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# Survey: California County Investment Pools Weather Uncertain Interest Rate Environment

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# Survey: California County Investment Pools Weather Uncertain Interest Rate Environment

Toward the end of each fiscal year, local agencies in California prepare their annual budgets for a new fiscal year beginning on July 1. Although not a replacement for lost revenue resulting from state aid reductions or economic weakness, tax and revenue anticipation notes (TRANs) help local agencies manage relatively predictable mismatches between anticipated cash receipts and cash disbursements. Upon their issuance early in the fiscal year, local agencies often invest TRAN proceeds along with repayment accounts (later in the year) with their local county investment pools. We therefore view the condition of the county investment pools as relevant to the TRANs, many of which we rate. Moreover, since many local agencies—and all school districts—invest idle operating and capital funds with their county investment pools, the agencies' exposure to the investment pools transcends TRANs and is a relevant credit consideration more broadly, in our opinion.

## Markets Are Challenging For Public Funds Investors

Uncertainty about whether the economy is at the bottom of the recession and poised for recovery complicates the tasks of public fund investment managers. Other public finance officials, such as budget and finance directors, must grapple with underperforming tax revenues during the recession, but by comparison assuming flat or declining revenue growth is relatively straightforward. Members of the investment staffs of local governments must contend with not only an ambiguous economic outlook, but also the sometimes counterintuitive effects an incipient recovery may have on money markets and interest rates.

California state code stipulates that public sector investment managers prioritize the goals of safety and liquidity of capital above that of generating yield. However, with governmental tax revenues in decline, even modest investment returns can represent an important source of income not easily discounted during what is a difficult budget cycle for most local governments. Returns on Treasury bills are negligible by historical standards. While interest rate spreads—and yields—are higher for non-Treasury assets, their risk characteristics are more opaque. For these assets, investors cannot be certain if yields provide sufficient compensation for the risk. Indeed, in our view, widespread uncertainty about market values of fixed-income assets is one of the underpinnings of the larger financial crisis. We believe this leaves government fund managers with a conundrum: either sacrifice virtually the entire yield component of their investment goals or incur indeterminate risk of loss that may not be appropriate for public funds. Alternatively, public fund investors can invest in Treasuries with longer maturities. The yield curve has steepened since last year, suggesting that there is relatively greater payoff for investing in longer-dated maturities versus staying in short-term assets (although absolute yields are lower in 2009 than they were in 2008). For managers of local government investment pools (LGIP), this strategy may be free of credit risk, but it introduces interest rate or market risk while reducing fund liquidity which also may present challenges in the realm of public investing. At a time when the state of California confronts a \$24 billion budget deficit, liquidity of funds among the county investment pools may be of paramount importance to school districts and other participating local agencies.

## **Role Of Investment Activity Among California Local Governments**

Earnings from the investment of idle funds can represent a small but important source of revenue for local agencies. Investment earnings produced about 4% of total revenues for California cities in fiscal 2007, according to the state controller. Considering just city general funds, investments plus income from use of property generated 5.7% of revenue. Investment earnings for county governments were about 2.6% of total revenues. We understand that county governments' revenue bases and programmatic service requirements are less discretionary than they are for cities—leaving a smaller portion of their funding base available for interim investment.

Investment income has grown in importance for local governments in California because other key revenues, such as property taxes, are subject to significant legal restrictions that have curtailed their growth. Whereas property tax revenues comprised 33% of total county revenues in 1978 when voters adopted Proposition 13, as of 2007 they represent a lower, though still important 23%, of total revenues, according to the state controller. As a portion of county general funds—the repository of discretionary funds—this trend is exaggerated. Compared to 1978 when property taxes made up 40% of county general funds, by the early 1990s they had declined to just 15%, after the full effects of Proposition 13 had taken hold. Alternative revenues, such as those from investment activity, have assumed greater prominence in the typical California local government revenue base. It can appear attractive and relatively costless to try to boost revenue by investing available funds to achieve a higher rate of return. However, unlike the revenue implications from a softening of economic performance, fallout from risky investment activity has the potential to introduce disproportionate and sudden financial and credit deterioration.

Even without employing risky investment strategies, income from investments for local governments is volatile. According to data compiled by the state controller, over the past 10 years, year-over-year investment earnings among a composite of California city governments have declined as much as 46% (2004) and increased as much as 62% (2007). Property tax revenues, by comparison, demonstrate much greater stability having only increased anywhere from 4.5% to 9.6% between 1998 and 2006.

## **Buy-And-Hold Approach Prevails Among California County Investment Pools**

A majority of California county investment pools are managed with a buy-and-hold approach and avoid the buying-and-then-selling of securities prior to their maturity in an attempt to return a profit. Since the California state code allows for investments in securities with maturities of up to five years, some investment funds may, however, allocate a portion of their capital to assets with longer maturities of one to five years. This is usually done with funds not needed for immediate liquidity and to generate a higher return. Assets with longer maturities will tend to have greater market (interest rate) risk. Despite their intentions, the pools may experience losses if interest rates rise and a fund participant requires access to cash that necessitates the unanticipated liquidation of an asset prior to its maturity.

## **Do 'Green Shoots' Present Risk For LGIPs?**

Fixed income investors—of which almost all LGIP and all California county investment pools are—will generally experience a decrease in the market value of their assets when interest rates rise. Recent indications that the national economic downturn may be easing in intensity are generally regarded as good news, but contain in our opinion

market risk for U.S. Treasury bond investors. This is because an improved outlook about the economy generally engenders risk taking. Typically, investors express a healthier appetite for risk by allocating a higher proportion of capital to equities and corporate bonds from Treasury bonds. Such a shift will tend to elevate Treasury bond yields thereby reducing secondary market values of these fixed income assets. County investment pools are particularly exposed to increases in Treasury yields since they often allocate significant portions of their portfolios to Treasury bills and notes (as opposed to corporate securities). Following the April 29 meeting of the Federal Open Market Committee, the Federal Reserve acknowledged that "the pace of contraction appears to be somewhat slower." Equity markets and bond yields both rose on the announcement. Yields on five-year Treasury notes increased 24 basis points between April 20 and April 29. Investors that held medium-term notes maturing in more than one year would likely experience unrealized losses. If held to maturity, losses on these securities will remain unrealized. However, reduced asset market values will become realized losses if a pool must sell securities on the secondary market to generate cash for one or more of their participants should they need access to their funds.

In an effort to ease the broader economy's conditions of very tight credit availability, the Federal Reserve has sought to enhance market liquidity. It has reduced short-term rates to historically low levels to, among other things, encourage investment in longer-maturity assets or in non-Treasury securities. Holding longer-term assets for slightly higher yield can introduce interest rate risk should rates revert to a higher—and more historically common—level.

## County Investment Pools And LGIPs As Investment Vehicles

County investment pools in the 58 California counties are vehicles in which local government agencies may invest their idle funds, including bond and note proceeds. The pools are the legal repository of investable funds for school districts (mandatory participants). Additionally, numerous counties agree to accept and invest funds on behalf of other local agencies within their boundaries (voluntary participants).

Three statewide investment options for local agencies in California are the Pooled Money Investment Account (PMIA)-Local Agency Investment Fund (LAIF), the Capital Asset Management Program (CAMP), and CalTRUST.

The LAIF is a \$25.33 billion voluntary pooled money fund that is a part of the state's \$59.01 billion (as of April 30, 2009) PMIA, which is governed by a board composed of the state's treasurer, director of finance, and controller. The LAIF is open to local government units, non-profit public agency-oriented corporations, and public and qualified quasi-governmental agencies. It accepts investments of \$5,000-\$40 million, with no maximum on bond proceeds. (Invested bond proceeds are subject to a slightly less liquid withdrawal schedule.) The LAIF requests a 24 hour notice to make withdrawals of more than \$10 million, though we believe that publicly available language describing the program suggests even more immediate access to funds may be achieved depending upon the circumstance. Local governments have access to the treasurer's dedicated investment staff expertise by investing in the LAIF. Technically, the LAIF is not a stable net asset value (NAV) or "2a-7-like" pool, which among other requirements limits weighted average maturity (WAM) to 90 days or less. As of March 31, 2009, the LAIF's WAM was 10.7% higher at 196 days than it was at March 31, 2008 (177 days), and exceeds the 90-day threshold for a money market fund.

The CAMP cash reserve portfolio is a \$2.76 billion voluntary short-term money market portfolio established in 1989 and modified in 2005 to allow public agencies to invest as participants (as opposed to as trustees). The portfolio, managed by PFM Asset Management, LLC, seeks to preserve principal and maintain daily liquidity while generating a relatively high income to the extent that is consistent with the first two goals. Standard & Poor's rates

the portfolio 'AAAm' which indicates our view that the pool has an extremely strong capacity to maintain principal value and limit exposure to losses due to credit, market, and/or liquidity risks. As a true stable NAV or money market fund, the CAMP cash reserve is very liquid and has a WAM of just 57.54 days. The market value of CAMP's assets is relatively insensitive to changes in market interest rates with an effective duration of just 0.18.

CalTRUST is a joint powers authority structure organized by and available to be invested in by public agencies in California. Standard & Poor's Fund Ratings, which rates funds by request, maintains a rating of 'AAf/S1+' on CalTRUST's \$421 million short-term account. (CalTRUST also offers medium- and long-term accounts.) These ratings indicate our view of the fund's very strong protection against losses from credit defaults and an extremely low sensitivity to changing market conditions. CalTRUST has an effective duration of 0.33 and a WAM of 208 days.

In addition to the funds mentioned above, Standard & Poor's rates seven of California's county investment pools:

- Contra Costa County (AAAf/S1+)
- Orange County Educational Money Market Fund (AAAm)
- Orange County Money Market Fund (AAAm)
- San Bernardino County (AAAf/S1+)
- San Diego County (AAAf/S1)
- Solano County (AAA/S1)
- Ventura County (AAAf/S1+)

To meet the cash flow needs of their participating agencies, we understand that county investment pools require a relatively high level of awareness of the participants' seasonal cash flow patterns. However, California county investment pools are not strictly money market or stable net asset value (NAV) funds, subject to SEC rule "2a-7-like" guidelines. This means that the pools can and do typically invest a portion of the assets under their management with a longer-term perspective with the goal of generating a higher rate of return than may be available in the money markets. In addition to the market dynamics referenced above, investing in assets with maturities of more than one year introduces increased volatility of market values since Governmental Accounting Standards Board (GASB) statement No. 31 requires that these assets be reported at market value. Assets with maturities of one year or less may be reported at amortized cost, or book value.

Several pools are divided so that a portion of the asset base is managed separately to preserve liquidity, with the other portion invested in securities with longer maturities providing higher yields. These approaches more formally segregate assets by strategy type than those that involve laddered and barbelled fixed-income portfolio compositions.

Results from our annual and event-driven periodic surveys suggest to us that most California county investment pools manage their assets conservatively and that legislative reforms put in place following the 1994 Orange County bankruptcy continue to mitigate instances of significant risk taking. Enacted reforms tended to emphasize safety and liquidity while placing restrictions on practices associated with aggressively seeking yield. In 2006 (updated in 2008), the California Debt and Investment Advisory Commission (CDIAC) published its "Local Agency Investment Guidelines," which assists local officials with interpretation of legal requirements as well as consensus investment practice guidelines from CDIAC's working group. Nonetheless, while we believe county investment pool managers typically adhere to investment practices that reflect a prudent set of objectives, increased risk taking in an attempt to produce higher rates of return and revenues can be an attractive strategy. Moreover, in our view the incentive to

seek higher rates of return may be greatest just when local governments can least afford unanticipated losses.

For local governments, we expect that economically sensitive revenues will tend to lag current economic conditions. We believe this means that the slowdown in key tax revenues may materialize in governmental budgets even when the economy begins a recovery phase of the business cycle. From an empirical perspective, this is when Treasury rates tend to drift upward as risk aversion dissipates throughout the capital markets. In our view, investment managers that sought to mitigate the effects of soft tax revenue performance by investing in longer-dated Treasury securities could face higher market risk as a result of this dynamic.

## Survey Topics Reflect Market Conditions

Evolving financial markets have resulted in a broadened menu of investment options, some of which are complex. Along with other institutional investors, governmental investors are faced with holding assets that could entail unexpected credit exposure, market value declines, or severely constrained liquidity, making the determination of a market value difficult. In light of this environment and given that most county pools in California are not rated, our survey focused on aspects of fund management that we believe could present credit risk to participating agencies. In addition to reporting investment pool statistics such as market and book values, we explored aspects of investment management practices and the extent to which the counties invested in various investment instruments prone to credit or liquidity risk.

Similar to other investors, counties are subject to market conditions, particularly the interest rate environment. Unlike some investors however, counties also face relatively inflexible cash outflow needs while serving a highly important role for local entities' operations and TRAN borrowings. They also retain considerable investment strategy independence despite the state reforms that were put in place following the Orange County bankruptcy in 1994. Our review thus considered whether the county pools held asset types that have recently demonstrated strain through limited liquidity, weakening credit, or declining values or were issued by subsequently distressed, bankrupt, or insolvent institutions. Specifically, we surveyed county pools as to whether they held or experienced any of the following:

- Removal or liquidation of any distressed assets (where the issuer had filed for bankruptcy or insolvency);
- Depressed liquidation price of any distressed asset sales;
- Exposure to asset-backed commercial paper (ABCP);
- Significant market value fluctuations.

We also surveyed key investment policies and practices to understand the pools' propensity to have exposure to losses and their ability to withstand stress in the market. By examining whether certain practices known to either enhance or minimize investment risk exposure were present, we sought an understanding of the investment managers' orientation to market risk beyond that related to the most recent developments. Some practices are also suggestive to us of manager sophistication. Among the practices surveyed were:

- What portion of the pool is composed of voluntary participants, if any?
- Frequency of marking-to-market;
- Does the county monitor portfolio duration?
- If investments include illiquid assets, how are they valued?
- Do investments include repurchase agreements? If yes, is there a margin policy? If yes, is collateral other than

Treasury securities accepted?

- Is leverage through reverse-repurchase agreements or securities lending permitted? If yes, may investments in securities with maturities that exceed the agreement be made? What is the limit to pool leverage?

Even though California law limits county investment agreements from entering reverse-repurchase agreements that exceed 92 days or that represent more than 20% of portfolio balance, we think leverage warrants special attention given recent market conditions. As we have noted elsewhere (see "A Subprime Hangover: Credit And Liquidity Concerns Cloud The Broader U.S. Mortgage Market," published Sept. 12, 2007 on RatingsDirect) when market sentiment corrects for previous under-pricing of risk it may overcorrect. During these periods, interest rate spreads to Treasury yields tend to widen and financial institutions can become unwilling to lend, resulting in asset sales being made at depressed prices to meet immediate cash needs. Leveraging the pool by investing with borrowed funds can magnify losses associated with declining asset prices as well as force losses to be realized (as opposed to being carried on paper) if reverse-repo dealers require the borrower (the county pool in this case) to meet margin requirements. Once initiated, this process can quickly deteriorate, as declining asset values can cause the investor (county pool) to have to post additional collateral to meet margin requirements. Losses are amplified as these margin requirements continue to increase so long as asset values decline. In practice, more than a leveraging technique, many counties view the use of reverse-repos as a cash generating technique, allowing assets to be used as collateral in exchange for cash to meet an unexpected cash disbursement.

We believe that some investment pools may be better positioned than others to weather periods of restricted market liquidity. Episodes of upheaval may well be unpleasant though endured if they occur at a time of limited cash outflow needs. When diminished market liquidity coupled with losses is simultaneous with the need for large cash outflows from a pool, the results can be much more deleterious than if these market events occur when cash outflows are limited. Although large cash outflows from county pools frequently have a degree of predictability, they are often also inflexible in their timing. Thus, aside from closely monitoring the participants' anticipated cash needs, investment officials must maintain sufficient liquidity in the pools they manage to meet anticipated and unanticipated withdrawals.

## **Survey Results: Defensive Orientation Results In Some Exposure To Market Risk**

We received survey responses from 54 of the 58 counties. Calaveras, Colusa, Plumas, and Trinity Counties declined to participate. Plumas County provided limited market value data about its pool. Some counties participated by providing data but only partial or ambiguous responses to the questionnaire regarding their portfolio management activities. In aggregate, California county investment pools at March 31, 2009 had a WAM of 380 days, which is very similar to the composite WAM at the same time in 2008 of 385 days. Surveys in March and October of 2007 showed composite WAMs of 339 and 356 days, respectively. We note that the longer WAMS among the county pools has corresponded with the lower Treasury rate environment that has prevailed since the Fed began actively easing monetary policy in August 2007. The WAM range, as of March 31, 2009 spanned from 65 days in El Dorado County to 2.66 years in Sutter County. Investment pool liquidity is subject to intra-year fluctuation and is likely higher for many counties during much of the year since local governments receive large cash inflows during April when tax payments are received. Compared to 2008, there was a slight uptick (to eight from six) of county pools with market values that are below their respective book values.

A majority of county pools regularly monitor asset values by marking values to market on a monthly (24) or daily

(six) basis. Several counties indicate that they strive to follow a conservative buy-and-hold approach necessitating a less frequent monitoring of valuation. Seven counties mark to market quarterly and three do so annually. Three counties indicated that no mark-to-market valuation is conducted due to a pure buy-and-hold approach. Limited, or a lack of, marking to market could be dangerous, in our view, since unanticipated liquidation could lead to realized losses of an unknown magnitude if they occur when asset prices are depressed or market liquidity is diminished. One county marks assets to market value upon an asset sale or at its maturity. A number of the counties (10) responded to the survey by providing the requested data, but included only limited responses about pool management practices. These 10 did not indicate the frequency with which they mark their assets to market. Most counties receive valuations from custodians of holdings that provide market-based price estimates.

Given our understanding of the role of investment income for local agencies in California, we queried the county pools about their asset allocation adjustments in an environment of very low Treasury yields. Several counties reiterated their commitment to safety and liquidity. For several counties, a portion of their strategic response has been to communicate with their participants that yield expectations should be low. Some counties have put participating local agencies on notice that for their budget assumptions, returns from invested cash could be less than one percent. Careful monitoring of demands on cash flows allows several counties to continue with laddered or barbelled strategies where a portion of funds are invested with a longer (one-, three-, or five-year) time horizons while maintaining adequate liquidity for withdrawals. Other strategies include investing in callable, government sponsored enterprises (GSE), and Federal agency debt. One county pool described a more sophisticated duration management approach that employed selecting high-quality credit securities and doing in-house credit analysis.

Although the county pools are not stable-NAV pools, they demonstrate low market value fluctuations on a month-to-month basis. The vast majority of monthly market value fluctuations over the past six months were 2% or less. For virtually all respondents, October 2008 (when credit markets seized) proved volatile with most counties reporting their largest market value declines that month. A small minority of counties indicated they had sold distressed assets issued by bankrupt or insolvent firms or institutions. Similarly, as credit markets have remained constrained, a majority of county pools now have no ABCP in their portfolios. However, several counties believe they may have indirect exposure to ABCP through their investment in the aforementioned statewide pools.

## The Effect Of 'Hot Money'

Broadly speaking, managing cash flows is more straightforward when participants are required to invest their funds with the county pools. As noted above, some county pools allow voluntary participants, such as cities and special districts, to invest in the county pools. In our survey, 21 of 28 that responded to the question indicated that they do accept voluntary participants. Our survey found a mix, with 21 of 44 respondents allowing for voluntary participation in the pools. Since voluntary investors can suddenly and unexpectedly withdraw their funds to invest in higher yielding alternatives (known as "hot money"), pool managers may be tempted to compete for their participation by boasting relatively impressive investment returns. Thus, it appears investing in less liquid assets is often the best way to compete for voluntary participants giving rise to contradictory objectives. Alternatively, managers may be compelled to remain invested in assets with shorter-than-desired maturities thereby reducing returns, so that they can meet unexpected claims on funds.

State code provides for consideration of the impact of the withdrawal of funds on the stability and predictability of investments in the pool. Additionally, requests to withdraw investments should consider if the withdrawal will



adversely affect other depositors. Language in the code leaves the specifics of implementation of withdrawal policies up to individual counties. Excessive risk and reduced pool liquidity can creep into a voluntary investment pool if management responds to the unintended perverse incentive (of ranking yield as the dominant investment objective) created by accepting voluntary participants. While all pool managers must be concerned with the liquidity of their investments and still seek a reasonable rate of return, managers of voluntary pools have the added challenge of potentially needing to meet unanticipated withdrawals because they have failed to achieve a competitive rate of return. In late 2007, the Florida LGIP, overseen by the State Board of Administration, experienced a run on the pool as voluntary participants withdrew \$14 billion (almost half of the pool's assets), forcing the board to implement a temporary freeze on withdrawals. Scenarios such as this can have credit and rating implications if participants need funds that are frozen in an LGIP to pay for operations or to make debt service payments.

## **Duration As A Measure Of Interest Rate Sensitivity**

County investment pools in California are precluded by law from investing in individual securities with a final maturity of more than five years. This restriction effectively limits portfolio WAM to five years or less (unless the security was purchased prior to the adoption of the governing code). Monitoring portfolio duration in addition to WAM enhances the measurement of pool interest rate sensitivity relative to solely relying on WAM. Duration expresses the percentage change in the price of a bond given a parallel 100 basis point shift in the yield curve. Like WAM, portfolio duration takes a weighted average of all the individual assets in the pool. However, unlike WAM, the duration calculation incorporates all cash flows as well as recognizes the effects of bonds with options (callable bonds for example) making it a more precise and accurate measure of potential market value volatility. The main drawback to duration is that it is more complicated to track. WAM is simpler primarily because it only considers the final maturity date of assets in the portfolio. In the case of floating rate securities, the interest reset date is used as the final maturity when calculating WAM. This can understate potential interest-rate sensitivity of portfolio values, a heightened risk when in an environment of tight credit and widening interest rate spreads. The CDIAC's working group recommends—though it does not require—that county investment pools monitor portfolio duration in addition to WAM as a best practice. There are no legal restrictions on securities or portfolio compositions based on duration. Our survey found that 33 county pools monitor and can report their current portfolio duration, up from 32 counties in 2008. For the 33 counties that track portfolio duration precisely, the mean duration is 1.06 years up from 0.80 years in 2008.

## **Repurchase And Reverse-Repurchase Agreements**

Many highly liquid investment pools take advantage of the repurchase agreement ("repo") market to deploy idle cash more productively. Repos entail purchasing an asset from a dealer who agrees to buy the asset back from the investor on a prearranged date for a price agreed upon in advance. In effect, the investor is lending cash and holding assets as collateral. If market volatility is such that collateral loses value during the repurchase agreement period, the investor becomes exposed to the credit risk of the dealer (borrower). To help mitigate this risk, California law stipulates that the value of the assets accepted as collateral must be equal to 102% of the funds invested by the local government agency. Slightly over half of the counties surveyed invest in repurchase agreements with at least two allowed to do so by policy though not doing so at present. All counties that participate in repurchase agreements adhere, at a minimum, to the overcollateralization rule. Over half of the counties that invest in repos accept only Treasuries or government agency obligations as collateral. Several counties accept assets other than Treasuries, such

as federal government agencies, GSEs, or medium-term corporate notes as long as the investments are allowable under the state code; however those that do tend to require overcollateralization that exceeds the state's 102% requirement. Although the state does not limit the length of repurchase agreements, several counties said that they have policies limiting their investments in repos to those of 30 days or less, though generally their practice is to do repo investing of even shorter durations.

Borrowing through reverse-repurchase agreements ("reverse-repos") or securities lending programs represent the other side of a repo agreement and can be a method of generating cash against assets held in a pool. If the borrowed cash is used for investments and not simply to meet unanticipated cash flow needs, the pool is said to be leveraged. While leverage may enhance the rate of return to a pool of assets, in our view it also can potentially magnify losses. We therefore view the use of leverage in a pool to generate increased returns as a more aggressive investment strategy. Following the Orange County bankruptcy the legislature limited reverse repos to 20% or less of portfolio value and with agreement lengths of 92 days or less. More than two-thirds of the counties surveyed said they do not participate in reverse repos, many of them by policy. Those that do tend to be the larger counties and of these, at least two have policies limiting reverse-repos to 10% of portfolio value, more conservative than the state limit of 20%. No counties permit using borrowed funds to make investments with maturities that extend beyond the term of the reverse-repo agreement, a particularly aggressive method of seeking to boost rates of return called mismatching. Also, at least one county indicated that while it has a policy against using leverage to enhance returns through reverse-repo securities lending, it retains the ability to borrow cash using the reverse-repo market in the event of emergency. Other counties may view reverse-repo investing similarly but did not indicate their use in this way.

Aside from repos and reverse-repos, the majority of the counties surveyed indicated that they had no derivative exposure.

California County Investment Pools 2009 Survey Findings							
County	BV (mil. \$)	MV (mil. \$)	MV as % BV	Effective duration (years)	WAM (days)	% assets maturing <90 days	% mandatory participants
Alameda	3,105.0	3,125.0	101	N/A	274	52	100
Alpine	5.9	6.1	104	1.60	617	10	N/A
Amador	66.7	N/A	N/A	N/A	320	64	100
Butte	432.3	441.4	102	2.02	828	36	100
Calaveras	Declined						
Colusa	Declined						
Contra Costa	1,898.6	1,903.9	100	0.31	106	80	90
Del Norte	25.0	25.0	100	N/A	255	80	90
El Dorado	419.3	419.2	100	N/A	65	79	N/A
Fresno	2,130.6	2,137.8	100	0.87	615	19	99
Glenn	48.4	48.4	100	2.00	660	17	N/A
Humboldt	258.6	259.1	100	0.40	679	38	80
Imperial	396.7	396.8	100	N/A	319	35	N/A
Inyo	61.3	61.6	100	2.00	429	16	N/A
Kern	2,328.0	2,308.0	99	0.66	527	11	95
Kings	210.4	207.3	99	0.97	470	38	89
Lake	142.2	139.4	98	0.25	47	57	N/A
Lassen	66.9	67.2	100	2.86	210	1	N/A

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California County Investment Pools 2009 Survey Findings (cont.)							
Los Angeles	19,888.3	19,967.3	100	1.44	503	51	89
Madera	315.0	311.9	99	0.42	405	3	100
Marin	803.4	810.1	101	0.36	68	9	N/A
Mariposa	30.5	30.8	101	1.44	690	0	100
Mendocino	157.6	153.2	97	0.04	225	62	N/A
Merced	631.5	638.3	101	N/A	236	60	99
Modoc	11.5	11.5	100	2.86	224	0-8.7	100
Mono	56.3	56.5	100	1.01	523	22	N/A
Monterey	1,020.7	995.9	98	0.27	99	62	100
Napa	381.3	382.7	100	3.44	475	41	100
Nevada	83.1	83.2	100	0.33	198	92	100
Orange-inv pool	3,371.9	3,373.5	100	N/A	199	60	100
Orange-school pool	2,688.0	2,691.9	100	N/A	239	89	100
Placer	1,093.0	1,104.0	101	0.95	913	14	N/A
Plumas	15.9						
Riverside	5,210.8	5,235.5	100	0.85	325	35	84
Sacramento	2,758.1	2,779.5	101	0.64	239	66	100
San Benito	139.7	137.5	98	N/A	250	7	100
San Bernardino	4,304.4	4,335.6	101	0.75	339	37	95
San Diego	5,297.8	5,338.8	101	0.46	213	44	98
San Francisco	2,951.1	2,956.4	100	1.20	552	11	90
San Joaquin	1,457.4	1,463.2	100	N/A	140	62	N/A
San Luis Obispo	509.4	514.4	101	0.50	191	36	100
San Mateo	2,492.7	2,494.0	100	0.90	365	42	73
Santa Barbara	844.0	846.9	100	N/A	317	34	100
Santa Clara	3,438.4	3,448.0	100	0.72	377	37	95
Santa Cruz	623.2	624.1	100	0.60	242	40	100
Shasta	317.9	320.0	101	N/A	296	40	100
Sierra	2.4	2.2	92	1.99	1,074	0	N/A
Siskiyou	82.5	83.8	102	N/A	644	45	100
Solano	614.5	615.0	100	0.48	245	49	50
Sonoma	1,437.0	1,438.9	100	N/A	275	40	100
Stanislaus	1,068.3	1,084.8	102	N/A	264	36	100
Sutter	170.9	171.0	100	N/A	970	N/A	100
Tehama	102.1	101.8	100	N/A	N/A	39	N/A
Trinity	Declined						
Tulare	877.2	890.2	101	N/A	549	42	96
Tuolumne	85.9	85.8	100	N/A	N/A	0	100
Ventura	1,949.8	1,975.4	101	N/A	316	21	100
Yolo	266.9	268.3	101	0.48	251	55	100
Yuba	493.9	492.8	100	N/A	312	46	76
LAIF (statewide)	58,669.7	58,980.3	101	N/A	196	48	0
CAMP (statewide)	2,755.0	2,755.8	100	0.18	58	64	0

**California County Investment Pools 2009 Survey Findings (cont.)**

CalTRUST	426.3	420.9	99	0.33	208	35	0
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BV-book value; MV-market value; WAM-weighted average maturity; N/A-not applicable. Valuation date=March 31, 2009.

\*Li Yang provided valuable research for this report.

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