NUVEEN INSURED CALIFORNIA PREMIUM INCOME MUNICIPAL FUND 2 IN Form N-Q January 29, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM N-O

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)

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: 11/30/09

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) November 30, 2009 Principal Amount (000) Description (1) Education and Civic Organizations – 5.6% (3.7% of Total Investments) 620 California Educational Facilities Authority, Revenue Bonds, University of the Pacific, Series 2000, 5.875%, 11/01/20 - NPFG Insured 1,250 California Educational Facilities Authority, Student Loan Revenue Bonds, Cal Loan Program, Series 2001A, 5.400%, 3/01/21 – NPFG Insured (Alternative Minimum Tax) 1,500 California State University, Systemwide Revenue Bonds, Series 2005A, 5.000%, 11/01/25 – **AMBAC** Insured 6,000 University of California, Revenue Bonds, Multi-Purpose Projects, Series 2003A, 5.000%, 5/15/27 – AMBAC Insured (UB) 9,370 Total Education and Civic Organizations Health Care – 2.2% (1.5% of Total Investments) 1,410 California Statewide Communities Development Authority, Revenue Bonds, Saint Joseph Health System, Trust 2554, 18.284%, 7/01/47 – FSA Insured (IF) 2,000 The Regents of the University of California, Medical Center Pooled Revenue Bonds, Series 2007A, 4.500%, 5/15/37 - NPFG Insured 650 University of California, Hospital Revenue Bonds, UCLA Medical Center, Series 2004A, 5.500%, 5/15/18 - AMBAC Insured 4,060 Total Health Care Housing/Single Family – 1.5% (1.0% of Total Investments) 340 California Housing Finance Agency, Home Mortgage Revenue Bonds, Series 2006H, 5.750%, 8/01/30 – FGIC Insured (Alternative Minimum Tax) 1,985 California Housing Finance Agency, Home Mortgage Revenue Bonds, Series 2006K, 5.500%, 2/01/42 – AMBAC Insured (Alternative Minimum Tax) 315 California Housing Finance Agency, Single Family Mortgage Bonds, Series 1997C-2-II, 5.625%, 8/01/20 – NPFG Insured (Alternative Minimum Tax) 2,640 Total Housing/Single Family

Tax Obligation/General – 24.7% (16.4% of Total Investments)

2000B, 5.750%, 8/01/16 - FGIC Insured

1,460 ABC Unified School District, Los Angeles County, California, General Obligation Bonds, Series

- 1,425 Bassett Unified School District, Los Angeles County, California, General Obligation Bonds, Series 2006B, 5.250%, 8/01/30 FGIC Insured
- 3,000 California State, General Obligation Bonds, Series 2006, 4.500%, 9/01/36 FSA Insured
- 4,400 California, General Obligation Bonds, Series 2003, 5.000%, 2/01/31 NPFG Insured
- 3,000 California, General Obligation Veterans Welfare Bonds, Series 2001BZ, 5.375%, 12/01/24 NPFG Insured (Alternative Minimum Tax)
- 3,200 Coast Community College District, Orange County, California, General Obligation Bonds, Series 2006C, 0.000%, 8/01/31 FSA Insured
- 2,210 Fontana Unified School District, San Bernardino County, California, General Obligation Bonds, Trust 2668, 9.099%, 8/01/28 FSA Insured (IF)
- 1,255 Los Angeles Community College District, Los Angeles County, California, General Obligation Bonds, Series 2005A, 5.000%, 8/01/24 FSA Insured
- 4,000 Los Angeles Unified School District, Los Angeles County, California, General Obligation Bonds, Series 2007A, 4.500%, 7/01/24 FSA Insured Los Rios Community College District, Sacramento, El Dorado and Yolo Counties, California, General Obligation Bonds, Series 2006C:
- 2,110 5.000%, 8/01/21 FSA Insured (UB)
- 3,250 5.000%, 8/01/22 FSA Insured (UB)
- 3,395 5.000%, 8/01/23 FSA Insured (UB)
- 1,270 Merced City School District, Merced County, California, General Obligation Bonds, Series 2004, 5.000%, 8/01/22 FGIC Insured
 - 305 Roseville Joint Union High School District, Placer County, California, General Obligation Bonds, Series 2006B, 5.000%, 8/01/27 FGIC Insured
- 2,500 Sacramento City Unified School District, Sacramento County, California, General Obligation Bonds, Series 2005, 5.000%, 7/01/27 NPFG Insured
- 1,125 San Diego Unified School District, California, General Obligation Bonds, Election of 1998, Series 1999A, 0.000%, 7/01/21 FGIC Insured
- 2,000 San Francisco Community College District, California, General Obligation Bonds, Series 2002A, 5.000%, 6/15/26 FGIC Insured
- 1,000 San Ramon Valley Unified School District, Contra Costa County, California, General Obligation Bonds, Series 2004, 5.000%, 8/01/24 FSA Insured
- 2,445 Washington Unified School District, Yolo County, California, General Obligation Bonds, Series 2004A, 5.000%, 8/01/21 FGIC Insured
- 43,350 Total Tax Obligation/General
 - Tax Obligation/Limited 58.8% (39.1% 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
- 8,000 0.000%, 9/01/21 FSA Insured
 - California Infrastructure Economic Development Bank, Revenue Bonds, North County Center for Self-Sufficiency Corporation, Series 2004:

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1,535	5.000%, 12/01/20 – AMBAC Insured	12
1,780	5.000%, 12/01/23 – AMBAC Insured	12
3,725	California State Public Works Board, Lease Revenue Bonds, Department of Corrections & Rehabilitation, Series 2005J, 5.000%, 1/01/17 – AMBAC Insured	1
380	Capistrano Unified School District, Orange County, California, Special Tax Bonds, Community Facilities District, Series 2005, 5.000%, 9/01/24 – FGIC Insured	ç
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
8,280	Fontana Public Financing Authority, California, Tax Allocation Revenue Bonds, North Fontana Redevelopment Project, Series 2005A, 5.000%, 10/01/32 – AMBAC Insured	10
6,215	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Revenue Bonds, Drivers Trust 2091, 9.489%, 6/01/45 – AGC Insured (IF)	6
2,000	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Revenue Bonds, Residual Series 2040, 10.360%, 6/01/45 – FGIC Insured (IF) Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed	6
	Revenue Bonds, Series 2005A:	
20 110	5.000%, 6/01/35 – FGIC Insured	6
	5.000%, 6/01/45 – FGIC Insured	6
	Hesperia Public Financing Authority, California, Redevelopment and Housing Projects Tax	9
-,	Allocation Bonds, Series 2007A, 5.000%, 9/01/37 – SYNCORA GTY Insured	
1,700	Hesperia Unified School District, San Bernardino County, California, Certificates of	2
,	Participation, Capital Improvement, Series 2007, 5.000%, 2/01/41 – AMBAC Insured	
1,810	Kern County Board of Education, California, Certificates of Participation Refunding, Series 1998A, 5.200%, 5/01/28 – NPFG Insured	5
5,000	La Quinta Redevelopment Agency, California, Tax Allocation Refunding Bonds, Redevelopment	3
2 105	Project Area 1, Series 1998, 5.200%, 9/01/28 – AMBAC Insured	C
2,185	Los Angeles Community Redevelopment Agency, California, Lease Revenue Bonds, Manchester Social Services Project, Series 2005, 5.000%, 9/01/37 – AMBAC Insured	9
1,000	Los Angeles Community Redevelopment Agency, California, Tax Allocation Bonds, Bunker Hill Project, Series 2004A, 5.000%, 12/01/20 – FSA Insured	12
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 – NPFG Insured	7
4,000	Los Angeles, California, Certificates of Participation, Municipal Improvement Corporation, Series 2003AW, 5.000%, 6/01/33 – AMBAC Insured	6
3,000	Los Angeles, California, Municipal Improvement Corporation, Lease Revenue Bonds, Police Headquarters, Series 2006A, 4.750%, 1/01/31 – FGIC Insured	1
6,120	Moreno Valley Community Redevelopment Agency, California, Tax Allocation Bonds, Series 2007A, 5.000%, 8/01/38 – AMBAC Insured	8
4,140	Plumas County, California, Certificates of Participation, Capital Improvement Program, Series 2003A, 5.000%, 6/01/28 – AMBAC Insured	6
390	Poway Redevelopment Agency, California, Tax Allocation Refunding Bonds, Paguay Redevelopment	12

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	Project, Series 2000, 5.750%, 6/15/33 – NPFG Insured
325	Rialto Redevelopment Agency, California, Tax Allocation Bonds, Merged Project Area, Series
	2005A, 5.000%, 9/01/35 – SYNCORA GTY Insured
1,000	Rocklin Unified School District, Placer County, California, Special Tax Bonds, Community
	Facilities District 1, Series 2004, 5.000%, 9/01/25 – NPFG Insured
405	Roseville, California, Certificates of Participation, Public Facilities, Series 2003A, 5.000%,
	8/01/25 – AMBAC Insured
5,000	San Bernardino Joint Powers Financing Authority, California, Certificates of Participation
	Refunding, Police Station Financing Project, Series 1999, 5.500%, 9/01/20 – NPFG Insured
1,500	San Jose Redevelopment Agency, California, Tax Allocation Bonds, Merged Project Area, Series
	2005A, 5.000%, 8/01/28 – NPFG Insured
5,510	Sweetwater Union High School District Public Financing Authority, California, Special Tax
	Revenue Bonds, Series 2005A, 5.000%, 9/01/28 – FSA Insured
1,020	Washington Unified School District, Yolo County, California, Certificates of Participation,
	Series 2007, 5.125%, 8/01/37 – AMBAC Insured
117,265	Total Tax Obligation/Limited
	Transportation – 7.4% (4.9% of Total Investments)
6,500	Foothill/Eastern Transportation Corridor Agency, California, Toll Road Revenue Refunding
	Bonds, Series 1999, 0.000%, 1/15/18 – NPFG Insured
4,000	Orange County Transportation Authority, California, Toll Road Revenue Bonds, 91 Express Lanes
	Project, Series 2003A, 5.000%, 8/15/18 – AMBAC Insured
5,000	San Francisco Airports Commission, California, Revenue Refunding Bonds, San Francisco
	International Airport, Second Series 2001, Issue 27A, 5.250%, 5/01/31 – NPFG Insured
15.500	(Alternative Minimum Tax)
15,500	Total Transportation
1 200	U.S. Guaranteed – 19.5% (12.9% of Total Investments) (4)
1,380	California Educational Facilities Authority, Revenue Bonds, University of the Pacific, Series
	2000, 5.875%, 11/01/20 (Pre-refunded 11/01/10) – MBIA Insured California, Various Purpose General Obligation Bonds, Series 2000:
7 005	5.750%, 3/01/22 (Pre-refunded 3/01/10) – NPFG Insured
•	5.750%, 3/01/22 (Pre-refunded 3/01/10) – NPFG Insured
	Central Unified School District, Fresno County, California, General Obligation Bonds, Series
2,003	1993, 5.625%, 3/01/18 – AMBAC Insured (ETM)
3 000	Escondido Union High School District, San Diego County, California, General Obligation Bonds,
2,000	Series 1996, 5.700%, 11/01/10 – MBIA Insured (ETM)
	Fresno Unified School District, Fresno County, California, General Obligation Bonds,
	Series 2001F:
1,065	5.125%, 8/01/21 – FSA Insured (ETM)
	5.125%, 8/01/22 – FSA Insured (ETM)
	5.125%, 8/01/23 – FSA Insured (ETM)
	Hacienda La Puente Unified School District, Los Angeles County, California, General Obligation

	Bonds, Series 2000A, 5.250%, 8/01/25 (Pre-refunded 8/01/10) – MBIA Insured
	Manteca Unified School District, San Joaquin County, California, General Obligation Bonds,
	Series 2004:
1,000	5.250%, 8/01/21 (Pre-refunded 8/01/14) – FSA Insured
1,000	5.250%, 8/01/22 (Pre-refunded 8/01/14) – FSA Insured
1,610	Poway Redevelopment Agency, California, Tax Allocation Refunding Bonds, Paguay Redevelopment Project, Series 2000, 5.750%, 6/15/33 (Pre-refunded 12/15/10) – MBIA Insured
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) (ETM)
1,000	Sacramento County Sanitation District Financing Authority, California, Revenue Bonds, Series 2000A, 5.500%, 12/01/20 (Pre-refunded 12/01/10) – AMBAC Insured
905	University of California, Hospital Revenue Bonds, UCLA Medical Center, Series 2004A, 5.500%,
	5/15/18 (Pre-refunded 5/15/12) – AMBAC Insured
31,140	Total U.S. Guaranteed
	Utilities – 8.1% (5.4% of Total Investments)
3,740	California Pollution Control Financing Authority, Revenue Refunding Bonds, Southern California
	Edison Company, Series 1999B, 5.450%, 9/01/29 – NPFG Insured
670	Merced Irrigation District, California, Electric System Revenue Bonds, Series 2005, 5.125%,
	9/01/31 – SYNCORA GTY Insured
100	Sacramento City Financing Authority, California, Capital Improvement Revenue Bonds, Solid
	Waste and Redevelopment Projects, Series 1999, 5.800%, 12/01/19 – AMBAC Insured
1,950	Salinas Valley Solid Waste Authority, California, Revenue Bonds, Series 2002, 5.250%,
	8/01/27 – AMBAC Insured (Alternative Minimum Tax)
	Santa Clara, California, Subordinate Electric Revenue Bonds, Series 2003A:
2,800	5.000%, 7/01/24 – NPFG Insured
5,000	5.000%, 7/01/28 – NPFG Insured
14,260	Total Utilities
	Water and Sewer – 22.7% (15.1% of Total Investments)
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
2,000	El Dorado Irrigation District, California, Water and Sewer Certificates of Participation,
	Series 2004A, 5.000%, 3/01/21 – FGIC Insured
750	Fortuna Public Finance Authority, California, Water Revenue Bonds, Series 2006, 5.000%,
	10/01/36 – FSA Insured
460	Healdsburg Public Financing Authority, California, Wastewater Revenue Bonds, Series 2006,
	5.000%, 4/01/36 – NPFG Insured
2,700	Los Angeles County Sanitation Districts Financing Authority, California, Senior Revenue Bonds,
	Capital Projects, Series 2003A, 5.000%, 10/01/21 – FSA Insured

430 Marina Coast Water District, California, Enterprise Certificate of Participation, Series 2006,

NPFG Insured

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		5.000%, 6/01/31 – NPFG Insured
	12,000	Orange County Sanitation District, California, Certificates of Participation, Series 2003,
		5.000%, 2/01/33 – FGIC Insured (UB)
	1,520	San Buenaventura, California, Water Revenue Certificates of Participation, Series 2004,
		5.000%, 10/01/25 – AMBAC Insured
	1,000	San Diego County Water Authority, California, Water Revenue Certificates of Participation,
		Series 2008A, 5.000%, 5/01/38 – FSA Insured
	3,675	San Dieguito Water District, California, Water Revenue Bonds, Series 2004, 5.000%, 10/01/23 –
		FGIC Insured
		Santa Clara Valley Water District, California, Certificates of Participation, Series 2004A:
	1,400	5.000%, 2/01/19 – FGIC Insured
	445	5.000%, 2/01/20 – FGIC Insured
	465	5.000%, 2/01/21 – FGIC Insured
	2,500	West Basin Municipal Water District, California, Revenue Certificates of Participation, Series
		2003A, 5.000%, 8/01/30 – NPFG Insured
		Yorba Linda Water District, California, Certificates of Participation, Highland Reservoir
		Renovation, Series 2003:
	2,010	5.000%, 10/01/28 – FGIC Insured
	2,530	5.000%, 10/01/33 – FGIC Insured
	38,860	Total Water and Sewer
\$	276,445	Total Investments (cost \$260,690,903) – 150.5%
		Floating Rate Obligations – $(10.2)\%$
		Other Assets Less Liabilities – 5.5%
		Auction Rate Preferred Shares, at Liquidation Value – (45.8)% (5)
		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 methodology 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 November 30, 2009:

	Level 1	Level 2	Level 3	Total
Investments:				
Municipal Bonds	\$ -\$262,496,832		\$ -\$262,496,832	

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 November 30, 2009, the cost of investments was \$242,451,346.

Gross unrealized appreciation and gross unrealized depreciation of investments at November 30, 2009, were as follows:

Gross unrealized:

Appreciation	\$ 9,174,687
Depreciation	(7,009,719)
Net unrealized appreciation (depreciation) of investments	\$ 2,164,968

Primarily all of the Fund's net assets are invested in municipal securities that guarantee 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 higher of Standard & Poor's Group ("Standard & Poor's") or Moody's Investor Service, Inc. ("Moody's") rating. Ratings below BBB by Standard & Poor's or Baa by Moody's are considered to be below investment grade.
 - The Portfolio of Investments may reflect the ratings on certain bonds whose insurer has experienced downgrades as of the end of the reporting period. Subsequent to the reporting period, and during the period this Portfolio of Investments was prepared, there may have been reductions to the ratings of certain bonds resulting from changes to the ratings of the underlying insurers both during the period and after period end. Such reductions would likely reduce the effective rating of many of the bonds insured by that insurer or insurers presented at period end.
- (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) Auction Rate Preferred Shares, at Liquidation Value as a percentage of Total Investments is 30.4%.
- N/R Not rated.
- (ETM) Escrowed to maturity.
 - (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 Premium Income Municipal Fund 2, Inc.

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

Kevin J. McCarthy

Vice President and Secretary

Date January 29, 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 January 29, 2010

By (Signature and Title) /s/ Stephen D. Foy

Stephen D. Foy

Vice President and Controller (principal financial officer)

Date January 29, 2010