

# Hotel Value Trends

Yesterday, Today, and  
Tomorrow

by Stephen Rushmore and  
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**Driven primarily by supply levels, hotel-valuation cycles have been captured by a proprietary index that now allows projection of future values.**

**T**he hotel and motel industry is noticeably cyclical. Hotel profits and values rise and fall relatively rapidly as occupancies and room rates trend upward or downward. For the most part, in the absence of sudden changes in the national economy (e.g., a recession), the movement in occupancy trends is caused by changes in the growth in the supply of rooms, which is, in turn, chiefly driven by the availability of financing. In this article we explain the Hotel Valuation Index,

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a sensitive gauge of hotel values in 46 U.S. cities. We begin with a brief review of the hotel-investment cycle, as a background to the development of the HVI.

To review the cycle, investors become interested in financing hotels when they observe favorable returns over other forms of real estate. As hotel financing becomes easier to obtain, developers build new rooms, thereby increasing supply. Some of the supply increase may be absorbed by increases in demand. However, when the rate of supply growth exceeds the increase in demand, the market becomes oversupplied and hotel occupancies decline. With lower occupancies depressing room rates, profits diminish, dragging down property values. Seeing lower profits and values, lenders and equity owners are no longer attracted to investments in the hotel industry, thus slowing new development. Eventually demand catches up with and surpasses the existing or slowly growing supply. When demand growth exceeds that of supply, occupancies and room rates increase, profits begin to improve, and values escalate. Investors and lenders then return to the market and the cycle continues.

Thus, one of the biggest risks in owning a hotel is the uncertainty regarding future supply growth, sometimes known as supply risk. Over the last 40 years, most hotel investors who lost money in this industry suffered from the effects of overbuilding rather than factors such as shrinking demand or poor management. During the building spree of the 1980s some markets experienced gains in supply that exceeded 100 percent in just a few years. That rapid growth in new hotel rooms diluted the area-wide occupancies, eroded profits, and forced a number of hotels into bankruptcy. The end of the 1980s' cycle was amplified by the sudden,

sharp recession of 1990 and the conflict in the Persian Gulf.

Hotel valuation is a key to the investment cycle, because developers are generally willing to consider building a new hotel when that new property will be worth more than its replacement cost—a situation known as positive feasibility. In contrast, when it costs more to build a new hotel than it does to buy an existing property with the same utility, feasibility is negative, financing for new construction evaporates, and new construction ceases. Construction lending on hotels tends to lag the feasibility cycle so when values head upward, many lenders are slow to respond to new lending opportunities. Likewise, as values begin to decline due to overbuilding, lenders usually continue to put out money on projects that face adverse feasibility.

#### **Amplification by Operating Leverage**

Operating leverage often amplifies the peaks and valleys of hotel profit and value swings. During 1996 hotel values in some parts of the United States increased by as much as 60 percent in a single year. To someone not familiar with the concept of hotel operating leverage this enormous rise might seem impossible.

Operating leverage derives from the hotel's distinctive ability to continually adjust room rates to take advantage of occupancy cycles, a strength that is counterbalanced by a singular burden of a large amount of fixed costs (compared to other real-estate investments). In periods of escalating occupancies, hotels are usually able to increase room rates faster than inflation, but that is not the case when occupancy rates stall.

A hotel enjoys positive operating leverage when revenues exceed total fixed costs. When that level is achieved and the only additional expenses of selling a room are the

**Over the last 40 years, most hotel investors who lost money suffered from the effects of overbuilding rather than shrinking demand or poor management.**

## Exhibit 1

### Annual percentage change in hotel values, 1987-1996 (base year = 1986)

Market	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Detroit	—	—	-64	-31	-40	33	13	-26	293	62
Long Island	—	—	-34	-57	-78	-25	25	99	138	58
Philadelphia	11	-19	-23	-28	-26	-34	20	64	48	56
Chicago	4	-6	-31	-31	-36	-10	56	88	28	53
Oakland	—	—	17	-16	-1	-14	-33	36	115	49
Tampa	-27	26	53	8	2	-20	-13	7	24	46
Anaheim	1	-19	-5	-20	-8	-55	13	-16	110	43
New York	6	-3	9	-30	-22	-19	0	38	60	43
Charlotte	—	—	-6	-41	-17	-34	25	126	63	39
Orlando	26	14	31	-1	-2	-3	-11	-4	18	32
San Diego	-28	2	6	-34	-10	4	-31	28	44	32
Pittsburgh	—	—	35	-8	1	-9	-9	30	-6	28
Salt Lake City	—	—	12	15	-2	13	20	11	7	27
Jacksonville	—	—	17	-20	-7	7	4	37	45	26
Boston	21	-8	-24	-22	-26	-14	27	54	32	26
Cincinnati	—	—	-12	-6	-3	-5	-20	42	12	25
U.S. average	-3	3	24	-10	-28	2	18	22	28	23
Portland (Oregon)	—	—	4	0	14	-14	7	12	29	20
Kansas City	—	—	-19	-24	-17	42	82	45	47	20
Denver	-22	-2	-15	99	29	14	37	19	19	18
Atlanta	-3	-1	-6	-1	11	18	54	36	22	15
Miami	22	5	12	-2	-1	32	9	-32	46	14
Seattle	—	—	23	7	5	-12	0	10	34	11
Phoenix	-12	-6	72	1	-3	8	38	37	30	9
Dallas	19	-6	46	4	4	30	2	41	30	7
Houston	75	35	60	88	19	-8	-9	6	10	6
Oahu	23	11	20	5	0	-1	-20	10	33	5
Washington, D.C.	2	9	-1	-28	-9	8	27	-2	31	3
Cleveland	—	—	15	-35	0	2	35	50	56	0
Indianapolis	—	—	0	-10	14	3	15	34	37	-1
Nashville	—	—	15	-21	5	36	22	48	20	-3
Tucson	—	—	45	0	2	10	29	9	31	-4
Memphis	22	-11	-22	-8	70	63	21	52	22	-6
San Antonio	—	—	28	10	6	40	27	20	35	-10
New Orleans	22	46	11	18	5	28	-1	32	24	-12

relatively small variable charges such as housekeeping, laundry, and guest supplies, a hotel's profitability increases substantially with occupancy. Operating leverage works in reverse, however, when a hotel cannot maintain sufficient occupancy to generate sufficient revenue to cover fixed expenses. During the early 1990s the

U.S. lodging industry felt the impact of negative operating leverage as the country suffered the effects of the excessive overbuilding that took place in the mid to late 1980s.

#### The Hotel Valuation Index

HVS International has developed a measure of these cyclical changes in

hotel values. Using a proprietary valuation model known as the Hotel Valuation Index (HVI), HVS monitors hotel-value trends for major hotel market areas and various hotel-rate categories. By looking at past development cycles and projecting hotel values into the future through the use of the HVI,

investors can time their entrance and exit strategies and take advantage of the inevitable ups and downs in market values.

The HVI is a sophisticated hotel-valuation benchmark that has recently been expanded to cover 46 individual market areas, the United States as a whole, and five rate categories. This index is based on actual occupancy and room-rate data supplied by Smith Travel Research, along with local operating performance, projections of supply and demand, and capitalization rates derived by HVS International. The HVI, which was initiated by HVS in 1986, reflects trends in market value over time, and assumes a willing buyer and willing seller rather than a distressed, liquidation-type transaction. It gives the greatest weight to the income-capitalization approach, with secondary support provided by the sales-comparison and cost approaches.<sup>1</sup> Hotel values change over time due to differing earnings expectations and capitalization rates. The HVI was designed to illustrate these changes and to quantify the amount of value attributable to movements in both earnings and costs of debt and equity capital. The HVI also enables hotel investors to compare relative values among different market areas and product types.

**Looking forward.** In 1997 HVS International started projecting the HVI four years into the future using its intimate knowledge of the local markets and product types. As with any projections, actual performance may differ due to unforeseen events occurring after the projections were made.

The HVI can be used to derive the annual percentage change in hotel values in individual markets. Exhibit 1 gives the change in hotel values over the past ten years for the 46 market areas currently tracked by HVS.

Detroit leads the list with a 62-percent increase in hotel values during 1996, which followed a 293-percent rise the previous year. While such an increase seems incomprehensible, one must realize that Detroit had the lowest HVI in 1996, so these percentages are exaggerated by the lower base. It does appear that Detroit is at last experiencing a significant recovery, which has made up for much of the value losses experienced during the early 1990s. Long Island (New York), Philadelphia, Chicago, and Los Angeles all showed hotel-value growth exceeding 50 percent, indicating dramatic improvement in occupancy, room rates, and profitability for these markets.

**Downside.** On the negative side, hotels in New Orleans, San Antonio, Austin, and Reno slipped somewhat in value during 1996 because of large influxes of new rooms into these markets. This was generally the first year in several that these markets experienced a decline in occupancy and value, which is an initial indicator of pending overbuilding.

A comparison of the number of markets that experienced value losses and value gains shows that the industry's worst year was 1990, when 32 out of 46 hotel-market areas lost value. In 1995, by contrast, all but three markets surveyed had positive growth. This performance represents a strong recovery and demonstrates how rapidly a turnaround can occur. The high rate of growth during this period can be attributed to the escalation of occupancy and room rates, which created the operating leverage previously described.

**The Hotel Valuation Index monitors hotel-value trends for major market areas and various hotel-rate categories.**

<sup>1</sup> See: Stephen Rushmore, "Seven Current Hotel-Valuation Techniques," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 33, No. 4 (August 1992), pp. 49-56; and Stephen Rushmore, "The Valuation of Distressed Hotels," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 33, No. 5 (October 1992), pp. 61-71.

**Exhibit 2**  
**Change in value per available room, 1995 to 1996**

New York	\$61,405
San Francisco	35,983
San Jose	30,268
Orlando	22,613
Chicago	21,891
Boston	21,280
Oakland	19,645
Philadelphia	16,399
Salt Lake City	14,418
Long Island	13,609
San Diego	13,414
Los Angeles	11,676
Charlotte	11,132
U.S. average	9,972
Las Vegas	9,919
Portland	9,876
Tampa	9,843
Phoenix	9,745
Atlanta	9,610
Baltimore	9,530
Miami	9,267
Oahu	9,029
Jacksonville	8,984
Denver	8,717
Anaheim	8,532
Seattle	8,415
Detroit	8,089
Kansas City	7,652
Pittsburgh	6,298
Ft. Lauderdale	5,776
Cincinnati	4,880
Dallas	4,312
Houston	2,104
Washington, D.C.	1,869
St. Louis	1,104
Cleveland	133
Indianapolis	(255)
Nashville	(1,481)
Tucson	(2,704)
Minneapolis	(2,805)
Memphis	(3,239)
Albuquerque	(3,397)
Sacramento	(4,481)
Reno	(5,261)
Austin	(9,055)
San Antonio	(12,131)
New Orleans	(15,116)

**Exhibit 3**  
**Percentage change in value, 1988-1996**

Austin	662
Denver	471
Phoenix	389
Dallas	312
Minneapolis	283
Houston	270
Atlanta	263
Kansas City	237
Memphis	191
Tucson	190
Nashville	173
Salt Lake City	156
New Orleans	149
Oakland	143
Jacksonville	141
Cleveland	139
Tampa	125
San Antonio	124
Las Vegas	122
Indianapolis	121
San Jose	118
Sacramento	101
Seattle	100
Albuquerque	91
Charlotte	91
Portland	89
U.S. average	84
Miami	79
San Francisco	78
St. Louis	78
Pittsburgh	63
Baltimore	61
Orlando	61
Chicago	55
Oahu	53
New York	51
Ft. Lauderdale	38
Philadelphia	24
Boston	22
Cincinnati	21
Washington, D.C.	18
San Diego	8
Detroit	5
Anaheim	-9
Reno	-19
Los Angeles	-41
Long Island	-56

**Exhibit 4**  
**Percentage change in value, 1996-2000**

Long Island	239
Los Angeles	189
New York	108
Anaheim	104
Chicago	97
Baltimore	90
Boston	81
San Diego	78
Oakland	76
Orlando	65
Tampa	65
Ft. Lauderdale	64
Indianapolis	64
Washington, D.C.	64
San Francisco	61
U.S. average	60
Cincinnati	53
Detroit	53
San Jose	53
Miami	52
Philadelphia	49
Oahu	48
Charlotte	42
Cleveland	38
Denver	37
Houston	32
Sacramento	31
Jacksonville	27
Minneapolis	27
Las Vegas	22
Reno	21
Memphis	17
Seattle	16
Atlanta	15
Pittsburgh	15
Dallas	14
Phoenix	11
New Orleans	7
San Antonio	3
Salt Lake City	2
Portland	1
Austin	-13
Nashville	-20
St. Louis	-22
Albuquerque	-35
Kansas City	-37
Tucson	-57

It appears the up cycle is slowing. Eleven markets posted hotel-value declines in 1996, and the percentage increase seems to have moderated in other markets. This slowdown in the rate of growth is due to the stabilization of occupancies, which reduces the increase in operating leverage.

Exhibit 2 shows the value change from 1995 to 1996 based on dollars per available room. New York City significantly outperformed the rest of the country in dollar-per-room growth, posting an increase of over \$61,000 per room. San Francisco hotels were up almost \$36,000 per room. San Jose registered gains of

just over \$30,000 per room. Orlando and Chicago hotels increased in value by more than \$21,000. New Orleans hotels lost \$15,116 and San Antonio dropped \$12,131 per room. Austin hotels fell approximately \$9,000 per room. The average value change during 1996 for all 46 markets was an increase of

\$8,456 per room and the value per room of an average hotel in the United States rose by almost \$10,000 per room.

Exhibit 3 shows the total value change by market during the years 1988 to 1996. Austin, Texas, leads the list with a 662-percent value gain. Other Texas cities, such as Dallas, Houston, and San Antonio, also registered impressive gains. These were the hotel markets that bottomed out in the mid-1980s, ahead of the U.S. lodging industry's massive recession of the early 1990s. The southern California cities of Los Angeles, Anaheim, and San Diego were the last to feel the downturn, but as the table shows these markets have lagged the current recovery.

**Projections.** Looking into the future, Exhibit 4 shows the projected value change for the period 1996 to 2000. Hotels in Long Island, Los Angeles, New York City, Anaheim, Chicago, Baltimore, and Boston are expected to post the highest gains, making these markets particularly attractive now for hotel investing.

This high level of value growth can be attributed to several factors, including the relatively low hotel values (in markets such as Los Angeles and Anaheim); barriers to new development (in New York City, Chicago, Baltimore, and Boston); and a high level of investor interest (trophy cities), which tends to lower capitalization rates.

Care should be taken when investing in Austin, Nashville, St. Louis, Albuquerque, Kansas City, and Tucson. Hotels in these markets could lose value over the next several years because of imbalances in supply and demand. With that concern, however, one should note that the value of an individual hotel may run counter to its market, based on factors such as location, management, and affiliation.

In addition to tracking the growth and decline of individual market areas, the HVI allows for the comparison of hotel values among different markets. Exhibit 5 shows the HVI for the 46 market areas (the cities are listed alphabetically). Comparing the relative values of the 46 markets constituting the HVI reveals that in 1996 the top five hotel markets from the perspective of hotel values are New York, Oahu, San Francisco, Las Vegas, and Phoenix. On the other hand, the markets offering the most for a hotel acquisition dollar are Detroit, Cincinnati, Anaheim, Pittsburgh, and Tampa.

#### Factors Underlying Value

The three markets with the highest hotel values—New York, Oahu, and San Francisco—though geographically separated, have much in common. All three markets enjoyed high levels of occupancy and ADRs. According to Smith Travel Research, New York City achieved an 80.2-percent occupancy with an average rate of \$150.56 during 1996. The island of Oahu had an occupancy of 80.7 percent with an average rate of \$107.15. San Francisco hotels averaged 78.3-percent occupancy and an average room rate of \$106.36. In addition, because all three of these markets are considered trophy locations and offer substantial barriers to entry via new construction, their capitalization rates were all less than 8.5 percent. The combination of high levels of occupancy and ADRs, steady supply, and low capitalization rates worked together to make hotels in these markets worth more than those in other areas we surveyed. Even though hotel values in these three markets are relatively high, they should not be overlooked as good investment opportunities, particularly for new development. We think adaptive reuse, such as conversions of office buildings to hotels,

**The value of an individual hotel may run counter to its market, based on factors such as location, management, and affiliation just as actual market performance may differ due to unforeseen events occurring after the projections are made.**



## Exhibit 5

### Hotel Valuation Index: 1986, 1990-2000

Rank ('96), Market	1986*	...	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
39 Albuquerque	—	...	0.6707	0.7265	1.0452	1.2372	1.5098	1.2982	1.1816	0.9416	0.8587	0.7947	0.7703
44 Anaheim	1.3213	...	0.8129	0.7480	0.3395	0.3851	0.3229	0.6796	0.9726	1.2973	1.6774	1.8615	1.9868
16 Atlanta	0.7030	...	0.6352	0.7039	0.8320	1.2849	1.7436	2.1358	2.4659	2.5856	2.6583	2.7477	2.8400
11 Austin	—	...	0.9046	1.0818	1.5837	2.0106	2.4067	3.2499	2.9389	2.6861	2.5792	2.5600	2.5586
25 Baltimore	—	...	0.5825	0.5814	0.5750	0.8571	0.9586	1.3658	1.6932	2.1942	2.6137	2.9612	3.2180
7 Boston	2.5941	...	1.7174	1.2633	1.0849	1.3773	2.1170	2.7908	3.5217	4.4215	5.0846	5.7265	6.3754
35 Charlotte	—	...	0.3962	0.3283	0.2153	0.2692	0.6072	0.9894	1.3717	1.5071	1.6531	1.7960	1.9413
18 Chicago	1.4375	...	0.6616	0.4204	0.3769	0.5868	1.1026	1.4163	2.1682	2.7825	3.3944	3.9101	4.2799
45 Cincinnati	—	...	0.5619	0.5437	0.5182	0.4137	0.5858	0.6585	0.8262	0.9512	1.1137	1.2157	1.2654
25 Cleveland	—	...	0.5829	0.5293	0.5008	0.8090	1.2101	1.8909	1.8954	2.0285	2.2333	2.4553	2.6191
19 Dallas	0.4629	...	0.7829	0.8173	1.0623	1.0849	1.5262	1.9788	2.1269	2.2232	2.2838	2.3465	2.4183
23 Denver	0.4549	...	0.5839	0.7557	0.8595	1.1788	1.4080	1.6790	1.9784	2.2709	2.4457	2.6018	2.7079
46 Detroit	—	...	0.1717	0.1030	0.1374	0.1546	0.1137	0.4463	0.7242	0.8571	0.9280	1.0060	1.1057
36 Ft. Lauderdale	1.2832	...	0.9628	0.7576	0.9274	1.0131	0.7721	1.1546	1.3530	1.6244	1.8513	2.0604	2.2251
28 Houston	0.1874	...	0.4732	1.1822	1.0721	0.9790	1.0279	1.1283	1.2006	1.3761	1.5139	1.4715	1.5904
41 Indianapolis	—	...	0.4739	0.5405	0.5545	0.6402	0.8585	1.1798	1.1710	1.4322	1.6076	1.7671	1.9195
33 Jacksonville	—	...	0.5743	0.5356	0.5716	0.5929	0.8134	1.1756	1.4842	1.6260	1.7474	1.8357	1.8824
32 Kansas City	—	...	0.2818	0.2344	0.3327	0.6070	0.8803	1.2917	1.5546	0.8775	0.9245	0.9756	0.9762
4 Las Vegas	1.4543	...	1.9848	2.0081	1.9996	2.6906	3.5325	3.9154	4.2561	4.8379	4.9495	4.9745	5.1905
37 Long Island	—	...	0.6194	0.1831	0.1374	0.1717	0.3416	0.8124	1.2799	1.9289	2.7578	3.5325	4.3399
40 Los Angeles	1.7469	...	1.5186	1.3349	0.4575	0.3121	0.7771	0.7722	1.1732	1.7186	2.3221	2.9090	3.3860
29 Memphis	—	...	0.5965	0.6159	0.9594	1.1605	1.6562	1.8392	1.7280	1.8142	1.8846	1.9612	2.0251
13 Miami	1.1115	...	1.5780	1.5635	2.0679	2.2467	1.5317	2.2412	2.5595	2.9020	3.2274	3.5457	3.8882
26 Minneapolis	0.4545	...	0.3658	0.6233	1.0174	1.2356	1.6278	1.9889	1.8925	2.0136	2.1456	2.2991	2.4084
28 Nashville	—	...	0.3293	0.5234	0.5085	0.9903	1.4640	1.7593	1.7084	1.6380	1.5919	1.4902	1.3686
6 New Orleans	0.8597	...	2.0011	2.1097	2.6912	2.6612	3.5074	4.3375	3.8183	3.8045	3.8431	3.9659	4.0764
1 New York	4.5305	...	3.5386	2.7703	2.2326	2.2326	3.0918	4.9528	7.0619	9.5060	11.6140	13.3137	14.6876
2 Oahu	3.2775	...	5.6158	5.6310	5.5946	4.4574	4.9221	6.5346	6.8447	8.3361	9.1348	9.7757	10.1614
21 Oakland	—	...	0.8305	0.8220	0.7062	0.4708	0.6416	1.3763	2.0511	2.4912	2.8424	3.1919	3.6135
10 Orlando	1.3897	...	2.5515	2.4900	2.4200	2.1446	2.0648	2.4269	3.2036	3.9021	4.4259	4.8872	5.2956
31 Philadelphia	1.4075	...	0.6990	0.5196	0.3435	0.4122	0.6759	0.9986	1.5619	2.0886	2.3994	2.6216	2.3230
5 Phoenix	0.9652	...	1.3911	1.3486	1.4541	2.0027	2.7450	3.5754	3.9101	4.0591	4.2096	4.3038	4.3408
43 Pittsburgh	—	...	0.7568	0.7628	0.6930	0.6290	0.8202	0.7723	0.9886	1.0696	1.1090	1.1384	1.1333
20 Portland (OR)	—	...	1.1387	1.2946	1.1162	1.1957	1.3366	1.7233	2.0625	2.1570	1.9072	1.9627	2.0825
30 Reno	—	...	1.3792	1.0426	1.1035	1.1081	1.2282	1.7762	1.5955	1.7407	1.9241	1.9002	1.9245
22 Sacramento	—	...	0.7875	0.9098	1.1945	1.4610	1.6688	2.1450	1.9911	2.1418	2.2872	2.4431	2.6073
17 Salt Lake City	—	...	1.1517	1.1254	1.2681	1.5192	1.6802	1.8030	2.2982	2.2429	2.2776	2.3154	2.3525
9 San Antonio	—	...	2.0319	2.1481	3.0009	3.8157	3.6505	3.6467	3.2300	3.1839	3.2016	3.2590	3.3173
24 San Diego	2.3972	...	1.2375	1.1102	1.1588	0.7981	1.0183	1.4621	1.9229	2.3649	2.7758	3.1384	3.4263
3 San Francisco	2.5005	...	2.9933	2.9547	2.6329	2.9329	3.2938	4.6224	5.8584	6.8696	7.7114	8.5697	9.4272
8 San Jose	—	...	1.5813	1.4595	0.8921	0.8558	1.1995	2.4208	3.4604	4.6113	4.9276	5.1090	5.3005
12 Seattle	—	...	1.9141	2.0161	1.7685	1.7615	1.9452	2.6088	2.8978	3.0597	3.1815	3.2776	3.3480
34 St. Louis	0.7496	...	0.7052	0.7070	0.7354	0.8950	1.1627	1.3472	1.3851	1.3450	1.2849	1.1489	1.0837
42 Tampa	0.5152	...	0.7850	0.8007	0.6374	0.5519	0.5891	0.7281	1.0662	1.2634	1.4303	1.6034	1.7627
14 Tucson	—	...	1.2636	1.2870	1.4202	1.8380	2.0006	2.6127	2.5198	1.8700	1.5396	1.2888	1.0888
— U.S. average	1.0000	...	1.1128	0.7979	0.8122	0.9611	1.1750	1.4996	1.8421	2.1438	2.4884	2.7504	2.9425
15 Washington, DC	1.9083	...	1.5108	1.3781	1.4926	1.8945	1.8609	2.4466	2.5108	2.8105	3.2285	3.6653	4.1175

Note: The different markets (cities) are listed alphabetically; the ranking (first column) is based on each market's 1996 HVI.

\* 1986 represents the base year for the HVI; data for years 1987-1989 are excluded solely for considerations of space.

offers attractive development potential in these markets if the total project cost is tightly controlled. Indeed, that is occurring in New York City.

The three markets with the lowest hotel values—Detroit, Cincinnati, and Anaheim—all suffered from relatively low occupancies (61 percent to 69 percent) and low average room rates (\$65 to \$70). These markets represent good acquisition opportunities as we write, with hotel prices still a fraction of replacement costs.

### Using the Hotel Valuation Index

The HVI is indexed to average U.S. hotel values in 1986 (i.e., average of all hotels in 1986 = 1.000; see Exhibit 5). The value for each individual market area shows the value in relationship to the base year's average value. For example, in 1986 the index for Chicago was 1.4375, which means that the value of a hotel located in Chicago was approximately 44 percent higher than the average value of the set of hotels in the United States. The HVI also permits comparison of the differences in values between hotels in different markets. For example, say that a hotel in Phoenix sold in 1993 for \$100,000 per room. The same hotel situated in Miami would probably have been sold for approximately \$128,000 per room in 1996. This figure is calculated by taking the 1996 HVI for Miami and dividing it by the 1993 HVI for Phoenix in order to determine the value adjustment, thus:  $1996 \text{ HVI Miami } (2.5595) / 1993 \text{ HVI Phoenix } (2.0027) = 1.278$ . The 1993 sales price of \$100,000 per room is then multiplied by the amount of the previously calculated factor of 1.278, yielding the estimated 1996 sales price per room for Miami,  $\$100,000 \times 1.278 = \$127,800$ .

To calculate the percentage change of hotel values in the same

markets in different years using the HVI, you would take the HVI for the last year, divide it by the HVI for the first year and subtract 1 from the result. For example, in 1996 the HVI for Washington, D.C., was 2.5108, and it is expected to be 3.2285 in 1998. To calculate the expected percentage change in value for a typical Washington, D.C., hotel you would divide the 1998 HVI of 3.2285 by the 1996 HVI of 2.5108 and subtract 1, to get approximately a 29-percent change in value from 1996 to 1998, thus:  $(3.2285/2.5108) - 1 = .2858$ , or 29 percent.

### Hotel Valuations by Rate Categories

We have also segmented the HVI by hotel rate categories. While firm definitions of different segments do not exist, HVS International employs the following terminology to define five rate categories: luxury, upscale, midscale without food and beverage, economy, and budget. The accompanying box shows the types of hotels in each rate category.

Exhibit 6, on the next page, shows the values per room for these five rate categories, based on actual occupancies through 1996 and projections for 1997 to 2000. Included with the values per room are the annual percentage change for each rate category. Those data show that between 1988 and 1991 the values for all rate categories generally declined. An across-the-board recovery becomes evident in 1992, with the luxury hotels gaining the most value in terms of total value appreciation and percentage growth. Looking into the future, we expect economy and budget hotels generally to start losing value through 2000 due to the large amount of new construction taking place for these types of hotels.

We have developed graphs showing value per room and the replacement cost for the five rate categories.

### Hotel brands by rate category

#### Luxury

Hilton  
Hyatt  
Loews  
Marriott  
Omni  
Sheraton  
Westin  
Wyndham

#### Upscale

Adam's Mark  
Crowne Plaza  
Doubletree  
Embassy Suites  
Radisson  
Regal  
Wyndham Garden

#### Midscale without food and beverage

Comfort  
Hampton  
Hilton Garden  
Holiday Inn Express  
La Quinta

#### Economy

Budgetel  
Days Inn  
Fairfield  
Red Roof  
Travelodge

#### Budget

Knights Inn  
Motel 6  
Microtel  
Super 8

ries. These graphs show historic value and cost data from 1989 to 1996 and projected data to 2000. Since new hotel development generally occurs when a market exhibits positive feasibility, the market-value and replacement-cost graphs show when new hotel development is likely to commence and when it will start to decline based on either positive or negative feasibility. As the market-value line moves upward and passes through the replacement-cost line, new hotel projects become feasible, lenders and investors gain interest, and development begins.



## Exhibit 6

### Values per room by rate category (with percentage change from previous year)

Segment	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Luxury	\$72,349	\$79,566	\$74,161		\$69,652	\$71,092	\$90,136		\$126,947	\$137,905	\$151,137		\$167,944
	—	10%	-7%		13%	2%	27%		12%	9%	10%		5%
Upscale	\$28,555	\$40,306	\$42,949		\$47,488	\$49,562	\$65,026		\$83,576	\$94,106	\$102,555		\$102,962
	—	41%	7%		21%	4%	31%		8	13%	9%		0
Midscale (without F&B)	\$30,388	\$35,934	\$34,953		\$42,119	\$45,946	\$52,038		\$64,775	\$70,194	\$73,774		\$78,284
	—	18%	-3%		16%	9%	13%		3%	8%	5%		0
Economy	\$31,003	\$33,213	\$29,572		\$27,784	\$28,085	\$29,498		\$36,121	\$36,411	\$37,726		\$36,241
	—	7%	-11%		6%	1%	5%		2%	1%	4%		-3%
Budget	\$26,944	\$26,952	\$25,400		\$22,679	\$22,998	\$27,498		\$34,797	37,168	\$33,984		\$31,496
	—	0	-6%		44%	10%	10%		5%	7%	-9%		-6%

Savvy hotel developers will anticipate this trend and start their projects before the two lines actually cross. On the downside, new development slows when the market-value line falls below the replacement cost line, although new hotel development usually does not begin to slow until well after the market-value line crosses the replacement-cost line.

**Luxury hotels.** The luxury rate category shows that values per room started heading downward in 1989. They reached the bottom in 1991 and remained flat until 1993, when they started to rise. The graph in Exhibit 7 illustrates that the market-value line crossed the replacement-cost line during 1996. At this point, it became economically feasible to start building new luxury hotels.

Up until then, investors could buy existing luxury hotels at prices below replacement cost, so there was little incentive to build new. Once new development starts in the luxury category, it will probably take another eight to ten years before overbuilding occurs and prices decline to a level below replacement cost.

This appears to be the safest category to invest in today. The lack of feasibility has blocked any significant new construction until recently, and the long development time for these luxury properties will delay overbuilding for a number of years.

**Upscale properties.** The upscale rate category, typically defined as the category offering a range of full services and amenities, shows that value per room was relatively flat from 1989 to 1991. This category reached the bottom of the value cycle in 1991 and began to increase sharply beginning in 1993. The graph in Exhibit 8 illustrates the value-per-room curve intersecting the replacement-cost curve in 1995. This upward momentum was primarily driven by rising GDP levels and the growth in employment coupled with little growth in new upscale supply. This produced higher levels of occupancy and allowed the growth in average daily room rates to outpace inflation.

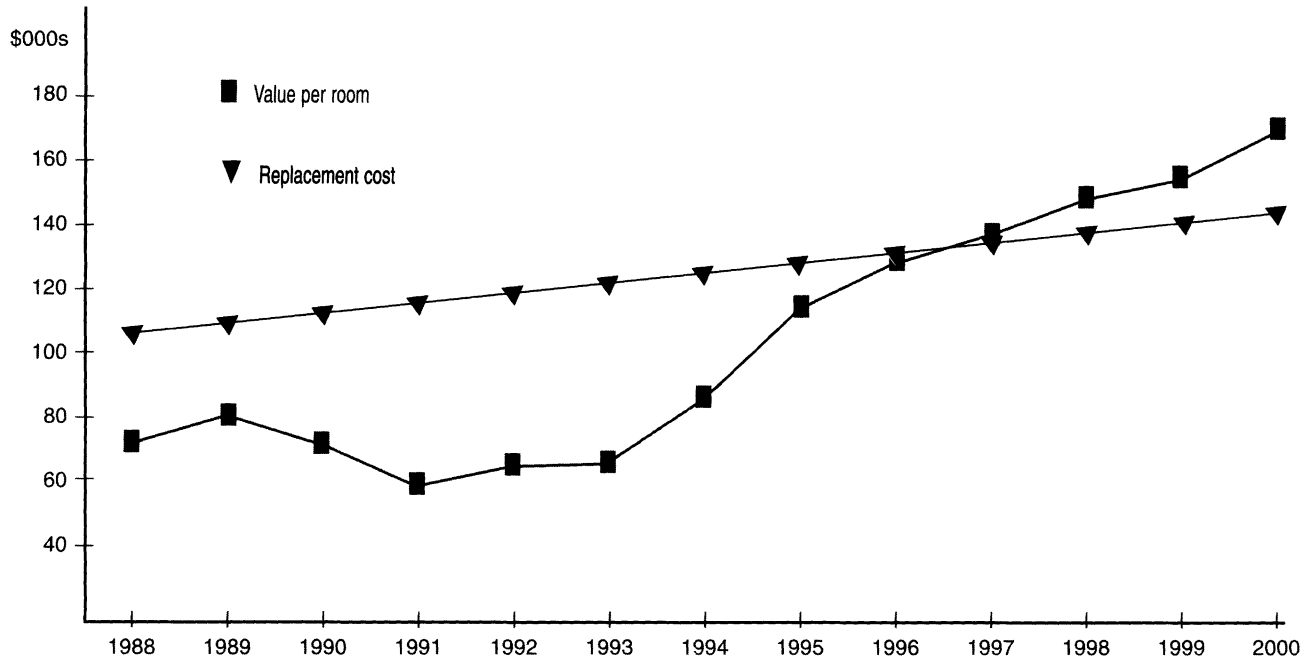
The value-per-room line is currently above replacement cost, suggesting that it is now prudent to begin new construction in this hotel category, as it is less expensive to

build new hotels than to buy existing properties. Few new developments are proposed or under construction in this rate category.

We expect the upscale category to experience a leveling off of value starting in 1998 and continuing through 2000. Overbuilding in the upscale category will probably not occur until after 2000.

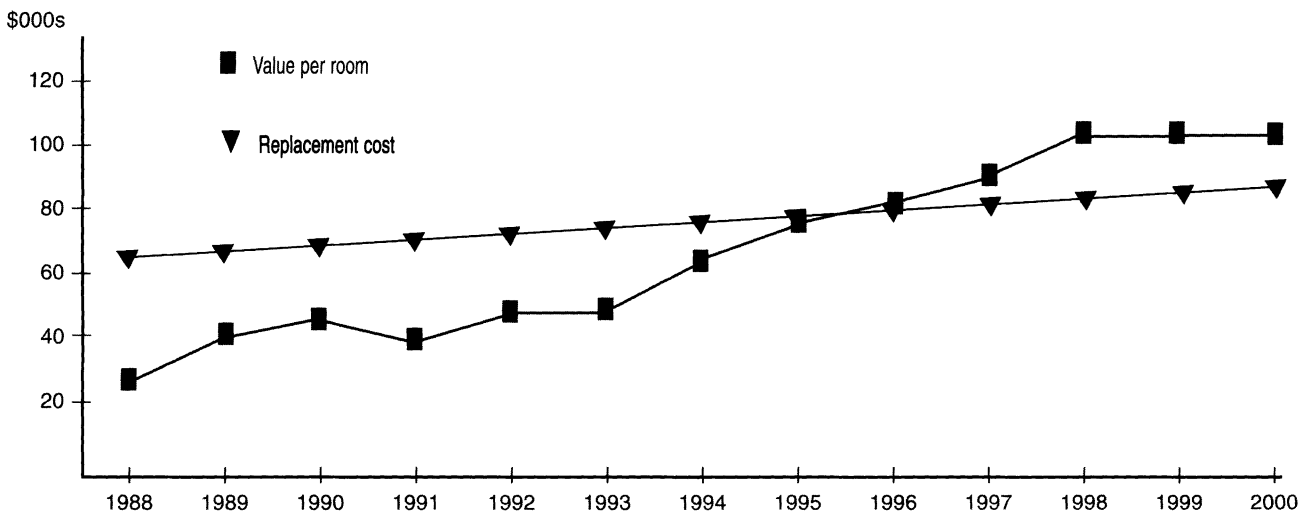
**Limited service.** The midscale without food and beverage rate category experienced relatively flat value trends from 1989 to 1991, when values began to escalate (Exhibit 9). The replacement-cost line was crossed in 1994, which marked the start of a fairly significant building boom for this type of product. Even with large increases in supply coming on line in recent years, this rate category has been able to maintain its occupancy by inducing new demand and taking business from other products, such as independent hotels and obsolete properties. Overall this category is expected to continue to see increasing values until 1999, when a downward trend will probably commence. Overbuilding will become a problem early in the next decade.

**Exhibit 7**  
*Luxury segment replacement cost and value per room*



Source: HVS International Hotel Valuation Index

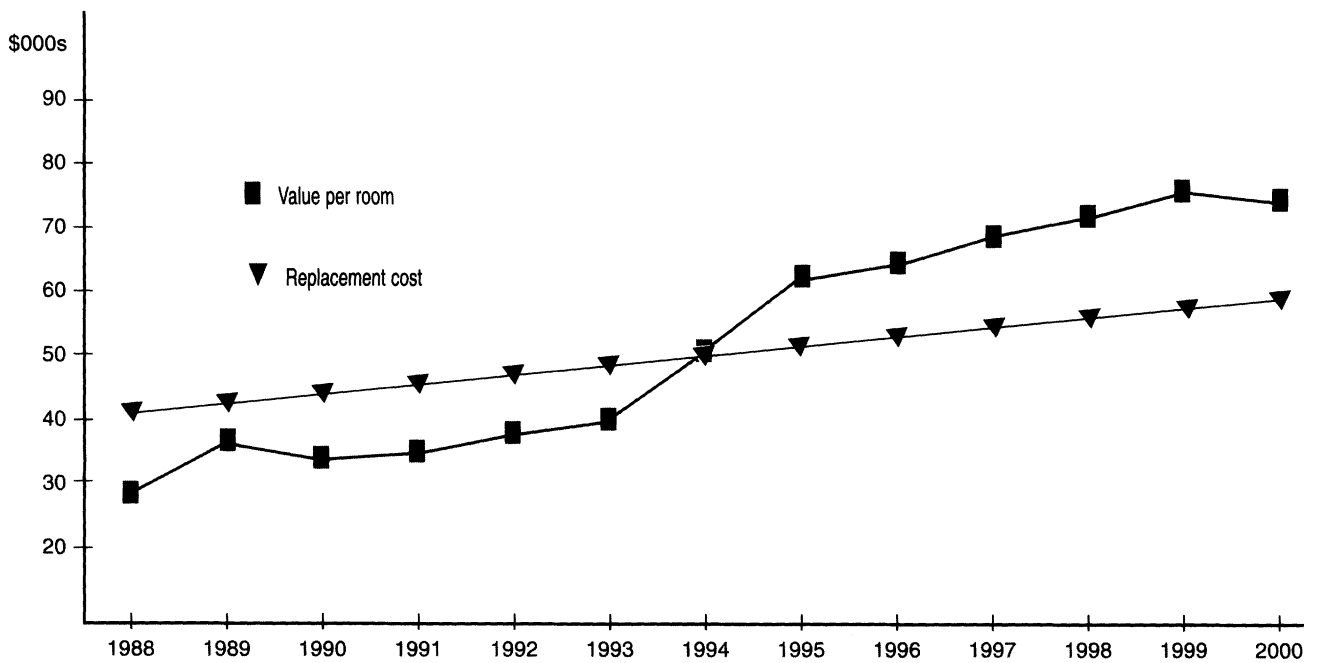
**Exhibit 8**  
*Upscale segment replacement cost and value per room*



Source: HVS International Hotel Valuation Index

### Exhibit 9

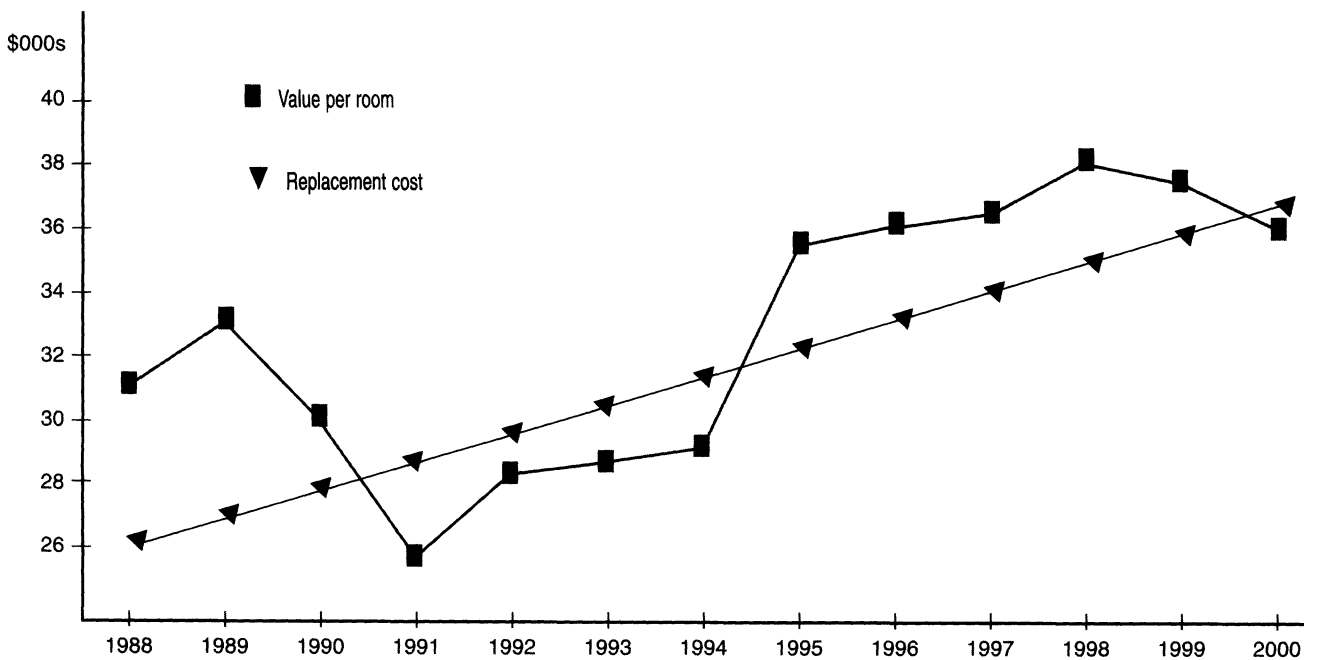
#### *Midscale (limited-service) segment replacement cost and value per room*



Note: This segment comprises hotels without restaurants.  
Source: HVS International Hotel Valuation Index

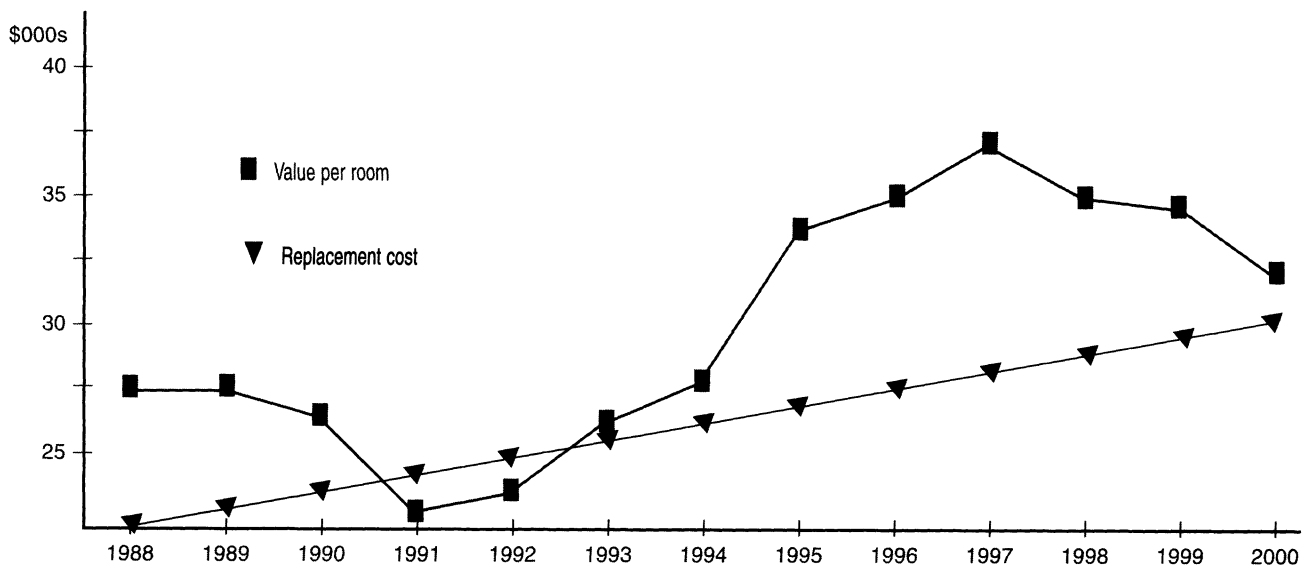
### Exhibit 10

#### *Economy segment replacement cost and value per room*



Source: HVS International Hotel Valuation Index

**Exhibit 11**  
**Budget segment replacement cost and value per room**



Source: HVS International Hotel Valuation Index

**Economy.** The economy rate category experienced a substantial drop in value between 1989 and 1991 (see Exhibit 10). During this time the market-value line crossed the replacement-cost line, indicating that hotel investors could buy existing properties at a lower cost than developing new. This buying opportunity continued until 1994 when the market-value line rose rapidly and crossed the replacement-cost line, signaling the start of new development. As this rate category becomes overbuilt, we project values will start to decline in 1998 and the replacement-cost line will be crossed again in 1999. At this time, the economy rate category will be overbuilt, feasibility will be negative, and new development will slow.

**Budget.** The budget rate category shows that values per room were generally declining from 1988 to 1991 (Exhibit 11). In 1990 the replacement-cost line was crossed, which meant that hotel investors

could buy an existing budget hotel at a lower cost than building a new one. As a result, hotel owners stopped building and turned their focus toward acquisitions. Prices were attractive because occupancies were low during the recession and because the Resolution Trust Corporation flooded the market with hundreds of foreclosed properties. As the graph shows, hotel buyers who could foresee an upturn in budget-property values did well in realizing a substantial amount of appreciation. As values for budget motels escalated during the early to mid 1990s, exceeding their replacement costs in 1993, it once again became feasible to build new budget properties and development began to escalate. The graph shows that budget values will peak in 1997 and begin to decline as overbuilding erodes occupancies. By 2000 the market-value line crosses the replacement-cost line, indicating an overbuilt situation that should

greatly reduce new development in this category. Investing in the budget rate category in today's environment will probably not result in a significant amount of upside value potential due to the likelihood of pending overbuilding.

### Right Timing

Hotel investing is little more than acquiring or developing hotel properties at the right value, enhancing value during the ownership period, and disposing of the hotel at a price that provides a reasonable return on investment. In short, it is a game of values and timing. By understanding the cyclical nature of the hotel industry in terms of markets, product types, and rate categories, investors are better able to time their acquisitions and dispositions to these specific peak-and-valley trends, which will reduce risk and enhance profits. The Hotel Valuation Index is a tool that defines the cycles and pinpoints buying and selling opportunities. **CQ**