HOSPITALITY HANDBOOK

2020 Lodging Primer

This handbook is the place either to start research on the diverse $242 billion US lodging industry or to brush up on recent industry trends. We provide a snapshot of industry basics as well as highlight key macro, industry and company drivers.

Key Highlights

- ***NEW*** Implications of work from home on travel
- ***NEW*** Why brand?
- **UPDATED** Economics of loyalty
- **UPDATED** Global pipeline deep-dive
- **UPDATED** Industry trends by region and chain scale
- **UPDATED** Meet the players
- **UPDATED** Timeshare economics
- **UPDATED** Apartments vs. hotel comparison
- **UPDATED** Deal list
- **UPDATED** Key questions for management
- **and much, much more...**

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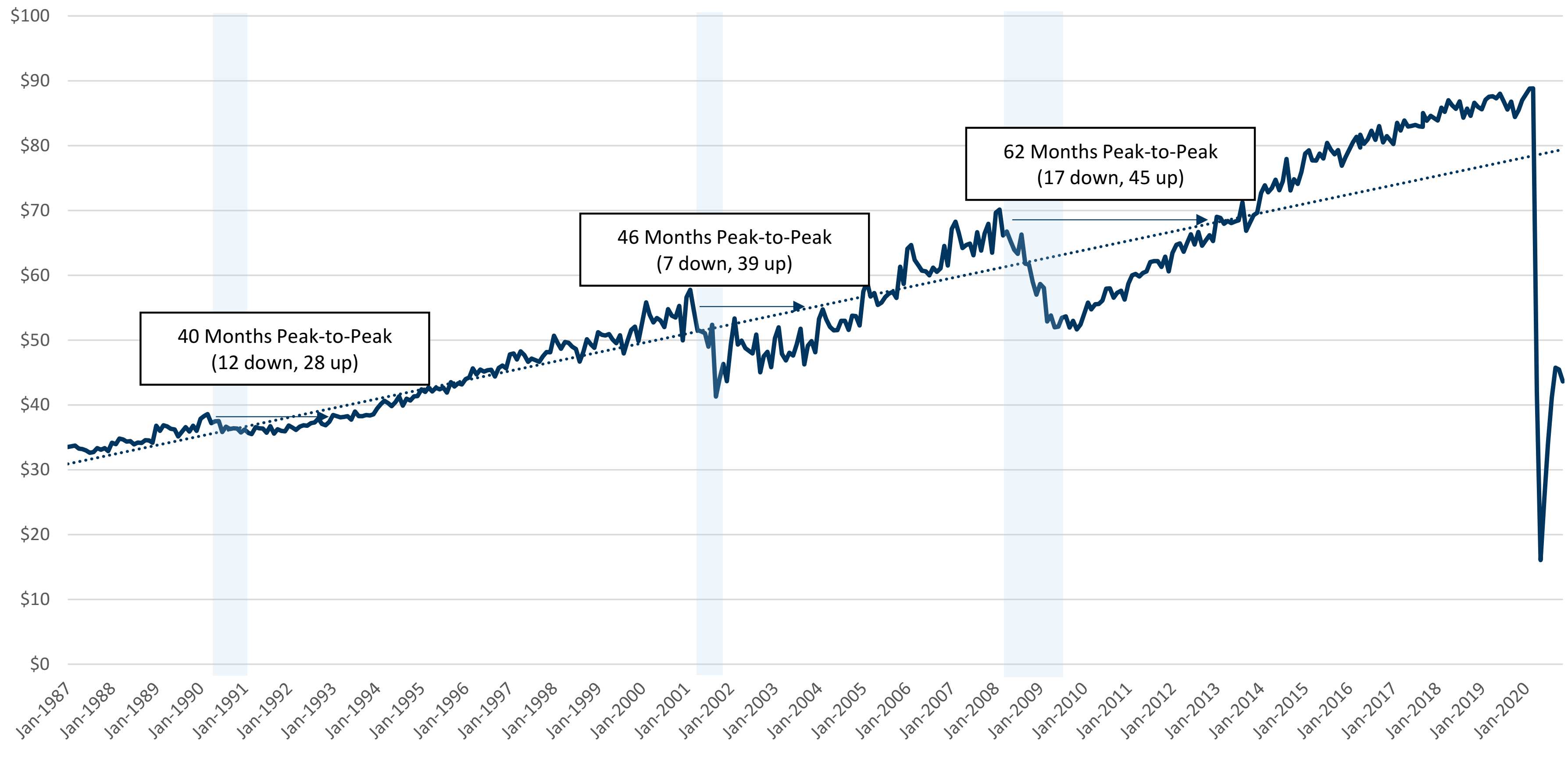
Exhibit 1: In 2020, we have seen unprecedented RevPAR declines owing to travel restrictions and stay-at-home orders due to COVID-19
Seasonally Adjusted RevPAR



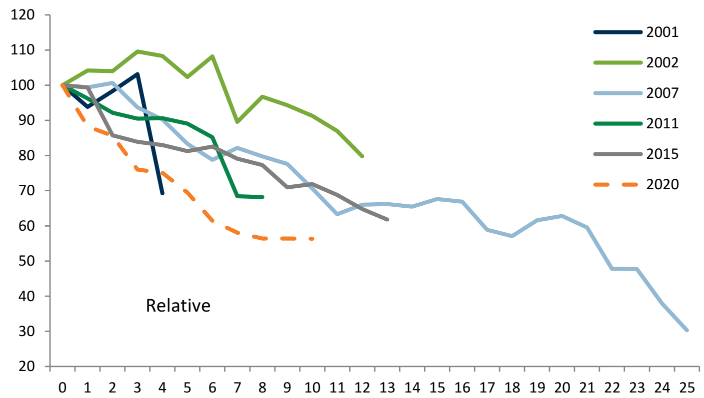
Source: STR, Goldman Sachs Global Investment Research

Exhibit 2: Despite unprecedented declines in fundamentals, stock price performance largely mirrored the average correction since 2000

	2020 Cumulative Peak-to-Trough			Historical Cumulative Peak-to-Trough		
	Absolute	Relative	# Months	Abs. Decline	Rel. Decline	# Months
MAR	-51%	-42%	7	-45%	-28%	10
HST	-44%	-44%	10	-52%	-38%	12

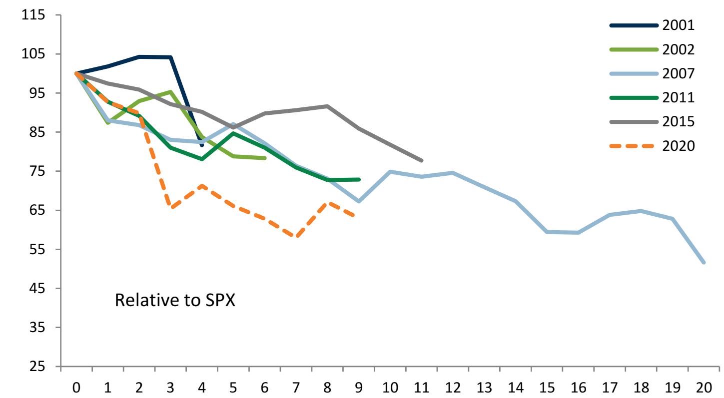
Source: Goldman Sachs Global Investment Research, NBER, FactSet

Exhibit 3: As a proxy for Hotel REITs, HST underperformed the market to a modest degree more than prior corrections, but nowhere near the GFC
Relative Monthly Price Performance from Peak (vs. S&P 500)



Source: Goldman Sachs Global Investment Research, FactSet

Exhibit 4: MAR also underperformed by a modest amount more than other corrections, but again not as severe or as drawn out as the GFC
Relative Monthly Price Performance from Peak (vs. S&P 500)

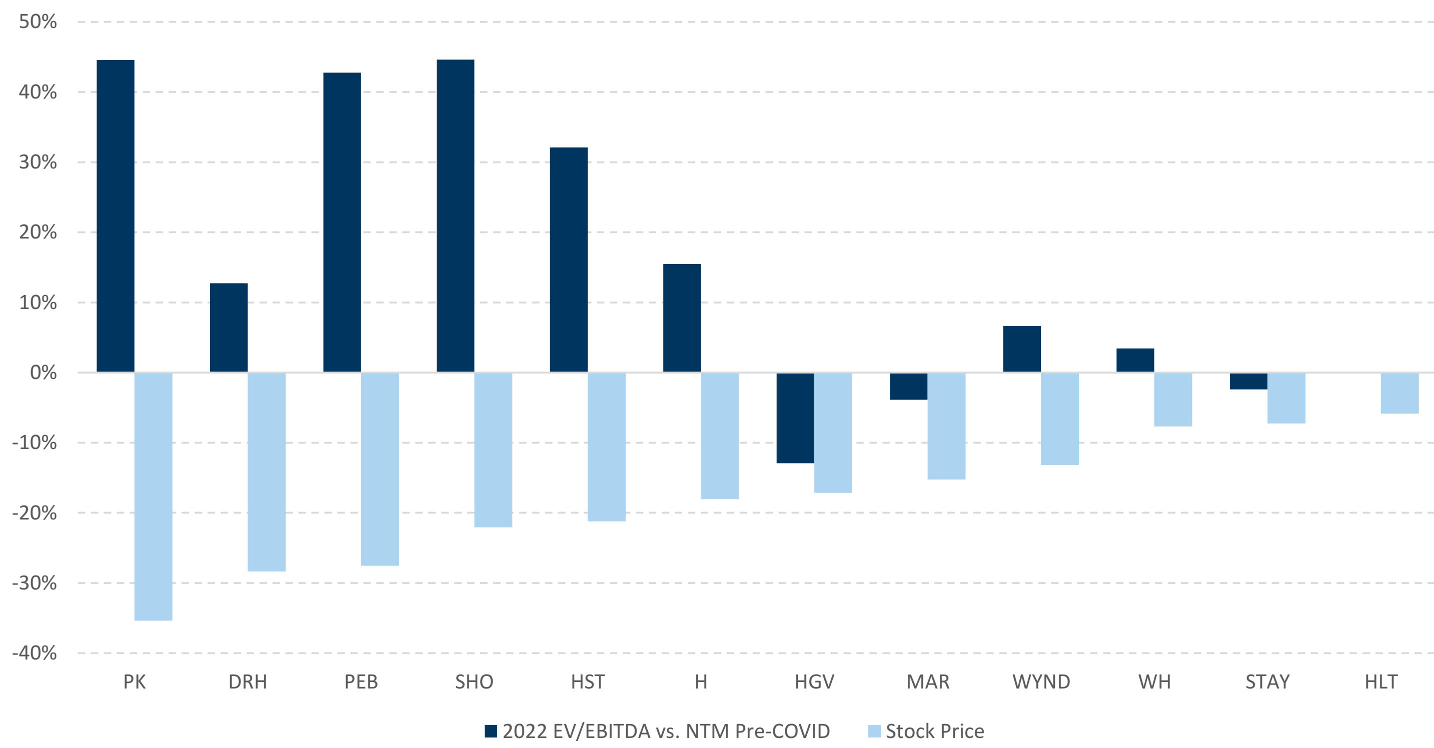


Source: Goldman Sachs Global Investment Research, FactSet

So what's priced in and where do we go from here?

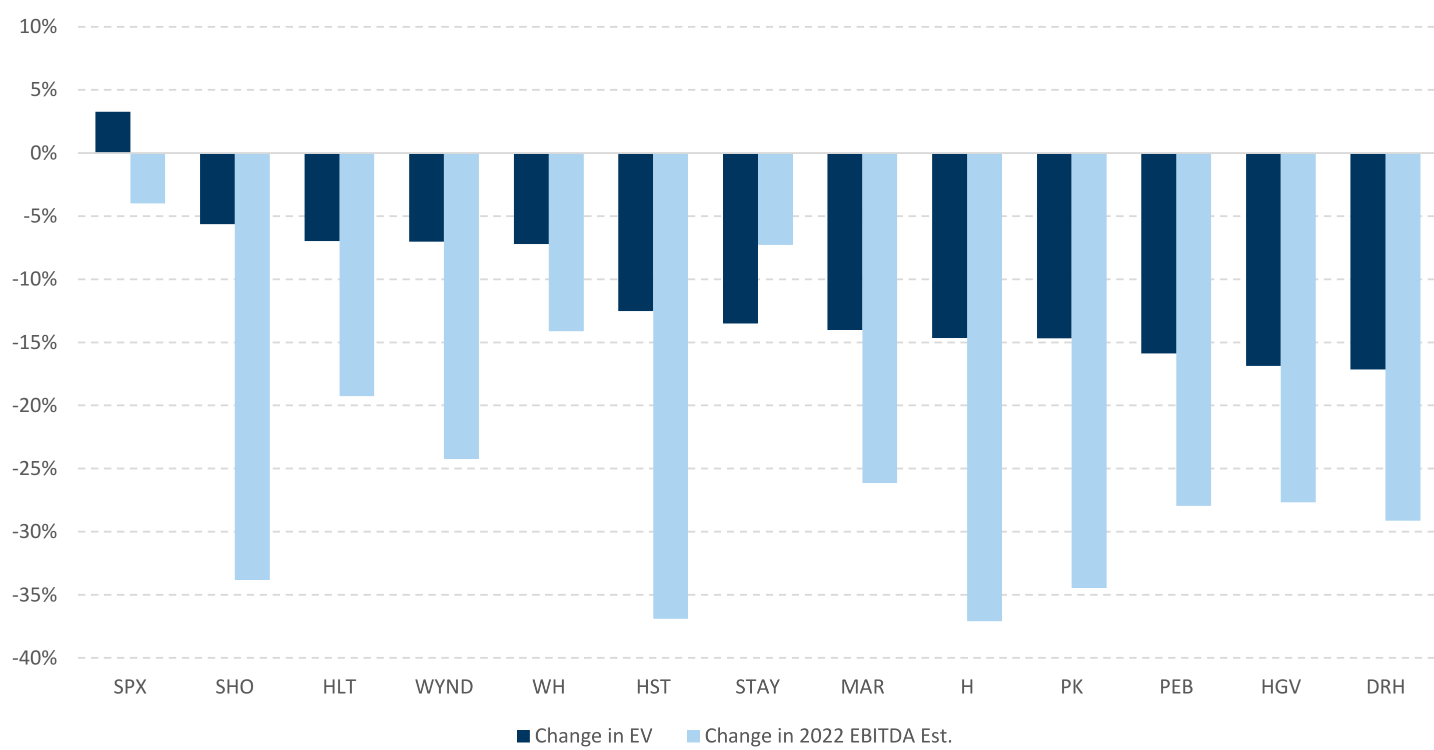
FactSet Consensus FY22 EBITDA estimates now sit ~20% below 2019 levels and EV/EBITDA multiples on 2022 are largely above historical NTM EV/EBITDA valuation across the group. While it may be intuitive to think that the stocks down the most YTD may have had the least multiple expansion, it appears to be the opposite per Exhibit 5Once again, the dichotomy is almost entirely due to differences in cash burn, which has been more severe for the hotel REITs vs. the c-corps given higher operating leverage and capital intensity. As a simple proxy to evaluate what is priced into the stocks, we compare enterprise value at today's prices and mid-2021 net debt (to account for additional cash burn) versus 2019 year-end enterprise value. If we assume the delta is driven by changes in EBITDA and the historical correlation of RevPAR to EBITDA holds for each company, it would imply the market is embedding 2022 RevPAR down 7-10% vs. 2019 — ahead of our above consensus estimates for most names in the space. Therefore, we are sticking with our bias towards the asset light stocks, which appear to be embedding a more challenged RevPAR backdrop yet have greater diversity of demand drivers, including lower exposure to big box urban hotels that are more likely to face a slow recovery (vs. leisure-oriented, non-group, non-urban markets).

Exhibit 5: Stock price performance has not matched changes in valuation following the recent rally...



Source: Goldman Sachs Global Investment Research, FactSet

Exhibit 6: ... due to cash burn driving up net debt and corresponding enterprise values, particularly for the high operating leverage Hotel REITs



Source: Goldman Sachs Global Investment Research, FactSet

Exhibit 7: As an illustrative tool to assess what's priced in, the difference in EV could imply the market is forecasting 2022 RevPAR down high single-digits vs. 2019
$mn's except per share data

	C-Corps				REITs					
	H	HLT	MAR	WH	DRH	HST	PEB	PK	SHO	STAY
Current Price	$73.53	$104.41	$128.35	$57.98	$7.94	$14.62	$19.42	$16.72	$10.85	$13.78
Shares Out	101	275	324	92	200	705	130	234	213	172
NTM Net Debt + Min Int.	$1,051	$7,174	$10,229	$2,062	$1,066	$3,380	$2,711	$4,325	$1,007	$2,352
Enterprise Value	**$8,490**	**$35,923**	**$51,878**	**$7,419**	**$2,650**	**$13,692**	**$5,230**	**$8,243**	**$3,320**	**$4,718**
2019 EV	$9,948	$38,621	$60,339	$7,995	$3,199	$15,650	$6,218	$9,663	$3,519	$5,455
Variance	-15%	-7%	-14%	-7%	-17%	-13%	-16%	-15%	-6%	-14%
Implied 2022 vs. 2019 RevPAR*	**-10%**	**-9%**	**-16%**	**-7%**	**-9%**	**-6%**	**-8%**	**-7%**	**-3%**	**-7%**

Source: Company data, Goldman Sachs Global Investment Research, FactSet

Key Takeaways

- **Selective approach to lodging after rally:** We are bullish on hotel C-Corps MAR, HLT, H, WH and STAY and timeshare companies WYND and HGV. We view the shift to asset light businesses as a positive catalyst that will be recognized with earnings outperformance as these companies navigate the worst lodging downturn in recorded history and grow their top line with limited impact to their capital structure. In contrast, we are negatively skewed on the hotel REIT business model as supply growth in the top 25 markets (high business and international demand) and exposure to group business likely prolong a recovery even with incremental cost cuts. Importantly, the duration of cash burn leaves valuation less compelling for the hotel REITs than at first glance and raises leverage levels above historical targets even on fully recovered 2019 EBITDA.
- In the future of work and hotels below, we analyze trends around the shift to remote work over the last decade vs RevPAR performance and find that despite WFH employees growing at a 5% CAGR since 2010, RevPAR and Occupancy reached all time highs in 2019 in virtually every sub-market. In our view, the coincident growth in Bleisure (combined Business and Leisure trips) was a direct outcrop of work from home and bodes well for a potential recovery. However, the recovery may still be driven by stronger leisure and bleisure trips offsetting a sluggish recovery in business travel amidst tightened budgets and lower risk tolerance.
- We perform a deep dive on the strengths and economic benefits of why hotel owners choose brands and the loyalty programs helping to drive this. The bottom-line is hotel brands continue to offer efficient distribution relative to RevPAR achieved, resulting in higher operating margins relative to independent peers. Importantly, as brand loyalty programs grow, they enhance distribution channels and create new areas of revenue for the system, all of which creates a positive feedback loop among developers/owners/brands.

- We update our sizing and analysis of the global pipeline and how this increase in supply will drive growth for our C-Corps. As part of the analysis, we introduce historical precedence for abandonment and deferrals within the in-construction pipeline to show the relative resilience through cycles.
- And much, much more...

The future of work and hotels: less business, more (b)leisure?

As the COVID-19 outbreak has driven a substantial percentage of the US workforce to work from home and effectively stop travel for business, investors have questioned whether business travel will be permanently impaired. As per a Gartner HR survey of 800 global HR executives, 88% of organizations have encouraged or required employees to work from home. In addition, Gallup has indicated that COVID-19 disruptions have increased the percentage of the workforce working from home/remotely at least some of the time to 62%, up from ~43% in 2016 and 39% in 2012. We believe that increased work from home trends combined with an already ongoing shift to technology-oriented jobs (capable of working remotely) is changing and will continue to change the nature of business and leisure travel as well as demand for alternative accommodations. Over the medium to longer term (post-COVID), due to increase in remote working trends, we foresee higher leisure demand along with an ongoing blurring of business and leisure as traditional short-duration business trips may be replaced with greater demand for longer-duration trips that combine business and leisure (aka Bleisure). We believe this trend was partially responsible for the softer business transient hotel demand and coincided with an increase in alternative accommodations witnessed over the past 5+ years.

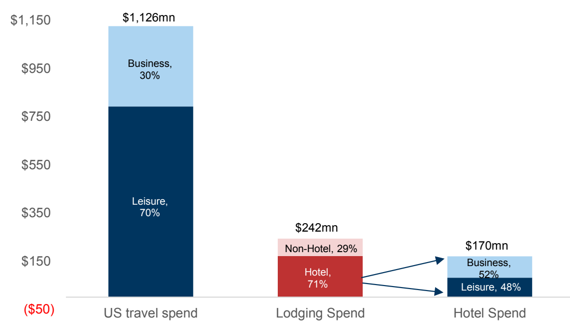
In this section, we outline drivers of the hotel industry, how those drivers are being impacted by the future of work, and how to best invest to take advantage of these secular shifts.

Shift to high education, service-oriented jobs has driven secular growth in hotel demand

While overall travel spend is skewed towards leisure per the US Travel Association, hotel demand for the brands in our coverage tends to be driven more by business travelers (~65%+ of MAR/HLT room nights) who typically stay only 1 or 2 nights. This mix in hotel demand is evident in the high correlation between growth in occupied hotel room nights and business indicators (corporate profits, industrial production, business fixed investment, and non-farm payrolls). Digging one layer deeper, the composition of the labor market is also an important driver of hotel demand as certain jobs travel more than others. Business and professional services payrolls have shown the highest correlation of any single indicator to RevPAR growth on an annual basis. Therefore, as economies around the world have evolved to be more service-driven than industrial-driven, hotel demand has largely outpaced overall GDP. Additionally, consumers tend to travel more for leisure as they earn more so as wealth has grown, particularly in Asia, leisure demand for hotels & resorts has also grown.

Exhibit 8: Overall travel spending is skewed towards leisure, but hotels, specifically branded players, are skewed towards business

Hotel spend room-weighted average of MAR, HLT, H, WH, CHH

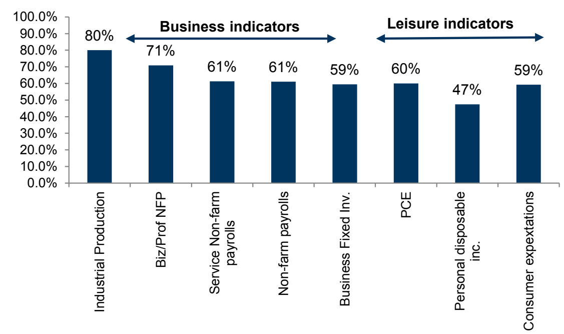


Based on 2019 spend

Source: STR, USTA, BEA, AHLA, Company data

Exhibit 9: ... as evident in higher correlations between occupied room nights and business indicators vs. leisure/consumer indicators

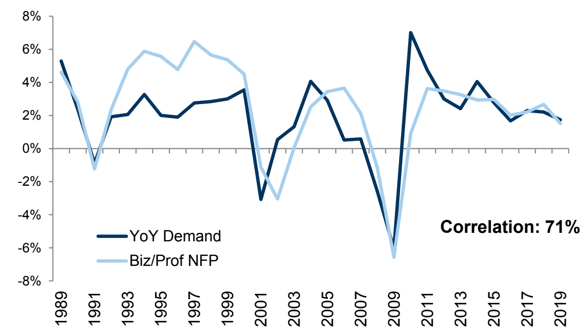
As of 1Q20 (including COVID related impact)



Source: BLS, University of Michigan, Federal Reserve Board, Federal Reserve Economic Data, Goldman Sachs Global Investment Research

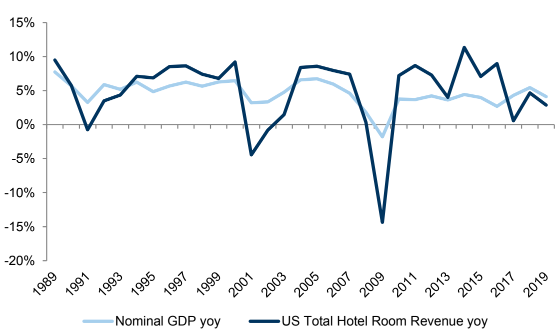
Exhibit 10: In fact, services-oriented payrolls have one of the highest correlation to hotel demand as people in these jobs tend to travel the most

Correlation between annual Lodging demand yoy growth rate and annual Biz/Prof NFP yoy growth rate



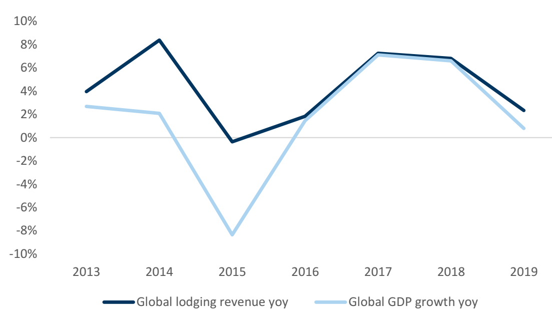
Source: BLS, US Bureau of Economic Analysis (BEA), STR

Exhibit 11: As the US has shifted to a service-oriented economy over the past 20+ years, hotel revenues have generally outpaced GDP outside of recessions, though the relationships began to break down in 2016



Source: US Bureau of Economic Analysis (BEA), STR

Exhibit 12: Similarly, global lodging revenues were outpacing global GDP growth as countries around the world transitioned to service-oriented economies



Source: Euromonitor, STR

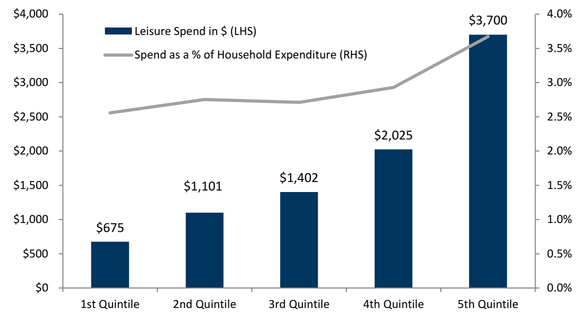
Exhibit 13: Digging a layer deeper, we find that services job categories are the most highly correlated with historical RevPAR and demand trends

in '000; Correlation between annual growth

Sector	Apr-20	5 yr CAGR growth	Correl. With # rooms night Demand
Professional and business services	19,264	2.1%	71%
Mining and logging	646	-3.9%	55%
Retail trade	13,408	0.1%	35%
Trade, transportation, and utilities	24,508	0.9%	26%
Manufacturing	11,432	0.9%	24%
Utilities	540	-0.2%	-3%
Private service-providing	90,334	1.8%	-11%
Total private	108,956	1.8%	-16%
Goods-producing	18,622	1.6%	-18%
Transportation and warehousing	5,007	3.6%	-18%
Leisure and hospitality	8,655	2.5%	-22%
Total nonfarm	131,071	1.6%	-41%
Education and health services	22,111	2.4%	-43%
Construction	6,544	3.7%	-60%
Government	22,115	0.6%	-75%
Information	2,629	1.1%	-82%
Real estate and rental and leasing	2,110	2.6%	-89%
Financial activities	8,536	1.8%	-90%

Source: Census Bureau, Goldman Sachs Global Investment Research

Exhibit 14: On the leisure side, rising household incomes has also propelled GDP+ demand growth as higher earning households spend more on travel (both on an absolute $ basis and % of wallet)
Based on 2018 data

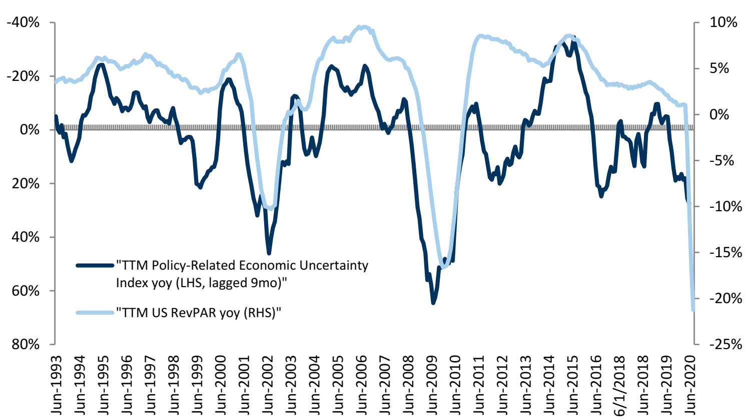


Source: Center for Ecomonic data (CES)

Work from home not a new trend, but accelerating due to COVID and shift towards tech/coding in the labor force

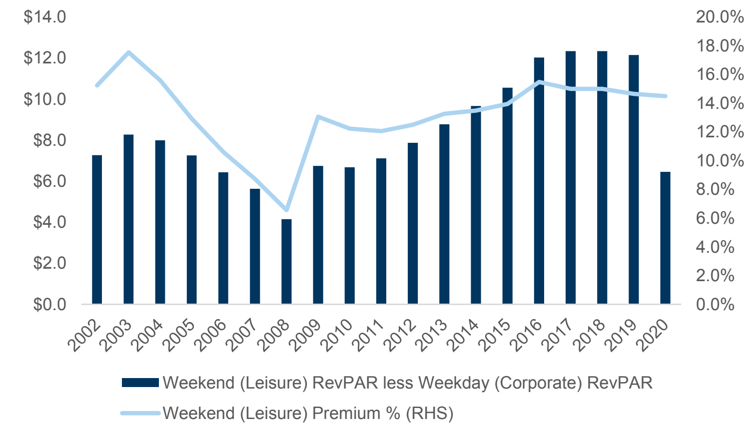
While RevPAR growth has, in the past, followed the ebb and flow of business indicators, the trend became more disconnected versus historical correlations during the late expansion phase prior to the COVID Pandemic. The divergence coincided with management teams across lodging calling out weaker trends in business vs. relative strength in leisure. As we have previously published, we believe the weakness in business hotel demand may have been driven by policy-related uncertainty (see Exhibit 15). However, the multi-year plateau of weekday hotel RevPAR vs. leisure RevPAR could imply a behavioral shift.

Exhibit 15: Policy related uncertainty increased in line with RevPAR declines...



Source: policyuncertainty.com

Exhibit 16: ... but weekend RevPAR outperformed weekday RevPAR to a wider margin over the past cycle

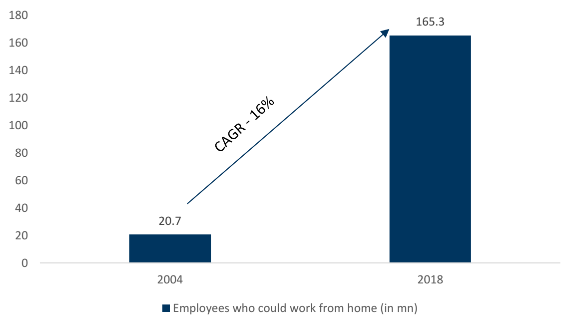


Source: STR

To help assess what may be driving the change at a macro level, we take a deeper dive into the labor force, which has seen a rapid shift over just the past 5-10 years. Specifically, **we identify two key trends: 1) the rise in remote working trends, which has accelerated with the COVID-19 outbreak; and 2) outsized growth in tech, data analytics, coding jobs.**

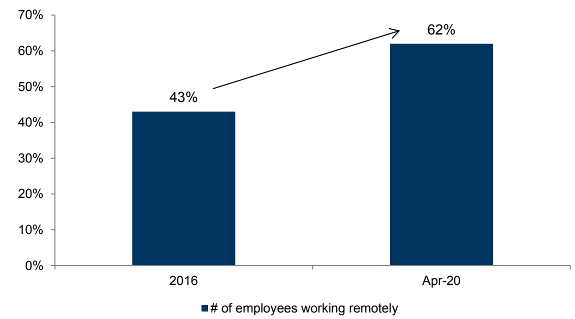
- **Growth in remote working:** Remote working capabilities pre-COVID were already seeing significant growth (16% CAGR growth in 2004-2018 period) as per BLS work at home data. Per Gallup, 43% of the workforce worked from home/remotely at least some of the time during 2016, up from 39% 2012. COVID related disruptions have further increased this trend and Gallup now estimates ~62% workforce is working from home currently. While the current dynamic is likely skewed by temporary changes in behavior, a Gartner survey of 317 CFOs and business finance leaders surfaced that ~74% expect 5% or more of their workforce will become permanent work-from-home employees after COVID subsides. Several tech companies, including Facebook, Twitter and Zillow, have made announcements to allow employees to continue working from home for an extended period. In the past, on an industry-wide basis, finance, insurance and real estate sectors have witnessed the biggest positive shift to remote working while Education and Science, Engineering and Architecture have seen the biggest declines. Therefore, outsized growth in employment of computer and IT occupations could further drive work from home trends.

Exhibit 17: Number of employees in the US who could work from home grew rapidly in 2004-2018 period...
# of employees in millions



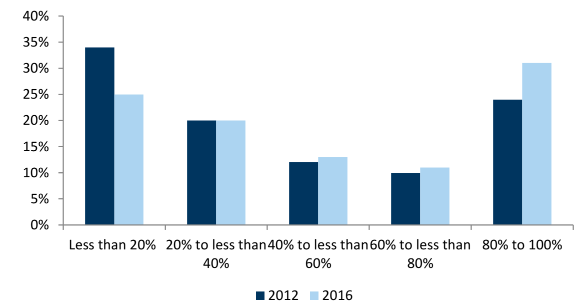
Source: BLS

Exhibit 18: ... and while people working from home/remotely were increasing steadily, COVID-19 has lead to the surge in recent trends
as a % of total workforce



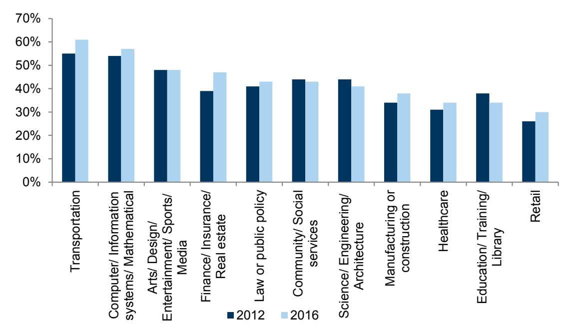
Source: Gallup

Exhibit 19: Pre-COVID, employees were spending more time being remote...
as a % of total workforce



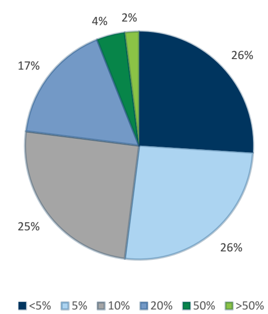
Source: Gallup

Exhibit 20: … with Finance, insurance, real estate and transportation witnessing the biggest increase while Education and Science, engineering and architecture witnessing the biggest decline in remote working trends
People working remotely as a % of total workforce



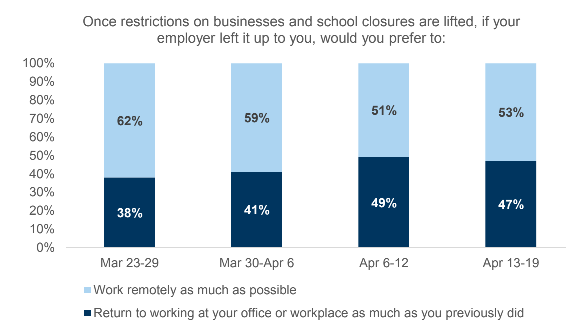
Source: Gallup

Exhibit 21: Looking forward, according to a CFO survey, ~74% respondents expect 5% or more of their workforce, who used to work from office, to permanently work remotely even after COVID subsides...
% of respondents



Source: Gartner

Exhibit 22: ... but other surveys have found more people want to return to working from the office as the pandemic has persisted
Gallup Survey



Source: Gallup

- **Growth in tech jobs:** While information technology jobs have steadily increased over the past 30+ years (5.4% CAGR growth in Tech jobs vs 1.7% CAGR growth in workforce for 1970-2014 period according to the US Census Bureau), the rise of smartphones and cloud computing has driven greater demand for jobs in software development and data analytics that are more likely to work from home. Per the US Census Bureau, these "coding" jobs have grown from approximately

3.4% of the workforce in 2010 to ~5% in 2019 via a ~4.6% CAGR vs. total job growth of just 2.1%. Importantly, the U.S. Bureau of Labor Statistics' Occupational Outlook expects software developers, applications and information security analysts to be among the top 20 fastest growing occupations over the next ~10 years with computer occupations broadly growing at double the rate of overall job growth.

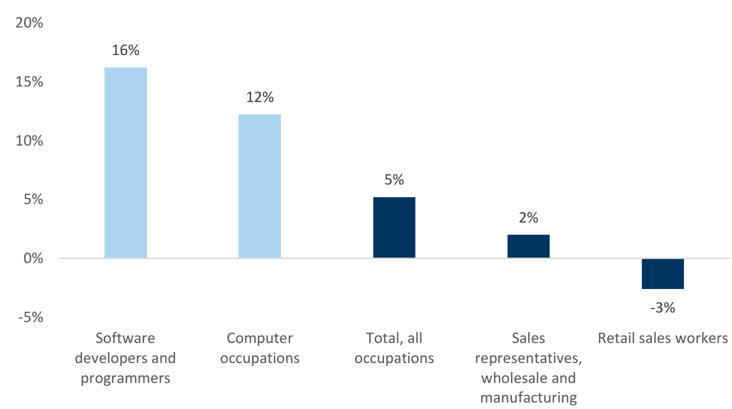
Exhibit 23: Coding/tech jobs have increased steadily over years and constitute ~4.2% of total jobs in the US up from ~3.4% in 2010

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR growth
Coding/tech jobs #	3,233,296	3,361,622	3,512,024	3,632,172	3,872,014	4,038,047	4,245,115	4,440,765	4,609,286	4,836,390	**4.6%**
YoY growth (%)		4.0%	4.5%	3.4%	6.6%	4.3%	5.1%	4.6%	3.8%	4.9%	
as % of total jobs	3.4%	3.5%	3.6%	3.6%	3.8%	3.9%	4.0%	4.1%	4.1%	4.2%	
Total jobs	94,699,265	95,882,175	98,316,240	99,776,510	102,196,022	104,780,810	106,609,098	109,307,428	111,195,237	113,904,639	**2.1%**
YoY growth (%)		1.2%	2.5%	1.5%	2.4%	2.5%	1.7%	2.5%	1.7%	2.4%	

Source: Census Bureau

Exhibit 24: Tech/coding jobs are expected to grow much faster than manufacturing and retail jobs

Projected Percent Change, by Selected Occupational Groups, 2018-28

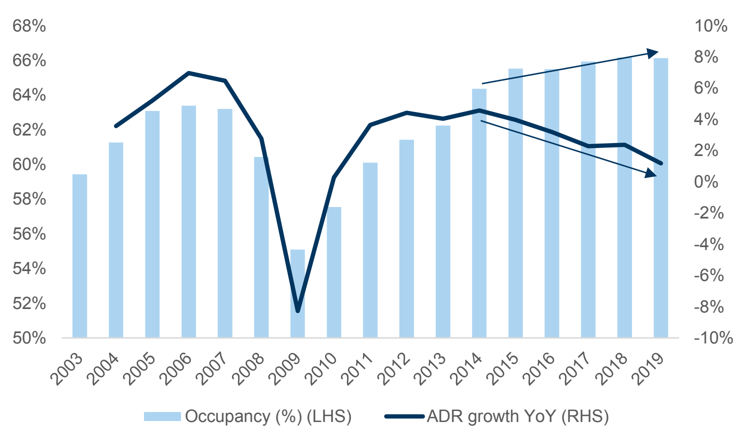


Source: BLS

Implications of work from home and occupational shifts: if past is prologue, expect more 'Bleisure'

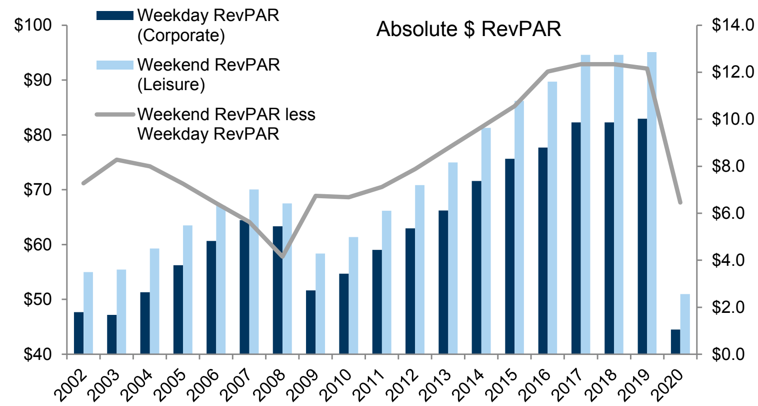
Despite the increase in work-from-home and shift to tech/coding jobs in the labor force over the past decade, hotel occupancy and RevPAR hit all-time highs in virtually every market in the US. As noted above, hotel demand is driven by both business and leisure travel intentions with the highest correlations visible in the growth in the labor force, particularly business and professional services, which includes technology services (Web services, software program services, computer programming services, etc. — NAIC 541511). Therefore, **the growth in work from home and shift in the labor force towards tech does not appear to have impeded overall demand** — in fact, the correlations could imply it may have supported growth. This all said, we have seen two notable changes in RevPAR growth over the past three years that appear to have decoupled from history: 1) weak pricing growth despite high occupancy, which we attribute to shifts in technology (see Americas Lodging: Reassessing RevPAR and the implications of loyalty and technology amid slowdown); and 2) weak business demand relative to leisure.

Exhibit 25: We witnessed all-time high occupancy levels in current cycle yet ADR growth remained subdued in 2018/2019



Source: STR

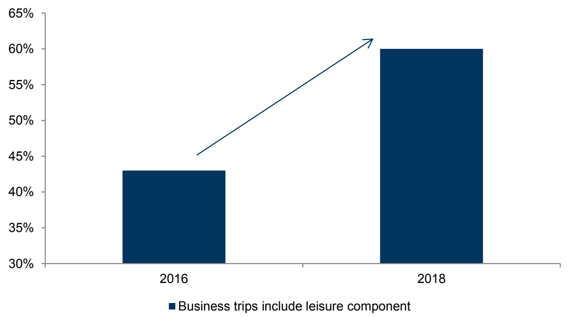
Exhibit 26: Weekend RevPAR outperformance over weekday RevPAR was increasing until 2019



Source: STR

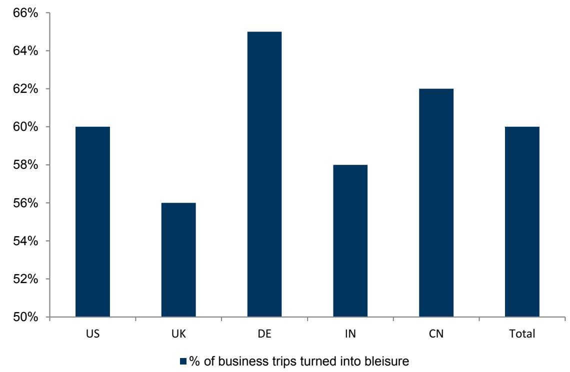
According to data from Expedia, the percentage of business trips with a leisure component grew rapidly in the past few years, moving from ~43% in 2016 to 60% in 2018. The same data set suggests that tech jobs have contributed the most to the Bleisure trend in the US (see Exhibit 29). Therefore, growth in Bleisure demand appears to be coincident with the ongoing shift in the labor force to more tech jobs and more working from home. According to Gallup, 21% of remote workers cited loneliness as their biggest struggle, likely driving the need for more in-person connections (such as through co-working spaces, co-living places, networking membership clubs) and may consequently lead to more travel with combined business and leisure activities (Bleisure travel), in our view.

Exhibit 27: % of business trips with a leisure component have gone up from 43% in 2016 to 60% in 2018
as % of all business trips



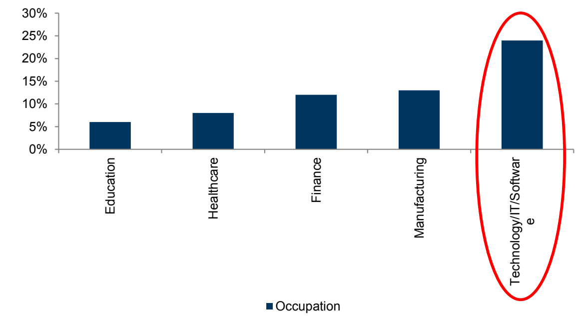
Source: Expedia Group

Exhibit 28: According to Expedia, a majority of business trips included some component of leisure in not just the US, but also the UK, Denmark, India, and Canada
% of business trips, country-wise, as of June-2018



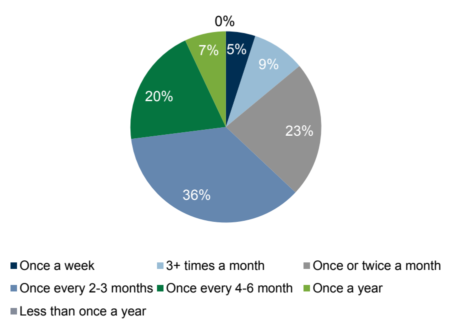
Source: Expedia Group

Exhibit 29: ... with the typical bleisure traveler a tech employee
% of total people surveyed, as of June-2018



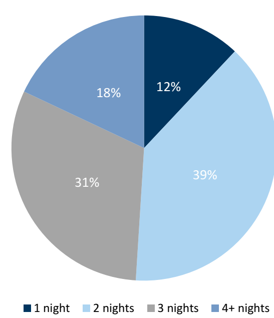
Source: Expedia Group

Exhibit 30: Most people travel for Business once every 2-3 months
as of June-2018



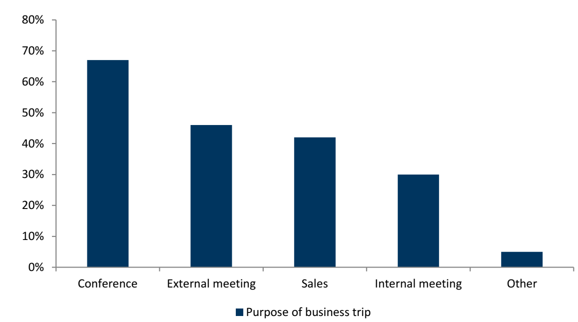
Source: Expedia Group

Exhibit 31: Most business trips are for 2-3 nights
as of June-2018



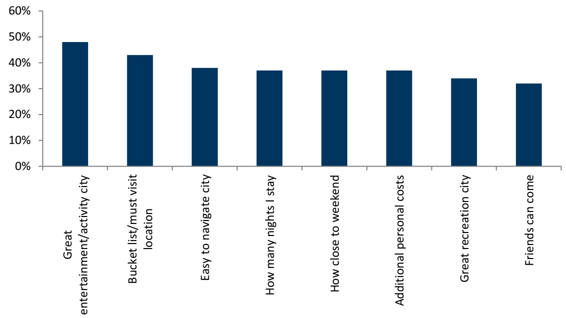
Source: Expedia Group

Exhibit 32: Most people make business trips to attend conference or meetings
as of June-2018



Source: Expedia Group

Exhibit 33: Great entertainment and aspirational travel drive the typical bleisure traveler to extend a business trip



Source: Expedia Group

What it means for incumbents/new entrants

For traditional hotels:

We believe these significant changes in remote working trends can have a meaningful impact on hotel spaces in the future with traditional hotels:

- **In near term:** Launching safer and low touch lodging experience with increased usage of digital keys for check-in, connected rooms with increased room sanitation and likely less personal in-room services.
- **In medium to long term:** Launching more soft brands designed like co-working spaces (Eg. Caption by Hyatt) in the medium term once COVID related concerns abate. We believe as more people work remotely, demand for similar lodging products would increase boosting alternative accommodations.

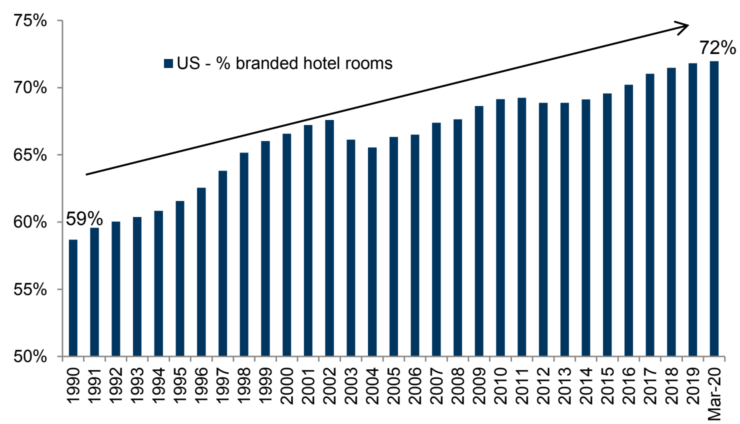
Why Brand?

Brands have been taking share of the global hotel market over the past 30 years (see Exhibit 34 and Exhibit 35) as they have captured a higher proportion of new unit growth and independent hotels have converted to brands. In this section, we compare and contrast brands vs. independent hotels to assess whether the trend will continue. Our bottom-line is that branded hotels will likely continue to take share away from non-branded hotel chains they benefit from 1) lower costs of distribution; 2) greater ability to drive demand via the interplay between corporate relationships and loyalty; 3) gaining access to capital whether for development or renovations, and 4) brand standards supported by capex reinvestment sustain competitive positioning, which all more than offset flexibility from being independent in most situations. Of course, we acknowledge there are scenarios where hotels can succeed without a brand, such as small or mid-sized hotels in key locations with limited competitive development potential that can generate outsized traffic.

RevPAR index and cost savings lead to more compelling owner economics for branded hotels

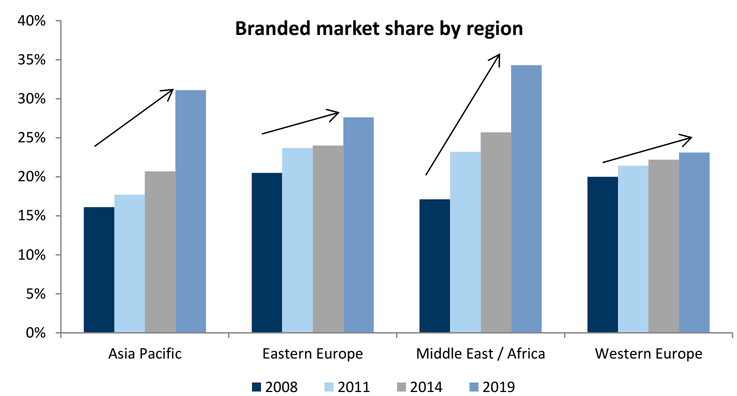
The value proposition to become a branded hotel is driven by better economics. STR's annual hotel study (n=>5,000) highlights a roughly 300bps (see Exhibit 36 below) EBITDA margin premium for chain-affiliated hotels vs. independents in 2019 (~200bps margin premium for limited service and ~830bps for full service). We estimate variable distribution costs for direct bookings (which include marketing, loyalty and franchise fees) equate to 11% of room revenues (see Exhibit 39) based on 2019 Franchise Disclosure Documents), which compares to average OTA commissions of ~20%+ for independents (see Exhibit 40). Additionally, the potential for high OTA cancellation rates, which can run as high as 30-40% (as we learned at our Conrad immersion), can make yield management more challenging as revenue managers have to overbook hotels in anticipation of these high cancellation rates. HLT notes 59% of their room nights are derived from loyalty members, with 95% of these members booking directly, offering lower distribution and higher visibility of an actual stay.

Exhibit 34: Major brands are taking increasing share in the U.S.



Source: STR

Exhibit 35: ...and abroad, although other markets are substantially less branded



Source: Euromonitor

Exhibit 36: Branded hotels earns ~300bps higher EBITDA margin vs. unbranded hotels as per Host Almanac

Host Almanac 2020	Chain-Affiliated	Independent	% delta
Occupancy	75%	74%	124 bps
ADR	$179	$213	-1635 bps
RevPAR	$134	$157	-1494 bps
As % of total revenue			
Rooms	69%	62%	716 bps
Food	15%	16%	-115 bps
Beverage	5%	7%	-210 bps
Other Food and Beverage	5%	3%	160 bps
Other Operated Departments	4%	7%	-298 bps
Miscellaneous Income	3%	6%	-254 bps
Expenses (as % of total revenue)			
Rooms	18%	19%	-153 bps
Food & Beverage	17%	20%	-231 bps
Other Operated Departments	3%	4%	-136 bps
Administrative & General	8%	9%	-101 bps
Information & Telecommunications Systems	1%	1%	004 bps
Marketing	7%	6%	096 bps
Franchise Fees	2%	0%	165 bps
Utility Costs	3%	3%	9 bps
Property Operations & Maintenance	4%	4%	-12 bps
Management Fees	4%	3%	100 bps
Taxes	4%	4%	-17 bps
Insurance	1%	1%	-27 bps
EBITDA margin	**29%**	**26%**	303 bps

Source: STR, HOST

Exhibit 37: Branded Full service hotels earns ~200bps higher EBITDA margin vs. unbranded Full service hotels as per Host Almanac

Host Almanac 2020 - Full service	Chain-Affiliated	Independent	% delta
Occupancy	74%	72%	215 bps
ADR	$203	$225	-990 bps
RevPAR	$151	$163	-722 bps
As % of total revenue			
Rooms	64%	57%	646 bps
Food	17%	18%	-102 bps
Beverage	5%	8%	-232 bps
Other Food and Beverage	6%	4%	190 bps
Other Operated Departments	4%	7%	-335 bps
Miscellaneous Income	3%	5%	-166 bps
Expenses (as % of total revenue)			
Rooms	17%	17%	-26 bps
Food & Beverage	20%	23%	-219 bps
Other Operated Departments	3%	5%	-154 bps
Administrative & General	8%	9%	-108 bps
Information & Telecommunications Systems	1%	1%	11 bps
Marketing	7%	6%	93 bps
Franchise Fees	1%	0%	115 bps
Utility Costs	3%	3%	4 bps
Property Operations & Maintenance	4%	4%	-26 bps
Management Fees	4%	2%	112 bps
Taxes	4%	3%	22 bps
Insurance	1%	1%	-27 bps
EBITDA margin	**27%**	**25%**	203 bps

Source: STR, HOST

Exhibit 38: Branded limited service hotels earns ~830bps higher EBITDA margin vs. unbranded limited service hotels as per Host Almanac

Host Almanac 2020 - Limited service	Chain-Affiliated	Independent	% delta
Occupancy	76%	78%	-234 bps
ADR	$124	$177	-2982 bps
RevPAR	$94	$138	-3192 bps
As % of total revenue			
Rooms	96%	88%	809 bps
Other Operated Departments	2%	3%	-22 bps
Miscellaneous Income	2%	9%	-788 bps
Expenses (as % of total revenue)			
Rooms	25%	39%	-1395 bps
Other Operated Departments	2%	3%	-116 bps
Administrative & General	9%	11%	-158 bps
Information & Telecommunications Systems	1%	2%	-52 bps
Marketing	6%	5%	96 bps
Franchise Fees	5%	0%	464 bps
Utility Costs	4%	4%	4 bps
Property Operations & Maintenance	5%	5%	33 bps
Management Fees	4%	4%	-16 bps
Taxes	6%	9%	-373 bps
Insurance	1%	2%	-44 bps
EBITDA margin	36%	28%	832 bps

Source: STR, HOST

Exhibit 39: Hotel owners for some of MAR brands pay ~11% of room revenues

2019 FDDs

	AC Hotels	Residence Inn	SpringHill Suites	Courtyard	TownePlace	Renaissance	Fairfield Inn	Marriott Hotels	Moxy	Delta	Autograph	Average
Franchise fees	5.5%	6.0%	5.5%	6.0%	5.5%	5.0%	5.5%	5.0%	5.5%	5.0%	5.0%	**5.4%**
Program services c	3.9%	2.6%	3.9%	3.4%	3.4%	2.1%	3.9%	1.6%	3.9%	2.2%	2.0%	**3.0%**
Marriott Bonvoy	2.3%	1.2%	1.8%	2.3%	1.0%	4.2%	1.6%	4.2%	1.6%	4.2%	4.2%	**2.6%**
Total	**11.7%**	**9.8%**	**11.2%**	**11.7%**	**9.9%**	**11.3%**	**10.9%**	**10.8%**	**10.9%**	**11.4%**	**11.2%**	**11.0%**

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 40: Breaking down distribution between branded and non-branded hotels to get to margin potential
Branded hotels drive higher margins vs. their non-branded counterparts. Illustrative build for branded and non-branded hotels

Branded		Non-branded	
Revenue ($mn)	15.3	Revenue ($mn)	15.3
RevPar premium	6.0%	RevPar premium	0.0%
Adj. Revenue ($mn)	$ 16.2	Adj. Revenue ($mn)	$ 15.3
% Booking		**% Booking**	
Brand.com/Rewards Website	28.8%	Brand.com/Rewards Website	15.0%
Central Reservation Office (CRO)	11.3%	Central Reservation Office (CRO)	13.0%
Global Distribution System (GDS)	11.7%	Global Distribution System (GDS)	12.0%
Online Travel Agencies (OTA)	15.0%	Online Travel Agencies (OTA)	40.0%
Hotel Direct	33.1%	Hotel Direct	20.0%
% Commission		**% Commission**	
Brand.com/Rewards Website	4.0%	Brand.com/Rewards Website	2.3%
Central Reservation Office (CRO)	2.0%	Central Reservation Office (CRO)	2.8%
Global Distribution System (GDS)	11.0%	Global Distribution System (GDS)	13.0%
Online Travel Agencies (OTA)	12.5%	Online Travel Agencies (OTA)	20.0%
Hotel Direct	5.7%	Hotel Direct	6.1%
Franchise fee	5.5%	Franchise fee	0.0%
Distribution costs	6.4%	Distribution costs	11.5%
Costs ($mn)	$1.9	Costs ($mn)	$1.8
Profit ($mn)	**$14.3**	**Profit ($mn)**	**$13.6**
Margin	88.1%	Margin	88.5%

Source: Skift, TravelClick, Company data, Goldman Sachs Global Investment Research, STR, HOST

Economics of loyalty

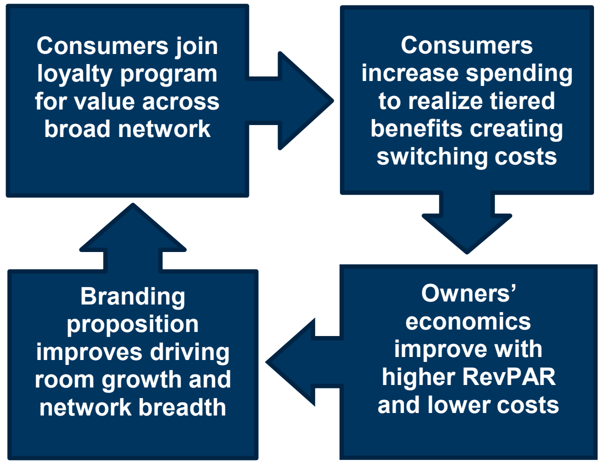
Loyalty - A Key Driver of the C-Corp Flywheel

While loyalty programs are not new (MAR and IHG had programs dating back to the early 1980s), they have become more and more important in driving the c-corp "flywheel" amidst evolving distribution channels, asset light vs. asset heavy business models, and consumer preferences. In fact, we expect that direct fees from credit card programs directly associated with loyalty programs amounted to $674mn in 2019 or ~10% of total fees for H, HLT, and MAR combined. These programs have also driven a positive working capital benefit that can equal over 50% of capex in a given year (Exhibit 53) as the systems have grown. For example, MAR has received an average inflow to cash flow from operations associated with the loyalty program of $346mn over the past 5 years. Below, we examine exactly how these benefits come to fruition by examining the economics of loyalty programs to both the consumer and to the hotels. **To summarize how the flywheel works, the more consumers join these programs, the more spending occurs in the respective hotels, improving owner economics, which translates to greater unit expansion from owners and increased opportunity for monetization through partnerships (i.e., credit card partners). These factors subsequently increase the value of the loyalty program, driving further sign-ups and repeating the cycle.**

Key takeaways include the following.

- **Value to consumer:** Our proprietary model of loyalty benefits to the consumers identifies a 5-10% discount from the loyalty program alone, even before considering any price discount or status. Partner card programs can then drive the discount/benefit to the consumer to 10-19%. With the highest tier status, loyalty benefits can reach nearly 20% of ADR. (see Exhibit 43)
- **Value to hotel owner:** Aside from driving RevPAR premiums, increased scale in loyalty programs translates to lower distribution costs (greater direct bookings, leverage of marketing spend in system fund) plus sharing in monetization / partner programs. Our analysis of MAR's points and credit card spend disclosures suggests the partner programs alone could improve margins by 50-55bps (see Exhibit 51).
- **Value to brand:** The benefits to consumers and owners above translates to increased unit growth in a capital-light manner, as well as direct benefits from monetization opportunities such as co-branded credit card fees and loyalty database access fees from timeshare partners.

Exhibit 41: The loyalty flywheel drives fee growth while delivering a better product to customers and better economics for franchisees



Source: Company data, Deloitte, Phocuswritght, PWC, Goldman Sachs Global Investment Research

Our proprietary loyalty rewards analysis outlines value to the consumer

In our investor meetings, we often hear questions such as "do hotel brands matter?", "do Millennials use hotel loyalty programs?", and/or "are loyalty programs commoditized?" According to Phocuswright, a travel market research company, half of U.S. travelers have hotel loyalty programs (versus 20% OTA loyalty programs and ~50% airline loyalty programs). The majority have more than one hotel program (>60%), and Millennials typically join for price/Wi-Fi, whereas older travelers care about free nights (likely from onset of kids). Importantly, preferences change as consumers move to different stages of life. According to PWC's hospitality consulting group, loyalty benefits are often the 3rd most important factor in valuing hotel brands for business travelers (4th for leisure). As a result, while Millennials may index lower than peers to loyalty, the delta appears to be due to less work-related travel early in a career. As these consumers age, the relevance of loyalty programs is likely to increase.

But what do these programs offer to attract customers and how does the offering vary by brand? The primary levers to drive sign-ups are reward points and an improved guest experience. The cost of reward points is passed through to the franchisees, but often subsidized by partnerships such as credit cards. To help assess the benefits, we created a proprietary tool to quantify the potential benefits of various loyalty programs both with and without credit cards.

What we considered in our analysis.

- **Accruing points:** Our proprietary tool takes into consideration spending levels of the consumer, number of nights stayed, existing status level, whether a consumer has a co-branded credit card, and whether a consumer used a co-branded credit card, all of which play pivotal roles to the pace of points accrual.
- **Valuing points:** We valued points by creating an extensive internal database of redemption options, assuming each sub-brand's ADR aligns with the brand's STR chainscale (i.e., Courtyard is an Upper Upscale chainscale brand, and that chainscale has a $189 TTM average ADR). We then calculate the $/point that a free night would equate to based on this ADR, and weight all redemption options as a percentage of the portfolio. The results should equate to the value of a point if a consumer chose to redeem at a randomly selected US-located hotel within the company's portfolio. Since HLT does not have fixed redemption levels, we made an estimate assuming the premium on point sales was similar to what we calculated for MAR.

Where could the model be wrong?

- We assume no premium RevPAR index for redemptions as we consider a non-loyal customer indifferent to any options within a chainscale, but branded hotels frequently maintain a RevPAR Index premium to the peer group.
- We do not incorporate a benefit associated with taxes as point redemptions are not typically taxed.
- We do not layer in any bonuses, redemption package discounts, or other point accruing multipliers or redemption nuances that may be sources of value. Furthermore, we exclude potential timeshare redemption options.
- We also do not assume a time value of money for time spent accruing a meaningful amount of points (enough for an award redemption).
- For several brands, there are numerous credit card offerings. We chose the credit cards that offered a similar fee ($75-$95) to be comparable. Furthermore, we do not deduct the fee as a part of our calculation as each card comes with an annual benefit (such as a free night) which serves to offset at least most, if not all of the annual fee.

Exhibit 42: To value points, we weight the redemption options in each category by chainscale, apply the average TTM chainscale ADR, and then get to a $/point for each category. We then weight these values by the number of hotels in each category to get to a weighted average point value.
Hyatt analysis includes over 500 properties

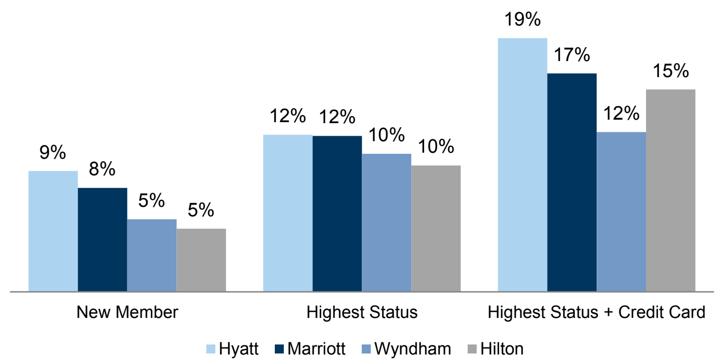
Redemption Category	Base Points Needed	% of US Hotels	Upscale	Upper Upscale	Luxury	Value of point per category
1	5,000	26.8%	93%	7%	0%	$0.029
2	8,000	35.8%	82%	18%	1%	$0.019
3	12,000	21.3%	64%	28%	8%	$0.014
4	15,000	7.8%	43%	38%	19%	$0.013
5	20,000	5.8%	15%	38%	47%	$0.013
6	25,000	2.2%	0%	39%	61%	$0.011
7	30,000	0.4%	0%	0%	100%	$0.011
8	40,000	0.4%	0%	0%	100%	$0.009
				Weighted Avg $/point		**$0.018**
	STR TTM Avg Chainscale ADR		*$142*	*$189*	*$342*	

Source: STR, Company data, Goldman Sachs Global Investment Research

Key outputs:

- Loyalty points deliver a 5%-9% return at base level depending on the brand – this is on top of any direct booking discount.
- Value is magnified by loyalty status, which alone can drive the discount to 10%-12%, and can be further propelled by credit cards or even certain one-time specials
- As individuals' spend move through specific thresholds, tiered benefits kick-in providing higher rebates and onsite benefits. This drives switching costs for the most valuable customers as they will be forced to start at the lowest tier when transitioning brands (barring any status match).

Exhibit 43: Loyalty programs deliver higher discounts to customers that represent more value; in our analysis Hyatt proves to be superior for consumers.
Analysis assumes 5 nights at $200 ADR



Source: Company data, STR, Goldman Sachs Global Investment Research

Exhibit 44: Hyatt provides best regular returns on credit card spending, while Hilton tops sign up bonuses while also offering strong benefits

	Fee Range	Est. return on general spend	Est. return on hotel spend	Est. value of sign-up bonus	Key benefits
H	$95	1.9%	7.4%	$929	Free night annually, status (Earn up to 10 free nights at category 1 hotels)
MAR	$0-$450	0.8%-1.6%	2.4%-4.7%	$394-$787	**Base:** free night annually **Premium:** status, travel/hotel credit
HLT	$0-$450	1.4%	3.4%-6.7%	$383-$718	**Base:** Status **Premium:** free night, status, hotel credit, airport lounge access, airline accidental credit
WH	$0-$75	0.5%	1.6%-2.7%	$82-$165	**Base:** Status **Premium:** Status, annual points bonus

Key benefits are not an exclusive list, return based on GS estimated point value, credit card terms may fluctuate frequently

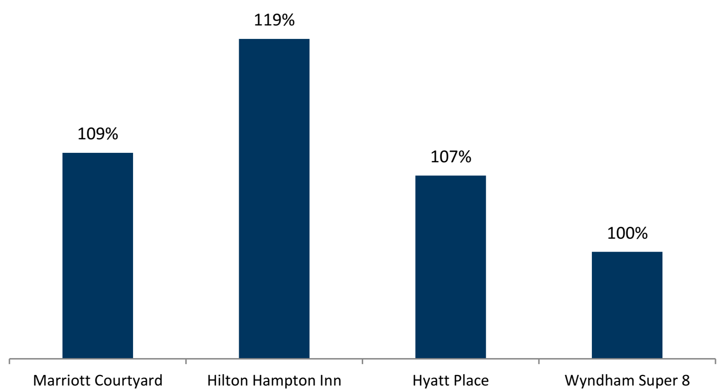
Source: Company data, Goldman Sachs Global Investment Research

While points accumulation can be a frustrating process for the occasional traveler, the loyalty programs can provide a better experience with instantaneous perks such as digital room key, online check-in, and free internet service. Furthermore, transfer partners, such as airlines or retailers like Amazon, allow consumers to redeem points in areas where they may be more active.

Importantly, loyalty and credit card programs drive higher spend. Wyndham Rewards loyalty program members stay twice as often and spend 95% more than other guests on average. These benefits were affirmed by a 2014 Deloitte study of 3,000 high-frequency travelers showing a willingness to pay $20-$41 extra to stay at a hotel of a preferred loyalty program, with

Millennials willing to pay a higher rate than non-Millennials. Deloitte's study suggests a 10%-20% premium to the average full service, branded US ADR (2020 - STR) which comes at a cost to the owner of roughly 4.5% per folio (MAR management's estimated loyalty cost). Credit card programs also drive spend, with HLT noting a 10% increase in spend following credit card sign-up, with about half of the upside coming from incremental stays. We see these factors as primary drivers of premium RevPAR index across our coverage, one of the best indicators of brand value, in our view.

Exhibit 45: While many factors are at play in calculating RevPAR Index, we see the loyalty program as a driver of consistent RevPAR Index premium



RevPAR Index based on 2019 FDDs

Source: Company data, Goldman Sachs Global Investment Research

Scenario Analysis: Hyatt rates highest, but if the network doesn't fit, what's next best?

To better understand the qualities of each program, we developed a scenario analysis to examine four different guest personas. This analysis only takes into consideration a few of the many variables that differentiates each loyalty program and credit card, but it provides a high-level way to discern between each program's focus. We acknowledge other scenarios exist outside of our specific examples and other outcomes could occur even within the hypothetical consumers we portray. Hyatt remains the highest in terms of redemption values, but its network is dedicated toward higher chainscales and may have less breadth than needed by certain traveler types. So which company is the right choice?

Things we learned going through this exercise:

- **Using a co-branded credit card is superior to status:** In our scenario analysis, we noticed that heavy traveling is not rewarded to the same extent as using a co-branded credit card for travel. We see this most clearly as the Road Warrior has lower returns from loyalty than the Recent Retiree.

- **H has the highest return to the consumer at all levels**, yet, we had difficulty choosing it as a best fit for all four of our scenarios due to a lack of chainscale diversity and system size. This may play into their actuarial assumption that over 50% of points will never be redeemed (see Exhibit 54 on breakage) but may also serve to help them gain share as the system continues to grow.
- **HLT or MAR? HLT if you use the co-branded card, MAR if not…** The two largest c-corps in our US coverage appear to incentivize travelers differently. HLT has better return metrics for travelers using a co-branded credit card, which may create a higher draw of leisure customers or even small-to-mid-sized business employees who get reimbursed for their personal card, while MAR has better returns for those that cannot use a credit card for travel, a lean toward those traveling on expense accounts.
- **WH has a solid foundation, but expanded tiers and a more nuanced offering could be a positive:** At a base level, WH remains competitive with the peer group, and it is worth noting they are able to do so as the lone company in our coverage with a bias to the economy chainscale.

Road Warrior: We outline the hypothetical road warrior as an experienced consultant, top-tier salesman, or a senior executive. The Road Warrior ("RW") is on the road 100 days per year, which is all arranged on a corporate account. RW also takes 10 days of vacation which is paid on a co-branded credit card. This individual has top-tier status and prefers higher chainscale hotels with a broad network. **The programs best suited for the Road Warrior is MAR as H may lack the breadth necessary for high-travel demands.**

Start-up Entrepreneur: The hypothetical Start-Up Entrepreneur travels frequently to raise money and market. This individual prefers to stay at high-end hotels to host important meetings, but value hotels whenever else to save money. We see 50 days/year of travel paid on a co-branded credit card, and only 3 vacation days which is also paid on a co-branded credit card. The traveler has achieved mid-tier status already. **The programs best suited for the Start-Up Entrepreneur is HLT, as H has better returns but does not have a broad value offering.**

New Hire: The hypothetical "new hire" we expect to travel once a month for work as the individual learns the ropes, totaling 20 work nights on the road per year at midscale hotels. The new hire is enrolling in a loyalty program for the first time, does not have a co-branded credit card or any status, and spends 5 leisure nights on the road, mostly staying at value hotels around weddings or road trips. **The programs best suited for the New Hire is WH as it has the largest economy offering and an easy to learn loyalty program with a single redemption rate.**

Recent Retiree: The hypothetical "recent retiree" has saved a nest egg and prefers comfort and amenities as they take time to travel the US. The retiree travels 25 days a year, all on the co-branded credit card and has achieved the lowest level status.

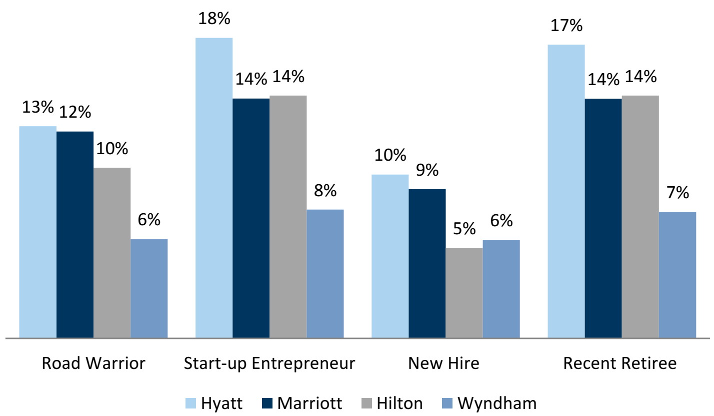
The programs best suited for the Recent Retiree is H as it provides superior returns and a portfolio best-suited for the leisure traveler.

Exhibit 46: In our scenario analysis, we see average discounts from loyalty of 7% to 13%
Best fit programs highlighted which include a qualitative overlay discussed above

	Assumptions						Discount				
	Work Nights	CC?	Leisure Nights	CC?	ADR	Status Tier	Marriott	Hyatt	Hilton	Wyndham	Avg
Road Warrior	100	No	10	Yes	$200	Highest	**12%**	**13%**	10%	6%	10%
Start-up Entrepreneur	50	Yes	3	Yes	$150	Middle	**14%**	**18%**	**14%**	8%	13%
New Hire	20	No	5	No	$125	None	**9%**	**10%**	5%	**6%**	7%
Recent Retiree	0	--	25	Yes	$200	Lowest	14%	**17%**	**14%**	7%	13%

Source: STR, Company data, Goldman Sachs Global Investment Research

Exhibit 47: Graphically, we can see better discounts across all programs for SUE and RR, both of whom use credit cards for all lodging purchases



Source: STR, Company data, Goldman Sachs Global Investment Research

Credit card partnerships also improve the brand proposition. In these programs, credit card companies typically pay fees for points as members sign up and use the card. These proceeds can be spread among 1) the brands through direct fees, 2) the customer through better rewards, and 3) the owners through a combination of lower fees, higher reimbursement rates for rewards nights, or even additional technology investments benefiting the entire constituency. Credit card programs can also have language included to allow for the credit card companies to buy forward points at a discount – essentially acting as a near-term source of funds for the hotel brand at a rate significantly below other sources of liquidity. In fact, **MAR and HLT**

were able to leverage this ability to forward sell loyalty points to bolster liquidity amidst the pandemic, leading to greater flexbility in working with owners. MAR/HLT generated ~$920mn/$1bn respectively during the current COVID impacted business environment.

Exhibit 48: COVID-19 fee deferral commentary

Company	Commentary
MAR	Vast majority of owners and franchisees continue to pay their bills on time or on short-term payment plans
HLT	Provided flexibility against standards of all sorts, indicated since fees are revenue based have not seen material demand for extensive relief measures
H	No relief on the fee front, but reduced and deferred amounts owed for system services to hotels that requested relief; Extended fee concessions through year-end 2020
WH	Saw higher take rates for fee deferrals internationally than in the US, especially in EMEA and China where there were complete shutdowns; By October had received 70% of fee deferrals provided to franchisees for the months of March, April and May - working with the remaining 30% with extended payment terms; Cash collections within 10% of prior year levels

Source: Company data

In contrast to other fees paid by owners (franchisee, management, incentive management), credit card fees tend to be much more resilient in downturns. Most of the fee structure is paid based of percentages of hotel revenues and directly tied to RevPAR fluctuations. Throughout COVID, however, C-Corps have largely proved that their co-branded credit card fees are more resilient than the rest of the business. For example, in the case of Marriott, which saw an -84% decline in RevPAR during 2Q20, credit card fees were only down -27%. The same trend continued into 3Q20 where credit card fees declined a magnitude of one-third the decline seen in RevPAR (-22% vs -66%, respectively). While most loyalty members using the credit card tend to spend a disproportionate amount on the card on travel and lodging spend, they are able to use the cards anywhere. Throughout COVID, brands have worked with their co-branded credit card partners to come up with additional incentives to put non-travel related purchases on the cards as well. For example, the Wyndham Rewards Business card gives customers 5 points per dollar spent for marketing and advertising spend and utility payments on top of the 8 points per dollar spent on gas and WH stays. Similarly, Marriott Bonvoy increased rewards on sectors like gas, dining, grocery and retail spend in order to entice customers to continue to use their card despite government-mandated lockdown procedures and the international slowdown in travel. HLT also noted they worked with their partners to enhance rewards and that throughout the downturn, credit card spend is not down nearly as much as RevPAR. The resiliency of these fees allows these brands to continue to generate cash and FCF even in the most severe macro environment for lodging in recorded history. These fees help to provide stability in an otherwise cyclical business and bolster the strength of their loyalty program by driving high returns to the customer.

Exhibit 49: MAR, HLT and H all generate substantial fees from their co-branded credit cards

	2019 CC rev / as a % of fee rev	CC Fee revenue/loyalty member	Loyalty members (mns)
MAR	410mn / 11%	$2.91	141
HLT	210mn / 9%	$2.04	103
H	60mn / 8%	$2.73	22

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 50: ... while giving back to the consumer...

Key terms for Marriott Premier Plus Card for 2018 vs. Marriott Bonvoy Boundless™ Credit Card for 2019

	2018	2019	Var.
Sign on bonus	75,000	100,000	33.3%
Points earned per $ for hotel stays	6x	6x	0.0%
Points earned on general items	2x	2x	0.0%
Annual Fee	$95	$95	0.0%

Source: Company data

From the hotel owners' perspective, we were able to estimate a potential 50-55bps of incremental margins for MAR franchisees from better credit card economics alone. As shown in Exhibit 51, we assume that spending grows at a 2% inflation rate and the number of cardholders grows at 5% a year from 2019 to 2022. We apply the revised credit card terms while maintaining the same proportion of hotel spend/non-hotel spend as disclosed by MAR at their 2017 analyst day and calculate a free night benefit using an average ADR for the company (with a slight premium to account for suppressed 2022 ADRs due to COVID-19). Based on MAR's fee guidance of $400-$410mn, owners would see their share go from ~$174mn in 2019 to $281mn in 2022 (a 53bp increase based on a 35% starting margin).

Exhibit 51: ...as well as franchisees, where we see 50-55bps of profit margin expansion, as shown in our illustrative breakout below.

Credit card analysis	2019	2022E	Notes
Consumer Perspective			
Customer Spend ($mn)	$73,709	$90,550	Assume 5% new member growth and 2% inflation per annum since 2017 analyst day disclosure
Points (mn)	167,073	205,246	Points move higher with new return on general spending
Spending points value ($mn)	$1,198	$1,472	Uses GS est of $0.007/point
Estimated Sign-Up Bonus Value ($mn)	$100	$150	Uses GS est of $0.007/point
Annual Free Night benefit ($mn)	$446	$457	Free night for cardholders annually (2022E MAR systemwide ADR)
Estimated gross value to consumer ($mn)	**$1,743**	**$2,078**	
Redemption Discount	10%	10%	Assume ADR discount for reimbursements
% of Points Assumed to Never be Redeemed	35%	35%	Per historical breakage
Estimated cash value to consumer ($mn)	**$1,014**	**$1,216**	
Number of Cardholders (mn)	2.8	3.2	Assume 5% annual growth rate from 2017 analyst day (2.4mn)
Value per cardholder	**$627**	**$646**	**Implies 1.0% value CAGR**
Average spend per cardholder annually	$26,530	$28,154	Assume 2% annual increase
Reward rate Less Annual Fee	1.9%	1.9%	Assume additional return based on loyalty calc. flat
Company Perspective			
Marriott Credit Card Fees ($mn)	**$410**	**$450**	2019 Actual reported
Hotel Owner Perspective			
Residual value to owners ($mn)	$573	$729	Assumes equal proportions of incoming cash flow as 2016 est.
Value per property	$78,915	$90,387	
House Room Revenue ($mn's)	$58,159	$43,705	
Estimated House Total Revenue	**$77,052**	**$57,902**	Assumes F&B and other revenue mix consistent with industry
Margin Differential	**0.74%**	**1.26%**	**~50-55bp of margin improvement**

Source: STR, Company data, Goldman Sachs Global Investment Research

Better hotel economics equate to net room growth, propelling the flywheel around again

As loyalty programs enhance profitability and returns of hotels relative to independent properties, more capital has been and will likely continue to be allocated to brands in the form of net unit growth. The better economics likely also contribute to lower attrition from a combination of better results and owners' desire to not see returns erode upon deflagging. As units continue to shift towards brands, the network becomes even more valuable as consumers have more options to accrue points, driving the flywheel around again.

Brands also benefit outside of franchise fees. For instance, as we have noted, credit card revenue has consistently increased over the past few years across our coverage. HLT management expects revenue to continue growing with broader fee growth. As we have seen in our analysis in Exhibit 52, we identify 2% to 7% incremental return on lodging spend from credit cards for new members. This value is above cashback alternatives of 1-2% and likely is a fundamental reason c-corps credit card fees have grown considerably.

Exhibit 52: We have seen double-digit fee growth across our coverage, with MAR/HLT benefiting from material contract step-ups
($mn)

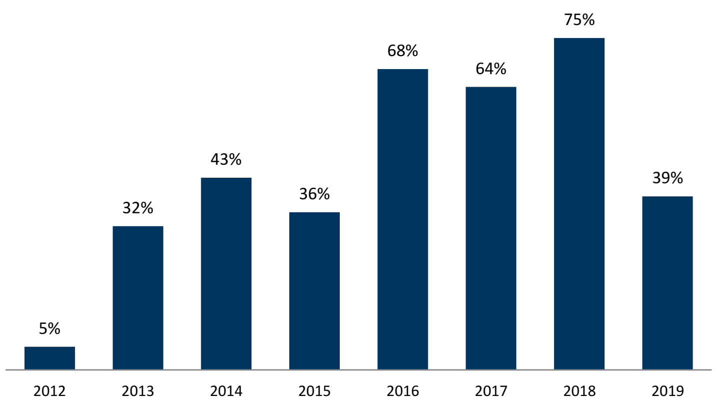
	2016	2017	2018	2019
Hyatt	$40	$47	$48	$60
Marriott	$173	$242	$380	$410
HLT	$90	$138	$186	$204

H and HLT are estimates

Source: Company data, Goldman Sachs Global Investment Research

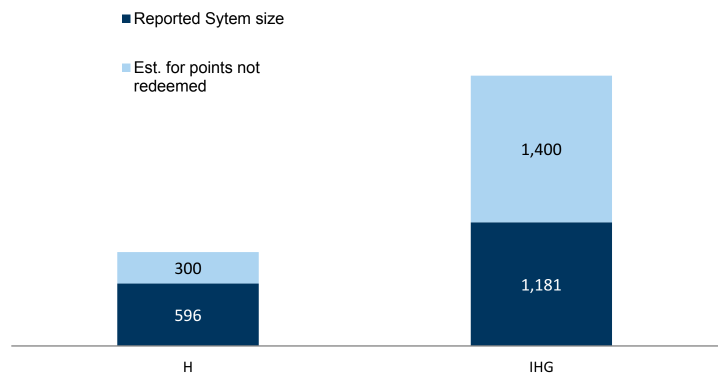
Furthermore, we have seen loyalty cash inflows serve as a potential form of positive working capital as cash inflows increased as a percentage of capex over the past 5 years. This funding source will either be paid back when points are redeemed, or perhaps never if points expire, or can be offset through other forms of monetization (selling points to partners). C-corps could even devalue points to decrease its loyalty liability, which may happen naturally as ADRs drop during down markets. H/IHG disclose the value of their loyalty liability which they expect will never be redeemed, approximately 34%/54% of points value. While this value should accrue back into loyalty funds, the cash flow associated with changes in this breakage amount is likely fungible and could be used as a low cost source of funds.

Exhibit 53: Net cash inflows from loyalty programs can consistently be used to fund a material amount of capex
Loyalty cash flows/capital expenditures for MAR/HLT



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 54: 34-54% of gross loyalty liabilities for C-Corp coverage is expected to never be redeemed which lowers the charge-out costs for owners



Source: Company data, Goldman Sachs Global Investment Research

What does the future of hotel loyalty look like?

Under this flywheel scenario, scale begets scale, which could drive further consolidation of smaller niche players. In addition, the data captured from hotel loyalty programs can provide greater insight in customer targeting, both to the hotels and potential partners. In the current uncertain economic and travel environment due to COVID-19, loyalty programs are being used to provide contact-less check-in, offer cleanliness guarantees, and other affirmation of brand standards. The loyalty programs have also paid a key role in firming up liquidity and ultimately offering greater flexibility for owners as brands can offer payment plans on deferred fees. However, with the recovery progressing slowly amidst elevated COVID cases, the brands have taken more extreme measures to reduce costs throughout their systems, including planned permanent reductions in the system funds. These cuts should ultimately benefit owners' margins on the upswing, which could credentialize the value of the brands if sustained, but create greater questions if RevPAR index premiums erodse.

How can we think about valuing loyalty programs?

Hotel C-Corps have historically avoided putting a $ value on their loyalty programs. With the impact of COVID-19 dramatically reducing travel across the globe, airlines sought out methods to raise capital using their loyalty programs as collateral and began disclosing internal valuations for their programs. Airline companies successful used their loyalty programs as collateral to get additional liquidity, however, the incremental liquidity raised was significantly lower than the values given by their management teams. In contrast to the C-Corps, which broadly display how many members are in their network to entice hotel owners to develop their properties and gain access to those customers, airlines consider this disclosure "highly confidential," so we instead use the airline valuations to back into multiples of the total liabilities associated with the program and credit card/partnership fees. The below exhibit is meant to be one illustrative method of pegging down a value for these programs, however we highlight the valuations given by airlines were wide, and they did not disclose their methodologies.

Exhibit 55: Loyalty network valuation methodology

	HLT	MAR	H	WH	AAL	UAL	ALK
Members	**110mn**	**145mn**	**22mn**	**85mn**	-	-	-
Current Liabilty	$616	$1,724	-	$47	$2,051	$772	$663
LT Liability	$1,657	$4,433	-	$28	$7,043	$5,063	$1,520
Total Liability (mn)	**$2,273**	**$6,157**	**$723**	**$75**	**$9,094**	**$5,835**	**$2,183**
Loyalty Partnership/ Credit Card/ License Revenue	~$250mn	$410mn	~$60mn	$165mn	$2.4bn	$2bn	$1bn+
Value	-	-	-	-	**$18-$30bn**	**$20bn**	**$4.5-$5.5bn**
Commentary	21% increase in number of members in 2019	50% of total rooms	World of Hyatt credit card relaunch in June 2018; 41% of total rooms	36% of global occupancy, 40% of US occupancy; 10% annual growth over past 7 years; $34mn credit card fees, $131mn WYND fees	Partnership with World of Hyatt	"Larget asset we have"	Greater than 50% of seats; 4x more revenue than a non-member
Value to cc rev	-	-	-	-	10.0x	10.0x	5.0x
Value to liability	-	-	-	-	2.6x	3.4x	2.3x
Calculated Value (CC)	$2,083	$3,417	$500	$1,375	-	-	-
Calculated Value (liability)	$6,332	$17,152	$2,014	$209	-	-	-
Average Value (mn)	**$4,208**	**$10,284**	**$1,257**	**$792**	$18-$30bn	$20bn	$4.5-$5.5bn
Value as % of EV	**11.8%**	**20.4%**	**15.1%**	**11.0%**	**59.4%**	**62.3%**	**74.6%**

Source: Company data, Goldman Sachs Global Investment Research

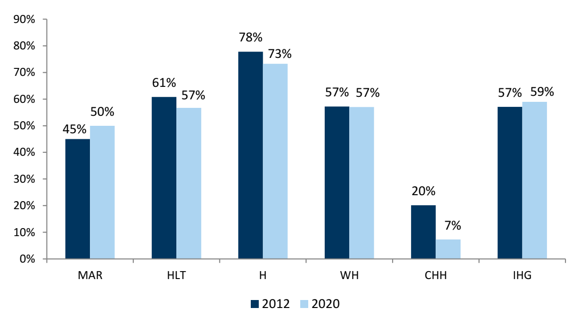
Global pipeline deep-dive

With unit growth a key driver of EBITDA for lodging C-Corps, we take a closer look at global pipeline numbers cited by management teams to better understand 1) how pipelines correspond or differ from actualized unit growth, 2) how the pipelines have evolved, and 3) what changes to the pipeline could mean for earnings/stocks, particularly as mix changes. Key takeaways for investors follow.

Pipelines have not materially shifted towards international markets over the past 5 years, but have shifted towards Asia (China specifically).

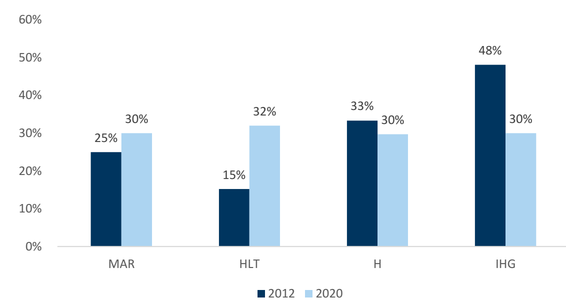
- Each pipeline's translation or conversion to actual units has increased across markets, likely reflecting the strong industry backdrop and improving returns to owners.
- The mix shift towards China in the pipeline comes at a lower RevPAR but higher "actualization" or conversion.
- While the global pipeline in China has grown materially, creating concern of oversupply, our market sizing relative to the U.S. suggests ample opportunity to absorb supply.

Exhibit 56: The pipelines of each C-Corp have not materially shifted towards or away from international markets
% of pipelines in international markets



Source: Company data, Goldman Sachs Global Investment Research

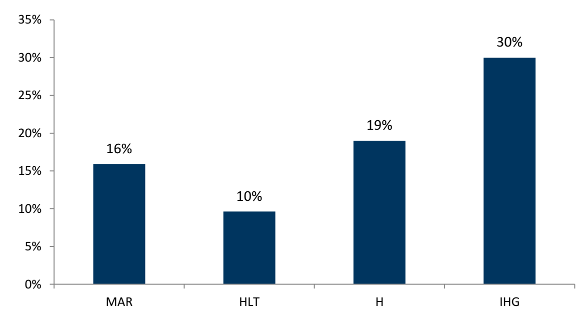
Exhibit 57: ... but Asia has grown as a percentage of the total pipeline and the international pipeline, for MAR/HLT, largely through expansion in China
% of Asia Pacific in the Global Pipeline



*IHG only includes Greater China; ASPAC for HLT

Source: Company data, Goldman Sachs Global Investment Research

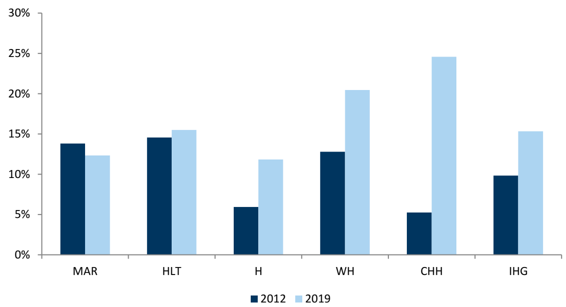
Exhibit 58: The mix of Asia in the pipeline would imply continued shift in mix of existing rooms towards Asia
% of Asia Pacific in the existing room count



ASPAC figure used for Hyatt, IHG includes only Greater China

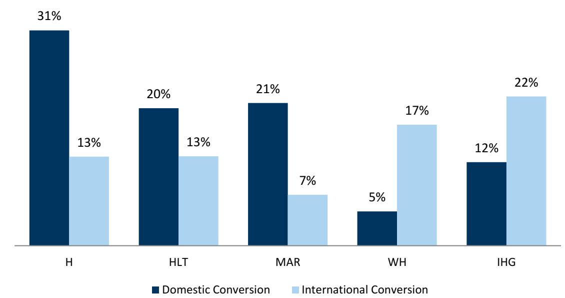
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 59: Pipelines have seen an increase in conversion to actual room-rates across operators...
Pipeline Conversion Overall (Net room growth/global pipeline)



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 60: Domestic conversion is higher for H/HLT/MAR, while the inverse is true for WH/IHG
2019 M&F net room growth/2018 year-end pipeline

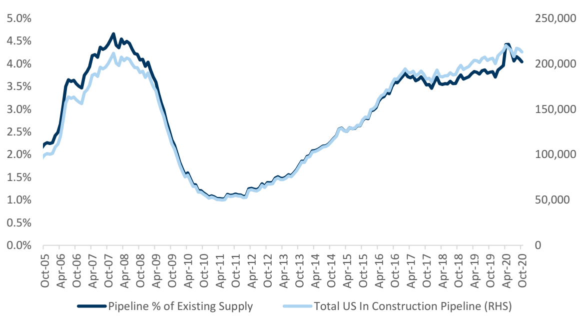


MAR includes all of NA, IHG includes all of the Americas

Source: Company data, Goldman Sachs Global Investment Research

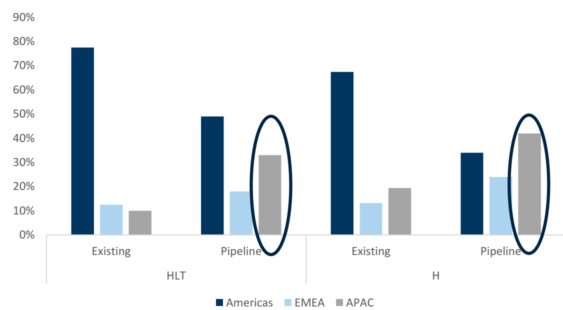
Assessing the implications of the pipeline shifting to China

Exhibit 61: The in-construction pipeline as a % of existing has remained relatively stable
All data for the US



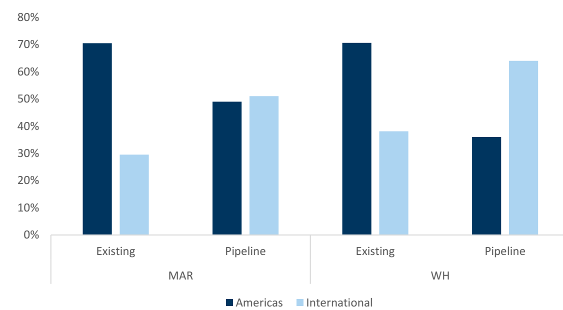
Source: STR

Exhibit 62: Of companies in our coverage that disclose the makeup of their pipeline, a disproportionate number of hotels are coming out of the APAC region...



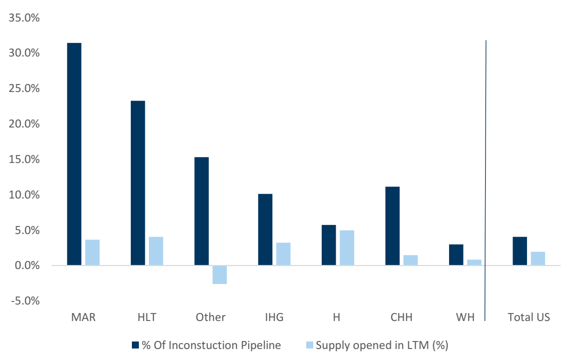
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 63: ... as do MAR and WH have a disporportionate % of their pipeline coming from international regions



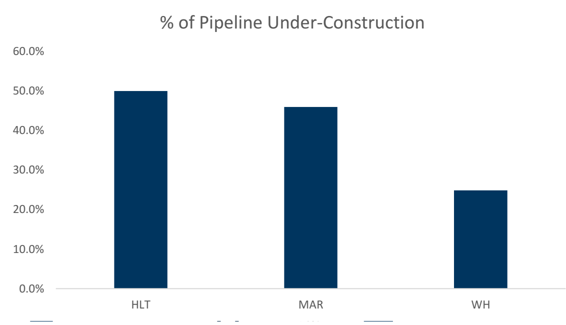
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 64: Brands dominate the in-construction pipeline in the US...



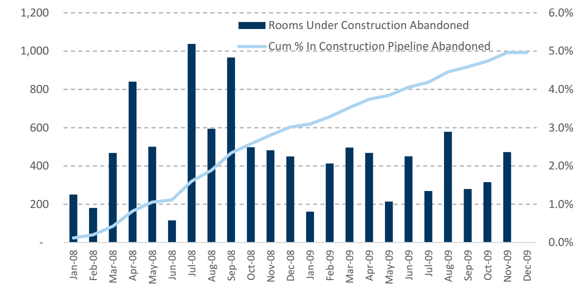
Source: STR

Exhibit 65: ... and systemwide, brands have a large portion of their pipelines under-construction



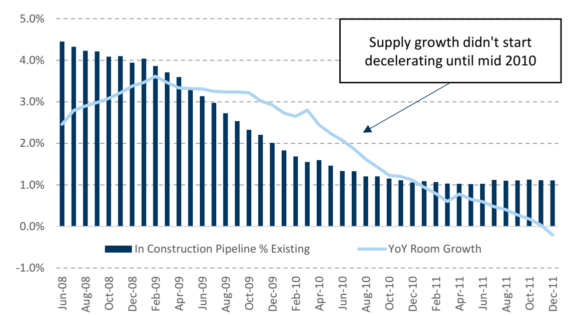
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 66: We view the in-contruction pipline as extremely resilient given during the GFC a cumulative 5% of hotels were abandoned



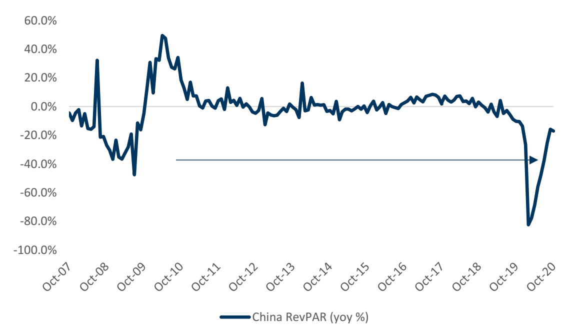
Source: STR, Goldman Sachs Global Investment Research

Exhibit 67: ... and supply growth did not start decelerating until mid-2010



Source: STR

Exhibit 68: China (a disproportionate % of the pipeline) has already surpassed "normal" recessionary RevPAR declines, suggesting even less likelihood of abandoment in the in-construction pipeline in the region



Source: STR

Exhibit 69: Even with above average pipeline abandonment and 2x normal attrition, each of the companies in our coverage will see strong, positive NUG from 2019-2022

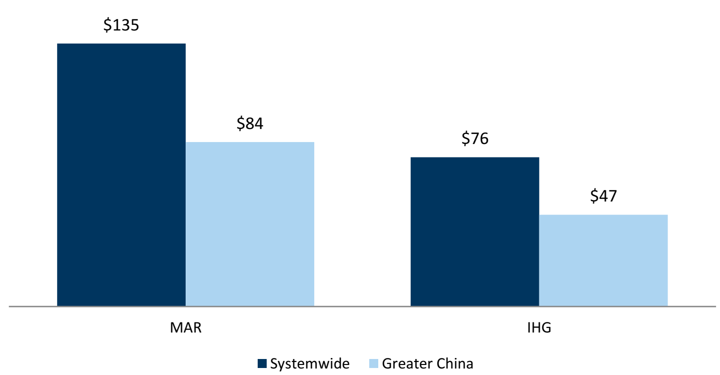
	H	HLT	MAR	WH*
Rooms Under Construction	60,600	222,000	228,000	89,712
Existing Rooms	223,111	983,465	1,413,654	812,900
Pipeline % of Existing	27.2%	22.6%	16.1%	11.0%
Annual Attrition	1.5%	2.0%	4.0%	6.0%
Pipeline Abandonment	5.0%	4.0%	5.0%	3.0%
3-Yr Growth	24.3%	19.7%	11.3%	4.7%

*Includes 24% of pipeline made up of conversions

Source: Company data, Goldman Sachs Global Investment Research

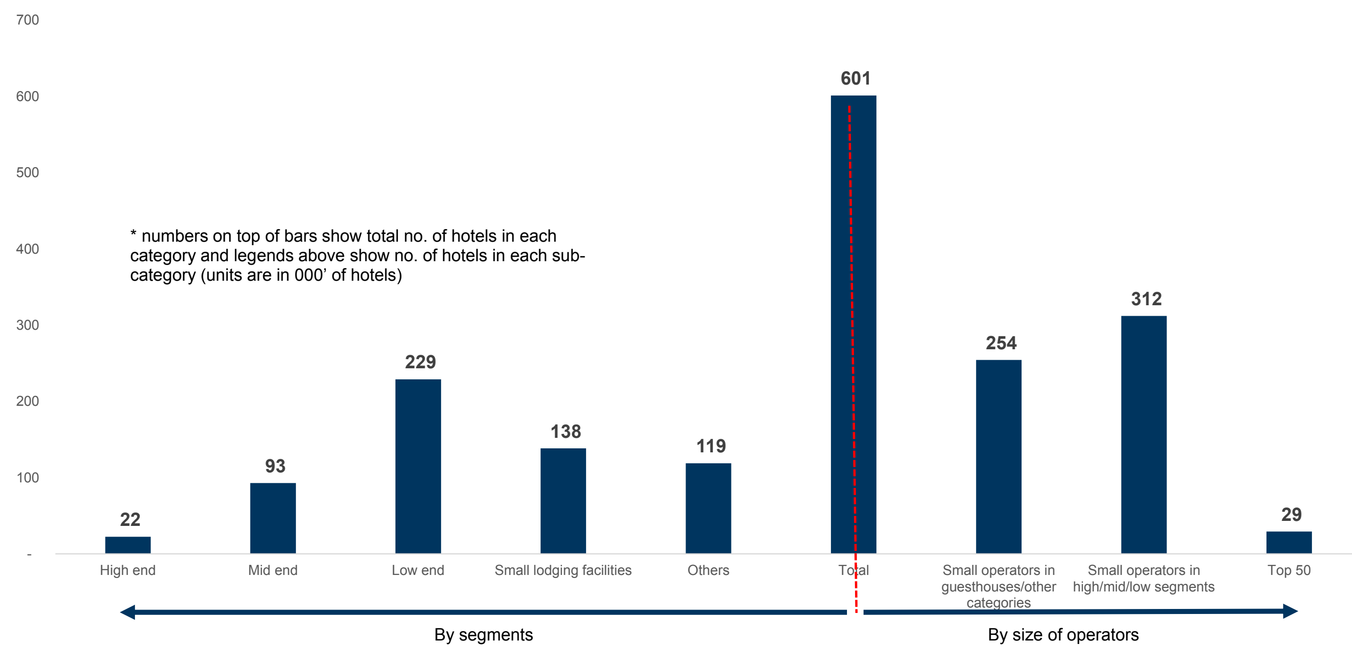
As C Corps' pipelines index higher to China, we sought to examine the current hotel market and saturation level in China. We compare the Chinese market to the mature market of the US. Recognizing an obvious population skew, we sought to narrow the population to a group that may have a higher propensity to travel and the capability to afford hotel rooms around the ADR provided by our coverage. Overall, we came to a TAM of 7.5mn rooms that does not embed any growth expectations, just consistent population/income characteristics. This market size estimate would be ~32% larger than the current market in the US, while some estimates (CTrip) have cited Chinese outbound travelers as high as 4X that of the US.

Exhibit 70: China carries more than a 35% RevPAR discount to system averages
Based on 2019 reported RevPAR



Source: Company data, Goldman Sachs Global Investment Research

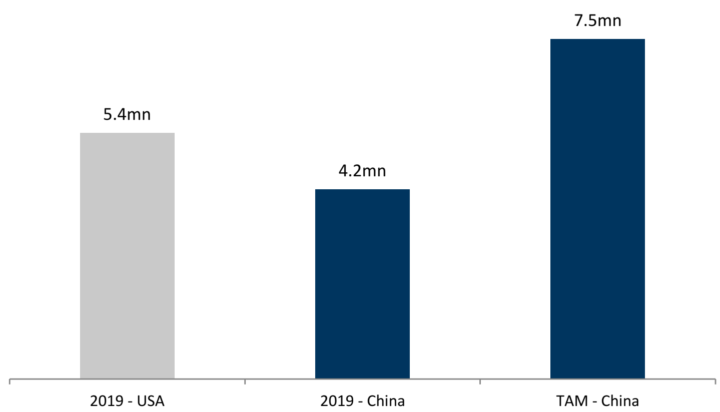
Exhibit 71: Pipelines in China are growing rapidly, but the market is still heavily skewed to lower quality "non-hotel" lodging options
China hospitality industry market size by end of 2018



Numbers on top of bars show total no. of hotels in each category and legends above show no. of hotels in each sub-category (units are in 000' of hotels)

Source: CNTA, Inntie, PRC Ministry of Commerce, Goldman Sachs Global Investment Research

Exhibit 72: Based on China's current economy, the market should support substantially more rooms, justifying pipeline expansion
Illustrative room count TAM based on population and income statistics



Source: BLS, Euromonitor, National Travel and Tourism Office, National Bureau of Statistics of China, China Tourism Academy, Ctrip, Goldman Sachs Global Investment Research

Our assumptions

- With significant supply of "lodging alternatives" such as private rooms, the data around China's overall room count varies. We rely on government statistics and do not include alternative accommodations into our US room count. The National Bureau of Statistics of China cited 3.8mn hotel rooms in 2016, which we grew in line with Euromonitor's supply growth estimate of 3.4%/3.2%/3.0% for 2017/2018/2019, leading to our 4.2mn room estimate for 2019.
- We compare average annual US nonfarm payrolls to households with disposable income over $15k USD in China. For reference, $15k USD is 3X the high-end of the per capita disposable income reported by middle class households in China (National Bureau of Statistics of China). We then assume that at maturity, China's hotel market will offer a similar percentage of rooms per person (with a disposable income over $15k USD) as the US for the same measure.

Exhibit 73: Our analysis estimates a potential TAM for the China hotel market of 7.5mn rooms embedding no macro growth expectations, but from a perspective of outbound int'l travelers, it still might prove conservative

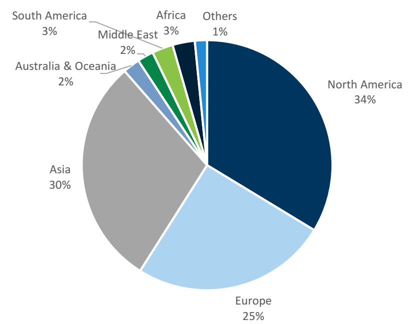
US market sizing benchmarks	2016	2017	2018	2019
Number of US hotel rooms	**5.1mn**	**5.2mn**	**5.3mn**	**5.4mn**
Hotel Rooms as a % of Total Nonfarm Payrolls	3.54%	3.55%	3.55%	3.57%
Hotel Rooms as a % of Nonfarm - Private Services	4.99%	4.99%	5.00%	5.02%
Hotel Rooms as a % of US Int'l Outbound travelers	14.55%	13.57%	12.66%	12.93%

China TAM market sizing	2016	2017	2018	2019	TAM
Number of current China hotel rooms	**3.8mn**	**3.9mn**	**4.mn**	**4.2mn**	**7.5mn**
Hotel Rooms as a % of Households with disposable income over $15k (USD)	2.22%	2.17%	2.05%	1.99%	3.57%
Hotel Rooms as a % of China Int'l outbound travelers	3.10%	3.03%	3.13%	3.22%	5.78%

Source: BLS, Euromonitor, National Travel and Tourism Office, National Bureau of Statistics of China, China Tourism Academy, Ctrip, Goldman Sachs Global Investment Research

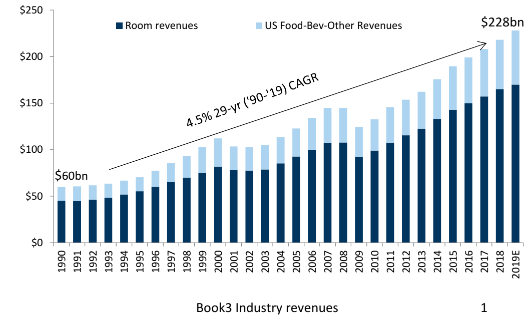
Industry size / profile

Exhibit 74: There are 16.3mn+ rooms globally spanning nearly 70k hotels, with North America representing the largest market



Source: STR

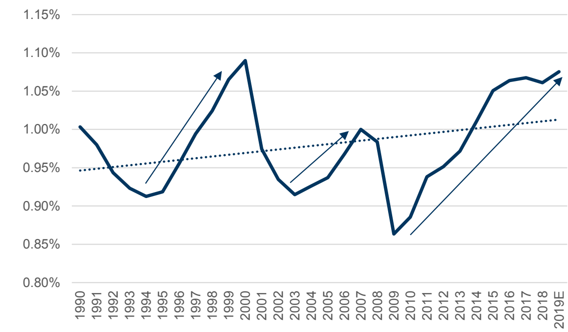
Exhibit 75: In 2019, US hotels generated about $228bn in revenue across ~5.4mn rooms



Source: PricewaterhouseCoopers (1967-1986; 2001-2004), Smith Travel Research (1987-2018), Department of Commerce, Macroeconomic Advisers, LLC

Exhibit 76: Lodging sector is taking share as % of GDP over time but has high cyclicality

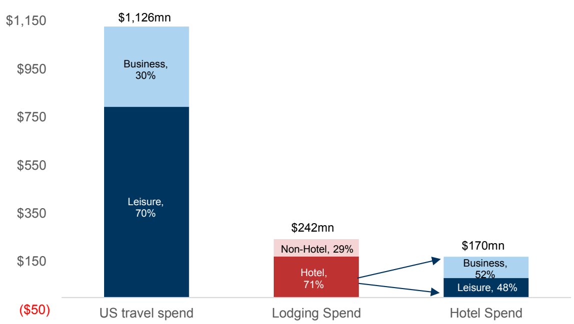
US Lodging revenue as a % of US GDP



Source: STR, World Bank

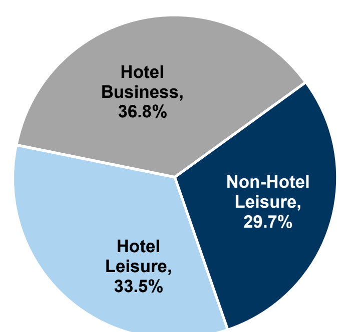
Exhibit 77: Overall travel spending is skewed towards leisure, although hotel spending is skewed towards business

Room-weighted average of MAR, HLT, H, WH, CHH



Source: STR, USTA, BEA, AHLA, Company data

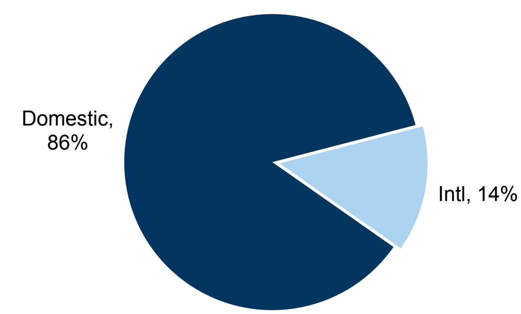
Exhibit 78: Lodging relies on both leisure and business travel, though business outweighs leisure in hotels across the US



Source: STR, USTA, BEA, AHLA, Company data

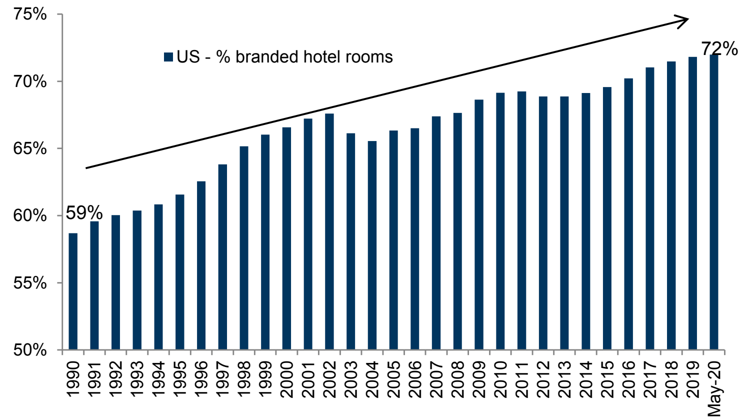
Exhibit 79: Overall US travel spending is driven by both domestic and international customers

Total US Travel Spending



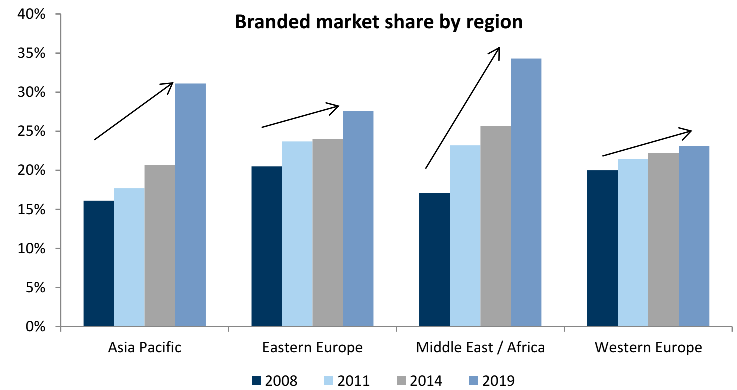
Source: American Hotel and Lodging Association

Exhibit 80: Major brands are taking increasing share in the U.S. ...



Source: STR

Exhibit 81: ...and abroad, although other markets are substantially less branded



Source: Euromonitor

Exhibit 82: Top 10 brands represent 64% of rooms whereas the top 10 owners are 7% and top 10 REITs are 3.7%

Company	US Rooms	% US	# Brands
Marriott International	749,220	15.1%	31
Hilton Worldwide	616,956	12.4%	18
Wyndham Hotels & Resorts, Inc.	481,377	9.7%	20
Choice Hotels International	439,551	8.8%	12
Intercontinental Hotels Group	413,766	8.3%	18
Best Western Hotels & Resorts	164,812	3.3%	16
G6 Hospitality	109,688	2.2%	14
Hyatt Hotels Corporation	100,627	2.0%	2
Extended Stay Hotels	69,748	1.4%	9
RLH Corporation	67,537	1.4%	1
Top 10 Brand Families	**3,213,282**	**64.6%**	**141**
Total rooms in the US	4,976,044		

Owner	US Rooms	% US	# Brands
Extended Stay America Owner	61,574	1.1%	1
Service Properties Trust OW	46,587	0.9%	21
MGM Resorts International Owr	37,442	0.9%	21
Host Hotels & Resorts	35,882	0.7%	1
CorePoint Lodging OW	33,262	0.7%	1
Starwood Capital Group	29,296	0.7%	1
Colony Capital OW	26,318	0.6%	2
Ashford Hospitality Trust OW	26,103	0.6%	3
G6 Hospitality LLC Owner	24,689	0.5%	19
InTown Suites Owner	23,885	0.5%	25
Top 10 Owners	**345,038**	**6.9%**	
Total rooms in the US	4,976,044		

REIT	US Rooms	% US	Type
Host Hotels & Resorts	35,882	0.9%	Full
CorePoint Lodging OW	33,262	0.7%	Full
Ashford Hospitality Trust OW	26,103	0.5%	Limited
Apple REIT Hospitality Inc OW	22,867	0.4%	Limited
RLJ Lodging Trust	19,545	0.4%	Limited
Hospitality Investors Trust OW	13,057	0.3%	Limited
Omni Hotels & Resorts OW	12,788	0.3%	Limited
Xenia Hotels & Resorts OW	10,893	0.3%	Full
Pebblebrook Hotel Trust	5,634	0.2%	Full
Sunstone Hotel Investors Owne	4,797	0.2%	Full
Top 10 REITs	**184,828**	**3.7%**	
Total rooms in the US	4,976,044		

Brands: More Concentrated ⟷ REITs: More Fragmented

**Wyndham Hotels includes La Quinta*

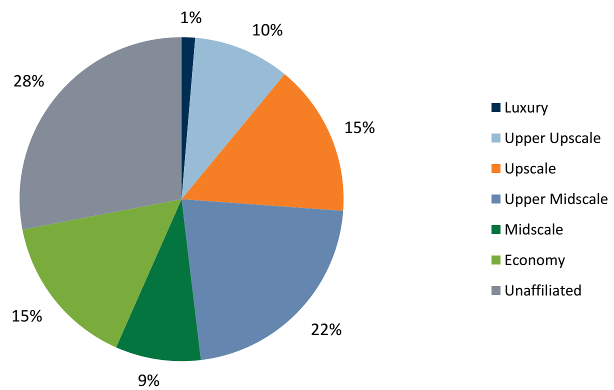
Source: STR

Exhibit 83: Most brands tend to be concentrated in Southeast and Southwest by US room count

Mix by Geography	CHH	H	HLT	IHG	MAR	STAY	WH
Northeast	13%	16%	17%	16%	19%	14%	11%
Southeast	38%	25%	33%	30%	29%	29%	32%
Midwest	22%	16%	18%	23%	17%	20%	24%
Northwest	6%	6%	5%	5%	5%	6%	6%
Southwest	21%	36%	27%	27%	31%	31%	26%
Total	100%	100%	100%	100%	100%	100%	100%

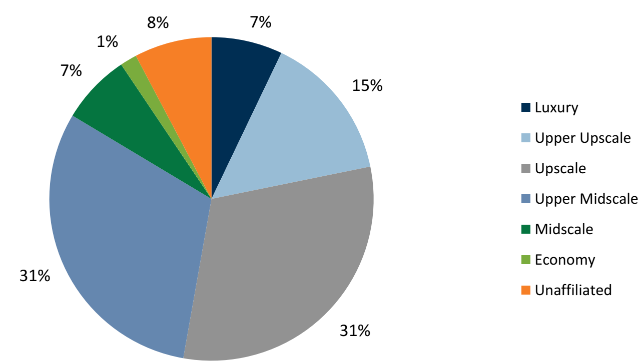
Source: STR

Exhibit 84: Midscale and upscale make up 55% of existing room supply…
Composition of existing base by chain scale



Source: STR

Exhibit 85: …and not surprisingly, make up a significant share of the pipeline, too.
Composition of supply pipeline by chain scale, In Construction only



Source: STR

Understanding the business models

Full-service vs. select-service – blurred lines

Hotels are typically divided into one of two types: either **full-service hotels** or **limited-service hotels**. Full-service hotels are generally higher price point hotels featuring restaurants and meeting and convention space, and include more labor-intensive services such as room and concierge service. This category would include luxury brands like the Ritz Carlton and upper upscale brands like Sheraton. In contrast, limited-service hotels (also known as select service hotels) typically do not include food and beverage service and have few additional amenities. This category includes everything from Hilton Garden Inn at one end to Motel 6 at the other. As a result of these differences, full-service hotels tend to generate higher EBITDA dollars, but on lower margins. Most recently, lines across the types of hotels have been blurring as new concepts offer additional amenities (recreation space, grab-and-go prepared food, group work space), yet still fall short of a traditional full-service offering.

Exhibit 86: Typical annual income statements of owned full-service and select-service hotels ($, based on 2019 data)

	Full Service			Limited Service		
	% of Sales	Per available room	Per occupied room night	% of Sales	Per available room	Per occupied room night
Revenue						
Rooms	63.3%	$55,272	$204	95.3%	$35,018	$127
Food	17.4	15,173	56			
Beverage	5.5	4,799	18			
Other Food & Beverage	5.7	4,994	18			
Other Operated Departments	4.5	3,896	14	2.4	896	3
Miscellaneous Income	3.6	3,178	12	2.2	825	3
Total Revenue	**100%**	**$87,312**	**$323**	**100%**	**$36,739**	**$133**
Departmental Expenses						
Rooms (Labor)	26.5%	$14,668	$54	25.7%	$9,009	$33
Food & Beverage	71.8	17,914	66			
Other Operated Depts & Rentals	71.1	2,771	10	0.7	588	2
Total Departmental Expenses	**40.6%**	**$35,352**	**$131**	**26.1%**	**$9,597**	**$35**
Total Departmental Profit	**59.5%**	**$51,960**	**$192**	**73.9%**	**$27,142**	**$98**
Undistributed operating expenses						
Administrating & General	8.0%	$6,990	$26	8.7%	$3,199	$12
Marketing	7.0	6,131	23	5.7	2,076	8
Utility Costs	2.8	2,479	9	4.2	1,535	6
Property Operations & Maintenance	5.5	4,800	18	3.6	1,723	6
Total Undistributed Operating Expenses	**24.7%**	**$21,525**	**$80**	**23.2%**	**$8,533**	**$31**
Total Expenses	**65.3%**	**$56,877**	**$210**	**49.3%**	**$18,130**	**$66**
Gross Operating Profit	**34.7%**	**$30,435**	**$112**	**50.7%**	**$18,609**	**$67**
Franchise Fees (Royalty)	1.3%	$1,126	$4	4.2%	$1,535	$6
Management Fees	3.4%	$2,982	$11	3.7%	$1,366	$5
Income Before Fixed Charges	**30.0%**	**$26,327**	**$97**	**42.8%**	**$15,708**	**$57**
Selected Fixed Charges						
Property Taxes	3.5%	$3,080	$11	5.6%	$2,054	$7
Insurance	0.9	800	$3	1.1%	$406	$1
Reserve For Capital Replacement	2.6	2,236	$8	2.0%	$752	$3
Amount available for debt service & other fixed charges	**23.0%**	**$20,210**	**$75**	**34.0%**	**$12,495**	**$45**

Source: STR, Goldman Sachs Global Investment Research

Own vs. manage vs. franchise

Hotel companies can earn revenues from individual hotels in three ways: they can own, manage, or franchise hotels. Some hotel companies have portfolios consisting of a mixture of the three, with hotels that they own and operate, hotels that they manage for third-party hotel owners, and hotels that they franchise. While C-Corps can earn their revenues in any way, hotel REITs are allowed only to own hotels and by law are not allowed to participate in the management of the properties – although they can make suggestions to their managers.

I. Hotel ownership – greater risk/greater reward. Hotel ownership is highly capital-intensive, requiring significant up-front investment. Hotel owners bear the direct costs and typically assume losses for the first 12-24 months of operation until the property ramps up to profitability. Because initial hotel earnings are often unknown, management companies sometimes guarantee earnings for the first couple of years to induce owners to use one of their brands. Full hotel ownership companies are heavily tied to the operating leverage of the hotel business. In good times, hotel owners reap the benefits as revenues increase against a highly fixed expense structure. However, the opposite is true in slowing times as hotel owners feel the full brunt of declining revenues within the same fixed expense structure.

II. Hotel management – less capital-intensive, more brand distribution. Companies that specialize in management contracts derive fees for managing the day-to-day operations for third-party hotel owners (sometimes they can also own the hotel). These tasks include every aspect of running the hotel – overseeing the administrative functions (such as hiring and supervising employees), sales and marketing programs, hotel reservations, and training of employees. The hotel manager also provides hotels with services such as a centralized reservation system, national advertising, and accounting assistance.

III. Hotel franchising – profits + limited capital. Hotel companies with brands franchise their brand names to hotel owners in exchange for a franchise fee. In this case, the hotel owner is responsible for running the hotel (the owner may also hire a third-party management company), and is entitled to use one of the brand's names in exchange for payment of a franchise fee. Accordingly, the brand (which is the franchisor) would record no assets on its balance sheet associated with the hotel. The franchisee benefits from being affiliated with a brand, as it is included in national marketing and advertising programs, central reservation systems, ongoing training programs for employees, and sales and technology support. Franchisors also earn additional fees when hotel transactions occur (a hotel is bought or sold). Most contracts give the company the ability to charge a re-franchising fee when a hotel is bought or sold.

Exhibit 87: Simplified comparison of ownership, management and franchise contracts

Factors	Ownership *	Management	Franchise
Hotel revenues	100%	Base fee - 3% to 5%	Royalty fee - 4% to 6%
Hotel profit	100%	Variable - 10% to 30% Incentive fees dependent upon contract: (1) % of profit above set threshold (2) % of total operating profit	Zero
Capital Contribution	High Ownership companies are responsible for 100% of the development costs. Owners can have partners and can receive mezzanine financing, sliver equity, and loans from additional sources.	Variable Management companies have been known to aid hotel owners through mezzanine financing, sliver equity, and loans. On average, management companies will take a maximum 20% interest in hotels.	Minimal Franchise companies contribute modestly to national and international advertising campaigns to promote their brands.
Benefits to hotel corporation	Greater reward during a growing economy given the high operating leverage of the business. 100% control of overall operations.	Allows for aggressive unit growth with minimal capital risk. Less susceptible to operating leverage as base fees are taken as a percentage of overall hotel revenues. Total control over day-to-day operations at the property level.	Vehicle for brand distribution without capital risk. No ties to the operating leverage of the hotel business as royalty fees are taken as a percentage of overall hotel revenues.
Drawbacks to hotel corporation	Greater downside to operations in a slowing economy given the high operating leverage of the business. Ownership companies feel the full brunt as top line revenues slow against a high fixed expense structure.	Tied somewhat to the operating leverage of the business through incentive fees. Less control over maintenance and upkeep at the property level.	No control over property management or upkeep. Brand consistency can be difficult to maintain across a franchise system.

** assumes hotel is owned and operated by the same hotel company*

Source: Goldman Sachs Global Investment Research

Exhibit 88: Hypothetical P&L comparison for owned vs. managed vs. franchised business models

Average room income statement	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Room Revenue	$33,054	$35,935	$37,939	$40,732	$44,973	$48,737	$51,144	$52,927	$52,383	$54,774	$55,272
F&B and Other	$19,596	$20,537	$21,278	$21,764	$25,958	$26,238	$28,569	$28,938	$29,236	$30,639	$32,040
Total Revenue	$52,650	$56,472	$59,217	$62,496	$70,931	$74,975	$79,713	$81,865	$81,619	$85,412	$87,312
Operating Expense	$37,164	$39,576	$40,584	$41,250	$45,711	$48,186	$50,515	$49,840	$51,998	$54,415	$56,877
Gross Operating Profit	$15,486	$16,896	$18,633	$21,246	$25,220	$26,789	$29,198	$32,025	$29,621	$30,997	$30,435
Fixed Charges including FF&E	$3,954	$3,862	$3,935	$3,930	$4,345	$4,632	$5,069	$5,158	$5,273	$5,709	$6,117
Profit (before any fees)	$11,532	$13,034	$14,698	$17,316	$20,875	$22,157	$24,129	$26,867	$24,348	$25,288	$24,318
Profit to hotel owner											
Management and Franchise Fee	$4,219	$4,549	$4,780	$5,533	$6,903	$4,430	$5,014	$5,648	$5,134	$5,474	$5,356
Margin	14%	15%	17%	19%	20%	24%	24%	26%	24%	23%	22%
Owner Profit	**$7,313**	**$8,485**	**$9,918**	**$11,783**	**$13,972**	**$17,726**	**$19,115**	**$21,219**	**$19,213**	**$19,814**	**$18,962**
Profit to hotel manager											
Owners Priority	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
4% of Revenue	$2,106	$2,259	$2,369	$2,500	$2,837	$2,999	$3,189	$3,274.60	$3,265	$3,416	$3,492
20% of profits after Owners Priority	$0	$0	$0	$463	$1,175	$1,431	$1,826	$2,373	$1,870	$2,058	$1,864
Total Management Fees	$2,106	$2,259	$2,369	$2,963	$4,012	$4,430	$5,014	$5,648	$5,134	$5,474	$5,356
Overhead	$1,053	$1,005	$1,054	$1,319	$1,785	$1,971	$2,231	$2,513	$2,285	$2,436	$2,383
Margin	50%	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%
Manager Profit	**1053**	**$1,254**	**$1,315**	**$1,644**	**$2,227**	**$2,459**	**$2,783**	**$3,135**	**$2,850**	**$3,038**	**$2,973**
Manager Share of Revenues	**4.0%**	**4.0%**	**4.0%**	**4.7%**	**5.7%**	**5.9%**	**6.3%**	**6.9%**	**6.3%**	**6.4%**	**6.1%**
Manager Share of Profits	**9.1%**	**9.6%**	**8.9%**	**9.5%**	**10.7%**	**11.1%**	**11.5%**	**11.7%**	**11.7%**	**12.0%**	**12.2%**
Profit to hotel franchisor											
5% of Room Revenue	$1,653	$1,797	$1,897	$2,037	$2,249	$2,437	$2,557	$2,646	$2,619	$2,739	$2,764
3% of F&B	$460	$493	$514	$534	$642	$640	$693	$700	$698	$726	$748.99
Total Franchise Fees	$2,113	$2,290	$2,411	$2,570	$2,891	$3,077	$3,250	$3,347	$3,317	$3,465	$3,513
Overhead	$845	$893	$928	$918	$1,012	$1,009	$1,063	$1,034	$1,055	$1,102	$1,117
Margin	60%	61%	62%	64%	65%	67%	67%	69%	68%	68%	68%
Franchisor Profit	**$1,268**	**$1,397**	**$1,483**	**$1,653**	**$1,879**	**$2,068**	**$2,187**	**$2,313**	**$2,262**	**$2,363**	**$2,396**
Franchisor Share of Revenues	**4.0%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.1%**	**4.0%**
Franchisor Share of Profits	**11.0%**	**10.7%**	**10.1%**	**9.5%**	**9.0%**	**9.3%**	**9.1%**	**8.6%**	**9.3%**	**9.3%**	**9.9%**

Source: Smith Travel Research, Goldman Sachs Global Investment Research

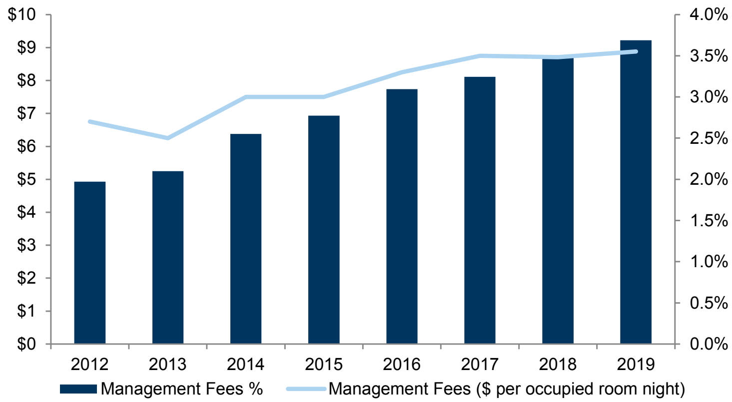
Exhibit 89: In these hypothetical P&L's, based on input from actual hotels, owners see the greatest upside and downside in profitability followed by managers and franchisors depending on the market backdrop (no need to update)

Comparison of rising revenue environment vs. declining revenue environment -

Average room income statement	Revenue Increasing 2009	2010	Variance	Decreasing Revenues 2016	2017	Variance	Market differences
Room Revenue	**$33,054**	**$35,935**	**9%**	**$52,927**	**$52,383**	**-1%**	Revenue decreasing vs. Revenue increasing
F&B and Other	$19,596	$20,537	5%	$28,938	$29,236	1%	
Total Revenue	$52,650	$56,472	7%	$81,865	$81,619	0%	
Operating Expense	$37,164	$39,576	6%	$49,840	$51,998	4%	
Gross Operating Profit	$15,486	$16,896	9%	$32,025	$29,621	-8%	17% higher yoy gross operating profit in better operating environment..
Fixed Charges including FF&E	$3,954	$3,862	-2%	$5,158	$5,273	2%	
Profit (before any fees)	$11,532	$13,034	13%	$26,867	$24,348	-9%	… leads to 22% higher yoy pre-free profit
Profit to hotel owner							
Management and Franchise Fee	$4,219	$4,549	8%	$5,648	$5,134	-9%	
Margin	14%	15%	8%	26%	24%	-9%	
Owner Profit	**$7,313**	**$8,485**	**16%**	**$21,219**	**$19,213**	**-9%**	
Profit to hotel manager							
Owners Priority	$15,000	$15,000	0%	$15,000	$15,000	0%	
4% of Revenue	$2,106	$2,259	7%	$3,274.60	$3,265	0%	
20% of profits after Owners Priority	$0	$0		$2,373	$1,870		
Total Management Fees	$2,106	$2,259	7%	$5,648	$5,134	-9%	
Overhead	$1,053	$1,005	-5%	$2,513	$2,285	-9%	
Margin	50%	56%	11%	56%	56%	0%	
Manager Profit	**1053**	**$1,254**	**19%**	**$3,135**	**$2,850**	**-9%**	
Manager Share of Revenues	**4.0%**	**4.0%**	**0%**	**6.9%**	**6.3%**	**-9%**	
Manager Share of Profits	**9.1%**	**9.6%**	**5%**	**11.7%**	**11.7%**	**0%**	Higher share of YoY profits to manager in increasing revenue environment
Profit to hotel franchisor							
5% of Room Revenue	$1,653	$1,797	9%	$2,646	$2,619	-1%	
3% of F&B	$460	$493	7%	$700.45	$698	0%	
Total Franchise Fees	$2,113	$2,290	8%	$3,347	$3,317	-1%	
Overhead	$845	$893	6%	$1,034	$1,055	2%	
Margin	60%	61%	2%	69%	68%	-1%	
Franchisor Profit	**$1,268**	**$1,397**	**10%**	**$2,313**	**$2,262**	**-2%**	
Franchisor Share of Revenues	**4.0%**	**4.1%**	**1%**	**4.1%**	**4.1%**	**-1%**	
Franchisor Share of Profits	**11.0%**	**10.7%**	**-2%**	**8.6%**	**9.3%**	**8%**	However, franchisors enjoy a greater share of profits in a declining rev. environment

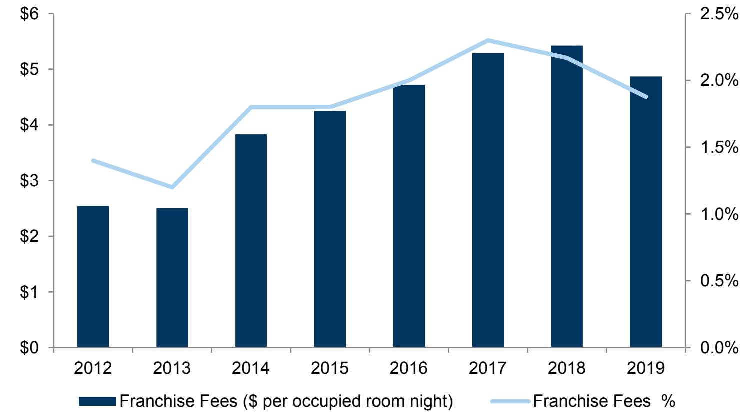
Source: STR, Goldman Sachs Global Investment Research

Exhibit 90: Manager fees have been fairly stable as a % of revenue but are at peaks per occupied room night
Full-service (Total U.S.) chain-affiliated management fees



Source: Smith Travel Research

Exhibit 91: Franchise fees witnessed slight declines both as a % of revenue and per occupied room night for 2019



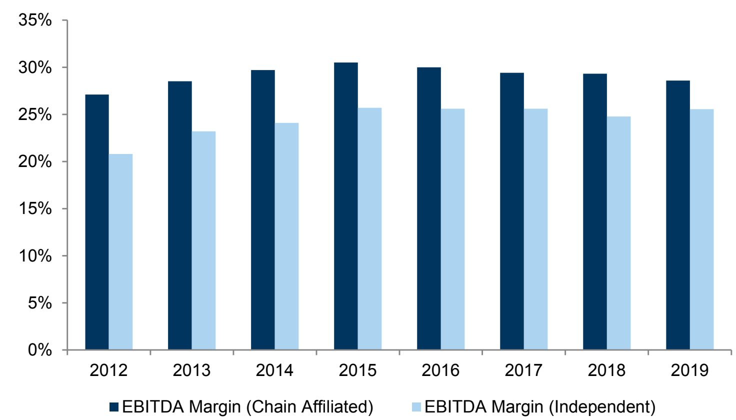
Source: Smith Travel Research

Exhibit 92: Franchise fees for C-Corps are normally higher in North America vs. International showing lower scale / brand power in Intl. markets
as % of total franchise fee

Franchise fees (FY19)	North America	International	Condolidated
HLT	NA	NA	6.0%
MAR	NA	NA	6.6%
Hyatt	5.1%	4.9%	NA
CHH	4.9%	NA	NA
WH	4.5%	2.5%	3.7%
Avg.	**4.8%**	**3.7%**	**5.1%**

Source: Company data

Exhibit 93: Despite higher fees, branded hotels still maintain higher EBITDA margins and overall EBITDA, leading to better returns vs. independent



Source: Smith Travel Research

Comparing hotels vs. multi-family – greater risk, greater potential reward… though FCF advantages less clear-cut

Multi-family housing and hotels have many similarities: both have a range of buildings with various amenities, levels of finishes, plumbing, etc. In order to compare one building to another, we compared Host Hotels & Resorts to Equity Residential due to similar geographic regions (both in urban markets). As shown in Exhibit 94, hotels tend to have greater monthly payments despite lower occupancy levels, but higher expenses drive lower margins. The resulting EBITDA and free cash flow per property tends to be higher at hotels, but the capital outlay is higher (bar/restaurant capex, more plumbing per sq. ft., etc.), resulting in similar cash returns. Therefore, for investors comparing real estate investments, the market's trajectory and the broader macro environment are critical.

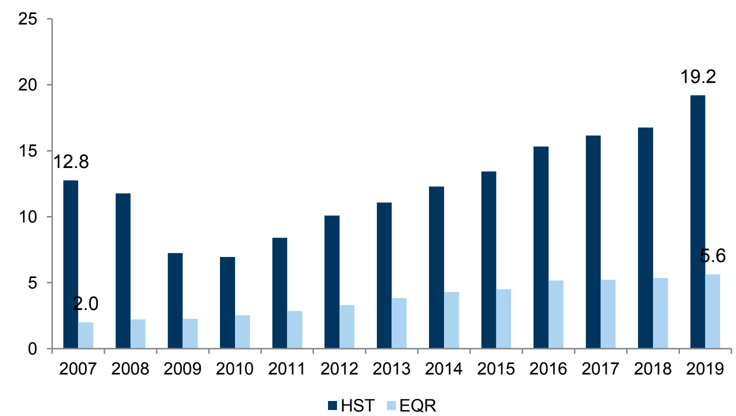
Exhibit 94: In comparing HST vs. EQR, we find hotels generate higher sales with greater volatility, but similar overall cash returns

2019 $ mn's Except Property-level Detail	Hotel HST	Apartment EQR	Variance Comments
Properties	80	304	
Rooms or Apartments	46,500	78,410	
Per Property	581	258	
Overall Summary			
Occupancy	78.8%	96.0%	Lower occupancy, shorter term at Hotel
Avg. Daily Rate	$229	$94	Higher ADR at Hotel
Avg. Monthly Rate	**$6,959**	**$2,858**	**Much higher monthly rate at hotel**
EBIT Margin	14.6%	33.6%	Hotel's have higher expenses
EBITDA Margin	27.5%	64.4%	and therefore lower margins
FFO Margin	22.9%	48.5%	
Stdev. Sales Growth	**11.2%**	**6.5%**	**Hotel sales are more volatile…**
Stdev. EBITDA Margin	4.4%	3.4%	…but EBITDA not as significant
EBITDA / property	$18.8	$5.7	More EBITDA/property at Hotel
FFO / property	$15.6	$4.3	
FCF / property	$12.9	$3.7	More FCF/property at Hotel
ROE	12.4%	9.9%	
ROIC	7.2%	4.5%	
CROCI	**8.2%**	**7.7%**	**Similar cash returns**
Leverage			
Gross Adj Debt / EBITDAR	**2.8X**	**5.8X**	Longer stays = stable cash flow &
Adj Debt / Equity	0.5X	0.9X	ability to take on greater leverage

Source: Company data, Goldman Sachs Global Investment Research

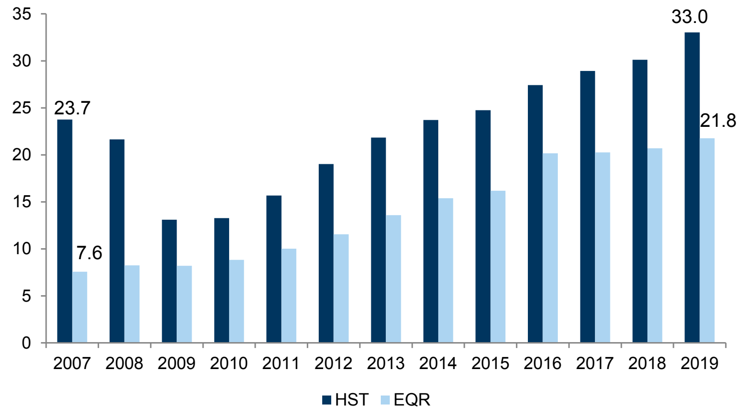
Exhibit 95: HST generated higher EBITDA / property vs. EQR throughout the last cycle

EBITDA per property ($mn) for 2007-2019



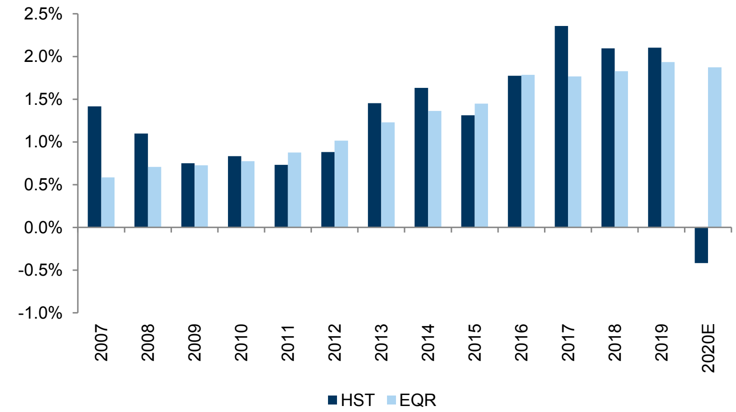
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 96: Even per room, HST generated higher EBITDA than EQR throughout the last cycle
EBITDA per room ($ '000s)



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 97: However, higher capex requirements mean FCF per room is more in line
(EBITDA - CAPEX) / Room



Source: Company data, Goldman Sachs Global Investment Research

Does scale matter?

Brand families with the greatest networks can drive positive feedback loops for both customers and hotel owners. A large, growing portfolio of rooms across multiple chain scales not only gives customers a broader offering to select from but also drives greater brand awareness, a benefit for owners, who in turn provide capital for additional growth. Brand awareness is created through reward programs and access to brand reservation systems, which drive greater, more consistent business for owners while also providing the standard benefits to customers. In 2019, loyalty members on average represented roughly 30%-60% of nights booked at the major lodging companies. However, online travel agents (OTAs) have been encroaching on these benefits even as they do not control inventory by creating networks that surpass the major brands through higher social media and advertising.

Regardless of OTA advertising, the financial benefits to an owner from branding a property vs. remaining independent can still be compelling given lower distribution costs, a potential RevPAR premium, and greater consistency in RevPAR across cycles that can more than pay for franchise fees. For the brands, scale also allows for greater flexibility as properties can be managed in and out of the network based on certain contractual obligations, limiting RevPAR variations. In addition, the positive feedback loop driving expansion should help sustain positive top- and bottom-line growth regardless of industry RevPAR.

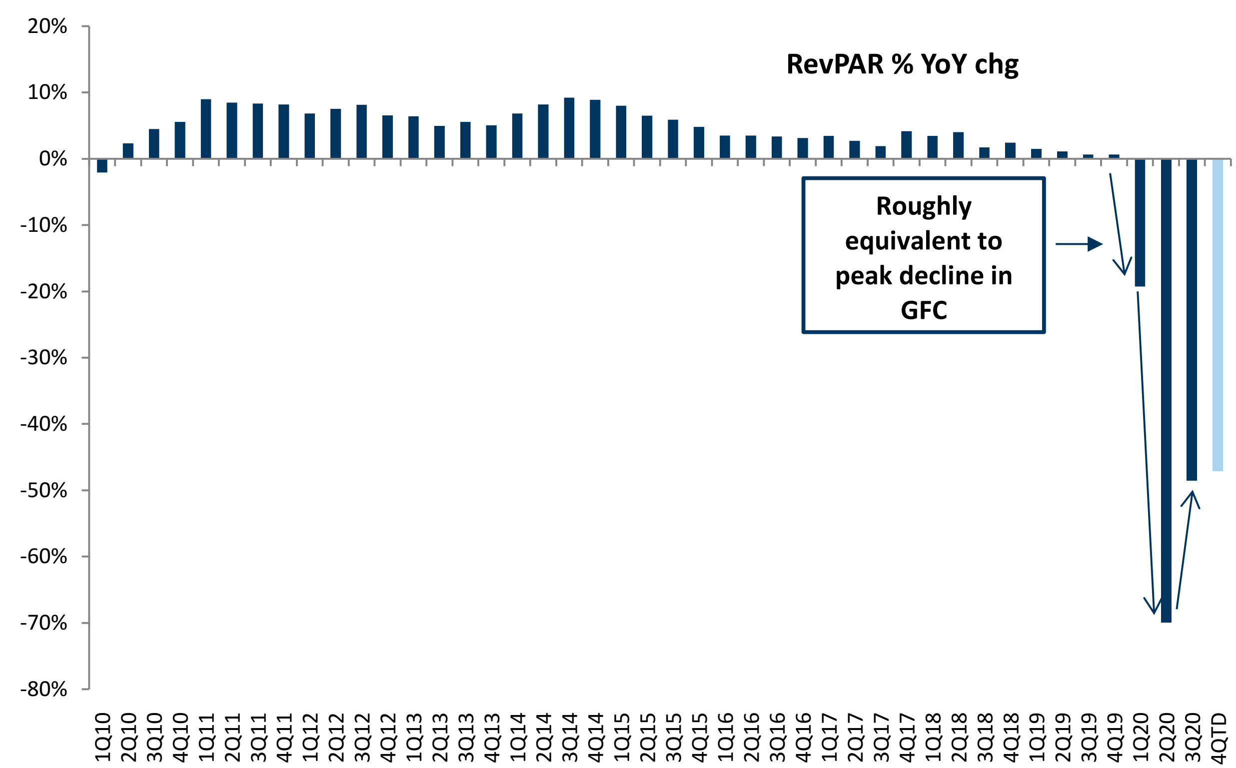
Exhibit 98: Loyalty programs + units...

	MAR	HLT	H	WH	IHG
Inception	1957	1919	1957	1981	1949
Rooms	1,400,000	983,000	225,000	813,000	890,000
Brands	30	18	20	20	16
Members	141mn	106mn	22mn	83mn	>100mn
5-yr CAGR	24%	19%	4%	16%	-
% nights	52%	62%	41%	36%	43%
Systemwide RevPAR Index	112%	114%	107%	~100%	-
RevPAR Index Largest Brand	Courtyard by Marriott (109%)	Hilton Hampton Inn (119%)	Hyatt Place (107%)	Super 8 (100%)	N/A

Source: Company data, Goldman Sachs Global Investment Research, Minnesota Commerce Department

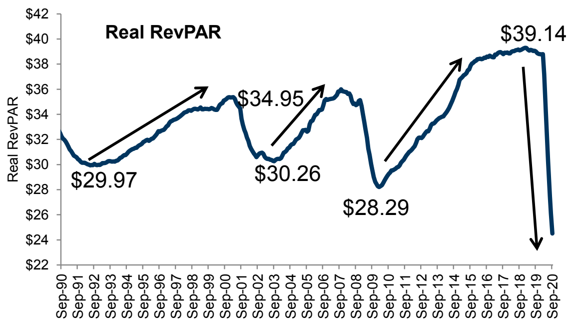
Recent trends and our supply/demand model

Exhibit 99: RevPAR growth went negative for the first time in a decade, with peak declines nearly 4x the magnitude of the GFC...



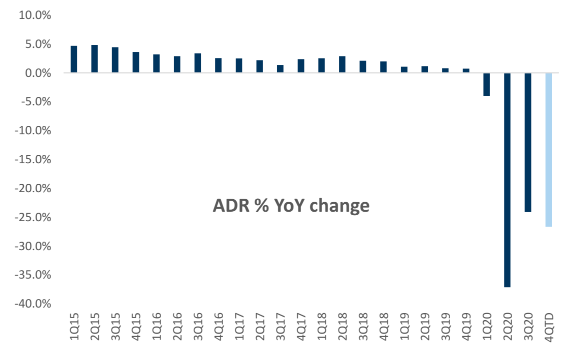
Source: STR

Exhibit 100: .. which will likely pull Real RevPAR back to average levels as it is sustained
12 month moving avg.



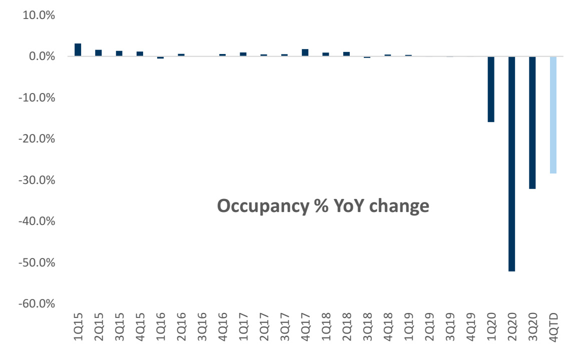
Source: STR

Exhibit 101: ADR growth decelerated significantly due to COVID-19...



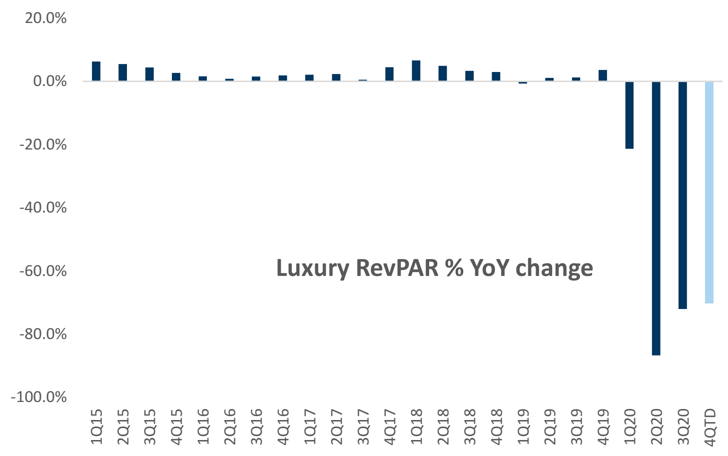
Source: STR

Exhibit 102: ... as did occupancy...



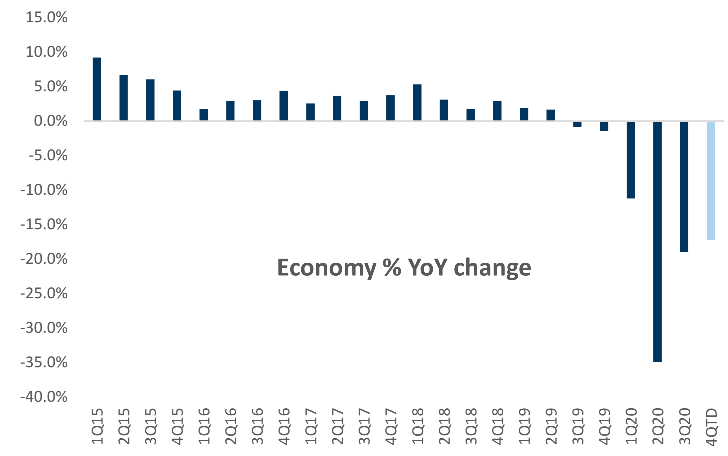
Source: STR

Exhibit 103: Luxury RevPAR yoy performance was impacted the most by COVID-19 related slowdowns...



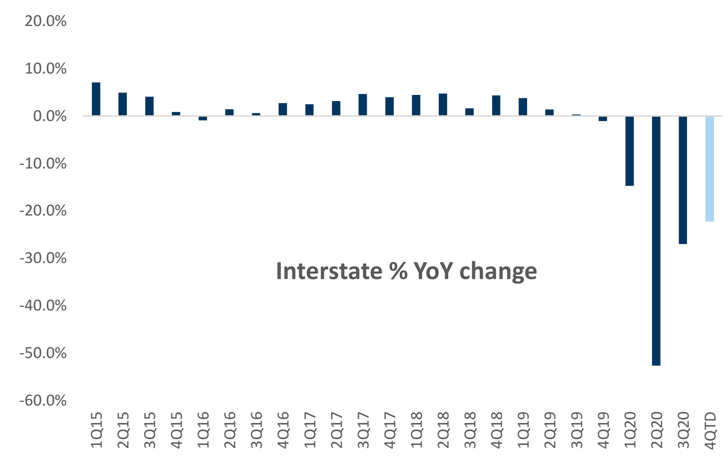
Source: STR

Exhibit 104: ... while Economy has performed better than the rest of the industry...



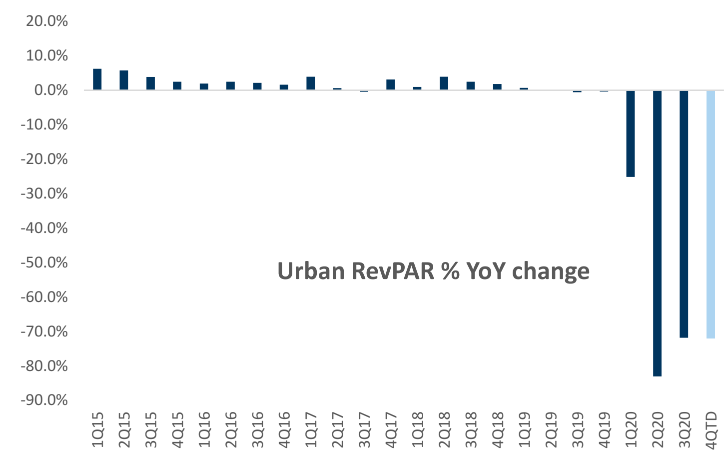
Source: STR

Exhibit 105: ... as has Interstate RevPAR...



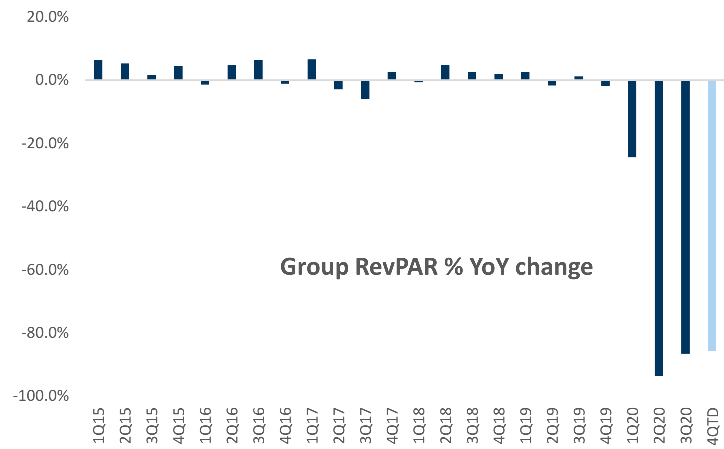
Source: STR

Exhibit 106: ... in contrast to Urban markets, which have performed more in-line with Luxury



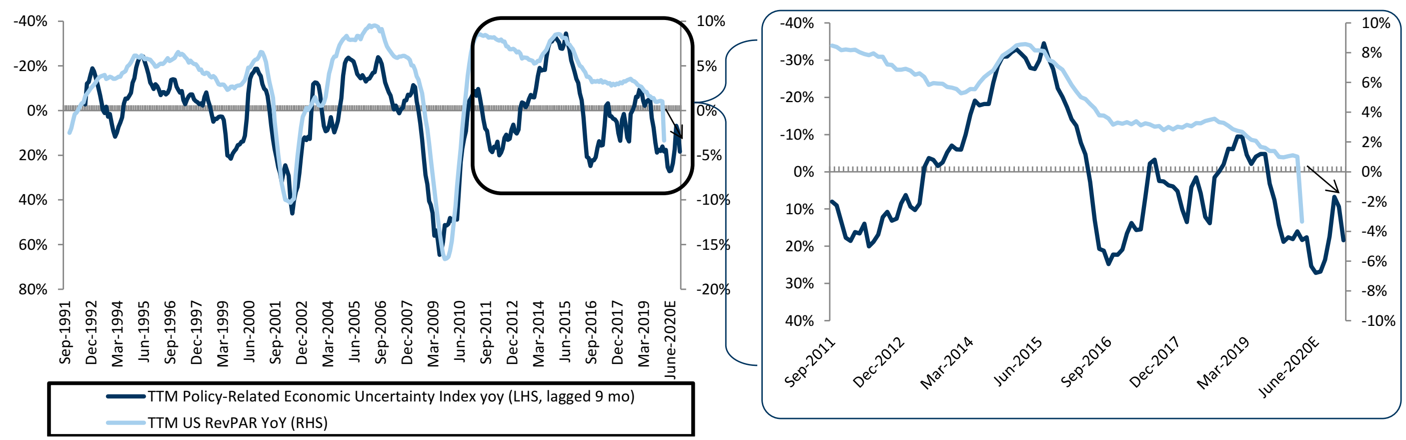
Source: STR

Exhibit 107: Group RevPAR



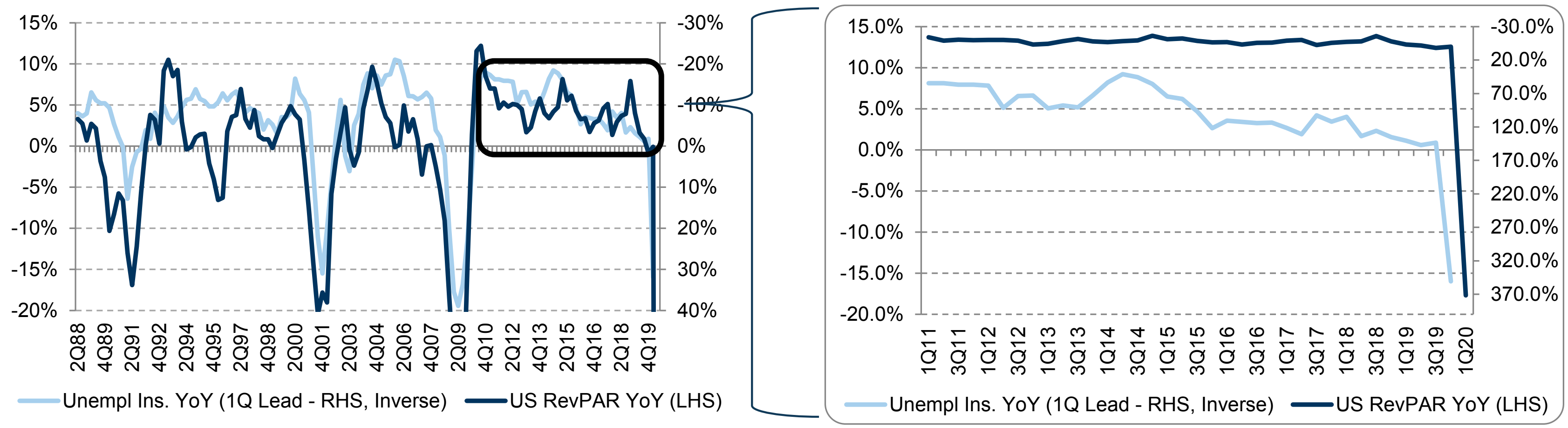
Source: STR

Exhibit 108: Policy-related economic uncertainty has also spiked with COVID, pointing to sustained weakness in US RevPAR through 2020



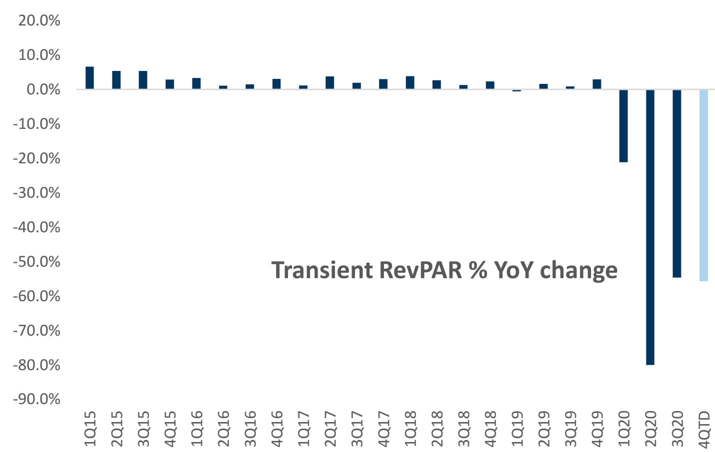
Source: STR, Economic Policy Uncertainty

Exhibit 109: ... and unemployment insurance has spiked owing to COVID-19, also a negative forward indicator



Source: STR, U.S. Employment and Training Administration

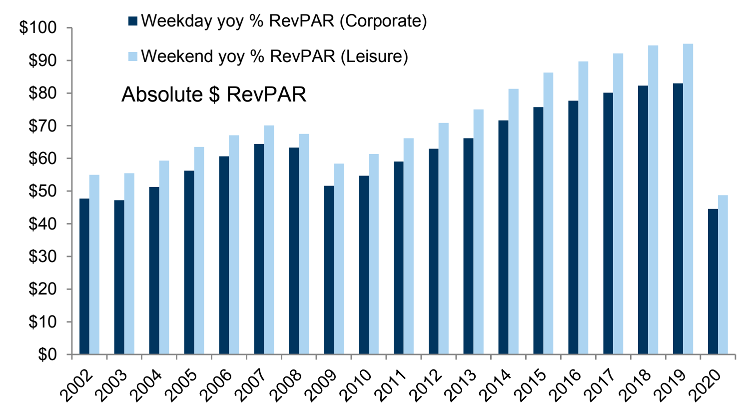
Exhibit 110: Transient RevPAR



Source: STR

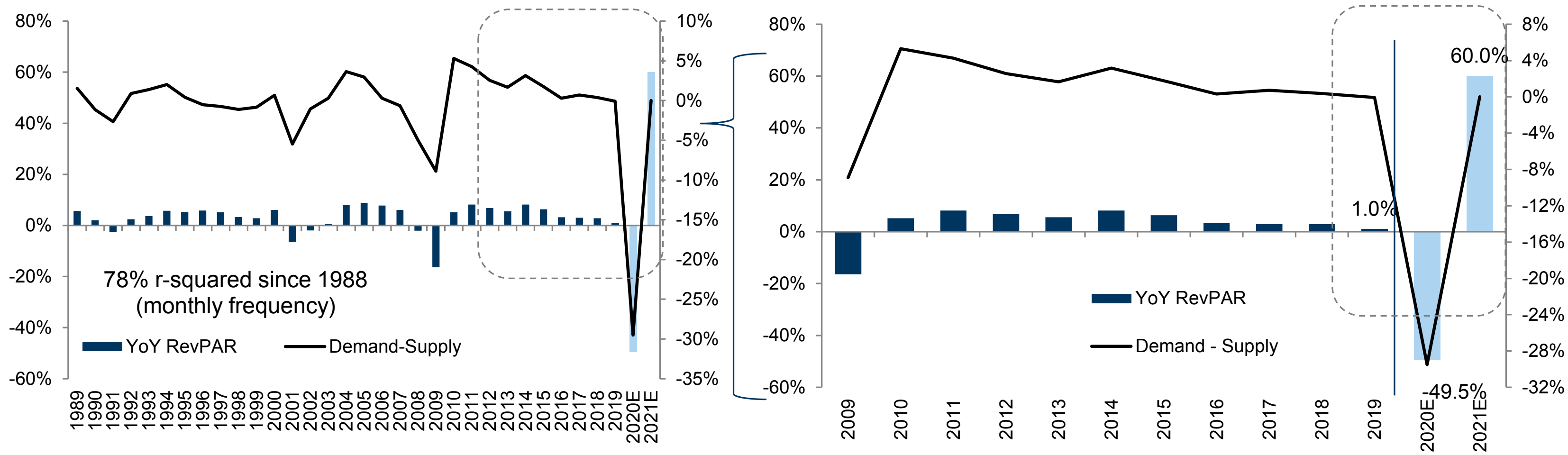
Exhibit 111: Both weekday and weekend RevPAR's have significantly decelerated in 2020, though the gap has narrowed after several years of outperformance on weekends

Weekday RevPAR indicates corporate trends while Weekend RevPAR indicates leisure trends



Source: STR

Exhibit 112: Our supply-demand model, which includes short term rental projections, forecasts RevPAR growth of -50%/+60% in 2020/21...



Source: Goldman Sachs Global Investment Research, Federal Reserve Board, BLS, STR

Exhibit 113: ...based on historical correlation with demand and supply (business indicators show the highest correlation, affirming the greater mix of business vs. leisure at hotels)...

	Coincident	1-Q Lead	2-Q Lead
Demand - Supply	**80%**	**70%**	**51%**
Non Resi Fixed Inv	**67%**	48%	26%
Real Non Resi Fixed Inv	**59%**	46%	26%
Biz/Prof Nonfarm Payroll	**58%**	45%	27%
Industrial Production	**59%**	56%	39%
Nonfarm Payrolls	**52%**	36%	19%
CAI - Industrial	36%	**51%**	54%
Unemploy Insurance	33%	**63%**	59%
S&P 500 Income	43%	36%	24%
CAI	45%	**59%**	60%
Tourism (US Arrivals)	48%	25%	11%
CAI - Consumer	48%	58%	57%
Philly FRB Leading Indicator	55%	**58%**	**51%**
Consumer Expectations	9%	22%	30%

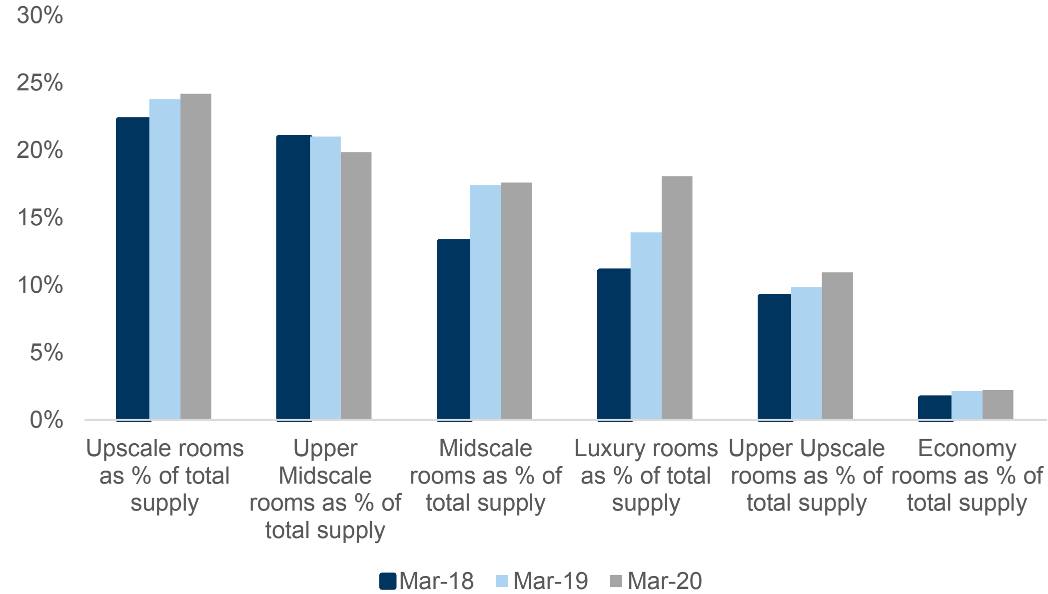
Source: FRB, BEA, STR, BLS, Goldman Sachs Global Investment Research

Exhibit 114: ...with the decelerating macro environment

YoY Growth	2017	2018	2019	2020E	2021E	2022E	Trend '20 vs. '19
GDP	4.3%	5.4%	4.1%	-4.2%	8.5%	5.4%	Decel
Real GDP	2.4%	2.9%	2.3%	-6.5%	6.1%	3.6%	Decel
Inflation	2.1%	2.2%	2.2.%	0.5%	1.5%	1.9%	Decel
Interest Rates (10 YR Yld)	2.4%	2.7%	1.9%	0.8%	1.4%	1.8%	Decel
Industrial Production	2.3%	4.0%	0.9%	-9.9%	8.4%	4.9%	Decel
Business Fixed Investment	4.4%	6.4%	2.1%	-7.5%	6.7%	5.0%	Decel
Consumer Expenditure	2.6%	3.0%	2.6%	-6.1%	6.0%	4.0%	Decel
S&P Operating Income	9.8%	10.6%	0.0%	-14.1%	21.7%	12.4%	Decel

Source: ICSC, US Census Bureau, Haver Analytics, Goldman Sachs Global Investment Research

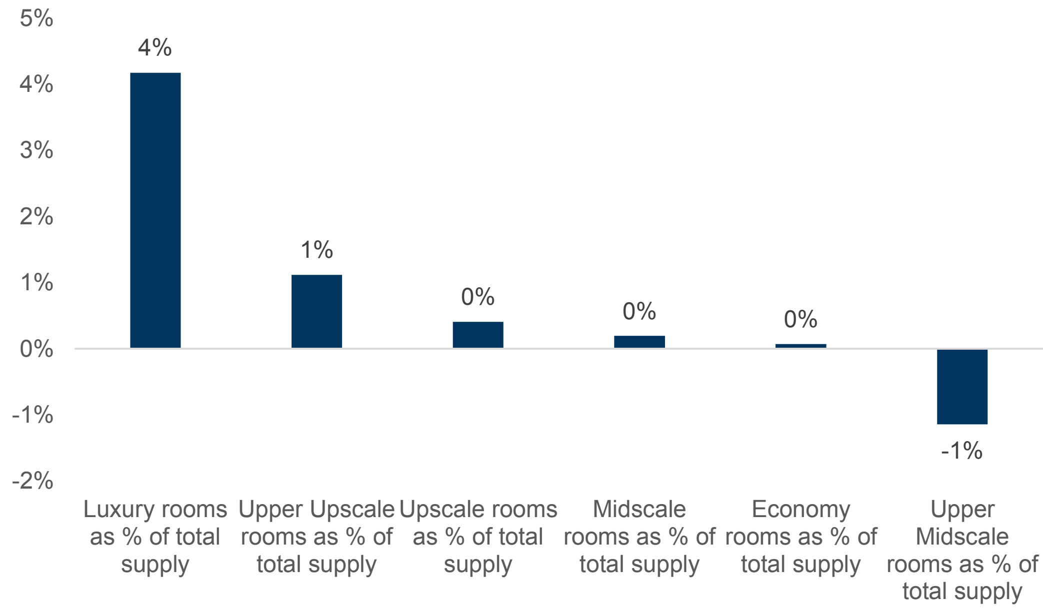
Exhibit 115: Upscale and upper midscale have the greatest rooms under construction as a % of existing chain scale



Pre-COVID-19-related closures

Source: STR

Exhibit 116: Luxury and upper upscale have seen the pipeline accelerate the most
March 2020 less March 2019 Pipeline as % of existing

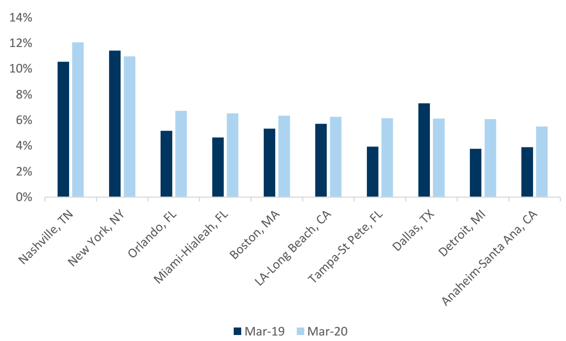


Pre-COVID-19-related closures

Source: STR

Exhibit 117: New York and Nashville have the greatest % of rooms currently under construction relative to the base

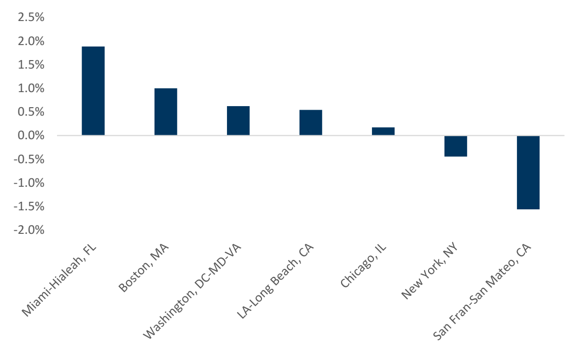
Absolute number of rooms under construction as a percent of existing rooms in top 10 US cities



Source: STR

Exhibit 118: Almost all gateway city markets saw growth in % of in-construction rooms

Rooms in construction % existing Mar-2020 vs. Mar-2019



Pre-COVID-19-related Closures

Source: STR

Exhibit 119: Luxury pipeline has accelerated the most partly due to closed rooms owing to COVID-19

Pipeline as a % of Existing Supply				
Chain Scale	Sep-18	Sep-19	Sep-20	Var
Luxury	5.5%	11.1%	12.1%	1.0%
Upper Upscale	3.8%	4.6%	5.3%	0.7%
Upscale	7.5%	7.8%	8.3%	0.5%
Upper Midscale	6.2%	5.5%	5.7%	0.1%
Midscale	3.0%	3.2%	4.0%	0.8%
Economy	0.3%	0.4%	0.8%	0.4%
Unaffiliated	1.4%	1.3%	1.3%	0.0%

*Existing supply of open hotels

Source: STR

Exhibit 120: Luxury and Upper Upscale chain scales were hit the hardest by COVID-19-related closures with 46.6% and 25.8% of March's supply coming offline in May, respectively

Room Supply	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Peak hotel closures	% of March Supply
Luxury	124,519	124,817	123,676	66,184	66,069	83,665	94,940	101,520	108,014	57,607	46.6%
Upper Upscale	635,188	636,233	636,391	505,851	472,297	493,643	525,296	553,441	569,456	164,094	25.8%
Upscale	819,813	821,609	822,331	749,515	744,439	771,734	787,340	798,132	804,491	77,892	9.5%
Upper Midscale	1,119,087	1,120,469	1,122,755	1,090,093	1,077,214	1,098,242	1,110,330	1,119,708	1,122,711	45,541	4.1%
Midscale	422,148	422,081	426,896	416,263	418,370	421,750	426,216	427,244	427,254	10,633	2.5%
Economy	760,653	763,511	765,960	755,795	754,034	759,972	760,520	764,358	767,314	11,926	1.6%
Unaffiliated	1,524,168	1,524,889	1,518,410	1,392,343	1,374,251	1,389,001	1,412,319	1,455,307	1,456,579	144,159	9.5%

Source: STR

Exhibit 121: The pipeline coming on in each company's existing markets and chains scales is greatest for H

Pipeline (in construction, final planning, planning) percentage of existing supply in each company's existing MSAs and chain scales

Company	Economy	Midscale	Upper Midscale	Upscale	Upper Upscale	Luxury
H	2%	17%	20%	7%	9%	13%
HLT	2%	10%	13%	6%	8%	15%
WH	1%	16%	18%	8%	10%	16%
MAR	2%	17%	15%	5%	6%	7%
IHG	2%	12%	16%	7%	9%	15%
CHH	2%	14%	18%	8%	10%	16%

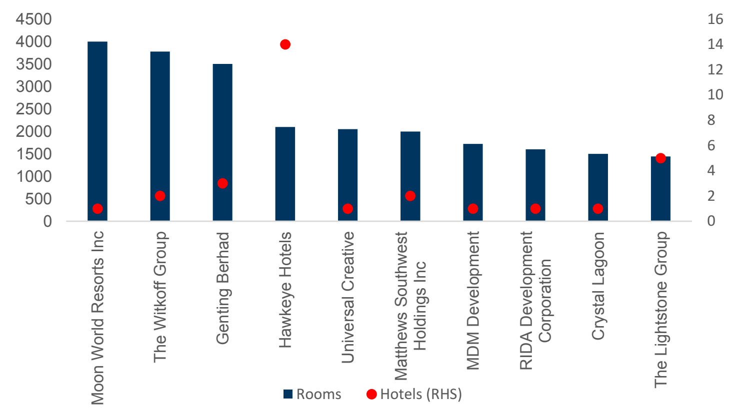
Source: STR

Exhibit 122: HLT/MAR continue to have the largest pipelines in the US, growing their bases faster than the broader market

	Pipeline under development					Current Share	
	In construction	Final Planning	Planning	Total	% of Pipeline	Existing Rooms	Market Share
MAR	76,198	92,199	29,104	212,778	27.8%	728,706	14.9%
HLT	59,238	61,845	39,004	174,925	22.9%	625,789	12.8%
IHG	20,649	49,109	20,985	100,884	13.2%	398,964	8.1%
CHH	10,441	14,501	31,175	67,341	8.8%	442,801	9.0%
WH	7,266	4,779	30,829	47,039	6.1%	480,095	9.8%
H	13,358	9,754	200	28,027	3.7%	105,009	2.1%
Motel 6	173	130	2,890	3,970	0.5%	109,792	2.2%
Best Western	1,159	118	155	1,692	0.2%	167,421	3.4%
Total	**188,482**	**232,435**	**154,342**	**636,656**	**83.2%**	**3,058,577**	**62%**

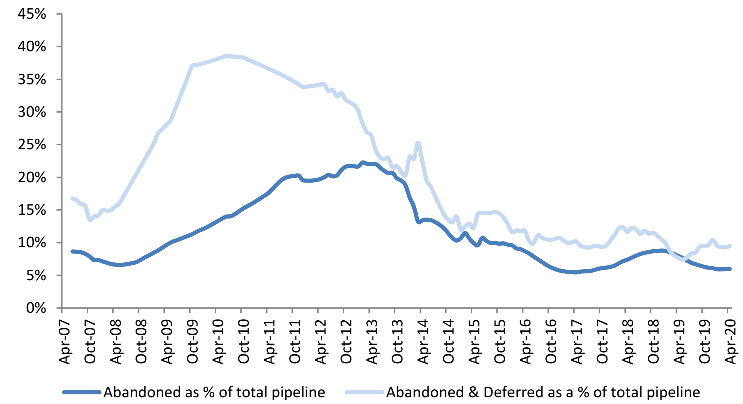
Source: STR

Exhibit 123: Top 10 developers hold relatively small % of the in-construction pipeline in the US



Source: STR

Exhibit 124: While Abandoned and Deferred rooms as % of total pipeline spiked during downturn, actual Abandoned rooms where far lower
12m rolling basis



Source: STR

Meet the players

Exhibit 125: Brand affiliation by company

Company	Accor Owner/Manager/Franchiser	Marriott International Owner/Manager/Franchiser	Wyndham Hotels Franchiser/Manager	Choice Hotels Franchiser	InterContinental Hotels Owner/Manager/Franchiser	Hilton Hotels Corp. Owner/Manager/Franchiser
Brands	25hours	AC Hotels by Marriott	AmericInn	Ascend	Candlewood Suites	Canopy
	adoria	Autograph Collection Hotels	Baymont	Cambria Suites	Crowne Plaza	Conrad
	Angsana	BVLGARI	Days Inn	Clarion	EVEN Hotels	Curio
	Aparthotel Adagio	Courtyard	Dazzler	Clarion Pointe	Holiday Inn	DoubleTree
	Art Series	Delta Hotels & Resorts	Dolce Hotels and Resorts	Comfort Inn	Holiday Inn Express	DoubleTree Club
	Astore	EDITION	Encore	Comfort Suites	Holiday Inn Resort	Embassy Suites
	Banyan Tree	Fairfield Inn & Suites	Esplendor	EconoLodge	Holiday Inn Club Vacations	Hampton
	BreakFree	Gaylord Hotels	Hawthorn	MainStay Suites	Hotel Indigo	Hilton
	D-EDGE	JW Marriott	Howard Johnson	Quality	Hualuxe	Hilton Garden Inn
	Delano	Marriott Executive Apartments	Knights Inn	Rodeway Inns	InterContinental	Home2 Suites
	Disruptive	Marriott Hotels	La Quinta	Sleep Inn	Kimpton Hotels & Restaurants	Homewood Suites
	Fairmont	Marriott Vacation Club	Microtel	Suburban Extended Stay Hotel	Staybridge Suites	Tru
	Gekko	Moxy Hotels	Ramada		Avid	Waldorf Astoria
	Grand Mercure	Protea Hotels	Super 8		Six senses	LXR
	hotelF1	Renaissance Hotels	Travelodge		Regent	Signia
	Hyde	Residence Inn	Trademark		Voco	Tapestry Collection
	ibis	SpringHill Suites	TRYP by Wyndham			Tempo
	ibis budget	The Ritz-Carlton	Wingate□by Wyndham			Motto
	ibis Styles	TownePlace Suites	Wyndham Garden			
	JO&JOE	Aloft	Wyndham Grand			
	John Paul	Design Hotels				
	Mama Shelter	Element				
	MamaWorks	Four Points				
	Mantis	Le Meridien				
	Mantra	Sheraton Hotel				
	Mercure	St. Regis				
	MGallery	The Luxury Collection				
	Mondrian	Tribute				
	M□venpick	W Hotels				
	Novotel	Westin				
		Homes & Villas by Marriott				
	onefinestay	International				
	Orient-Express					
	Paris Society					
	Peppers					
	Potel & Chabot					
	Pullman					
	Raffles					
	ResDiary					
	Rixos					
	SLS					
	SO/					
	Sofitel					
	Sofitel Legend					
	Swiss□tel					
	The House of Originals					
	The Sebel					
	Tribe					
	VeryChic					
	wojo					

Company	Host Hotels and Resorts Owner-REIT	Strategic Hotels and Resorts Owner-REIT	Four Seasons Hotels Owner/Manager	Belmond Owner/Manager	Extended Stay America Owner/Manager	Hyatt Owner/Manager/Franchiser
Brands	Autograph Collection	Fairmont	Four Seasons	Belmond	Extended Stay America	Andaz
	Curio	Four Seasons				Grand Hyatt
	Embassy Suites	Hyatt Regency				Hyatt
	Fairmont	InterContinental				Hyatt Centric
	Grand Hyatt	Loews				Hyatt House
	Hilton	Marriott				Park Hyatt
	Hyatt Place	Ritz-Carlton				Hyatt Place
	Hyatt Regency	Westin				Hyatt Regency
	Ibis	JW Marriott				Hyatt Zilara
	JW Marriott					Hyatt Ziva
	Le Meridien					The Unbound Collection
	Marriott					Miraval Group
	Novotel					Hyatt Residence Club
	Renaissance					Exhale
	Residence Inn					Caption
	Ritz-Carlton					
	Sheraton					
	St. Regis					
	Swissotel					
	The Luxury Collection					
	W					
	Westin					

Company	Best Western International Franchiser	Carlson Hospitality Group Owner/Manager/Franchiser
Brands	Best Western	Country Inn & Suites
	Best Western Plus	Park Inn
	Best Western Premier	Park Plaza
	Vib	Quorvus Collection
	Glo	Radisson
	Executive Residency by Best We	Radisson Blu
	BW Signature Collection	Radisson Red
	BW Premier Collection	
	SureStay	
	SureStay Plus	
	SureStay Collection	
	Sadie	
	Aiden by Best Western	

Source: Company data, STR

Exhibit 126: Company and brand exposure by chain scale

MAR	HLT	H	STAY	WH	CHH	IHG	ACCYY
Luxury							
EDITION The Ritz-Carlton JW Marriott BVLGARI St. Regis W Hotels The Luxury Collection Design Hotels	Waldorf Astoria Conrad LXR hotels and resorts	Park Hyatt Grand Hyatt Andaz Alila				InterContinental Six Senses Regent	Sofitel Sofitel Legend Sofitel SO Swissotel Fairmont Raffles Banyan Tree Orient Express Delano Mantis
Upper Upscale							
Marriott Hotels Renaissance Autograph Collection Delta Hotels Gaylord Westin Le Meridien Tribute Sheraton Hotel	Hilton Hotels Embassy Suites Canopy Curio Signia	Hyatt Regency Hyatt Centric Hyatt The Unbound Collection Thompson Hotels Destination Hotels Joie de vivre		Dolce Hotels & Resorts Wyndham Wyndham Grand	Clarion Comfort Inn Comfort Suites	Kimpton	Pullman MGallery Grand Mercure The Sebel Swissotel
Upscale							
Courtyard AC Hotels Residence Inn SpringHill Suites Element Four Points Aloft Hotels	Double Tree Hilton Garden Inn Homewood Suites Tapestry	Hyatt Place Hyatt House Caption by Hyatt		Tryp by Wyndham Trademark Dazzler Esplendor	Ascend Collection Cambria	Crowne Plaza EVEN Hotels Hotel Indigo Staybridge Suites HUALUXE	Novotel Novotel Suites Mercure Adagio 25hours Mantra
Upper Midscale							
TownePlace Suites Moxy Hotels Fairfield Inn Protea Hotels	Hampton Home2 Suites DoubleTree Club Motto			LaQuinta by Wyndham	Clarion Pointe	Holiday Inn Holiday Inn Express Holiday Inn Select	Mama Shelter
Midscale/Economy							
	Tru		Extended Stay America	Super 8 Days Inn Ramada Worldwide Travelodge Baymont Microtel Wingate Knights Inn AmericInn Howard Johnson Wyndham Garden Encore Trademark collection by Wyndham	MainStay Suites Quality Inn Sleep Inn Econo Lodge Rodeway Inn Suburban Extended Stay Woodspring Suites	Candlewood Suites Avid	Adagio Access ibis ibis Styles ibis budget hotelF1 Formule 1 JO&JOE
Timeshare/All-Inclusive/Rentals/Other							
Marriott Vacation Club Executive Apts. Homes & Villas by Marriott International		Hyatt Ziva Hyatt Zilara Miraval Hyatt Residence Club Exhale		Hawthorn	Vacation Rentals by Choice	Holiday Inn Club Vacations	onefinestay Oasis Squarebreak John Paul

Source: Company data, STR

Exhibit 127: Most of the publicly traded lodging companies own a small percentage of their properties…

As of FY2019	MAR	HLT	IHG	WH	CHH	H	STAY
Brands	30	13	13	20	12	14	1
Hotels	6,520	5,236	5,348	8,422	6,627	713	624
Rooms	1,361,912	954,855	864,699	821,800	574,726	219,308	68,749
Owned	1%	2%	1%	0%	0%	7%	100%
International (outside US/Americas)	35%	28%	40%	38%	21%	38%	0%
RevPAR	$117	$102	$81	$36	$51	$136	$53
ADR	$161	$141	NA	NA	$81	$181	$69
Revenue	**$20,972**	**$9,452**	**$2,332**	**$2,073**	**$1,115**	**$5,032**	**$1,218**
EBITDA	$3,575	$2,308	$1,098	$613	$365	$754	$535

(1) Coverted from Euros to Dollars at 1.1194 (FY19 Avg.)

Source: STR, Company data

Exhibit 128: …and are weighted to the franchise business model

FY19	MAR	HLT	IHG	WH	CHH	H	STAY
Rooms	**1,361,912**	**954,855**	**864,699**	**821,800**	**574,726**	**219,308**	**68,749**
By Ownership							
Owned	1%	2%	1%	0%	0%	7%	100%
Managed	42%	23%	30%	92%	0%	59%	0%
Franchised	57%	75%	70%	8%	100%	34%	0%
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
By Chainscale (US only)							
Luxury	5%	1%	2%	1%	5%	15%	0%
Upper Upscale	37%	25%	5%	2%	33%	45%	0%
Upscale	42%	35%	15%	21%	35%	40%	0%
Upper Midscale	16%	37%	69%	24%	27%	0%	0%
Midscale	0%	2%	9%	52%	0%	0%	100%
Economy	0%	0%	0%	0%	0%	0%	0%
	100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Company data, STR

Lodging REIT 101

REIT basics

Exhibit 129: Our Lodging REIT coverage focuses primarily on full-service hotels in urban markets with high-end consumers

Metric	DRH	PEB	SHO	HST	PK	Avg.	U.S.
# Properties	31	56	20	80	38	**45**	
# Rooms	10,102	14,000	10,610	46,670	23,611	**20,999**	
Chain Scale							
Luxury	17%	13%	5%	21%	7%	**13%**	5%
Upper Upscale	60%	38%	76%	69%	66%	**62%**	15%
Upscale	13%	0%	10%	4%	25%	**10%**	18%
Location							
Urban	60%	65%	67%	45%	32%	**54%**	17%
Suburban	10%	22%	10%	19%	20%	**16%**	36%
Resort	30%	12%	14%	22%	25%	**21%**	12%
Mix							
Top 25 Markets	75%	87%	82%	83%	82%	**82%**	31%
Top 10 Gateway	44%	52%	46%	49%	57%	**50%**	17%

Source: STR

Ownership, distributions, and taxes

- REITs must distribute at least 90% of their taxable income in the form of dividends to investors.
- At least 75% of REITs' total assets must be held as real estate.
- At least 75% of REITs' gross income must come from property rents or interest on mortgages.
- No more than 20% of assets may consist of stocks in taxable REIT subsidiaries.
- The REIT structure provides investors with a tax-efficient option for investing in real estate and a way to participate in the income stream without owning properties.

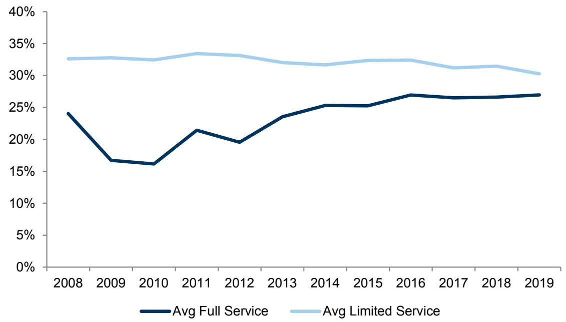
Lodging REITs details: May only own, not operate assets

- Lodging REITs are not permitted to operate hotels or derive any income from the operations of the hotels.
  - Hotel properties are either leased to (a) third parties, thereby providing lease income; or (b) to Taxable REIT Subsidiaries (TRS), which allow the REIT to participate in the operating profits of the hotels.
  - Taxable REIT subsidiaries are generally wholly owned subsidiaries of Hotel REITs that lease the hotel property from the REIT, but cannot operate the properties.
- Lodging REITs have less market share than c-corp peers and are more concentrated geographically (primarily urban, gateway markets).
- Brand-managed and branded properties must uphold brand standards while independent flags offer greater flexibility.
- Lodging REITs offer non-organic growth via “Return on Investment” or ROI capex and/or acquisition.

Full Service vs. Limited Service Lodging REITs

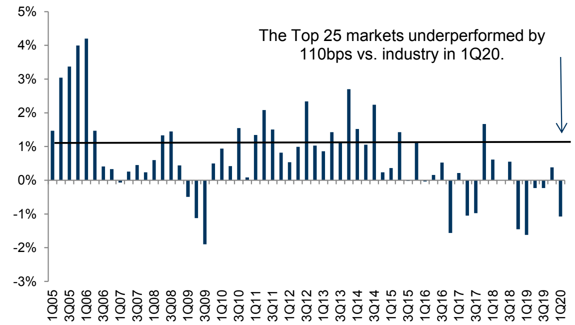
- Full Service vs. Limited Service
  - Full: F&B, amenities, etc. (AHP, CHSP, FCH, DRH, XHR, PEB, SHO, RHP, PK and HST)
  - Limited/Mixed: Largely room-based, minimal amenities (CLDT, HT, INN, RLJ, AHT, APLE, HPT)
- Full service tends to be more sensitive to the economy
  - Full: Higher RevPAR, Higher EBITDAPAR, lower EBITDA margins
  - Limited/Mixed: Lower RevPAR, Lower EBITDAPAR, higher margins

Exhibit 130: As noted in other sections, limited service tends to have higher margins, with less volatility



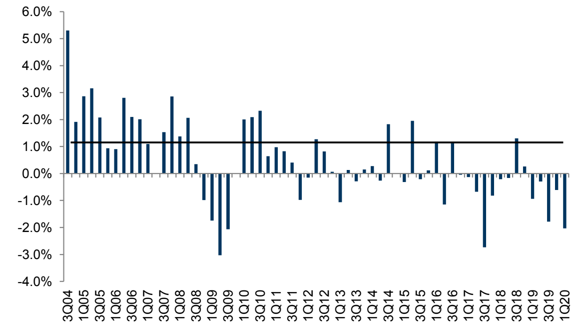
Source: Thomson Reuters

Exhibit 131: RevPAR in top 25 markets had outperformed the broader US until 2016 when international inbound softened...



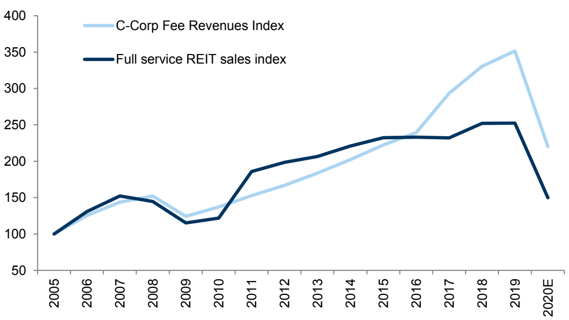
Source: STR

Exhibit 132: ...moreover, the top 10 REIT markets have been underperforming due to supply pressures and mixed demand drivers (soft business and international trends)



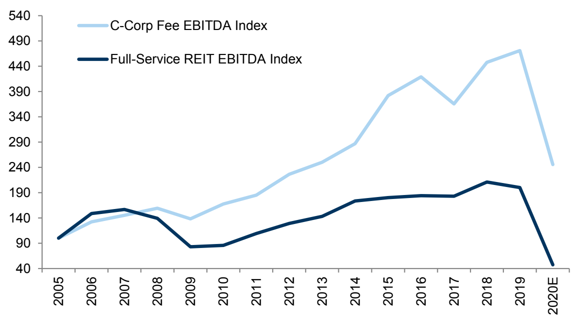
Source: STR

Exhibit 133: Although C-Corps and REITs are projected to see similar revenue drop in 2020 owing to COVID...



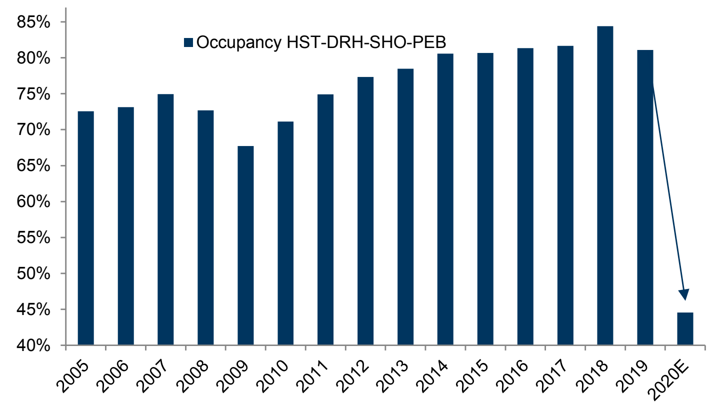
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 134: ...but REITs face much greater operating deleverage vs. C-Corps



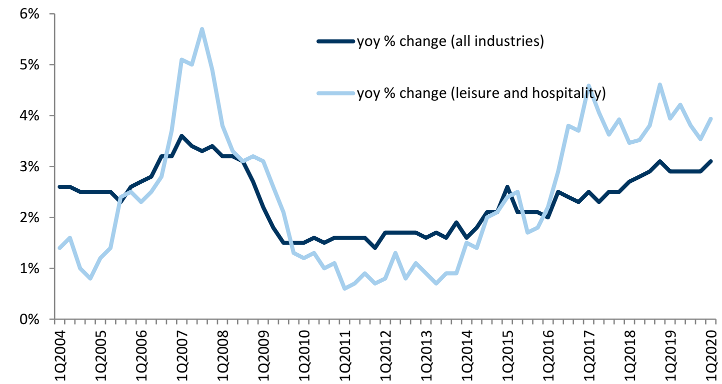
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 135: Lodging REIT occupancies likely to drop to record low levels in 2020 due to COVID-19



Source: Company data

Exhibit 136: Wages in the Leisure and Hospitality sectors have grown faster than average in the recent past but it is largely expected to normalize due to the weaker employment environment post-COVID-19



Source: FactSet, STR, Goldman Sachs Global Investment Research

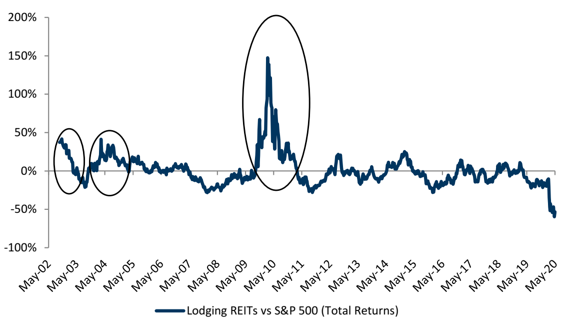
Exhibit 137: REITs' supply growth had outpaced the national average in 2018/19 but is likely to stabilize in 2020 given COVID-19 related disruptions while 2021 remain largely unknown

	DRH	PEB	SHO	HST	PK	Avg	U.S.	Full Serv.
CBD Wtd Supply Growth								
2018	2.6%	4.5%	3.3%	3.1%	1.8%	**3.0%**	1.8%	2.8%
2019	4.1%	3.4%	1.8%	2.2%	1.3%	**2.5%**	1.8%	2.3%
2020	1.5%	1.6%	1.3%	1.8%	1.3%	**1.5%**	1.4%	1.9%
2-yr avg.	2.8%	2.5%	1.6%	2.0%	1.3%	**2.0%**	1.6%	2.1%

Source: STR, Company data, Goldman Sachs Global Investment Research

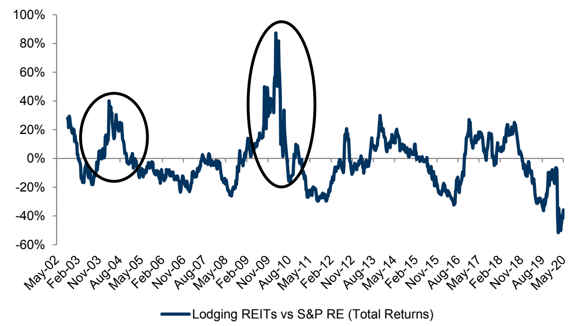
When to buy REITs? Early cycle and during significant public/private valuation gaps

Exhibit 138: REITs have typically outperformed early cycle vs. the S&P 500…



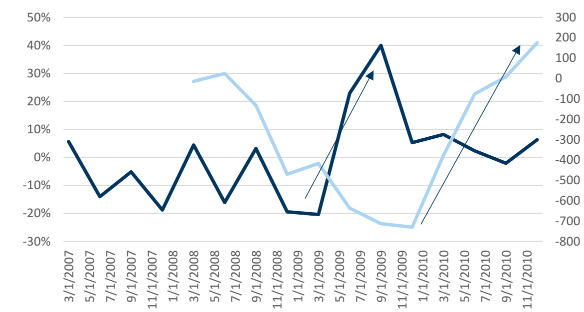
Source: FactSet

Exhibit 139: …and vs. the S&P 500 RE Index



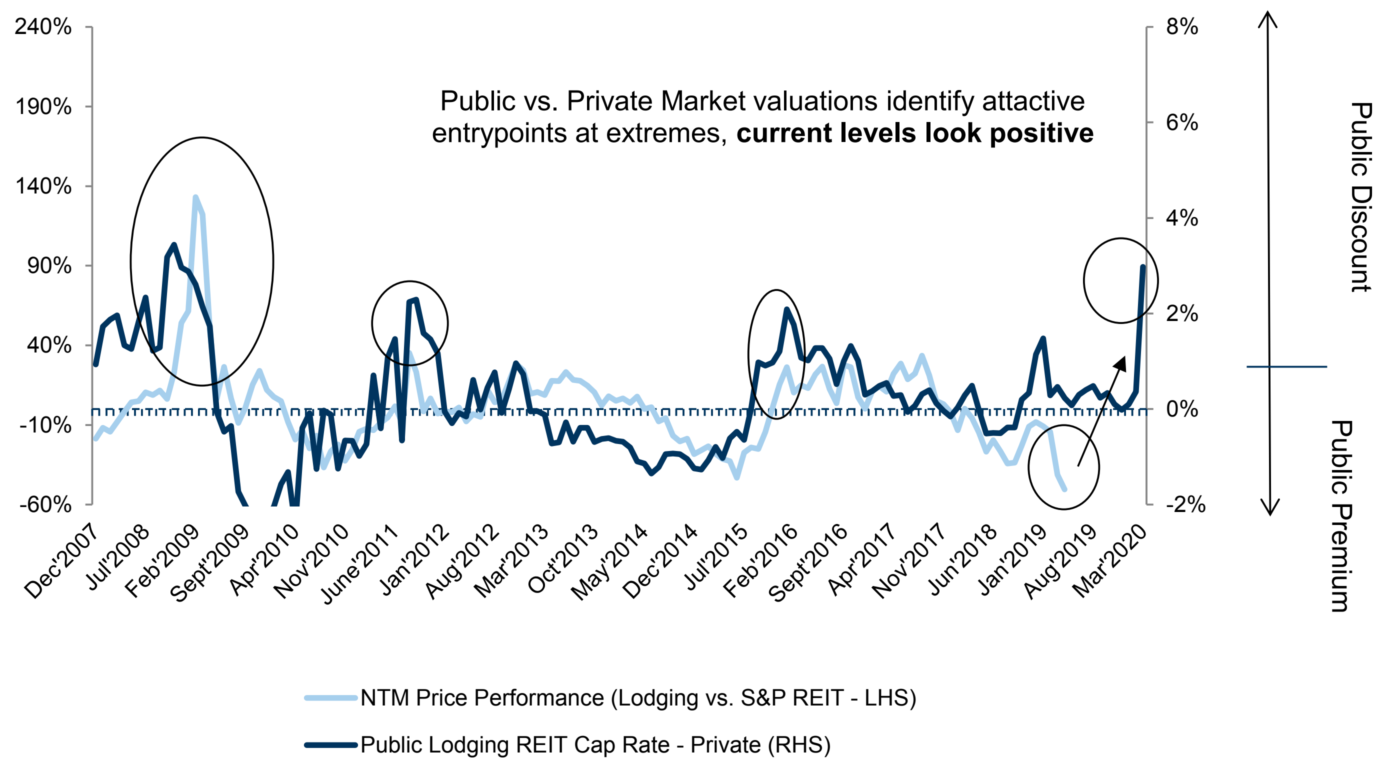
Source: FactSet

Exhibit 140: We hold off on becoming more constructive on the REITs in aggregate as the stocks have historically underperformed through initial fundamental margin pressure but then sharply reverted 3 quarters before the bottom in margins



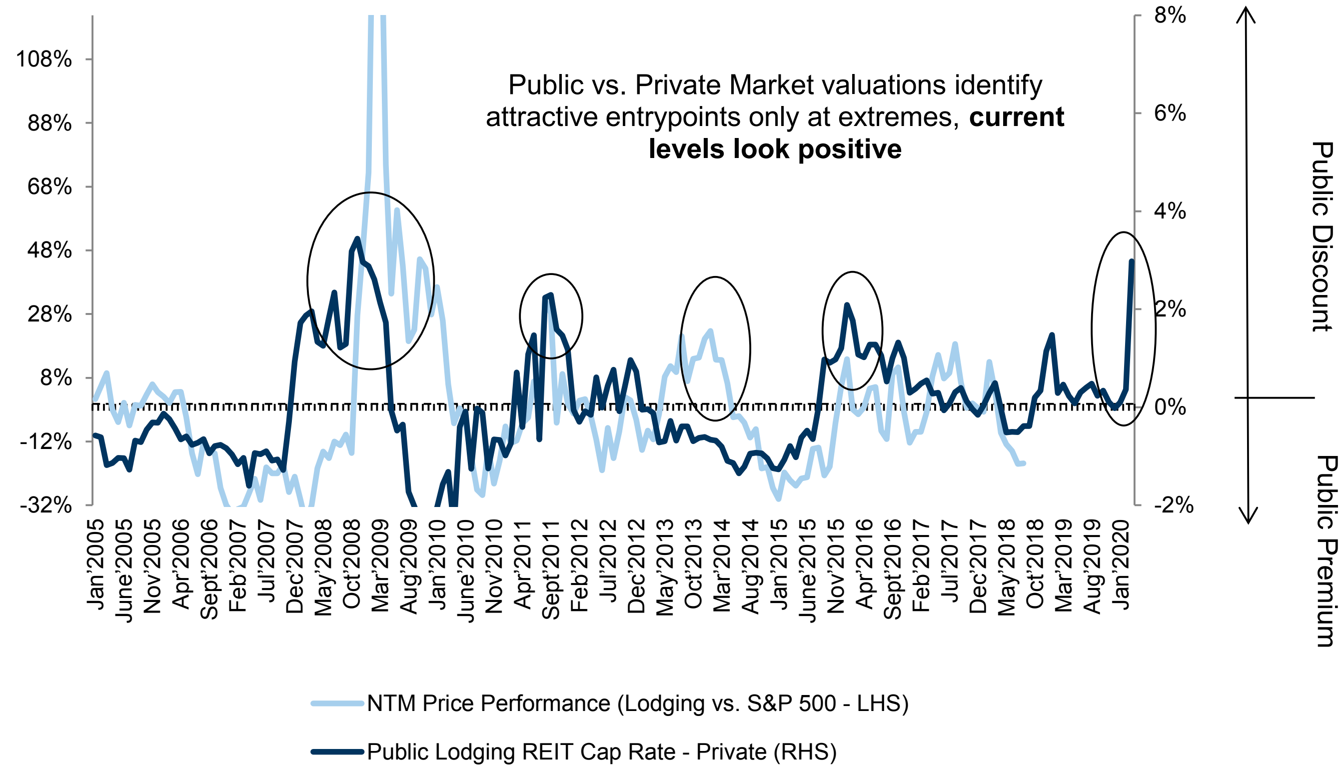
Source: FactSet, Company data, Goldman Sachs Global Investment Research

Exhibit 141: NAV can be a good tool to evaluate entry points…



Source: FactSet, Real Capital Analytics

Exhibit 142: ...but only at extreme discounts and current valuation look positive



Source: FactSet, Real Capital Analytics

Exhibit 143: PK/HST/SHO/DRH are more branded, whereas PEB is more independent

Metric	DRH	PEB	SHO	HST	PK	Avg.
# Properties	31	56	20	80	38	**45**
# Rooms	10,102	14,000	10,610	46,670	23,611	**20,999**
Chain Scale						
Luxury	17%	13%	5%	21%	7%	**13%**
Upper Upscale	60%	38%	76%	69%	66%	**62%**
Upscale	13%	0%	10%	4%	25%	**10%**
Location						
Urban	60%	65%	67%	45%	32%	**54%**
Suburban	10%	22%	10%	19%	20%	**16%**
Resort	30%	12%	14%	22%	25%	**21%**
Mix						
Top 25 Markets	75%	87%	82%	83%	82%	**82%**
Top 10 Gateway	44%	52%	46%	49%	57%	**50%**
Parent Company						
Marriott International	63%	20%	50%	72%	16%	**44%**
Hilton Worldwide	10%	4%	30%	4%	76%	**25%**
Hyatt	0%	0%	0%	0%	0%	**0%**
Intercontinental Hotels Group	7%	15%	0%	0%	2%	**5%**
Accor Company	0%	4%	0%	3%	0%	**1%**
Other Chain	0%	5%	10%	15%	6%	**7%**
Independent	20%	53%	10%	6%	0%	**18%**

Source: Company data, STR

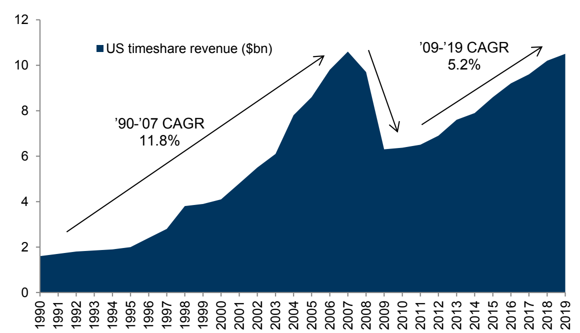
Timeshare unit economics – for consumers and for investors

Timeshare or vacation ownership typically entitles a buyer to the use of a fully furnished condominium-style residence, generally for a one-week period each year, known as a "vacation interval." In addition, fractional ownership interests are available for 5 to 26 weeks at a time. Increasingly, timeshare ownerships have moved toward points-based programs. These condo-type units are generally equivalent in quality to an upscale or above average hotel room but with greater space (typically a separate bedroom or multiple bedrooms) and greater amenities (full kitchen & appliances). The downside is service, which is slightly less than a typical hotel stay.

Vacation ownership allows consumers to purchase an interval that guarantees them a unit at a specified time of the year in a specific location at a fraction of the cost of full ownership. Consumers pay a one-time purchase price (around $21,455 in 2018 for a points-based program — in addition to annual maintenance fees, which averaged $1,000 per year in 2018, the latest available period for industry-wide data). Consumers can also buy specific weeks at a resort, or they can buy points into a larger system for a right to use any resort in that system. Consumers with interval ownership have the right to exchange their interval for another, within the same system or outside the system via an interval exchange company such as RCI (owned by Wyndham Destinations Inc.) or Interval International (owned by VAC). The exchange allows the consumer to potentially change locations on an annual basis, providing greater variety in locales. Consumers with a Hilton, Marriott or Wyndham timeshare have the ability to exchange their interval points for points in the respective loyalty programs, which allows them to stay in any hotel in the system. Agreements often also provide for the ability to rent out an unused interval, though economics will be shared with the parent company.

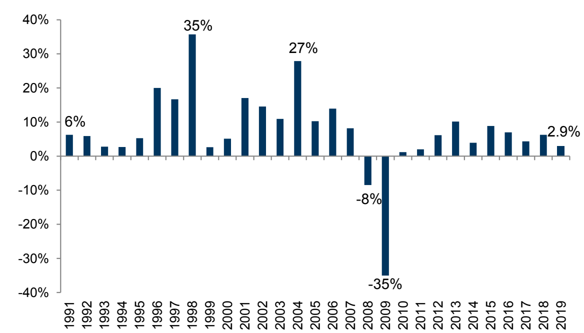
According to the most recent annual report from the American Resort Development Association (ARDA), the timeshare industry has 1,580 timeshare resorts located in the United States with about 206K units and annual US timeshare sales of approximately ~$10.6 billion in 2019. To put this in perspective, timeshare resorts would equate to 39% of "resort" designated properties, or ~4% of U.S. hotel rooms. Timeshare sales in the United States grew at a compounded rate of 12% from 1990 through 2007 but declined 8%/35% in 2008/2009. Sales stabilized and grew consistently in 2010-2019, increasing about 5.3% a year.

Exhibit 144: US timeshare sales have grown at a 5.3% CAGR the past 10 years



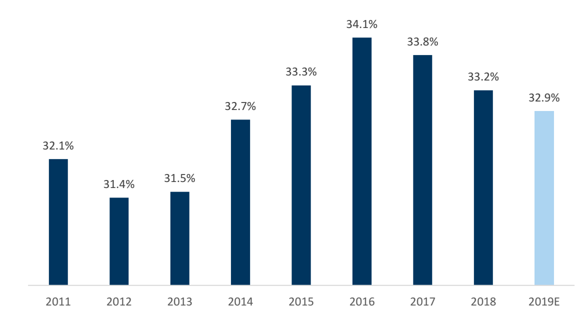
Source: American Resort Development Association, ILG filings, Goldman Sachs Global Investment Research

Exhibit 145: ...and grew 2.9% in 2019



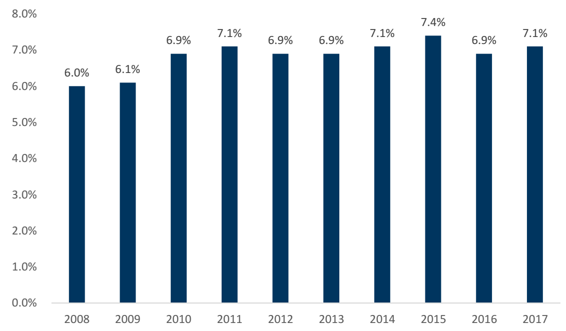
Source: American Resort Development Association, ILG filings, Goldman Sachs Global Investment Research

Exhibit 146: While US timeshare resorts represent a large percentage of total US hotel resorts...



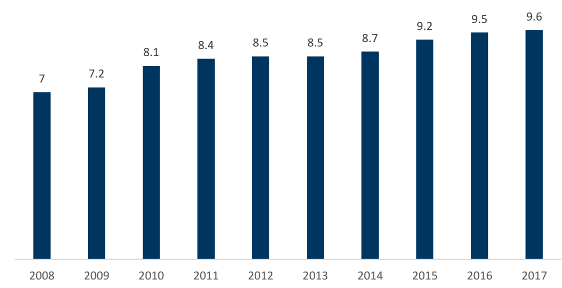
Source: ARDA, Company data, Goldman Sachs Global Investment Research

Exhibit 147: ...only a small percentage of US-based households own vacation homes, a level that has been relatively stable in recent years...



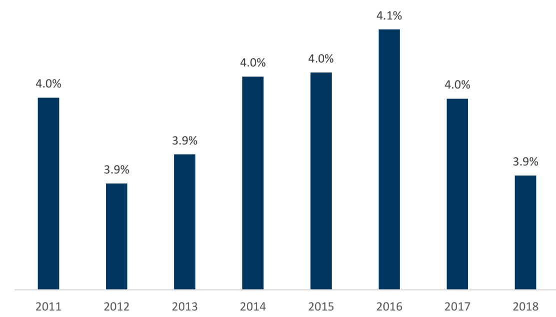
Source: ARDA, Company filings

Exhibit 148: The number of US-based households that own VOIs was relatively flat until 2015, largely corresponding to stabilization in the housing market



Source: ARDA, Company filings

Exhibit 149: ... and timeshare units represent a small percentage of all hotel rooms.



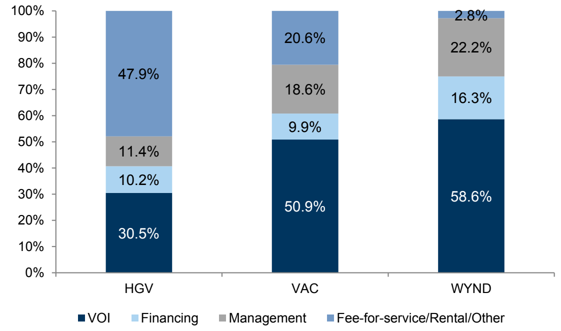
Source: Company data, ARDA, Goldman Sachs Global Investment Research

How do companies make money from timeshare?

- **Selling timeshare intervals:** Companies make roughly 45%-60% of their timeshare revenues through selling the interval. Product costs on average are 15-25% of VOI sales, selling and marketing costs are roughly 40%-55%, and general/ administrative costs are about 10%, leading to a high-teens to mid-twenties margin for the overall industry. Apart from building their own inventory, timeshare operators also recycle inventory obtained from the default on timeshare loans and home owner association dues. This defaulted inventory typically has a lower product cost. Timeshare operators can also ladder their investment in developed inventory to limit their upfront investment. Finally, "fee-for-service" models enable timeshare operators to sell inventory developed by a third party for a fee without any upfront investment. Fee-for-service sales would come at a smaller EBITDA contribution but offer higher returns on investment. In fee-for-service, the timeshare operator would also lose out on financing income.
- **Financing revenues:** The companies also make money through financing the purchase of timeshare intervals. Hilton Grand Vacations, Marriott Vacations, and Wyndham help their customers finance, and roughly 60% of the total timeshare dollar amounts are financed. Consumers will typically finance up to 70%-75% of the timeshare purchase price. The timeshare operator makes money on the spread between the cost of debt and the average financing rate it charges its timeshare purchasers. In addition, they have the ability to securitize the notes receivable, which allows the operator to more quickly recycle capital to fund more buyers. Interest rates charged to the consumer can average about 12%+ while securitized loans would charge the timeshare operator low-single-digits. On average, timeshare operators make roughly 11% of their vacation ownership revenue from financing, with a higher percentage of EBITDA coming from financing due to its high margin.
- **Resort operations:** Timeshare companies also receive fees from existing timeshare owners to manage the timeshare resorts. These fees are taken out of the annual maintenance fees that timeshare owners are required to pay the home owners association (HOA). Resort operations account for roughly 24% of timeshare revenues on average. The HOA budget covers all the expenses needed to run the resort, and the management fees are the amount remaining after covering all running expenses (typically a "cost-plus" model). These fees are in many ways a perpetuity as, based on history, it is extremely unlikely that the company would lose the contract for operating the resort. These resort operations also provide the timeshare operators with a captive source of inventory via the HOA defaults.
- **Rental income:** While timeshare resorts typically run at high occupancy levels (the industry average was about 81% in 2018), roughly 23% of occupied rooms are rented to non-owners either for marketing purposes or to generate incremental income. Revenues from rentals amounted to $2.4bn in 2018, and economics more closely mirror that of a standard hotel. Note that these "revenues" are accounted for as an offset to product costs for some players (ie. WYND).

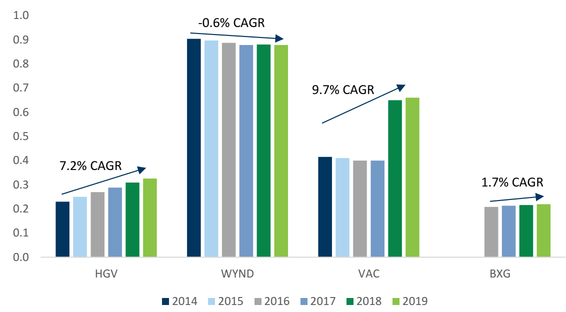
Comparison of publicly traded timeshare companies

Exhibit 150: Each of the major players has a slightly different mix of business
Breakdown of timeshare revenues (2019)



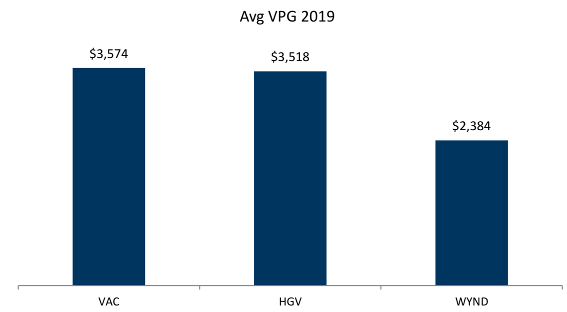
Source: Company data

Exhibit 151: Excluding HGV and the VAC-IHG merger, few have been growing overall member bases
Number of timeshare owners (millions)



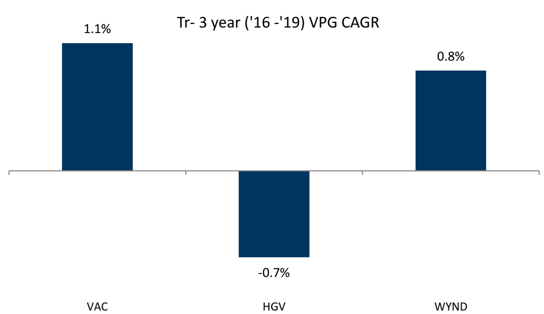
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 152: Average VPG is highest at VAC.



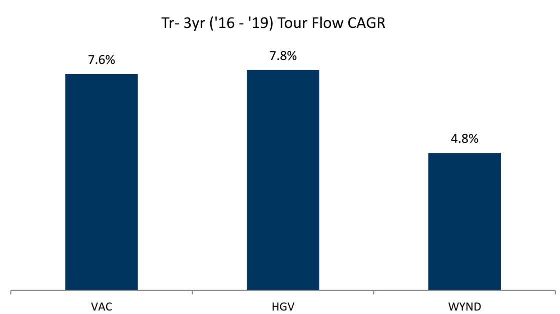
Source: Company data

Exhibit 153: VAC has led in growth of VPG
3-year average VPG CAGR



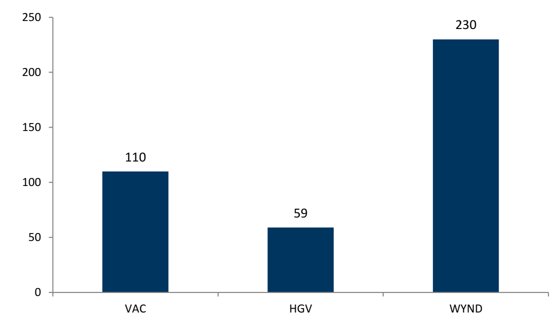
Source: Company data

Exhibit 154: However, HGV has grown tour flow the fastest



Source: Company data

Exhibit 155: Total number of properties (2019)



Source: Company data

Illustrative analysis highlights compelling timeshare unit economics

Our analysis provides illustrative unit economics of selling a developed Hilton Grand Vacations timeshare property. Our three primary takeaways are as follows:

1. The annual unlevered ROIC before HOA/financing income streams is approximately ~34%. However, this ROIC is based

on reported financials, not cash flows, which are heavily reliant on financing and securitization assumptions.

2. When measuring cash-on-cash ROIC, we find that the attractive unit economics discussed above are simply pushed out past the payback period for the individual property, given that a portion of the sold inventory is financed by the customer, delaying cash receipts.
3. By electing to securitize timeshare receivables, cash on cash ROIC improves meaningfully, allowing for incremental growth/redeployment.

Detailed assumptions

- Development cost is assumed to be 27% of vacation ownership interest (VOI) sales based on the average reported results from 2017-2019 (26.9%). Management has cited averages of 20-30% in the past.
- We assume a 3-year VOI sales period for the property per management commentary on recently opened properties and $28k/VOI, which is above the overall timeshare average given HGV has better assets, in our view.
- S&M expense as a % of sales is based on discussions with management. We also note the 2019 expenses were actually lower than our 45% assumption (2019 reported numbers put S&M at 43.1% of total contract sales).
- We assume the HOA fee is roughly 3.4% of the initial VOI purchase and grows with inflation in line with management commentary.
- We assume 65% of VOI sales are financed – in line with HGV's 2019 reported results (66.2%). The 12% interest rate and 4.7% provision are also in line with reported results.

Exhibit 156: Hypothetical sale of an HGV developed timeshare property – ROIC and cash flow

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12
Development cost (mn)	59	0	0	0	0	0	0	0	0	0	0	0
Rooms	50	50	50	0	0	0	0	0	0	0	0	0
Weeks sold	52	52	52	0	0	0	0	0	0	0	0	0
Price per VOI	28,000	28,000	28,000	0	0	0	0	0	0	0	0	0
VOI sales (mn)	73	73	73	0	0	0	0	0	0	0	0	0
Cost of VOI (mn)	20	20	20	0	0	0	0	0	0	0	0	0
S&M expense %	45.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net (mn)	20	20	20	0	0	0	0	0	0	0	0	0
Cash (mn)	(14)	(14)	(14)	0	0	0	0	0	0	0	0	0
HOA fee/week	970	989	1,009	1,029	1,050	1,071	1,092	1,114	1,137	1,159	1,182	1,206
HOA revenue (mn)	3	5	8	8	8	8	8	8	8	8	8	8
HOA expense %	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%	55.8%
Net (mn)	1	2	3	3	3	3	3	3	3	3	3	3
% financed	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Interest rate	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
Interest Expense	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Loan duration (yrs)	10.0	9.5	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0	0.0
Loan BoP (mn)	45	43	86	82	73	68	59	54	45	39	28	18
Loan EoP (mn)	43	86	82	73	68	59	54	45	39	28	18	0
Spread	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Provision (mn)	2	2	4	4	3	3	3	3	2	2	1	1
Provision % VOI	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%
Net Financing Income (mn)	4	6	8	7	6	6	5	4	4	3	2	1
Cash (mn)	4	6	8	13	7	12	7	11	8	12	11	18
Net income (mn)	**25**	**28**	**31**	**10**	**10**	**9**	**9**	**8**	**7**	**6**	**5**	**4**
Cash (mn)	**(9)**	**(6)**	**(3)**	**16**	**11**	**15**	**11**	**15**	**11**	**15**	**14**	**21**
Securitization (mn)	14	17	20	7	6	6	6	5	5	5	4	3
Cash Return												
Annual ROIC	-15.4%	-10.3%	-5.4%	27.0%	18.1%	25.9%	18.0%	25.2%	19.1%	25.7%	24.1%	36.3%
ROIC before HOA/financing												
Annual ROIC	34.6%	34.6%	34.6%									
Securitization												
Annual ROIC	23.5%	28.6%	33.5%	11.1%	10.8%	10.1%	9.8%	9.1%	8.6%	7.8%	7.1%	5.7%

Source: Company data, Goldman Sachs Global Investment Research

Timeshare economics for consumers

While vacationing in timeshares can be a more pleasant (and spacious) experience than using hotel rooms, we analyze the two opportunities from a financial perspective (for the consumer) and discount back the cash flows to get a better sense of the true value or cost of purchasing a timeshare. This can be examined across multiple scenarios, but herein we look at it from two basic perspectives:

- Hotel vs. timeshare – when vacationing every year (**timeshare more economical, but requires ~20 year usage**).
- Hotel vs. timeshare – when skipping a vacation every 5 years (**timeshare still more economical, but requires ~30 year usage**).

Hotel vs. Timeshare analysis – key assumptions

- **Stay:** We assume that a family of four on vacation uses two rooms while staying at a hotel. Hence, the cost per night of the hotel stay would be two times the average daily room rate for resorts ($183 per STR's 2020 HOST Almanac for resort properties). We assume the same family uses a two-bedroom unit at a timeshare.
- **Inflation rate:** We use a 2.7% inflation rate on all costs (hotel ADRs, food costs, HOA/club fees, interval exchange annual membership, and exchange fees). This is the average increase in resort ADR over the past 15 years.
- **Food/beverage costs:** We embed $35/person/day for the hotel customers (family of four) and apply a 25% discount for the timeshare customers as their unit includes a kitchenette, which could be used to reduce food spending. This foots with vacation expenditure data provided by ARDA, which details the average spend per party on food away from home of $260 and average spend per party on groceries of $198.
- **Investment income:** Because the hotel user does not need a down payment, we forecast that these consumers could invest the money that they did not spend on a down payment and earn a 0.8% risk-free annual return, relatively in line with the 10-year treasury. We also take into account the total investment balance in our present value calculation along with the interest income earned.
- **Interest tax savings:** We model in that the timeshare consumer could receive a modest tax benefit from interest payments (we note that some states may not allow tax deductions for interest paid on timeshare loans).
- **Cost of the timeshare and down payment:** Our calculations are based on the average cost of a timeshare sold in 2019 of $21,455 per ARDA plus a 15% premium for a 2 bedroom unit. We assume a 20% down payment on the price of the timeshare consistent with management commentary.
- **Financing:** On the financing side, we assume a seven-year loan term at 12% interest. This is relatively in line with the average for industry participants (WYND, HGV, and VAC).

- **Annual maintenance/club fees:** We model an annual maintenance fee of $1,000 (which was in line with the maintenance fee for a typical unit in 2018 per ARDA).
- **Discount rate and window:** The discount rate we apply to all cash flows is 6%, and we use a 50-year time horizon. We base our discount rate on the opportunity cost of capital of a diversified investment portfolio.

Exhibit 157: Timeshare/hotel assumptions for our NPV analysis

Timeshare vs. Hotel NPV Analysis		Comment
Inflation rate	2.7%	15 yr resort ADR avg.
Discount rate	6.0%	Diversified investment portfolio
Timeshare assumptions		
Timeshare cost	$24,673	2018 ARDA data with 15% premium
Down payment %	20%	
Interest rate on timeshare loan	12.0%	Public timeshare company avg.
Annual home owner association dues	$1,000	2018 ARDA data
Hotel assumptions		
Avg Daily Room rate (ADR) at a Resort	$183	2019 STR data
Avg ADR growth rate	2.7%	15 yr avg. resort ADR growth
Tax rate on hotel room	12.0%	In line with industry avg.
Risk free return for down payment	0.8%	10-yr treasury

Source: ARDA, STR, Goldman Sachs Global Investment Research

Exhibit 158: Hotel vs. Timeshare when vacationing every year – Timeshare is more economical

Cost comparison: hotel stay vs. timeshare purchase

Cost of Hotel stay

Year	Room	Tax (12%)	Total Hotel	F/B	Investment Income	Total	PV
0							-$4,935
1	$2,558	$307	$2,865	$980	$41	$3,804	$3,589
2	$2,627	$315	$2,942	$1,006	$41	$3,908	$3,478
3	$2,698	$324	$3,022	$1,034	$41	$4,014	$3,370
4	$2,771	$333	$3,103	$1,062	$42	$4,123	$3,266
5	$2,846	$341	$3,187	$1,090	$42	$4,235	$3,165
6	$2,923	$351	$3,273	$1,120	$42	$4,351	$3,067
7	$3,001	$360	$3,362	$1,150	$43	$4,469	$2,972
8	$3,083	$370	$3,452	$1,181	$43	$4,590	$2,880
9	$3,166	$380	$3,546	$1,213	$43	$4,715	$2,791
10	$3,251	$390	$3,641	$1,246	$44	$4,843	$2,704
15	$3,714	$446	$4,160	$1,423	$46	$5,538	$2,311
20	$4,244	$509	$4,753	$1,626	$48	$6,331	$1,974
25	$4,848	$582	$5,430	$1,857	$50	$7,238	$1,686
30	$5,539	$665	$6,204	$2,122	$52	$8,275	$1,441
35	$6,329	$759	$7,088	$2,424	$54	$9,459	$1,231
40	$7,230	$868	$8,098	$2,770	$56	$10,812	$1,051
45	$8,261	$991	$9,252	$3,165	$58	$12,358	$898
50	$9,438	$1,133	$10,570	$3,616	$61	$14,125	$767
							$86,893

Time-share purchase

Year	Mortgage	HOA/ Club	Interest Tax Savings	F/B	Total	Downpay	PV
0						$4,935	$4,935
1	$4,181	$1,000	-$680	$630	$5,132		$4,841
2	$4,181	$1,027	-$607	$647	$5,249		$4,671
3	$4,181	$1,055	-$525	$664	$5,376		$4,514
4	$4,181	$1,083	-$432	$682	$5,515		$4,368
5	$4,181	$1,112	-$328	$701	$5,667		$4,235
6	$4,181	$1,142	-$210	$720	$5,833		$4,112
7	$4,181	$1,173	-$78	$739	$6,016		$4,001
8		$1,205		$759	$1,964		$1,232
9		$1,238		$780	$2,017		$1,194
10		$1,271		$801	$2,072		$1,157
15		$1,452		$915	$2,367		$988
20		$1,659		$1,045	$2,704		$843
25		$1,895		$1,194	$3,089		$720
30		$2,165		$1,364	$3,530		$615
35		$2,474		$1,559	$4,033		$525
40		$2,826		$1,781	$4,607		$448
45		$3,229		$2,034	$5,264		$382
50		$3,689		$2,324	$6,014		$326
					Total Cost:		**$65,101**
					Premium/(Discount):		-25%

Source: Goldman Sachs Global Investment Research

Exhibit 159: Hotel vs. Timeshare when not vacationing every year – Timeshare still more economical

Cost comparison: hotel stay vs. timeshare purchase (when skipping a vacation every 5 years)

Cost of Hotel stay

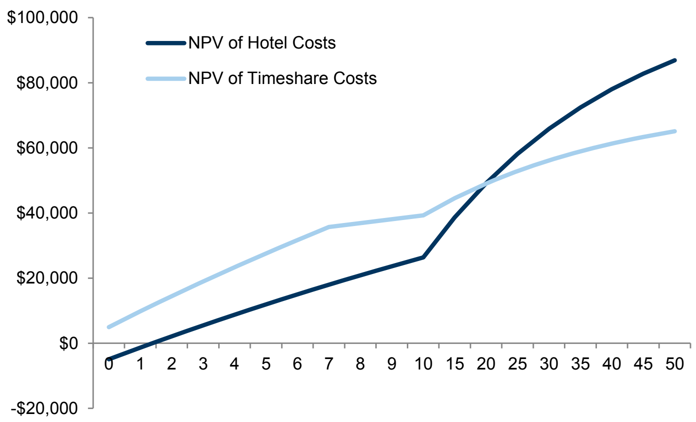
Year	Room	Tax (12%)	Total Hotel	F/B	Investment Income	Investment	Total	PV
0						$4,935		-$4,935
1	$2,558	$307	$2,865	$840	$41	$4,975	$3,664	$3,457
2	$2,627	$315	$2,942	$863	$41	$5,016	$3,764	$3,350
3	$2,698	$324	$3,022	$886	$41	$5,058	$3,866	$3,246
4	$2,771	$333	$3,103	$910	$42	$5,099	$3,972	$3,146
5					$42	$5,141	-$42	-$31
6	$2,923	$351	$3,273	$960	$42	$5,184	$4,191	$2,954
7	$3,001	$360	$3,362	$986	$43	$5,226	$4,305	$2,863
8	$3,083	$370	$3,452	$1,012	$43	$5,269	$4,422	$2,774
9	$3,166	$380	$3,546	$1,040	$43	$5,313	$4,542	$2,688
10					$44	$5,357	-$44	-$24
15					$46	$5,581	-$46	-$19
20					$48	$5,815	-$48	-$15
25					$50	$6,058	-$50	-$12
30					$52	$6,312	-$52	-$9
35					$54	$6,576	-$54	-$7
40					$56	$6,852	-$56	-$5
45					$58	$7,139	-$58	-$4
50					$61	$7,438	-$61	-$3
						TOTAL COST:		**$66,798**

Time-share purchase

Year	Mortgage	HOA/ Club	Interest Tax Savings	F/B	Total	Downpay	PV
0						$4,935	$4,935
1	$4,181	$1,000	-$680	$630	$5,132		$4,841
2	$4,181	$1,027	-$607	$647	$5,249		$4,671
3	$4,181	$1,055	-$525	$664	$5,376		$4,514
4	$4,181	$1,083	-$432	$682	$5,515		$4,368
5	$4,181	$1,112	-$328		$4,966		$3,711
6	$4,181	$1,142	-$210	$720	$5,833		$4,112
7	$4,181	$1,173	-$78	$739	$6,016		$4,001
8		$1,205	-$66	$759	$1,898		$1,191
9		$1,238	-$55	$780	$1,962		$1,161
10		$1,271	-$45		$1,226		$684
15		$1,452			$1,452		$606
20		$1,659			$1,659		$517
25		$1,895			$1,895		$442
30		$2,165			$2,165		$377
35		$2,474			$2,474		$322
40		$2,826			$2,826		$275
45		$3,229			$3,229		$235
50		$3,689			$3,689		$200
					Total Cost:		**$62,103**
					Premium/(Discount):		-7%

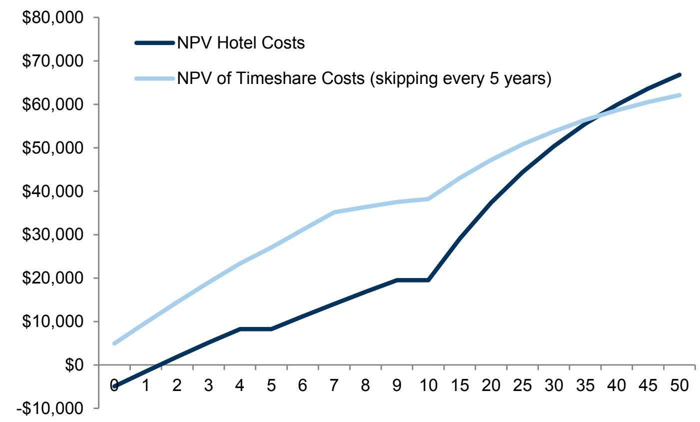
Source: Goldman Sachs Global Investment Research

Exhibit 160: When vacationing every year, the NPV of timeshare payments does not fall below hotels until year 20



Source: Goldman Sachs Global Investment Research

Exhibit 161: When skipping annual vacations the NPV of timeshare payments falls below hotels after 35 years



Source: Goldman Sachs Global Investment Research

We acknowledge the ability for the consumer to borrow at lower rates in today's environment, particularly relative to the 12% charged by timeshare. As a result, in Exhibit 162 and Exhibit 163 we analyze the potential discount/premium of timeshare costs vs. hotel costs using a home equity rate loan and sensitize the overall discount rate to illustrate the importance of this variable.

Exhibit 162: Using a home equity loan, sensitized across multiple discount rates, makes timeshare more attractive than in the scenario above but still implies long breakeven periods

Sensitivity - Timeshare NPV vs. Hotel breakeven year (vacation every year)							
		Home Equity Loan Rate					
		3.5%	4.0%	4.5%	5.0%	5.5%	6.0%
Discount Rate	4%	15	15	15	16	16	16
	5%	16	16	16	17	17	17
	6%	17	17	17	18	18	18
	7%	18	19	19	19	19	19
	8%	20	20	21	21	21	21
	9%	23	23	23	24	24	24

Source: Goldman Sachs Global Investment Research

Exhibit 163: Using a home equity loan for a down payment also makes it more attractive under some circumstances even when skipping a vacation but with significant breakeven periods

Sensitivity - Timeshare NPV vs. Hotel breakeven year (skip vacation 5yrs)							
		Home Equity Loan Rate					
		3.5%	4.0%	4.5%	5.0%	5.5%	6.0%
Discount Rate	4%	23	23	23	23	23	24
	5%	26	26	27	27	27	27
	6%	29	29	30	30	31	32
	7%	35	36	37	37	38	38
	8%	49	51	51	51	51	51
	9%	51	51	51	51	51	51

Source: Goldman Sachs Global Investment Research

Performance and valuation

Exhibit 164: Lodging stocks represent a small weighting across S&P indices

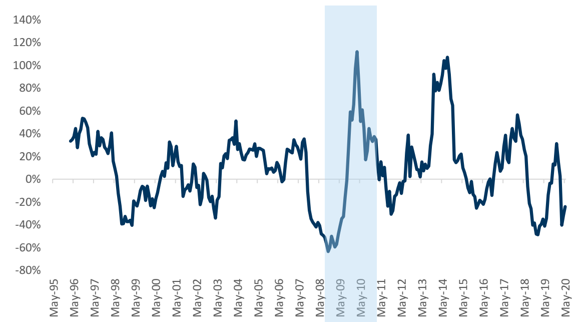
S&P 500 Components	
Lodging	**Weight**
Marriott International	0.13%
Hilton Worldwide Holdings Inc	0.09%
Host Hotels & Resorts Inc	0.03%
Total	**0.26%**
S&P 400 Components	
Lodging	**Weight**
Choice Hotels International Inc	0.27%
Wyndham Hotels & Resorts Inc	0.26%
Marriott Vacations Worldwide Corp	0.26%
Wyndham Destinations Inc	0.19%
Park Hotels & Resorts Inc	0.19%
Pebblebrook Hotel Trust	0.12%
Service Properties Trust	0.10%
Total	**1.38%**
S&P 600 Components	
Lodging	**Weight**
DiamondRock Hospitality Co	0.18%
Xenia Hotels & Resorts Inc	0.19%
Summit Hotel Properties Inc	0.11%
Chatham Lodging Trust	0.06%
Hersha Hospitality Trust	0.04%
Total	**0.57%**

As of 25th Nov 2020

Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 165: Our Lodging Index saw significantly negative returns in 2020 TD, both on an absolute and relative basis…

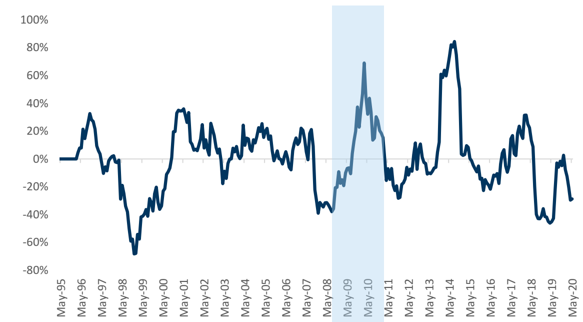
Historical C-Corp performance on an absolute basis (trailing year)



Source: FactSet, Goldman Sachs Global Investment Research

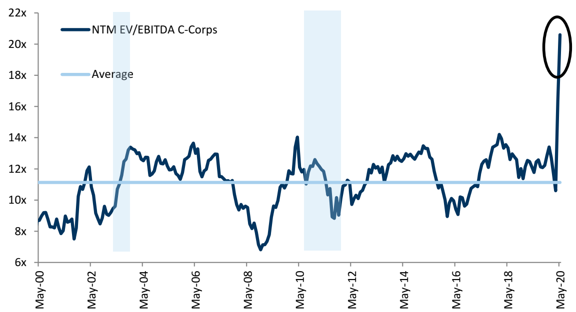
Exhibit 166: … with the relative underperformance in 2020 largely due to COVID-19 impact

Historical C-Corp performance on a relative basis (trailing year)



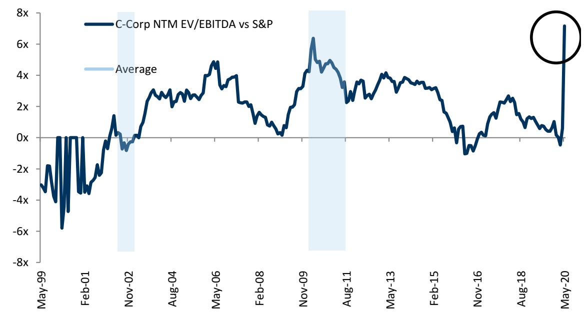
Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 167: NTM EV/EBITDA multiples look abnormally high due to COVID related disruptions causing NTM EBITDA declines…



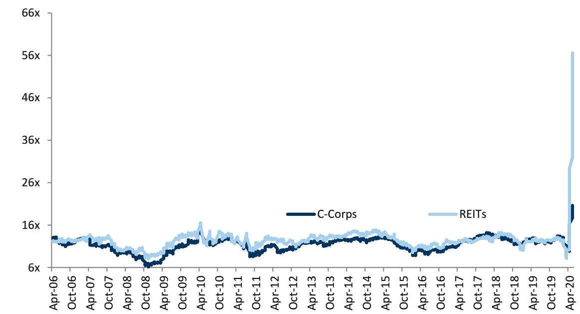
Source: FactSet

Exhibit 168: …and remains significantly above the long-term average on a relative basis (vs. S&P 500)



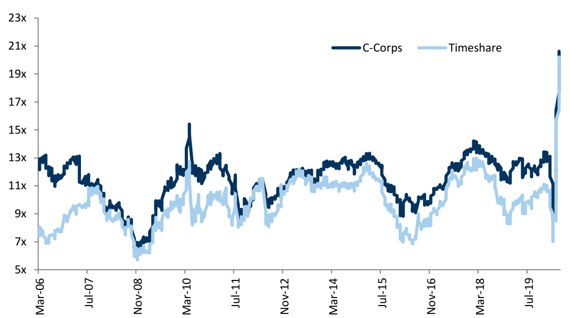
Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 169: Lodging index and REIT index valuations look abnormally high due to significant declines in underlying EBITDA following COVID-19 disruptions
Historical C-Corp EV/EBITDA plotted with historical REIT EV/EBITDA



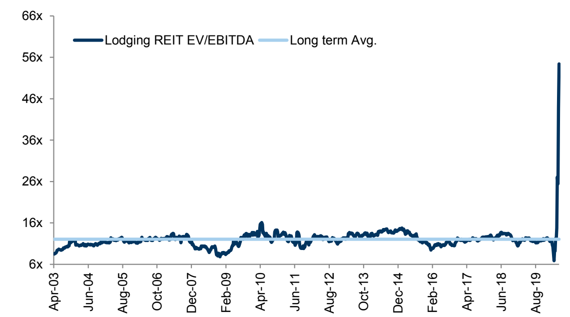
Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 170: Similarly C-corps and timeshare stock multiples have moved up significantly
Historical C-Corp EV/EBITDA plotted with historical Timeshare EV/EBITDA



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 171: Lodging REIT valuations look abnormally high due to reduction in EBITDA caused by COVID-19 disruptions



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 172: A majority of our price targets use DCF and EV/EBITDA multiple methodologies

$ mn, except per-share

Ticker	Price 12/1/20	12m Target	GS Rating	Total Return	Price Target Methodologies	Risks
Lodging						
MAR*	$128.52	$142.00	Buy	11.1%	DCF + 17.5X F24mo EV/EBITDA -	Downside risks relate to softer-than-expected RevPAR growth, slower unit growth, FX headwinds, higher integration costs, increasing COVID cases
HLT	$104.84	$119.00	Buy	14.0%	DCF + 18.5X F24mo EV/EBITDA	Softer-than-expected RevPAR growth, weaker credit card sign-ups, slower pipeline growth, lower capital allocation, increasing COVID cases
H	$73.18	$78.00	Buy	7.3%	SOTP + DCF + 17.5X F24mo EV/EBITDA	Downside risks relate to group and business demand, returns on asset recycling and other cash deployment, and increasing COVID cases
STAY	$13.91	$17.00	Buy	27.7%	DCF + 12.0X F24mo EV/EBITDA + SOTP	Downside risks relate to group and transient demand, results from renovations and franchising, increasing COVID cases
HGV	$28.13	$33.00	Buy	17.3%	DCF + 10.5X F24mo EV/EBITDA + M&A Valuation	Downside risks relate to tour growth or VPG growth, loan loss provision, interest rates, "asset light" inventory availability and extended COVID-19 related closures
WH	$57.42	$70.00	Buy	23.4%	DCF + 15.0X F24mo EV/EBITDA	Franchisee Attrition, weaker international growth, failure to realize synergies from La Quinta acquisition, changes in brand perception, downside to RevPAR, increasing COVID cases
WYND	$43.96	$48.00	Buy	12.0%	DCF + 10.5X F24mo EV/EBITDA	Increasing write-offs/loan loss provisioning, worse conversion of new customers, extended COVID-19 related closures and worse flow-through
Average				**16.1%**		
REITs						
PK	$16.82	$17.00	Neutral	1.1%	DCF + 17.5X F24mo EV/EBITDA	Key risks include macro or industry-related RevPAR deceleration/acceleration, lower/higher contributions from ROI projects, lower/greater upside from margin initiatives, COVID recovery
HST	$14.51	$13.00	Sell	-10.4%	DCF + 17.0X F24mo EV/EBITDA	Ability to sell assets at accretive multiples, stronger than expected acceleration in RevPAR, better cost controls & higher contribution from ROI projects, COVID recovery
DRH	$7.82	$7.00	Sell	-10.5%	DCF + 17.5X F24mo EV/EBITDA	Changes to industry-wide RevPAR, stronger key markets (NYC/Chicago), impact from recent renovations, COVID recovery
PEB	$18.95	$15.50	Sell	-18.0%	DCF + 17.5X F24mo EV/EBITDA	Upside risks relate to better RevPAR growth, M&A/consolidation and a more aggressive capital allocation, COVID recovery
SHO	$10.63	$9.50	Sell	-10.6%	DCF + 17.5X F24mo EV/EBITDA	Upside risks relate to RevPAR growth, M&A activity, upside in key markets (Houston/San Diego), COVID recovery
Average				**-9.7%**		

*On Americas Conviction List

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 173: GS vs Consensus

$ mn, except per-share data

	Revenue			EBITDA			EBITDA Margin			EBIT			EPS		
Ticker	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
GS Estimates															
Lodging															
H	2,002	3,147	4,088	(113)	263	590	-5.7%	8.4%	14.4%	(489)	(148)	176	($4.90)	($2.50)	$0.01
HLT	4,432	7,566	9,170	852	1,874	2,325	19.2%	24.8%	25.3%	568	1,577	1,996	$0.31	$3.12	$4.62
IHG.L	997	1,530	1,876	302	598	843	30.3%	39.1%	44.9%	185	483	727	$0.13	$1.31	$2.51
MAR	10,646	12,828	16,386	1,136	2,715	3,632	10.7%	21.2%	22.2%	469	2,017	2,867	$0.11	$3.98	$6.22
STAY	1,036	1,170	1,190	380	467	475	36.6%	39.9%	39.9%	170	254	267	$0.28	$0.65	$0.79
WH	1,301	1,726	1,921	341	499	591	26.2%	28.9%	30.8%	264	419	504	$1.14	$2.49	$3.34
WYND	2,148	3,003	3,615	258	725	931	12.0%	24.1%	25.8%	103	560	760	($0.79)	$3.36	$5.30
Lodging REITs															
DRH	315	667	838	(64)	78	187	-20.4%	11.6%	22.3%	(190)	(49)	59	($1.16)	($0.39)	$0.01
HST	1,632	2,747	3,863	(292)	463	935	-17.9%	16.9%	24.2%	(1,009)	(195)	279	($1.44)	($0.52)	$0.10
PEB	458	904	1,128	(60)	158	290	-13.1%	17.5%	25.7%	(229)	(71)	63	($3.11)	($1.32)	($0.34)
PK	939	1,632	2,046	(161)	222	542	-17.1%	13.6%	26.5%	(523)	(114)	198	($3.15)	($1.42)	($0.16)
SHO	280	563	753	(89)	97	201	-31.9%	17.2%	26.7%	(245)	(36)	70	($1.44)	($0.46)	$0.02
Consensus															
Lodging															
H	2,098	3,284	4,530	(115)	214	524	-5.5%	6.5%	11.6%	(526)	(222)	89	($5.03)	($2.58)	($0.34)
HLT	4,494	6,792	8,808	850	1,578	2,147	18.9%	23.2%	24.4%	418	1,072	1,649	$0.27	$2.06	$3.64
IHG-GB	776	1,154	1,408	213	472	655	27.5%	40.9%	46.5%	146	379	544	$0.15	$1.09	$1.88
MAR	10,845	13,689	17,090	1,137	2,161	3,082	10.5%	15.8%	18.0%	388	1,417	2,337	($0.21)	$2.43	$4.64
STAY	1,031	1,136	1,203	370	455	503	35.9%	40.0%	41.8%	152	236	279	$0.24	$0.56	$0.80
WH	1,301	1,643	1,852	324	487	589	24.9%	29.6%	31.8%	(42)	386	476	$1.00	$2.25	$3.07
WYND	2,186	3,087	3,580	265	709	889	12.1%	23.0%	24.8%	127	551	737	($0.83)	$3.79	$5.75
Lodging REITs															
DRH	306	533	764	(70)	45	167	-22.8%	8.4%	21.9%	(195)	(67)	44	($1.19)	($0.49)	$0.01
HST	1,613	2,476	3,869	(273)	227	881	-16.9%	9.2%	22.8%	(983)	(405)	188	($1.40)	($0.71)	$0.05
PEB	459	772	1,170	(68)	96	271	-14.8%	12.5%	23.2%	(289)	(156)	29	($2.83)	($1.78)	($0.49)
PK	901	1,551	2,244	(200)	139	542	-22.2%	9.0%	24.1%	(533)	(174)	213	($6.06)	($1.73)	($0.01)
SHO	285	510	810	(97)	54	196	-34.0%	10.6%	24.2%	(314)	(86)	57	($1.90)	($0.67)	$0.00
Variance (GS vs. Consensus)															
Lodging															
H	-4.6%	-4.2%	-9.8%	-1.9%	23.0%	12.7%	(16 bps)	185 bps	287 bps	-7.2%	-33.2%	98.2%	-2.6%	-3.3%	-101.8%
HLT	-1.4%	11.4%	4.1%	0.2%	18.7%	8.3%	30 bps	153 bps	97 bps	35.9%	47.1%	21.0%	15.3%	51.4%	26.7%
IHG.L	28.6%	32.5%	33.2%	41.7%	26.7%	28.8%	282 bps	(179 bps)	(153 bps)	27.1%	27.3%	33.7%	-14.2%	20.6%	33.9%
MAR	-1.8%	-6.3%	-4.1%	-0.1%	25.7%	17.8%	19 bps	538 bps	413 bps	20.8%	42.3%	22.7%	-152.3%	63.9%	34.2%
STAY	0.5%	3.0%	-1.1%	2.5%	2.7%	-5.6%	72 bps	(11 bps)	(192 bps)	11.3%	7.6%	-4.4%	17.3%	16.1%	-0.9%
WH	0.0%	5.1%	3.7%	5.3%	2.5%	0.3%	134 bps	(71 bps)	(106 bps)	-735.1%	8.5%	6.0%	14.0%	10.7%	8.8%
WYND	-1.7%	-2.7%	1.0%	-2.5%	2.2%	4.7%	(10 bps)	116 bps	92 bps	-18.7%	1.6%	3.1%	-5.2%	-11.2%	-7.9%
Lodging REITs															
DRH	2.9%	25.1%	9.7%	-8.1%	72.9%	11.7%	243 bps	322 bps	40 bps	-2.8%	-27.1%	34.3%	-2.8%	-20.9%	-19.1%
HST	1.2%	10.9%	-0.1%	6.8%	104.3%	6.1%	(94 bps)	771 bps	143 bps	2.6%	-51.8%	48.2%	3.1%	-27.2%	101.2%
PEB	-0.1%	17.1%	-3.6%	-11.9%	64.3%	6.9%	175 bps	503 bps	252 bps	-20.9%	-54.8%	118.5%	10.0%	-25.6%	-30.3%
PK	4.2%	5.3%	-8.8%	-19.8%	59.2%	0.1%	512 bps	461 bps	237 bps	-2.0%	-34.5%	-7.0%	-48.0%	-18.0%	1297.5%
SHO	-1.8%	10.4%	-7.1%	-7.7%	78.2%	2.4%	206 bps	654 bps	248 bps	-22.1%	-58.4%	23.5%	-24.0%	-31.2%	384.5%

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 174: We base our valuations on EBITDA that includes stock comp and exclude one-time items, whereas the companies often include additional add-backs

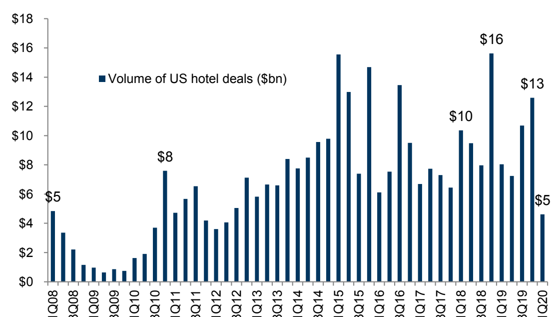
GS EBITDA estimates for the purposes of valuation vs. adjusted EBITDA estimates incorporating the companies' add-backs

	GS EBITDA		Adj. EBITDA		Adj. vs. GS EBITDA		EV/GS EBITDA		EV/Adj. EBITDA		Adj. vs. GS Multiple	
	2020E	2021E	2020E	2021E	2020E	2021E	2020E	2021E	2020E	2021E	2020E	2021E
Lodging												
MAR	706	2,239	1,136	2,715	61%	21%	82.6X	26.0X	51.3X	21.5X	-31.3X	-4.6X
HLT	736	1,741	852	1,874	16%	8%	49.0X	20.7X	42.4X	19.3X	-6.7X	-1.5X
H	(176)	155	(113)	263	-36%	70%	NM	58.8X	NM	34.5X	NM	-24.3X
STAY	374	460	380	467	2%	2%	12.7X	10.3X	12.5X	10.2X	-0.2X	-0.2X
WH	323	487	341	499	6%	3%	22.7X	15.0X	21.4X	14.7X	-1.2X	-0.4X
WYND	221	681	258	725	17%	6%	41.2X	13.4X	35.4X	12.6X	-5.9X	-0.8X
HGV	16	251	98	318	506%	27%	233.9X	15.0X	38.6X	11.8X	-195.3X	-3.2X
DRH	(73)	70	(64)	78	-12%	11%	NM	40.6X	NM	36.5X	NM	-4.2X
HST	(345)	462	(292)	463	-15%	0%	NM	29.6X	NM	29.6X	NM	-0.1X
PEB	(66)	151	(60)	158	-9%	5%	NM	35.0X	NM	33.4X	NM	-1.7X
PK	(223)	183	(161)	222	-28%	21%	NM	43.1X	NM	35.5X	NM	-7.6X
SHO	(108)	100	(89)	97	-17%	-3%	NM	31.4X	NM	32.4X	NM	1.0X
Average					**41%**	**14%**	**73.7X**	**28.3X**	**33.6X**	**24.3X**	**-40.1X**	**-3.9X**

Source: Goldman Sachs Global Investment Research.

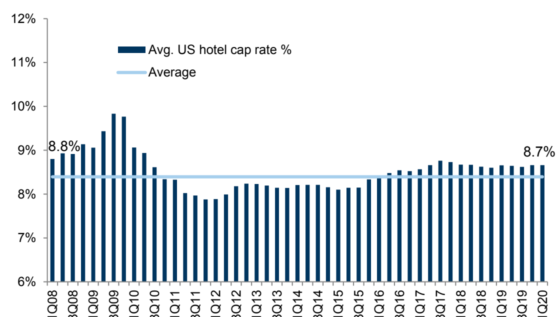
Hotel transaction market

Exhibit 175: Overall hotel deal volume was significantly lower in 1H20 vs recent quarters



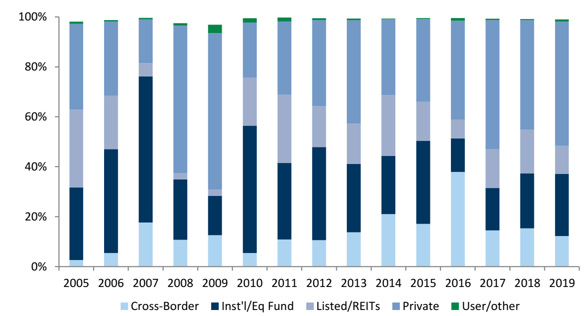
Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 176: Though cap rates are relatively in line with the 10-year average



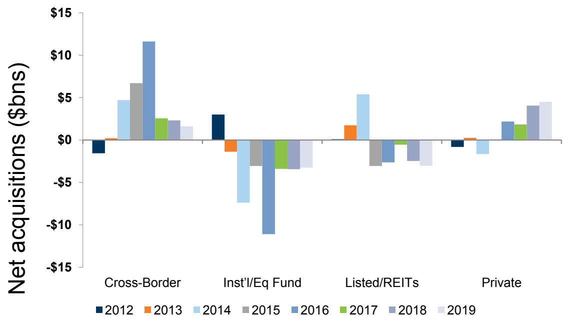
Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 177: 2019 saw a large increase in private deals and lower Listed/REIT deals



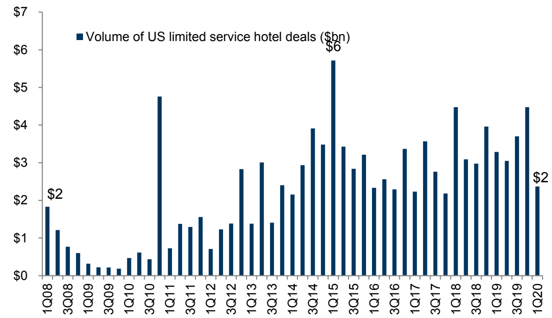
Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 178: In recent years, institutions/listed REITs have been net sellers, while cross-border has been a net buyer; private equity was a buyer in 2019



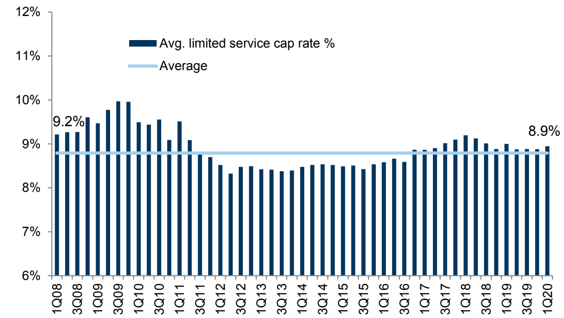
Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 179: Limited service volumes came in soft in 1Q20



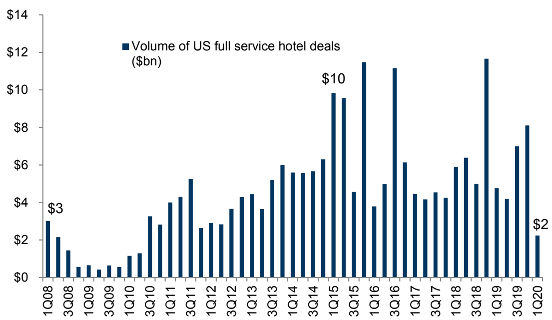
Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 180: Limited service cap rates near the average levels



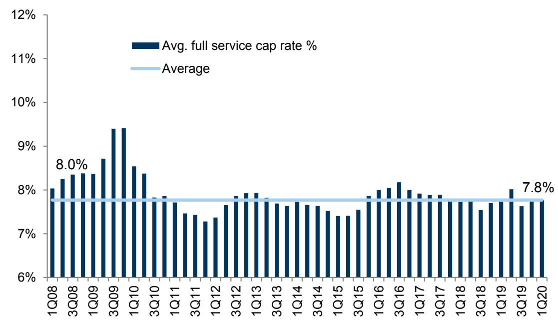
Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 181: Full-service volumes came down significantly in 1Q20 vs. 1Q19



Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 182: ... corresponding to a reduction in cap rates that now sit at historical avg.



Source: Real Capital Analytics, Goldman Sachs Global Investment Research

Exhibit 183: Major lodging deals, 1998-present
*indicates deals pending as of the date indicated

Date	Acquirer	Acquiree	Total consideration ($mn)	Forward EV/EBITDA
March-20	Noble Investment Group	Mountain Shore Props	58	NA
February-20	Brookfield Prop Prtnrs	KHP Cap Partners	82	NA
February-20	EOS Investors	Park Hotels & Resorts	90	16.9x
February-20	JMI Realty	Winston Hospitality	59	NA
February-20	Highline Hospitality Partners	Garrison Investment Group	79	NA
January-20	Cedar Capital Partners, Westdale Construction,	WP Carey REIT	120	NA
December-19	AHIP REIT	TMI Hospitality (Starwood)	191	12.5x
December-19	Vukota Capital Management	AHIP REIT	216	9.2x
April-18	Blackstone Real Estate Advisors LP	Arizona Biltmore Resort & Spa	403	NA
February-18	GIC (Singapore) and a group of other investors	AccorInvest real estate business	5389	11.7x
February-18	Playa Hotels & Resorts NV	Jamaica Hotel Portfolio of Sagicor Group	300	10.4x
February-18	Three Wall Capital LLC	25 Hotels in Ohio Kyntucky Indiana Texas from Extended Stay America	114	NA
February-18	Starwood Capital Group LLC	7 Hilton hotels in UK from Park hotels	189	17.6x
February-18	Host Hotels & Resorts Inc	3 Hotels from Hyatt	1000	17.0x
February-18	Platinum Equity LLC	European vacation-rental business from Wyndham Worldwide	1300	10.0x
January-18	Wyndham Hotels and Resorts	La Quinta	1950	17.0x
January-18	Far East Hospitality Trust	Oasia Hotel Downtown	158	16.5x
December-17	Choice Hotels International Inc	WoodSpring Hotels LLC	231	15.4x
December-17	Pandox AB,Fattal Hotels Ltd	Jurys Inn Hotel	1074	NA
November-17	Summit Hotel Properties Inc	4-Hotel Portfolio of Hilton and Marriott branded hotels	164	12.1x
October-17	Accor SA	Mantra Group Ltd	934	11.9x
October-17	Wyndham Destinations Inc	AmericInn International LLC	142	NA
September-17	Aprirose Ltd,Cindat Capital Management Ltd	QHotels Group Ltd	697	NA
September-17	INVESCO Real Estate	13 hotels in Germany & Netherlands from Apollo Global Management	630	NA
May-17	American Hotel Income Properties REIT LP	18 premium branded Hilton and Marriott hotels	407	NA
January-07	Ashford Hospitality	CNL Hotels (51 assets)	2400	11.1x
November-06	Kingdom Hotels/Cascade/Triples Holdings	Four Seasons	3696	37.3x
February-06	RLJ Development	White Lodging	1700	NA
January-06	Colony Capital / Kingdom Hotels	Fairmont Hotels and Resorts	3900	16.4x
December-05	Hilton Hotels Corp	Hilton Group PLC	5710	11.3x
November-05	Host Marriott	Starwood	4096	11.4x
November-05	Blackstone Group	La Quinta Corp.	3400	14.4x
July-05	Colony Capital	Raffles Hotels & Resorts	1720	12.3x
December-04	Hyatt Corp.	AmeriSuites	650	NA
October-04	Blackstone Group	Boca Resorts, Inc.	1250	12.9x
August-04	Blackstone Group	Prime Hospitality	790	11.3x
July-04	La Quinta	Baymont	395	10.5x
March-04	Blackstone Group	Extended Stay America	3100	13.5x
February-04	CNL Hospitality	KSL Recreation	2200	11.5x
May-03	CNL Hospitality	RFS Hotel Investors	688	10.4x

Source: Company press releases, FactSet, Goldman Sachs Global Investment Research, and other industry sources, Bloomberg, RCA

Exhibit 184: Major lodging deals, 1998-present

September-02	Westbrook Hotel Partners	13 hotels from Wyndham International	447	8.5x
May-02	MeriStar Hotels & Resorts	Interstate Hotels Corp	260	7.6x
February-02	NH Hoteles	Astron	152	9.0x
May-01	Felcor Lodging Trust	Meristar Hospitality	2650	7.8x
April-01	Hilton Group	Scandic	962	10.0x
April-01	Raffles Holdings	Swissotel	241	10.4x
April-01	Six Continents	Posthouse	1156	7.9x
April-01	Macdonald Hotels/Bank of Scotland JV	Heritage Hotels	335	5.9x
July-00	Sol Melia	Tryp Hoteles	356	9.2x
April-00	NH Hoteles	Krasnopolsky	738	9.6x
November-99	Whitbread	Swallow	1122	12.2x
September-99	Millennium & Copthorne	Regal Hotels	640	8.7x
September-99	Hilton Hotels Corp	Promus	4270	9.4x
July-99	Accor SA	Red Roof Inns	1175	7.8x
May-99	Accor/Blackstone/Colony	CGIS (Vivendi)	494	13.5x
April-99	Jurys Hotel	Doyle Hotel Group	335	7.7x
April-99	Management & Westbrook Funds	Sunstone Hotel Investors	886	9.4x
February-99	Hilton Group	Stakis	2194	11.5x
January-99	Marriott International	ExecuStay	134	-
June-98	Krasnopolsky	Golden Tulip	266	10.6x
April-98	Host Marriott	13 Luxury Hotels from the Blackstone Group	1766	9.7x
April-98	Blackstone & Colony	Savoy	908	18.5x
March-98	Felcor Lodging Trust	Bristol Hotel Company	1718	8.3x
March-98	CapStar	American General Hospitality	1085	8.7x
February-98	Six Continents	InterContinental	2889	14.7x
January-98	Meditrust	La Quinta Inns	3061	10.4x
Average			**717**	**12.7x**

Key questions for management teams

Business Model / Growth

- What are management's expectation on the recovery path post COVID?
- What is your ideal long-term business segment allocation among owned, managed, franchised, and timeshare?
- What factors will influence the staying power of your family of brands? How does COVID change the ways consumers and/or owners value brands? Are there potential new brands under development?
- What factors do you consider when it comes to opening a hotel in a new market (GDP, jobs, business vs. leisure demand, offices, universities, etc.)? How does your underwriting process for new properties (owned/franchised) compare to those of your peers? Will this process change with the recent pandemic?
- How does your loyalty program compare to others? What share of your members cross-visit across brands, and what is their share of occupied room nights?

- What percentage of your properties is truly up to standard? Do you consider your brands consistent across the entire portfolio? As a manager and/or owner, how do you ensure the consistency of your product? What is your overall and forced attrition rate?
- Cross-selling your family of brands is critical in an increasingly competitive environment. What is the percentage of cross-selling across your portfolio, and how do you measure this? Are you seeing any change in franchise fee rates or the need for key money as a result of increased competition?
- What percentage of your rooms is booked 12, 6, 3, and 1 month in advance? What is your mix of booking channel?
- What is your plan for international expansion? What markets/segments/price-points do you see as attractive for growth? Who are the typical owners, developers and financiers of franchised hotels in each market, and how do they compare to those in the U.S.?
- One of the major drivers of lodging earnings is unit growth. What are the capital requirements for expansion internationally? How different are the terms of the management deals in the Asian and European markets?
- What is the composition of your customer mix (i.e., business versus leisure, group versus free independent traveler (FIT), United States versus international)? How do you balance forward bookings?
- How do you use the online travel agents (OTAs) as a distribution point?

Industry Trends

- How long is the typical management contract for each brand? What is the incentive fee structure for you brands? How have contract terms evolved over the past five to ten years and how might they evolve due to the COVID-19 pandemic? What percentage of your hotels is earning incentive fees?
- What impact, if any, are you seeing on your business from peer-to-peer lodging accommodations?
- What has been the trend for independent hotels converting to your family of brands? Do you actively approach independent hotel owners, or do the independent hotel owners approach you? Can you review the same for your "collection" brands?
- What percentage of your bookings is done via mobile? What type of customer is using mobile devices (business, leisure, short booking window, etc.)?
- What is your strategy on cancellation policies? What impact are you seeing from rebooking apps?
- Why do you think ADR growth has been so much more difficult to achieve in the latest cycle?

Capital Allocation

- What are your thoughts on organic vs. inorganic growth (i.e., acquisitions)? What is your ideal leverage level, and how does being asset light vs. asset heavy impact these decisions? Has the impact of the pandemic altered your view on the right leverage levels?
- What will capital expenditures be over the next few years, and how do you measure your returns on investment? For your franchised/managed properties, how do you work with your owners to ensure they are investing the necessary capital?
- What is the rationale behind providing "key money"/investing? What are your investment parameters for these types of investments?

Industry terminology

Average daily rate (ADR): Average daily rate achieved for hotels.

Average weekly rate (AWR): Average weekly rate achieved for extended-stay properties. This is less frequently used these days, as even extended stay hotels are managing their business to daily rates.

Capitalization rate (cap rate): Capitalization rates are calculated as net operating income divided by total transaction cost. Property types tend to trade within a band of capitalization rates over time that are differentiated based on age, market, and quality. Used mostly in the context of the lodging REITs.

Central reservation system (CRS): Database that compiles all property pricing and availability information for individual hotel companies.

Chain scale: Classification of hotels into segments that are based primarily on the actual, system-wide average room rates of the major chains. Independent hotels are included in a separate category. The segments are luxury, upper upscale, upscale, upper midscale, midscale, and economy.

Franchise contracts: Companies whose franchise typically derives its revenues through a percentage of room revenues. This percentage is typically higher than a base fee percentage for management contracts, as the hotel companies do not benefit from incentive fees.

Franchise Disclosure Documents (FDD): The FDD is almost like a prospectus for prospective franchisees. It provides information on expenses and often has a chart that shows the existing franchisee base RevPAR relative to a comparable set.

Free independent traveler (FIT): Free independent travelers are consumers not tied to business travel, conventions, or group business. These consumers are typically leisure-oriented.

Funds from operations (FFO): An industry-wide standard for measuring operating performance for lodging REITs; calculated as net income according to GAAP, plus real estate depreciation, any extraordinary charges, and any repayments of principal on debt balances.

Global distribution system (GDS) (Amadeus, SABRE, Galileo, Worldspan): Electronic network used by agents to book hotel, airline, and car reservations.

Home Owners Association (HOA) (also COA or Condo Owners Association): Timeshare weeks or points owners at a particular resort/resort collection constitute the HOA. The HOA is in charge of the upkeep of the real estate and usually appoints a management company that collects maintenance fees and takes care of the maintenance activities on its behalf.

Location segment: Classifications dictated by physical location of the hotel.

- Urban – Hotels located in the Central Business District (CBD), usually the downtown area of large metropolitan markets (e.g., Atlanta, Boston, New York).
- Suburban – Hotels located in the suburban areas of metropolitan markets (e.g., College Park or Marietta, Georgia, near Atlanta).
- Highway/Interstate – Hotels located on an interstate or other major road or in a small town or city (e.g., Evergreen, Alabama or Colorado City, Texas).
- Airport – Hotels located within five miles (usually) of a major municipal airport.
- Resort – Hotels located within a market that attracts mostly leisure travelers such as Orlando, Florida or Lake Tahoe, Nevada.

Management contracts: Companies that specialize in management contracts derive fees for managing the day-to-day operations for third-party owners. Management companies derive fees in three ways: (1) base fees usually taken as a percentage of overall revenues; (2) additional fees for services rendered for pre-opening development, purchasing, marketing, reservations, and advertising for the hotel owner; and (3) incentive fees that serve as an additional bonus for increased performance at the hotel profit level. Incentive fees are typically based on a percentage of overall profits and are usually paid only if a certain threshold level of profits is achieved.

Occupancy rates: The percentage of rooms filled divided by the total number of rooms available.

Price/AFFO: A valuation ratio defined as price divided by adjusted funds from operations. This multiple is used to value REITs instead of the more common P/E approach used in equity analysis, owing to lodging REITs' large depreciation expenses.

RBO: Rentals by Owner.

RevPAR: Revenue per available room measures the occupancy times the average daily rate.

Supply pipeline: Hotels under various stages of development.

- Existing supply – includes hotels currently open and operating through the past 12 months.
- Recently opened – opened within the past 12 months.
- In construction – construction under progress or owner finalizing bids for the general contractor.
- Final planning – project out for bids or construction to start within 4 months.
- Planning – architect/engineer finalized and initial approvals obtained.
- Pre-planning – architect not yet selected.

Vacation exchange: Timeshare owners can use their points (or weeks) to exchange into resorts that are not part of their network. Timeshare exchange companies such as Interval Leisure and Resort Condominiums International (RCI) provide the ability to do so. These companies charge an annual fee for membership and charge a transaction fee when a customer exchanges his or her points/weeks.

VPG: Volume Per Guest, a timeshare momentum metric that measures revenue per timeshare guest and is calculated as gross vacation ownership interest (VOI) sold by the number of timeshare tours.

VRMC: Vacation Rental Management Companies are property management firms that manage the logistics for condo/home owners, hotel owners, timeshare owners and home-owner associations when they rent out their properties as vacation rentals. Wyndham's Vacation Rental segment and Interval Leisure's aqua and Aston segments are examples.

Weekday/weekend travel: Sunday through Thursday nights are considered weekday travel, while Friday and Saturday are considered weekend travel.

Price targets, ratings, and risks

Price targets, estimates and ratings

	Price	12m	GS	Div Yield	Total	Market		Adj. EBITDA			Vs. Cons. EBITDA		P/E		EV/EBITDA		FCFF Yield	CROCI	2022 as % of 2019		
Ticker	12/1/20	Target	Rating	NTM	Return	cap (mn)	EV (mn)	2020E	2021E	2022E	2021E	2022E	2021E	2022E	2021E	2022E	2022E	2022E	EPS	EBITDA	Revenue
Lodging																					
MAR*	$129	$142	Buy	0.6%	11.1%	41,885	50,871	1,136	2,715	3,632	12%	18%	32.3X	20.7X	18.7X	14.0X	4.2%	19%	4.8%	1.6%	-21.9%
HLT	$105	$119	Buy	0.5%	14.0%	29,041	36,481	852	1,874	2,325	11%	10%	33.6X	22.7X	19.5X	15.7X	4.9%	19%	18.5%	0.7%	-3.0%
H	$73	$78	Buy	1.0%	7.6%	7,413	8,671	(113)	263	590	-12%	15%	NM	NM	32.9X	14.7X	3.0%	6%	-99.7%	-21.7%	-18.8%
STAY	$14	$17	Buy	5.4%	27.6%	2,451	4,830	380	467	475	1%	-5%	21.4X	17.6X	10.3X	10.2X	5.7%	8%	-17.2%	-11.1%	-2.3%
IHG.L	$62	$64	Neutral	0.6%	4.2%	11,585	13,438	302	598	843	NM	NM	47.0X	24.6X	22.5X	15.9X	3.7%	19%	-16.6%	-14.1%	-10.0%
WH	$57	$70	Buy	1.4%	23.4%	5,363	7,468	341	499	591	-6%	1%	23.0X	17.2X	15.0X	12.6X	5.6%	18%	2.2%	-3.6%	-7.3%
HGV	$28.1	$33.0	Buy	0.0%	17.3%	2,394	3,737	98	318	415	-3%	6%	20.5X	12.1X	11.7X	9.0X	14.1%	12%	-4.1%	-8.2%	3.5%
WYND	$44	$48	Buy	2.7%	11.9%	3,776	9,114	258	725	931	-3%	10%	13.1X	8.3X	12.6X	9.8X	7.3%	14%	-6.0%	-6.1%	-10.6%
Average				**1.5%**	**14.6%**	**12,988**	**16,826**	**407**	**932**	**1,225**	**0%**	**8%**	**27.3X**	**17.6X**	**17.9X**	**12.7X**	**6.1%**	**14%**	**-14.8%**	**-7.8%**	**-8.8%**
REITs																					
PK	$17	$17	Neutral	0.0%	1.1%	3,953	8,277	(161)	222	542	-5%	6%	NM	NM	37.3X	15.3X	NM	5%	-110.7%	-30.3%	-28.1%
HST	$14.5	$13.0	Sell	0.0%	-10.4%	10,232	13,736	(292)	463	935	3%	2%	NM	147.4X	29.6X	14.7X	1.9%	5%	-92.2%	-39.1%	-29.4%
DRH	$7.8	$7.0	Sell	0.0%	-10.5%	1,572	2,507	(64)	78	187	-4%	10%	NM	1177.5X	32.3X	13.4X	1.1%	4%	-97.7%	-28.2%	-10.7%
PEB	$19.0	$15.5	Sell	0.2%	-18.0%	2,476	5,297	(60)	158	290	-2%	0%	NM	NM	33.5X	18.3X	3.0%	4%	-152.9%	-39.5%	-30.0%
SHO	$11	$9.5	Sell	0.0%	-10.6%	2,278	3,082	(89)	97	201	-5%	3%	NM	490.1X	31.9X	15.3X	2.7%	1%	-95.3%	-37.2%	-32.5%
Average				**0.0%**	**-9.7%**	**4,102**	**6,580**	**-43**	**325**	**563**	**-2%**	**4%**	**NM**	**605.0X**	**32.9X**	**15.4X**	**2.2%**	**4%**	**-109.8%**	**-34.9%**	**-26.1%**

* denotes stock on the Americas Conviction List

Source: Goldman Sachs Global Investment Research, FactSet

Disclosure Appendix

Reg AC

We, Stephen Grambling, CFA, Patrick Lobo, Kushal Kasliwal, William Ketelhut, CFA and Noah Naparst, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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