



Lodging - US RevPAR -1.7% Y/Y Last Week; Clean comp but tough group compare y/y

As we predicted, seeing an acceleration in Occupancy deceleration

What's Incremental To Our View

Overall U.S. RevPAR was -1.7% Y/Y for the week ending 3/9/2019, per STR, weaker than the prior week's result of +0.3%. (2-year stacked RevPAR was +1.5% vs +4.5% in the prior week.) Independent hotels (about 1/3rd of the data set) were -0.7% y/y. Luxury (+0.4%) was the "strongest" chain scale for branded hotels; Upscale was the weakest at -3.9%. Upper Midscale (-2.4%) and Midscale (-2.8%) also underperformed the industry average. Within Upper Upscale & Luxury class hotels, Group (-7.0% vs. -0.7% prior week) was softer than Transient (+0.6% vs. -0.4% prior week).

Two primary takeaways from last week's results:

1. **Tough group comp y/y resulted in Group RevPAR of -7.0% last week.** We don't believe the negative result was holiday shift driven although there could have been some noise due to St. Patrick's Day.
2. **Supply growth remains a clear headwind to occupancy y/y growth (U.S. occupancy was -2.4%; Upper Upscale was -4.0% and Upscale -3.9%).** The weakest RevPAR results by chain scale were generally the segments with the largest supply growth (Upscale to Midscale). We caveat that hotels are still running very high occupancies but we find there is limited ability to push room rates to make up for the occupancy loss.

Due to the hurricane comparisons from the 2017 storms, we anticipate continued choppiness of the data in some of the most impacted major markets (Miami, Orlando, and Houston) and a generally difficult comp for these areas for the next several months.

RevPAR details:

- **Luxury was the "strongest" chain scale.** Upscale and Upper Midscale underperformed by 430 bps and 280 bps, respectively: Luxury RevPAR (+0.4%), Upper Upscale (-2.5%), Upscale (-3.9%), Upper Midscale (-2.4%), Midscale (-2.8%), and Economy (-0.6%). Independent hotels (-0.7%) outperformed headline U.S. RevPAR.
- **Within Upper Upscale & Luxury class hotels, Group was softer than Transient:** Transient segment (individual business and leisure travelers) RevPAR was +0.6% (vs. -0.4% last week) and Group segment RevPAR was -7.0% (vs. -0.7% last week).

C. Patrick Scholes
212-319-3915
patrick.scholes@suntrust.com

Brian Hollenden, CFA
212-303-1742
brian.hollenden@suntrust.com

Gregory J. Miller
212-303-4198
gregory.j.miller@suntrust.com

What's Inside

Weekly STR results and analysis

- **Chicago (-1.9%) was the "strongest" of the top five markets:** Boston (-6.7%), LA (-6.8%), NYC (-7.3%), and DC (-5.8%).
- **Other relevant markets:**
 - **San Francisco was very positive (Moscone Convention Center expansion and renovation completed):** RevPAR was +50.1% vs. +11.9% last week.
 - **Texas results were down (y/y hurricane comps in Houston):** Dallas RevPAR was -7.3% (vs. +4.0% last week). Houston RevPAR was -13.2% (vs. -10.1% last week).
 - **Hurricane-impacted markets in FL were down:** Miami (-2.6% vs. -2.3% last week); Orlando (-0.4% vs. -4.4% last week).

The stocks: We continue to favor C-Corps over hotel REITs (we favored hotel REITs for the first half of 2018). In an environment of low RevPAR growth combined with gradually increasing wages/margin pressures, returns for hotel owners is a major headwind to EBITDA growth. Hotel stocks, but especially hotel REIT stocks, typically work best when there is a spark to RevPAR growth and at this moment we are not seeing such a spark like we did earlier in 2018. **We are more favorable on other sectors at the moment, namely cruise lines.**

Not For Investment Purposes

Weekly RevPAR Summary

YoY % change in RevPAR														
	U.S.	Luxury	Upscale	Upscale	Upscale	Midscale	Midscale	Economy	Inde- pendent	New York	Boston	LA	Chicago	DC
12/29/2018	-2.3%	-4.7%	-4.0%	-3.7%	-2.0%	-2.0%	-1.3%	-0.8%	-5.3%	-7.0%	-5.2%	-0.3%	-4.2%	
1/5/2019	5.2%	13.6%	0.0%	-3.2%	-2.2%	-0.6%	1.3%	15.9%	10.2%	-15.3%	-0.8%	3.5%	-9.1%	
1/12/2019	-8.0%	-8.6%	-9.4%	-11.8%	-7.9%	-6.1%	-1.8%	-6.9%	-11.7%	-12.3%	-7.3%	-5.5%	-26.3%	
1/19/2019	8.5%	7.3%	11.7%	6.7%	6.7%	4.5%	3.7%	9.6%	3.2%	4.1%	-1.6%	4.2%	30.7%	
1/26/2019	-0.9%	-0.3%	-5.8%	-4.7%	-1.4%	-0.5%	1.8%	4.3%	-12.9%	-11.3%	-6.4%	-29.2%	-10.6%	
2/2/2019	2.4%	6.4%	4.6%	-0.2%	-0.6%	-1.3%	0.1%	3.4%	-3.6%	13.0%	5.7%	-13.9%	-2.4%	
2/9/2019	1.7%	5.0%	1.5%	-1.6%	-0.4%	-1.0%	0.6%	4.3%	-2.6%	4.2%	4.9%	3.1%	-3.6%	
2/16/2019	3.4%	2.7%	5.7%	2.8%	3.8%	0.9%	1.3%	1.9%	-0.8%	2.7%	-4.8%	-0.9%	-1.7%	
2/23/2019	0.0%	0.3%	0.0%	-2.7%	-1.8%	-3.6%	-2.7%	2.8%	-2.2%	2.2%	-3.6%	-2.8%	-6.9%	
3/2/2019	0.3%	0.7%	0.2%	-1.3%	0.0%	-1.0%	-0.4%	0.6%	-5.9%	-3.5%	-3.7%	11.4%	-0.5%	
3/9/2019	-1.7%	0.4%	-2.5%	-3.9%	-2.4%	-2.8%	-0.6%	-0.7%	-7.3%	-6.7%	-6.8%	-1.9%	-5.8%	

Clean comp; tough group compare

Luxury and Economy led the industry

Chicago and DC led the Top 5 markets

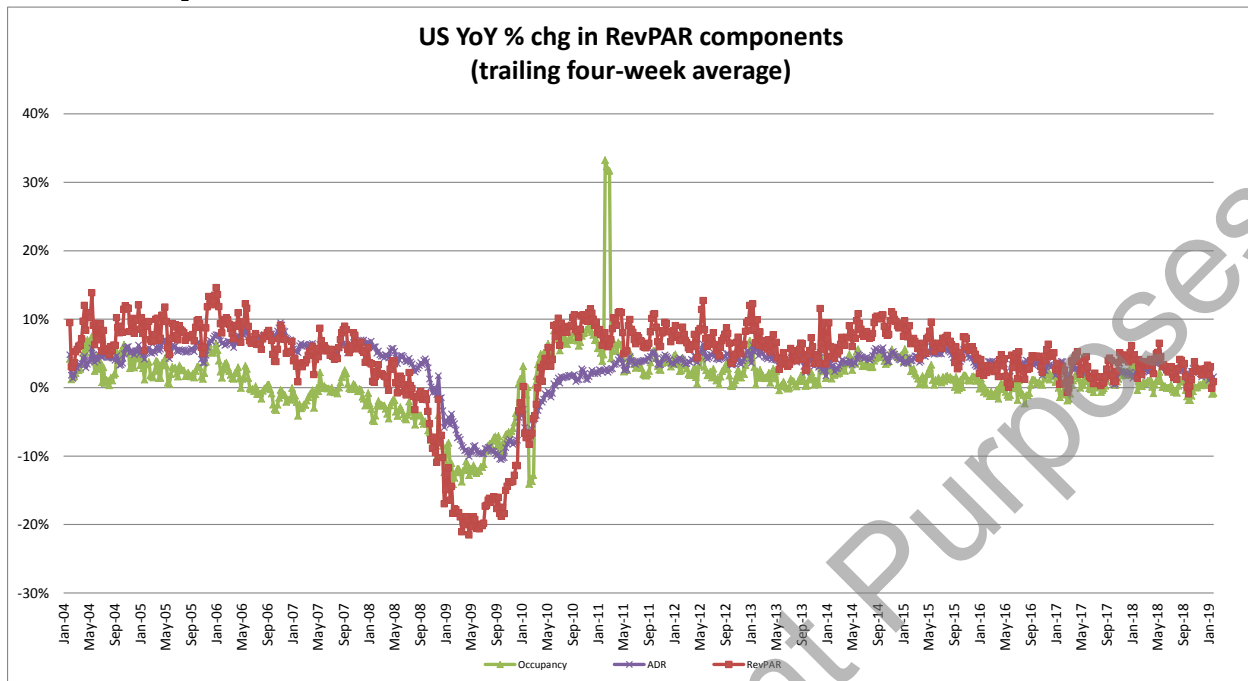
1Q16	2.7%	1.6%	1.9%	2.2%	2.0%	0.0%	1.8%	4.0%	-1.2%	-3.0%	16.6%	-4.8%	3.1%	
2Q16	3.5%	0.8%	2.9%	3.1%	3.2%	3.2%	3.0%	4.2%	-4.5%	1.5%	11.1%	-1.0%	3.5%	
3Q16	3.3%	1.5%	2.5%	2.0%	1.8%	2.5%	3.0%	5.1%	-2.5%	-0.5%	9.3%	1.2%	5.5%	
4Q16	3.2%	1.9%	0.6%	1.2%	2.2%	3.9%	4.4%	5.1%	0.9%	-1.6%	6.9%	3.3%	8.0%	
1Q17	3.4%	2.1%	3.0%	1.0%	2.4%	3.5%	2.6%	5.2%	-1.3%	-1.1%	-2.5%	1.5%	16.1%	
2Q17	2.7%	2.3%	0.6%	0.6%	1.2%	2.4%	3.7%	5.1%	0.2%	4.4%	3.6%	0.8%	0.8%	
3Q17	1.9%	0.5%	-0.7%	0.7%	1.8%	3.5%	2.9%	3.1%	-0.9%	-0.2%	-1.2%	-5.0%	-0.6%	
4Q17	4.2%	4.5%	3.2%	3.8%	3.9%	3.7%	3.7%	4.1%	0.8%	3.7%	4.2%	-2.5%	2.2%	
1Q18	3.5%	6.6%	0.9%	2.2%	3.0%	3.8%	5.3%	3.8%	7.1%	2.6%	2.7%	5.8%	-11.0%	
2Q18	4.0%	4.9%	3.4%	2.8%	3.0%	4.1%	3.1%	4.6%	4.2%	-1.2%	0.6%	4.0%	3.1%	
3Q18	1.7%	3.3%	1.9%	0.8%	-0.5%	0.1%	1.8%	2.2%	0.7%	2.8%	1.3%	7.5%	-3.4%	
4Q18	2.4%	3.0%	1.1%	0.0%	0.5%	1.3%	2.9%	4.9%	3.5%	12.2%	3.0%	2.8%	-3.4%	

YoY % change in ADR														
	U.S.	Upper Luxury		Upscale	Upscale	Upper Midscale	Midscale	Economy	Inde- pendent	New York	Boston	LA	Chicago	DC
12/29/2018	-0.5%	0.1%	-0.8%	-0.2%	-0.1%	0.2%	0.2%	-0.5%	-0.4%	-3.9%	-1.2%	-4.3%	-0.7%	1.6%
1/5/2019	5.6%	14.3%	3.5%	2.0%	0.9%	0.8%	0.7%	9.9%	10.2%	-3.6%	0.5%	1.0%	-0.9%	
1/12/2019	-2.3%	1.6%	0.5%	-2.5%	-1.8%	-1.7%	-1.2%	-3.2%	-3.0%	-1.7%	-1.3%	-1.1%	-7.9%	
1/19/2019	3.4%	3.0%	3.9%	2.5%	2.3%	1.2%	0.8%	3.6%	2.4%	1.5%	0.1%	0.0%	11.0%	
1/26/2019	-0.3%	5.1%	-0.9%	-1.4%	-0.3%	-0.6%	-0.5%	1.7%	-6.7%	-4.0%	-3.7%	-15.6%	-4.3%	
2/2/2019	2.3%	7.2%	4.5%	1.2%	0.5%	-1.1%	-0.8%	2.2%	-1.9%	6.0%	4.7%	-5.4%	-0.7%	
2/9/2019	1.5%	4.5%	2.3%	0.5%	0.4%	-0.3%	-0.6%	1.9%	0.5%	2.5%	4.7%	0.4%	1.0%	
2/16/2019	2.7%	3.9%	5.1%	2.8%	2.6%	0.2%	-0.2%	1.6%	0.5%	1.9%	-5.0%	-0.9%	0.7%	
2/23/2019	1.7%	3.1%	1.6%	0.2%	0.9%	-0.5%	-1.2%	3.1%	-1.1%	2.1%	-0.5%	-1.2%	-1.3%	
3/2/2019	1.3%	2.7%	2.0%	1.1%	1.3%	-0.1%	-0.4%	1.0%	-2.3%	1.2%	-1.9%	6.0%	5.1%	
3/9/2019	0.8%	3.6%	1.5%	-0.1%	0.8%	-0.4%	-0.7%	1.0%	-4.4%	2.0%	-2.9%	-1.1%	2.7%	
1Q16	3.2%	1.9%	2.7%	3.2%	2.6%	1.7%	3.3%	3.7%	-3.1%	1.4%	11.3%	-1.9%	1.1%	
2Q16	2.9%	1.5%	2.2%	2.9%	2.8%	2.7%	3.4%	3.0%	-3.1%	3.3%	9.4%	0.3%	2.1%	
3Q16	3.4%	1.5%	2.5%	2.7%	2.4%	3.1%	3.6%	4.4%	-2.7%	2.3%	7.5%	1.9%	3.5%	
4Q16	2.6%	2.1%	1.4%	2.2%	2.0%	2.2%	3.2%	3.8%	-1.2%	1.3%	5.8%	3.9%	4.1%	
1Q17	2.5%	2.3%	2.4%	1.3%	1.6%	1.8%	2.4%	3.5%	-2.2%	0.0%	-0.2%	1.7%	13.6%	
2Q17	2.2%	2.2%	1.2%	1.7%	1.5%	2.1%	2.3%	3.5%	-1.5%	4.1%	2.8%	1.5%	2.0%	
3Q17	1.4%	1.4%	0.2%	0.8%	1.2%	1.9%	2.4%	2.2%	-2.0%	0.8%	1.8%	-2.4%	0.0%	
4Q17	2.4%	2.2%	1.9%	1.8%	1.8%	2.5%	3.4%	2.1%	-0.2%	0.8%	4.6%	-2.0%	2.4%	
1Q18	2.5%	4.5%	1.0%	1.7%	2.0%	3.0%	4.0%	3.1%	3.5%	-1.0%	4.0%	1.4%	-9.4%	
2Q18	2.9%	3.5%	2.9%	2.4%	2.1%	2.6%	2.7%	3.1%	3.7%	-0.1%	2.1%	3.3%	2.4%	
3Q18	2.1%	3.3%	2.4%	1.8%	1.2%	1.3%	1.2%	1.9%	1.2%	1.9%	1.1%	6.7%	-0.8%	
4Q18	2.0%	3.7%	2.2%	1.6%	1.1%	0.9%	0.6%	2.9%	3.4%	5.6%	1.4%	2.2%	-2.1%	

	YoY % change in Occupancy													
	U.S.	Upper Luxury		Upscale	Upper Midscale		Economy	Inde- pendent	New York	Boston	LA	Chicago	DC	
12/29/2018	-1.8%	-4.9%	-3.2%	-3.5%	-1.8%	-2.2%	-0.8%	-0.4%	-1.5%	-5.9%	-0.9%	0.4%	-5.7%	
1/5/2019	-0.4%	-0.6%	-3.3%	-5.1%	-3.1%	-1.4%	0.6%	5.4%	0.0%	-12.1%	-1.3%	2.5%	-8.3%	
1/12/2019	-5.9%	-10.0%	-9.9%	-9.5%	-6.3%	-4.5%	-0.6%	-3.9%	-9.0%	-10.7%	-6.1%	-4.4%	-20.0%	
1/19/2019	5.0%	4.2%	7.6%	4.1%	4.4%	3.2%	2.8%	5.8%	0.8%	2.6%	-1.7%	4.1%	17.8%	
1/26/2019	-0.6%	-5.1%	-4.9%	-3.3%	-1.2%	0.1%	2.3%	2.5%	-6.6%	-7.6%	-2.9%	-16.1%	-6.6%	
2/2/2019	0.1%	-0.8%	0.1%	-1.3%	-1.1%	-0.2%	0.9%	1.2%	-1.7%	6.6%	1.0%	-9.1%	-1.7%	
2/9/2019	0.2%	0.4%	-0.8%	-2.1%	-0.8%	-0.6%	1.2%	2.4%	-2.1%	1.7%	0.2%	2.7%	-4.6%	
2/16/2019	0.7%	-1.2%	0.5%	0.0%	1.1%	0.7%	1.4%	0.3%	-1.2%	0.8%	0.1%	0.1%	-2.4%	
2/23/2019	-1.7%	-2.7%	-1.6%	-2.9%	-2.7%	-3.2%	-1.5%	-0.2%	-1.2%	0.1%	-3.1%	-1.6%	-5.6%	
3/2/2019	-1.0%	-2.0%	-1.8%	-2.3%	-1.3%	-0.9%	0.0%	-0.4%	-3.7%	-4.7%	-1.8%	5.1%	-5.4%	
3/9/2019	-2.4%	-3.1%	-4.0%	-3.9%	-3.2%	-2.4%	0.1%	-1.7%	-3.1%	-8.6%	-4.1%	-0.8%	-8.2%	
1Q16	-0.5%	-0.3%	-0.8%	-0.9%	-0.6%	-1.7%	-1.5%	0.3%	2.0%	-4.3%	4.7%	-3.0%	2.0%	
2Q16	0.6%	-0.7%	0.7%	0.2%	0.4%	0.5%	-0.4%	1.2%	-1.4%	-1.7%	1.5%	-1.4%	1.3%	
3Q16	0.0%	0.0%	-0.1%	-0.6%	-0.6%	-0.6%	-0.6%	0.7%	0.3%	-2.8%	1.7%	-0.7%	1.9%	
4Q16	0.6%	-0.2%	-0.8%	-1.0%	0.2%	1.7%	1.2%	1.2%	2.2%	-2.8%	1.0%	-0.5%	3.7%	
1Q17	0.9%	-0.2%	0.6%	-0.3%	0.7%	1.6%	0.2%	1.6%	1.0%	-1.1%	-2.4%	-0.2%	2.2%	
2Q17	0.5%	0.1%	-0.6%	-1.1%	-0.3%	0.4%	1.4%	1.6%	1.7%	0.3%	0.8%	-0.7%	-1.2%	
3Q17	0.5%	-0.9%	-0.9%	-0.1%	0.6%	1.6%	0.5%	0.9%	1.1%	-1.0%	-2.9%	-2.7%	-0.5%	
4Q17	1.8%	2.2%	1.3%	2.0%	2.1%	1.2%	0.3%	2.0%	1.0%	2.8%	-0.3%	-0.5%	-0.2%	
1Q18	0.9%	2.1%	0.0%	0.5%	1.1%	0.9%	1.3%	0.7%	3.5%	3.7%	-1.3%	4.4%	-1.8%	
2Q18	1.1%	1.3%	0.5%	0.4%	0.9%	1.5%	0.4%	1.5%	0.5%	-1.1%	-1.4%	0.7%	0.7%	
3Q18	-0.4%	0.0%	-0.5%	-1.0%	-1.7%	-1.1%	0.5%	0.3%	-0.5%	0.9%	0.2%	0.7%	-2.6%	
4Q18	0.4%	-0.7%	-1.1%	-1.6%	-0.6%	0.4%	2.3%	1.9%	0.1%	6.3%	1.6%	0.6%	-1.3%	

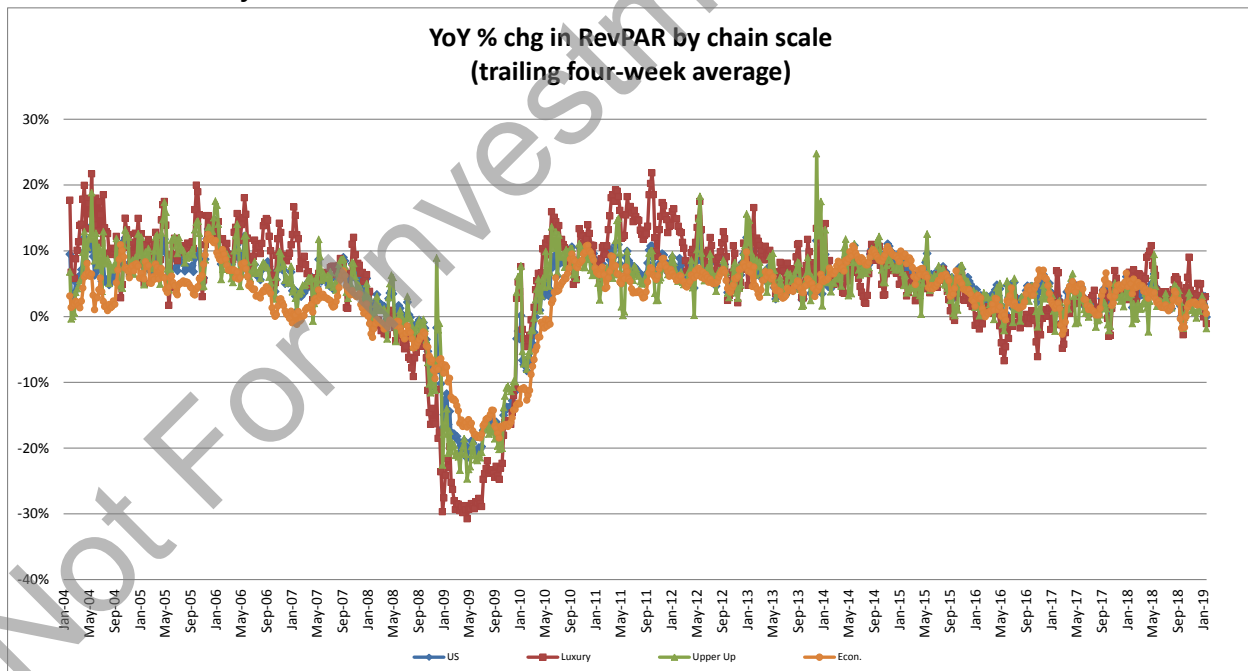
Source: STR data, STRH research

RevPAR Component Trends

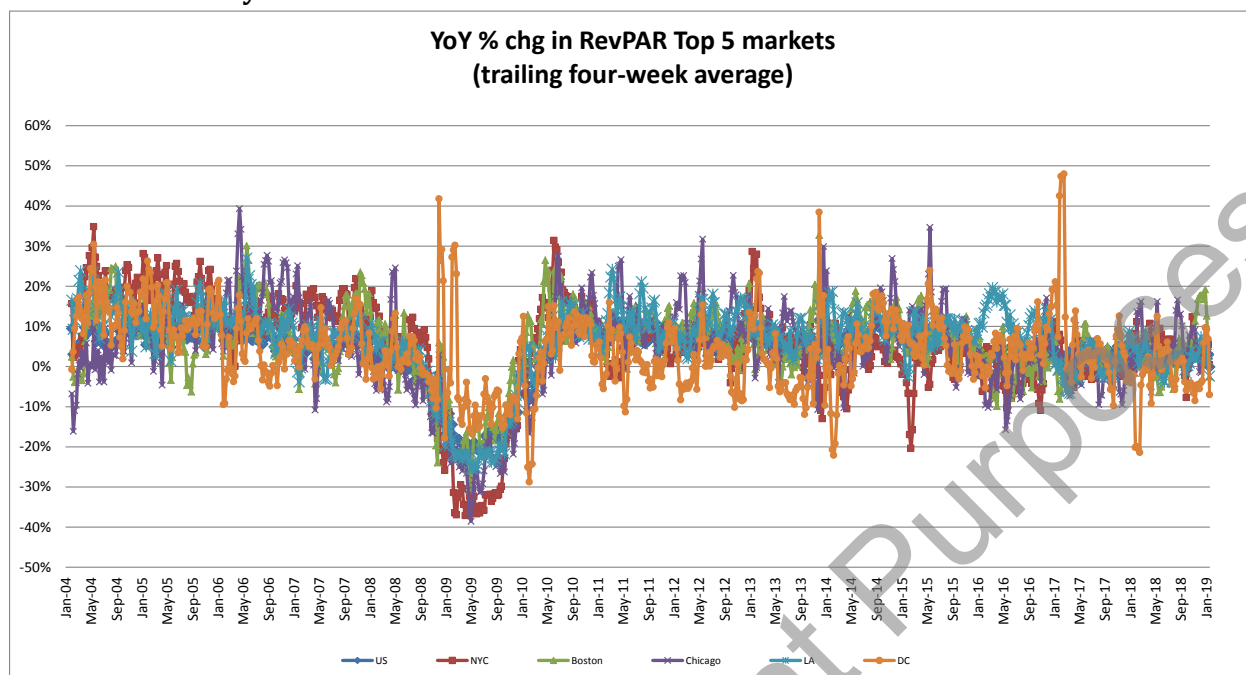


Source: STR data, STRH research

RevPAR Trends by Chain Scale



Source: STR data, STRH research

RevPAR Trends by Market

Source: STR data, STRH research

Price Target/Risks Summary

Lodging	TKR	Price 3/12/19	Rating	PT*	% upside down- side	2020E Valuation EBITDA (\$M)* **	2020E As Reported EBITDA (\$M)*	Target EV/EBITDA Multiple	Risks
Chesapeake Lodging Trust	CHSP	\$29.14	Hold	\$26	-11%	\$182	\$182	12.0X	Upside risk: improvement in NY and Chicago markets Downside risk: softening of RevPAR trends in Boston or SF. Slowdown in real estate lending.
Choice Hotels	CHH	\$77.92	Hold	\$87	12%	\$385	\$385	14.0X	Upside risk: conservative guidance. Downside risk: slowdown in development opportunities.
DiamondRock Hospitality	DRH	\$10.66	Hold	\$11	3%	\$264	\$264	12.0X	Upside risk: specific markets (esp. NYC) perform better than expected. Downside risk: company unable to locate properties to buy.
Host Hotels & Resorts	HST	\$19.16	Hold	\$22	15%	\$1,523	\$1,523	12.5X	Upside risk: the company increases dividends by more than expected; NYC outperforms or is sold down at attractive multiples. Downside risk: Group underperforms. NYC hotels underperform and asset sales do not happen.
Hyatt Hotels	H	\$72.12	Hold	\$82	14%	\$808	\$845	13.1X	Upside risk: Transient and group trends outperform expectations Downside risk: ongoing misexecution and volatility.
Bluegreen Vacations Corporation	BXG	\$15.96	Hold	\$16	0%	\$144	\$144	7.8X	Upside risk: Accelerating tour flow, FCF generation and declining consumer defaults. Downside risk: 3rd party induced defaults worsen. Middle market customers underperform.
Hilton Grand Vacations	HGV	\$31.51	Buy	\$51	62%	\$462	\$505	11.4X	Downside risk: Disruption in a major market (HGV more concentrated than peers), issues with Japanese customer (HGV more exposed than peers), difficulty sourcing additional fee-for-service inventory deals
Hilton	HLT	\$83.41	Buy	\$99	19%	\$2,346	\$2,435	14.8X	Downside risk: slowing pipeline
Marriott International	MAR	\$120.69	Hold	\$137	14%	\$3,548	\$3,877	14.8X	Upside Risk: Significant U.S macroeconomic improvement results in large recovery in transient corporate demand (and consequential >400 bps RevPAR improvement). Owned assets sell for premium prices relative to MAR expectations. Downside Risk: 2020 is a recession year in the US. Geopolitical and policy risks negatively impact lodging demand.
Marriott Vacations	VAC	\$94.40	Buy	\$149	58%	\$758	\$885	11.1X	Downside risk: M&A story fades and multiples revert to historical levels
Park Hotels & Resorts	PK	\$30.96	Buy	\$34	10%	\$765	\$780	12.6X	Downside risk: Significant supply growth, macroeconomic challenges/shocks, higher than expected labor costs.
Playa Hotels & Resorts	PLYA	\$7.80	Buy	\$13	67%	\$218	\$223	11.5X	Downside risk: demand shock, hurricanes, inability to complete 2021 growth initiatives, country-specific risks (emerging market portfolio)
RLJ Lodging Trust	RLJ	\$18.30	Hold	\$20	9%	\$492	\$504	11.6X	Upside risk: RevPAR reaccelerates due to macroeconomic improvements, leading to estimate revisions and multiple expansion. Downside risk: Significant supply growth, struggle to source deals/lower leverage, macroeconomic challenges/demand shocks.
Ryman Hospitality Properties	RHP	\$82.98	Hold	\$76	-8%	\$533	\$515	12.2X	Upside risk: recovering group demand better than expected, better margin recovery. Downside risk: booking issues stickier than expected.
Sunstone Hotel Investors	SHO	\$14.70	Hold	\$15	2%	\$314	\$314	12.0X	Upside risk: Recovery of corporate demand in SHO's markets. Above average group bookings in Orlando and Boston Park Plaza post-meeting space expansions. Downside risk: Weaker than expected demand trends following capital investment projects.
Wyndham Destinations	WYND	\$41.93	Buy	\$72	72%	\$1,032	\$1,051	9.2X	Downside risk: The timeshare business is especially vulnerable to economic softness. There are potential execution risks post the spin off.
Wyndham Hotels & Resorts	WH	\$51.86	Buy	\$67	29%	\$642	\$664	13.0X	Downside risk: Slowdown in development opportunities. La Quinta synergies below expectations.

* All of our Lodging price targets are derived by applying a target EV/EBITDA multiple to our estimate for 2020 EBITDA
 ** Valuation EBITDA excludes select items for specific companies including stock-based compensation.

Source: FactSet, STRH research

Companies Mentioned in This Note

Bluegreen Vacations Corporation (BXG, \$15.96, Hold, C. Patrick Scholes)
Choice Hotels International, Inc. (CHH, \$77.92, Hold, C. Patrick Scholes)
Chesapeake Lodging Trust (CHSP, \$29.14, Hold, C. Patrick Scholes)
DiamondRock Hospitality Company (DRH, \$10.66, Hold, C. Patrick Scholes)
Hyatt Hotels Corporation (H, \$72.12, Hold, C. Patrick Scholes)
Hilton Grand Vacations Inc. (HGV, \$31.51, Buy, C. Patrick Scholes)
Hilton Worldwide Holdings Inc. (HLT, \$83.41, Buy, C. Patrick Scholes)
Host Hotels & Resorts, Inc. (HST, \$19.16, Hold, C. Patrick Scholes)
Marriott International, Inc. (MAR, \$120.69, Hold, C. Patrick Scholes)
Park Hotels & Resorts Inc. (PK, \$30.96, Buy, C. Patrick Scholes)
Playa Hotels & Resorts N.V. (PLYA, \$7.80, Buy, C. Patrick Scholes)
Ryman Hospitality Properties, Inc. (RHP, \$82.98, Hold, C. Patrick Scholes)
RLJ Lodging Trust (RLJ, \$18.30, Hold, C. Patrick Scholes)
Sunstone Hotel Investors, Inc. (SHO, \$14.70, Hold, C. Patrick Scholes)
Marriott Vacations Worldwide Corporation (VAC, \$94.40, Buy, C. Patrick Scholes)
Wyndham Hotels & Resorts, Inc. (WH, \$51.86, Buy, C. Patrick Scholes)
Wyndham Destinations, Inc. (WYND, \$41.93, Buy, C. Patrick Scholes)

Analyst Certification

I, C. Patrick Scholes, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company(ies) and its (their) securities. I also certify that I have not been, am not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

Required Disclosures

Analyst compensation is based upon stock price performance, quality of analysis, communication skills, and the overall revenue and profitability of the firm, including investment banking revenue.

As a matter of policy and practice, the firm prohibits the offering of favorable research, a specific research rating or a specific target price as consideration or inducement for the receipt of business or compensation. In addition, associated persons preparing research reports are prohibited from owning securities in the subject companies.

Charts indicating changes in ratings can be found in recent notes and/or reports at our website or by contacting SunTrust Robinson Humphrey. Please see our disclosures page for more complete information at <https://suntrust.bluematrix.com/sellside/Disclosures.action>.

STRH Ratings System for Equity Securities

Dissemination of Research

SunTrust Robinson Humphrey (STRH) seeks to make all reasonable efforts to provide research reports simultaneously to all eligible clients. Reports are available as published in the restricted access area of our website to all eligible clients who have requested a password. Institutional investors, corporates, and members of the Press may also receive our research via third party vendors including: Thomson Reuters, Bloomberg, FactSet, and S&P Capital IQ. Additional distribution may be done by sales personnel via email, fax, or other electronic means, or regular mail.

For access to third party vendors or our Research website: <https://suntrustlibrary.bluematrix.com/client/library.jsp>

Please email the Research Department at <mailto:STRHEquityResearchDepartment@suntrust.com> or contact your STRH sales representative.

The rating system effective as of Oct. 7, 2016:

STRH Rating System for Equity Securities

SunTrust Robinson Humphrey (STRH) rates individual equities using a three-tiered system. Each stock is rated relative to the broader market (generally the S&P 500) over the next 12-18 months (unless otherwise indicated).

Buy (B) – the stock's total return is expected to outperform the S&P 500 or relevant benchmark over the next 12-18 months (unless otherwise indicated)

Hold (H) – the stock's total return is expected to perform in line with the S&P 500 or relevant benchmark over the next 12-18 months (unless otherwise indicated)

Sell (S) – the stock's total return is expected to underperform the S&P 500 or relevant benchmark over the next 12-18 months (unless otherwise indicated)

Not Rated (NR) – STRH does not have an investment rating or opinion on the stock

Coverage Suspended (CS) – indicates that STRH's rating and/or target price have been temporarily suspended due to applicable regulations and/or STRH Management discretion. The previously published rating and target price should not be relied upon

STRH analysts have a price target on the stocks that they cover, unless otherwise indicated. The price target represents that analyst's expectation of where the stock will trade in the next 12-18 months (unless otherwise indicated). If an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of STRH Research Management not to assign a target price; likewise certain stocks that trade under \$5 may exhibit volatility whereby assigning a price target would be unhelpful to making an investment decision. As such, with Research Management's approval, an analyst may refrain from assigning a target to a sub-\$5 stock.

Legend for Rating and Price Target History Charts:

B = Buy

H = Hold

S = Sell

D = Drop Coverage

CS = Coverage Suspended

NR = Not Rated

I = Initiate Coverage

T = Transfer Coverage

The prior rating system until Oct. 7, 2016:

3 designations based on total returns* within a 12-month period**

· Buy – total return $\geq$ 15% (10% for low-Beta securities)***

· Reduce – total return $\leq$ negative 10% (5% for low Beta securities)

· Neutral – total return is within the bounds above

· NR – NOT RATED, STRH does not provide equity research coverage

· CS – Coverage Suspended

*Total return (price appreciation + dividends); **Price targets are within a 12-month period, unless otherwise noted; ***Low Beta defined as securities with an average Beta of 0.8 or less, using Bloomberg's 5-year average

SunTrust Robinson Humphrey ratings distribution (as of 03/13/2019):

Coverage Universe			Investment Banking Clients Past 12 Months		
Rating	Count	Percent	Rating	Count	Percent
Buy	457	64.46%	Buy	116	25.38%
Hold	249	35.12%	Hold	33	13.25%
Sell	3	0.42%	Sell	1	33.33%

Other Disclosures

Information contained herein has been derived from sources believed to be reliable but is not guaranteed as to accuracy and does not purport to be a complete analysis of the security, company or industry involved. This report is not to be construed as an offer to sell or a solicitation of an offer to buy any security. SunTrust Robinson Humphrey, Inc. and/or its officers or employees may have positions in any securities, options, rights or warrants. The firm and/or associated persons may sell to or buy from customers on a principal basis. Investors may be prohibited in certain states from purchasing some over-the-counter securities mentioned herein. Opinions expressed are subject to change without notice. The information herein is for persons residing in the United States only and is not intended for any person in any other jurisdiction.

SunTrust Robinson Humphrey, Inc.'s research is provided to and intended for use by Institutional Accounts as defined in FINRA Rule 4512(c). The term "Institutional Account" shall mean the account of: (1) a bank, savings and loan association, insurance company or registered investment company; (2) an investment adviser registered either with the SEC under Section 203 of the Investment Advisers Act or with a state securities commission (or any agency or office performing like functions); or (3) any other person (whether a natural person, corporation, partnership, trust or otherwise) with total assets of at least \$50 million.

SunTrust Robinson Humphrey, Inc. is a registered broker-dealer and a member of FINRA and SIPC. It is a service mark of SunTrust Banks, Inc. SunTrust Robinson Humphrey, Inc. is owned by SunTrust Banks, Inc. ("SunTrust") and affiliated with SunTrust Investment Services, Inc. Despite this affiliation, securities recommended, offered, sold by, or held at SunTrust Robinson Humphrey, Inc. and at SunTrust Investment Services, Inc. (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including SunTrust Bank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. SunTrust Bank may have a lending relationship with companies mentioned herein.

Please see our Disclosure Database to search by ticker or company name for the current required disclosures, including valuation and risks, Link: <https://suntrust.bluematrix.com/sellside/Disclosures.action>

Please visit the STRH equity research library for current reports and the analyst roster with contact information, Link (password protected): [STRH RESEARCH LIBRARY](#)

SunTrust Robinson Humphrey, Inc., member FINRA and SIPC. SunTrust and SunTrust Robinson Humphrey are service marks of SunTrust Banks, Inc.

If you no longer wish to receive this type of communication, please request removal by sending an email to STRHEquityResearchDepartment@SunTrust.com

© SunTrust Robinson Humphrey, Inc. 2019. All rights reserved. Reproduction or quotation in whole or part without permission is forbidden.

ADDITIONAL INFORMATION IS AVAILABLE at our website, www.suntrustrh.com, or by writing to: SunTrust Robinson Humphrey, Research Department, 3333 Peachtree Road N.E., Atlanta, GA 30326-1070