

NUVEEN INSURED CALIFORNIA TAX FREE ADVANTAGE MUNICIPAL FUND

Form N-Q

July 30, 2010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT
COMPANY

Investment Company Act file number 811-21212

Nuveen Insured California Tax-Free Advantage Municipal Fund
(Exact name of registrant as specified in charter)

Nuveen Investments
333 West Wacker Drive, Chicago, Illinois 60606
(Address of principal executive offices) (Zip code)

Kevin J. McCarthy
Vice President and Secretary
333 West Wacker Drive, Chicago, Illinois 60606
(Name and address of agent for service)

Registrant's telephone number, including area code: 312-917-7700

Date of fiscal year end: 2/28

Date of reporting period: 5/31/10

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (§§ 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b1-5 under the Investment Company Act of 1940 (17 CFR 270.30b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Schedule of Investments

Portfolio of Investments (Unaudited)

Nuveen Insured California Tax-Free Advantage Municipal Fund (NKX)

May 31, 2010

Principal

Amount (000)	Description (1)	%
	Consumer Staples – 4.7% (3.2% of Total Investments)	
\$ 6,070	Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Bonds, Series 2007A-2, 0.000%, 6/01/37	6
	Health Care – 23.0% (16.0% of Total Investments)	
1,630	California Health Facilities Financing Authority, Revenue Bonds, Childrens Hospital Los Angeles, Series 2010A, 5.250%, 7/01/38 – AGC Insured	7
1,800	California Infrastructure Economic Development Bank, Revenue Bonds, Kaiser Hospital Assistance LLC, Series 2001A, 5.550%, 8/01/31	8
4,000	California Statewide Community Development Authority, Insured Health Facility Revenue Bonds, Catholic Healthcare West, Series 2008K, 5.500%, 7/01/41 – AGC Insured	7
1,815	California Statewide Community Development Authority, Revenue Bonds, Kaiser Permanente System, Series 2006, 5.000%, 3/01/41	3
5,020	California Statewide Community Development Authority, Revenue Bonds, Kaiser Permanente System, Series 2006, 5.000%, 3/01/41 – BHAC Insured (UB)	3
4,060	California Statewide Community Development Authority, Revenue Bonds, Sherman Oaks Health System, Series 1998A, 5.000%, 8/01/22 – AMBAC Insured	
662	California Statewide Communities Development Authority, Revenue Bonds, Saint Joseph Health System, Trust 2554, 18.449%, 7/01/47 – AGM Insured (IF)	7
18,987	Total Health Care	
	Housing/Multifamily – 1.4% (1.0% of Total Investments)	
1,165	Poway, California, Housing Revenue Bonds, Revenue Bonds, Poinsettia Mobile Home Park, Series 2003, 5.000%, 5/01/23	5
	Long-Term Care – 3.6% (2.5% of Total Investments)	
1,000	ABAG Finance Authority for Non-Profit Corporations, California, Insured Senior Living Revenue Bonds, Odd Fellows Home of California, Series 2003A, 5.200%, 11/15/22	11
2,000	California Health Facilities Financing Authority, Cal-Mortgage Insured Revenue Bonds, Northern California Retired Officers Community Corporation – Paradise Valley Estates, Series 2002, 5.250%, 1/01/26	1
3,000	Total Long-Term Care	
	Tax Obligation/General – 21.6% (15.0% of Total Investments)	
2,000	Butte-Glenn Community College District, Butte and Glenn Counties, California, General Obligation Bonds, Series 2002A, 5.000%, 8/01/26 – NPMFG Insured	8
1,030	Fontana Unified School District, San Bernardino County, California, General Obligation Bonds,	8

	Trust 2668, 9.389%, 8/01/28 – AGM Insured (IF)	
450	Fremont Unified School District, Alameda County, California, General Obligation Bonds, Series 2002A, 5.000%, 8/01/25 – FGIC Insured	8
2,000	Los Angeles, California, General Obligation Bonds, Series 2002A, 5.000%, 9/01/22 – NPFG Insured	9
1,000	Murrieta Valley Unified School District, Riverside County, California, General Obligation Bonds, Series 2003A, 5.000%, 9/01/26 – FGIC Insured	9
1,000	Murrieta Valley Unified School District, Riverside County, California, General Obligation Bonds, Series 2007, 4.500%, 9/01/30 – AGM Insured	9
140	Roseville Joint Union High School District, Placer County, California, General Obligation Bonds, Series 2006B, 5.000%, 8/01/27 – FGIC Insured	8
3,000	San Diego Unified School District, California, General Obligation Bonds, Election of 1998, Series 2000B, 5.125%, 7/01/22 – NPFG Insured	7
3,855	San Rafael City High School District, Marin County, California, General Obligation Bonds, Series 2003A, 5.000%, 8/01/28 – AGM Insured	8
12,520	Yosemite Community College District, California, General Obligation Bonds, Capital Appreciation, Election 2004, Series 2010D, 0.000%, 8/01/42 (WI/DD, Settling 6/02/10)	
26,995	Total Tax Obligation/General Tax Obligation/Limited – 46.2% (32.0% of Total Investments)	
550	Baldwin Park Public Financing Authority, California, Sales Tax and Tax Allocation Bonds, Puente Merced Redevelopment Project, Series 2003, 5.250%, 8/01/21	8
1,165	Burbank Public Financing Authority, California, Revenue Refunding Bonds, Golden State Redevelopment Project, Series 2003A, 5.250%, 12/01/22 – AMBAC Insured	12
4,000	California State Public Works Board, Lease Revenue Bonds, Department of General Services, Capital East End Project, Series 2002A, 5.000%, 12/01/27 – AMBAC Insured	12
170	Capistrano Unified School District, Orange County, California, Special Tax Bonds, Community Facilities District, Series 2005, 5.000%, 9/01/24 – FGIC Insured	9
525	Chino Redevelopment Agency, California, Merged Chino Redevelopment Project Area Tax Allocation Bonds, Series 2006, 5.000%, 9/01/38 – AMBAC Insured	9
1,610	Folsom Public Financing Authority, California, Special Tax Revenue Bonds, Series 2004A, 5.000%, 9/01/21 – AMBAC Insured	9
3,285	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Asset-Backed Revenue Bonds, Series 2005A, 5.000%, 6/01/45 – AMBAC Insured	6
2,905	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Revenue Bonds, Drivers Trust 2091, 9.523%, 6/01/45 – AGC Insured (IF)	6
1,000	Hesperia Public Financing Authority, California, Redevelopment and Housing Projects Tax Allocation Bonds, Series 2007A, 5.000%, 9/01/37 – SYNCORA GTY Insured	9
5,540	Irvine Public Facilities and Infrastructure Authority, California, Assessment Revenue Bonds, Series 2003C, 5.000%, 9/02/21 – AMBAC Insured	9
315	Los Angeles Community Redevelopment Agency, California, Lease Revenue Bonds, Manchester Social Services Project, Series 2005, 5.000%, 9/01/37 – AMBAC Insured	9
1,770	Los Angeles Unified School District, California, Certificates of Participation, Administration	10

	Building Project II, Series 2002C, 5.000%, 10/01/27 – AMBAC Insured	
2,000	Los Angeles, California, Certificates of Participation, Municipal Improvement Corporation, Series 2003AW, 5.000%, 6/01/33 – AMBAC Insured	6
1,500	Los Angeles, California, Municipal Improvement Corporation, Lease Revenue Bonds, Police Headquarters, Series 2006A, 4.750%, 1/01/31 – FGIC Insured	1
1,500	Los Osos, California, Improvement Bonds, Community Services Wastewater Assessment District 1, Series 2002, 5.000%, 9/02/33 – NPMFG Insured	9
150	Rialto Redevelopment Agency, California, Tax Allocation Bonds, Merged Project Area, Series 2005A, 5.000%, 9/01/35 – SYNCORA GTY Insured	9
190	Roseville, California, Certificates of Participation, Public Facilities, Series 2003A, 5.000%, 8/01/25 – AMBAC Insured	8
	San Buenaventura, California, Certificates of Participation, Golf Course Financing Project, Series 2002D:	
3,000	5.000%, 2/01/27 – AMBAC Insured	2
3,300	5.000%, 2/01/32 – AMBAC Insured	2
1,200	San Diego Redevelopment Agency, California, Subordinate Lien Tax Increment and Parking Revenue Bonds, Centre City Project, Series 2003B, 5.250%, 9/01/26	9
2,770	San Jose Financing Authority, California, Lease Revenue Refunding Bonds, Civic Center Project, Series 2002B, 5.000%, 6/01/32 – AMBAC Insured	6
1,000	San Jose Redevelopment Agency, California, Tax Allocation Bonds, Merged Project Area, Series 2005A, 5.000%, 8/01/28 – NPMFG Insured	8
39,445	Total Tax Obligation/Limited Transportation – 7.8% (5.4% of Total Investments)	
5,480	Bay Area Governments Association, California, BART SFO Extension, Airport Premium Fare Revenue Bonds, Series 2002A, 5.000%, 8/01/26 – AMBAC Insured	8
2,000	Foothill/Eastern Transportation Corridor Agency, California, Toll Road Revenue Bonds, Series 1995A, 5.000%, 1/01/35	7
7,480	Total Transportation U.S. Guaranteed – 19.0% (13.2% of Total Investments) (4)	
1,000	Berryessa Union School District, Santa Clara County, California, General Obligation Bonds, Series 2003C, 5.000%, 8/01/21 (Pre-refunded 8/01/12) – AGM Insured	8
	California State, General Obligation Bonds, Series 2002:	
1,290	5.000%, 4/01/27 (Pre-refunded 4/01/12) – AMBAC Insured	4
2,945	5.250%, 4/01/30 (Pre-refunded 4/01/12) – SYNCORA GTY Insured	4
500	California, General Obligation Bonds, Series 2004, 5.250%, 4/01/34 (Pre-refunded 4/01/14)	4
1,625	Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Revenue Bonds, Series 2003A-2, 7.900%, 6/01/42 (Pre-refunded 6/01/13)	6
2,030	Hacienda La Puente Unified School District, Los Angeles County, California, General Obligation Bonds, Series 2003B, 5.000%, 8/01/27 (Pre-refunded 8/01/13) – AGM Insured	8
1,260	Rancho Mirage Joint Powers Financing Authority, California, Revenue Bonds, Eisenhower Medical Center, Series 2004, 5.875%, 7/01/26 (Pre-refunded 7/01/14)	7

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1,220	San Jose Redevelopment Agency, California, Tax Allocation Bonds, Merged Area Redevelopment Project, Series 2002, 5.000%, 8/01/32 (Pre-refunded 8/01/10) – NPFG Insured	8
2,390	Solano County, California, Certificates of Participation, Series 2002, 5.250%, 11/01/24 (Pre-refunded 11/01/12) – NPFG Insured	11
14,260	Total U.S. Guaranteed Utilities – 3.1% (2.1% of Total Investments)	
1,000	Anaheim Public Finance Authority, California, Second Lien Electric Distribution Revenue Bonds, Series 2004, 5.250%, 10/01/21 – NPFG Insured	10
945	Long Beach Bond Finance Authority, California, Natural Gas Purchase Revenue Bonds, Series 2007A, 5.500%, 11/15/37	
275	Los Angeles Department of Water and Power, California, Power System Revenue Bonds, Series 2003A-2, 5.000%, 7/01/21 – NPFG Insured	7
310	Merced Irrigation District, California, Electric System Revenue Bonds, Series 2005, 5.125%, 9/01/31 – SYNCORA GTY Insured	9
2,530	Total Utilities Water and Sewer – 13.8% (9.6% of Total Investments)	
1,000	Castaic Lake Water Agency, California, Certificates of Participation, Series 2006C, 5.000%, 8/01/36 – NPFG Insured	8
750	Fortuna Public Finance Authority, California, Water Revenue Bonds, Series 2006, 5.000%, 10/01/36 – AGM Insured	10
215	Healdsburg Public Financing Authority, California, Wastewater Revenue Bonds, Series 2006, 5.000%, 4/01/36 – NPFG Insured	4
770	Manteca Financing Authority, California, Sewerage Revenue Bonds, Series 2003B, 5.000%, 12/01/33 – NPFG Insured	12
170	Marina Coast Water District, California, Enterprise Certificate of Participation, Series 2006, 5.000%, 6/01/31 – NPFG Insured	6
	San Diego Public Facilities Financing Authority, California, Subordinate Lien Water Revenue Bonds, Series 2002:	
3,000	5.000%, 8/01/22 – NPFG Insured	8
2,500	5.000%, 8/01/23 – NPFG Insured	8
1,180	South Feather Water and Power Agency, California, Water Revenue Certificates of Participation, Solar Photovoltaic Project, Series 2003, 5.375%, 4/01/24	4
1,600	Sunnyvale Financing Authority, California, Water and Wastewater Revenue Bonds, Series 2001, 5.000%, 10/01/26 – AMBAC Insured	10
11,185	Total Water and Sewer	
\$ 131,117	Total Investments (cost \$119,695,844) – 144.2%	
	Floating Rate Obligations – (4.0)%	
	Variable Rate Demand Preferred Shares, at Liquidation Value – (42.6)% (5)	
	Other Assets Less Liabilities – 2.4%	
	Net Assets Applicable to Common Shares – 100%	

Fair Value Measurements

In determining the value of the Fund’s investments, various inputs are used. These inputs are summarized in the three broad levels listed below:

Level 1 - Quoted prices in active markets for identical securities.

Level 2 - Other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).

Level 3 - Significant unobservable inputs (including management’s assumptions in determining the fair value of investments).

The inputs or methodologies used for valuing securities are not an indication of the risk associated with investing in those securities. The following is a summary of the Fund’s fair value measurements as of May 31, 2010:

	Level 1	Level 2	Level 3	Total
Investments:				
Municipal Bonds	\$ —	\$120,140,312	\$ —	\$120,140,312

Income Tax Information

The following information is presented on an income tax basis. Differences between amounts for financial statement and federal income tax purposes are primarily due to timing differences in recognizing taxable market discount, timing differences in recognizing certain gains and losses on investment transactions and the treatment of investments in inverse floating rate securities reflected as financing transactions, if any. To the extent that differences arise that are permanent in nature, such amounts are reclassified within the capital accounts on the Statement of Assets and Liabilities presented in the annual report, based on their federal tax basis treatment; temporary differences do not require reclassification. Temporary and permanent differences do not impact the net asset value of the Fund.

At May 31, 2010, the cost of investments was \$116,280,035.

Gross unrealized appreciation and gross unrealized depreciation of investments at May 31, 2010, were as follows:

Gross unrealized:	
Appreciation	\$ 3,904,157
Depreciation	(3,401,444)
Net unrealized appreciation (depreciation) of investments	\$ 502,713

The Fund intends to invest at least 80% of its net assets in municipal securities that are covered by insurance guaranteeing the timely payment of principal and interest.

- (1) All percentages shown in the Portfolio of Investments are based on net assets applicable to Common shares unless otherwise noted.
- (2) Optional Call Provisions: Dates (month and year) and prices of the earliest optional call or redemption. There may be other call provisions at varying prices at later dates. Certain mortgage-backed securities may be subject to periodic principal paydowns.
- (3) Ratings: Using the highest of Standard & Poor’s Group (“Standard & Poor’s”), Moody’s Investor Service, Inc.

(“Moody’s”) or Fitch, Inc. (“Fitch”) rating. Ratings below BBB by Standard & Poor’s, Baa by Moody’s or BBB by Fitch are considered to be below investment grade.

- (4) Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities, which ensure the timely payment of principal and interest. Such investments are normally considered to be equivalent to AAA rated securities.
- (5) Variable Rate Demand Shares, at Liquidation Value as a percentage of Total Investments is 29.6%.

N/R Not rated.

WI/DD Purchased on a when-issued or delayed delivery basis.

(IF) Inverse floating rate investment.

(UB) Underlying bond of an inverse floating rate trust reflected as a financing transaction.

Item 2. Controls and Procedures.

- a. The registrant's principal executive and principal financial officers, or persons performing similar functions, have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the "1940 Act") (17 CFR 270.30a-3(c))) are effective, as of a date within 90 days of the filing date of this report that includes the disclosure required by this paragraph, based on their evaluation of the controls and procedures required by Rule 30a-3(b) under the 1940 Act (17 CFR 270.30a-3(b)) and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934 (17 CFR 240.13a-15(b) or 240.15d-15(b)).

- b. There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act (17 CFR 270.30a-3(d)) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3. Exhibits.

File as exhibits as part of this Form a separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the 1940 Act (17 CFR 270.30a-2(a)), exactly as set forth below: See EX-99 CERT attached hereto.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

(Registrant) Nuveen Insured California Tax-Free Advantage Municipal Fund

By (Signature and Title) /s/ Kevin J. McCarthy
Kevin J. McCarthy
Vice President and Secretary

Date July 30, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By (Signature and Title) /s/ Gifford R. Zimmerman
Gifford R. Zimmerman
Chief Administrative Officer (principal executive officer)

Date July 30, 2010

By (Signature and Title) /s/ Stephen D. Foy
Stephen D. Foy
Vice President and Controller (principal financial officer)

Date July 30, 2010