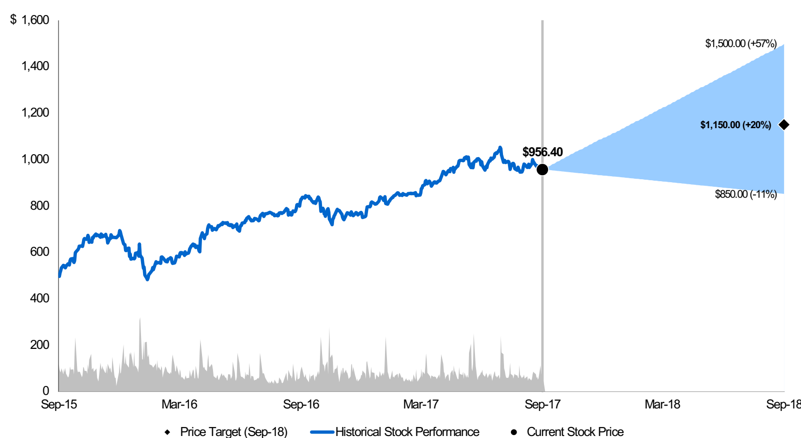
- Search advertising spend continues to gain share of global advertising budgets, including in the US and UK where organic growth appears to be slowing.
- Mobile search advertising continues to take share of online ad budgets and drives forward Websites growth.
- Investments in video content drive longer-term monetization at YouTube.
- Moderation of expense growth.

Key Risks

- Search is a key component of GOOGL's advertising business. While we believe Search will continue to take share of global ad budgets and Google will retain its dominant share, growth in US and UK markets has slowed.
- Improved disclosure around the Google Inc. and Other Alphabet segments may not decrease the overall investment activity of the business.
- Deterioration in the advertising market, particularly as vast majority of revenue is driven by advertising.
- Negative resolution of EU antitrust probe.

Amazon: Risk-Reward

We See Solid Topline Trends, but Near-Term Headwinds from Heavy Investment



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$1,150**

Derived using a sum-of-the-parts methodology where we value the N. America and International retail businesses based on long-term CSOI margins (as % of GMV) and the AWS business based on our DCF model. Our valuation is supported by a 10-year DCF.

Bull **$1,500**

30x Bull Case 2018e EV/EBITDA

Amazon sustains revenue growth of 21%+ through 2019, while 3P, FBA and AWS profitability exceed our expectations. Our Bull Case is supported by our DCF valuation and represents a ~30% premium to our Base case). On a consolidated basis, this implies ~3.2x/30x our 2018 revenue/EBITDA estimates.

Base **$1,150**

23x Base Case 2018e EV/EBITDA

Amazon grows revenue by 24% from '16-'20, while 3P, FBA and AWS mix in addition to leverage from fulfillment center efficiencies drive better profitability. We value the N. America retail business with a 11x EV/EBITDA multiple (based on a 5% long-term CSOI margin as % of GMV and 5% FCF yield), the International retail business with an 8x EV/EBITDA multiple (based on a 2% long-term CSOI margin as % of GMV and 5% FCF yield), and AWS at a ~$185bn EV based on our AWS DCF model (implies a ~6x '18 EV/Revenue multiple).

Bear **$850**

~17x Bear Case 2018e EV/EBITDA

Investments step up. Although Amazon grows revenue in the low 20's% in 2017 and 2018, heavy investments in last mile, fulfillment, digital content, Prime, devices and international expansion markets, and AWS price cuts continue, which along with higher technology & content expense, pressure margins. Our bear case is based on a DCF in which we treat AMZN's operating leases as a full cash expense.

Investment Thesis

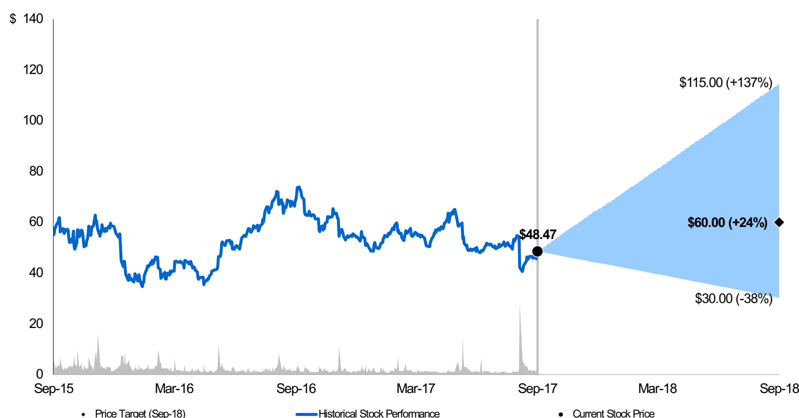
- AMZN's Prime member growth and engagement point to solid 2017 topline trends, but we see near-term headwinds from heavy investment (last mile delivery, fulfillment, Prime Now, Fresh, Prime digital content, Alexa/Echo, India, AWS) to drive forward growth and build/expand its ecosystem. While we remain bullish about AMZN's long-term opportunity, in the near-term this investment spending will likely pressure margins more than expected.
- We see AMZN's Prime member growth and engagement, Echo device sales, and consumer web traffic/interest driving solid topline trends and GMV per customer growth.
- eCommerce penetration in core markets approaching a key inflection / acceleration.
- Amazon Prime membership growth drives recurring revenue and positive mix shift.
- Cloud adoption hitting an inflection point.

Risks to Achieving Price Target

- Weakness in core market retail sales could hurt growth.
- Slower than expected Prime membership growth or Prime gross profit contribution, which could be caused by a: 1) weaker macro environment, 2) increased competition from other eCommerce or offline retail platforms, or 3) failure of Prime investments (shipping speed, selection, streaming content, etc.) to drive subscriber growth/higher spend per subscriber.
- Inability to grow Prime US subscriber base outside of households that earn $75k+ in annual income.
- Larger than expected investments in brick & mortar retail locations (Amazon Go stores, book stores, grocery pickup points, etc), in digital content (movies, TV shows, originals, etc), and/or in new markets.
- Price wars with IaaS competitors may lead Amazon to cut AWS prices further while incremental AWS investment offsets cuts elsewhere.

Ambarella: Risk-Reward

Moving Past Customer Concentration Problems; Computer Vision Applications Should Drive Multiple Expansion



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$60**

Base case scenario

Bull **$115**

Sum of the parts: $2 bn for computer vision, 18x 2018 EPS of $2.47 for core business, $12 cash

Ambarella computer vision products firmly establish themselves as a leader for the nascent autonomous driving market. Computer vision chips live up to their initial promise, as providing breakthrough levels of video analytics vs. current state of the art; development relationships with tier one auto suppliers in 2018 (with revenue still several years away), with 2018 small revenue traction in surveillance and drones. Core business continues to grow 15% ex GoPro, with no further signs of socket loss strain.

Base **$60**

~25x CY2018e EPS of $2.00 + net cash, in line with high-growth peers

Initial progress in computer vision leaves optionality for autonomous driving; 10-15% growth in core businesses ex GoPro. Computer vision lives partially up to initial promise, but with normal growing pains/implementation delays; view for revenue in 2019 from surveillance/drones, with still possible automotive CV but no tangible traction. Meanwhile core video processing growth persists; GMs remain above 62% through 2017/2018. Multiple expands to 25x, assigning small premium to semiconductor growth median at 22x due to heavy investment and some automotive upside potential

Bear **$30**

12x Bear Case CY2018e EPS of $1.20 + net cash

Minimal computer vision success, and further challenges in the core business. Single digit revenue growth ex-GoPro, continued weakness in drones. Computer vision products fail to make any real impact even with surveillance and drone customers. R&D persists in 2018, but would likely see reduced rate of investment thereafter; current negative EPS impact of CV investment is $1.50 per share.

Investment Thesis

- We like Ambarella's fundamental position and think bears generally underestimate the company's leadership - we think the company's high-end products are unique.
- At ~20x CY18e EPS ex cash, multiple expansion could occur with solid execution and growth in new markets such as computer vision applications
- Home security, wearables, drones, ADAS add growth to growing core markets: Sports cameras, surveillance, dash mounted.

Key Value Drivers

- Migration from 720p HD to 1080p HD and now 4K (ultra HD), with increasing requirements for video compression, frame rate, and low light sensitivity
- Product leadership/barriers to entry remaining higher than generally perceived
- Longer term, automotive driver assistance is one of the most promising opportunities, but design-in cycles take years
- Computer vision applications puts the company into much more strategic markets

Potential Catalysts

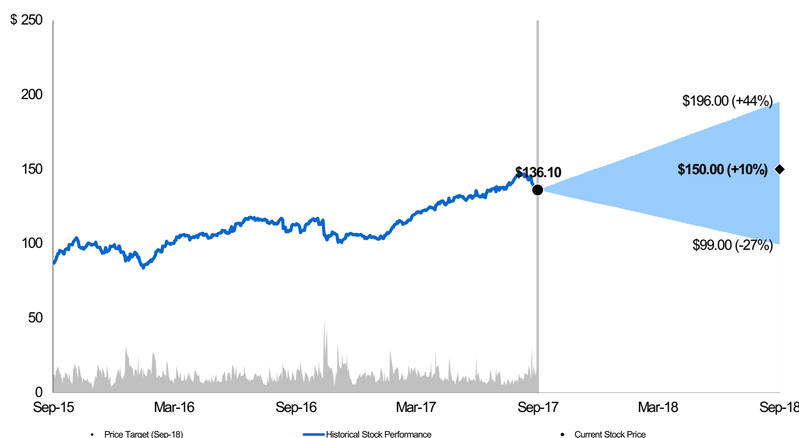
- Drones continue to show strong growth at higher ASPs
- Winning back GoPro flagship model socket
- Any visibility into non-GoPro wearables could be multiple-enhancing
- Computer vision chip enables new applications in drones, intelligent camera systems and eventually in ADAS

Risks to Achieving Price Target

- Emerging markets are hard to predict and track: sports cameras other than GoPro, dash mounted auto cameras (largely through China aftermarket), surveillance cameras in emerging markets; consumer surveillance.

American Tower: Risk-Reward

Global Telecom Infrastructure Play



Source: Morgan Stanley Research, Thomson Reuters

Price Target **$150**

Our valuation approach includes a discounted cash flow analysis, with a weighted average cost of capital of 6.3%, and implies a 2018e P / AFFO of ~19.5x, a modest premium to the ~17.5x historical average.

Bull **$196**

~25x 2018e P/AFFO

REIT acceptance. Real estate investors own less than 5% of the shares outstanding. Over time, we believe that REIT ownership should grow with the dividend as tower operators outperform the REITs, REIT investors become more comfortable with the business model, and index inclusion may be reconsidered.

Base **$150**

~19.5x 2018e P/AFFO

Growing demand for mobile data. Four national carriers are actively investing in their network, to compete on network quality, and the FCC makes new spectrum available through spectrum auctions. The international portfolio offers more growth, although exposure to emerging markets increases risk.

Bear **$99**

~13x 2018e P/AFFO

Rising rates create headwinds. Historically, interest rates have had ~65% correlation v. performance of the tower stocks. However, if rising rates drive REIT multiples lower, it could pressure the towers. Meanwhile, network sharing agreements and / or carrier consolidation increase the potential for churn.

Investment Thesis

- We favor the fundamentals of the tower model - long term contracts, operating leverage, rate escalators, low capital expenditures, high margins, strong credit tenants, and high barriers to entry.
- The growing demand for mobile data, carriers competing on network quality, and additional deployments should keep leasing activity elevated.
- American Tower benefits from growth in emerging markets, and we believe the trends may be stabilizing.

Key Value Drivers

- American Tower converted to a REIT on January 1, 2012.
- Management has guided to dividend growth at 20% CAGR (through 2017e), with a payout between 40% and 50% of AFFO after the NOLs are utilized.
- Management has guided to 10%+ AFFO annual growth through 2022.
- Domestic site leasing revenue offers 6% to 8% of organic growth, while international markets provide an additional 200+ bps of organic growth.

Potential Catalysts

- International expansion
- Carriers investing in their networks
- Interest from income oriented investors
- Dividend growth > 15%

Risks to Achieving Price Target

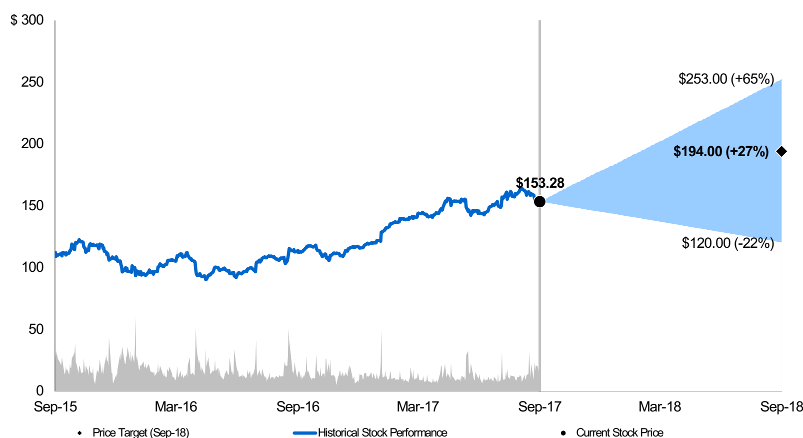
- Rising interest rates
- Emerging Market Risk / FX (Brazil ~10%, Mexico ~5%, India ~18%, Africa ~8% including Nigeria ~3.5%)
- Carrier consolidation (US, India)
- Valuation relative to other industries

Morgan Stanley | RESEARCH

IDEA

Apple: Risk-Reward

Upcoming iPhone Supercycle, Increasing Services Mix Make AAPL Our Top Pick



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$194**

Derived from base-case scenario.

Bull **$253**

18x Bull Case FY19e EPS of $14.05

Demand for mobile AR technology extends iPhone supercycle beyond FY18. iPhone supercycle extends into FY19 as units grow 4%+ off a much larger base and Services growth accelerates to 30%+ on the back of increased demand for new AR-centric applications. Gross margins move closer to 40% due to more beneficial revenue mix. Investors focus on monetization of Apple's 1.2B+ and growing device base and value Apple closer to that of a platform company such as Coke, Alphabet or Nike. We assume an 18x P/E multiple (or 15.4x ex-net cash) on FY19 EPS of $14.05, which is approx. ½ turn above the market multiple and ½ turn below the average of large cap platform companies.

Base **$194**

15.4x Base Case FY18e EPS of $12.60 or 12.6x Ex-Net Cash

Upcoming iPhone supercycle drives 24% unit growth and valuation multiple back to 2014 peak range. Starting in late 2017, we see an iPhone supercycle driven by accelerating upgrades due to new augmented reality applications, better battery life and new form factors. Revenue grows 32% in FY18 driven by 47% iPhone revenue growth (23% unit growth) and 21% Services growth. Gross margin is down 10bps Y/Y as lower hardware margins more than offset favorable mix shift however broad-based ASP uplift drives meaningful operating leverage. We assume a 15.4x P/E multiple, which is in line with the high-end of the peak multiple during the iPhone 6 supercycle.

Bear **$120**

12x Bear Case FY18e EPS of $10.00

iPhone growth disappoints due to limited OLED supply, weak demand, and/or trade war with China, with slower than expected EPS growth. US protectionist measures and OLED availability only at the high-end of the iPhone line limits revenue growth. Apple continues to invest in future products and services, driving negative operating leverage, offset by continued share repurchases. EPS grows in the mid-teens. P/E multiple falls to 12x, or 9x after adjusting for Apple's net cash balance, close to low-end of large cap IT hardware peers.

Investment Thesis

- Apple has the world's most valuable technology platform and is best positioned to capture more of its users' time in areas such as health, autos and home. Near-term, we see pent-up demand heading into a significant form factor change that is likely to accelerate iPhone unit growth, led by China. Furthermore, accelerated Services growth, tax reform / cash repatriation, and increased appetite for M&A are catalysts that can help sustainably re-rate shares.

Key Value Drivers

- *Can Apple sustainably grow revenue and EPS?*Yes, the combination of increased services mix, higher share repurchases, potential M&A, and investments in new categories like augmented/virtual reality, artificial intelligence, health, and autos are drivers of sustainable growth longer-term.

Potential Catalysts

- 1) Pent-up demand for new iPhone 8, 8 Plus and X accelerates iPhone growth above investor expectations; 2) Tax reform increases probability of cash repatriation and a lower corporate tax rate; 3) Expanding the platform to new industries, driving "halo effect"; 4) Increasing services mix could more sustainably re-rate shares; 5) Accelerated share repurchase and/or M&A contribute to earnings growth and multiple expansion.

Risks to Achieving Price Target

- 1) Weak global consumer spending and strong US dollar could mute growth recovery; 2) Maturing markets, and competition from Android smartphones/tablets; 3) Lack of traction with new product categories and/or services limit multiple expansion; 4) Political, regulatory and legal risk as Apple gains share in mobile devices and remains dependent on Asian suppliers to deliver results; 5) Rising memory costs could pressure gross margins near-term.

Cisco Systems: Risk-Reward

Share Gains in Security-Driven IT Spend Lead to Earnings Growth and Multiple Expansion

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$39**

15x FY18 EPS + $1 for potential tax reform

Bull **$50**

18x Bull Case FY18 EPS

Accelerated share gains in security and networking budgets, cash repatriation gets passed. Equipment replacement cycles come down meaningfully as customers seek to consistently upgrade legacy switches to keep pace with security technologies. Higher than expected share gains in IT budgets implies low-to-mid single digit long term earnings growth, and market gives credit with multiple expansion to 18x. Repatriation reform passes and subsequent share reduction adds ~10% to EPS.

Base **$39**

15x FY18 EPS + $1 for potential tax reform

Software share gains and replacement cycle improvements. Low single digit revenue growth and mid single digit earnings growth over the next three years. Switching business steadily improves as security spend continues to pull through equipment upgrades. Continued share gains with the security business and mix shift towards software drives steady improvements to operating margins. 15x is in-line with our coverage universe on an earnings growth basis and price target also includes $1 the discounted value of a 50% probability for favorable corporate tax reform.

Bear **$25**

10x FY18 EPS

Replacement cycles worsen and software shift stalls. Switches segment sees continued deterioration as security spend fails to improve replacement cycles. Software business does not expand meaningfully from core firewall business, leading to flat to declining earnings. 10x EPS reflects a company trading at peak earnings.

Investment Thesis

- Cisco gains share in IT budgets as security and networking spend converge, favoring the company's end-to-end architecture.
- Software-defined networking proves to be a growth opportunity as customers more consistently upgrade equipment to implement the latest security technologies.

Key Debates

- *Can CSCO successfully transition to a software and services oriented business?* We are seeing good traction, particularly in security, and it is becoming a driver for equipment spend.
- *Does the move to the cloud adversely impact CSCO's traditional enterprise market?*In certain segments of the market, yes, but campus and hybrid cloud environments will remain and require up to date networks to support security technologies.
- *Is there potential for incremental margin improvements as business turns more software and services?* Will mostly drive higher gross margins. Incremental operating leverage will be mostly reinvested or used for acquisitions.

Potential Catalysts

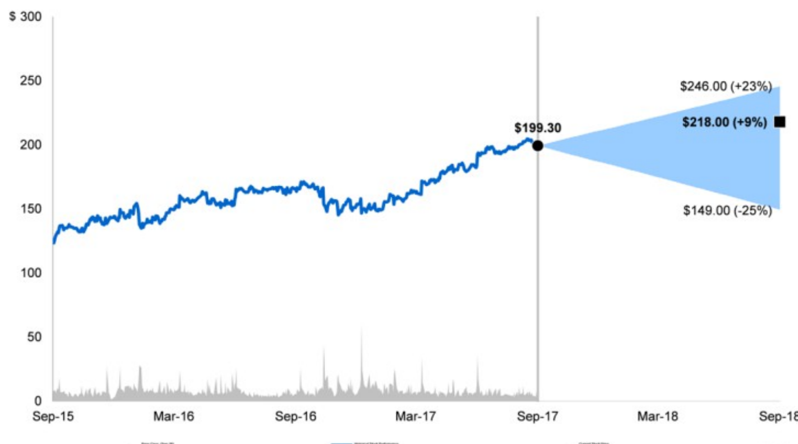
- Software and services business drive growth.
- Accelerated replacement cycles results in meaningful improvements to switch / router segments.
- An acceleration in GDP, and therefore IT spending.

Risks to Achieving Price Target

- Slower than expected GDP and IT spending growth.
- Intensifying headwinds from legacy switching and routing businesses.
- New architectures (e.g., SDN and NFV) subject Cisco to more pricing and margin pressure than currently anticipated.

Constellation Brands: Risk-Reward

Strong Long-Term Topline Outlook



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$218**

Assumes 24x CY18e EPS, at the high end of beverage peers, given much greater topline/EPS growth, partially offset by greater (albeit diminishing) risk around potential tax reform.

Bull **$246**

26x Bull Case CY18e EPS of $9.45

Topline/margin upside: 100 bps of beer volume upside, beer margins expand an incremental 100 bps, and 100 bps of greater wine/spirits price/mix realization. CY18e P/E multiple expands to 26x our bull case EPS.

Base **$218**

24x Base Case CY18e EPS of $9.01

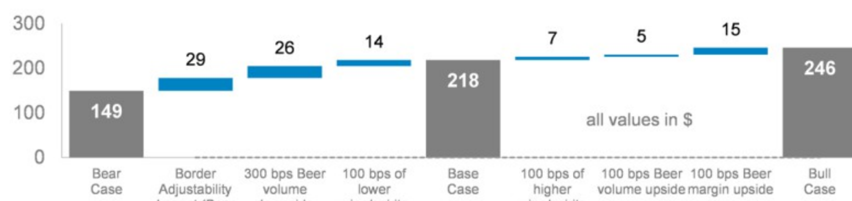
Strong beer fundamentals continue: STZ achieves our FY18 organic revenue forecast of ~7.5% (~10% beer growth and +3.5% wine & spirits growth), while beer margins expand ~220 bps as STZ transitions production to the Nava brewery. CY18e P/E multiple expands to 24x EPS, at the high end of beverage peers given much greater topline/EPS growth.

Bear **$149**

20x Bear Case CY18e EPS of $7.46

Border Adjustability/promotional intensity rises: Our bear case border adjustability scenario plays out, 300 bps of beer volume downside, and a higher promotional environment drives 100 bps of wine/spirits pricing downside. CY18e P/E multiple compresses to 20x our bear case EPS.

Exhibit 3: Bear to Bull: Beer Business is the Key Driver



Source: Company data, Morgan Stanley Research estimates. Figures do not sum due to rounding.

Why Overweight?

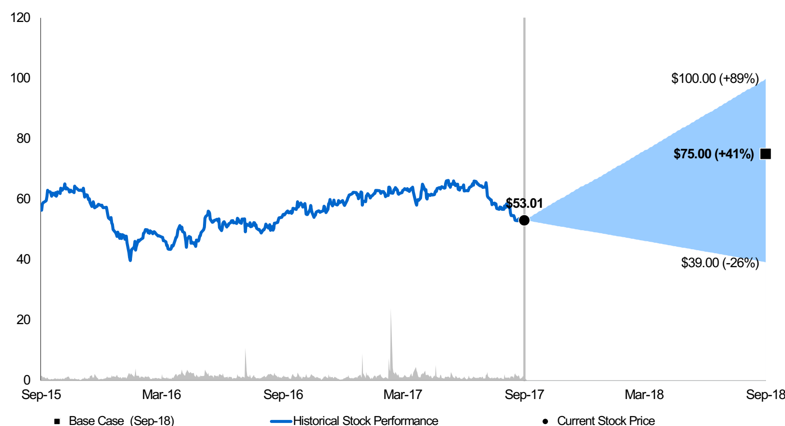
- **Strong Beer Fundamentals:** Our robust HSD% 5-year beer topline CAGR is driven by favorable sub-category positioning (Mexican imports), advantageous demographics (skew to Hispanics), solid pricing contribution, and company-specific growth adjacencies in smaller non-Corona brands (e.g., Pacifico) and draft/can packaging formats. Overall, our ~7.5% STZ corporate organic sales forecast is nearly double the 4% average growth at higher valued beverage peers.
- **Beer Margin Upside:** Our bottom-up margin build overlaid with peer benchmarking establishes the foundation for our ~39.5% operating margin forecast by FY19.
- **Solid Wine Trends:** STZ organic sales growth rebounds to 3.5%-4% in wine with solid category growth, and STZ's improved portfolio through its focus on higher-end focus brands and value-added M&A.
- **Valuation Still Attractive Post Outperformance:** STZ trades at a +1% CY18e P/E and a +4% EV/EBITDA premium to beverage peers (BFB/KO/PEP/DPS). We believe STZ deserves to trade at a much greater valuation premium to the group given much higher topline growth and company specific margin levers, which drive LT EPS growth at ~2x the rate of peers.

Risks to Achieving Price Target

- Border adjustment taxes/import tariffs, immigration policy changes, execution risk, category growth trends, competitive entries in beer, and heightened promotional activity are key risks.

DISH Network: Risk-Reward

Spectrum at a Discount, Pay-TV Concerns Understood



Source: Morgan Stanley Research, Thomson Reuters

Price Target **$75**

Our mid year '18E price target is based on our base case valuation.

Bull **$100**

~6.5x fwd. EV / bull case EBITDA + ~$89 /share for spectrum

Spectrum is sold, while pay-TV assets reflect strategic value: Our bull case assumes ~$1.75 per MHz-POP for mid-band paired spectrum and ~6.5x fwd. bull case EBITDA for pay-TV.

Base **$75**

~6x fwd. EV / base case EBITDA + ~$67 /share for spectrum

Pay-TV remains challenging, market assigns a higher multiple to DISH's spectrum: In our view, a more favorable M&A environment and removal of the restraints around industry consolidation during the 600 MHz auction suggest the implied valuation for DISH's spectrum is too low. Our base case assumes ~6x fwd. base case EBITDA for pay-TV and ~$67 per share for DISH's spectrum (~$1.25 per MHz-POP for mid-band paired spectrum).

Bear **$39**

~5x fwd. EV / bear case EBITDA + ~$44 /share for spectrum - ~$6 /share for estimated DE discount litigation liability

DISH puts its spectrum to work via network share or network build, while pay-TV weakens further: Being the fifth player in a scale-driven industry with rising competitive intensity is, we believe, sufficiently unattractive to deter DISH from building a network, though entry via a network sharing deal is possible and, in our view, could pressure the stock. In our bear case, we value core pay-TV at ~5x EV / fwd. EBITDA, assume a paired mid-band spectrum value of ~$0.75 per MHz-POP, and back out ~$6 /share to account for our estimate of the maximum liability related to DISH's ongoing DE discount litigation. This bear scenario could come as a result of continued "treading water" by DISH up to and maybe through its first build-out requirements in '20.

Why Overweight?

- Our investment thesis is based on potential upside from spectrum monetization through industry consolidation.
- DISH's ~90 MHz of mostly mid-band spectrum brings much to the table for any wireless carrier. In a fiercely competitive industry with growing data needs and an increasingly frequent reliance on "unlimited" bandwidth, differentiation is challenging and spectrum is a differentiating asset.
- A more favorable M&A environment and removal of the restraints around industry consolidation during the 600 MHz auction should provide greater strategic options for DISH, which we believe could lead to a realization of our estimated spectrum value.

Valuation

- Our base case valuation assumes: 1) DISH's core pay-TV business is valued at ~6x EV / fwd. EBITDA and 2) ~$1.25 per MHz-POP for mid-band paired spectrum (implying ~$67 per share for DISH's spectrum).

Key Value Drivers & Potential Catalysts

- A sale or spin of the spectrum, or sale of the company, could lead to significant upside.
- Faster-than-expected adoption of Sling could help offset satellite sub losses.

Risks to Achieving Price Target

- Entry into the competitive wireless industry via a network build could require meaningful upfront investment with unclear returns. Additionally, if DISH's spectrum is put to use, we see significant risk that the market values the expected future wireless cash flows less than it currently values DISH's spectrum.
- Competition from emerging OTT competitors may impact DISH more than peers due to its higher exposure to US pay-TV and more price sensitive customer base.
- Unclear capital allocation plan leaves risk from M&A or other strategic activity.

Domino's Pizza: Risk-Reward

Stable, Strong FCF Generation

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$210**

31x 18e EPS, balancing a burgeoning international royalty stream that accounts for ~40% of EPS (by our calculations) and domestic share gains against higher leverage and tax policy uncertainty that weigh on the multiple. DCF supports a $210 value assuming a ~6.5% WACC, 6.9% cost of equity, and 2% terminal growth rate.

Bull **$270**

32x Bull Case FY18e EPS of $8.58

Domino's delivers: Assumes robust international SSS and store growth lead to EPS upside and multiple expansion. In the US, input costs are manageable and comps grow >6%, operating margin to an all-time high of ~21%. Domestic franchise unit growth accelerates meaningfully.

Base **$210**

31x Base Case FY18e EPS of $6.68

Steady eddy: The international store base continues to expand at a low-double digit clip while comps stay in the upper half of the LT range. Domestic SSS grow and unit expansion accelerate as DPZ continues to gain share from new product launches, loyalty, and greater online sales mix, while costs remain benign.

Bear **$152**

26x Bear Case FY18e EPS of $5.82

Cold pizza: International franchise comps fall below plan while store growth begins to decelerate. In the US, a contracting pizza category & fierce price competition keep franchisee comps under pressure while rising input costs weigh on store margins and EPS. Despite weakening fundamentals, highly franchised business supports 26x multiple.

Investment Thesis

- **Strong cash flow generation, stable franchise income stream and burgeoning international business** are partially offset by a traditionally price competitive category & high leverage.
- **We believe DPZ remains well positioned as the leader in US delivery pizza.** After years of challenges in the category due to fragmentation & persistent pricing issues, growth was reignited on a new media campaign, lower prices and more recently a robust tech platform and loyalty program.
- **Int'l royalties (~40%+ of profits)** growth should improve to a high-teens rate and are slowly being appreciated by the investor base.
- **Efforts to sustain US sales** focus on increasing value, expanding dayparts, better utilization of technology/loyalty and now remodels. While LT potential is yet unclear, there appears to be a long tail from these initiatives which should continue to drive domestic market share growth.

Risks to Achieving Price Target

- FX headwinds: strengthening USD weighs on EPS
- Commodity inflation
- High valuation leaves little room for any operational missteps

Edison International: Risk-Reward

Strong Growth at Improving Valuation at Current Levels, in Our View

Source: Morgan Stanley Research, Thomson Reuters

Price Target **$92**

Derived from our base case and driven by a relative 2019 P/E analysis, the method we use for all utilities, applying 5% premium to above-average growth utility.

Bull **$101**

19.2x 2019 EPS of $5.26

Earned ROE of ~11.25% and a 5% premium multiple to account for above-average rate-base and EPS growth. Assume no parent drag.

Base **$92**

19.2x 2019 EPS of $4.79

Earned ROE of ~11% and a 5% premium multiple to account for above-average rate-base and EPS growth.

Bear **$76**

18.3x 2019 EPS of $4.18

Earned ROE of ~9.5% to reflect potential additional fines / penalties and an in-line multiple in the event that above-average EPS growth does not materialize.

Investment Thesis

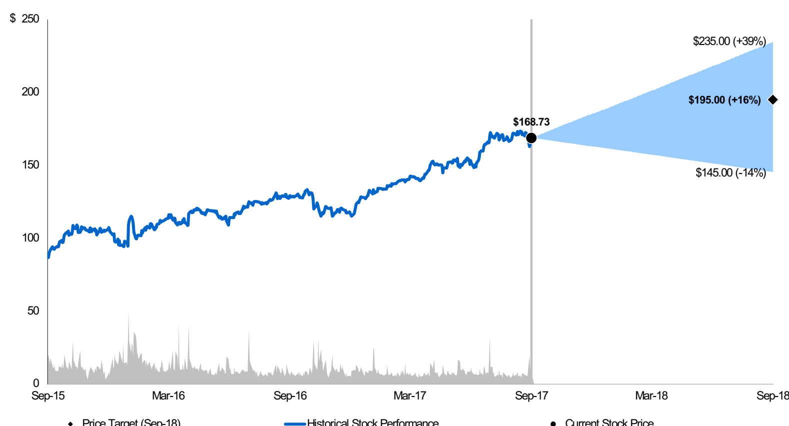
- **Eventual premium likely to materialize, given EIX is one of the few high-growth pure-play regulated utilities...** With many other regulated utilities suffering from either significant merchant exposure, midstream weakness, international headwinds, and / or below-average earnings growth, EIX remains attractive as a pure-play regulated utility with robust growth opportunities, decoupled revenues, and interest rate protection.
- **California's constructive policy backdrop provides robust spending opportunities.** California's climate goals provide long-term drivers for growth including infrastructure reliability, grid modernization, transmission, energy storage, and transportation electrification. We forecast the CPUC to be generally supportive of both traditional capital expenditures as well as the $1.8b in grid modernization expenditures requested.
- **On net, we see an improving risk-reward and some upside to our PT.** With many of the key regulatory uncertainties addressed and a low probability the reopening of the SONGS case has a material impact, in our view we expect the stock to modestly re-rate to a 5% premium as the market fully appreciates the growth opportunities at SCE. We are currently 3% above 2019 consensus and remain Equal-weight with a $92 PT.

Risks to Achieving Price Target

- Unfavorable final decision in the company's General Rate Case
- Execution on transmission projects
- Maintaining cost discipline while EIX is between rate case filings
- ROE outlook post-2019

Facebook: Risk-Reward

Ad Rev Growth & Incremental Margins Highlight How Early It Is in the Platform's Monetization and Potential Earnings Power



Source: Thomson Reuters, Morgan Stanley Research

Price Target $195

Our $195 price target is based on our discounted cash flow valuation and implies ~28X 2018E GAAP EPS. We use a ~8% WACC and a 2% terminal growth rate (in line with other growth oriented companies with limited debt).

Bull $235

~32X bull case 2018 GAAP EPS of ~$7.29

Monetization drives upside as ROI and reach allows FB to garner greater share of advertiser wallets. User growth and engagement grow faster than expected due to product innovation. Pricing growth accelerates more than we expect on core FB as ad load slows due to strong incremental advertiser demand. Facebook is more successful in closing the monetization gap in int'l markets vs. the US. This flows through to margins, which expand faster than expected.

Base $195

~28X base case 2018 GAAP EPS of ~$6.95

Ad load growth slows but ad revenue continues to grow ~45%+ (ex-FX) in 2017 driven by user and pricing growth. FB accelerates hiring in 2017 and opex per head continues as FB invests in innovation but GAAP EPS still grows ~30%. Instagram monetization continues to progress and contributes ~$3.7bn of ad revenue in 2017.

Bear $145

~22X 2018 bear case GAAP EPS of ~$6.47

Share gains of incremental mobile ad spend deteriorates, as FB's global ad share of display and video budgets grows slower than we expect. FB user penetration slows due to lower than expected user and engagement gains. Relative to base case, we assume FB is less successful in closing the monetization gap in int'l markets vs. the US, while heavy investment leads to less robust operating income growth.

Why Overweight?

- **Monetization potential**: We see the monetization roll-out of Instagram adding ~$3.7bn of incremental ad revenue in 2017. We are also positive on FB's ability to continue to innovate and improve its monetization (Canvas Ads, Dynamic Ads, video). Combined with high and growing engagement we see monetization upside going forward.
- **Strong profitability despite conservative opex modeling:** we are modeling 45% GAAP opex growth in 2017, implying an incremental ~$7bn in opex. Our base case model implies opex per employee continues to grow while FB accelerates hiring and adds the most employees in company history. Despite this, we believe FB will still grow EPS ~30% in 2018.

Valuation

- PT derived from base case DCF valuation which implies FB commands a ~28X P/E at YE17. We use WACC of ~8% and terminal growth rate of 2% (in line with growth oriented companies with limited debt).

Risks to Achieving Price Target

- Facebook generates the vast majority of its revenue from advertising; deterioration in the health of the ad market is likely to drive negative revisions
- FB could invest more than we expect and in the near-term pressure earnings power.
- Dilution of shareholder value due to stock issuances to fund employee compensation schemes or M&A
- As core FB ad load growth slows we expect FB to accelerate pricing growth, to the extent FB is not able to do so could affect top-line growth.

Goodyear Tire & Rubber: Risk-Reward

More Miles = More Tires

Source: Thomson Reuters, Morgan Stanley Research.

Price Target **$46**

From our DCF model we use a risk-free rate of 3.2%, beta of 1.4 and market premium of 5.5% to derive a WACC of 8.6%. We assume 10% exit OP margins and use a terminal growth rate of 1.5% on forecasted cash flows through 2026, which yields our PT.

Bull **$80**

9.7x 2018e EV/EBITDA

GT meets its 2020 SOI targets: On the way to being a mobility services force. Our bull base assumes GT achieves management's 2020 targets, with follow through into the out years of our DCF. Multiple expansion from strong growth in miles traveled, sustainable higher pricing, and an accommodative raw material environment.

Base **$46**

6.3x 2018e EV/EBITDA

Beneficiary of growing miles traveled supporting price/mix. SOI falls 25% short of management's 2020 targets. Our base case assumes $2.2b SOI v. the $3.0b target for 2020 provided at the Investor Day in September 2016.

Bear **$20**

3.7x 2018e EV/EBITDA

Tires remain commodities, secular growth in volume fails to materialize, pricing insufficient to offset raw material inflation and competition. Our bear case model assumes that raw materials and general cost inflation are more severe than expected, making pass through more challenging; industry transitions to ≥17" at a faster rate than expected easing supply constraints in the segment.

Why Overweight

- After a brief dip in 2017, we forecast GT margins to recover to 2016 highs over the next 3 years on the back of secular growth in global miles traveled supporting both replacement tire volume and price/mix.
- Pricing and volume gains supported by underlying replacement demand offset partially by competitive pressures.
- Valuation appears attractive relative to other names in our NA group, vs. its own history and vs. its global tire peers. We forecast GT to generate more than ⅓ of its market cap in cash through 2020.

Key Value Drivers

- Strong brand, superior product / technology and high market share (#3 globally).
- We forecast global miles traveled to double by 2030 and to triple by 2040, supporting replacement demand.
- NA contributes the bulk of the profitability at GT, although EMEA and Asia profitability has strongly improved in recent years.
- GT has systematically reduced costs and improved flexibility in both fixed capital and labor, de-risking the pension which had long plagued the multiple.

Potential Catalysts

- USTMA Monthly Tire Shipment Data
- Quarterly results

Investment Risks

- Capacity growth outstrips demand growth
- Miles driven, particularly in US, grows more slowly than expected
- Incremental OEM pricing pressure, especially in the ≥17" segment

IBM: Risk-Reward

Transformation Not Priced In

Source: Thomson Reuters, Morgan Stanley Research

Bull $232

17.5x P/FCF 2017e of $13.25/shr

Strategic Imperatives investments pay off with a faster return to revenue and FCF growth and gross margin upside. Investors begin to recognize IBM's competitive lead in Strategic Imperatives, particularly Cloud and Cognitive. IBM approaches revenue growth a year earlier than expected (with a return to growth in 2018) and FCF surpasses GAAP net income on the back of deferred income growth and working capital improvements. In the bull case, we see IBM trading closer to MSFT on a P/FCF basis, or 17.5x, as investors give more credit to IBM's opportunity in higher growth areas with large addressable markets, like $2 trillion TAM for Watson.

Base $192

15.5x P/FCF 2018e of $12.40/shr

Balanced transformation drives gross margin and revenue stabilization in 2018. Structural challenges in the company's core solution portfolio are largely offset by growth in Strategic Imperatives, excluding the impact of currency. Improved leverage drives gross margin expansion starting in 4Q17 and continuing into 2018 after a weak start in 1Q17. SI growth re-accelerates to double digits after a slow down in 2Q on the back of mainframe cycle, new cloud logos, and a building as-a-Service revenue base. IBM trades at 15.5x 2018e P/FCF (ex- financing receivables), and in-line with ORCL which is in the midst of a similar transformation.

Bear $132

12x P/FCF 2017e of $11.00/shr

Strategic Imperatives fail to take off and margin remains under pressure. IBM fails to increase the relevancy of its product portfolio after divesting commoditized businesses and acquiring in Strategic Imperatives. Cheaper and more nimble competitors take customer share and slow IBM's transformation. Gross margin stabilization comes at the expense of SI growth. IBM converts less than 100% of net income to FCF. Our 12x multiple is more in-line with average of where hardware peers trade historically like CSCO, HPE and NTAP.

Investment Thesis

- As Strategic Imperatives approach half of revenue, re-accelerating growth and margin expansion drive a shift in investor sentiment. Long-term, Watson has the potential to re-rate shares more in line with Microsoft in the bull case.

Key Value Drivers

- *Can IBM win the cloud game?* We don't expect IBM to compete with AWS or Azure on price, but IBM's portfolio of PaaS (Blue Mix), customized IaaS (Softlayer), and SaaS (Watson, Blockchain etc.) helps IBM hold customer dollar share in a way that more commoditized hardware peers, like HPE and NTAP, cannot.
- *What's the right multiple for a company in transition?* IBM should trade more in-line with software & services peers given better prospects to transform for a cloud/cognitive world than hardware peers. IBM trades closer to ORCL on P/FCF (similar transformation) in our base, and closer to MSFT (cloud and Watson story) in our bull case.

Potential Catalysts

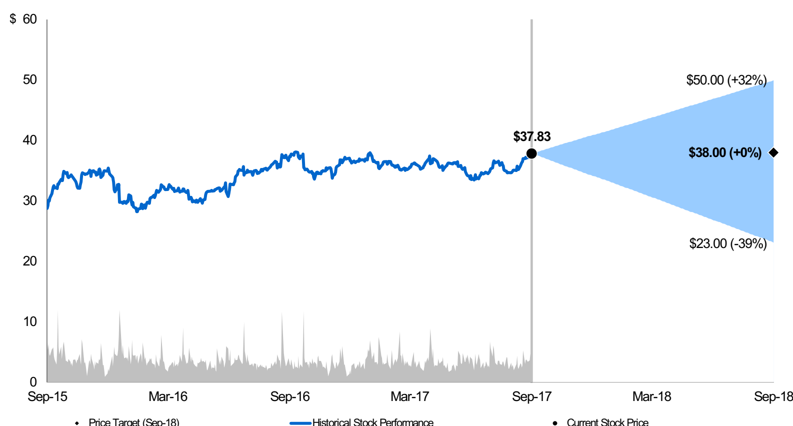
- Cloud wins & Mainframe accelerate growth/leverage in 2H17
- Acquisitions drive faster as-a-Service revenue scale
- Watson builds momentum with penetration into new verticals
- FCF conversion improves on ELA renewals and SI drives higher annuity revenues

Potential Risks

- Continued signs of cloud cannibalizing IBM's core markets
- IBM fails to monetize investments, hurting margin prospects
- Weaker mainframe cycle
- SI growth fails to re-accelerate as management re-focuses on margins

Intel: Risk-Reward

We See DCG Deceleration as a Headwind to Growth and Expect High Internal Inventories to Pressure Margins



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$38**
Base case scenario

Bull **$50**
~17x 2018e EPS of $3.00
PC average selling prices continue to rise in 2017, Data center reaccelerates to 15% target, driving multiple higher
– Data center growth accelerates to 15% growth and PC revenues grow modestly through higher average selling prices
– Better growth drives higher gross margin, minimizing cash flow gap

Base **$38**
13.5x MW 2018e EPS of $2.86, slight discount to the group (in line with history)
PCs continue to be weak in 2017 with y/y declines and Data center growth is sub 10% both in 2017 and 2018. we project:
– MW Gross Margins: 63.1% GMs in 2017e and 62.4% in 2018e
– 2017e and 2018e EPS of $2.98 and $2.86, respectively
– Mixed success in key non x86 initiatives (foundry, smartphones)
– Multiple below the group due to large gap between earnings and free cash flow

Bear **$23**
12.5x 2018e EPS of $1.85
Assumes average selling price and units both decline 5% in 2017 and 2018 due to mix shift to lower end notebooks, without offsetting volume, and servers slow dramatically
– Revenues declines at 7.1% CAGR over 2016-18
– Dividend perceived to be at risk
– Multiple compression as concern builds about further margin degradation in 2017

Investment Thesis

- Primary revenue drivers are PCs which decline 2-5%, and data center up HSD, driving minimal revenue growth
- We are reasonably upbeat on long term prospects for the data center group but think the grow trajectory of the business is in the HSD range
- Non PC/server initiatives likely continue to disappoint
- Foundry customers still unclear, beyond Altera (now acquired), Panasonic which are small; we think building a sustainable earnings stream from foundry will be challenging.
- Process node transitions taking longer; the company's 2 year "tick/tock" cadence is clearly under stress with the launch of a 3rd year tock variant in Kaby Lake and 4th year variant later this year.

Potential Catalysts

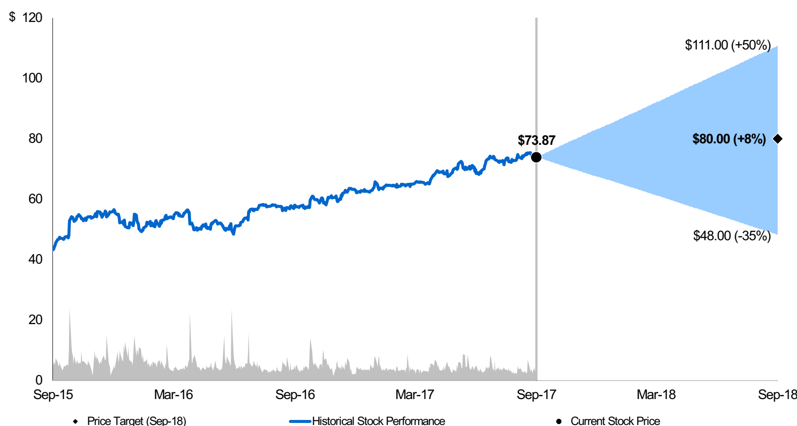
- Rebound in PCs leads to better than expected performance in client computing group
- Competition from AMD's ZEN CPU is less severe than expected, which could lead to further increase in microprocessor pricing
- 3rd year Tock variant in Kaby Lake could drive margin upside with lower depreciation, more mature yields and lower raw material cost

Risks to Achieving Price Target

- AMD competition is formidable, which could lead to share loss in high performance PCs and servers as well ASP pressure
- Mild strain from record high inventory and receivables levels

Microsoft: Risk-Reward

Durability of EPS Growth Should Push Multiples Higher



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$80**

Based off of our base case

Bull **$111**

27x Bull Case CY18e EPS: $4.13

Azure and O365 Drive Top-Line Growth. Intelligent Cloud grows at a ~18% CY16-18e CAGR from rapid Azure adoption and sustained legacy Server growth. Adoption of higher priced O365 Commercial SKUs and LinkedIn drive Productivity and Business Processes to ~$40B in CY18. Operating margins expand modestly and CY18e EPS is $4.13. 27x represents a discount to large-cap software peers growing EPS double-digits (ADBE, INTU, RHT).

Base **$80**

~23x Base Case CY18e EPS: $3.42

Durability of Growth – Confident in ~10% CY17e-CY19e Revenue CAGR: Top line drivers include the Azure (Microsoft emerging as a public cloud winner), Data center (share gains and positive pricing trends), O365 (base growth and per user pricing lift), and LinkedIn. Op margins expand to ~31% in CY18. Contribution from LinkedIn, double-digit FY17-FY20 EPS growth, and a >2% dividend yield drives a mid-teens total return profile and yields CY18e EPS of $3.42. At ~23x EPS, MSFT would trade at a premium to the S&P, but in line with its premium total return profile.

Bear **$48**

16x Bear Case CY18e EPS: $2.98

Commercial Cloud Growth Decelerates Significantly. Slower cloud growth causes PBP and IC segments to grow only single digits in CY18; MPC declines from Windows weakness. Total revenue grows at a ~7% CY16-CY18 revenue CAGR. Operating margins decline to ~28% in CY18e yielding CY18e EPS of $2.98. 16x multiple is in line with low growth large cap software peers.

Investment Thesis

- Top line drivers including Azure (Microsoft emerging as a public cloud winner), data center (share gains and positive pricing trends), O365 (base growth and per user pricing lift) and the integration of LinkedIn push top-line growth back above 10%. With stabilization in gross margins, continued opex discipline and strong capital return, we see a durable mid-teens total return profile at MSFT.
- MSFT currently trades at ~21x CY18e EPS, a premium to the S&P, warranted due to MSFT's premium total return. Multiple expansion from here will likely be predicated on gaining comfort on the achievability and sustainability of low to mid teens EPS growth. Continued growth in Microsoft's Commercial Cloud business, which may warrant a higher multiple, and sustained opex discipline could drive durable EPS growth.

Potential Catalysts

- Sustainability of commercial growth, cloud momentum, improving cloud margins in 1Q18 earnings
- Improving PC data points

Risks to Achieving Price Target

- Weak macro impacting global PC sales
- On-premises cannibalization by Cloud
- Increased data center investments hurt margins

Netflix: Risk-Reward

Content and Distribution Advantages Building; We See Upside to NFLX Shares

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$210**

Our $210 PT reflects our base case DCF valuation and ~12.5x EV / 2027e base case EBITDA discounted back to mid-2018. Our DCF assumes a ~9% WACC and +2% long-term growth rate. NFLX currently trades at ~6x EV / fwd revenue.

Bull **$240**

~13x EV / 2027e bull case EBITDA discounted back, or based on bull case DCF

Successfully leveraging investments to drive sub growth, reaching 240M+ global streaming subs by 2025 (ex-China). Domestic streaming subs reach 70M+ in 2020e, followed by over 80M in 2025e. Domestic streaming contrib. margins expand slightly faster vs. our base case, reaching 47% in 2020e. Total int'l subs (ex-China) grow to ~100M by 2020e and nearly 160M by 2025e on successful penetration of newer markets. Buybacks begin in 2019e, with LT gross leverage at ~3x.

Base **$210**

~12.5x EV / 2027e base case EBITDA, discounted back, or based on base case DCF

Domestic subs reach 70-75M and international subs (ex-China) grow to 145M by 2025e. Domestic streaming contribution margins expand roughly +250bp YoY in '17, followed by ~200bp p.a. on average to 45% in 2020e. Internationally, NFLX's expansion drives non-U.S. subs (ex-China) to over 95M in 2020e and ~145M by 2025e, reflecting ~20% blended penetration of broadband homes. Blended international contribution margins reach low-double digits in '18E. NFLX begins buybacks in 2020e, with long term gross leverage at ~2x.

Bear **$140**

Based on our bear case DCF valuation

Elevated churn domestically and challenging penetration in int'l markets. Total US streaming net adds decelerate more quickly, with modest sub growth to 55-60M by 2020e. Domestic ARPPU of ~$10/month in 2017e sees limited growth towards ~$13 by 2025e, and longer-term domestic contribution margins expand just +100bps annually on average ('18-20e). International streaming subs reach ~95M by 2020 with slower growth in tougher markets. Int'l contribution margins are 500-600bp lower than our base case in '18/19e on average.

Why Overweight?

- We believe share performance is highly dependent on increasing global membership scale. Proven success in the US and initial int'l markets provides a roadmap to success in new markets, and scale should allow NFLX to leverage content investments and drive margins.
- Higher global broadband penetration should increase NFLX's addressable market, driving member growth and providing further opportunity given NFLX's global presence.
- Longer term we see the ability to drive ARPU growth, particularly given increased original programming traction

Key Value Drivers

- Domestic subscriber growth and contribution margins
- International subscriber growth and performance in recent and upcoming markets (launched in Germany / France in September 2014; Australia / New Zealand in early 2015; Japan in September; Spain, Italy, Portugal in Oct. 2015; ROW ex-China in 2016)
- Impact of comping the pricing increase and elevated member churn in 2016
- Ability to maintain exclusive content offering to differentiate product from competitors, and to a lesser extent, success of original programming

Potential Catalysts

- Further integration with MVPD offerings
- Success in international markets
- Success of original programming
- Announcement of long-term agreements securing exclusive quality content

Risks to Achieving Price Target

- Pricing increases drive elevated churn
- Increased competition drives higher pricing for exclusive content lowering margins
- Challenges in newer markets negatively impacts member growth expectations

NVIDIA: Risk-Reward

Valuation Is High but We Don't See a Catalyst to Change That

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$168**
Base case scenario

Bull **$210**

Data center and gaming growth accelerates taking CY18 EPS to $5.07; stock trades to 40x +cash

Bull case has accelerating gaming growth with Tegra revenues moving sharply to the upside as Autos and Virtual Reality gain traction, while Data Center sales continue to show strong growth
– Higher margin data center and pro visualization growth accelerates
– Nvidia increases its dominance in discrete GPU taking share from AMD while maintaining ASPs
– Auto gains traction and improves in CY18 coming quarters

Base **$168**

~$7 net cash + 38x $4.25 CY18 MW EPS, a premium to large cap semiconductor peers due to superior growth

Base case assumes some deceleration in gaming, but continued hypergrowth in data center
– GPU growth comes in at ~30% in 2017 and 18% in 2018 after growing 39% in 2016 driven by Data Center business
– Continued growth from Data center (HPC and Deep learning) and Autos
- Valuation remains high due to open ended nature of virtual reality, autonomous driving, and data center opportunities

Bear **$80**

$7 net cash + 20x CY18 EPS of $3.62, ex-cash

Two key debates both go the wrong direction, causing investors to question future prospects for growth.
– Gaming slows down leading to lower revenue growth and product mix shift to Tegra (Autos) brings overall margins lower.
– AMD through its promotional efforts takes back GPU market share and/or causes Nvidia to reduce its GPU prices to compete.
– GPU sales into supercomputers and data center slow

Investment Thesis

- We expect core business to continue to grow nicely, with some deceleration in the core gaming and OEM graphics business offset by continued growth in data center
- Strong growth drives high valuation: Stock reflects a fairly high P/E multiple on the core business at 30x next year, after stripping out the Intel royalty and cash balance. This reflects several open ended growth opportunities in virtual reality, data center, and automotive
- Cash return has been a solid driver, but most of domestic cash flow comes from Intel royalty which expires early next year

Potential Catalysts

- Pascal gaming GPUs refreshes drives' near term growth; NVIDIA will have significant card revenue initially with "founders edition". How sustainable is the early adopter surge?
- Data center continues to be a major focus as key cloud customers focus on "deep learning"
- Success of virtually reality, deep learning, and /or autonomous driving lead to high multiple

Risks to Achieving Price Target

- Significant investment in new but unproven opportunities
- Continuation of sluggish PC market (~60% of revs)
- AMD reemerges as a viable GPU competitor after a period of disarray in 2014-15

Old Dominion Freight Line: Risk-Reward

Structural Cost Advantages to Drive Share Gains as Market Improves

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$87**

We use a 10-year DCF assuming 6.9% WACC and terminal cash flow perpetual growth rate of 2.5% (implying an exit EBITDA multiple of 6.0x). Our DCF valuation implies July 2018e TMF PE of 17.1x, which is inline with ODFL's historical average.

Bull **$135**

Fwd P/E 19.5x

Macro trends strengthen and tonnage growth reaccelerates. LTL pricing cycle remains robust. Investors seek increased exposure to economically sensitive stocks such as LTLs, supporting moderate multiple expansion.Potential policy changes accelerate topline growth and decrease the tax rate to ~25%.

Base **$87**

Fwd P/E 17.1x

LTL pricing growth decelerates to low single digits YoY in 2016 and 2017. ODFL's cost advantage supports ability to grow market share without sacrificing pricing discipline and delivers 20-30% incremental margins going forward.

Bear **$60**

Fwd P/E 13.5x

Macro trends deteriorate, tonnage growth decelerates, and LTL pricing discipline weakens. Driver wage pressure weighs on productivity and op margins. Investors pull out of economically sensitive LTL stocks, causing multiples to continue compressing ahead of expected downward earnings revisions.

Investment Thesis

- We are Overweight ODFL. We favor ODFL the most among the LTLs as we think superior execution vs. peers would continue to drive market share gains as well as profitability. We believe ODFL's cost advantage and strong service, and use of 3PLs is likely to drive volume growth in excess of the overall LTL industry and support significant long-term earnings growth outperformance. We also believe ODFL can benefit from LT gains in trucking technology that we see helping the industry.

Investment Positives

- Revenue growth likely to be in excess of rest of LTL industry
- Structural advantages drive attractive EBIT growth vs. peers
- Scale and attractive balance sheet could make ODFL an early beneficiary of intelligent trucks
- Investors may be overly bearish toward ODFL given recent tonnage underperformance

Investment Risks

- Peak margins limit degree of margin expansion opportunity vs. peers
- Significant investment for growth is risky if macro slows
- Efforts by peers to follow parts of ODFL playbook could make competitive landscape more challenging

PG&E Corp: Risk-Reward

Attractive Growth Outlook with Easing Regulatory Risks, in Our View

Source: Morgan Stanley Research, Thomson Reuters

Price Target **$76**

Derived from our base case and driven by a relative 2019 P/E analysis, the method we use for all utilities, applying 5% premium to above-average growth utility.

Bull **$83**

19.2x 2019 EPS of $4.34

Robust ROE. We assume a ~11.2% blended earned ROE with 52% equity ratio in the event PCG is able to cut-costs or pull other levers to improve ROE. 5% premium to regulated P/E multiple used to account for above-average growth.

Base **$76**

19.2x 2019 EPS of $3.98

Moderate ROE. ~10.3% blended earned ROE in-line with allowed with 52% equity ratio. 5% premium to regulated P/E multiple used to account for above-average growth.

Bear **$61**

17.5x 2019 EPS of $3.48

Low ROE. We assume 9% blended earned ROE to account for incremental fines or penalties. We also apply a 5% discount to the regulated P/E multiple.

Investment Thesis

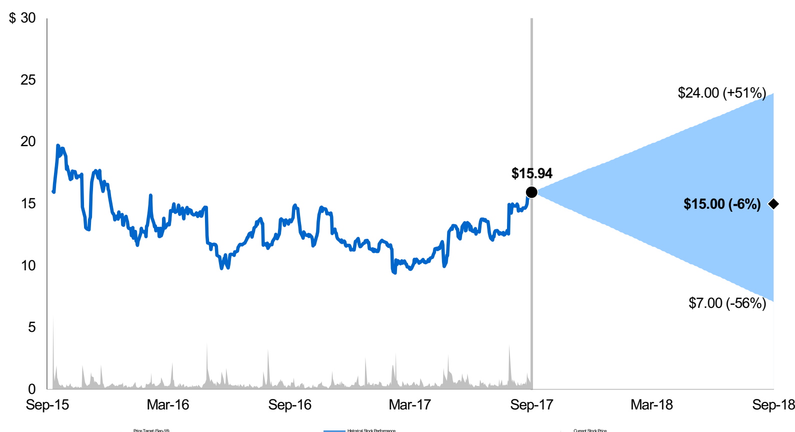
- **Our $76 price target now reflects ~12% upside, remain Overweight.** PCG is currently trading at a ~5% discount to peers on 2019 consensus estimates. We think that a ~5% premium is ultimately warranted once full clarity is achieved given above-average growth, decoupled revenues and attractive regulatory mechanisms that has allowed the utility to successfully execute on cost management initiatives historically.
- **Robust long-term growth outlook with improved regulatory clarity.** Driven by ambitious California public policy goals, we believe that PCG will be able to implement a robust capital spending plan focusing on reliability investment, grid enhancement, FERC-regulated transmission, and even things like electrical vehicle charging infrastructure and storage longer-term. Even considering incremental equity needs, we still expect PCG's long-term rate base and earnings growth to be above the ~5% regulated utility average yet the stock still trades at a discount to the group despite receiving clarity around several regulatory overhangs in the past year and a half.
- **Despite an attractive risk-reward, we acknowledge there are uncertainties that remain, primarily:** final decision in the attorney general ex parte investigations, phase 2 of the CPUC's safety-related investigation into PG&E's culture and governance, and potential fines or penalties associated with the Butte Fire.

Risks to Achieving Price Target

- Potential Butte Fire costs incremental to charges taken so far including: property damage related to trees, firefighting costs, personal injury damages, lawsuits, and any fines / penalties
- Maintaining cost discipline while between rate case filings
- Equity needs could also be higher in the event management is more conservative in its financial planning
- ROE outlook post-2019

Pure Storage: Risk-Reward

Pure Play in All-Flash Arrays



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$15**

Derived from base-case scenario. 2.5x EV / revenue multiple reflects the upper end of storage peers (1-3x EV/Sales) in light of sustained 30%+ revenue growth and a near-term path to profitability. Supported by our DCF.

Bull **$24**

4x CY18e EV/Sales of $1.4B

Pure gains more market share with cloud service providers and cloud integration software positions Pure to be a leader in hybrid cloud. Pure gains incremental market share in external storage from growing hybrid deployments, and TAM increases on the back of FlashBlade. The ramp in profitability is greater than our base case and sustained high levels of growth increase the likelihood of strategic interest. Stock trades above storage peers and closer to high-growth storage and networking peers, or 4x EV to CY18 sales.

Base **$15**

2.5x CY18e EV/Sales of $1.3B / DCF based

The secular transition of all-flash arrays remains strong, but increased competition limits growth upside. Increases in market share are limited given greater presence of HP/NMBL and Dell/EMC as the acquisitions move beyond initial integration. FlashBlade contributes to overall growth with total revenue CAGR of ~34% from CY16-18. Gross margin upside limited due to NAND prices. Stock trades near the high-end of storage peers, or 2.5x, given sustained double-digit growth and a clear path to profitability. Valuation supported by our DCF of $14.

Bear **$7**

1x CY18e EV/Sales of $1.2B

Competitive environment heats up. Pure fails to grow market share as legacy competitors take more share in the all-flash market. Operating margin falls as Pure incurs greater costs to support growth in a declining TAM environment. Bear case target reflects 1x EV to CY18 sales, which is in-line with lower growth peers and where storage players bottomed historically.

Investment Thesis

- Pure Storage is a pure-play in the all-flash array (AFA) market, with a ~$35B TAM. While Pure can gain significant share in the declining storage market with the transition to AFA, we see increased competition pressuring growth rates.

Key Debates

- *How large a threat is cloud adoption?* We assume public cloud takes over half of the external storage market in three years. We also believe Pure becomes a major player in the remaining market, and new software features like cloud integration potentially allow Pure to become a larger player in hybrid cloud environments.
- *Will margins compress as competition intensifies?* Higher compression ratios than competitors are offsetting higher NAND costs near-term. Long-term, the ability to add new differentiated features and expand into new markets will determine the sustainability of mid 60%s gross margin.

Potential Catalysts

- Faster transition in storage from performance disk drives to all-flash arrays
- Increasing adoption of 3D NAND which drives down the cost of raw flash
- Better than expected sales productivity
- Expanding GTM with new geographies / resellers generate more leads
- Further traction with large enterprise and CSP accounts, increasing repeat purchases
- New product launches drive growth and margin improvement

Risks to Achieving Price Target

- Faster shift to the public cloud
- Increasing competition hurts revenue growth and/or margins
- Tight supply and higher prices in NAND pressure gross margin or slow end demand
- CIOs limit enterprise IT spending due to macro weakness or pause spending

Qualcomm: Risk-Reward

Market Is Pricing In Share Gain, Margin Potential, and NXP Accretion.

Source: Thomson Reuters, Morgan Stanley Research

Price Target $60

14x base case FY18 EPS of $3.17 plus NXP accretion of $1.22. 14x is in line with our coverage universe and semis peers on a pro forma earnings growth basis.

Bull $110

20x bull case FY18 EPS of ~$5.50

NXP closes, Apple royalties recover and generally favorable core business outlook. Qualcomm grabs 10% volume share of the general computing market (directly and/or through tablet share gains vs. laptops), while handset replacement cycles accelerate. QCT operating margins return to the high 20s through reduced investments in leading edge geometry. Market expectations for higher earning potential for FY18 and beyond allow QCOM's valuation multiple to expand to 20x FY18 EPS, the upper end of our coverage universe.

Base $60

14x base case FY18 EPS of $3.17 plus NXP accretion of $1.22

NXP deal closes but incremental investments limit margin/earnings potential. Anticipating NXP deal to accrete $1.22 to FY18 EPS and to help drive low-single digit earnings growth to the pro forma business. But the core business remains under pressure as the current lawsuit with Apple undermines conviction in the current royalty business and compels QCOM to ramp investments in competitor ecosystems. 14x pro forma FY18 EPS is in-line with our coverage universe and semis peer on an earnings growth basis.

Bear $36

8x FY18 base case EPS plus net cash of $11 per share

NXP deal fails to close, no recovery from Apple lawsuit and difficult business outlook. Qualcomm fails to gain incremental chipset market share, handset replacement cycles extend to ~30 months and contribution from general computing fails to materialize. QCT operating margin improvements are limited to the low-teens because of competition while adverse outcomes in the Apple lawsuit substantially reduce earnings potential.

Investment Thesis

- Qualcomm is the leading supplier of cellular basebands and application processors with superior market position, but the ongoing Apple lawsuit is compelling incremental investments into alternative ecosystems.
- The core Qualcomm market of mobile phones is becoming mature, and most of the new incremental opportunities outside of the pending NXP deal are likely to be quite limited.
- The company's ability to meaningfully increase cash returns to shareholders is limited given that virtually all the cash generation from the chip business is stranded offshore.

Key Debates

- *Incremental QCT margin improvements?* We think margins will be pressured as Qualcomm maintains investments in the smartphone ecosystem while ramping investments in new technologies.
- *Is entry into new markets a real opportunity?* Yes, but likely not as lucrative as handsets due to lack of royalty revenue.
- *Will Qualcomm prevail in the Apple lawsuit?* Likely so, but not before a protracted legal battle and incremental investments.

Potential Catalysts

- Enter into a fab partnership with Intel; Chipset share gains; Accelerated handset replacement cycles; Favorable resolution to the Apple lawsuit; NXP deal closes and drives meaningful growth; Wafer costs come down; less pressre to move to leading edge geometries.

Risks to Achieving Price Target

- Further loss of Apple business; NXP deal fails to close; Lengthening of handset replacement cycles; Legal challenges to Qualcomm's royalty structure; Qualcomm loses substantial chipset share.

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IDEA

Red Hat: Risk-Reward

Favorable Environment for Open Source Suggests Solid Growth Ahead

Source: Thomson Reuters, Morgan Stanley Research estimates

Price Target **$120**
Derived from Base Case

Bull **$163**

EV/FCF = 23x CY18e Adjusted FCF of $6.73/share plus $8.64 in net cash

Market Share Gains Accelerate, Emergence as a Major Player in Cloud. Red Hat continues to gain share in the OS and middleware markets, while new technologies gain traction and cloud investments see strong early results, significantly raising ASPs and opening new market opportunities. New product strength and momentum in Linux drive >20% billings growth through CY18, resulting in ~25% OM by CY18 and sustaining OCF and FCF growth CAGR >30%. Stock trades at 23x our CY18 adj. FCF estimate of $6.73 per share, plus $8.64 in net cash.

Base **$120**

EV/FCF = ~21x CY18e Adjusted FCF of $5.23/share plus $8.64 in net cash

Linux Resilience and Growing Contribution from Broadened Product Portfolio Sustains Growth. Growing acceptance of open source solutions, continued traction with middleware solutions, and contribution from storage and cloud portfolio help sustain high-teens billings growth through CY18. Top-line growth helps offset continued investments in cloud, helping op. margin reach >23% by CY17. Overall, Red Hat sees ~20% OCF growth in CY17 and CY18 despite headwinds from growing cloud provider business, yielding ~20% FCF growth CAGR through CY18. Stock trades at ~21x our CY18 adj. FCF estimate of $5.23 per share, plus $8.64 in net cash.

Bear **$67**

EV/FCF = 13x CY18e Adjusted FCF of $4.46/share plus $8.64 in net cash

Linux Share Gains Slow, Investments Fail to Pay Dividends. Weak server growth in CY17/CY18 and intense competition in cloud impact RHT's core business, while middleware portfolio stalls and new storage portfolio fails to gain traction. Slowing growth in RHEL is unable to be offset by PaaS/IaaS offerings. As a result, total billings CAGR slows to 15% through CY18 as investments keep margins relatively flat. The stock trades at 13x our CY18 adj. FCF of $4.46, at the low end of large-cap infrastructure peers, plus $8.64 in net cash per share.

Investment Thesis

- RHT's low-cost open source technology platform, broadening product portfolio and subscription model should sustain double-digit billings growth as newer products gain scale and Linux grows share in cloud environments.
- While the RHEL business continues to mature, we see several offsetting factors including: a faster growing renewal base, ASP increases, JBoss strength, an emerging storage business, new cloud and virtualization offerings and improving renewals.
- Recently released storage and cloud technology, along with OpenStack offerings, could represent compelling call options in the long-term to current estimates and could drive RHT shares towards our bull case.

Key Value Drivers

- Share gains by Linux within the overall OS base, increasing conversion of free users to paid subscription, and adoption of higher priced SKUs.
- Traction of products outside the core RHEL business, such as JBoss, Storage, PaaS and OpenStack.

Potential Catalysts

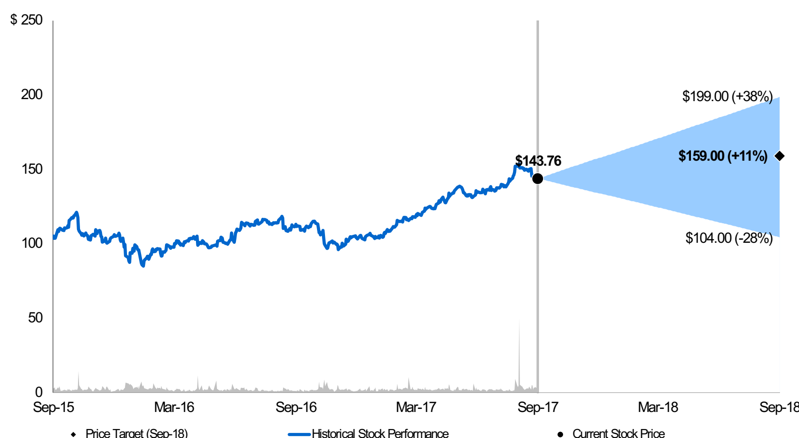
- Quarterly earnings results.
- Growing acceptance towards open source platforms for large-scale production environments.
- Opportunities for Linux to run in environments and support applications that were previously the domain of Windows, given recent announcements with Microsoft Azure and SQL Server.
- Demand for new applications and toolsets native to the Linux OS.

Risks to Achieving Price Target

- Microsoft Windows Server product cycle.
- Further deceleration in core Linux drivers.
- Lack of payoff from heavy investments in acquired technologies.

SBA Communications: Risk-Reward

High US Cell Tower Exposure



Source: Morgan Stanley Research, Thomson Reuters

Price Target **$159**

Our valuation approach includes a discounted cash flow analysis, with a weighted average cost of capital of 6.6%, and implies a 2018e P / AFFO of ~20x, slightly above the historical average.

Bull **$199**

~24x 2018e P/AFFO

Leverage to grow portfolio. Rather than converting to a REIT, SBA Communications maintains target leverage of 7.0x to 7.5x to grow the portfolio. The tower operator offers the most upside to estimates, due to portfolio growth, and smaller portfolio of towers relative to peers.

Base **$159**

~20x 2018e P/AFFO

Growing demand for mobile data. Four national carriers are actively investing in their network, to compete on network quality, and the FCC makes new spectrum available through spectrum auctions. SBA Communications continues to grow the tower portfolio and benefits from investments in Brazil.

Bear **$104**

~13.5x 2018e P/AFFO

Rising rates create headwinds. Historically, interest rates have had ~65% correlation v. performance of the tower stocks. However, if rising rates drive REIT multiples lower, it could pressure the towers. Meanwhile, network sharing agreements and / or carrier consolidation increase the potential for churn.

Investment Thesis

- We favor the fundamentals of the tower model - long term contracts, operating leverage, rate escalators, low capital expenditures, high margins, strong credit tenants, and high barriers to entry.
- The growing demand for mobile data, carriers competing on network quality, and additional deployments should keep leasing activity elevated.
- SBA Communications maintains target leverage of 7.0x to 7.5x to grow the portfolio, and offers the most upside to estimates.

Key Value Drivers

- Tower portfolio growth (Mobilitie acquisition of ~2,300 towers, TowerCo acquisition of ~3,252 towers, Vivo acquisition of 800 towers, and Oi acquisitions of ~5,800).
- Leasing up space on Mobilitie and TowerCo towers, as AT&T and Verizon densify their networks.
- International towers account for ~35% of the portfolio, and ~15% of the site leasing revenues. In particular, management is focused on Brazil, as the carriers prepare for the deployment of 700 MHz spectrum and higher smartphone penetration.

Potential Catalysts

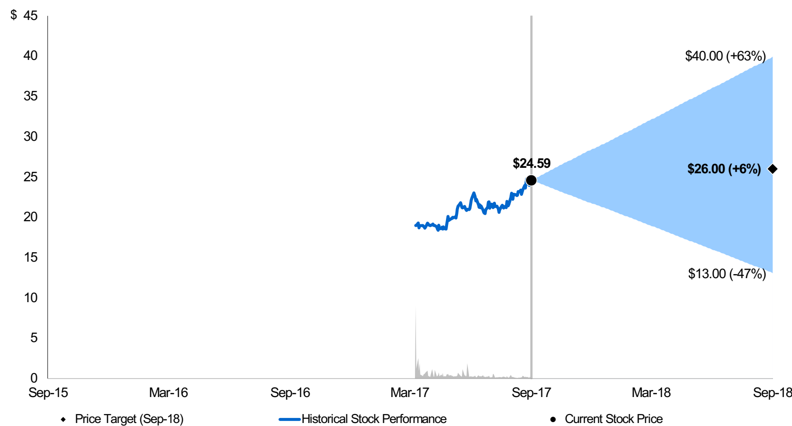
- S&P 500 inclusion
- Disciplined portfolio acquisitions
- Share buybacks
- Carriers investing in their networks

Risks to Achieving Price Target

- Rising interest rates and high leverage
- Foreign market risk / FX (Brazil ~11.5%)
- Carrier consolidation or reorganization in U.S. or Brazil.
- Small Cell solutions gain share of total cell sites.
- Valuation relative to other industries

Schneider National: Risk-Reward

Large, High-Quality Trucking Company at a Reasonable Valuation



Source: Thomson Reuters, Morgan Stanley Research

Price Target **$26**

We use a 10-year DCF assuming 7.9% WACC and terminal cash flow perpetual growth rate of 2.0%, (implying an exit EBITDA multiple of 5.0x). Our DCF valuation implies a fwd P/E of 21.5x vs. TL peer average of ~24x.

Bull **$40**

Fwd P/E 22.5x

In 2017 and 2018, revenue growth accelerates to mid-to-high single digits, with TL pricing exceeding expectations given tight capacity, partially influenced from implementation of ELDs. Op. leverage drives margin improvement above base case and Quest allows 5% CAGR fleet growth. Intelligent trucks start to deliver tangible benefits faster than expected.

Base **$26**

Fwd P/E 21.5x

We expect revenues to grow at LSD in 2017 and MSD beyond. TL OR improves 170 bp through 2019 and IM OR improves 150 bp due to chassis conversion. Quest system allows TL fleet to grow significantly faster than peers without price/utilization penalty.

Bear **$13**

Fwd P/E 15.0x

Freight demand weakens as macro environment remains soft in 2017/2018 and ELD mandate does not have expected impact. Rising cost inflation (driver wage) is a headwind while Quest does not live up to expectations of fleet utilization benefits.

Investment Thesis

- Our OW rating reflects an improving truckload demand environment, structural supply tightening from electric logging devices (ELDs), the secret sauce of the Quest system, technology leadership taking advantage of secular gains from intelligent trucks, and below-peer valuation.

Investment Positives

- Large, diversified trucking company with strong, stable management team
- Technology focus should help drive operating superiority (Quest system) as well as longer term competitive advantage (intelligent trucks)
- Clean balance sheet and improving FCF generation

Investment Risks

- Trucking cycle deeply cyclical and macro visibility remains poor
- Not much visibility into Quest operating metrics and technology opportunity also means that the industry is ripe for disruption
- Diversification is a good thing but our LT view on Intermodal and Logistics is somewhat bearish

Tesla Motors: Risk-Reward

TSLA Is in a Good Position in the Race for Miles and Data but Faces Competition in the Mobility Space from Tech Companies

Source:

Price Target **$317**

Our PT of $317 is comprised of 2 components: The first is a $245/share DCF value of the core Tesla Auto business on a 13% WACC, 9x exit EBITDA and exit EBIT margins of 14.7% . The second component is our valuation of Tesla Mobility at $72/share (what the company has announced as 'Tesla Network') based on a 15-year DCF and a 15% WACC. Our price target applies zero value for Tesla Energy and zero value for SCTY.

Bull **$526**

Unchanged assumptions for core auto business but lower risk premium due to achievement of Gigafactory and Model 3 milestones. An 11% WACC and 11x exit EBITDA multiple supports a $366/share valuation for Tesla Auto. We add our base case assumptions for Tesla Mobility at a 12% WACC, implying $128 per share. Tesla Mobility valued at a 15-year DCF with a 30% tax rate and terminal growth rate of 3%. We add $16 for Tesla Energy, assuming 15% of Gigafactory output sold to the power sector at a 15% margin. SCTY value of $15/share, equal to the value of shares issued for the acquisition.

Base **$317**

We believe Tesla cannot be valued on near-term metrics or multiples like traditional OEMs. We use a DCF that extends to 2030 and capture the full maturation of the Model S, Model X (and top hat derivatives) as well as the ramp-up of the Model 3. We have applied a 13% WACC with a range of 11% to 15%.

Bear **$175**

Our $175 bear case is bounded by a 15x EBITDA multiple on our 2019 EBITDA forecast of $2.4bn. This multiple is more than a 35% discount to the EBITDA multiple Intel has announced it is paying for Mobileye on our 2019 MBLY forecast. Our bear case valuation is one of strategic value, as the level of strategic interest in the transportation sector has even taken us by surprise.

Investment Thesis

- Tesla Mobility: Tesla is distinctively positioned, to commercialize an app-based, on-demand mobility service.
- Optionality to new model introductions (Model 3, Model Y, pickup truck) could significantly expand volumes.
- Tesla Energy: Expansion into mass production of battery packs opens up an array of adjacent new markets.
- Too soon to tell if SCTY acquisition adds any material value to shareholders.
- Tesla 'semi' is real but we think difficult to move the needle.

Potential Catalysts

- Teasing key attributes and production milestones for Model 3.
- Further announcements of Tesla Network: an app-based, on-demand mobility service.
- Improved costs on Model X production ramp, consumer and motor journalist feedback.
- Developments around Tesla's residential and commercial energy storage initiatives.

Risks to Achieving Price Target

- May never make the leap to a shared mobility model, limiting itself to niche OEM status.
- Execution risk on unprecedented innovations brought to market on its models and capital intensive initiatives.
- Volatility in commodity prices such as oil materially changes the economic benefits of electric vehicles.
- Openness of capital markets to funding Tesla's strategic and investment ambitions.
- Large and better capitalized technology firms emerging as competitors.

Visteon Corporation: Risk-Reward

Pure Play on Connected Car

Source: Thomson Reuters, Morgan Stanley Research.

Price Target **$112**

Price target of $112 is based on a 10-year DCF, Our DCF is based on a 9% WACC, 2% terminal growth, 9.0% exit EBIT margins.

Bull **$150**

~11.8x Bull Case 2018e EBITDA $415M

The market values VC at ~11x, a 10% premium to the HAR takeout multiple. Visteon launches a promising L3 ADAS or L4/L5 autonomous product in 2018 and delivers new business wins shortly thereafter. Visteon is able to gain market share in instrument clusters and does not lose as much share as anticipated on increased penetration of larger screens.

Base **$112**

~9.2x Base Case 2018e EBITDA $391M

VC generates 10.7% EBIT margins by 2021 and delivers 1-4% top line growth per annum through 2021, largely on growth in APAC and Europe. Market values VC at a premium to other NA suppliers due to product launches and powertrain agnosticism but a discount to the HAR takeout multiple (due to risk of commodification and/or increased competition).

Bear **$60**

~6.2x Bear Case 2018e EBITDA $278M

Visteon is caught up in a cyclical downturn, taking OP margins to 6% from our 9-10% currently on a 10% decline in top line. In this scenario we presume that the multiple compression reflects investor focus on industry headwinds over strategic value.

Why Overweight

- Highest forecast earnings growth of any supplier stock in our coverage (after MBLY).
- Cockpit electronics are largely powertrain agnostic and highly relevant in the new business model (shared/autonomous) but are also likely one of the most attractive segments to new entrants and it is unclear if Visteon will be able overcome commodification, content loss, and competitive trends.
- High scoring on our Global Auto Strategic Scorecard framework (GASS).

Potential Catalysts

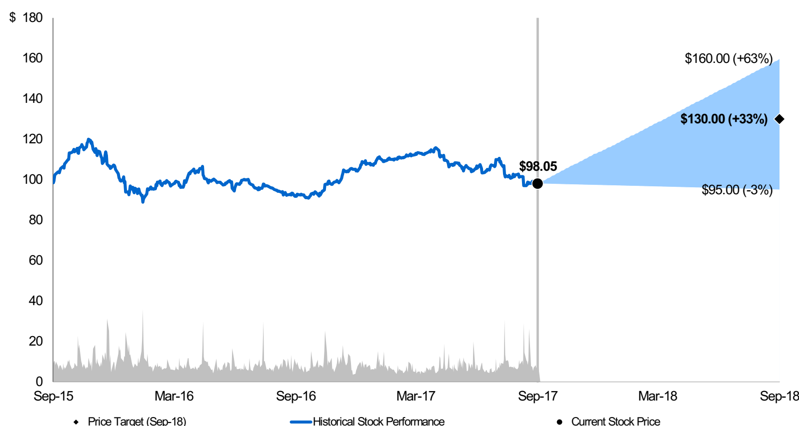
- Product launches (CES 2018) and new business wins, particularly of new products (Smart Core and Phoenix) autonomous/advanced driving product.
- Further announcements of consumer electronics players entering cockpit electronics through product launches, new business wins with OEMs, or strategic activity.

Risks to Achieving Price Target

- US auto and auto credit cycle. We are entering the 8th year in the US auto cycle.
- Exposure to Chinese auto market which is highly dependent on central government actions to maintain economic growth.
- OEM price pressure remains intense on an annual basis, commodification and competition increases this pressure

Walt Disney: Risk-Reward

Facing New Reality, Going on Offense



Source: Thomson Reuters, Morgan Stanley Research

Price Target $130

Our calendar YE17 price target reflects our base case valuation.

Bull $160

~19x Bull Case CY18E EPS and ~13.5x Bull Case EV / CY18E EBITDA

Consumer cycle drives improved ad growth and parks margins upside. ESPN's domestic affiliate revenues grow +50bp faster annually vs. our base case on average over the next two years, accelerating further in FY19 on distribution renewals. Overall, Media Networks ad revs grow +2-3% on average over the next three years. Domestic Parks EBIT margins expansion continues, up +150-200bp annually in '17-19E. Studio segment delivers EBIT $200-250M ahead of our base case annually for FY17-FY19 on average based on strong theatrical results. CP + Interactive EBIT grows mid-to-high single digits on average over the next 3 years. Buybacks accelerate further in FY17/18.

Base $130

~19x Base Case CY18E EPS, ~12x Base Case EV / C18E EBITDA

Cable nets sub erosion improves, leading to modest acceleration in affiliate revs: Core ESPN and cable affiliate revs (excluding FX headwinds) grow +4.5-5% in FY17/18 and cable ad revenues are flat YoY in '17/18 (including estimated Big Ten headwind) before growing low-single digits longer term. Cable opex normalizes to +3-4% in FY18. Overall, Media Nets ad revs grow at +1% CAGR for '17-19E. Domestic parks EBIT margins expand +150bp in '17 and +70bp in '18. Studio EBIT dips in FY17 before reaching nearly $3bn in FY18 driven by strong film slate. CP + Interactive EBIT down LSD in '17E (vs. guide for growth), rebounds to HSD growth in '18E and mid-single digit growth long term.

Bear $95

~15.5x Bear Case CY18E EPS and ~10x Bear Case EV / CY18E EBITDA

Sluggish ad revenues and cable subscriber losses continue, parks growth decelerates on constrained consumer spend: ESPN's domestic affiliate revenue growth is ~50bp lower than our base case in FY17/18, followed by growth 50-100bp lower in FY19 as subscriber pressures continue. Media Networks ad revenues are down 3-4% annually on average over the next 3 years ('17-19E). Core domestic parks attendance is flat on average for the next 3 years due to a tougher macro environment, while US per cap spending growth is ~150bps below our base case.

Why Overweight?

- ESPN's distribution revenue growth can see acceleration over the next few years, with potential for further positive earnings revisions from upcoming distributor renewals.
- New streaming offerings can drive incremental pay-TV penetration, leading to improved sub trends for ESPN and other cable nets. Affiliate fee pricing could benefit from positive mix shift in rates towards new entrants paying a premium on carriage.
- We believe DIS can continue to deliver solid margin expansion at Parks and strong growth in Studio OI, particularly with a strong content slate for FY18 and continued ability to monetize on successful franchises.

Potential Catalysts

- Upcoming ESPN distribution renewals: new deals with distributors (MVPDs) could drive pricing acceleration
- Improving consumer: Disney is more cyclical than peers given exposure to advertising, theme park, and consumer products.
- Film success: We believe consensus assumes continued film success, but DIS could further surprise to the upside by successfully monetizing new franchises.
- Shanghai: Strong growth in theme parks attendance could drive faster ramp in profitability. New initiatives across domestic and international Parks could drive significant ROI and lift earnings power.

Risks to Achieving Price Target

- Our $130 PT implies ~19x CY18E EPS and ~12x EV / CY18E EBITDA, reflecting a premium relative to media peers based on Disney's strong growth outside of the TV ecosystem.
- Macro econ weakness would negatively affect DIS, particularly the Parks segment.
- Acceleration in pay-TV cord-cutting remains a risk, given DIS exposure to pay-TV revenues.
- Film franchise fatigue could pressure box office performance and lower Consumer Products monetization opportunities.

Xilinx: Risk-Reward

We Expect Sales to Grow MSD in FY18 and 19; Potential for Share Gains and a Pickup in AI Inference Workloads Offers the Optionality of Higher Growth

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$72**

Base case scenario

Bull **$87**

25x CY 2018e EPS of $3.23 + cash, based on hypothetical strategic value

Reflects a much faster ramp of server acceleration opportunities, as the role for FPGAs in those applications shows strong growth in 2018. This would drive substantial incremental earnings leverage, and would also likely result in multiple expansion

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Base **$72**

23x Base Case CY18e EPS of $2.86, premium to long term average on better growth prospects driven by share gains and increasing AI penetration, plus $6 in cash

A slight premium to current valuation, as the AI and share gain opportunities become evident in 2017. Sales grow 6.5% in FY18 with Communications & Data Center up 1.1%, Industrial, Aerospace & Defense up 9.3% and Broadcast, Consumer & Auto up mid teens.

Bear **$44**

15x Bear Case CY18e EPS of $2.52, plus $6 in cash

Weak end markets, reversal at 14 nm as Altera takes leadership share, no leverage. Stall in communications infrastructure end-market growth results in a revenue shortfall.

Investment Thesis

- Xilinx's lead in advanced nodes (28/20/16nm) should translate to superior growth for the company vs Altera (Intel) over the coming quarters
- Potential for share gains is improving as we have seen the company stretch its lead over Intel/Altera in the two most recent manufacturing nodes
- New growth opportunities in markets such as ADAS in automotive and use of FPGAs as accelerators in the data center. As machine learning continues to evolve, we see the market for "inference" moving away from microprocessors and towards specialty solutions, including Xilinx FPGAs
- We see overall growth in FPGAs modestly improving, as base stations fade in importance and new technologies start to penetrate autos, factories and data centers

Key Value Drivers

- We see continued share gains, as the company should show high 20 nm share and significant lead in 16nm
- We find the case for FPGA revenue gains vs. overall logic compelling, particularly as communications, enterprise, and industrial markets are relatively appealing vs. consumer/smartphone/PCs, but growth has been lackluster for the last several years as platforms in those businesses have standardized

Potential Catalysts

- Adoption of FPGAs for Inference AI workloads pick ups faster than expected
- ADAS penetration and Adoption of FPGAs in Data center is faster than expectations

Risks to Achieving Price Target

- China spending continues to be lumpy and unpredictable
- Intel becomes aggressive on the pricing front in a bid to protect market share

XPO Logistics: Risk-Reward

The Tesla of Freight Transportation

Source: Thomson Reuters, Morgan Stanley Research

Price Target **$75**

We use a 10-year DCF assuming 9.1% WACC and terminal cash flow perpetual growth rate of 2.0% (implying an exit EBITDA multiple of 7.0x). Our DCF valuation implies July 2018e TMF EV/EBITDA of 8.3x, which is below a 65:35 asset-light to asset-heavy transportation multiples blend of approx. 9x, given its still evolving business model.

Bull **$100**

EV/EBITDA 9.0x

In our bull case, we assume HSD organic rev growth, mgmt. surpasses their FY18 EBITDA target, and LTL margins reach industry leading levels over the next few years. We assume the market pays 9.0x our TMF bull case EBITDA, slightly below a 65:35 asset-light to asset-heavy transportation multiple, as XPO's results come in above expectations and mgmt gains credibility. Potential policy changes accelerate topline growth and decrease the tax rate to ~25%.

Base **$75**

EV/EBITDA 8.3x

In our base case, we assume MSD organic growth revenue growth, continued margin improvement at the LTL segment toward industry-leading levels, and mgmt reaches their FY18 EBITDA target. We assume the market pays approx. 8x our TMF EBITDA, which is below a 65:35 asset-light to asset-heavy transportation multiples blend of approx. 9x.

Bear **$35**

EV/EBITDA 7.5x

In our bear case, we assume a paltry LSD organic revenue growth and that operational improvements in the LTL segment disappoint. We assume XPO trades at 7.5x TMF EBITDA, which is close to the level XPO traded at in 2H16 when sentiment on the name was very negative, and one turn discount to our base case multiple.

Investment Thesis

- We are overweight XPO, which we see as the Tesla of Freight Transportation. We like XPO's technology-driven platform strategy that is unique in the space. While it has one of the widest risk-reward skews in our coverage universe given its limited operating history, integration risk, and bold growth plans, management has a history of successfully integrating acquisitions. We see a large opportunity for synergies and operational improvements to more than offset softer underlying LTL fundamentals at Con-way, and stable contract logistics earnings and exposure to Europe serve as good hedges if domestic freight trends weaken. The stock is not without risk, but if XPO's business plan works, the upside to the stock would be greater than at most names we cover.

Investment Positives

- Exposure to secular growth in multiple outsourced transportation markets by leveraging the use of technology
- Potential for industry-leading LTL margins
- Stable contract logistics earnings and exposure to Europe serve as a good hedge if domestic economy weakens
- Less downside to asset-light (50% of EBITDA) profitability if macro weakens given lower operating leverage
- Trades at a very attractive valuation vs. asset-heavy and asset-light peers

Investment Risks

- Asset-heavy LTL business is highly cyclical: profitability could deteriorate amidst sluggish macro if synergies and operational improvements fail to materialize
- Execution risk / Key man risk
- High balance sheet leverage vs. peers
- Brokerage business could be exposed to secular competitive threats from Uberization of freight
- eCommerce exposure/potential growth opportunities could put them on a competitive path vs. giants AMZN/WMT

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Global Stock Ratings Distribution

(as of September 30, 2017)
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	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
STOCK RATING CATEGORY	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	**1162**	**36%**	**304**	**40%**	**26%**	**560**	**37%**
Equal-weight/Hold	**1420**	**44%**	**363**	**48%**	**26%**	**697**	**46%**
Not-Rated/Hold	**58**	**2%**	**6**	**1%**	**10%**	**9**	**1%**
Underweight/Sell	**612**	**19%**	**91**	**12%**	**15%**	**242**	**16%**
TOTAL	**3,252**		**764**			**1508**	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.
In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.
Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.
Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

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COMPANY (TICKER)	RATING (AS OF)	PRICE* (10/02/2017)
Adam Jonas, CFA		
Adient PLC (ADNT.N)	O (02/21/2017)	$84.97
American Axle & Manufacturing Holdings Inc (AXL.N)	U (09/08/2011)	$17.65
Asbury Automotive Group Inc (ABG.N)	U (09/12/2012)	$61.90
AutoNation Inc. (AN.N)	O (07/13/2015)	$47.82
Avis Budget Group Inc (CAR.O)	U (03/19/2013)	$39.06
BorgWarner Inc. (BWA.N)	U (10/19/2015)	$51.85
Carmax Inc (KMX.N)	U (02/01/2017)	$76.59
Delphi Automotive PLC (DLPH.N)	U (11/29/2016)	$99.95
Ferrari NV (RACE.N)	U (09/07/2017)	$112.43
Fiat Chrysler Automobiles NV (FCHA.MI)	O (02/24/2016)	€15.25
Fiat Chrysler Automobiles NV (FCAU.N)	O (02/24/2016)	$17.95
Ford Motor Company (F.N)	U (09/08/2014)	$12.09
General Motors Company (GM.N)	O (06/28/2017)	$42.15
Goodyear Tire & Rubber Company (GT.O)	O (06/01/2017)	$33.57
Group 1 Automotive, Inc (GPI.N)	U (10/08/2013)	$73.53
Harley-Davidson Inc (HOG.N)	O (05/06/2013)	$48.55
Hertz Global Holdings Inc (HTZ.N)	U (09/14/2017)	$23.62
Lear Corporation (LEA.N)	U (06/08/2017)	$175.04
Lithia Motors Inc. (LAD.N)	O (10/15/2014)	$121.68
Magna International Inc. (MGA.N)	E (08/28/2017)	$53.83
Mobileye NV (MBBYF.PK)	E (02/01/2017)	$62.19
Penske Automotive Group, Inc (PAG.N)	O (09/06/2011)	$47.50
Sonic Automotive Inc (SAH.N)	O (09/29/2014)	$21.05
Tenneco Inc. (TEN.N)	U (09/23/2010)	$61.73
Tesla Motors Inc. (TSLA.O)	E (05/15/2017)	$341.53
Visteon Corporation (VC.N)	O (05/12/2017)	$126.73

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