

Lodging - US RevPAR +1.9% Y/Y Last Week; Choppy week, relatively clean comp

Luxury & Independents strong; everyone else not so much (esp. limited service)

What's Incremental To Our View

Overall U.S. RevPAR was +1.9% Y/Y for the week ending 11/9/2019, per STR, stronger than the prior week's result of +0.3%. (2-year stacked RevPAR was +3.7% vs +0.6% in the prior week.) Independent hotels (about 1/3rd of the data set) were +7.1% y/y. Luxury (+2.9%) was the strongest chain scale for branded hotels; Midscale was the weakest at -3.3%. Upper Midscale (-0.8%) also underperformed the industry average. Within Upper Upscale & Luxury class hotels, Group (+0.8% vs. -2.0% prior week) was softer than Transient (+3.7% vs. +3.6% prior week).

Highlights from last week's results:

- While we do not have great clarity as to all the puts and takes, there was some relative strength in last week's Monday/Tuesday RevPAR (+5.0% / +3.4%) vs. the ~1% for the rest of the week. It is possible there was some demand shifting from the prior week's Halloween (which moved to a Thursday in 2019 from a Wednesday in 2018). However, Group underperformed Transient during the week (and normally we would assume a pickup after a holiday shift week). For now, we do not read too much into some of the day-by-day RevPAR variances.
- Independents (RevPAR: +7.1%) strongly outperformed the chain scales. Branded hotels were mostly flattish to down low single-digits. Luxury was a relative outperformer at +2.9% RevPAR. While we are not surprised that Midscale RevPAR had the weakest results (-3.3%) given supply growth, Economy was also weak at -1.7% (where there is not much supply growth).

Last week's RevPAR details:

- Luxury was the strongest chain scale: Upscale and Upper Midscale underperformed by 260 bps and 370 bps, respectively: Luxury RevPAR (+2.9%), Upper Upscale (+1.0%), Upscale (+0.3%), Upper Midscale (-0.8%), Midscale (-3.3%), and Economy (-1.7%). Independent hotels (+7.1%) outperformed the headline U.S. RevPAR.
- Within Upper Upscale & Luxury class hotels, Group underperformed Transient: Transient segment (individual business and leisure travelers) RevPAR was +3.7% (vs. +3.6% last week) and Group segment RevPAR was +0.8% (vs. -2.0% last week).

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

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

Kevin Robinson 617-345-6544 kevin.robinson@suntrust.com

What's Inside

Weekly STR results and analysis



- Washington, D.C. was the strongest of the top five markets: Boston (-15.1%), Chicago (-9.7%), Los Angeles (+5.7%), NYC (-0.3%), and Washington, D.C. (+11.5%).
- Other relevant markets:
 - San Francisco was down (Moscone Convention Center expected to have a very strong 4Q19 citywide calendar): RevPAR was -6.8% vs. +28.5% last week.
 - Florida markets were up (Orlando especially): Miami (+5.5% vs. -8.3% last week); Orlando (+21.6% vs. +8.6% last week).

The lodging stocks: We continue to favor C-Corps over hotel REITS (we favored hotel REITS for the first half of last year) and within C-Corps we prefer Buyrated WH. In an environment of low RevPAR growth combined with gradually increasing wages/margin pressures, we think returns for hotel owners is a major headwind to EBITDA growth. We believe 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 sparks like we did at this time one year ago.



Weekly RevPAR Summary

		YoY % change in RevPAR													
_			Upper		Upper			Inde-							
	U.S.	Luxury	Upscale	Upscale	Midscale	Midscale	Economy	pendent	York	Boston	LA	Chicago	DC		
9/28/2019	-0.8%	0.6%	-2.7%	-2.5%	-0.5%	-0.6%	-1.3%	0.6%	1.7%	-12.0%	-2.6%	0.2%	0.9%		
10/5/2019	-7.5%	-12.9%	-11.3%	-7.9%	-5.2%	-5.1%	-4.9%	-6.1%	-18.3%	-22.3%	-5.7%	-23.1%	-12.5%		
10/12/2019	-2.6%	-7.3%	-5.7%	-2.9%	-0.6%	-1.0%	-0.5%	-1.5%	-11.9%	-16.5%	-8.8%	-4.7%	-5.0%		
10/19/2019	-0.7%	4.8%	-2.4%	-3.1%	-2.7%	-3.5%	-2.4%	2.5%	1.8%	-14.1%	-2.6%	-5.3%	18.5%		
10/26/2019	0.0%	2.0%	-0.5%	-1.4%	-0.5%	-2.1%	-2.6%	1.5%	-5.2%	-5.7%	4.4%	-0.1%	10.9%		
11/2/2019	0.3%	6.0%	3.4%	1.2%	0.2%	-3.3%	-1.9%	-3.2%	-3.4%	-7.7%	6.1%	3.4%	6.9%		
11/9/2019	1.9%	2.9%	1.0%	0.3%	-0.8%	-3.3%	-1.7%	7.1%	-0.3%	-15.1%	5.7%	-9.7%	11.5%		
								•							

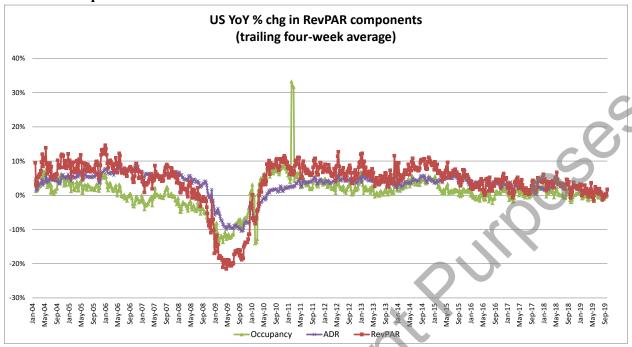
10/26/2019	0.0%	2.0%	-0.5%	-1.4%	-0.5%	-2.1%	-2.6%	1.5%	-5.2%	-5.7%	4.4%	-0.1%	10.9%	
11/2/2019	0.3%	6.0%	3.4%	1.2%	0.2%	-3.3%	-1.9%	-3.2%	-3.4%	-7.7%	6.1%	3.4%	6.9%	
11/9/2019	1.9%	2.9%	1.0%	0.3%	-0.8%	-3.3%	-1.7%	7.1%	-0.3%	-15.1%	5.7%	-9.7%	11.5%	
	Transient ou	utperforme	d Group:											
	relativ	ely clean co	mp		Luxury and	Upper Upsc	ale led the in	dustry		DC and D	A led the Top	5 markets		
L														
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%	
1Q19	1.5%	-0.7%	1.2%	-0.5%	0.4%	-0.1%	1.9%	3.1%	-7.1%	-2.1%	-1.7%	-4.5%	-2.4%	
2Q19	1.1%	1.1%	0.5%	-0.4%	0.0%	-0.7%	1.7%	2.4%	-1.8%	4.5%	1.6%	-0.1%	-1.5%	
3Q19	0.7%	1.3%	1.1%	-0.5%	-0.1%	-1.0%	-0.9%	1.6%	-2.2%	-0.4%	-0.2%	-2.2%	4.5%	
								4						

						YoY % c	hange in	ADR					
_			Upper		Upper			Inde-	New				
	U.S.	Luxury	Upscale	Upscale	Midscale	Midscale	Economy	pendent	York	Boston	LA	Chicago	DC
9/28/2019	-0.5%	-0.2%	-1.3%	-1.4%	-0.4%	-0.5%	-0.9%	0.8%	1.3%	-5.2%	-2.6%	-0.6%	1.9%
10/5/2019	-3.8%	-5.0%	-5.2%	-3.6%	-2.1%	-1.7%	-2.2%	-2.8%	-12.5%	-9.8%	-2.9%	-14.8%	-3.8%
10/12/2019	-1.2%	-3.2%	-3.0%	-1.5%	0.3%	0.7%	0.0%	0.0%	-8.6%	-8.6%	-5.5%	-3.2%	-4.6%
10/19/2019	0.2%	3.4%	-1.0%	-1.4%	-0.8%	-0.8%	-1.5%	1.9%	-0.5%	-7.3%	-2.5%	-6.0%	16.6%
10/26/2019	0.2%	1.8%	-0.5%	-1.0%	-0.2%	-0.6%	-1.7%	1.4%	-4.0%	-2.3%	3.1%	-1.9%	9.0%
11/2/2019	0.6%	4.7%	2.0%	0.7%	0.3%	-0.8%	-1.1%	-2.0%	-2.5%	-2.2%	4.1%	-0.3%	4.4%
11/9/2019	1.9%	2.5%	1.3%	0.6%	-0.1%	-1.5%	-1.3%	5.5%	-1.7%	-3.6%	4.4%	-8.2%	9.2%
		-											
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%			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%
1Q19	1.1%	2.2%	2.5%	1.0%	0.8%	-0.2%	-0.3%	1.0%	-3.8%	0.7%	-1.0%	-2.4%	1.5%
2Q19	1.2%	2.5%	1.4%	0.6%	0.7%	-0.2%	0.6%	1.7%	-1.0%	3.2%	0.8%	-1.7%	0.2%
3Q19	0.8%	1.5%	1.3%	0.2%	-0.1%	-0.5%	-0.5%	1.6%	-1.9%	0.9%	-0.2%	-2.8%	4.0%

					Yo	Y % char	nge in Oc	cupancy					
-			Upper		Upper			Inde-	New				
	U.S.	Luxury	Upscale	Upscale	Midscale	Midscale	Economy	pendent	York	Boston	LA	Chicago	DC
9/28/2019	-0.4%	0.8%	-1.4%	-1.1%	0.0%	-0.2%	-0.4%	-0.2%	0.5%	-7.2%	-0.1%	0.7%	-1.1%
10/5/2019	-3.9%	-8.4%	-6.4%	-4.5%	-3.1%	-3.4%	-2.7%	-3.4%	-6.7%	-13.9%	-2.8%	-9.7%	-9.1%
10/12/2019	-1.4%	-4.3%	-2.7%	-1.5%	-0.9%	-1.7%	-0.5%	-1.4%	-3.7%	-8.7%	-3.4%	-1.5%	-0.4%
10/19/2019	-0.9%	1.3%	-1.4%	-1.7%	-2.0%	-2.7%	-0.9%	0.7%	2.4%	-7.4%	-0.1%	0.8%	1.6%
10/26/2019	-0.2%	0.2%	0.0%	-0.4%	-0.3%	-1.5%	-1.0%	0.1%	-1.2%	-3.4%	1.2%	1.8%	1.8%
11/2/2019	-0.3%	1.3%	1.3%	0.5%	0.0%	-2.5%	-0.8%	-1.2%	-0.9%	-5.6%	2.0%	3.7%	2.4%
11/9/2019	0.1%	0.4%	-0.3%	-0.3%	-0.8%	-1.8%	-0.4%	1.5%	1.4%	-11.8%	1.2%	-1.7%	2.1%
		•											
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%			1.2%	2.2%	-2.8%	1.0%	-0.5%	3.7%
1Q17	0.9%	-0.2%	0.6%	-0.3%	0.7%			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%		1.6%	1.7%	0.3%	0.8%	-0.7%	-1.2%
3Q17	0.5%	-0.9%	-0.9%	-0.1%	0.6%			0.9%	1.1%	-1.0%	-2.9%	-2.7%	-0.5%
4Q17	1.8%	2.2%	1.3%	2.0%	2.1%			2.0%	1.0%	2.8%	-0.3%	-0.5%	-0.2%
1Q18	0.9%	2.1%	0.0%	0.5%	1.1%			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%	0.5%	-1.1%	-1.4%	0.7%	0.7%
3Q18	-0.4%	0.0%	-0.5%	-1.0%	-1.7%			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%
1Q19	0.4%	-2.8%	-1.3%	-1.4%	-0.5%			2.1%	-3.5%	-2.8%	-0.7%	-2.2%	-3.8%
2Q19	-0.1%	-1.4%	-0.9%	-1.0%	-0.7%			0.7%		1.3%	0.8%	1.7%	-1.7%
3Q19	-0.1%	-0.2%	-0.2%	-0.7%	0.0%	-0.5%	-0.4%	0.0%	-0.3%	-1.4%	0.1%	0.6%	0.4%

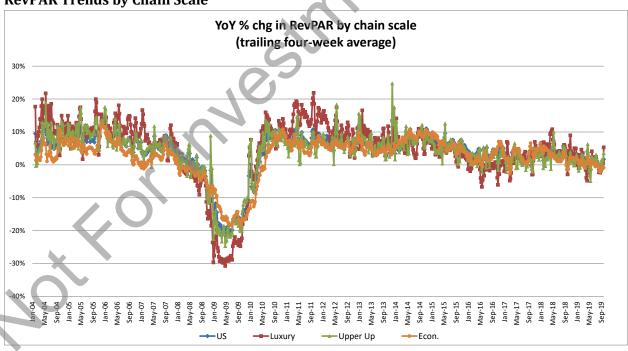
Source: STR data, STRH research

RevPAR Component Trends



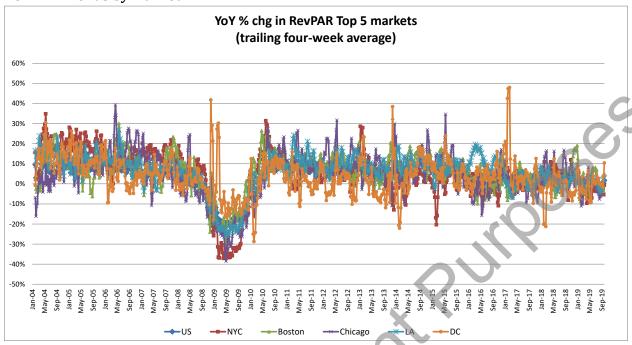
Source: STR data, STRH research

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 11/12/19	Rating	PT*	% upside down- side	2020E Valuation EBITDA (\$M)* **	2020E As Reported EBITDA (\$M)*	Target EV/EBITDA Multiple	Risks
Choice Hotels	СНН	\$90.00	Hold	\$87	-3%	\$393	\$393	14.0X	Upside risk: conservative guidance. Downside risk: slowdown in development opportunities.
DiamondRock Hospitality	DRH	\$10.16	Hold	\$9	-11%	\$250	\$251	11.5X	Upside risk: specific markets (esp. NYC) perform better than expected Downside risk: company unable to locate properties to buy. Upside risk: the company increases dividends by more than expected. NYC outperforms or is sold down at attractive multiples.
Host Hotels & Resorts	HST	\$16.79	Hold	\$18	7%	\$1,328	\$1,328	12.0X	Downside risk: Group underperforms. NYC hotels underperform and asset sales do not happen.
Hyatt Hotels	н	\$76.16	Hold	\$79	4%	\$733	\$768	13.2X	Upside risk: Transient and group trends outperform expectations Downside risk: ongoing misexecution and volatility.
Bluegreen Vacations Corporation	BXG	\$10.23	Hold	\$11	8%	\$106	\$106	7.8X	Upside risk: Accelerating tour flow, FCF generation and decilining consumer defaults. Downside risk: 3rd party induced defaults worsen. Middle market customers underperform.
Hilton Grand Vacations	HGV	\$35.30	Buy	\$42	20%	\$412	\$439	11.0X	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 Upside risk: Macro lodging trends improve beyond expectations.
Hilton	HLT	\$98.09	Hold	\$99	1%	\$2,378	\$2,481	14.8X	Downside risk: slowing pipeline 2020 is a recession year in the U.S. Upside Risk: Significant U.S macroeconomic improvement results in large recovery in transient corporate demand (and consequential >400 bps RevPAR improvement). Ovined assets sell for premium prices relative to MAR expectations.
Marriott International	MAR	\$132.53	Hold	\$128	-3%	\$3,446	\$3,760	14.9X	Downside Risk: 2020 is a recession year in the US. Geopolitical and policy risks negatively impact lodging demand.
Marriott Vacations	VAC	\$117.36	Buy	\$155	32%	\$831	\$865	11.1X	Downside risk: M&A story fades and multiples revert to historical levels Downside risk: Significant supply growth, macroeconomic
Park Hotels & Resorts	PK	\$22.41	Buy	\$27	20%	\$871	\$886	12.0X	challenges/shocks, higher than expected labor costs. Upside Risks: Material near-term incremental EBITDA from Legacy LH
Pebblebrook Hotel Trust***	PEB	\$25.00	Hold	\$26	4%	\$462	\$462	14.0X	assets. Downside Risks: Planned asset sales do not materialize as expected and/or at lower-than-expected pricing. Incremental EBITDA from major CapEx investments take longer than anticipated, resulting i multiple contraction.
Playa Hotels & Resorts	PLYA	\$7.48	Buy	\$11	47%	\$187	\$195	11.5X	Downside risk: demand shock, hurricanes, inability to complete 2021 growth initiatives, country-specific risks (emerging market portfolio)
RLJ Lodging Trust***	RLJ	\$16.63	Sell	\$14	-16%	\$382	\$395	11.0X	Upside risk: RevPAR reaccelerates due to macroeconomic improvements, leading to estimate revisions and multiple expansion. Upside risk:recovering group demand better than expected, better marg
Ryman Hospitality Properties	RHP	\$88.06	Hold	\$85	-3%	\$555	\$535	12.6X	recovery. Downside risk: booking issues stickier than expected. Upside risk: Recovery of corporate demand in SHO's markets. Above average group bookings in Orlando and Boston Park Plaza post-meetir space expansions. Downside risk: Weaker than expected demand trends following capita
Sunstone Hotel Investors	SHO	\$13.74	Hold	\$14	2%	\$304	\$304	11.5X	investment projects.
Vail Resorts, Inc.	MTN	\$243.84	Buy	\$280	15%	\$796	\$796	15.0X	Downside risk: Economic conditions, competition for vacation and ski dollars, stagnant skier visitation, an aging customer, and climate change
Wyndham Destinations	WYND	\$48.06	Buy	\$76	58%	\$1,027	\$1,046	9.2X	Downside risk: The timeshare business is especially wulnerable to economic softness. There are potential execution risks post the spin of
Wyndham Hotels & Resorts	WH	\$54.75	Buy	\$68	24%	\$635	\$657	13.0X	Downside risk: Slowdown in development opportunities. La Quinta synergies below expectations.
* All of our Lodging price targets an ** Valuation EBITDA excludes sele *** Covered by Gregory J. Miller	e derived ect items f	by applying a or specific co	target EV mpanies i	/EBITD/ ncluding	g stock-base	our estimate fo d compensation	or 2020 EBITDA n.		
Cruise Lines	TKR	Price Price	Rating	PT*	% upside/ down- side	2020E EPS		Target PE Multiple	Risks
				-					Daniel de del control de de la control de la
Camival Corp.	CCL	\$44.48	Buy	\$58	30%	\$4.46		13.0X	Downside risk: failure to meet cost savings goals; adverse incidents, most oil exposure Downside risk: an adverse incident would have an outsized negative

Source: FactSet, STRH research



WH: Valuation and Risks

Our price target of \$68 for WH is based on a 13.0x multiple (in line with portfolio quality/RevPAR relative to peers) of our 2020 EBITDA estimate.

Downside risk: slowdown in development opportunities. La Quinta synergies below expectations. La Quinta integration takes longer than anticipated. Macro demand headwinds.

Companies Mentioned in This Note

Bluegreen Vacations Corporation (BXG, \$10.23, Hold, C. Patrick Scholes)

Choice Hotels International, Inc. (CHH, \$90.00, Hold, C. Patrick Scholes)

DiamondRock Hospitality Company (DRH, \$10.16, Hold, C. Patrick Scholes)

Hyatt Hotels Corporation (H, \$76.16, Hold, C. Patrick Scholes)

Hilton Grand Vacations Inc. (HGV, \$35.30, Buy, C. Patrick Scholes)

Hilton Worldwide Holdings Inc. (HLT, \$98.09, Hold, C. Patrick Scholes)

Host Hotels & Resorts, Inc. (HST, \$16.79, Hold, C. Patrick Scholes)

Marriott International, Inc. (MAR, \$132.53, Hold, C. Patrick Scholes)

Vail Resorts, Inc. (MTN, \$243.84, Buy, C. Patrick Scholes)

Pebblebrook Hotel Trust (PEB, \$25.00, Hold, Gregory Miller)

Park Hotels & Resorts Inc. (PK, \$22.41, Buy, C. Patrick Scholes)

Playa Hotels & Resorts N.V. (PLYA, \$7.48, Buy, C. Patrick Scholes)

Ryman Hospitality Properties, Inc. (RHP, \$88.06, Hold, C. Patrick Scholes)

RLJ Lodging Trust (RLJ, \$16.63, Sell, Gregory Miller)

Sunstone Hotel Investors, Inc. (SHO, \$13.74, Hold, C. Patrick Scholes)

Marriott Vacations Worldwide Corporation (VAC, \$117.36, Buy, C. Patrick Scholes)

Wyndham Hotels & Resorts, Inc. (WH, \$54.75, Buy, C. Patrick Scholes)

Wyndham Destinations, Inc. (WYND, \$48.06, 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

The following company is a client of SunTrust Robinson Humphrey, Inc. for non-securities-related services within the last 12 months: WH-US

SunTrust Robinson Humphrey, Inc. or an affiliate has received compensation for non-securities related services within the last 12 months: WH-US

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.



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.

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

SunTrust Robinson Humphrey ratings distribution (as of 11/13/2019):

Coverage Uni	iverse		Investment Banking Clients Past 12 Months						
Rating	Count	Percent	Rating	Count	Percent				
Buy	414	61.52%	Buy	115	27.78%				
Hold	251	37.30%	Hold	44	17.53%				
Sell	8	1.19%	Sell	1	12.50%				

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 overthe-counter securities mentioned herein. Opinions expressed are subject to change without notice.

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:Sun Trust Robinson Humphrey, Research Department, 3333 Peachtree Road N.E., Atlanta, GA 30326-1070