HILTON HOTELS CORP Form 424B3 April 26, 2004

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Prospectus Supplement No. 4 dated April 26, 2004 (To Prospectus dated August 20, 2003)

HILTON HOTELS CORPORATION

\$575,000,000

3.375% Convertible Senior Notes due 2023

This prospectus supplement supplements the prospectus dated August 20, 2003, as amended and supplemented from time to time (the "Prospectus") of Hilton Hotels Corporation, relating to the resale by holders of our 3.375% Senior Convertible Notes due 2023 (the "Notes") and the shares of our common stock issuable upon conversion of the Notes.

This prospectus supplement should be read in conjunction with the Prospectus. This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the Prospectus or this prospectus supplement. Any representation to the contrary is a criminal offense.

The following table sets forth certain information, as of April 23, 2004 with respect to the principal amount of Notes beneficially owned and the number of shares of common stock issuable upon conversion of those Notes that may be offered from time to time under the Prospectus by the selling securityholders named in the table. This information is based on information provided by or on behalf of the selling securityholders. The selling securityholders may offer all, a portion or none of the Notes or common stock issuable upon conversion of the Notes. Because the selling securityholders may offer all or a portion of the Notes or common stock, we cannot estimate the amount of the Notes or the common stock that will be held by the selling securityholders upon termination of any of these sales. In addition, selling securityholders identified below may have sold, transferred or otherwise disposed of all or a portion of their Notes since the date on which they provided the information regarding their Notes in transactions exempt from the registration requirements of the Securities Act. The percentage of Notes outstanding beneficially owned by each selling securityholder is based on \$575,000,000 aggregate principal amount of Notes outstanding. The number of shares of common stock owned prior to the offering does not include shares of common stock issuable upon conversion of the Notes. The number of shares of common stock issuable upon conversion of the Notes is based on an initial conversion price of \$22.50 per share. This conversion rate is subject to adjustment as described under "Description of the Notes Conversion Rate Adjustments" in the Prospectus. Accordingly, the number of conversion shares may increase or decrease from time to time. Unless set forth below, to our knowledge none of the selling securityholders has had a material relationship with us or any of our affiliates within the past three years.

The Prospectus is hereby supplemented as follows to restate, in its entirety, the table of selling security holders under the caption "Selling Securityholders" contained on pages 39-44 of the Prospectus:

Name	Principal Amount of Notes Beneficially Owned and Offered	Percentage of Notes Outstanding	Shares of Common Stock Owned Prior to the Offering(1)	Conversion Shares Offered(2)	Percentage of Common Stock Outstanding(3)
AIG DKR SoundShore Opportunity					
Holding Fund Ltd.	4,000,000	*		177,777	*
Akanthos Arbitrage Master Fund, L.P.	5,000,000	*		222,222	*
Alcon Laboratories	419,000	*		18,622	*

Allstate Insurance Company	1,500,000	*	33,200(4)	66,666	*
Arapahoe County, Colorado	51,000			2,266	*
Argent Classic Convertible Arbitrage					
(Bermuda) Fund Ltd.	1,350,000	*		60,000	*
Argent Classic Convertible Arbitrage					
Fund L.P.	650,000	*		28,888	*
Argent Low Lev Convertible Arbitrage					
Fund Ltd.	7,800,000	1.36%		346,666	*
Argent LowLev Convertible Arbitrage					
Fund LLC	1,200,000	*		53,333	*
Arlington County Employees Retirement					
System	723,000	*		32,133	*
Asante Health Systems	93,000	·		4,133	
Asymmetric Convertible Fund Ltd.	2,500,000	*		111,111	*
Bank America Pension Plan	1,500,000	*		66,666	*
Bank Austria Cayman Islands, LTD	2,500,000	*		111,111	*
Bank of America Securities LLC(5)	4,534,000	*		211,511	*
Barclays Global Investors Limited	500,000	ጥ		22,000	ጥ
Beamtenversicherungskasse des Kantons	2.700.000	*		120,000	*
Zurich	2,700,000	*		120,000	*
Bernische Lehrerversicherungskasse British Virgin Islands Social Security	310,000	*		13,777	4.
Board	96,000	*		4,266	*
City and County of San Francisco	90,000	•		4,200	·
Retirement System	1,600,000	*		71,111	*
City of New Orleans	220,000	*		9,777	*
City University of New York	162,000	*		7,200	*
Clinton Convertible Managed Trading	102,000			7,200	
Account 1 Limited	320,000	*		14,222	*
Clinton Multistrategy Master Fund, Ltd.	6,115,000	1.06%		271,777	*
CNH CA Master Account, L.P.	1,000,000	*		44,444	*
Coda KPHE Convertible Fund	100,000	*		4,444	*
Coda Capital Management LLC	400,000	*		17,777	*
Context Convertible Arbitrage Fund, L.P.	825,000	*		36,666	*
Context Convertible Arbitrage Offshore,	,			,	
LTD	1,175,000	*		52,222	*
Continental Assurance Co. on Behalf of				,	
its Separate Account (E)	900,000	*		40,000	*
Continental Casualty Company	7,100,000	1.23%		315,555	*
DBAG-London	41,750,000	7.26%		1,855,555	*
Delaware Public Employees Retirement					
System	1,677,000	*		74,533	*
Deutsche Bank Securities Inc.(5)	500,000	*		22,222	*
Dylan (IMA) LTD	5,000,000	*		222,222	*
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Sparkassen AG	2,000,000	*	88,888	*
Excelsior Master Fund L.P.	1,000,000	*	44,444	*
Family Service Life Insurance Co.	100,000	*	4,444	·
Gaia Offshore Master Fund Ltd.	900,000	*	40,000	*
Gasner Investors Holdings Ltd.	2,500,000	*	111,111	*
Geode U.S. Convertible Arbitrage Fund,				
a series of Geode Invetors, LLC	1,000,000	*	44,444	*
Georgia Municipal Employees Benefit				
System	642,000	*	28,533	*
GLG Market Neutral Fund	15,000,000	2.61%	666,666	*
Grady Hospital Foundation	144,000	*	6,400	*
Guardian Life Insurance Co.	5,200,000	*	231,111	*
Guardian Pension Trust	400,000	*	17,777	*
Guggenheim Portfolio Co. XV, LLC	850,000	*	37,777	*
HFR Arbitrage Fund	578,000	*	25,688	*
HFR TQA Master Trust c/o TQA				
Investors, LLC	74,000	*	3,288	*
Highbridge International LLC	10,000,000	1.74%	444,444	*
Investec Bank (UK) Limited	500,000	*	22,222	*
Jefferies Umbrella Fund Global				
Convertible Bond	50,000	*	2,222	*
Jefferies Umbrella Fund US Convertible				
Bonds	100,000	*	4,444	*
John Deere Pension Trust	500,000	*	22,222	*
KBC Financial Products USA Inc.	450,000	*	20,000	*
LDG Limited	89,000	*	3,955	*
Lexington Vantage Fund c/o TQA				
Investors	16,000	*	711	*
Lydian Global Opportunities Master				
Fund Limited	7,500,000	1.30%	333,333	*
Lydian Overseas Partners Master Fund	48,000,000	8.35%	2,133,333	*
Lyxor/Gaia II Fund Ltd.	1,850,000	*	82,222	*
Lyxor Master Fund	2,000,000	*	88,888	*
McMahan Securities Co. L.P.	36,000	*	1,600	*
Meadow IAM Limited	410,000	*	18,222	*
Merrill Lynch, Pierce, Fenner and Smith,				
Inc.	300,000	*	13,333	*
MFS Total Return Fund, a Series of				
Series Trust V	8,500,000	1.47%	377,777	*
Mill River Master Fund, L.P.	1,500,000	*	66,666	*
Morgan Stanley Income Builder Fund	2,000,000	*	88,888	*
Morgan Stanley Variable Income Builder				
Fund	1,000,000	*	44,444	*
Municipal Employees	259,000	*	11,511	*

Nisswa Master Fund Ltd.	3,000,000	*		133,333	*
NMIC Gartmore / Coda Convertible					
Portfolio	2,000,000	*		88,888	*
Occidental Petroleum Corporation	287,000	*		12,755	*
Oppenheimer Convertible Securities					
Fund	4,000,000	*		177,777	*
Pacific Life Insurance Company	500,000	*		22,222	*
Pensionskasse der Antalis AG	40,000	*		1,777	*
Pensionskasse der Ems-Chemie AG	50,000	*		2,222	*
Pensionskasse der Ems- Dottikon AG	70,000	*		3,111	*
Pensionskasse der Lonza AG	100,000	*		4,444	*
Pensionskasse der PV Promea AG	80,000	*		3,555	*
Pensionskasse der Rockwell Automation					
AG	40,000	*		1,777	*
Pensionskasse Vantico	50,000	*		2,222	*
Peoples Benefit Life Insurance Company					
Teamsters	12,500,000	2.17%		555,555	*
Pro-Mutual	812,000	*		36,088	*
Putnam Convertible Income- Growth					
Trust	7,500,000	1.3%		333,333	*
Ramius, LP	150,000	*		6,666	*
Ramius Capital Group	500,000	*		22,222	*
Ramius Master Fund, LTD	3,425,000	*		152,222	*
Ramius Partners II, L.P.	200,000	*		8,888	*
RCG Baldwin, L.P.	600,000	*		26,666	*
RCG Halifax Master Fund, LTD	500,000	*		22,222	*
RCG Latitude Master Fund, LTD	4,925,000	*		218,888	*
RCG Multi Strategy Master Fund, LTD	800,000	*		35,555	*
Sphinx Convertible Arb Fund Master					
Fund Ltd.	38,000	*		1,688	*
Sphinx Fund c/o TQA Investors, LLC	17,000	*		755	*
St. Albans Partners Ltd	14,000,000	2.43%		622,222	*
State of Maryland Retirement Agency	3,469,000	*		154,177	*
Sunrise Partners Limited Partnership	4,500,000	*	13,332	200,000	*
The City University of New York	162,000	*		7,200	*
The Coast Fund, L.P.	10,000,000	1.74%		444,444	*
The Grable Foundation	96,000	*		4,266	*
Thrivent Financial for Lutherans	3,000,000	*		133,333	*
TQA Master Fund, LTD	828,000	*		36,800	*
TQA Master Plus Fund, LTD	571,000	*		25,377	*
Topanga XI	700,000	*		31,111	*
Tribeca Investments LTD	2,500,000	*		111,111	*
Trustmark Insurance	314,000	*		13,955	*
UBS AG London Branch	82,500,000	6.99%		3,666,666	*
UBS Securities LLC(5)	13,125,000	2.28%		583,333	*

Victory Capital Management as Agent				
for Charitable Income Fund	225,000	*	10,000	*
Victory Capital Management as Agent				
for Field Foundation of Illinois	95,000	*	4,222	*
Victory Capital Management as Agent				
for GenCorp Foundation	40,000	*	1,777	*
Victory Capital Management as Agent				
for Key Trust Fixed Income Fund	290,000	*	12,888	*
Victory Capital Management as Agent				
for the Charitable Convertible Securities				
Fund	575,000	*	25,555	*
Victory Capital Management as Agent				
for the Cleveland News Public Local 473	15,000	*	666	*
Victory Capital Management as Agent				
for the EB Convertible Securities Fund	885,000	*	39,333	*
Victory Capital Management as Agent				
for the Key Trust Convertible Securities				
Fund	175,000	*	7,777	*
Victory Capital Management as Agent				
for the Special District of Oregon	55,000	*	2,444	*
Victory Capital Management as Agent				
for the Victory Convertible Securities				
Fund	570,000	*	25,333	*
Victory Capital Management as				
Investment Manager for CompSource				
Oklahoma	625,000	*	27,777	*
Victory Capital Management as				
Investment Manager for Georgia				
Municipal Employees Retirement Trust				
Foundation	790,000	*	35,111	*
Victory Capital Management as				
Investment Manager for Potlarch	515,000	*	22,888	*
Victory Capital Management as				
Investment Manager for Stamford Police				
Pension Fund	50,000	*	2,222	*
Victory Capital Management as				
Investment Manager for the California				
State Auto Assoc Inter-Insurance	595,000	*	26,444	*

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Victory Capital Management as Investment Manager for the California				
State Auto Assoc Retirement Pension				
Plan	90.000	*	4,000	*
Victory Capital Management as	90,000		4,000	
Investment Manager for the California				
State Auto Assoc ASNF	55,000	*	2,444	*
Victory Capital Management as	33,000		2,111	
Investment Manager for the Health				
Foundation of Greater Cincinnati	155.000	*	6.888	*
Wachovia Securities LLC(5)	300.000	*	13,333	*
Xavex Convertible Arbitrage #5	550.000	*	24.444	*
Xavex-Convertible Arbitrage 7 Fund c/o	330,000		21,111	
TOA Investors	300,000	*	13,333	*
Xavex Risk Arbitrage Fund 2	500,000	*	22,222	*
Yield Strategies Fund I L.P.	3,500,000	*	155,555	*
Yield Strategies Fund II L.P.	3,500,000	*	155,555	*
Zazove Convertible Arbitrage Fund LP	1,000,000	*	44,444	*
Zurich Institutional Benchmark	1,000,000	*	44,444	*
Zurich Institutional Benchmark Master	, ,		,	
Fund	400,000	*	17,777	*
Zurich Institutional Benchmarks Master	,		,	
Fund, LTD. c/o TOA Investors, LLC	105,000	*	4,666	*
1976 Distribution Trust FBO A.R.	·		·	
Lauder/Zinterhofer	8000	*	355	*
2000 Revocable Trust FBO A.R.				
Lauder/Zinterhofer	8,000	*	355	*

Less than one percent of the Notes or common stock outstanding, as applicable

- Does not include shares of common stock issuable upon conversion of the Notes.
- (2)

 Consists of shares of common stock issuable upon conversion of the Notes, assuming a conversion price of \$22.50 per share and a cash payment in lieu of any fractional share interest. The conversion price is subject to adjustment as described under "Description of the Notes-Conversion Rate Adjustments."
- Calculated based on Rule 13d-3(d)(i) under the Securities Exchange Act of 1934, as amended, using 379,390,202 shares outstanding on September 30, 2003. In calculating this amount, we treated as outstanding the number of shares of common stock issuable upon conversion of the Notes. However, we did not assume the conversion of any other holder's Notes.
- (4)

 Certain qualified ERISA plans maintained for the benefit of agents and employees of Allstate Insurance Company own 19,600 shares of the Company's common stock. Allstate Insurance Company disclaims any interest in such shares of common stock, although the investment committees for such plans consist of Allstate Insurance Company officers.
- (5)

 This holder has provided investment or commercial banking and financial advisory services to us within the past three years for which they have received customary fees.

QuickLinks

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