

NUVEEN INSURED CALIFORNIA PREMIUM INCOME MUNICIPAL FUND 2 IN
Form N-Q
July 29, 2005

**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 811-7492

Nuveen Insured California Premium Income Municipal Fund 2, Inc.

(Exact name of registrant as specified in charter)

333 West Wacker Drive, Chicago, Illinois 60606

(Address of principal executive offices) (Zip code)

Jessica R. Droeger 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: 08/31

Date of reporting period: 05/31/05

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 Premium Income Municipal Fund 2, Inc. (NCL)

May 31, 2005

Principal Amount (000)	Description ⁽¹⁾	Option Provis
Education and Civic Organizations - 12.3% (8.4% of Total Investments)		
	California Educational Facilities Authority, Revenue Bonds, Santa Clara University, Series 1996:	
\$ 2,400	5.750%, 9/01/21 - MBIA Insured	9/06 at
3,000	5.750%, 9/01/26 - MBIA Insured	9/06 at
2,000	California Educational Facilities Authority, Revenue Bonds, University of the Pacific, Series 2000, 5.875%, 11/01/20 - MBIA Insured	11/10 at
2,125	California Educational Facilities Authority, Student Loan Revenue Bonds, Cal Loan Program, Series 2001A, 5.400%, 3/01/21 (Alternative Minimum Tax) - MBIA Insured	3/08 at
5,380	California State University, Systemwide Revenue Bonds, Series 2004A, 5.000%, 11/01/16 - FSA Insured	5/14 at
1,500	California State University, Systemwide Revenue Bonds, Series 2005A, 5.000%, 11/01/25 - AMBAC Insured	5/15 at
6,000	University of California, Revenue Bonds, Multi-Purpose Projects, Series 2003A, 5.000%, 5/15/27 - AMBAC Insured	5/13 at
Healthcare - 4.5% (3.0% of Total Investments)		
1,450	California Health Facilities Financing Authority, Insured Health Facility Revenue Refunding Bonds, Mark Twain St. Joseph's Healthcare Corporation, Series 1996A, 6.000%, 7/01/19 - MBIA Insured	7/06 at
5,000	California Health Facilities Financing Authority, Insured Health Facility Revenue Refunding Bonds, Catholic Healthcare West, Series 1996A, 6.000%, 7/01/25 - MBIA Insured	7/06 at
1,755	University of California, Hospital Revenue Bonds, UCLA Medical Center, Series 2004A, 5.500%, 5/15/18 - AMBAC Insured	5/12 at
Housing/Single Family - 0.6% (0.4% of Total Investments)		
1,105	California Housing Finance Agency, Single Family Mortgage Bonds, Series 1997C-2-II, 5.625%, 8/01/20 (Alternative Minimum Tax) - MBIA Insured	8/07 at

Tax Obligation/General - 20.2% (13.7% of Total Investments)

1,460	ABC Unified School District, Los Angeles County, California, General Obligation Bonds, Series 2000B, 5.750%, 8/01/16 - FGIC Insured	8/10 at
485	California, General Obligation Veterans Welfare Bonds, Series 1997BH, 5.500%, 12/01/24 (Alternative Minimum Tax) - FSA Insured	6/05 at
2,500	California, Various Purpose General Obligation Bonds, Series 1999, 5.500%, 9/01/24 - FSA Insured	9/09 at
4,400	California, General Obligation Bonds, Series 2003, 5.000%, 2/01/31 - MBIA Insured	2/13 at
3,000	California, General Obligation Veterans Welfare Bonds, Series 2001BZ, 5.375%, 12/01/24 (Alternative Minimum Tax) - MBIA Insured	6/07 at
	California, General Obligation Bonds, Series 2004:	
1,000	5.000%, 2/01/18 - AMBAC Insured	2/14 at
2,250	5.000%, 4/01/31 - AMBAC Insured	4/14 at
	Kern Community College District, California, General Obligation Bonds, Series 2003A:	
3,655	5.000%, 11/01/20 - FGIC Insured	11/13 at
2,665	5.000%, 11/01/21 - FGIC Insured	11/13 at
1,750	Lake Tahoe Unified School District, El Dorado County, California, General Obligation Bonds, Series 1999A, 5.250%, 8/01/24 - FGIC Insured	8/09 at
1,255	Los Angeles Community College District, Los Angeles County, California, General Obligation Bonds, Series 2005A, 5.000%, 8/01/24 - FSA Insured	8/15 at
2,200	Los Angeles Unified School District, California, General Obligation Bonds, Series 2003F, 5.000%, 7/01/17 - FSA Insured	7/13 at
	Manteca Unified School District, San Joaquin County, California, General Obligation Bonds, Series 2004:	
1,000	5.250%, 8/01/21 - FSA Insured	8/14 at
1,000	5.250%, 8/01/22 - FSA Insured	8/14 at
1,270	Merced City School District, Merced County, California, General Obligation Bonds, Series 2004, 5.000%, 8/01/22 - FGIC Insured	8/13 at
1,125	San Diego Unified School District, California, General Obligation Bonds, Election of 1998, Series 1999A, 0.000%, 7/01/21 - FGIC Insured	No Op
2,000	San Francisco Community College District, California, General Obligation Bonds, Series 2002A, 5.000%, 6/15/26 - FGIC Insured	6/10 at

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	San Jose-Evergreen Community College District, Santa Clara County, California, General Obligation Bonds, Series 2005A:		
320	5.000%, 9/01/25 - MBIA Insured		9/15 at
465	5.000%, 9/01/27 - MBIA Insured		9/15 at
1,000	San Ramon Valley Unified School District, Contra Costa County, California, General Obligation Bonds, Series 2004, 5.000%, 8/01/24 - FSA Insured		8/14 at
2,445	Washington Unified School District, Yolo County, California, General Obligation Bonds, Series 2004A, 5.000%, 8/01/21 - FGIC Insured		8/13 at

Tax Obligation/Limited - 44.2% (29.9% of Total Investments)

	Anaheim Public Finance Authority, California, Subordinate Lease Revenue Bonds, Public Improvement Project, Series 1997C:		
5,130	0.000%, 9/01/18 - FSA Insured		No Op
8,000	0.000%, 9/01/21 - FSA Insured		No Op
	California Infrastructure Economic Development Bank, Revenue Bonds, North County Center for Self-Sufficiency Corporation, Series 2004:		
1,535	5.000%, 12/01/20 - AMBAC Insured		12/13 at
1,780	5.000%, 12/01/23 - AMBAC Insured		12/13 at
3,500	California Department of Transportation, Federal Highway Grant Anticipation Bonds, Series 2004A, 5.000%, 2/01/15 - FGIC Insured		No Op
3,450	California State Public Works Board, Lease Revenue Bonds, Department of Health Services, Series 1999A, 5.750%, 11/01/24 - MBIA Insured		11/09 at
5,000	Compton Community Redevelopment Agency, California, Tax Allocation Refunding Bonds, Merged Area Redevelopment Projects, Series 1995A, 6.500%, 8/01/13 - FSA Insured		8/05 at
4,000	Contra Costa County, California, Certificates of Participation Refunding, Merrithew Memorial Hospital Replacement Project, Series 1997, 5.500%, 11/01/22 - MBIA Insured		11/07 at
6,000	El Monte, California, Senior Lien Certificates of Participation, Department of Public Services Facility Phase II, Series 2001, 5.000%, 1/01/21 - AMBAC Insured		1/11 at
3,000	Galt Schools Joint Powers Authority, Sacramento County, California, Revenue Refunding Bonds, High School and Elementary School Facilities, Series 1997A, 5.875%, 11/01/24 - MBIA Insured		11/07 at
285	Hesperia Community Redevelopment Agency, California, Tax Allocation Bonds, Series 2005A, 5.000%, 9/01/20 (WI, settling 6/07/05) - XLCA Insured		9/15 at
5,000	Kern County Board of Education, California, Certificates of Participation Refunding, Series 1998A,		5/08 at

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5.200%, 5/01/28 - MBIA Insured

5,000	La Quinta Redevelopment Agency, California, Tax Allocation Refunding Bonds, Redevelopment Project Area 1, Series 1998, 5.200%, 9/01/28 - AMBAC Insured	9/07 at
2,300	Long Beach Bond Finance Authority, Multiple Project Tax Allocation Bonds, Housing and Gas Utility Financing Project Areas, Series 2005A-1, 5.000%, 8/01/25 - AMBAC Insured	8/15 at
4,000	Los Angeles, California, Certificates of Participation, Municipal Improvement Corporation, Series 2003AW, 5.000%, 6/01/33 - AMBAC Insured	6/13 at
1,000	Los Angeles Community Redevelopment Agency, California, Tax Allocation Bonds, Bunker Hill Project, Series 2004A, 5.000%, 12/01/20 - FSA Insured	12/14 at
3,865	Los Angeles County Metropolitan Transportation Authority, California, Proposition C Second Senior Lien Sales Tax Revenue Bonds, Series 2000A, 5.250%, 7/01/30 - FGIC Insured	7/10 at
1,250	Los Angeles County Metropolitan Transportation Authority, California, Proposition A First Tier Senior Sales Tax Revenue Bonds, Series 2003B, 5.000%, 7/01/19 - MBIA Insured	7/13 at
2,690	Norwalk Community Facilities Financing Authority, Los Angeles County, California, Tax Allocation Revenue Refunding Bonds, Series 1995A, 6.000%, 9/01/15 - FSA Insured	9/05 at
2,780	Pittsburg Redevelopment Agency, California, Tax Allocation Refunding Bonds, Los Medanos Community Development Project, Series 2003A, 5.000%, 8/01/12 - MBIA Insured	No Op
4,140	Plumas County, California, Certificates of Participation, Capital Improvement Program, Series 2003A, 5.000%, 6/01/28 - AMBAC Insured	6/13 at
2,000	Poway Redevelopment Agency, California, Tax Allocation Refunding Bonds, Paguay Redevelopment Project, Series 2000, 5.750%, 6/15/33 - MBIA Insured	12/10 at
1,000	Rocklin Unified School District, Placer County, California, Special Tax Bonds, Community Facilities District 1, Series 2004, 5.000%, 9/01/25 - MBIA Insured	9/13 at
5,000	San Bernardino Joint Powers Financing Authority, California, Certificates of Participation Refunding, Police Station Financing Project, Series 1999, 5.500%, 9/01/20 - MBIA Insured	9/09 at
3,500	San Francisco Bay Area Rapid Transit District, California, Sales Tax Revenue Bonds, Series 1999, 5.500%, 7/01/34 - FGIC Insured	7/09 at
1,930	Santa Margarita/Dana Point Authority, Orange County, California, Revenue Refinancing Bonds, Improvement Districts 1, 2, 2A and 8, Series 1994A, 7.250%, 8/01/05 - MBIA Insured	No Op

Transportation - 6.7% (4.5% of Total Investments)

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6,500	Foothill/Eastern Transportation Corridor Agency, California, Toll Road Revenue Refunding Bonds, Series 1999, 0.000%, 1/15/18 - MBIA Insured	1/10 at
4,000	Orange County Transportation Authority, California, Toll Road Revenue Bonds, 91 Express Lanes Project, Series 2003A, 5.000%, 8/15/18 - AMBAC Insured	8/13 at
5,000	San Francisco Airports Commission, California, Revenue Refunding Bonds, San Francisco International Airport, Second Series 2001, Issue 27A, 5.250%, 5/01/31 (Alternative Minimum Tax) - MBIA Insured	5/11 at

U.S. Guaranteed * - 22.0% (14.9% of Total Investments)**

California Infrastructure Economic Development Bank, Revenue Bonds, Asian Art Museum of San Francisco, Series 2000:		
1,295	5.500%, 6/01/19 (Pre-refunded to 6/01/10) - MBIA Insured	6/10 at
1,000	5.500%, 6/01/20 (Pre-refunded to 6/01/10) - MBIA Insured	6/10 at
California, Various Purpose General Obligation Bonds, Series 2000:		
7,995	5.750%, 3/01/22 (Pre-refunded to 3/01/10) - MBIA Insured	3/10 at
2,000	5.750%, 3/01/27 (Pre-refunded to 3/01/10) - MBIA Insured	3/10 at
2,725	Central Unified School District, Fresno County, California, General Obligation Bonds, Series 1993, 5.625%, 3/01/18 - AMBAC Insured	9/05 at
3,000	Escondido Union High School District, San Diego County, California, General Obligation Bonds, Series 1996, 5.700%, 11/01/10 - MBIA Insured	11/06 at
Fresno Unified School District, Fresno County, California, General Obligation Bonds, Series 2001F:		
1,065	5.125%, 8/01/21 - FSA Insured	8/09 at
1,160	5.125%, 8/01/22 - FSA Insured	8/09 at
1,220	5.125%, 8/01/23 - FSA Insured	8/09 at
1,500	Hacienda La Puente Unified School District, Los Angeles County, California, General Obligation Bonds, Series 2000A, 5.250%, 8/01/25 (Pre-refunded to 8/01/10) - MBIA Insured	8/10 at
1,890	Menifee Union School District, Riverside County, California, Certificates of Participation, School Projects, Series 1996, 6.125%, 9/01/24 (Pre-refunded to 9/01/06) - FSA Insured	9/06 at
2,500	Oakland, California, Insured Revenue Bonds, 1800 Harrison Foundation - Kaiser Permanente, Series 1999A, 6.000%, 1/01/29 (Pre-refunded to 1/01/10) - AMBAC Insured	1/10 at
4,320	Riverside County, California, GNMA Mortgage-Backed Securities Program Single Family Mortgage Revenue Bonds, Series 1987B, 8.625%, 5/01/16 (Alternative Minimum Tax)	No Op
1,000	Sacramento County Sanitation District Financing Authority, California, Revenue Bonds, Series 2000A, 5.500%, 12/01/20 (Pre-refunded to 12/01/10) - AMBAC Insured	12/10 at

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5,450	Visalia, California, Certificates of Participation Refunding, Motor Vehicle License Fee Enhancement, Series 1996A, 5.375%, 12/01/26 (Pre-refunded to 12/01/06) - MBIA Insured	12/06 at
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Utilities - 12.1% (8.2% of Total Investments)

3,740	California Pollution Control Financing Authority, Revenue Refunding Bonds, Southern California Edison Company, Series 1999B, 5.450%, 9/01/29 - MBIA Insured (a)	9/09 at
3,215	Modesto Irrigation District, California, Revenue Refunding Bonds, Series 1996A, 6.000%, 10/01/15 - MBIA Insured	10/06 at
3,500	Puerto Rico Electric Power Authority, Power Revenue Bonds, Series 2002II, 5.125%, 7/01/26 - FSA Insured	7/12 at
1,790	Sacramento City Financing Authority, California, Capital Improvement Revenue Bonds, Solid Waste and Redevelopment Projects, Series 1999, 5.800%, 12/01/19 - AMBAC Insured	12/09 at
1,950	Salinas Valley Solid Waste Authority, California, Revenue Bonds, Series 2002, 5.250%, 8/01/27 (Alternative Minimum Tax) - AMBAC Insured	8/12 at
	Santa Clara, California, Subordinate Electric Revenue Bonds, Series 2003A:	
2,800	5.000%, 7/01/24 - MBIA Insured	7/13 at
5,000	5.000%, 7/01/28 - MBIA Insured	7/13 at

Water and Sewer - 25.1% (17.0% of Total Investments)

1,700	Castaic Lake Water Agency, California, Revenue Certificates of Participation, Series 2004A, 5.000%, 8/01/20 - AMBAC Insured	8/14 at
2,975	Chino Basin Regional Finance Authority, California, Sewerage System Revenue Bonds, Inland Empire Utilities Agency, Series 1994, 6.000%, 8/01/16 - AMBAC Insured	8/05 at
2,000	El Dorado Irrigation District, California, Water and Sewer Certificates of Participation, Series 2004A, 5.000%, 3/01/21 - FGIC Insured	3/14 at
2,700	Los Angeles County Sanitation Districts Financing Authority, California, Senior Revenue Bonds, Capital Projects, Series 2003A, 5.000%, 10/01/21 - FSA Insured	10/13 at
12,000	Orange County Sanitation District, California, Certificates of Participation, Series 2003, 5.000%, 2/01/33 - FGIC Insured	8/13 at
2,775	Pomona Public Financing Authority, California, Revenue Bonds, Water Facilities Project, Series 1999AC, 5.500%, 5/01/29 - FGIC Insured	5/09 at

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750	Sacramento County Sanitation District Financing Authority, California, Revenue Bonds, Series 2004A, 5.000%, 12/01/21 - AMBAC Insured	12/14 at
1,520	San Buenaventura, California, Water Revenue Certificates of Participation, Series 2004, 5.000%, 10/01/25 - AMBAC Insured	10/14 at
3,675	San Dieguito Water District, California, Water Revenue Bonds, Series 2004, 5.000%, 10/01/23 - FGIC Insured	10/14 at
	Santa Clara Valley Water District, California, Certificates of Participation, Series 2004A:	
1,400	5.000%, 2/01/19 - FGIC Insured	2/14 at
445	5.000%, 2/01/20 - FGIC Insured	2/14 at
465	5.000%, 2/01/21 - FGIC Insured	2/14 at
2,130	Santa Rosa, Sonoma County, California, Wastewater Revenue Bonds, Series 2004B, 5.000%, 9/01/18 - FGIC Insured	9/14 at
2,500	West Basin Municipal Water District, California, Revenue Certificates of Participation, Series 2003A, 5.000%, 8/01/30 - MBIA Insured	8/13 at
4,500	Westlands Water District, California, Revenue Certificates of Participation, Series 2005A, 5.000%, 9/01/30 - MBIA Insured	3/15 at
	Yorba Linda Water District, California, Certificates of Participation, Highland Reservoir Renovation, Series 2003:	
2,010	5.000%, 10/01/28 - FGIC Insured	10/13 at
2,530	5.000%, 10/01/33 - FGIC Insured	10/13 at

\$ 277,785 Total Long-Term Investments (cost \$268,834,286) - 147.7%

Other Assets Less Liabilities - 1.1%

Preferred Shares, at Liquidation Value - (48.8)%

Net Assets Applicable to Common Shares - 100%

All of the bonds in the portfolio are either covered by Original Issue Insurance, Secondary Market Insurance or Portfolio Insurance, or are backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities, any of which ensure 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.

- * 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.
 - ** Ratings: Using the higher of Standard & Poor's or Moody's rating.
 - *** Securities are backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities which ensures the timely payment of principal and interest.
- (a) The issuer has received a preliminary adverse determination from the Internal Revenue Service (the "IRS") regarding the tax-exempt status of the bonds' coupon payments. The Fund will continue to treat coupon payments as tax-exempt income until such time that it is formally determined that the interest on the bonds should be treated as taxable.
- (WI) Security purchased on a when-issued basis.

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 income on taxable market discount securities and timing differences in recognizing certain gains and losses on investment transactions.

At May 31, 2005, the cost of investments was \$268,696,298.

Gross unrealized appreciation and gross unrealized depreciation of investments at May 31, 2005, were as follows:

Gross unrealized:

Appreciation

Depreciation

Net unrealized appreciation of investments

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: 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 Premium Income Municipal Fund 2, Inc.

By (Signature and Title)* /s/ Jessica R. Droeger--Vice President and Secretary

Date 07/29/05

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--Chief Administrative Officer (principal executive officer)

Date 07/29/05

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

Date 07/29/05

* Print the name and title of each signing officer under his or her signature.