

CALIFORNIA CREDIT DEFAULT SWAPS – STATE TREASURER’S INQUIRY

Quotes from Bank Research Documents Submitted in Response to
Treasurer’s May 5, 2010 Letter

OPERATION OF MUNICIPAL CDS MARKET

➤ BANK OF AMERICA MERRILL LYNCH

May 5, 2008 – Munis & Derivatives Commentary: CDX comes to munis

“As a way to transfer risk, credit default swaps (CDS) gained in popularity from being used just for traditional bank hedging to more exotic synthetic investment vehicles.”

“In many cases, the notional (face) amount of CDS outstanding is well over 100 percent of the amount of underlying bonds that actually exist. As a result, the CDS market can offer investors an alternative way to take credit risk while providing more liquidity than cash bond markets can offer ... The CDS market has attracted a broad range of both ‘real money’ investors (i.e. traditional buy and hold institutional investors) and ‘fast money’ investors (i.e. strategic, short-term investors).”

➤ **J.P. MORGAN**

February 25, 2010 – US Fixed Income Markets Research Notes

“To some degree, the inability to short-sell municipal bonds helps mute precipitous devaluation of relative valuations caused by speculators hoping to capitalize on short-term swings in sentiment. This partly explains the limited effect on California cash bond valuations despite evidence of heightened investor concern about California as a result of Greece’s difficulties. The most direct way for speculators and hedgers to express their bearish views is in CDS markets.”

February 27, 2009 – US Fixed Income Markets Weekly

“Though we think that muni (bond) spreads may be overpricing risk in terms of default, we concur that the probability of default has increased. However, we think that much of the spread widening may be more aptly attributed to rating downgrade risk than default risk. Nonetheless, we stay cautious on muni credit and recommend maintaining hedges via MCDX and MCDS.”

May 2, 2008 – US Fixed Income Markets Weekly

“The MCDX will be launched ... on May 6, 2008 and will be the first standardized tradable Muni CDS index ... JP Morgan, Citigroup, Goldman Sachs, Merrill Lynch and Morgan Stanley have indicated they will support and trade the index launch.”

“Investors may also express their bearish Muni credit views by buying MCDS and MCDX even if they do not own any Muni bonds. It is here that the expected deeper liquidity in MCDX may offer an advantage over the cash bond market ... the outstanding volume of single-name MCDS, which we believe to be in excess of \$100bn, indicates the growth prospects ahead.”

CDS PRICES AND RISK REALITY

➤ CITIGROUP

January 18, 2008 – Markets and Banking: California CDS and Cash Spreads

“The current 10YR CDS spread of 57 bps implies a cumulative 25% chance of default for the State General Obligation Credit using an 80% recovery level.” (Note: 80 percent recovery probably at low end of historic rates for muni defaults)

December 12, 2008 – Municipal Market Comment

“We also note that pricing in the thinly traded and poorly understood market for municipal credit default swaps has, quite literally, gone haywire. 5-year State of California CDS protection is being quoted around 480 basis points. That’s wider than Turkey at 413 bps. With a conservative recovery assumption of 50 percent for California, their 5YR level implies approximately a 40% chance of default.

“This pricing has nothing in common with actual risks, in our opinion ... comments about the default swap market are being taken by some investors and members of the financial press as somehow being based on sophisticated analysis of default risk, rather than what it is: a new, thinly traded market where prices can be pushed to extremes by a handful of players.”

➤ **BARCLAYS**

December 5, 2008 – Municipal Market Commentary

“In fact, at California’s current spread levels, an average of 300 bp, and with a 40% recovery rate (the industry standard for corporate bonds), the state’s probability of default is calculated to be 40% in ten years. With an 80% recovery rate (the norm for municipal bonds), California’s default probability is estimated to be a staggering 78% in ten years.”

➤ **BANK OF AMERICA MERRILL LYNCH**

December 15, 2008 – Munis & Derivatives Commentary: Restructuring for retail

“California CDS in five years is quoted in the 475 bp area ... These CDS prices imply default rates of about 60 percent on California ...”

➤ **J.P. MORGAN**

June 5, 2009 – US Fixed Income Markets Weekly

“Current MCDX (municipal CDS index launched by Wall Street banks in May 2008) spreads imply drastically higher default rates than history would project; assuming a recovery rate of 80%, a spread of 175 bp implies a 36% probability of default over five years – 5-year AA cumulative historical default rates were .04% between 1970 and 2006.”

CALIFORNIA CDS – BUDGET HEADLINES, RATINGS AND PRICES

➤ **BARCLAYS**

November 18-24, 2008 – Email Updates from Municipal Derivatives Trading

California CDS spreads widened 10 basis points (bp) on the 18th, widened 12 more bp on the 19th, widened 25 more bp on the 20th, tightened 5 bp on the 21st, and widened 7.5 bp on the 24th. Update on Nov. 20 says, “California and New York City were the weakest performers in the single-name space, with buyers taking positions to guard against further weaknesses in budgets and future tax revenues.”

December 1-5, 2008 – Email updates from Municipal Derivatives Trading

For week ending Dec. 5, California CDS spreads widened 130 bp, including 55 bp on Dec. 3 alone. Update on Dec. 1, when California CDS spreads widened 18 bp, notes, “California Governor Arnold Schwarzenegger declared a fiscal emergency and ordered a special session for lawmakers to consider raising taxes and cutting spending to narrow the projected budget gap.”

December 10 and 11, 2008 – Email updates from Municipal Derivatives Trading

In this two-day span, California CDS spreads widened by 120 bp (75 on the 10th and 45 on the 11th). Update on Dec. 10 says, “California is closing wider by 75 bp with buying interest increasing on the back of the announcement California’s budget deficit has widened to \$14.8 billion for the next seven months amid lawmaker disagreement on how to address the shortfall. We anticipate this pressure to continue in the near-term with investors continuing to attempt to hedge risks into limited liquidity.”

December 31, 2008 – Email update from Municipal Derivatives Trading

Summary for year shows California CDS spreads widened 354 bp in 2008 (89 percent).

January 27, 2009 – Email update from Municipal Derivatives Trading

California CDS spreads tightened 30 bp on the day. The update says, “The aggressive selling was mostly on the back of profit-takers. California and Florida led the move lower in single-names with aggressive sellers, mostly profit-takers, emerging in each.”

February 3, 2009 – Email update from Municipal Derivatives Trading

“California finished the day 10 bp wider following the downgrade of its GO debt to A from A+ by S&P.”

March 13, 2009 – Email update from Municipal Derivatives Trading

California CDS spreads tightened 5 bp, even though, as the update says, “The market ... absorbed news from the state budget office that California’s revenue over the next 16 months will fall at least \$8 billion short of what lawmakers assumed when they passed the budget in the middle of February.”

April 15, 2009 – Barclays Capital Trading and Distribution Commentary

“A lot of chatter around the announcement of \$4 billion in Build America Taxable Bonds from California. The deal should increase focus and flows in the muni CDS market. As we noted in our morning comment, the issuance is a fundamental positive for the state as it will relieve many of the near-term cash flow concerns the state has been

facing due to falling revenues. However, interest from basis-buyers and credit hedgers may put pressure on 10-year CA GO CDS spreads.”

April 29, 2009 – Barclays Capital Trading and Distribution Commentary

“California CDS spreads drifted lower by 5 bp, taking cues from the CA BAB market which rallied 10 bp at the long-end of the curve.”

June 3, 2009 – Barclays Capital Trading and Distribution Commentary

On a day when California CDS spreads did not move, the commentary says, “The California market continues to feel heavy with few participants looking to go long the risk as legislators continue to reach solutions to the current budget deficit.”

June 16 and 19, 2009 – Barclays Capital Trading and Distribution Commentary

California CDS spreads widened 15 bp each of those two days. The June 16 commentary points to S&P’s announcement it would follow Fitch and place California on watch for possible downgrade. S&P’s announcement, the commentary notes, warned that “insufficient or untimely budget reforms serve to increase the risk of missed (debt service) payments.” The June 18 commentary cites Moody’s decision to place California on negative credit watch.

July 21, 2009 – Barclays Capital Trading and Distribution Commentary

California CDS spreads tightened 15 bp on the day. “The market opened tighter as California lawmakers reached an agreement regarding how to close the state’s \$26 billion budget deficit.”

January 9, 2009 – Municipal Market Commentary

Reporting on December market events, the commentary says, “... California was the most volatile single-name CDS, gapping up by 200 bp to 500 bp in the 10-year space, a historical high.” Of the municipal CDS market in general, the commentary says, “We anticipate that spreads will continue to be affected by headline risk, by negative economic and budget news from individual states, and by President-elect Barack Obama’s economic relief package ... We think the single name to focus on is California.”

February 6, 2009 – Municipal Market Commentary

“Specifically, we believe that there is an opportunity between California spreads, which is trading the widest of all single-names at 320 and MCDX, which is only 190. “ The commentary says California should receive \$7 billion in federal economic stimulus money, should adopt its budget soon, and should recover faster than other states when home prices stabilize. “We believe that with all these factors taken into consideration, California, and MCDX spreads will converge.”

May 8, 2009 – Municipal Market Commentary

The commentary notes municipal CDS spreads, in general, tightened significantly in April (California's narrowed 70 bp). But the report adds, "We foresee there to be more activity and opportunity in the market going into May as additional headlines around state budgets come out with states heading into the FY2010 budget process ... Therefore, we view there to be opportunity in high-beta names as well as the possibility of shorts re-establishing themselves as issuer spreads have been trading in the 100+ bp range despite little positive change to their fundamentals through April."

June 8, 2009 – Municipal Market Commentary

The expected activity increased didn't materialize in May, the commentary notes. "Going into June though, we expect that there will be much more activity surrounding California owing to the state's growing budget deficit and fears of another political stalemate like the one that prolonged the state's previous budget problems earlier this year in February." (Note: California CDS spreads widened 90 bp in June.)