
CALIFORNIA PUBLIC FUND **INVESTMENT PRIMER**

CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION

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CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION

The Legislature created the California Debt and Investment Advisory Commission (CDIAC) in the wake of the financial changes wrought by passage of Proposition 13. The commission maintains a database of public debt issued in California since 1985, conducts a continuing education program, publishes a monthly newsletter and publishes several reference materials, including this primer on investment practices and guidelines for implementing statutory law governing investments.

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INTRODUCTION

INTRODUCTION

The *California Public Fund Investment Primer (Investment Primer)*, intends to help public agencies understand and evaluate investments options by describing commonly used public investment concepts, terms, and instruments.

In addition to the *Investment Primer*, the commission publishes a guide, *Local Agency Investment Guidelines*, on implementing California statute governing local agency investments.

The commission published the *Investment Primer* in 2004 in response to legislative directives associated with the Orange County bankruptcy. Though the municipal investment market experienced rapid change since then, the considerations for public fund investing remain safety, liquidity and yield. Recent market events reinforce these considerations.

PUBLIC FUND INVESTMENT CONSIDERATIONS

The *Investment Primer* is intended to guide the development and management of an investment program while maintaining an appropriate balance among safety, liquidity and yield considerations.

Preservation of principal (or *safety*) is the first and most important consideration of public fund investment. Public agencies address the safety consideration through the implementation of an investment program that controls exposure to many risks, including those related to principal loss through excess exposure to market or credit risk.¹ The public investment program must provide for third-party custody of the agency's assets to reduce the possibility of principal loss through theft or collusion. These strategies are intended to discourage an investor from incurring risk inappropriate for the public agency, even if the investments provide higher yield.

The second consideration of public fund investment is *liquidity*. Public agencies invest funds

¹ See *Chapter 2, Concepts and Terminology, Terms Relating to Investment Evaluation, Safety* for a discussion of the meaning of "market" and "credit risk."

that are intended to meet their ongoing cash demands for operations and capital spending. One of the agency's objectives must be to structure a portfolio that ensures adequate cashflow to meet both anticipated and unanticipated expenditures. Beyond projected cashflow needs, the agency must be prepared for the unexpected, such as when actual revenues fall short of projections due to a weakening economy. The agency can meet unexpected cashflow needs with additional short-term investments or securities that can readily be sold without the risk of a significant loss of principal.

The third consideration of public fund investment (after safety and liquidity needs are met) is *yield*. Investment income and portfolio growth are important to public agencies to provide necessary funds for budgetary purposes. With preservation of principal and liquidity accounted for, public agencies must seek reasonable rates of return on their investments.

This edition of the *Investment Primer* reflects law as of January 1, 2009.² The material presented is not intended, however, to provide advice for specific investments. Commission staff encourages investment officials to rely upon their counsel for legal advice.

ORGANIZATION OF THE CALIFORNIA PUBLIC FUND INVESTMENT PRIMER

Chapters of the *Investment Primer* are written to promote quick access to information regarding public fund investment, by particular topic. They address the roles and responsibilities of participants involved in public fund management, the types of investments available, investment-portfolio development, administration, operation, and applicable legal and ethical issues. Specifically:

- CHAPTER 1: PUBLIC FUND INVESTMENT ROLES AND RESPONSIBILITIES describes the roles and responsibilities of participants typically involved in public fund management, including investment officials, legislative bodies, oversight committees, investment/financial advisors, brokers/dealers, and trustees/custodial banks.
- CHAPTER 2: INVESTMENT CONCEPTS, TERMINOLOGY, AND INSTRUMENTS defines and describes typical investment concepts and terms, and types of individual instruments available for public fund investment (including their characteristics, safety, liquidity and yield).
- CHAPTER 3: INVESTMENT PORTFOLIO DEVELOPMENT AND MANAGEMENT discusses investment policies, investment portfolio reporting, cashflow forecasting for both operating and capital funds, credit risk evaluation, structuring a portfolio, and evaluating a portfolio.
- CHAPTER 4: OTHER (NON-SURPLUS) FUND INVESTMENT describes various issues relating to the investment of tax-exempt bond proceeds and pension funds.
- CHAPTER 5: LIABILITY AND ETHICAL ISSUES describes certain liability issues for those responsible for public fund investment and ethical issues impacting public fund investment.

To assist in prudent investment decision-making and management, the *Investment Primer* also provides practical examples, such as sample contracts and checklists.

Completing the *Investment Primer* are two appendices that identify public investment resources available to local officials and samples of documents; including, RFPs, rating agency tables, checklists, and other matters. For quick access to

² CDIAC cannot ensure the accuracy of this report beyond this date as a consequence of changes in law, authorities, or financial markets that occur subsequent to the publication of this *Investment Primer*.

specific investment-related topics and terminology, an Index has been included in the back of the *Investment Primer*.

ACKNOWLEDGEMENTS

In November 2008, CDIAC convened a working group of public- and private-sector public finance industry professionals to review and update the *Investment Primer*. CDIAC thanks the following members of the working group for contributing their professional expertise and time to update the *Investment Primer* for the benefit of the public investment community:

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Ms. Angelica Hernandez, principal researcher at CDIAC, coordinated the development of the *Investment Primer*. Ms. Barbara Tanaka, Deputy, assisted.

The original edition of the *Investment Primer* was prepared under contract with Chandler Asset Management, Inc., Fieldman Rolapp & Associates, and Stradling Yocca Carlson & Rauth, a joint venture, with Carol L. Lew serving as project manager. Kay Chandler, President, Chandler Asset Management, Inc.; Conny Jamison, Former City Treasurer, City of San Diego; Edgar Johnson, Jr., Attorney-at-Law; Carol Lew, Shareholder, Stradling Yocca Carlson & Rauth; and Timothy J. Schaefer, President, Magis Advisors, Inc. (formerly of Fieldman, Rolapp & Associates) were contributing authors to the original *Investment Primer* (2004).

ADDITIONAL NOTES

The *Investment Primer* is intended for use by a broad group of individuals and entities involved in the investment of public funds, including (1) members of the applicable agency's governing body, management, finance, and treasury staff, (2) outside professionals, such as brokers/dealers and investment advisors who work with local agencies on their investment programs, and (3) members of the public seeking more information about public agency investments.

The *Investment Primer* is designed to provide accurate and authoritative information in regard to the subject matter covered; it has been provided with the understanding that, through the *Investment Primer*, neither the authors nor CDIAC are engaged in rendering investment, accounting, legal, or other professional services. This *Investment*

Primer should not be construed as providing legal advice or opinions on any specific facts. Readers should consult appropriate professional advisors if such services are sought. Readers should note that each public agency is unique, and while the *Investment Primer* can be of use to various types of public agencies not everything contained in the *Investment Primer* is applicable to every public agency (e.g., not all investments described in the *Investment Primer* should be part of every local agency's portfolio).



Chapter 1

PUBLIC FUND INVESTMENT ROLES AND RESPONSIBILITIES

PUBLIC FUND INVESTMENT ROLES AND RESPONSIBILITIES

This chapter outlines the roles and responsibilities of the principal participants involved in public fund investment, including their respective oversight, legal, and fiduciary obligations. The information contained in this chapter addresses questions that a public agency's legislative body and/or oversight or advisory committee should ask staff. For staff, this chapter includes questions and information that should be included in Requests for Proposals (RFPs) and Requests for Qualifications (RFQs)

when seeking public investment professional advisory services.

As described in this chapter, day-to-day responsibility for investments is delegated to the investment official with oversight responsibility provided by the legislative body. Consultants typically are hired to assist the investment official in investing public funds; including, investment advisors, financial advisors, and/or brokers/dealers and typically report to the investment official. Trustees and custodial banks frequently are retained by the investment official for safekeeping purposes.

Additional oversight (aside from the legislative body) can come in the form of an oversight committee, which may report directly to the legislative body and/or the investment official or an advisory committee, which may report directly to the investment official and/or the chief administrative officer of the local agency.

Figure 2 illustrates the participants involved in public fund investment and notes the corresponding reporting relationships.

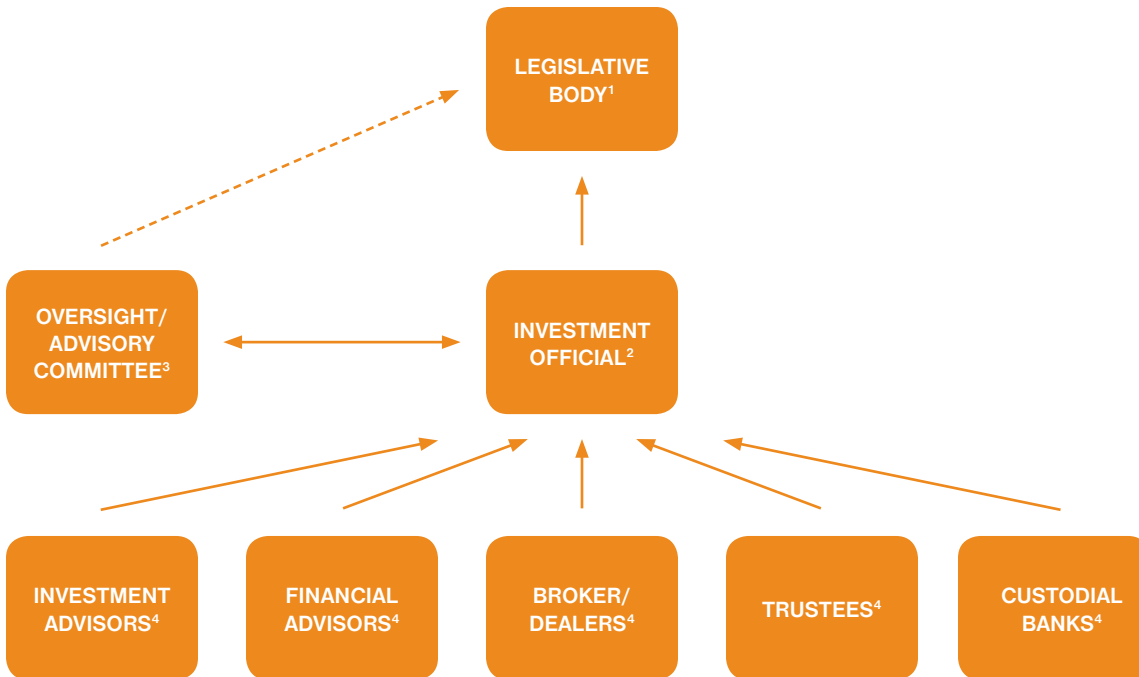
Figure 1

PRINCIPAL PARTICIPANTS IN PUBLIC FUND INVESTMENT

- PUBLIC AGENCY LEGISLATIVE BODY
 - PUBLIC AGENCY INVESTMENT OFFICIAL
 - OVERSIGHT/ADVISORY COMMITTEE
 - INVESTMENT ADVISOR
 - FINANCIAL ADVISOR
 - BROKER/DEALER
 - TRUSTEE
 - CUSTODIAL BANK
-

Figure 2

PUBLIC FUND INVESTMENT PARTICIPANTS' TYPICAL REPORTING RESPONSIBILITIES



¹ Delegates to and provides oversight of the investment official.

² Primarily responsible for day-to-day investment.

³ Oversight committee provides monitoring/feedback to investment official and legislative body; advisory committee can provide opinions to investment official.

⁴ Provides services to investment official.

ROLE OF THE LEGISLATIVE BODY

DESCRIPTION

The legislative body of a public agency is the elected or appointed group that has the primary policy setting role. For cities, this is the elected City Council. For counties, it is the elected Board of Supervisors, and for districts it may be an elected or appointed body, such as a school board or a water district board.

The authority of the legislative body to invest or reinvest funds of a local agency may be delegated for a one-year period by the legislative body to the treasurer of the local agency who assumes full responsibility until the delegation is revoked or expires. The delegation of authority may be renewed annually. If delegated, the treasurer must make a monthly report of transactions to the legislative body (see California Government Code Section 53607). Other investment reports that the treasurer may provide to the legislative body are discussed at length in *Chapter 3, Investment Reporting*.

The investment function of certain public entities, such as school districts, is overseen by other public agencies, such as local offices of education (see Chapter 1213, Statutes of 1991 (AB 1200) and California Education Code Section 41015). For county funds deposited in the county treasury, the board of supervisors may delegate their fiduciary responsibility to the county treasurer. If such a delegation occurs, the board of supervisors is no longer a fiduciary; nor is it subject to the prudent investor standard (see California Government Code Section 27000.3 and Section 53607). Notwithstanding delegation, and except as described above, the legislative body's responsibility typically includes an oversight function, as described below.

Counties may use an oversight committee to assist in satisfying their oversight function (as specified in California Government Code Section 27131); cities and other public agencies also may elect to do so, though state law does not establish any guidelines for these agencies. If the agency uses such a committee, roles and responsibilities of these committees should be clearly set forth (see *Chapter 1, Role of the Oversight Committee*).

OVERSIGHT FUNCTION

The oversight function of the legislative body involves reviewing the policies and reports of investment officials and oversight committees, if provided. A public agency treasurer may "render" an annual investment policy to his/her legislative body at a public meeting (see California Government Code Section 53646). In addition, a treasurer may produce a quarterly investment report to be given to his/her legislative body. This report is separate and distinct from the required month-

ly transactions report described above. State law governs the content of both the investment policy and the quarterly report (see California Government Code Section 53646; *Chapter 3, Investment Policy*; and *Chapter 3, Investment Reporting*).

Realistically, the oversight function probably is best exercised through an oversight committee, assuming that the committee has the necessary independence and expertise to perform this role (see *Chapter 1, Role of the Oversight Committee*).

QUESTIONS TO ASK INVESTMENT STAFF

The following are questions the members of the legislative body might consider asking investment staff regarding the public investment function to assist in the fulfillment of their oversight function:³

- What is the level of experience and expertise of those individuals who are performing the investment function?
- Are the resources devoted to the investment function adequate for the needs of the agency? If not, what enhancements are needed?
- Was the oversight committee's opinion sought during the preparation of the annual investment policy (if such a committee exists and if the policy is completed)?
- In what areas, if any, does the local agency's investment policy differ from standards described in the California Government Code?
- Are the investments of the agency in compliance with state law and with the investment policy of the agency?

³ Investment staff may not be able to answer some of the questions listed (such as questions regarding the average maturity and effective duration of the portfolio) without the assistance of an investment advisor because of the technical information required. The inability to answer such questions should not necessarily be viewed as a significant shortcoming or inability to effectively manage the public agency portfolio.

- What is the general composition of the current portfolio by type of security, issuer, credit rating of investments, and liquidity (e.g., a breakout of securities in the portfolio into maturity increments such as overnight, one day to six months, six months to one year, etc.)?
- If the local agency invests in corporate securities, is there an approved list of corporations in which the local agency may invest? What corporations are on the current list, and how frequently is this list reviewed?
- Does the local agency have an approved list of brokers/dealers? What brokers/dealers are on the current list, and how frequently is this list reviewed? What are the percentage transactions by broker/dealer (that is, does the local agency rely too heavily on one broker/dealer rather than “shopping” for the best deal)?
- What is the average maturity and effective duration of the portfolio? What will be the impact on the investment performance if interest rates should change rapidly, for example, by 1 percentage point in the next 30 to 60 days?⁴
- What is the market value of the investments as compared to the cost of those investments? Where there is a significant difference, how did this difference arise? If market value is less than cost, how will that difference impact future earnings compared to current earnings?
- What was the pricing source(s) for the calculation of the market value of the investments in the portfolio and do they fairly represent the value of the securities?
- What (if any) deficiencies in the investment function were identified by the agency’s annual audit of the financial statements, or any other audit of investments, and how are they being addressed?
- If the investment report compares the agency’s monthly, quarterly or even annual yields or total returns with those of a widely recognized market index, are the yields/total returns comparable?

In addition, care should be taken to avoid some common mistakes made by those who are responsible for overseeing the investment function:

- Beware of claims of high returns or of dramatically favorable comparisons with the returns of other agencies; such claims suggest that the agency may be taking greater risks, especially if there is a dramatic difference in effective durations.
- Understand that there is more than one standard method of calculating return on investments (see *Chapter 3, Evaluating a Portfolio, Evaluating the Results of the Investment Program*). Care should be taken to make sure the returns are calculated using the same method. Furthermore, performance comparisons can be skewed by the time period being compared and differences in the investment objectives of the portfolios being compared.

⁴ This will indicate whether the value of the securities, and hence investment returns, are in jeopardy as a result of long maturities, the overall interest rate level, and/or the mix of premium and discount securities. The maturity-related concept of “duration” is useful here. For example, if the portfolio has a duration of “3”, this means that a one percentage point change in interest rates will cause the value of the portfolio to change by roughly three percent in the opposite direction.

ROLE OF THE INVESTMENT OFFICIAL

DESCRIPTION

Under California law, the governing body of the agency generally has primary responsibility for investment of public funds (see California Government Code Section 53600.3). For some agencies, such as school districts, other entities (such as a governing board or county office of education) oversee the investment function (see Chapter 1213, Statutes of 1991 (AB 1200) and California Education Code Section 41015).

The authority of the legislative body to invest or reinvest funds of a local agency may be delegated for a one-year period by the legislative body to the treasurer of the agency, who assumes full responsibility until the delegation is revoked or expires; such a delegation may be renewed (see California Government Code Section 53607). It is common practice for the legislative body to delegate its investment responsibility. For California counties, the board of supervisors may delegate investment responsibility to the county treasurer pursuant to California Government Code Section 27000.1.

For agencies with large amounts of surplus funds to invest, the primary investment official often employs individuals with portfolio management expertise to assist with the daily investment function.⁵ In addition, some agencies retain investment and/or financial advisors to perform some or all of the day-to-day investment duties (see *Chapter 1, Role of Investment Advisor* and *Chapter 1, Role of Financial Advisor*). However, such delegation does not relieve the investment official (or legislative body) of his or her fiduciary responsibility as described below.

Investment officials typically also are responsible for performing other investment-related functions in accordance with prudent investor standards and pursuant to specific requirements of state law. These functions include preparation of the agency's monthly investment transaction reports and any other reports the agency may produce (such as an investment policy and/or quarterly investment report). Additional responsibilities, somewhat related to the investment of surplus funds, often include banking administration, cash management, and investment of bond proceeds. It is important that segregation of duties and responsibilities be maintained in the investment of public funds (e.g., "back office" functions such as confirming trades, giving instructions to the custody bank, and pricing the portfolio should be separated from the investment decision-making function). In addition, some investment officials are involved in the investment and/or the administration of deferred benefit (i.e., pension) and defined contribution funds. See *Chapter 4, Pension Fund Investment*, for a full discussion.

FIDUCIARY RESPONSIBILITIES AND PRUDENT INVESTOR STANDARD

The investment official is a fiduciary subject to prudent investor standards. Generally, all governing bodies of California public agencies and persons authorized to make investment decisions for those agencies are fiduciaries and therefore subject to the prudent investor standard (see California Government Code Section 53600.3 and Section 27000.3).

California Government Code California Section 53600.3 defines the prudent investor standard as acting "... with care, skill, prudence, and diligence under the circumstance then prevailing including, but not limited to, the gen-

⁵ Such local agencies should encourage investment staff to improve their portfolio management skills by obtaining certifications, such as Chartered Financial Analyst.

eral economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency.” Individuals charged with the responsibility of investing public funds improve their chance of meeting the prudent investor standard by following a strict professional discipline. Prudent investment entails considerably more than simply selecting the appropriate securities.

Prior to purchasing the first security, the investment official must identify the agency’s objectives and capabilities, and then should consider formulating an investment policy. See *Chapter 3, Investment Portfolio Development*, for a full discussion of investment policy development. Only then can an investment strategy be formulated and investments purchased. After the investment policy is formulated and investments purchased, economic and market conditions, as well as the agency’s cash flow requirements, should be monitored and reported on a systematic basis. Finally, adjustments in investment strategy should be made when needed as a result of changes in an agency’s financial circumstances, including objectives and cash flow needs, as well as economic and market conditions. These points are described in Figure 3.

Professional public investment organizations have developed resources and guidance to assist the investment professional in the goal of meeting prudent investment standards. See *Appendix A* for a list of these organizations. CDIAC’s *Investment Primer* and *Local Agency Investment Guidelines* add to these resources, however, both are geared specifically to the California public investor.

Delegation of investment duties does not relieve the primary investment official of his or her fiduciary responsibilities under California

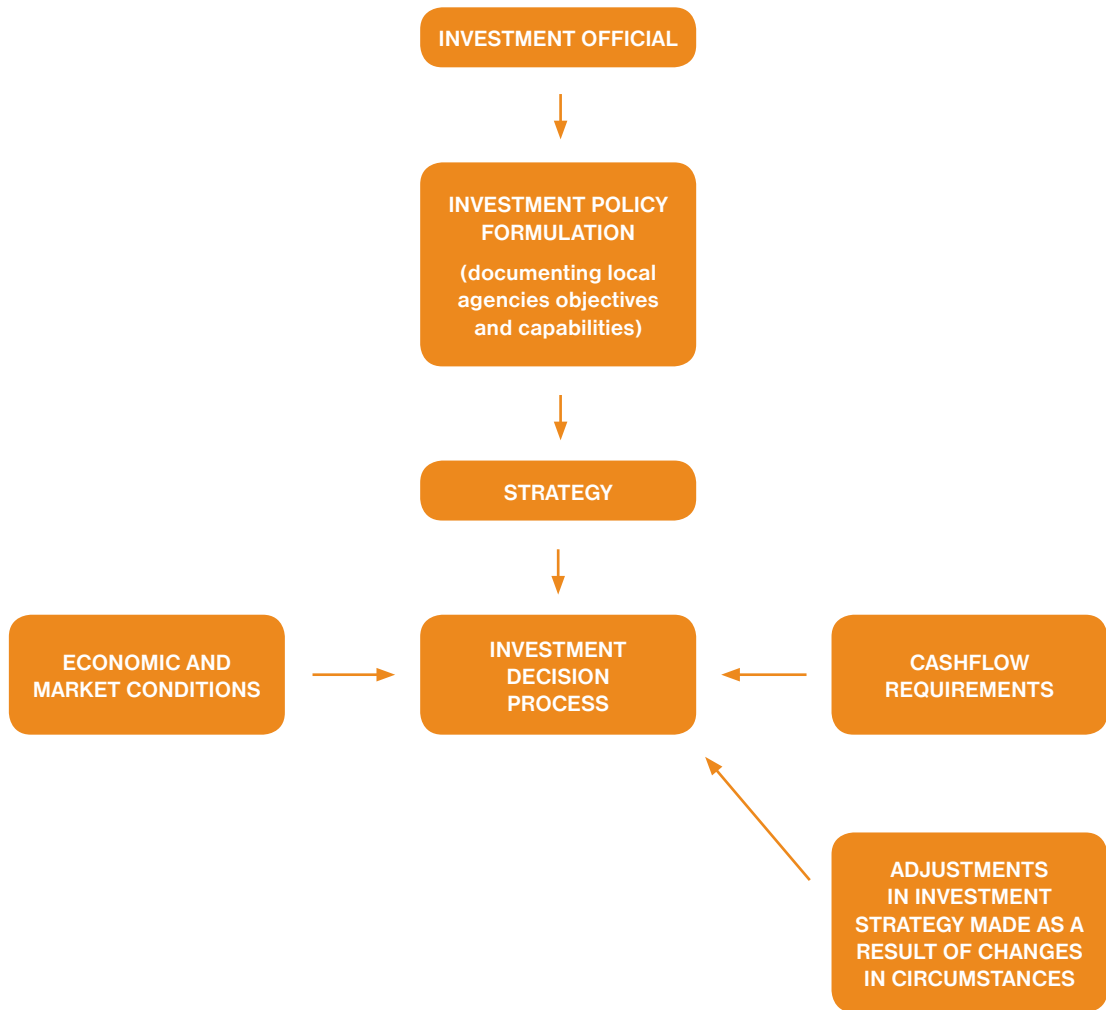
law (see California Attorney General Opinion No. 95-807). Whether an investment official delegates responsibilities to internal staff or to a third party (such as an investment advisor), the investment official is responsible for ensuring that the investment process is managed prudently, professionally, and in accordance with all legal requirements. The primary investment official(s) must take an active role in the development of investment policies and strategies, ensure that reporting is timely and complete, monitor compliance, credit quality, and performance, and follow-up on any adjustments in strategy necessitated by changes in agency objectives, cash flows, or economic and market conditions. Because these responsibilities require a considerable commitment of time and effort (including on-going education) by the primary investment official, this time commitment should be taken into consideration when evaluating the costs and benefits of delegation.

ETHICAL ISSUES

Since investment officials often are responsible for managing large amounts of cash, they often are subjected to significant pressures from elected officials, individuals, and businesses that stand to benefit from their actions. In recognition of these potential influences, those who manage investments on behalf of others have always been held to the highest standards of professional conduct.

In addition to a prudent investor standard, certain other legal requirements are imposed on those responsible for public fund investment. See *Chapter 5, Liability and Ethical Issues* for a full discussion. However, beyond the legal requirements, it is strongly recommended that each agency also incorporate within its investment policy standards of ethical conduct for the individuals involved with the investment process.

Figure 3
PRUDENT INVESTMENT CONSIDERATIONS



ROLE OF THE OVERSIGHT COMMITTEE/ ADVISORY COMMITTEE

DESCRIPTION

California counties may establish treasury oversight committees, pursuant to California state law. Under California Government Code Section 27131, the board of supervisors in counties

that invest surplus funds may establish a treasury oversight committee. The board of supervisors, in consultation with the county treasurer, establishes the size of the committee, which must be at least three members and no more than eleven. The county treasurer nominates members to the committee, who are then confirmed by the board of supervisors. California Government Code Section 27132 specifies the categories from which the membership of the oversight committee must be appointed. They include:

- The county treasurer;
- The county auditor, auditor-controller, or finance director;
- A representative appointed by the county board of supervisors;
- The county superintendent of schools or his/her designee;
- A representative selected by a majority of the presiding officers of the governing bodies of school districts and community college districts in the county;
- A representative selected by a majority of the presiding officers of the legislative bodies of the special districts in the county that are required or authorized to deposit funds in the county treasury; and
- Up to five members of the general public, a majority of which must have expertise or a background in public finance while the remaining members must be economically diverse and bipartisan in political registration.

Moreover, members of the oversight committee may not be employed by any entity that has made a contribution to (a) the campaign of candidates for the office of any local treasurer, or (b) candidates for the legislative body of any local agency that has deposited funds in the county treasury in the previous three years or during the period the candidate is a member of the committee (see California Government Code Section 27132.1). There are additional prohibitions on committee members regarding raising campaign funds (see California Government Code Section 27132.2). Perhaps the most restrictive prohibition is that no member of the oversight committee may work for bond underwriters, bond counsel, security brokerages or dealers, or financial services firms with whom the county treasurer does business, either during his or her tenure on the committee or for one year after leaving the committee (see California Government Code Section 27132.3).

Many cities and other public agencies, although not covered by the above cited code sections, have made a decision to use treasury oversight/advisory committees in the belief that they are an important element of the overall investment function. In some of these agencies, the legislative body appoints committee members. In others, the chief administrative officer or treasurer appoints committee members. Size, membership, qualifications, and responsibilities of these committees are determined locally. While not required by law for public agencies other than counties, oversight/advisory committees can play an important role in the overall investment process.

RESPONSIBILITIES

While the California Government Code describes in great detail the composition of, as well as restrictions on, the membership of county oversight committees, it provides minimum guidance regarding the duties of the committees. The oversight committee shall review and monitor the county treasurer's annual investment policy; it also is required to "cause an annual audit to be conducted to determine the county treasury's compliance" with the California Government Code sections dealing with oversight committees (Sections 27130-27137). While the county treasurer must provide the oversight committee with the county's investment policy, there are no reporting requirements for the committee itself.

As the California Government Code only requires counties to establish oversight committees, it is up to other public agencies to determine the committee's specific roles and responsibilities if one is established. If reporting requirements are established, the oversight/advisory committee should establish regular meeting times, record minutes, specify information to review, and report regularly to the appointing agency. It is also recommended that members of the oversight/advisory committee be people who have expertise or a background in public finance. These responsibilities and requirements should be spelled out in the agency's investment

policy or oversight/advisory committee charter (see *Chapter 3, Investment Policy*).

Oversight/advisory committees can offer valuable input to the investment policy document, and serve as an independent reviewer of compliance, risk, and controls. Oversight/advisory committees also can provide useful feedback and opinions to the investment official and/or legislative body.

The California Government Code Section 27137 limits the administrative role of the oversight committee compared with those individuals, such as the county treasurer, charged with investment or fiduciary responsibilities. Section 27137 states:

“Nothing in this article shall be construed to allow the county treasury oversight committee to direct individual investment decisions, select individual investment advisors, brokers, or dealers, or impinge on the day-to-day operations of the county treasury.”

In times of heightened scrutiny of local investments, the existence of an established, independent, and well-functioning oversight/advisory committee (whose roles and responsibilities are clearly defined) can provide helpful review of investment policies and feedback/opinions on overall investment practices. In particular, the investment official can use the committee as a sounding board for evaluating the merits of new strategies or investment products, provide perspectives on the economy, experience or insight on investment tools to enhance portfolio management or reporting, render moral and technical support for policy changes, and provide its own unique perspective to assist investment staff in their overall management of the local agency’s assets. Ideally, such information and advice may be useful in preventing hasty and ill-conceived new policies and procedures from being adopted under challenging economic circumstances.

QUESTIONS TO ASK STAFF REGARDING OVERSIGHT/ADVISORY COMMITTEES

The legislative body, as well as staff, must be assured that they are receiving competent, independent, and complete information. Therefore, it is very important that the composition and duties of any oversight/advisory committee be carefully considered and understood. When an oversight/advisory committee is used, the following questions should be considered:

- Who is on the committee and what are their qualifications? Are there members of the financial community as well as agency officials represented on the committee?
- How many members comprise the committee and how often do they meet?
- What is the role of the committee? Does it have input into the investment policy?
- What investment-related reports does the investment official provide to the committee?
- Does the committee offer advice to the treasurer or investment official or merely report its findings and observations to the chief administrative officer and/or legislative body?

ROLE OF THE INVESTMENT ADVISOR

DESCRIPTION

Investment advisors are professionals with experience, training, and special expertise in the area of investment management.⁶ Investment advisors receive a fee for their service. Certain investment advisors specialize in the management of local agency funds.

⁶ In this document, the names investment advisor, investment consultant, money manager, and investment manager are used interchangeably.

With a few limited exceptions, investment advisors must register with the Securities and Exchange Commission or the California Department of Corporations (see *Federal and State Regulation* below). However, there is no state or federal exam or certification for investment advisors. Unlike attorneys and physicians, for example, investment advisors do not necessarily follow a specified academic curriculum or pass a certain test or standard to be deemed to be qualified. Many investment advisors have pursued advanced education and training to learn and enhance their professional expertise and skill level. Beneficial academic training might include advanced degrees (a Master's of Business Administration) with a focus on finance and/or investments.

The Chartered Financial Analyst Institute, the primary trade organization of investment professionals, has developed the Chartered Financial Analyst (CFA) program—an intensive, three-year course of independent study culminating with an annual examination for each of the three levels of proficiency that tests knowledge and skills fundamental to the professional practice of investment management. The CFA charter is recognized globally as a measure of the charter holders' competence and integrity in the field of investment management.

For safety considerations, and to comply with California Government Section 53601, local agencies should not permit an investment advisor to retain custody of the agency's cash or assets. The only exception to this rule occurs if the advisor also is a bank or its subsidiary. In that case, the bank's trust department may hold the assets in custody. A third-party custodian typically holds public funds under management (see *Chapter 1, Role of the Custodial Bank*).

FEDERAL AND STATE REGULATION

Investment advisors with assets under management of \$30 million or more are registered with and regulated by the Securities and Exchange Commission (SEC), under the Investment Ad-

visors Act of 1940 (Act). The Act requires investment advisors to file an initial application, known as the "Uniform Application for Investment Advisor Registration" or "Form ADV," with the SEC. They also must file an annual updating amendment, as well as an amendment any time a significant change has occurred at the firm. The SEC requires investment advisors to maintain extensive records, and has the authority to sanction advisors who break the law or rules established under the Act. The SEC conducts routine inspections of advisors' records about once every five years, and may initiate an inspection on the basis of an investor complaint. Advisors registered with the SEC also must submit a simplified filing with securities authorities in the states in which they do business.

Investment advisors with assets under management of less than \$25 million are regulated by the states in which they do business. In California, such investment advisors register with the California Department of Corporations.

It is important to note that the regulatory authorities do not review the credentials or qualifications of advisors, nor do they "approve" or endorse any advisory firm or individual. The role of the regulatory authorities is to enforce the securities laws and not to judge the qualifications of individual advisors.

INVESTMENT ADVISORY RELATIONSHIPS

Public agencies should seek investment advisors that have experience in managing portfolios that have the characteristics and constraints of public agency portfolios. Experience ideally should be with fixed-income securities rather than equities, real estate, or foreign bonds. Public agencies should seek advisors that are experienced with the securities authorized by the California Government Code, although such direct experience need not be mandatory if the advisor has other related experience. For example, hands-on

portfolio management experience with public agencies in other states or high quality portfolios of corporations or not-for-profit agencies may provide an appropriate background for the management of California public agency portfolios. In all cases, the local agency should ensure that the investment advisor is completely aware of the limitations and requirements of state law and local policies.

California public agencies engage investment advisors under a variety of arrangements. The most common include:

- **DISCRETIONARY PORTFOLIO MANAGEMENT.** Discretionary managers have the authority to execute investment transactions for their clients under the guidelines of governing law, policy, and written or oral instructions. The advantage of discretionary management is that it limits the amount of time agency staff must spend on the investment function on a daily basis, freeing their time for other duties.
- **NON-DISCRETIONARY MANAGEMENT.** Non-discretionary managers work in a similar way to discretionary managers, except that they must contact the client with their recommended transactions prior to trade execution. The client may give or withhold authorization to execute the recommended transactions. Either the manager or the public agency client may be responsible for settling the trade at the public agency's bank in accordance with the contractual agreement between the two parties (see *Chapter 1, Role of the Custodial Bank*).
- **CONSULTING RELATIONSHIPS.** Investment advisors may provide ongoing consultation to a client who prefers to execute the actual trade.
- **PROJECT CONSULTING.** Sometimes a public official may wish to receive consultation from an expert on a particular aspect of the investment program without retaining an investment advisor on an ongoing basis; examples of such projects might include in-

vestment policy creation or review, analysis of an existing portfolio, annual review of the investment program, reinvestment of debt proceeds, or training on a particular aspect of the investment function.

Individual investment advisory firms may provide any or all of the services described above. Most frequently, discretionary and non-discretionary investment advisors offer their services for a fee based on a percentage of the assets under their management. Those who provide ongoing consulting services may do so using an asset-based fee schedule or a flat fee. Project consulting is most often undertaken on an hourly basis or for a flat fee. Fees for investment advisory services often are negotiable.

REASONS TO USE AN INVESTMENT ADVISOR

Public officials may choose to employ the services of an investment advisor, for the following reasons:

- Confidence in the investment advisor's ability to provide the service professionally and appropriately in a manner that will save the public agency time and safeguard the agency's funds;
- Perception of greater returns available from full-time expert management of the investment program;
- Increased access to broker offerings;
- Lack of internal technical resources, such as a portfolio accounting and reporting system;
- Lack of resources and expertise to devote to corporate credit review;
- Lack of market information systems, such as Bloomberg;
- Lack of adequate staffing; perception of lower net cost to use the services of an investment advisor rather than hiring additional internal staff to provide the same function; and

- Need for expertise with respect to special-use funds that have different performance objectives and requirements than other public funds (e.g., a bond reserve fund or a special purpose trust fund).

Advantages of Using an Investment Advisor

An investment advisor devotes his/her time almost entirely to investment management activities and monitoring the market, unlike most typical local agency investment officials who have limited time to devote to investment activities. This allows local agency investment officials to focus on long-term investment goals and oversight of the investment program. Investment advisors deal with numerous brokers/dealers on a regular basis and may have access to real time pricing from multiple broker/dealers at any given time often receiving better pricing of securities transactions. Their special training and expertise in the field of investment management may provide the local agency clients with superior investment strategies. An independent advisor, as compared to a broker/dealer, does not have an inventory of securities to sell. Therefore, certain potential conflicts of interest (such as selling a security from the firm's own inventory at a less favorable price than its fair market value) may be avoided.

Disadvantages of Using an Investment Advisor

As discussed above, investment advisors charge a fee for their professional services. While investment advisors will state that their services offer measurable value to local agencies beyond the costs the local agencies incur, it is up to the local agencies to perform the cost/benefit analyses. Local agencies may tend to rely on investment advisors rather than developing in-house staff to perform many of the same duties. When feasible, they should use the opportunity to develop staff to mitigate dependence on outside advisors. Whether the agency uses in-house staff to carry out the investment program, or delegates some or

all of those duties to an outside advisor, officials at the agency still bear ultimate responsibility for the investment function. Therefore, they must take an active role in determining the appropriate investment policy and strategy, and in providing oversight to the advisor.

SELECTION PROCESS

Some public agencies may select an investment advisor as a result of their own previous experience and comfort level with that advisor, or on the recommendation of other public agencies. More often, the selection process starts with a Request for Proposals (RFP) for investment advisors, which is sent to known advisors, and which may be advertised in local and/or trade publications.

RFP Questions

RFPs for investment advisory services typically will contain questions to elicit the following information from respondents. *Appendix B* includes a sample RFP written to assist a public agency in the selection of a public fund investment advisor.

- Basic facts about the respondents, including address and form of organization, assets under management, types of accounts under management, and staff members and their qualifications;
- Information about the firm's investment philosophy and investment decision-making process;
- A description of internal oversight of the portfolio manager(s) involved with the account;
- Information on who will handle the agency's account, including the qualifications and fixed-income management experience of this individual;
- Experience with public agency funds or other similar funds;
- Portfolio accounting and reporting capabilities;

- Performance measurements, compared to benchmarks, that would be appropriate for the agency;
- Willingness and ability to provide additional services that the agency is interested in receiving (e.g., assistance in drafting investment policies and objectives; training for staff, management and elected officials; customized reporting; etc.);
- Professional liability/errors and omissions insurance;
- Fees for various types of investment advisory services; and
- References from other, similar agencies.

A local agency may ask a prospective advisor:

- Are you an SEC Registered Investment Adviser registered under the Investment Advisers Act of 1940?
- What is the sector distribution of all the portfolios your firm manages?
- What is the distribution of credit ratings among all of your portfolios?
- What procedures does your firm have in place to address the potential or actual credit downgrade of an issuer and to disclose and advise a client of the situation?
- Have you ever had a security you purchased for a client downgraded below the minimum credit rating for purchase while held by the client? Describe the situation and results.
- Have any of your clients experienced principal losses as a result of defaulting corporate obligations purchased and managed by your firm?
- Have you ever had to submit to arbitration? Describe the situation and results.
- Have any federal or state regulators censured you or other members of your firm?

- What other services does your firm provide outside of the “Scope of Services” described in the RFP?
- Has your firm ever signed a consent decree or pled “no contest” to a criminal matter involving securities regulation?
- Will you pay a “finder’s fee” or other compensation to any person if our agency selects your firm to provide investment services?

Evaluation Criteria

The most important criteria for judging investment advisors include:

- Demonstrating the ability to comply with the California Government Code and agency’s investment policy, as well as meeting an agency’s defined investment objectives for safety, liquidity, and yield;
- Having a thorough understanding of the public agency’s investment objectives and constraints;
- Having an investment process that the advisor can demonstrate as historically consistent with client investment goals in the context of market opportunities and risks;
- Being willing to develop an investment plan that is reasonable and appropriate for the individual agency;
- Having a professional staff that has worked together and has successfully managed assets through one or more full interest rate cycles;
- Having a number of positive client references regarding customer service and investment performance;
- Being available for consultation and meetings with the agency; and
- Having a quantifiable performance track record measured in accordance with the Global

Investment Performance Standards (GIPS®) that, when compared to appropriate benchmarks, is reasonable for the management style that is employed.

Red Flags

There are certain “red flags” that agencies should watch out for when evaluating investment advisors. These “red flags” may indicate an incompatibility with local agency objectives and require further clarification in the evaluation process:

- Returns that greatly exceed the return on reasonable market benchmarks;
- Investments that appear to promise higher yields than investments available elsewhere in the market;
- Lack of references and/or positive recommendations;
- Professional staff that has worked together for a brief period of time (e.g., less than one year);
- “Guarantees” of a certain financial outcome or result;
- Fees based on sharing of “profits” from investments;
- Pressure to maintain custody of assets anywhere other than with an independent third-party custodian;
- Hesitancy to register assets in the name of the agency;
- Recent turnover in the ranks of primary portfolio manager(s) or other senior personnel assigned to the transaction;
- Unfulfilled promises to other clients revealed in reference checking;
- References who report the advisor’s failure to adhere to investment guidelines or policies;
- Recommendations of unauthorized securities (i.e., long-term corporate bonds, ineligible notes, bonds, or stock);
- Reporting of results that is not timely or regular;
- Failure to disclose any fee arrangement or fee sharing with any other participant in the investment process;
- Emphasis on using related broker/dealer for security purchases;
- Failure to file any required Form 700 under the Political Reform Act (see *Chapter 5, Liability and Ethical Issues*);
- Any history of disciplinary action on the part of regulatory authorities of either the firm or the individual advisor;
- Pressure to make investments urgently;
- Insistence on an exclusive relationship with the advisor as the public agency’s only provider of investment advice; and
- Unfamiliarity with state law restrictions on investing and/or lack of experience with investment of public funds in California.
- Unusually high portfolio turnover rates that generate excess fees and expenses. For example, an advisor could generate excess custody bank fees and staff cost for recording transactions to show activity but which do not result in net benefits after costs to the public agency.
- Reporting of results that is not in compliance with GIPS standards;
- Reported returns based on hypothetical or simulated portfolio results. Also, reporting the highest return for the best performing portfolio for a reporting period rather than the results for all portfolios managed.

- A composite comprised of less than ten portfolios used to compare performance.

Once RFPs have been received from investment advisors, the public agency may decide to convene a committee or panel to review the proposals and interview finalists. The agency may include the services of the investment consultant in this phase to assist in the evaluation of the advisors' qualifications and performance history.⁷

Background Checks—SEC Registration

The local agency also might wish to undertake a basic background check of the potential investment advisor. It might begin by examining the Form ADV (see *Chapter 1, Federal and State Regulation* for a discussion of the Form ADV). Most advisors will provide a copy of their Form ADV upon request at no charge.

Part I of the Form ADV contains information about the advisor's business and any criminal or disciplinary actions regarding its practices or interactions with clients.

The SEC provides online access to any Form ADV, Part I filed electronically by any registered advisor. In order to view the filing, go to the SEC website, www.adviserinfo.sec.gov, and select "Investment Adviser Search." Then enter either name of firm, firm IARD/CRD number, or firm SEC Number. Results may reflect information of the firm, not individual advisors at this time.

If the advisor is too small to be registered with the SEC, Form ADV, Part I still may be obtained from the advisor or from the state regulatory au-

thority. In California, the state regulatory authority is the Department of Corporations, which can be contacted at the following address:

Department of Corporations
1515 K Street, Suite 200
Sacramento, CA 95814
phone: (916) 445-7205
website: www.corp.ca.gov

Part II of the Form ADV contains information about the advisor's services, clients and investment and review process, as well as fee structure, education and experience of investment professionals, and other affiliations, including fee arrangements with others, if any.

Part II is not filed with the SEC, but is available from the advisor. As a matter of law, any advisor must furnish to a client either a copy of the Form ADV, Part II or a "brochure" that contains all of the required elements of Form ADV, Part II. As a practical matter, most advisors choose to use the Form ADV, Part II itself to meet these requirements. Agencies considering hiring an investment advisor should obtain and read carefully both parts of Form ADV (I and II).

Credentials

If an investment advisor offers a credential that the local agency is not familiar with, a prospective client should consider contacting the organization granting the credential and ask what it means, how the advisor qualified for it, and whether it entails a continuing education requirement. Local agencies also may wish to consider requiring certain credentials of their advisors (e.g., CFA credential).

⁷ Most pension funds employ such consultants to choose and evaluate their investment advisors. Public agencies can find these consultants who often are known as "pension consultants," by contacting their own defined benefit pension plan administrator to see which consultants they know or use. *Pensions & Investments*, a periodical designed for the pension industry, annually publishes a list of investment consultants. Other resources include Standard & Poor's *Money Market Directory* (www.mmdaccess.com) and Nelson's *Directory of Investment Research*, Nelson Information (January 1997).

Other Reference Sources

Some investment advisors employ investment advisor representatives who are the investment and sales professionals that work with clients. In some cases, these representatives must be licensed or registered with state securities regulators. The record of any investment advisor representative (e.g., portfolio manager or sales representative) also may be checked for any regulatory actions, arbitration decisions, and investor complaints. Records may be obtained from the State of California Department of Corporations (see address above).

In situations where financial information regarding an investment advisor subsidiary of a broker/dealer firm is important to the decision-making process, prospective clients should ask for a copy of the broker/dealer firm's Financial and Operational Combined Uniform Single (FOCUS) Report for the most recent period. Brokers/dealers meeting certain conditions outlined in Securities and Exchange Commission (SEC) Rule 17a-5 must file a FOCUS report either monthly or quarterly, as specified. FOCUS Reports, however, are not required of investment advisors who are not registered as brokers/dealers.

In addition to the resources described above, certain public record information about corporations, partnerships, limited liability companies, and many individuals is available from Lexis-Nexis® through its web page at www.lexis-nexis.com.

Good investment advisors or brokers/dealers will welcome your questions and offer to assist in the background checking. Ask for explanations of any matter that is described in the various filings. Sometimes disagreements may occur over the normal course of business and result in minor regulatory actions or proceedings.

ELEMENTS OF AN INVESTMENT ADVISORY AGREEMENT

Once the RFP process and background checks are complete, the agency may select the advi-

sor, negotiate a contract, and retain the selected firm.

Key elements of the agreements should include, at a minimum, the following:

- Term of the agreement;
- Fees for investment management services, including a full description of how the fees are calculated, and how frequently fees will be paid;
- Names of key individuals at the advisory firm and at the public agency;
- Level of discretion afforded to the advisor (discretionary or non-discretionary);
- Guidelines the investment advisor is to follow (the agency's investment policy should be attached to the agreement or provided separately);
- Separation of investment advisory services from custody of the agency's assets;
- Agreement with the Custody Bank, investment advisor, and investment official regarding discretionary authority of advisor to give direction and parties' operational guidelines and responsibilities;
- A statement that the advisor may not assign the agreement to any other party without the agency's consent; and
- Form and frequency of reporting (e.g., total returns reported monthly).

The advisor may request additional provisions to the agreement that define how the public agency's accounts relate to other accounts they have under management, and how securities may be purchased for the public agency. In addition, the public agency should consider including a transition plan possibly in an appendix to the agreement so that a mutually agreed upon plan exists describing how the management of the

public agency's assets will transition and over what period of time so that it can be modified by both parties.

Most public advisors also will include an acknowledgement of the agency's receipt of the required Form ADV, Part II (or "brochure") in the agreement.

The public agency may include other provisions in the investment advisory agreement, including special tasks for the investment advisor, requirements for reporting to the finance staff or to the governing body, number of in-person meetings per year, and any operating or other instructions.

TECHNIQUES TO MONITOR PERFORMANCE

Once an investment advisory relationship is in place, the agency should expect to receive full reports from the investment advisor on a monthly basis, or, at the agency's option, on a quarterly basis.⁸ The reports should include an asset listing with the original cost and the current market value of all assets, securities pricing source, a report of all transactions that occurred during the period, a report showing the effective durations of the portfolio (if applicable), an accrued interest report, and information about the account's performance. The custodian of the investments also should provide a report of all transactions for the period, a report of the securities outstanding at the end of the period, and any reports describing calls, redemptions or coupon payments for the assets held in custody. Although the advisor may reconcile the report to the corresponding report of the custody bank, the agency may wish to perform the same reconciliation as a crosscheck on the advisor's work. The agency probably will wish to review transactions and/or asset list-

ings for compliance to the agency's investment policy and operating instructions. The agency can request that the advisor provide a report confirming compliance as well.

At the beginning of the advisory relationship, the public agency and the advisor will agree upon performance goals and benchmarks. These may include income goals, compliance goals, and yield or total rate of return objectives, relative to market benchmarks. The agency normally will require that the advisor include performance statistics against benchmarks in each periodic report. The agency should review these statistics regularly and discuss them with the advisor on a regular basis. The benchmark should reflect the acceptable risk profile and minimum performance goal of the local agency.

The agency should obtain a high level of service from the advisor. The agency should evaluate not only the advisor's investment performance, but also the firm's availability to the agency, its communication and presentation skills, and the firm's level of understanding of the agency's investment objectives and policies. The firm's high level of performance should be consistently demonstrated in its written and oral communications with the agency, its recommendations, and its selection of permitted investment instruments.

ROLE OF THE FINANCIAL ADVISOR

Financial advisors frequently are utilized by public agencies for capital planning and debt transactions, and sometimes for investment advice. Most often, the financial advisor is called upon to assist the public agency with specialized investment advice relating to the proceeds of a bond

⁸ Local agencies should note that Government Code Section 53607 requires local agency treasurers to submit to their legislative bodies a **monthly** report of all transactions that have occurred.

issue or other capital raising activities; the following describes the typical role and responsibilities of a financial advisor in such activities.

DESCRIPTION

Financial advisors specialize in assisting governmental agencies in the planning, structuring, and sale of public finance transactions, most often municipal bond offerings. Financial advisors may help an agency manage a particular transaction, or ascertain project feasibility. In recent years, the scope of activities performed by financial advisors has expanded considerably, and today, the financial advisor may be involved in many aspects of the public agency's financial activities, including public agency investments. Financial advisors can be either "independent," that is, they are not affiliated with a securities firm or bank, or they can be members of divisions or separate departments of those types of organizations.

Although independent financial advisors are not regulated by the states in which they do business or by the SEC, financial advisors may have professional qualifications that include specialized academic training, experience, and/or professional credentials. For example, some financial advisors will hold certification or credentialing from the National Association of Independent Public Finance Advisors, called a "Certified Independent Public Finance Advisor" that indicates that the holder of the designation has pledged to adhere to the ethical standards of the national association and has passed an examination dealing with the technical skills deemed necessary by the association. Additionally, many financial advisors hold securities licenses from either the various states in which they work or from the Financial Industry Regulatory Authority (FINRA), or another similar organization

particularly if they are affiliated with a bank or broker/dealer.⁹

FEDERAL AND STATE REGULATION

Neither the federal government (e.g., SEC) nor the state government regulates independent financial advisors. Like any other person or entity that participates in the planning, sale, or administration of securities, they are bound by the various "anti-fraud" provisions of federal securities law. However, the regulatory authorities do not review the credentials or qualifications of financial advisors.

FINANCIAL ADVISORY RELATIONSHIPS

California public agencies engage financial advisors under a variety of arrangements. The most common include the following:

- **PROJECT MANAGEMENT FOR A SPECIFIC TRANSACTION.** A public agency may engage a financial advisor to assist the agency with an individual debt transaction. Many public agencies use financial advisors in this way because it limits the amount of time they must spend on the debt issuance process, thus freeing their time for other duties. Financial advisors also provide very specialized expertise that often is not practical to achieve or maintain in public agencies that issue debt infrequently or in small amounts. As a part of the advice relating to the transaction, the financial advisor also may offer advice relating to the investment of the transaction funds.
- **GENERAL ADVISORY RELATIONSHIPS.** Financial advisors providing general advisory services work similarly to financial advisors performing project management on specific transactions, except that they are engaged across a broader range of activities in

⁹ *The Bond Buyer's* Municipal Marketplace (the "Red Book") provides a directory of firms and persons engaged in the planning, sale and administration of municipal bonds.

the public agency's management of its debt portfolio. The public agency may use the advice of the financial advisor to execute a particular strategy on a specific debt issuance transaction or across multiple transactions, to incorporate a recommended type of debt issuance strategy into the larger portfolio of debt that the public agency has outstanding, and to provide continuity between and among transactions. Financial advisors in this context often are involved in the integration of the public agency's debt issuance into the strategic management of the public agency's financial "balance sheet" (e.g., considering the global impact of debt issuance on the public agency's comprehensive annual financial report). Financial advisors may provide consultation to the public agency about the investment of proceeds of a borrowing or of a capital raising activity, such as a development impact fee program.

- **PROJECT CONSULTING.** Sometimes a public agency may wish to receive advice from an expert on a particular project or aspect of a borrowing or capital raising program without retaining a financial advisor for a transaction or on an ongoing basis; examples of such projects might include debt policy creation or review, analysis of existing indebtedness, periodic review of the agency's borrowing or capital program, training on a particular aspect of the borrowing function, or investment of the proceeds of particular bond issues.

Individual financial advisory firms may provide any or all of the services described above. Most frequently, financial advisors offer their services for transaction management for a fee that is based on the size and complexity of the transaction. Those who provide ongoing consulting services typically do so using an hourly fee basis or a flat periodic fee. Project consulting most often is undertaken on an hourly basis. Like investment advisory services, the fees for financial advisory services are negotiable.

REASONS TO USE A FINANCIAL ADVISOR

There are many reasons why public officials may choose to employ the services of a financial advisor, including:

- Confidence in the financial advisor's ability to provide the service professionally and appropriately in a manner that will save the public agency time;
- Lack of internal resources, such as a designated debt manager; lack of adequate staffing to handle the myriad of details necessary to sell an issue of public debt and invest bond proceeds appropriately; and lack of the specific skills necessary to perform the function internally;
- To benefit from the financial advisor's access to market information not generally available to the staff members charged with the function;
- To lower the cost of borrowing as a result of using the financial advisor to assist in the borrowing or capital raising function;
- To use specialized expertise to achieve investment performance objectives and requirements that are integral to the attainment of other goals of the agency that may require borrowed money to achieve those goals; and
- To obtain an objective, unbiased evaluation of the investment management program of the local governmental agency.

Advantages of Using a Financial Advisor

Using a financial advisor to assist with the investment of bond proceeds may be appropriate if the financial advisor is also an SEC Registered Investment Advisor registered under the Investment Advisers Act of 1940 and when the bond transaction has specific investment requirements. For example, a financial advisor might be used for invest-

ment services where the proceeds of an issue are to be escrowed or set aside for the purpose of making the bond issue “self-supporting” until some future event occurs. Also, the financial advisor often is well positioned to structure the debt issue and the investment of the proceeds in a manner that allows the investment and the debt to work together more efficiently in economic terms.

Disadvantages of Using a Financial Advisor

Sometimes using the financial advisor to assist with investment is not the best approach for a public agency. Even though the financial advisor’s experience in issuing debt makes parts of the market familiar territory, there are numerous investment products and strategies that may benefit the agency that are beyond the financial advisor’s expertise. Some financial advisors are not licensed or registered with federal or state securities regulators in the belief that the offering of investment advice is “incidental” to the performance of their primary duties. Moreover, some agencies want to keep the activities relating to the issuance of debt separate from the activities relating to the investment of funds as a way of maintaining an overall system of checks and balances. The agency may wish to use the services of a specialized advisor or rely on their own internal investment staff; this often is the case where bond proceeds will be invested as part of a larger, overall investment strategy, or in instances where the proceeds of the bond issue become part of the agency’s operating funds.

SELECTION PROCESS

Some public agencies may select a financial advisor as a result of their own previous experience and comfort level with that advisor, or on the recommendation of other public agencies. More often, the selection process starts with a RFP, which is circulated to known advisors, and which may be advertised in local and/or trade publications.

RFP Questions

Appendix B contains a sample RFP for financial advisory services. RFPs for financial advisory services typically will contain questions to elicit the following information from respondents (for questions related to investment advisory services, see *Chapter 1, Role of the Investment Advisor, Selection Process*):

- Basic facts about the respondents, including address, expertise in the issuance of debt instruments, and staff members’ qualifications;
- Information about the firm’s resources and approach to the required assignment;
- Experience with California public agencies or other similar agencies;
- Technical resources and access to market information;
- Past performance for other similarly situated public agencies;
- Ability to provide additional services that the agency may be interested in receiving (e.g., assistance in investing bond proceeds; assistance in drafting debt management policies and objectives; training for staff, management, and elected officials; or specialized consulting);
- Professional liability/errors and omissions insurance;
- Fees for various services; and
- References from other, similar agencies.

Evaluation Criteria

The evaluation criteria described under *Role of the Investment Advisor* are equally applicable to the evaluation of financial advisors hired for investment management. At a minimum, any person or firm offering investment advice to a local agency should offer a specific scope of services describ-

ing the activities to be performed, the deliverable work products the agency will receive and the overall objectives of the engagement. Regardless of who provides investment assistance, the agency should take an active role in determining how the proposed investment or portfolio will comply with state and federal law, the agency's investment policies, and the specific requirements of the individual bond issue.

In addition, for bond proceeds, investment evaluation criteria should also include the following:

- Familiarity with the California Government Code, Internal Revenue Code (IRC), and typical trust indenture restrictions relating to the investment of tax-exempt bond proceeds;
- Willingness to work with other parties to the bond transaction (such as bond issuer's counsel, underwriter, and trustee) to develop a legal investment program for bond proceeds;
- Ability to provide or subcontract additional services that complement the investment advisory services, such as arbitrage rebate calculation services or legal opinions (see *Chapter 4, Tax Exempt Bond Proceeds Investment, Basic Concepts*); and
- Knowledge, certification and investment experience of advisory firm's staff to evaluate the best investment alternative(s) that would be most suitable for the project (e.g., structured portfolio, guaranteed investment contract, forward delivery agreement).

Red Flags

The red flags listed under *Chapter 1, Role of the Investment Advisor* also are applicable to financial advisors. In addition, local agencies should watch for the following red flags with respect to tax-exempt bond proceeds investments:

- Investment strategies that appear to be "arbitrage driven" or designed to fall within

an IRC "loophole." Any transaction designed to achieve an arbitrage return to a local agency should be reviewed carefully by bond or issuer's counsel;

- Investment strategies that delay the expenditure of bond proceeds for governmental purposes. Although the IRC does not prohibit the investment of tax-exempt bond proceeds prior to needed use for governmental purposes, the IRC does include limitations regarding the timing of bond proceeds expenditure such as the "three-year temporary period rule" of Treasury Regulations, Subchapter A, Section 1.148-2, the "six-month," "eighteen-month," and "two-year" arbitrage rebate spending exceptions to Section 148(f) of the IRC, and the "hedge bond" limitations of Section 149(g) of the IRC, and general restrictions relating to "overburdening" the market and early issuance under Treasury Regulation Section 1.148-10 (See *Chapter 4, Tax-Exempt Bond Proceeds Investment* and the CDIAC *California Debt Issuance Investment Primer*, available from CDIAC's website: www.treasurer.ca.gov);
- Fees paid to the advisor by others for guaranteed investment contracts or other products that are represented to be of "no cost" to the issuer because of arbitrage limitations; see *Chapter 4, Tax-Exempt Bond Proceeds Investment*, for limitations on brokers' fees for certain investments;
- Reluctance to conduct a competitive bidding process for selection of the applicable investment; see *Chapter 4, Tax-Exempt Bond Proceeds Investment*, relating to market pricing rules for tax-exempt bond proceeds investment; and
- Claims that the investment product is "proprietary" and cannot be discussed with other bond transaction participants.

Background Checks

The information listed under *Chapter 1, Role of the Investment Advisor, Selection Process*, also is useful for conducting a background check for a financial advisor providing investment advisory services.

Many financial advisors who engage in investment related activities register with the appropriate state or federal agencies as investment advisors. In such a case, the local agency should insist that the financial advisor offering investment advice submit Form ADV. This is the primary document to use to begin background checks for financial advisors so registered. See *Chapter 1, Role of the Investment Advisor, Selection Process*, for information regarding obtaining the Form ADV.

In the case of financial advisors not registered with the appropriate regulatory agency, the public agency should first consider the prudence of engaging such an advisor. If circumstances allow for such a non-registered advisor to handle the local agency's investments, then the local agency should check for other credentials or certifications, such as that of CFA or similar designations. Many of the credentialing organizations that offer such designations will verify the continuation of a member's status in "good standing" although such a status does not imply that the designated advisor is free of difficulties that might eliminate the advisor from further consideration.

Finally, the corporate, partnership, tax and public record status of the financial advisor can be checked through the use of the Lexis-Nexis® service.

Once proposals have been received from financial advisors, the public agency may use a panel to review the proposals and interview finalists. The agency will perform an evaluation of the advisors' qualifications and performance for other public agencies. The agency then selects an advisor, negotiates a contract, and retains the selected firm for the work proposed or requested.

Included in *Appendix B* is an example of an RFP used for the solicitation of financial advisory services. Other examples are available from the Government Finance Officers Association or the California Society of Municipal Finance Officers.

ELEMENTS OF A FINANCIAL ADVISORY AGREEMENT

Sample financial advisory agreements are included in *Appendix B*. Agreements should include, at a minimum, the following:

- Term of the agreement;
- Fees for services, including a full description of how the fees are charged, and how frequently fees will be paid;
- Names of assigned individuals at the advisory firm and at the public agency who will be responsible for the execution of the transaction or the provision of the services;
- A specific scope of work, along with a description of deliverable work products from the advisor;
- Guidelines that may be in place for the purpose of incorporating the individual transaction into the public agency's overall debt portfolio strategy;
- A discussion of the professional liability insurance and other insurance requirements that the public agency may require; and
- Such other matters as may be required to establish the intent of the parties to the contract.

If the financial advisor will provide investment advice, then the SEC also requires that the advisor provide the client with a copy of Part II of Form ADV, the registration document for investment advisory firms, commonly known as the "brochure." This is the same requirement that traditional investment advisors

must meet. Most advisors will include an acknowledgement of receipt of the brochure in the agreement.

TECHNIQUES TO MONITOR PERFORMANCE

Similar to monitoring the performance of an investment advisor (see *Role of the Investment Advisor, Techniques to Monitor Performance*), the public agency and the financial advisor should agree upon goals for the relationship at the beginning of the advisory relationship. The agency should require the financial advisor to periodically provide performance reports and updates. The local agency can monitor these updates against the initial performance goals previously agreed to. The local agency should evaluate the financial advisor's performance over a complete market cycle to accurately judge their performance and minimize the expenses associated with transitioning from one advisor to another. Similar to an investment advisor, the agency should not only evaluate the financial advisor's assistance with respect to investment performance but also its availability, communication, and presentation skills, and the level of understanding of the agency's objectives and policies.

ROLE OF THE BROKER/DEALER

DESCRIPTION

Brokers/dealers are firms engaged in the business of buying and selling securities such as stocks, bonds, and mutual funds. They provide a widely

used and highly efficient means of bringing investors and issuers together.¹⁰ Brokers/dealers may provide liquidity to investors by buying and selling from their own account, a process known as "making a market." Brokers/dealers risk their own capital in inventories of stocks, bonds, and mutual funds and in making markets.

There is a distinction between dealer firms and those that broker transactions. Dealer firms purchase and sell securities out of their own inventories, or "positions." Brokers, on the other hand, act as intermediaries between the buyer and seller without necessarily taking ownership of the security. The broker acts in a capacity similar to that of a real estate broker by facilitating the transaction but having little or no capital at risk.

Brokers/dealers also may offer investment and financial advice, either directly or through subsidiaries. When offered directly through consultation with their customers, the cost of the advice can be subsumed in the pricing of transactions. When offered through a subsidiary, brokers/dealers, like independent investment and financial advisors, may charge a fee for their services.

While brokers/dealers often take a consultative approach in their dealing with public entities, the relationship is not the same as a contractual arrangement between a local agency and an investment advisor. However, securities laws do require brokers/dealers to "know their client" and to sell only suitable investments to that client.

Broker/dealer firms are an integral part of the investment process. Knowing the best way to use the services of a broker/dealer is critical to success in the management of the investment portfolio.

¹⁰ Brokers/dealers assist corporations, public entities and other issuers to structure the terms of their equity or debt offering in ways that will enhance the marketability of the issues. They then purchase the entire issue, and re-offer it to investors. This process of advising and purchasing the equity/debt issue is known as underwriting. The brokers/dealers offer these new issues to investors through their sales force.

FEDERAL AND STATE REGULATION

Broker/dealer firms exist in a highly regulated environment. All are required to register with the SEC and/or a state regulator, depending on the nature of the accounts they hold and the types of customers they serve. Many also are registered with an exchange, such as the New York Stock Exchange, which establishes rules and further regulates their activities. Individuals, either acting alone, or as employees of broker/dealer firms, also must register with federal or state regulators, and all who deal with customers must be licensed with the Financial Industry Regulatory Authority (FINRA), a self-regulatory organization.

BROKER/DEALER RELATIONSHIPS

As part of the process of covering a public agency client, brokers/dealers may attempt to assist the client by providing services such as investment advice, market information, and economic forecasting. If a broker/dealer is providing advisory services, the local agency should have a written agreement detailing these services. In the absence of such an agreement, the local agency investment official should carefully filter any advice provided by a broker/dealer, as there is an inherent conflict of interest when acting as both a broker/dealer and an advisor. One must be mindful that the broker/dealer provides services such as those mentioned above ultimately to earn more transactional business from the public agency, as the broker/dealer is not paid a fee for his/her advice. The broker/dealer derives his/her compensation from the transaction volume generated for his/her firm. Brokers/dealers generate income through the price “spread” (difference between the bid and ask, or price-paid and price-sold on investments provided to their clients). The only way the local agency can get a sense of the reasonableness of such a spread is to comparatively price securities it is interested in purchasing among different brokers/dealers.

Primary Dealers

Primary dealers are those firms that have applied for and been accepted to deal directly with the Federal Reserve Bank of New York in its open market operations. Primary dealers are the only institutions that buy U.S. Treasuries directly from the Federal Reserve. Open market operations are the means by which the Federal Reserve manages monetary policy. Primary dealers generally are large, well-capitalized firm.

Regional (“Secondary” or “Non-primary”) Dealers

“Regional dealer” is a broad term that refers to dealers who do not deal directly with the Federal Reserve for the purchase of U.S. Treasury obligations. This comprises a wide range of firms in terms of size, capitalization, and product focus. It includes large, multinational firms and small, one- to two-person firms. Regional dealers are sometimes called “secondary” or “non-primary” dealers. Many regional dealers actively underwrite and inventory securities.

REASONS TO USE A BROKER/DEALER

Public agencies, acting under their own authority or through the services of financial or investment advisors, execute transactions through brokers/dealers. Brokers/dealers provide the main “gateway” between issuers of securities and investors in those securities. Brokers/dealers make “markets” in securities. They provide direct access to market information and execution, and offer liquidity to investors whenever investors wish to sell securities before maturity. Whether a public entity makes its own investments, or relies on the services of an investment advisor, it is brokers/dealers who supply the inventory of securities from which to choose.

Advantages of Using Brokers/Dealers

Using brokers/dealers directly gives the public

agency full control of the implementation of strategies as well as the transaction process. Managing investments internally can give the local agency a better understanding of the portfolio, its risks, and the return generated. Further, brokers/dealers can be a valuable source of market information and economic research. Brokers/dealers have an incentive to provide good market and securities information as they try to bring added value to their clients' portfolios in hopes of generating additional business.

Disadvantages of Using Brokers/Dealers

Managing an investment portfolio and working with the broker/dealer community directly without an advisor is a time consuming process. Treasury staff must know the types of investments and have several brokers/dealers available to shop around for the best price. Also, as brokers/dealers are compensated on the basis of the transactions their clients execute, there may be a conflict of interest. While securities laws do require brokers/dealers to sell only suitable investments to their clients, the full fiduciary duty of management of the portfolio rests with the local agency's internal staff. Brokers/dealers buy and sell securities for their own account as well as for their customers' accounts. They may own the security they offer to their clients. They may be retained themselves as underwriter or financial advisor to the issuer of the security they offer. This potentially may interfere with the broker/dealer's objectivity about the risks and value of a particular investment. Also, brokers/dealers may not agree to put an agreement in writing to provide formal advisory services.

SELECTION PROCESS

Most public agencies work with multiple brokers/dealers. They may select brokers/dealers as a result of previous experience and comfort level with that broker/dealer, on the recommendation of other public agencies, or they may utilize an RFP process.

RFP Questions

A broker/dealer questionnaire that may serve as the basis for an RFP for broker/dealer services may be found in *Appendix B*. Questions should elicit information that address the following:

- The adequacy of capitalization of the firm;
- Primary or regional dealer status of the firm;
- The product areas that the firm has a strong market presence;
- The firm's familiarity with the local agency's investment policy and state law governing the investment of public funds;
- The track record of the firm in dealing with public agencies and fixed-income portfolios, including any complaints filed with regulatory agencies; and
- Years of experience handling public agency accounts.

Evaluation Criteria

Certain criteria are useful when evaluating whether to utilize a broker/dealer and include the following:

- The services available from the particular broker/dealer (such as research reports);
- Whether the broker/dealer has obtained all required licenses to operate;
- The specific product areas of expertise of personnel that would cover the local agency's account and their familiarity with the investment strategies, choices, and regulations governing California public agencies;
- Whether the firm will function as a primary or regional dealer and the product area for which the firm has a strong market presence;

- Whether the firm has adequate staffing to handle a local agency’s business in a time sensitive manner;
- The adequacy of the capitalization of the broker/dealer as defined by the Federal Reserve Bank;¹¹ and
- The firm’s history with respect to transactional failures.

Red Flags

For certain red flags that local agencies should be aware of when using brokers/dealers in an advisory capacity, see *Chapter 1, Role of the Investment Advisor, Selection Process*. In addition, the local agency should consider the following:

- Problems with capital adequacy and/or standing with regulatory agencies;
- Pressure to custody assets at the brokerage firm, rather than with a third-party custodian;
- FINRA and/or SEC actions against the firm or individual staff;
- Offering deals that look “too good to be true”;
- High-pressure sales tactics; and
- “No Fee” claims.

Background Checks

As with an investment advisor, a basic background check may be useful. See sources under *Chapter 1, Role of the Investment Advisor, Selection Process*.

The FINRA regulates the broker/dealer industry in the United States. Information about individuals or firms registered with the FINRA is available from:

FINANCIAL INDUSTRY REGULATORY AUTHORITY

District 1 (Northern California)
One Montgomery Street, Suite 2100
San Francisco, CA 94104
phone: (415) 217-1100

District 2 (Southern California)
300 South Grand Avenue, Suite 1600
Los Angeles, CA 90071
phone: (213) 229-2300

www.finra.org

ELEMENTS OF A BROKER/ DEALER AGREEMENT

Brokers/dealers ask public agencies to sign documents to open an account; public agencies do not always have their own contract with brokers/dealers. Elements in any understanding with a broker/dealer should include, at a minimum, the following:

- Direct fees, if any, for additional advisory services provided by the brokers/dealers (Brokers/dealers generate income or charge fees by “marking up” the price of a security from the price paid for the security to the price sold to the local agency.);
- The names of individuals employed by the brokers/dealers that will interact with agency officials;
- Guidelines the broker/dealer is to follow in recommending securities (e.g., the agency’s investment policy); and
- Separation of investment services from custody of assets.

¹¹ Since transactions are done as delivery-versus-pay, it is important that brokers/dealers have adequate capitalization to complete their transactions. This may be particularly important in the case of transactions that take some time to settle. Available capital also will tend to influence the type and extent of the inventories held by the firm.

If a broker/dealer is providing investment advice, see suggestions under *Chapter 1, Role of the Investment Advisor*.

TECHNIQUES TO MONITOR PERFORMANCE

Similar to monitoring the performance of an investment advisor, at the beginning of the broker/dealer relationship, the public agency and the broker/dealer should agree upon goals for the relationship. The agency should require the broker/dealer to provide monthly reports on investments purchased. The agency also should evaluate the broker/dealer's availability to meet with the agency, communication and presentation skills, level of understanding of the agency's objectives and policies, knowledge of permissible investments under state law, and the value he/she may bring to the agency's overall portfolio management and performance.

ROLE OF THE TRUSTEE

DESCRIPTION

The municipal trustee is an intermediary between issuers of debt securities and the investors or bondholders, providing a full range of fiduciary and agency services for government organizations over the life of the debt financing. Bond issuers customarily use trustees to perform multiple duties, including monitoring bond document compliance, paying bond debt service, and maintaining the list and address of the registered bond owners. Trustee duties also can include establishing, holding, and investing funds and accounts that hold bond proceeds and other monies related to the bond issue. Entities that serve as trustee typically are commercial banks and trust companies and are subject to regulatory examinations by the applicable State and local regulatory bodies.

The type of duties and responsibilities of a bond trustee generally are specified in a document commonly referred to as the "Trust Indenture" or "Trust Agreement". Although a trustee generally has more duties than that of a custodian (see *Chapter 1, Role of the Custodial Bank*), the bond trustee generally is not empowered with the powers and control over the trust assets that is given to other types of custodians/trustees. Rather, the bond trustee generally undertakes to perform only such duties set forth in the applicable bond indenture or trust agreement. In this capacity, the trustee generally must fulfill its obligations under the governing bond documents and make sure that the bond issuer (or other obligor) complies with the applicable provisions of the bond documents. Bond documents should provide that in the event of an issuer default, the trustee must carefully exercise the rights and powers specified in the bond documents and use the degree of care and skill that a prudent person would exercise under such circumstances. Event of default by or downgrade of the trustee should be covered in the agreement.

TRUSTEE RELATIONSHIP AGREEMENT

Because the duties of a bond trustee are governed by the bond documents, different types of arrangements are possible, including the following:

- **TRUSTEE.** Under this type of arrangement, the trustee establishes and holds all the bond funds as a fiduciary. The trustee also may serve as a "paying agent," as "authenticating agent," and as "bond registrar" (see below). Under certain circumstances, an issuer might elect to hold certain bond funds directly, rather than utilize the services of a trustee to hold such funds. The trustee would perform other services in such instances, such as paying agent and authenticating agent, as required.
- **PAYING AGENT, AUTHENTICATING AGENT, AND REGISTRAR.** The paying agency is a role normally associated with that of the trustee or may be a stand-alone appointment. The pay-

ing agent is responsible for collection of debt service from the issuer and payment of debt service to the bondholders. The authenticating agent is responsible for authenticating the bonds in order to make them valid instruments. Finally, the registrar function is closely related to the paying agency function and is responsible mainly for record keeping or keeping the register of the current bondholders and the transfer and registration of the bonds.

- **REFUNDING OR DEFEASANCE ESCROW AGENT.** A refunding or defeasance escrow agent typically will hold cash and investments on behalf of bondholders, and utilizes such funds, in accordance with an escrow agreement, to pay debt service and redeem bonds. Escrow agents typically are responsible for the initial investment of escrowed funds, and further reinvestment required or permitted under the escrow agreement.

With respect to investment of bond funds, some of the duties of a trustee can be similar to those of a bank custodian—the duties of a trustee can be provided in the applicable bond documents to include all the responsibilities as specified under *Chapter 1, Role of the Custodial Bank, Types of Duties of a Custodial Bank*. However, the bond documents need not necessarily include such duties.

Similar to a custodian, the trustee generally will not be empowered to make investment decisions on behalf of the agency. However, in contrast to a custodian, the trustee must review an investment of trustee-held bond funds for compliance with the applicable bond documents in order to endeavor to preserve the assets of the trust estate. Also, in contrast to a custodian, a bond trustee generally is required by the governing bond documents in a post default situation to undertake collection actions to protect bondholders.

REASONS TO USE A TRUSTEE

Trustees perform many services for which issuers do not have the staff or banking resources to

perform, thus freeing existing issuer resources for other duties. Trustees also give comfort to investors that there is a fiduciary acting on their behalf with respect to bond fund investment and compliance with bond documents. The trustee's duty to perfect the security in the assets of the trust estate for the benefit of the bondholders is an extremely important role. Finally, the paying agent, authenticating agent, and registrar functions are critical to the success of a financing since they address the basic requirements of paying the bondholders, keeping accurate records, and ensuring the proper number and principal amount of bonds are circulating.

SELECTION PROCESS

Trustees typically are selected either based upon previous service to the issuer or as a result of a Request for Proposals (RFP), which is provided to known trustees.

RFP Questions

A RFP for trustee services typically will contain questions to elicit the following information from respondents. Included in *Appendix B* is a sample of a RFP written to assist a public agency in the selection of a trustee.

- Basic facts about the respondents, including address and form of organization, assets under management, experience in types of financings under administration and relevant staff members and their qualifications;
- Information about the firm's history;
- Content and timing of reports;
- References from current customers;
- Ability to provide additional services that the agency is interested in receiving (e.g., securities lending, trade execution through an affiliate, and customized reporting);
- Type of insurance; and

- Cost of services.

Evaluation Criteria

The most important criteria for judging trustees are similar to those for judging bank custodians and include the following:

- Experienced, relevant staff and commitment to the municipal trust business and investment in technology;
- Understanding the agency’s needs;
- A track record of successfully providing such services in the market place in the past;
- Excellent references from current customers;
- Short- and long-term credit ratings from nationally recognized rating services;¹² and
- Ability to provide the services the agency requires.

Red Flags

There are certain “red flags” that public agencies should watch out for when evaluating a trustee. These include the following:

- Incomplete, late, or hard to read reports;
- Lack of references or negative references;
- Inexperienced staff;
- Credit ratings below “A” or equivalent from a nationally recognized rating service;
- Lack of technology investment; and
- References report incidences of failure to follow bond document restrictions.

ELEMENTS OF A TRUSTEE AGREEMENT

The bond issuer must enter into a contractual relationship with a trustee to use its services — this is the trust indenture or trust agreement. With respect to refunding transactions, this document is the refunding escrow agreement. The trust agreement and/or refunding escrow agreement typically will specify the trustee’s (or escrow bank’s) and issuer’s duties, liability, and other terms the parties negotiate.

Key provisions for investment services typically are located in the sections of the trust indenture describing permitted investments (which could be in a separate section of the document and/or described in separate sections addressing specific bond funds), in the tax or arbitrage certificate for the issue, and/or in a refunding escrow agreement for a refunding issue.

As discussed in *Chapter 4, Tax-Exempt Bond Proceeds Investment*, tax-exempt bond proceeds are subject to special limitations under the California Government Code relating to permitted investments. Further, tax-exempt bond proceeds also are subject to provisions of the Internal Revenue Code (IRC) relating to the yield at which such monies can be invested (known as the yield restriction), and a requirement for making payments of certain excess earnings above the applicable bond yield to the federal government (known as arbitrage rebate). Additionally, parties to the bond issuance transaction, such as bond insurers or rating agencies, may specify the permitted investments for particular bond funds.

The trustee is bound by the terms of the applicable trust indenture or trust agreement relating to the investment of the proceeds of the bond issue (and other monies) and the tax and other limitations described therein. The public agency should en-

¹² Ratings agencies evaluate the risk of the trustee holding assets of the bond issuer or local agency.

sure that the bond counsel for the bonds clearly describes the permitted investments for the monies, tax limitations relating to yield restriction, and the public agency's arbitrage rebate responsibilities. Local agencies that are issuers should understand that they have ultimate responsibility that bond proceeds are invested correctly and IRC and California Government Code provisions adhered to. To assist in such compliance, the trust indenture can be drafted to clearly provide that it is the trustee's responsibility to invest proceeds (as directed by the local agency) in certain clearly described investments at no higher than prescribed yields when active yield restriction is deemed necessary or yield reduction payments to the IRS are not permitted. Local agencies should be aware that sometimes yield restriction limitations only are provided by bond counsel in the tax certificate for the issue and not necessarily in a trust indenture. Local agencies can assist their compliance with respect to trustee held funds by clearly incorporating the tax certificate provisions by reference in the trust agreement. Further, the trustee can be made responsible for managing arbitrage rebate compliance (by separate appointment), including notifying the local agency that arbitrage rebate calculations must be performed and payments made.

With respect to refunding transactions, the escrow agreement should clearly provide for the investments to be purchased, any reinvestment permitted (or made mandatory, because of IRC provisions), and any permissible securities (and other restrictions) for investment substitution. With respect to required investment of escrowed funds subsequent to the bond closing date to comply with yield restriction limitations, local agencies should ensure that the escrow agreement clearly puts the responsibility on the escrow bank to reinvest or not reinvest the applicable monies in specified investments, such as zero yielding United States Treasury Obligations, State and Local Government Series (SLGS). See *Chapter 2, Individual Instruments, State and Local Government Series (SLGS)*, for a definition.

ROLE OF THE CUSTODIAL BANK

DESCRIPTION

Custody and safekeeping services arose when banks provided a safe place to keep bearer, or physical, instruments. Long gone are the days when public treasurers accepted delivery of investment certificates in their own offices and stored them in the nearest vault, clipping coupons when due in order to collect interest, and redeeming the physical certificate at maturity. In fact, today, most securities do not exist in physical form, but rather are held "electronically", in book entry form, on behalf of the owner. California Government Code Section 53601 states (in part):

"A local agency purchasing or obtaining any securities prescribed in this section, in a negotiable, bearer, registered, or non-registered format, shall require delivery of the securities to the local agency, including those purchased for the agency by financial advisors, consultants, or managers using the agency's funds, by book entry, physical delivery, or by third-party custodial agreement. The transfer of securities to the counter-party bank's customer book entry account may be used for book entry delivery."

While the California Government Code language permits delivery of securities to the agency, the General Accounting Standards Board (GASB) requires that an agency disclose in its financial statements how and where securities are held. Therefore, it is important that investment officials consult with their agency's management, including the controller, in decisions about custody of investments (see GASB Statement No. 3). The most efficient way to effect the required delivery of securities is through a third-party custodian, which is usually a bank. Due to the advent of book-entry for securities and more effi-

cient funds movement options, the local agency can establish this relationship with any approved entity that offers custodial services. It is no longer unusual to have separate providers for banking and custodial services.

California Government Code Section 53608 permits the deposit for safekeeping of investment securities with any of the following types of institutions:

- A federal or state association as defined by Section 5102 of the Financial Code;
- A trust company or a state or national bank located within California;
- The Federal Reserve Bank of San Francisco or any branch thereof within California;
- Any Federal Reserve Bank; and
- Any state or national bank located in any city designated as a reserve city by the Board of Governors of the Federal Reserve System.

The use of such “third-party” custodians (i.e., institutions other than the party that sold the agency the investment) ensures that no funds are at risk in the transaction since funds are not released until securities are delivered. Additionally, a “contractual” settlement agreement with the custodian will allow the posting of positions and funds as if the trade had settled, although, it may have actually “failed.” The “delivery vs. payment” aspect of these transactions means that the agency should be holding either money or securities at all times during the transaction.

It is normal for a custodian to hold the agency’s securities in the custodian’s “nominee name.” A nominee is a name the bank selects to reflect that it is holding the securities on behalf of the beneficial owner (the agency). It is also common business practice for the securities to be held not in an account in the custodian’s office, but rather at a central depository, such as the Depository Trust Company (DTC).

TYPES OF DUTIES OF A CUSTODIAL BANK

The duties of a custodian are much more limited than the duties of a trustee (see *Chapter 1, Role of the Trustee*); and, usually, the cost of a custodian is less than that of a trustee. Following, are typical duties that a custodian will undertake on behalf of a local agency:

- The custodian will settle all investment transactions (e.g., accept securities, buy or sell securities, transfer/deliver securities) upon receipt of instructions from the agency or its advisor;
- The custodian bank will collect the interest and principal paid on securities held on behalf of the agency;
- The custodian will invest collected interest and principal in a cash management vehicle, such as a money market fund, that has been selected by the agency; this type of account frequently is referred to as a “sweep account” because the agency’s funds typically are swept into the account so they will earn interest;
- The custodian will notify the agency, or its investment advisor, of corporate actions that affect securities in the custody account, such as redemptions and calls;
- The custodian will forward proxies issued by a company whose securities are held in the custody account to the agency, or to another party (such as an investment advisor), as directed by the agency;
- The custodian will send monthly statement of asset holdings and account transactions to the agency (this typically includes an asset list, a market value of the assets and the cash balance), and to the agency’s investment advisor, if directed by the agency; and
- The custodian will receive and disperse funds.

Equally important are the duties that a custodian will not typically assume, including the following:

- The custodian will not make investment decisions on behalf of the agency;
- The custodian will not review the investment transactions for suitability or compliance; although, many service providers will offer investment guidelines compliance monitoring reports;
- The company will not undertake collection actions on behalf of the agency in the case of default or refusal of the obligor to pay upon demand; and
- The company will not typically forward corporate literature to the agency, other than proxies and notices of corporate actions (e.g., calls, redemptions).

REASONS TO USE A CUSTODIAL BANK

Aside from cost, there are generally no negative aspects to the utilization of a custodial bank. The custodial bank is under contract to the agency and therefore the agency can negotiate the terms and conditions; and with modern technology, transactions can be transmitted electronically to the custodian so time consuming dual entry of investment transactions in both the accounting system and the custodian's records is unnecessary. The benefits of the use of a custodial bank allows all the securities to be held in one place, therefore, investments are easier to report, track, and reconcile.

SELECTION PROCESS

Some public agencies may turn to their demand account bank for custodial services, or may rely upon their own previous experiences and comfort level with that custodian, or on the recommendation of other public agencies. Sometimes, the selection process starts with a Request for Proposals (RFP), which is provid-

ed to known custodians, and which may be advertised in local and/or trade publications. The number of agencies offering custodial services has declined in recent years in part because of the merger/consolidation of the entities offering such services.

RFP Questions

A RFP for custodial bank services typically will contain questions to elicit the following information from respondents. Included in *Appendix B* are samples of RFPs written to assist a public agency in the selection of bank services:

- Basic facts about the respondents, including address and form of organization, assets under management, types of custody accounts held, and staff members and their qualifications;
- Information about the firm's history;
- Experience with California public agencies, or other similar funds;
- Appearance and content of reports;
- References from current customers;
- Online and systems capabilities;
- Business recovery plans;
- How contractual settlement, if offered, is defined (e.g., delivery of securities, receipt of securities, and turnaround trades);
- Time frame in which local agency's account would be credited for coupon payments and redemptions;
- Timeliness of customer notification about partial/full calls;
- Ability of bank to handle registration/re-registration of securities;
- Ability to provide additional services that the agency is interested in receiving (e.g.,

securities lending, trade execution through an affiliate, global custody, customized reporting, etc.);

- Amount of insurance; and
- Cost of services.

Evaluation Criteria

The most important criteria for judging custodians include the following:

- Experienced staff familiar with the public funds sector for both treasury funds and retirement plans, including providing liaisons for investment managers as well as relationship management and account administration professionals;
- Clear understanding of the agency's needs and objectives in the custody relationship;
- A track record of successfully providing such services in the past;
- Excellent references from current customers;
- Ability to provide all of the services the agency requires now and in the near future (3 years which is the typical term of a contract); and
- Credit ratings or other indicators of the institution's financial stability.

Red Flags

There are certain "red flags" that public agencies should watch out for when evaluating a custodian. These include the following:

- Incomplete or late reports;
- Lack of references, including public sector references and references with assets similar in size and nature;
- Frequent staff turnover;

- Contractual settlement that only covers the receipt of securities, not the delivery of securities;
- Negative feedback from references (e.g., references report a significant number of failed transactions); and
- Unwillingness to substitute "simple negligence" language in the custodial agreement in place of "gross negligence" or "willful misconduct."

ELEMENTS OF A CUSTODIAL BANK AGREEMENT

The agency must enter into a contractual relationship with the custodian in order to use its services. Elements of the contract will include the duties of the custodian (as described above), the compensation to the custodian and the method of payment, the appointment of the custodian as the agency's agent to perform the contractual duties, and other terms that the two parties may negotiate.

An important element of custodial services as well as other banking services is a wire transfer agreement. Many large transactions, including most security purchases and sales, are facilitated with wire transfers. If possible, public agencies should select a financial institution with direct access to the Federal Reserve System in order to minimize errors and failed transactions that occur more frequently when multiple parties are involved. Banks without direct access require the use of a "correspondent bank." This adds an extra layer between the local agency and the other party to the transactions, and thus increases the risk that something will go wrong. Thus, wire failure frequency as well as cost should be considered in the selection of financial institutions.

Agencies that use wire transfers should enter into a written wire transfer agreement with their financial institution or incorporate such an agreement as part of the agency's overall

banking contract.¹³ This agreement will cover how repetitive and non-repetitive wires will be handled (including maximum amounts and who is authorized to initiate them), callback procedures, and limits of liability for both parties. The standard agreement used by most banks incorporates the liability provisions of the State's Uniform Commercial Code No. 4A (UCC 4A). The public investor should be aware that, under these standard agreements, the provisions for recovering damages from a financial institution do not favor the local agency. Thus in order to recover costs incurred as the result of a failed transaction, for example, the agency would have to prove "gross negligence" or "willful misconduct" on the part of the institution, both of which are difficult to prove. It is strongly recommended that investment officials, with the concurrence of their agency counsel, negotiate with their financial institution to modify the agreement to incorporate a standard of "simple negligence" or "negligence." To mitigate the risk of UCC 4A wire issues with the Custodial Bank, the local agency can stipulate in their agreement that the Custodial Bank is permitted only to wire funds directly to the local agency's depository bank account as described in the wire instructions contained in the agreement or as amended in writing.

¹³ For more information on this topic, refer to Turner, Paul S. *Negotiating Wire Transfer Agreements, A Guide for Treasury Executives, Bankers & Attorneys*, (Treasury Management Association, 1996).



Chapter 2

INVESTMENT CONCEPTS, TERMINOLOGY, AND INSTRUMENTS

INVESTMENT CONCEPTS, TERMINOLOGY, AND INSTRUMENTS

Chapter 2 describes and defines investment concepts, terminology, and instruments available for public fund investment. This chapter explains in non-technical language those concepts and terms used when making public fund investments.

The terminology highlighted and discussed in this chapter is not arranged in alphabetical order; but grouped by concepts and processes. As reflected in Figure 4, the first set of concepts and terms relate to key components of debt instruments and typical public fund investment. Concepts and terms relating to pricing investments are then discussed, followed by certain concepts and terms used in the analysis and evaluation of

investments, investment portfolios, and certain investment products.

This chapter is for reference purposes only and does not recommend specific types of instruments or indicate whether a particular instrument is appropriate or legal for a given portfolio.

COMPONENTS OF A DEBT INSTRUMENT

Investments for public agencies typically are in the form of debt instruments—commercial paper, bonds, and certificates of deposits are examples of these types of instruments. In general, these debt instruments have key terms associated with them that public agencies evaluate when selecting the appropriate investment for the public agency’s portfolio; these terms are described in the following section.

PRINCIPAL

Debt instruments typically have a “principal” component. The term “principal” means the face or par value of the debt investment. Interest typi-

Figure 4

ORDER OF INVESTMENT CONCEPTS DESCRIBED IN CHAPTER 2

- COMPONENTS OF A DEBT INSTRUMENT
 - PURCHASE OR SALE OF INVESTMENTS
 - INVESTMENT EVALUATION
 - INVESTMENT EVALUATION TOOLS
 - FINANCIAL PRODUCTS
 - INDIVIDUAL INSTRUMENTS
-

cally accrues on the outstanding principal or face amount. The principal amount of a debt instrument may differ from its purchase price.

EXAMPLE. An agency buys a U.S. Treasury note with a par or face value of \$1 million for a price of \$1,027,500. The principal amount of the note is \$1 million and \$27,500 represents premium paid for the note. The agency will receive \$1 million at maturity, and the \$27,500 premium should be amortized over the life of the investment.

INTEREST

A key characteristic of a debt instrument is that it bears interest on the outstanding principal amount; the “interest” component is compensation by the debtor to the lender for the use of money for a period of time. Interest includes coupon or current interest accruing at an “interest rate” on the outstanding principal amount of an investment. Interest is calculated as a percentage of the principal amount borrowed over the time period of the financing. When calculating interest, the “time period” may be deemed to be a 360-day year with 30 days per month (30/360) or a 365-day year with actual days per month (actual/365).

The basis for calculating interest varies across instruments. In the universe of fixed income securities, the most commonly used calculations are:

Discount Interest

U.S. Treasury bills, banker’s acceptances, and, sometimes, commercial paper pay interest on a discount basis. That is, the face value of the security is discounted in price based on the negotiated discount rate. The investor pays the discounted amount and receives face value at maturity. The number of days in the interest period is based on the actual number of days from purchase to maturity; however, the number of days in a year is always assumed to be 360, rather than 365.

EXAMPLE. Assume a \$1 million face value for a banker’s acceptance purchased at a discount rate of 3 percent, with a term to maturity of 31 days. The agency pays the net amount (the face amount minus the total interest due), and receives \$1 million at maturity.

$$\begin{aligned} \text{Discount Interest} &= \\ \$1,000,000 \times 31/360 \times 3.00\% &= \$2,547.95 \end{aligned}$$

$$\begin{aligned} \text{Discounted Amount Invested} &= \\ \$1,000,000 - \$2,547.95 &= \$997,452.05 \end{aligned}$$

$$\begin{aligned} \text{Amount Received at Maturity} &= \\ \$1,000,000 & \end{aligned}$$

Note that because buyers of discounted paper invest less than the face value, the actual yield to maturity on the paper they buy is higher than the discount rate. The actual yield to maturity of discounted paper is based on the amount invested, not the face value. The following formula shows the calculation of yield to maturity for the discounted banker’s acceptance above.

$$\begin{aligned} \text{Yield to Maturity} &= \\ \$2,547.95 / ((31/360) \times \$997,452.05) &= 3.01\% \end{aligned}$$

Interest Bearing

There is one additional wrinkle in calculating interest on commercial paper, though not on any other discounted money market instrument. Sometimes commercial paper is sold as “interest bearing.” In that case, the investor pays the face value, not the discounted amount, for the commercial paper and receives the face value at maturity plus interest at the “yield to maturity” rate as calculated above. This method evolved because investors often desire to invest in round “lots” (i.e., multiples of 100), rather than in uneven amounts. The interest-bearing formula was required in order to provide equal interest earnings regardless of whether the amount invested was based on the discounted amount or the face value.

30/360 Interest

Some securities, including many corporate and federal agency notes that pay interest semi-annually use the “30/360-day” basis. That is, they pay interest based on 30 days in each month, regardless of the actual number of days in the month. They also use 360, rather than 365, days in the denominator for the interest calculation.

EXAMPLE. An investor calculates how much interest will be received on a Federal National Mortgage Association (FNMA) 5.25 percent note from the issue date of March 1, 2002 through the first coupon date of July 1, 2002. Although the actual number of days from March 1 through July 1 is 122 (31+30+31+30), the 30/360 basis of calculation determines that there are only 120 days in the period (30+30+30+30). Therefore, the interest amount for this period is \$17,500.

$$\begin{aligned} 30/360 \text{ Interest} = \\ \$1,000,000 \times 120/360 \times 5.25\% = \$17,500.00 \end{aligned}$$

Actual/Actual Interest

U.S. Treasury notes and bonds calculate interest based on the actual number of days in the interest period, and the actual number of days in the year. One way to calculate interest on a U.S. Treasury note is to calculate the number of days of interest, and then divide by double the actual number of days in the coupon period, and multiply the result by one-half of the coupon rate, which represents the semi-annual interest rate.

EXAMPLE. An investor purchases a \$1 million par value U.S. Treasury note with a coupon rate of 4 percent on the date of the first coupon payment, April 15, and then must sell the note on September 15. The investor wishes to determine how much interest will be received on the sale date. The first coupon date is April 15, and the next coupon payment date is October 15. The entire maturity period is 183 (15+31+30+31+31+30+15) days. The investor holds the note from April 15 to September 15, a total of 153 days, and thus is

entitled to receive 153/183 of the semiannual interest payment, based on the semi-annual interest rate. The semi-annual interest is one-half of the annual interest rate. The investor earns interest of \$16,721.31.

$$\begin{aligned} \text{Actual/actual Interest} = \\ \$1,000,000 \times 153/(2 \times 183) \times 4.00\% = \\ \$16,721.31 \end{aligned}$$

MATURITY

Typically, principal of a debt instrument is payable by a certain date. The term “maturity” means the date that the stated principal amount or face amount of the debt investment becomes due and payable to the lender. The maturity date may be a specified date or a date that is determined under a formula within the governing documents for the investment. Principal also may mature on multiple dates, as happens with an amortizing mortgage.

EXAMPLE. Assume a \$1 million bond pays interest at a rate of 6.25 percent semiannually and principal on July 1 each year. The date the final payment of principal is to be repaid is the maturity date, July 1, 20XX.

Weighted Average Maturity

The weighted average maturity of a portfolio (usually expressed in days to maturity) is the average maturity of the portfolio weighted by a common factor (such as the market value of each investment). The weighted average maturity provides a more accurate measure of the impact of maturing investments on the portfolio than the simple average because it takes into account the share of the portfolio that each investment represents and places greater weight on larger shares.

EXAMPLE. Assume a portfolio has two investments: (1) a certificate of deposit with a market value of \$5 million that matures in 30 days, and (2) a U.S. Treasury bill with a market value of \$10 million that matures in 60 days.

While the average maturity of this portfolio is 45 days, the weighted average maturity (which takes into account the larger investment in the U.S. Treasury bill) is $((30 \times \$5 \text{ million}) + (60 \times \$10 \text{ million})) / \$15 \text{ million}$ or 50 days.

Effective Maturity

The effective maturity of a security is an estimate of the average maturity of a security with a call feature. The effective maturity of such a security is truly an estimate because the actual maturity date is not known at the outset, but depends on the interest rate environment over time. In some interest rate scenarios, the security will be called early. See *Chapter 2, Terms Relating to Components of a Debt Instrument, Call Provision in a Callable Bond*.

EXAMPLE. A municipal bond has a nominal maturity of 30 years but is callable by the issuer beginning ten years after the initial issuance date. The effective maturity date for such a security can be estimated to be between the first call and maturity; that is, between ten years and 30 years. The formula for calculating effective maturity is complex.

DURATION (ALSO EFFECTIVE DURATION)

Duration measures the weighted average of the present value of the cash flows of a fixed-income investment. Effective duration measures the price sensitivity of fixed-income investments, especially for those with embedded option features such as call options. As yields rise, the effective duration of a callable investment rises to reflect the fact that it has become less likely to be called. The more rates rise, the longer the effective duration will become, approaching the duration to maturity. The converse is true in a declining interest rate environment (that is, the more rates fall, the shorter the effective duration will become, approaching the duration to call). For securities without an embedded option, the duration to call, maturity, and effective duration are all the same. The calculation for effective duration is complicated and involves

averaging the duration under a simulation of many possible interest rate scenarios in the future (thus, no example for this calculation appears below).

DENOMINATION

Denomination means the minimum increments in which investors may buy debt investments. Minimum denominations may be used for investor and seller convenience and/or to limit the types of entities that may be potential purchasers by limiting denominations to those that typically would be purchased by institutional investors.

EXAMPLE. Reflected below are sample denominations of securities sold to investors. The denomination amount is notated in the official prospectus:

- An issue of newly released corporate bonds may be sold to the public in minimum increments of \$5,000;
- Public agencies often issue municipal bonds in denominations of \$5,000 or any integral multiple thereof; and
- U.S. Treasury bills, notes, and bonds may be purchased in minimum increments of \$10,000.

CALL PROVISION IN A CALLABLE BOND

A callable bond combines a bond with a call option. The buyer of a callable bond executes the exact equivalent of buying a non-callable bond and simultaneously selling a call option to the seller (i.e., issuer) of the bond. Like all option sellers, the buyer of a callable bond collects a premium, which comes in the form of a nominal interest rate on the bond that is higher than the nominal interest rate on a non-callable bond and/or a premium upon the exercise of such a call right. Popular call provisions include the following four types:

- ONE-TIME CALL (“EUROPEAN CALL”). The bonds may be called one time only on a pre-specified date after the initial lockout period.

- **DISCRETE CALL (“BERMUDAN CALL”).** The bonds may be called according to a pre-specified schedule (e.g. monthly, quarterly, or semi-annually) after the initial lockout period.
- **CONTINUOUS CALL (“AMERICAN CALL”).** The bonds are continuously callable after the initial lockout period. That is, they are callable at any time on or after the first call date.
- **CANARY CALL.** A step-up bond that cannot be called after completing its first-step period. The issuer of the bond reserves the option to call back the bond until the first step is reached. A canary call may only be exercised on predetermined dates.

If interest rates fall sufficiently, the issuer of the bond (who also is the buyer of the option) will exercise the option, and call the bond away from the bond investor (who also is the seller of the option). When this occurs, the callable bond investor has received the benefit of higher coupon income from the purchase date through the call date, but foregoes the higher coupon income from the call date to the maturity date.

If interest rates do not fall sufficiently, the issuer of the bond will not exercise the call option, and the callable bond investor will receive the full benefit of the premium in the form of incremental coupon earnings over the full term of the bond.

EXAMPLE. A public agency purchased a \$25 million par value, one-time callable Federal National Mortgage Association (FNMA) bond paying 3.5 percent interest. The bond is callable after one year at par value. On the call date, interest rates for similarly structured bonds have fallen; therefore, the bond is “called” and bondholders are paid par value plus interest for the period.

PUT OPTION EMBEDDED IN A BOND

A puttable bond combines an interest-bearing bond with a put option, which is a right to “put” the bond back to the issuer at an agreed-upon

price. The investor of a bond with a put option executes the exact equivalent of buying a bond and simultaneously buying a put right from the bond issuer. The investor who purchases a bond with a put option pays a premium for the right to put the bond back to the issuer, which comes in the form of a lower interest rate on the bond than one without such a put option.

If the owner of the puttable bond has an economic outlook that foresees the level of interest rates rising sufficiently (or for other reasons, perhaps relating to cashflow needs), the investor of a puttable bond will exercise the option and sell the bond back to the issuer. When this occurs, the purchaser of the bond with the put option has received a lower interest rate during the period the bond is held but benefits from the liquidity provided by the put option to reinvest in the market at a higher fixed interest rate.

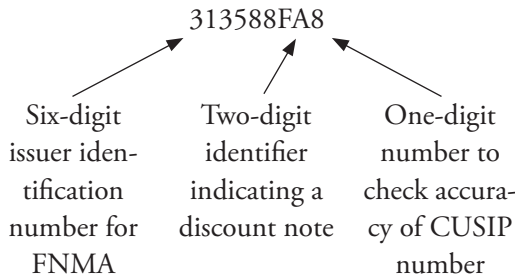
EXAMPLE. Agency X purchases floating rate bonds issued by a federal agency that bear interest based upon a weekly remarketing. A bondholder has the right to put the bond, at par, every week. Agency X would hold the security during the rising interest rate environment and would put the bond back to the issuer on the reset date when Agency X’s economic outlook indicated that interest rates were peaking. This would allow them to reinvest the proceeds in a fixed rate security that would appreciate in market value as interest rates remained the same or declined.

CUSIP NUMBER

The Committee on Uniform Security Information Procedures (CUSIP) Number refers to a securities identification number assigned to each publicly traded security by the CUSIP Service Bureau operated by Standard & Poor’s for the American Bankers Association. The CUSIP Number is a nine-character identifier unique to the issuer, the specific issue and the maturity, if applicable (the first six characters identifying the issuer, the next two identifying the security and

the last digit is a check digit to validate the accuracy of the preceding CUSIP number).

EXAMPLE. The following CUSIP number is for a discount note issued by the Federal National Mortgage Association (FNMA):



THE PURCHASE OR SALE OF INVESTMENTS

The following section describes and provides examples of key pricing and valuation terms used in the purchase or sale of investments.

NET ASSET VALUE

Net asset value (NAV) is a term used in the mutual fund industry to determine the average price per share of a pool or mutual fund. How this measure varies over time provides information on whether the pool is stable or variable. NAV is the market value of all securities in a mutual fund, less the value of the fund's liabilities, divided by the number of shares in the fund outstanding. Shares of mutual funds are purchased at the fund's offered NAV.

PRICE

Price is the amount of monetary consideration required by a willing seller and a willing buyer to sell an investment on a particular date.

EXAMPLE. A U.S. Treasury note, with a coupon rate of 6 1/8 percent sells at a dollar price of 102.75 (\$102.75 for every \$100 of par value).

PREMIUM

Premium means the difference between the par value of a security and the cost of the security when the cost is above par. Investors pay a premium to purchase a security when the return to the investor (yield) is lower than the stated coupon (interest rate) on the investment.

EXAMPLE. A U.S. Treasury note with a coupon rate of 6 1/8 percent sells at a dollar price of 102.75 (\$102.75 for every \$100 of par value) to yield 2.13 percent. The premium is \$2.75 for every \$100 of par value, and an investor would pay \$1,027,500 for \$1 million par value of the note.

DISCOUNT

Discount means the difference between the par value of a security and the cost of the security when the cost is below par. Investors purchase securities at a discount when return to the investor (yield) is higher than the stated coupon (interest rate) on the investment.

EXAMPLE. A U.S. Treasury note with coupon rate of 3 percent sells at a dollar price of 99.53125 (\$99.53125 for every \$100 of par value) to yield 3.25 percent. The discount is \$0.46875, and an investor would pay \$995,312.50 for \$1 million par value of the note.

MARKET VALUE

Market value is the current price at which a security can be traded.

EXAMPLE. Assume an investor purchases a \$1 million U.S. Treasury note with a coupon rate of 1.625 percent at par. The investor is unable to hold the security to maturity. The current yield of the security is 1.71 percent, and the market value of the security is \$998,437.50. The investor will receive less than par because market interest rates rose while the investor was holding the security. Because interest rates rose, the market value of the security fell.

PAR VALUE

Par value is the nominal or face value of a security; that is, the dollar amount on which interest is calculated and principal paid to the investor at maturity.

EXAMPLE. An investor purchases a U.S. Treasury note with a coupon rate of 6.125 percent at a dollar price of \$102.75 per \$100 of par value for a total investment of \$1,027,500. The investor would receive interest on each coupon date and at maturity based on \$1 million of par value and would receive principal of \$1 million based on \$1 million of par value at maturity. The premium of \$27,500 would be amortized over the period the security was held.

BOOK VALUE (ALSO AMORTIZED COST OR ADJUSTED COST)

The value at which an asset is carried on a balance sheet. Book value, also known as amortized cost or adjusted cost, is the cost of a security adjusted to reflect the accumulative accretion of a discount or amortization of a premium at a given point in time. The book value constantly changes as the security nears its maturity date.

EXAMPLE. An investor purchases a \$1 million U.S. Treasury note on December 24, 2008, maturing on December 24, 2012. The original cost is \$985,000, so the discount is \$15,000. On December 24, 2009, the adjusted cost of the security would be \$988,750. The book value of the security is adjusted for the \$15,000 discount. The accretion of the \$15,000 discount is taken evenly over the four-year period ($\$15,000/4 = \$3,750$).

INVESTMENT EVALUATION

As discussed in other chapters of this *Investment Primer*, the fundamental considerations for evaluating investments of public funds are

safety, liquidity, and yield. These fundamental considerations are described (with examples) in the following section.

SAFETY

In the context of investing public funds, safety relates to preserving the principal of an investment in an investment portfolio; local agencies address the concerns of safety by controlling exposure to risks. The following is a discussion of certain terms and concepts relating to safety. For a discussion of investment risk related to a portfolio structure, see *Chapter 3, Structuring a Portfolio*.

Interest Rate Risk (Market Risk)

Interest rate risk, also known as market risk, means the risk that the value of securities will decline as the general level of interest rates rises. For example, given a fixed coupon rate, the value (price) of an investment is inversely related to interest rates. As interest rates rise, price falls.

EXAMPLE. The yield of a two-year U.S. Treasury note has dropped from 5.01% in June 2007, to 0.93% in January 2009, due to the economic recession (recognized in December 2007).

Credit Risk

Credit risk means the risk that the financial performance or status of an issuer will fall during the time a security remains outstanding. In the context of a debt security, credit risk means the possibility that the issuer will be unable to make scheduled payments of principal and interest. A more common concern for investors is that the market's perception of a corporation's credit will cause the market value of a security to decline, even if default is not expected.

Credit rating agencies incorporate their view of an issuer's and/or specific security's credit risk in the credit rating assigned to it (see Credit Rating below). Credit ratings are a useful tool; however, always do your own credit analysis.

EXAMPLE. The negative yields on U.S. Treasury bills in 2007 reflected the unwillingness of investors to assume any credit risk in the marketplace; hence the flight-to-quality to U.S. Treasury bills.

Event Risk

Event risk means the risk that an unexpected event will have a negative impact on an issuer's ability to meet its financial obligations, including making scheduled interest and principal payments. Examples include unexpected legal judgments, regulatory changes, accidents, or corporate restructuring.

EXAMPLE. The unexpected bankruptcy of Lehman Brothers is an example of event risk. On September 8, 2008, Lehman 5.25s of 2/12 were trading at 92.95, following the bankruptcy announcement, trading on the notes dropped to 32.00, over 60 points in one week.

Reinvestment Risk

Reinvestment risk means the risk that cash flows from securities will be reinvested at interest rates lower than the rate of the original investment.

Mortgage-backed securities and callable securities are highly subject to reinvestment risk because both are significantly impacted by changes in interest rates and behavioral responses associated with these changes.

EXAMPLE. In a declining interest rate environment, agencies investing in callable bonds may have their securities called and have to reinvest in a lower interest rate environment. A Federal National Mortgage Association (FNMA) bond with a 3½-year term to maturity yielding 4.02 percent was called at par after one year. The investor was forced to reinvest the proceeds at lower interest rate levels—2.35 percent.

Diversification

Diversification is the practice of purchasing a variety of investment instruments from numerous issuers in order to avoid excess exposure to any one source of risk. Diversification also means the investment in securities that have returns that are affected in different ways by the same market conditions. An investment official should consider diversification for a portfolio based on all forms of risk. Holding securities from one sector is not considered to be diversified.

EXAMPLE. A city with a \$10 million investment portfolio chooses to invest in commercial paper up to the maximum permitted under the California Government Code (25 percent of their portfolio or \$2.5 million). It implements this investment decision by purchasing an equal dollar amount of commercial paper issued by ten different corporations, thereby limiting its exposure to the risk of any single corporation as well as complying with the 10 percent per issuer limitation specified in the California Government Code. Thus, they invest \$250,000 in commercial paper issued by each corporation. The remaining 75 percent of the city's portfolio is invested in other market sectors such as U.S. Treasury and Agency securities and the State Local Agency Investment Fund (LAIF).

CREDIT RATING

Credit rating means a designation assigned by a credit rating agency to describe the risk of a security or entity's credit worthiness. Ratings from different credit rating agencies may mean different things; each agency typically provides a description of its rating system. Rating agencies typically discern what is "investment grade" versus "speculative grade," and provide "short-term" versus "long-term" ratings for particular investments. A table of the ratings assigned by the major credit rating agencies (Moody's Investors Service, Standard & Poor's and Fitch Ratings) is included and described in *Appendix C*. For long-term debt issuance, the

ratings range from Aaa to C for Moody's and from AAA to D for Standard & Poor's and Fitch. For short-term debt issuance, the ratings range from P-1 to Not Prime for Moody's, A-1 to D for Standard & Poor's, and F-1 to D for Fitch Ratings. There are also private credit analysis firms such as CreditSights that will provide independent credit analysis for a subscription fee.

Credit Rating Agency

A credit rating agency, designated as a Nationally Recognized Statistical Rating Organization (NRSRO) by the Securities and Exchange Commission (SEC), describes a nationally (or internationally) recognized firm in the business of identifying and categorizing the credit risk of an issuer, an individual security structure or class of debt obligations. As of August 1, 2009, the SEC has designated nine NRSROs: A.M. Best Company, Dominion Bond Rating Service, Ltd., Egan-Jones Rating Company, Fitch Ratings, Japan Credit Rating Agency Ltd., LACE Financial Corporation, Moody's Investor Service, Ratings and Investor Information, Inc., and Standard and Poor's.

LIQUIDITY

In the context of public fund investing, liquidity can have different meanings. Liquidity can mean the measure of an agency's ability to convert an instrument to cash on a given date. Liquidity also relates tangentially to the ability to receive the "full-face" or par value of the instrument in cash. Another definition of liquidity is the ability of an agency to pay its expenditures with either cash-equivalent investments or investments maturing on the date cash is needed.

EXAMPLE. The following illustrates the concept of liquidity:

- Agency X purchases a guaranteed investment contract that may be drawn upon for construction expenditures at anytime; this investment is considered more liquid than a

U.S. Treasury bill held for construction expenditures that must be sold subject to market price risk to pay for expenditures.

- Agency X maintains \$5 million in LAIF, which allows the Agency to draw down an amount immediately when needed to pay the agency's operating or capital expenditures. LAIF is considered a "liquid" investment.

Liquidity Risk

Liquidity risk means the inability to sell a security at its fair market value. Liquidity risk can involve the difference between the price at which a dealer is willing to buy a security and the price that the dealer is willing to sell the same security; this is referred to as the bid/ask spread. Highly liquid securities such as U.S. Treasury securities can have bid/ask spreads of less than 1/32nd of one point, while some illiquid securities may have bid/ask spreads of several points.

YIELD

A third consideration of public fund investing is "yield." Yield describes the income from a security as a percentage of the value of the security. Yield calculations are complex for securities that have more than one interest payment, and are quite difficult to calculate manually. Yield can be calculated with at least nine formulas. The examples on the next few pages compare the value of yields for two different scenarios.

Time-Weighted Total Rate of Return (TWTRR)

The TWTRR refers to the compounded rate of growth of the initial portfolio market value during the evaluation period, assuming that all cash flows are reinvested in the portfolio. The TWTRR is the rate of growth that equates the beginning market value to the ending market value. For periods of time greater than one year, the TWTRR is often expressed as an annualized figure. See *Chapter 3*,

Evaluating A Portfolio for more information about time-weighted rate of return.

Yield to Maturity at Cost

Yield to maturity at cost means the constant discount (interest) rate that makes the net present value of future principal and interest cash flows equal the purchase price of the security on the acquisition date.

Yield to Maturity at Market

Yield to maturity at market means the constant discount (interest) rate that makes the net present value of future principal and interest cash flows equal the current market price of the security. This is the most commonly used formula.

On the initial purchase date, yield to maturity at cost and yield to maturity at market will be identical since cost is equal to market value on the purchase date. After the initial purchase date, the yield to maturity at market reflects current market conditions, and may be higher or lower than the yield to maturity at cost.

Yield to Call

Yield to call means the constant discount (interest) rate that makes the net present value of future principal and interest cash flows (assuming a call on the applicable call date) equal the cost or market value of the security, as applicable. This yield is valid only if the security is called.

Yield to Worst

Yield to worst means the constant discount (interest) rate that makes the net present value of future principal and interest cash flows equal the cost or value of the security assuming the worst case situation in terms of whether or not the security is held to maturity or called on any of its call dates.

The yield to worst is the lowest calculated yield between the yield to maturity at cost, yield to ma-

turity at market, and yield to call (calculated for each possible call date).

Internal Rate of Return (IRR)

The IRR is the annualized effective compounded return rate earned on the invested capital, i.e., the yield on the investment of the investment. Put another way, the internal rate of return is the discount rate that makes the net present value of the investment's income stream total to zero.

Effective Yield

Effective yield means the constant discount (interest) rate that makes the net present value of future principal and interest cash flows equal the cost or value of the security, as applicable over the period of investment. This is the actual rate of interest earned by the investor, which takes into account any premiums paid or discounts received.

Current Yield (Market)

Current yield (market) means the annual income of a security divided by its market value.

Current Yield (Cost)

Current yield (cost) means the annual income of a security divided by its cost.

Yield Calculations

The following illustrates examples of yield calculations:

EXAMPLE 1. A U.S. Treasury note with a 3.5 percent yield at purchase and a maturity date of November 15, 2006, priced (at cost) at 96.75 at date of issue (November 15, 2001); priced (at market) at 103.125 on November 4, 2002.

Yield to maturity (cost) 4.23 percent on November 4, 2002:

Yield to maturity (market) on November 4, 2002:	2.67 percent	Yield to maturity (market):	3.86 percent
Current Yield (cost):	3.62 percent (3.5 percent ÷ 96.75 percent)	Current yield (cost, market):	3.56 percent
Current Yield (market):	3.39 percent (3.5 percent ÷ 103.125 percent)	Yield to (first) call:	5.25 percent
TWTRR:	9.99 percent	Yield to worst:	3.86 percent
		Effective yield:	4.20 percent

TWTRR is a calculation of the historical change in value since November 15, 2001. It has three components—interest earnings, earnings due to reinvestment of interest received, and change in market value:

Interest earnings:	3.39 percent (3.50 percent for 354 days)
Reinvestment earnings:	0.01 percent
Change in market value:	6.59 percent*
<hr/>	
TWTRR:	9.99 percent

* Price on November 4, 2002 minus price on November 15, 2001 divided by price on November 15, 2001 — $(103.125 - 96.75) \div (96.75) = 6.59$ percent.

EXAMPLE 2. A callable Federal National Mortgage Association security with a 3.5 percent yield at purchase and a maturity date of October 24, 2007 priced at 98.353 on November 4, 2002:

Yield to maturity (cost and market): ¹⁴	3.86 percent (cost and market yields are equal on the purchase date)
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INVESTMENT EVALUATION CALCULATIONS

When evaluating investments, managers may conduct an analysis with respect to the time value of money and the yield curve.

TIME VALUE OF MONEY

The time value of money describes the fact that money typically has a value that decreases over time. A dollar today typically has greater value to an investor than a dollar received a year from now or in the more distant future. The value of a dollar received today is greater than the value of a dollar paid five years from now because the holder now can invest that dollar, which will then earn interest and compound to some greater value. For the same reason, for the debtor the obligation to pay a dollar today is less desirable than an obligation to pay a dollar at some future date. These concepts, present value and future value, illustrate the time value of money.

The time value of money is determined by making comparisons of present and future values using actual or assumed discount rates on the investment amount. Interest rates are used to compound present value into future value. Discount rates are used to reduce future values to present values. The interest rate is equivalent to the yield of the investment.

¹⁴ Yield to maturity, yield to call, yield to worst, and effective yield are complex calculations, requiring an iterative approach. For information on how to perform these calculations, see, for example, Frank Fabozzi, Editor, *Fixed Income Mathematics, 4th Edition* (McGraw Hill, 2005).

Examples

The following illustrate the time value of money calculations:

FUTURE VALUE CALCULATION. Agency X wishes to deposit the sum of \$100 into an interest bearing investment for a period of ten years. How much would that investment be worth in ten years, assuming a 5 percent annual interest rate? The answer can be calculated using the “future value” formula, as follows:

$$\text{Future Value of } \$1.00 = (1 + k)^n \times \$1$$

Where “ k ” is the annual interest rate (IRR=YTM= k value), and “ n ” is the number of years the money will be invested. Substituting terms from the above example, we get:

$$\begin{aligned} \text{Future Value of } \$100 &= \\ (1 + 0.05)^{10} \times \$100 &= \$162.89 \end{aligned}$$

PRESENT VALUE CALCULATION. Agency X has money to invest today. In order to realize \$100 nine years from now, with an earnings rate of 6 percent per year, how much does Agency X have to invest today (the “present”) to get to the goal? That answer can be calculated using the “present value” formula, as:

$$\begin{aligned} \text{Present Value of } \$1.00 &= \\ 1/(1 + k)^n \times \$1 & \end{aligned}$$

Again, where “ k ” is the annual interest rate and “ n ” is the number of years the money will be earning interest. The present value formula is the inverse of the future value formula. Substituting terms, we get:

$$\begin{aligned} \text{Present Value of } \$100 &= \\ \$100/(1 + 0.06)^9 &= \$59.19 \end{aligned}$$

Present value and future value formulas can be useful in comparing various types of fixed income investments. For example, suppose an agency is offered a fixed income investment with a value of \$100 in four years at a discounted price of \$78.

Is this a better or worse investment than another that has a value of \$100 in six years that is offered at a discounted price of \$68? Using the present value formula above:

$$\begin{aligned} \text{Investment 1:} \\ \text{Present Value of } \$100 &= \\ \$100/(1 + k)^4 &= \$78 \\ k &= 6.4 \text{ percent} \end{aligned}$$

$$\begin{aligned} \text{Investment 2:} \\ \text{Present Value of } \$100 &= \\ \$100/(1 + k)^6 &= \$68 \\ k &= 6.6 \text{ percent} \end{aligned}$$

If the agency used the present value formula, it knows that the second investment will earn 6.6 percent versus 6.4 percent for the first investment. Therefore, the second investment is the better of the two, provided that the agency can tie up the investment money for an additional two years of fixed income investments, and assuming that the bonds are similar in terms of risk and other characteristics.

YIELD CURVE ANALYSIS

The yield curve is a line graph displaying the yield on securities of different maturities within a market sector, such as U.S. Treasury securities, federal agencies, or corporate notes.

The curve generally slopes upward—with yields on longer-term securities higher than yields on short-term securities—reflecting the fact that investors are compensated for the uncertainty associated with investing for a longer period.

Investors look to the shape of the curve to find information about potential future changes in interest rates. For example, a steeply but positively sloped curve may indicate that short-term interest rates are expected to rise in the future if stimulative monetary and fiscal policy induces stronger economic growth and/or inflationary pressures.

An inverted yield curve may predict that short-term rates will fall in the near future. For example, the curve may invert in response to an economic recession brought on by a highly restrictive monetary policy by the Federal Reserve Bank.

EXAMPLES. The following illustrates normal and inverted yield curves:

- **NORMAL YIELD CURVE.** Figure 5 shows the general shape of a normal yield curve (that is, the longer the maturity, the more the investor is compensated for his/her investment).

Occasionally, the curve is steeper than the normal curve. The steeper curve, such as displayed in Figure 6, indicates a greater-than-usual difference in yields between long- and short-term securities.

- **INVERTED YIELD CURVE.** The curve also may take on an inverted shape, with short-term rates higher than long-term rates. Figure 7 is an example.

FINANCIAL PRODUCTS

Government agencies may consider investment products that are different from a “plain vanilla” bond or note; the names and nature of these products are often confusing and complicated. This section discusses certain financial products that might be purchased by a local agency as an investment. They have been described in this *Concepts and Terminology* portion of *Chapter 2*, rather than the *Individual Instruments* section, because each of the following investments may relate to a diverse group of investments, each of which may have different underlying characteristics.

OPTIONS

An option is a contract that gives the buyer the right to buy or sell an obligation at a specified price for a specified time. Exchange Traded Options are standardized option contracts that are actively traded on a regulated exchange on a daily basis whereas Over-the-Counter Options

Figure 5
“NORMAL” TREASURY YIELD CURVE

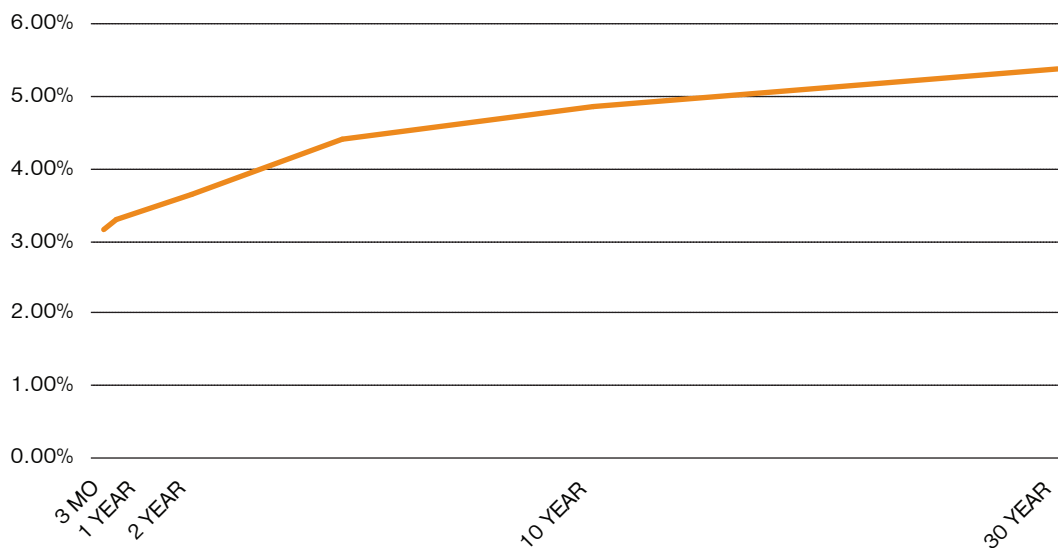


Figure 6

STEELY SLOPED TREASURY YIELD CURVE

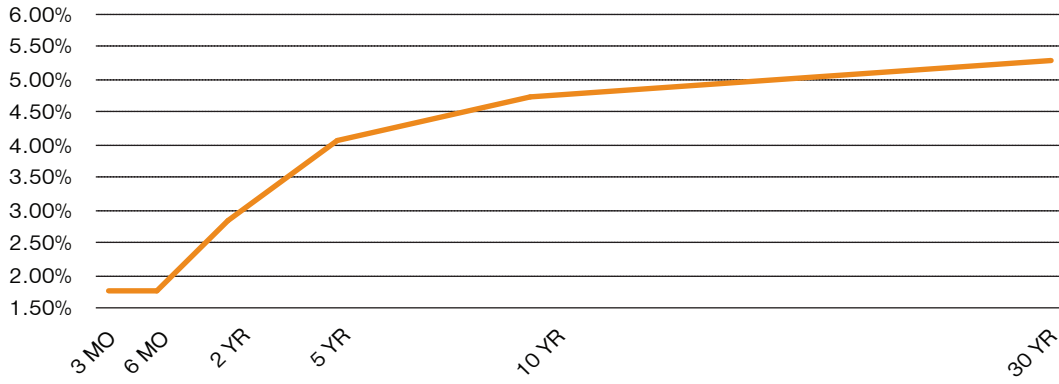
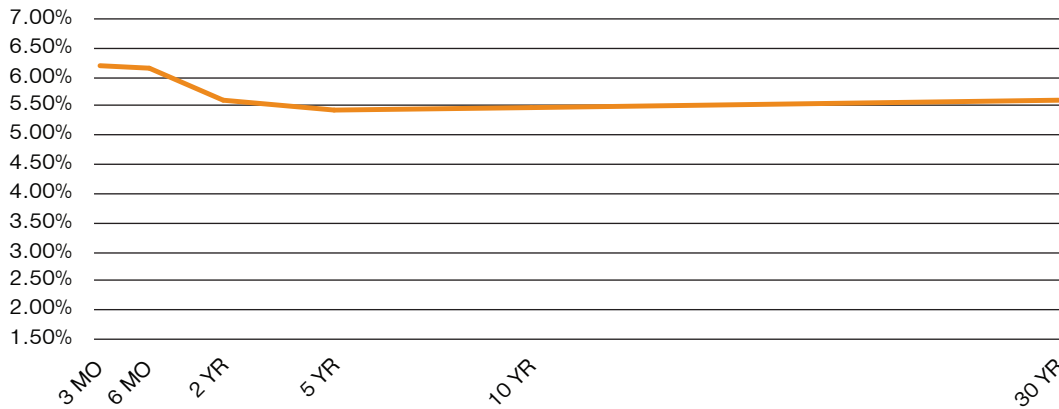


Figure 7

INVERTED TREASURY YIELD CURVE



are traded directly between the buyer and seller at agreed upon prices and conditions (the former type of option is therefore more liquid than the latter). There are two types of options: call options and put options (both are described below).

Call Options

Most public agency investors do not invest directly in options, even though they might be permitted to do so (see California Government Code Section 53601.1). However, the use of instruments with “embedded” call options (such as callable bonds) is common. The following paragraphs describe a call option that is separate from the underlying bond or asset [bonds with embedded options (e.g., callable bonds) are described on pages 42–43]. Call options are a contract in which the seller (writer) of an option grants to the buyer of the option the right to buy (or call) from the seller a designated financial instrument at a defined price. The buyer pays a negotiated price to the seller for the right to exercise the option, which the buyer can only exercise during a specified period of time, which may be as short as one day. Some call options, known as American options, are exercisable at any time between the issue date and the expiration date. European call options are exercisable only on the expiration date. A series of European (single-expiration-date) options on a single instrument that are purchased at the same time are sometimes called Bermuda options.

The last date at which the option can be exercised is called the expiration date, and the price at which the option can be exercised is known as the “strike price.” The price paid to the seller by the buyer is known as the “premium.”

A buyer might purchase a call option in anticipation of an increase in the price of the underlying investment. If the option buyer is correct and the underlying investment increases in price, the option buyer can “call” the underlying security away from the seller of the option. The seller must pro-

vide the underlying security at the price negotiated in the original option agreement. The option buyer can then sell the security at the current (higher) market value, thus capturing the gain. An alternative way to capture the gain is simply to sell the option itself in the open market. When the price of the underlying security rises, the option price also increases, and the buyer can sell the option to capture that gain.

If the price of the underlying security does not rise, the buyer will not have any reason to exercise the option, and it will expire unused. The option seller will have made a profit in the form of the premium collected from the buyer. The option buyer has a loss in the amount of the premium.

When a call option is written on a security owned by the seller, it is known as a “covered” call. A call can be written on a security that the seller does not own, and is known as a “naked” call. If the buyer exercises the option, the seller will be forced to purchase the instrument upon which the call was written in order to deliver the security as contracted to the buyer.

EXAMPLE. Agency X owns a U.S. Treasury security with a maturity date of June 15, 2010.

Agency X could write (sell) a call option on the U.S. Treasury security. Agency X would receive additional income in the form of a premium paid by the buyer of the option.

If the price of the U.S. Treasury security rises above the strike price, the buyer will exercise his option, and likely would sell the U.S. Treasury security at the current price, reaping a profit that is the difference between the current price and the strike price, less the premium. Therefore, Agency X has additional income in the form of the option premium, but foregoes the benefit of the U.S. Treasury security’s rising price because of the buyer’s option to sell above the strike price. If the U.S. Treasury security does not rise in price, Agency X earns incremental income in the form of the premium.

Agency X also could buy a call option on a U.S. Treasury security, paying a premium to the seller. If the price of the U.S. Treasury security rises, Agency X will exercise its option, and purchase the security. If the price of the U.S. Treasury security does not rise, Agency X will not exercise the option and has lost the amount of the option premium.

Put Options

A put option means a contract where the seller of the option grants to the buyer the right to sell an investment to the seller at a defined price. The buyer pays a negotiated price to the seller for the right to “put” back or sell the investment. Much of the terminology applicable to call options is applicable to put options (see *Chapter 2, Financial Products, Options* above). The distinction between a put option and a call option is that a put option gives the buyer the right to sell the investment back to the seller of the option at a defined price; a call option gives the buyer the right to buy the investment from the seller of the option at a specified price. In both options, the buyer is the party that has the discretion to implement the transaction. Local governments can purchase put options pursuant to California Government Code Section 53601.1. However, as is the case with call options, most local agencies do not invest in put options directly. They might be more likely to invest in a “put bond,” a security with an embedded put option (see *Chapter 2, Components of a Debt Instrument, Put Option Embedded in a Bond*).

EXAMPLE. Agency X owns a U.S. Treasury security with a maturity of June 15, 2012. Agency X could buy a put option to put the security to the writer on a given date, at a particular price. If the price of the U.S. Treasury security declines below the put price, Agency X will exercise its put option.

DERIVATIVES

The term “derivative” may mean different things in different contexts. In a broad sense, a deriva-

tive could be said to mean any security, financial contract or financial agreement that has principal and/or interest payments subject to uncertainty (but not for reasons of default or credit risk) as to timing and/or amount. Or, it may mean any security which represents a component of another security which has been separated from other components (“stripped” coupons and principal). A derivative also can be defined as a financial instrument whose value is totally or partially derived from the value of another instrument, interest rate, currency, or index. The term can include a security prohibited under the California Government Code because the Legislature deemed it too risky for public investment, especially those containing leveraging components (see below).

Many entities—including the U.S. Treasury, government agencies, and corporations—may issue derivative securities. Investment in derivative securities *per se* is not addressed in the California Government Code.

Derivatives are not necessarily “bad” or highly risky investments and can include fairly conventional debt instruments. These conventional securities may, however, present unacceptable levels of risk to a local agency (see, for example, the discussion of evaluating the total return of a security with a call feature in *Chapter 3, Structuring a Portfolio, Tools for Comparing Securities With Somewhat Different Characteristics*).

The investment problems experienced by several California local governments in 1994 and 1995 raised awareness of the downside risks of investing in derivative securities. The risk level of derivative investments varies widely. Following are examples of derivative securities that can be found in public agency portfolios:

1. COUPONS AND/OR PRINCIPAL STRIPS DERIVED FROM U.S. TREASURY NOTES AND BONDS;
2. FIXED COUPON CALLABLE AND PUTTABLE SECURITIES;

3. STRUCTURED CALLABLE SECURITIES OTHER THAN VARIABLE RATE NOTES (I.E., “STEP-UP” OR “STEP-DOWN” NOTES);

STEP-UP SECURITIES are callable with a coupon rate that “steps up” over time according to a pre-set schedule. The goal of a step-up is to minimize the impact of interest rate risk. Provided the security is not called, the step-up will keep providing the bondholder with an increased coupon rate, cushioning the investor from interest rate risk. Step-ups are not problem-free, however, as they often offer limited call protection.

STEP-DOWN SECURITIES are callable with a coupon rate that “steps down” over time according to a pre-set schedule. The goal of a step-down is to maximize the higher coupon in earlier payment periods.

4. VARIABLE, OR FLOATING, RATE NOTES:

MARKET-BASED. Interest on these notes float in the same direction as the general level of short-term interest rates, based on a single market-determined short-term index rate (e.g., U.S. Treasury, London Interbank Offered Rate (LIBOR), commercial paper, Federal Funds). If the term to maturity is less than three years, these are subject to very little price volatility. These are issued by agencies, corporations and the U.S. government, under its TIPs Program.

OTHER. Interest on these notes float in the same direction as the general level of interest rates, based on a single rate that is not determined directly by the market (e.g., the Federal Funds Rate or the 11th District Cost of Funds Index (COFI)), or that is pre-determined at the time of issuance. These are subject to some price volatility, and offer value in certain interest rate environments; be aware that market conditions are unpredictable; California Code prohibits zero accrued.

5. ASSET-BACKED SECURITIES;

6. COLLATERALIZED MORTGAGE OBLIGATIONS (CMOs); and

7. MORTGAGE-BACKED SECURITIES ISSUED BY AGENCIES OF THE FEDERAL GOVERNMENT (e.g., the Government National Mortgage Association and the Federal Home Loan Mortgage Corporation).

Conversely, investment in the following types of derivative instruments, which are highly risky, is prohibited under California Government Code Section 53601.6:

1. INVERSE FLOATING RATE NOTES. These are securities the coupons of which float inversely to the general level of rates, based on a market-determined rate or an administered rate, and are subject to substantial price volatility.
2. RANGE NOTES. These are securities that accrue interest only when the determinant index is within a certain range.
3. INTEREST-ONLY STRIPS DERIVED FROM A POOL OF MORTGAGES. These are securities that provide a stream of interest income only, and no eventual principal payment.
4. ZERO INTEREST ACCRUED SECURITIES. Any security that could result in a zero interest accrual if held to maturity is prohibited (mutual funds are excluded /exempt from this provision of the law).

Derivative securities are often used by local agencies in financing transactions (such as tax-exempt bond issues). The “swap” described in the next section is an example of how a derivative can be used to benefit a financing transaction.

SWAPS

A swap is any financial transaction that involves the simultaneous purchase of a security and the sale of another for the purpose of enhancing

an investor's portfolio. Swap transactions of interest to California public investors include portfolio swaps, interest rate swaps, and credit default swaps.

Portfolio Swaps

Portfolio swaps (also known as "substitutions") entail the sale of securities from the portfolio, with the concurrent use of the proceeds to purchase different securities for the purpose of achieving an objective, such as increasing portfolio yield or decreasing portfolio risk. Public investment professionals may enter into portfolio swaps pursuant to California Government Code Section 53604. Portfolio swaps may include the following:

- **EXTENSION SWAPS.** Extension swaps involve selling securities from the portfolio in order to purchase securities with longer maturities or higher durations, in order to increase yield or better match investment objectives.
- **CREDIT SWAPS.** Credit swaps involve selling portfolio securities and replacing them with securities of a different credit quality. For example, an investment official may sell an "A" corporate medium-term note and replace it with a "AAA" note in order to improve the credit risk profile of the portfolio, even though the yield on the "AAA" may be lower.
- **SECTOR SWAPS.** Sector swaps involve selling securities from one market sector (i.e., U.S. Treasury notes) and purchasing securities in a different sector (i.e., corporate notes).

Interest Rate Swaps

An interest rate swap is a transaction in which borrowers and lenders exchange specified streams of interest payments without exchanging the underlying debt (for example, swapping fixed rate debt payments for floating rate debt payments). Although some investors use interest rate swaps as a portfolio management tool, California public

agencies are limited in their use of interest rate swaps by the California Government Code. A common use of interest rate swaps for California public agencies is liability (debt) management. Public agencies are permitted to engage in interest rate swaps for the management of interest payment on debt securities and bond proceeds under the provisions of California Government Code Sections 5922 and 53601(l), respectively.

Examples

The following reflect the different types of swap agreements described above:

- **PORTFOLIO SWAPS.** Agency X enters into an extension swap by selling a U.S. Treasury note maturing March 31, 2009 that has a yield of 1.48 percent and purchasing a U.S. Treasury note maturing February 15, 2012 at a yield of 2.72 percent.
- **INTEREST RATE SWAPS.** Agency X issued \$50 million in 20-year general obligation bonds in order to build a new city hall. The bonds have a fixed 5 percent interest rate. Agency X believes that paying a variable (floating) rate would be desirable. The agency enters into an interest rate swap with a large bank for a stipulated period of time (for example, five years). The bank will pay periodically an amount to Agency X that is equivalent to the fixed-rate interest payment on the outstanding bonds, and the Agency will use the payment to pay its fixed-rate interest obligation. Agency X will pay to the bank (called the "counterparty") an amount that is equivalent to a variable (floating) rate determined in accordance with an agreed upon formula, for example, three-month LIBOR plus or minus a pre-determined spread.

The mechanisms and purposes of using interest rate swaps are highly complex. For further information about interest rate swaps, please see the California Debt and Investment Advisory Commission's (CDIAC's) California

Debt Issuance Investment Primer. CDI-AC's website (www.treasurer.ca.gov/cdiac) also contains several publications on interest rate swaps.

Credit Default Swaps (CDS)

A credit default swap is a credit derivative contract between two counter parties. The buyer makes periodic payments (premium leg) to the seller, and in return receives a payoff (protection or default leg) if an underlying financial instrument defaults. The buyer of a CDS does not need to own the underlying security or other form of credit exposure; in fact, the buyer does not even have to suffer a loss from the default event. This dynamic and lack of “insurable interest” exasperated the recent credit crisis.

FINANCIAL FUTURES

Financial futures are exchange-traded contracts either to buy (long) or sell (short) a financial instrument, such as a five-year U.S. Treasury note at a specific price and on a specific future date. Although investing in futures is permitted under California Government Code Section 53601.1, few local agencies do, except for specific, limited purposes, usually related to their own debt issuance.

Since futures contracts are leveraged investments that represent a commitment to enter into a transaction in the future, the futures exchange requires investors to put up a deposit (initial margin) and replenish that deposit if the position falls below a certain level (maintenance margin). Positions are “marked-to-market,” or priced daily to ensure that adequate deposit balances are maintained. The most common financial futures contracts are U.S. Treasury futures and the Eurodollar futures. A U.S. Treasury futures contract requires the short party (seller of the futures contract) to deliver the underlying U.S. Treasury security to the long party (buyer of the futures contract). The Eurodollar future

contract does not require actual physical delivery of the underlying investment. Rather, positions are matched at the settlement date, and settled for the cash difference.

When an investor enters into a futures transaction for the purpose of guaranteeing a pre-determined rate at a future date, and fully expects to deliver (or take delivery) of the underlying security, the futures market generally is safe. When used as a vehicle to speculate on the future direction of interest rates, the leveraged quality of futures imposes significant market risk on the speculator.

There are a maximum of four maturing futures contracts for each financial instrument in a year. The futures contract that has the nearest maturity will have the highest open position (most contracts outstanding), and will be extremely liquid. Contracts with more distant maturities will be increasingly illiquid.

The futures yield and the yield on the underlying instrument (the “spot” price) will converge at the maturity of the contract.

Futures contracts are not rated. Due to the margin requirements described above, counterparty risk—the risk that the other party will not perform—is extremely small.

Futures contracts vary in size, with par value of \$100,000 and \$200,000 as the norm for U.S. Treasury securities.

Future prices are easily observed and vary by contract convention.

INDIVIDUAL INSTRUMENTS

This section describes certain types of investments; including their characteristics with respect to investment goals: relative safety, liquidity, and yield, credit rating information, guarantor, denomination, pricing, interest computation, and examples. In addition, this section describes the

legal restrictions generally applicable to specific types of investments (with references to the appropriate California Government Code), those restrictions include the following:

- **TYPE OF INVESTMENT.** The California Government Code imposes limitations based on the type of investments. Except as described below, these limitations generally are contained in California Government Code Sections 53601, 53601.1, 53601.8, 53604, 53608, 53631, and 53635, which apply to counties, cities, districts, and other local agencies. The legal requirements for each type of security are described separately under each type of security in this chapter.

In addition to California Government Code Sections 53601 and 53635, Government Code Section 53601.7 allows a county or a city and county to invest any portion of its funds under certain provisions relating to specific short-term securities. Local agencies should consult with their legal counsel prior to investing under Section 53601.7, as this Code Section does not clearly define how its restrictions apply to the total amount of funds or assets under investment by the local agency.

California Government Code Section 53601.6, however, does prohibit certain types of investments, including inverse floaters, range notes, and mortgage-derived, interest-only STRIPS. Further, except for money market funds, a local agency may not invest in any security that results in zero interest accrual if held to maturity unless the agency holds the security until maturity.

- **MATURITY.** California Government Code Section 53601 states that if state law does not specify a limitation on the term or remaining maturity of an investment, then “no investment shall be made in any secu-

urity...that at the time of the investment has a term remaining to maturity in excess of five years, unless the legislative body has granted express authority to make that investment either specifically or as a part of an investment program approved by the legislative body no less than three months prior to the investment.” Thus, under this Code Section, a legislative body may approve an investment program that contains certain investments exceeding five years maturity or may approve investment in certain individual investments exceeding five years maturity on a case-by-case basis, at least three months prior to investment. The intent of this language is to provide local governments with a means for investing in longer-term investments under exceptional circumstances. Caution should be exercised when investing in long-term securities to ensure the portfolio’s cash and liquidity needs are met.

- **COMMERCIAL PAPER.** The California Government Code provides for fewer restrictions on the purchase of commercial paper by local agencies that pool funds with other local agencies (e.g., most county governments) (see *Chapter 2, Individual Instruments, Commercial Paper* and California Government Code Section 53635).
- **POOLS.** Until January 1, 2011, a county or a city and county can elect to invest any portion of its pooled funds under criteria specified in California Government Code Section 53601.7.¹⁵ See *Chapter 2, Individual Instruments, Type of Investment* for a general discussion of this Code Section.
- **BOND PROCEEDS.** Investments allocated to tax-exempt bond proceeds are subject to different limitations under the California Government Code. California Government

¹⁵ Government Code Section 53601.7(e) uses the term “elect” but does not specify any official procedure (for example, obtaining board approval) that the local government must use to make this determination.

Code Section 53601(m) generally provides that bond proceeds are to be invested in accordance with the controlling resolution, indenture, or agreement of the local agency unless otherwise provided by state law governing the specific type of bond issuance.

The following portions of *Chapter 2* describe specific types of investments. A given investment may not be appropriate or legal for a given situation. Readers are urged to review *Chapter 3, Investment Portfolio Development and Management*, and to consult their own investment advisor and legal counsel for more information regarding the appropriateness and legality of an investment for a given situation.

ASSET-BACKED SECURITIES

Asset-backed securities (ABS) are supported by pools of installment loans or leases or by pools of revolving lines of credit. ABS are structured as trusts in order to perfect a security interest in the underlying assets.

ABS have defined collateral types (installment loans or revolving lines of credit) that determine the security structure. ABS structures can be further defined by the maturity types such as a “soft bullet” (an expected principal payment date), controlled amortization, or unscheduled amortization. Most ABS are subject to early repayment risk. ABS also have one or more types of credit enhancement to increase the quality of the security above that of the collateral assets. Below is a description of the characteristics of ABS and their legal restrictions.

Legal Restrictions

California Government Code Section 53601(o) allows local agencies to invest in ABS subject to the following restrictions:

- CREDIT. ABS are issued by an issuer whose debt is rated “A” or higher by a nationally recognized rating service and the ABS is

rated in a rating category of “AA” or its equivalent or better by a nationally recognized rating service.

- MATURITY. The remaining term to maturity at purchase is not in excess of five years.
- CONCENTRATION. ABS, together with mortgage-backed securities (MBS) (see definition below) purchased with local agency funds do not exceed 20 percent of the local agency’s surplus money.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in ABS under this Section, it must meet the following restrictions:

- CREDIT. The same credit restrictions as Section 53601(o).
- MATURITY. The remaining term to maturity of the ABS, at purchase, may not be in excess of 397 days and may not cause the dollar-weighted average maturity of the funds in the investment pool to exceed 90 days (see *Chapter 2, Individual Instruments, Type of Investment* for a discussion of the term “investment pool”).
- CONCENTRATION. Although the local agency is not subject under Section 53601.7 to the “20 percent restriction” of Section 53601(o) (described above), no more than 5 percent of the total assets held by the local agency may be invested in the securities of one issuer, except the obligations of the U.S. government, U.S. government agencies, and U.S. government sponsored enterprises (see *Chapter 2, Individual Instruments, Type of Investment* for a discussion of the term “total assets”). Up to

25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).¹⁶

Bond proceeds may be invested in ABS if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of ABS

- **RELATIVE SAFETY.** ABS generally have low credit risk profiles due to structural and credit enhancements.
- **LIQUIDITY.** ABS have well-developed primary and secondary markets that provide liquidity at least equal to that of corporate bonds.
- **YIELD.** ABS have higher yields relative to other securities of comparable quality in part due to maturity structures and prepayment risk characteristics.
- **CREDIT RATING INFORMATION.** ABS generally are highly rated by the rating agencies due to the one or more types of credit enhancement included when sold.
- **GUARANTEES.** ABS can have third-party guarantors, such as insurers, to reimburse losses up to some stated amount.
- **DENOMINATION.** ABS usually have minimum denominations of \$1,000.
- **PRICING.** ABS are priced based upon collateral types, structures, and credit enhancements, relative to a given benchmark of similar maturity.

- **INTEREST RATE COMPUTATION.** ABS generally pay interest and principal monthly with varying interest payment basis.

BANKERS' ACCEPTANCES

Bankers' acceptances (BAs) are money market instruments that are created in the course of bank financing transactions, particularly international trade financings. In creating a BA, a bank accepts responsibility for future payment of a draft or letter of credit issued in the course of a financing transaction, and then sells this obligation at a discount in the money market to an investor. The investor is shielded from the possibility of default on the part of the ultimate borrower because of the bank's acceptance or guarantee of the BA at maturity.

There are three main issuers of BAs: money center banks, regional banks, and foreign banks. Securities are sold to the public by the banks themselves and by dealers. BAs generally have maturities of six months or less and are always sold at a discount from their face value; they mature at par. BAs were a more prevalent investment alternative in the mid-1980s; banks have since slowed their creation as commissions have fallen and more efficient bank funding alternatives have been employed.

Legal Restrictions

California Government Code Section 53601(g) allows local agencies to invest in BAs subject to the following restrictions:

- **MATURITY.** The BA's term to maturity may not exceed 180 days.
- **CONCENTRATION.** No more than 40 percent of the local agency's surplus funds may be invested in BAs, and no more than 30 percent of the local agency's money may be invested in BAs of any one commercial bank.

¹⁶ “First tier” security is defined in Government Code Section 53601.7(f)(5).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in BAs under this Section, it must meet the following restrictions:

- **CREDIT.** BAs should be rated at least “A-1” by Standard & Poor’s, “P-1” by Moody’s Investors Service, or “F-1” by Fitch Ratings. If the issuer of the BA also has issued long-term debt, this long-term debt rating should be at least “A”, without regard to +/- or 1, 2, 3 modifiers, by Standard & Poor’s, Moody’s Investors Service, or Fitch Ratings.
- **MATURITY.** Term to maturity may not be more than 180 days and may not cause the dollar-weighted average maturity of the funds in the investment pool to exceed 90 days.
- **CONCENTRATION.** Under Section 53601.7, the local agency’s investments need not comply with the “40 percent” and “30 percent” restriction provided in Section 53601(g); but, under Section 53601.7, no more than 5 percent of the total assets of the investments held by the local agency may be invested in the securities of any one issuer — this “5 percent restriction” (which applies to BAs of a particular bank) is more restrictive than the “30 percent” restriction of Section 53601(g). Up to 25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in BAs if permitted under the governing bond resolution

and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of BAs

- **RELATIVE SAFETY.** BAs are short-term securities issued by creditworthy banks. Consequently, subject to their credit rating, BAs are slightly safer than commercial paper (CP) as a money market investment alternative.
- **LIQUIDITY.** There is an active secondary market in BAs; however, the bid/ask spread tends to be slightly wider than the bid/ask spread on federal agency discount notes or on CP. BAs are now issued in paperless electronic form, like most other fixed income securities.
- **YIELD.** The purchaser of BAs will demand a liquidity risk premium, but the credit premium usually is lower than that of CP issuers. Consequently, a BA yield generally will be above that of a federal agency discount note and below that of similarly rated CP for a given maturity.
- **CREDIT RATING INFORMATION.** Issuing banks typically have both long-term and short-term credit ratings, with the short-term rating being the most relevant for evaluating BAs.
- **GUARANTEES.** A BA is a legal obligation of the accepting bank. Secondary coverage typically is provided by the underlying commercial transaction that gave rise to the BA; the bank issuing the BA typically has a claim on the goods that are the subject of the underlying commercial transaction.
- **DENOMINATION.** BAs are issued ranging from “odd lots” (under \$1 million) in \$1,000 increments to “round lots” of \$10 million or more.
- **PRICING.** A BA is traded at a discount from its face value at maturity. On average, BAs are priced at yields that are slightly lower

than similarly rated CP and slightly higher than federal agency discount notes.

- INTEREST COMPUTATION. Interest typically is paid at maturity and is a function of the discounted purchase price as compared to the par value at maturity.

BANK DEPOSITS

Local agencies have numerous occasions to deposit funds in banks and other depository institutions. The deposits may be in the form of demand accounts (checking) or investments in accounts that have a fixed term and negotiated rate of interest. California law requires that public deposits in banks be insured by the Federal Deposit Insurance Corporation (FDIC), or, to the extent not insured, collateralized with certain types of securities and/or mortgages. See *Chapter 4* for a discussion of collateralization of bank deposits. One of the investments permitted for local agencies is negotiable certificates of deposit (NCDs). The rules governing investment in NCDs are somewhat different from collateralized bank deposits, including the fact that the California Government Code does not require that NCDs be collateralized. The paragraphs below describe the various ways in which local agencies can deposit money in banks; including Collateralized Bank Deposits, Negotiable Certificates of Deposit, Certificates of Deposit, Bank Notes, and Deposit Notes.

Collateralized Bank Deposits

DEFINITION

Collateralized bank deposits are moneys that local agencies deposit into depository institutions such as banks and credit unions.

Collateralized bank deposits may be non-interest bearing demand accounts, interest bearing demand accounts, or time deposits with a fixed term to maturity. Demand (checking) accounts are sometimes called “active” deposits as there

can be significant account activity during the period of deposit. Time deposits also are known as “inactive” deposits, because the funds invested there cannot be withdrawn by the investor before the maturity date without penalty, under most circumstances. Other types of inactive deposits include Certificates of Deposit (CD) or Non-negotiable Certificates of Deposit. The term “non-negotiable” means that the local agency will not be able to sell the CD prior to maturity; that is, there is no active market for selling non-negotiable CDs. Interest rates, maturity dates, and other terms on inactive deposits are negotiated between the public agency and the depository institution.

As a result of the failures of many financial institutions during the 1980s and early 1990s, safety of public deposits became a matter of utmost concern to finance and other public officials throughout the country. Fortunately, for California government agencies, the State has long required financial institutions to collateralize local agency deposits under a program known as the Local Agency Security Program. This program operates under the Department of Financial Institutions (www.dfi.ca.gov). The collateralization requirements for public deposits under the Local Agency Security Law are found in California Government Code Sections 53630-53686. The major provisions of this law are stated below. Treasurers should note that they will receive reports from the Administrator of Local Agency Security (herein after referred to as the Administrator) regarding the collateralization of their deposits only if they request them. It is strongly encouraged that treasurers obtain a copy of these code sections and review them thoroughly in order to understand their rights and responsibilities.

LEGAL RESTRICTIONS

California Government Code Section 53635.2 allows local agencies to deposit monies in state or national banks, savings associations, federal associations, credit unions, or federally insured in-

dustrial loan companies in the State of California subject to the following restrictions:

- CREDIT. The applicable depository institution must have received an overall rating of not less than “satisfactory” in its most recent evaluation by the appropriate Federal supervisory agency.¹⁷
- MATURITY. The remaining term to maturity at purchase is not in excess of five years, with certain exceptions (see *Chapter 2, Individual Instruments, Maturity*).
- DEPOSITORY CONTRACT REQUIREMENTS. Under California Government Code Section 53649, treasurers who are responsible for safekeeping of funds in their custody are required to enter into a contract with a depository institution in which they place public funds.¹⁸ The depository institution is responsible for securing (i.e., collateralizing) such deposits, both active and inactive, in accordance with California Government Code Section 53652 (see below). When such a contract is executed, one copy of the contract shall be filed with the agency’s auditor, controller, secretary, or corresponding officer. The contract is required to include the following elements:
 - The duration of deposits, if appropriate;
 - The rate of interest, if any;
 - The conditions for withdrawal and repayment;
- Naming of an “agent of depository” for placement of pooled securities, in accordance with California Government Code Section 53656 (see below);
- Granting authority for the agent of depository to place securities for safekeeping with specified entities, in accordance with California Government Code Section 53659;
- Conditions upon which the Administrator shall order pooled securities converted into money for the benefit of the local agency and the procedure for doing so, in accordance with California Government Code Section 53665;
- A provision for compliance with the Local Agency Security Law; and
- A provision that, upon notice to the agency treasurer from the Administrator, the treasurer may withdraw deposits in the event of failure by a depository to pay assessments, fines, or penalties assessed by the Administrator; or may withdraw authorization for the placement of pooled securities in an agent of depository in the event that such agent fails to pay said fines or penalties.

The agent of depository is a trust company or trust department of a state or national bank located in California, which is authorized to act under the conditions described in Section 53657. This section requires an application, a

¹⁷ The appropriate Federal supervisory agency means (1) Comptroller of the Currency for national banks, (2) Board of Governors of the Federal Reserve System with respect to state chartered banks that are members of the Federal Reserve System, (3) Federal Deposit Insurance Corporation (FDIC) with respect to state chartered banks that are not members of the Federal Reserve System but are insured by the FDIC, and (4) the Director of the Office of Thrift Supervision in the case of savings associations and savings and loan holding companies.

¹⁸ Under California Government Code Section 53669, local treasurers are not responsible for money while it is deposited pursuant to the Local Agency Security Law, nor are they responsible for securities delivered to and received for depositories (Section 53676). All charges for handling and safekeeping such securities shall be paid by the depository owning the securities and are not to be charged to the agency treasurer (Section 53678).

filing fee, and approval by the Administrator of the Local Agency Security Program. Only approved agents can be authorized by treasurers to act as agents of depository. Those agents of depository currently approved by the Administrator can be found at the Department of Financial Institutions website at www.dfi.ca.gov, under Local Agency Security Program.

As noted above, at the time a treasurer enters into a contract with a depository, he or she also must authorize the designated agent of depository to hold securities of the depository. However, if the depository wishes to designate its own trust department as the agent of depository, the treasurer must agree to this designation (see California Government Code Section 53656).

The Government Finance Officers Association (GFOA) recommends that public agencies enter into depository collateralization agreements even if the State has assumed this responsibility.¹⁹ A written agreement helps assure that the collateral protections can be enforced. Elements recommended to be included in these agreements, as well as a sample agreement, can be found in the GFOA publication, *An Introduction to Collateralizing Public Deposits for State and Local Governments*.

- **COLLATERALIZATION REQUIREMENTS.** There are three classes of security for deposit. California Government Code Section 53652 requires each depository to maintain, at all times with the agent of depository, eligible securities in the amounts specified below:
 - Promissory notes secured by first mortgages and first trust deeds (as described

in Section 53651.2) must have a market value of 150 percent of the amount of the deposits so secured;

- Letters of credit issued by the Federal Home Loan Bank of San Francisco²⁰ must have a market value of 105 percent of the amount of deposits so secured; and
- All other eligible securities, as enumerated in Section 53651, must have a market value of 110 percent of the amount of deposits so secured.
- **PERFECTING SECURITY INTEREST.** Placement of securities by a depository with an agent of depository has the effect of perfecting a security interest in those securities in the local agencies with deposits in that depository (see California Government Code Section 53655). The agent of depository is responsible for the safekeeping and disbursement of securities placed in its custody.
- **COLLATERAL SUBSTITUTIONS, TRANSFERS AND WITHDRAWALS.** A depository may add securities to a pool or substitute securities of equal value at any time, but shall not interchange classes of securities without prior approval of the treasurer. The agent of depository can release securities held in excess of the amount required for collateralization only when the depository presents a current statement of total public deposits signed by two authorized officers other than those requesting withdrawal (see California Government Code Section 53654). A depository may withdraw securities from the pool without replacement only if ordered by two duly authorized officers of the depository who sat-

¹⁹ GFOA has a *Recommended Practice on Collateralization of Public Deposits* that was updated in 2007. It can be found at the GFOA web site: www.gfoa.org, under “GFOA Recommended Practices.”

²⁰ These securities must name the Local Agency Administrator as beneficiary and must be irrevocable and provide that the Administrator may draw upon it in the event of failure of the depository (see California Government Code Section 53651.6).

isfy the requirements set by the Administrator; however, the agent of depository cannot release securities collateralizing public deposits unless the Administrator issues an order so authorizing when either (a) a depository is seized by a state or federal regulatory body, or (b) a conservator, receiver, or other legal custodian has been appointed for the depository (see California Government Code Section 53656). The agent of depository is responsible for the safekeeping and disbursement of securities placed in its custody by a depository, and can release securities only under certain circumstances (see California Government Code Sections 53654 and 53656).

- **REPORTING REQUIREMENTS.** Depositories accepting local agency deposits are required to report weekly to the Administrator in accordance with California Government Code Section 53663(b). This report shows the total amount of all public deposits held by the depository that are required to be secured. In addition, depositories are required to report, at least four times a year, a listing of all the securities that are securing local agency deposits, together with the total deposits then secured by the pool (see California Government Code Section 53661).

If a depository uses promissory notes secured by first mortgages and first trust deeds to collateralize deposits, it must file a report with the Administrator within 90 days after the end of each calendar year. This report must be prepared by an independent certified public accountant stating the depository's compliance with the collateral requirements for such securities. The report is to be based upon an audit and must conform to the requirements of the Administrator. The depository must provide a copy of the report to a treasurer upon request (see California Government Code Section 53651.4). With limitations, state and national banks may elect to be examined by the Administrator

instead of filing a report of an independent certified public accountant. In these cases, the Administrator also must provide a report to a treasurer upon request (see California Government Code Section 53651.4).

At a time and place mutually agreed, agents of depository must make available to treasurers the following information (see California Government Code Section 53660):

- A certification that there are securities in the pool in the amounts required by the California Government Code;
- A certified report of the individual securities on deposit in the pool, including the location and total market value of the securities; and
- The total amount of deposits then reported by the agency's depository to be secured by the pool.

Each agent of depository must provide a written report to the Administrator within two business days after any withdrawal, substitution, or addition of pooled securities, stating the name and market value of the securities withdrawn, substituted, or added, together with the total deposits secured by the pool. This information is to be made available to an agency treasurer upon request to the Administrator (see California Government Code Section 53663(a)).

The Administrator may require from each treasurer a registration report and a report stating the amount and location of each deposit together with any other information deemed necessary by the administrator for the effective administration of the Local Agency Security Law (see California Government Code Section 53661(h)).

It should be noted that the individual reports required under the Local Agency Security Law are not public documents and are not

open to inspection by the public (see California Government Code Section 53664).

- **WAIVER OF COLLATERAL.** Treasurers may waive collateralization requirements for that portion of deposits insured pursuant to federal law, such as FDIC insurance. At his or her discretion, a treasurer also may waive collateralization for the interest accrued on insured deposits if that interest is computed on the average daily balance of the deposits, paid monthly and computed on a 360-day basis (see California Government Code Section 53653). Currently FDIC insurance covers demand deposit accounts up to \$250,000 per depository, and the combined time deposits and savings of a local agency up to \$250,000 per depository.²¹ Deposits held for pension plan participants are covered up to \$250,000 per participant.
- **ENFORCEMENT.** The Administrator may cause the liquidation of securities held for collateralization of public deposits if a depository fails or if a depository does not pay to an agency any or all of its deposits (see California Government Code Section 53665).

If a depository fails to substitute securities when required by the Administrator, this must be reported promptly by the Administrator to the affected agencies (see California Government Code Section 53661(g)(2)). The Administrator may, after giving notice and an opportunity for a hearing, order a depository or agent of depository to cease and desist from a violation of the Local Agency Security Law, or may suspend or revoke the authorization of the agency of depository. In addition, the Administrator may bring action in superior court to enjoin a violation or enforce compliance (see California Government Code Section 53661(j)).

The Administrator has the authority to assess fines and penalties against depositories for noncompliance, pursuant to the fine schedule in California Government Code Sections 53661(k) and (l). If a depository or agent of depository fails to pay the fines or penalties, the administrator may notify those local agency treasurers with deposits in the depository (see California Government Code Section 53661(l)(2)).

If, upon demand by a treasurer, a depository fails to pay part or all collateralized deposits in accordance with a contract, and the treasurer files a report with the Administrator, the Administrator must order liquidation of securities or draw upon the letter of credit, as appropriate, an amount sufficient to cover the deposits, accrued interest and the expenses of the Administrator. The Administrator must remit to the treasurer the monies for the deposits and accrued interest (see California Government Code Section 53665).

- **SANCTIONS FOR LOCAL AGENCIES.** Any officer or employee of a local agency who deposits funds in any manner other than that prescribed by the Local Agency Security Law is subject to forfeiture of his office or employment (see California Government Code Section 53681).
- **LOCAL AGENCY DEPOSIT SECURITY FUND.** The costs of administering the Local Agency Deposit Security Fund are funded by fines, fees and assessments levied each year on a pro rata basis against all depositories holding local agency deposits (see California Government Code Section 53667).
- **LIABILITY OF THE ADMINISTRATOR.** Under California Government Code Sec-

²¹ The \$250,000 standard insurance amount is temporary for all deposit accounts except IRAs and other certain retirement accounts through December 31, 2013. On January 1, 2014, the standard \$100,000 per depositor will return for all account categories except IRAs and other certain retirement accounts.

tion 53666, the Administrator assumes no additional liability as a result of these code sections other than that which occurs as a result of other laws of the State.

In summary, the collateralization of public deposits in California is well established and thoroughly regulated. However, it must be emphasized that it is the responsibility of each investment official to play an active role in monitoring the deposits of his or her agency in order to be assured that the legal protections are in place. This requires, at a minimum, that the contracts for deposit be carefully scrutinized to verify that they comply with the law, and that treasurers or other investment officials regularly request copies of the various reports described above.

Bond proceeds may be invested in collateralized bank deposits if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

CHARACTERISTICS OF COLLATERIALIZED BANK DEPOSITS

- **RELATIVE SAFETY.** Due to the insurance and collateral requirements, collateralized bank deposits are very safe.
- **LIQUIDITY.** By their nature, demand accounts are fully liquid. Conversely, time deposits have no liquidity prior to their maturity date.
- **YIELD.** The yield on collateralized bank deposits is negotiated between the public agency and the depository institution. Generally, the yield on collateralized bank deposits is as low as, and sometimes even lower than, the yield on U.S. Treasury securities of similar maturity. The yield on insured deposits may be slightly higher based on the need of a particular depository for funding and on the creditworthiness of the institution.
- **CREDIT RATING INFORMATION.** Bank deposits are rated by Moody's Investors Service, but not by Standard & Poor's nor by Fitch Ratings.²² However, banks and other depositories may carry long- and/or short-term ratings (see rating tables in *Appendix B*).
- **GUARANTEES.** The depositories guarantee the deposits, and public agencies have access to the collateral (or federal insurance, to the extent applicable) in case of default.
- **DENOMINATION.** Collateralized bank deposits can be issued in any denomination.
- **PRICING.** Deposits are priced at face value but have no secondary market.
- **INTEREST COMPUTATION.** California Government Code Section 53645 requires that depository institutions compute and pay interest on inactive deposits based on the actual number of days in the period divided by 360. Some depository institutions pay interest on inactive deposits on a monthly basis.

EXAMPLE. On July 1, Agency X invests \$1 million in the National Bank for a term of one year at an interest rate of 3 percent. Agency X may apply federal insurance to the first \$250,000 of the deposit, and must collateralize the remainder in accordance with California Government Code Section 53651 et seq.²³

²² Standard & Poor's rates banks and other institutions according to their long-term and short-term debt issuance. Fitch Ratings rates banks, but not bank deposits specifically.

²³ The \$250,000 standard insurance amount is temporary for all deposit accounts except IRAs and other certain retirement accounts through December 31, 2013. On January 1, 2014, the standard \$100,000 per depositor will return for all account categories except IRAs and other certain retirement accounts

At the end of September, National Bank calculates interest owed to Agency X as follows:

$$\begin{aligned} \$1,000,000 \times 3 \text{ percent} \times 92/360 = \\ \$7,666.67 \end{aligned}$$

Agency X is then paid the above amount (\$7,666.67 for 31 days in July, 31 days in August, and 30 days in September totaling 92 days).

Negotiable Certificates of Deposit

Negotiable certificates of deposit (NCDs) are bank deposits that pay interest periodically and pay principal at maturity. The term to maturity for an NCD can range from a week to several years, but is typically between six months and one year. The interest rate may be fixed or floating at a spread to a pre-determined “benchmark” such as the three-month London InterBank Offered Rate (LIBOR) (see *Chapter 3, Structuring a Portfolio, Portfolio Structuring Strategies and Concepts* for a discussion of benchmark selection and portfolio investment strategies). Unlike CDs discussed above, which cannot be sold to other investors, NCDs are “negotiable;” that is, there is an active secondary market where NCDs can be purchased or sold at any time between the issue date and the maturity date. NCDs are purchased by institutional investors and have a minimum par value of \$1 million. NCDs are never collateralized; however, the first \$250,000 is insured by the FDIC or other applicable federal insurance entity.

There are three major types of NCDs. Domestic NCDs are issued by U.S. domestic banks. Yankee NCDs are issued by branches of foreign banks domiciled in the U.S.. Eurodollar NCDs are denominated in U.S. dollars but issued by foreign banks domiciled outside the U.S.

LEGAL RESTRICTIONS

California Government Code Section 53601(i) allows local agencies to invest in NCDs, issued by a nationally- or state-chartered bank, a savings

association or a federal association, a state or federal credit union, or by a state-licensed branch of a foreign bank, subject to the following restrictions:

- **MATURITY.** The remaining term to maturity at purchase is not in excess of five years, with certain exceptions (see *Chapter 2, Individual Instruments, Maturity*).
- **CONCENTRATION.** The NCDs may not exceed 30 percent of the agency’s money to be invested.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in NCDs under this Section, it must meet the following restrictions:

- **CREDIT.** Short-term debt should be rated at least “A-1” by Standard & Poor’s, “P-1” by Moody’s Investors Service, or “F-1” by Fitch Ratings. If the issuer of short-term debt also has issued long-term debt, this long-term rating should be at least “A” without regard to +/- or 1, 2, 3 modifiers by Standard & Poor’s, Moody’s Investors Service, or Fitch Ratings.
- **MATURITY.** The NCD may not have a term remaining to maturity in excess of 397 days and may not cause the dollar-weighted average maturity of the funds in the investment pool to exceed 90 days.
- **CONCENTRATION.** NCDs purchased pursuant to California Government Code Section 53601.7 are not subject to the 30 percent limitation of California Government Code Section 53601; however, no more than 5 percent of the total assets of the investments held by the local agency may be invested in

the securities of any one issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in NCDs if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

CHARACTERISTICS OF NCDs

- **RELATIVE SAFETY.** NCDs generally are issued by highly creditworthy banks. Although NCDs are riskier than U.S. Treasury bills and federal agency notes, they generally are safer than commercial paper, in that the return of deposits is considered to be a bank’s highest obligation.
- **LIQUIDITY.** NCDs generally are less liquid than commercial paper, U.S. Treasury bills, or federal agency discount notes and are approximately as liquid as Bankers’ Acceptances (BAs).
- **YIELD.** Yields on NCDs generally are higher than yields on federal agency notes and lower than the yields on commercial paper.
- **CREDIT RATING INFORMATION.** In the same manner as BAs, NCD programs typically carry both long-term and short-term credit ratings, with the short-term ratings being the most relevant for NCDs with maturities of less than one year.
- **GUARANTEES.** FDIC provides protection up to \$250,000 in total deposits with each

bank.²⁴ An investor’s only recourse in the event of nonpayment for amounts greater than the FDIC insured amount are funds from the issuing bank.

- **DENOMINATION.** There is no limit on the denomination or size of an NCD, but NCDs typically start at minimum denominations of \$1 million and can go as high as the bank and investor are willing to accept.
- **PRICING.** NCDs under one year and issued by the highest quality institutions typically trade about 1/8 of a percent below LIBOR. NCDs trade generally at a spread above a U.S. Treasury security of similar maturity. Moreover, term NCD yields should resemble yields of similarly rated bank notes and deposit notes with like maturities.
- **INTEREST COMPUTATION.** Interest on NCDs with a maturity or term of less than one year usually is paid at maturity and is calculated on an actual-over-360-day basis. Term CDs, however, can either pay interest at maturity or semi-annually like a corporate note.

Certificates of Deposit

A certificate of deposit (CD) is a type of collateralized bank deposit. Please refer to *Chapter 2, Individual Instruments, Collateralized Bank Deposits* above for a description of CDs, including legal restrictions, safety, liquidity, etc. Also see *Chapter 2, Individual Instruments, Certificate of Deposit Placement Service*.

Bank Notes

U. S. banks can issue “bank notes” as either senior or subordinated obligations of the bank itself (as opposed to the obligations of the bank holding

²⁴ The \$250,000 standard insurance amount is temporary for all deposit accounts except IRAs and other certain retirement accounts through December 31, 2013. On January 1, 2014, the standard \$100,000 per depositor will return for all account categories except IRAs and other certain retirement accounts.

company). Bank notes issued as senior, unsecured direct obligations of U.S. banks or U.S. branches of foreign banks; should not be confused with debt issued by bank holding companies. Senior bank notes rank equally with a bank's other unsecured and unsubordinated debt obligations. Senior (or unsubordinated) obligations, such as bank notes, have a first claim on the revenues of the bank. Unsecured obligations, such as bank notes, are not secured by a pledge of a specific asset, such as real estate; rather, such obligations are secured by an obligation for repayment by the bank. Subordinated bank notes rank junior to bank deposits, senior obligations and any claims by general creditors. Bank notes are not deposits in the bank and are not insured by FDIC.

Bank notes bridge the gap between CDs and corporate bonds; they typically are issued with fixed rate coupons and have maturities of 18 months to five years, although longer maturities are possible.

LEGAL RESTRICTIONS

Bank notes have legal restrictions similar to corporate notes and bonds (See *Chapter 2, Individual Instruments, Corporate Notes and Bonds* below).

CHARACTERISTICS OF BANK NOTES

- **RELATIVE SAFETY.** Bank notes have credit risk profiles similar to other unsecured corporate debt.
- **LIQUIDITY.** The liquidity of bank notes is similar to that of corporate bonds.
- **YIELD.** Bank notes have yields that are higher than U.S. Treasury and federal agency securities; how much higher depends upon the credit rating of the issuing bank.

- **CREDIT RATING INFORMATION.** Bank notes usually are investment grade in rating; the higher the credit quality of the issuing bank, the lower the yield on the note.
- **GUARANTEES.** The credit of the issuing bank is the only security for bank notes.
- **DENOMINATION.** Minimum denominations can be between \$100,000 and \$250,000.
- **PRICING.** Bank notes price similar to corporate bonds; their price is dependent upon a market credit spread above a benchmark U.S. Treasury of similar maturity. The spread directly depends on the credit quality of the bank and varies as economic conditions change.
- **INTEREST COMPUTATION.** Interest is calculated based upon a 30/360 basis (this basis assumes 30 days per month and 360 days per year).

DEPOSIT NOTES

Deposit notes, like bank notes, are senior, unsecured direct obligations of U.S. banks or U.S. branches of foreign banks. Unlike bank notes, deposit notes can have up to the first \$250,000 insured by the FDIC if the issuing bank is a member of the FDIC.²⁵ See *Chapter 2, Individual Instruments, Collateralized Bank Deposits* and *Chapter 2, Individual Instruments, Bank Notes* for further information.

CERTIFICATE OF DEPOSIT PLACEMENT SERVICE

Until January 1, 2012, California Government Code Section 53601.8 and 53635.5 allow local agencies to invest a portion of their surplus

²⁵ The \$250,000 limit is temporary for all deposits, except for IRAs and other certain retirement accounts through December 31, 2013. On January 1, 2014, the standard insurance amount will return to \$100,000 per depositor for all account categories except IRAs and other certain retirement accounts, which will remain at \$250,000 per depositor.

funds in a bank, savings and loan association, or credit union that uses a private sector entity to assist with the investment of those funds in certificates of deposit in financial institutions throughout the U.S.²⁶

Legal Restrictions

California Government Code Sections 53601.8 and 53635.8 permit local agencies to invest in a certificate of deposit placement service subject to the following restrictions:

- **CONCENTRATION.** Total investment in this service may not exceed 30 percent of the agency's money that may be invested for this purpose.
- **FDIC OR NCUA INSURANCE.** The full amount of the principal and the interest that may be accrued during the maximum term of each certificate of deposit must at all times be insured by the Federal Deposit Insurance Corporation or National Credit Union Administration.
- **CREDIT UNION RESTRICTIONS.** Credit unions acting as selected depository institutions under this service must satisfy the following conditions:
 - The credit union offers federal depository insurance through the National Credit Union Administration.
 - The credit union is in possession of written guidance or other written communication from the National Credit Union Administration authorizing participation of federally-insured credit unions in one or more certificate of deposit placement services and affirming that the moneys held by those credit unions

while participating in a deposit placement service will at all times be insured by the federal government.

COMMERCIAL PAPER

Commercial paper (CP) is an unsecured, short-term (under 270 days) promise to repay a fixed amount on a certain future date. Corporations, banks and other borrowers issue CP as a less expensive alternative to short-term loans. Many CP programs are unsecured; other instruments, which are secured by trade or receivables, are known as asset-backed CP.

A borrower can either execute CP issuance directly or through the broker-dealer community. Final CP maturities can be from one to 270 days, but CP typically is issued with a term to maturity of 30 to 90 days. The bulk of CP issuance is by highly rated companies, but lower rated firms can issue CP with credit support agreements from banks, and sometimes, outright guarantees. Asset-backed CP programs are secured by underlying trade or receivables and represent an obligation of the underlying pool of loans that typically are over-collateralized.

Legal Restrictions

California Government Code Section 53601(h) permits local agencies to invest in CP subject to the following restrictions:

- **CREDIT.** The CP must be of "prime" quality of the highest ranking or of the highest letter and number rating by Moody's Investors Service, Standard and Poor's or Fitch Ratings and the issuer of the CP must be organized and operating within the United States and have total assets in excess of \$500 million and issue debt, other than CP rated "A" or higher by Moody's, S&P, or Fitch.

²⁶ After January 1, 2012, only funds already invested through the placement service may remain in the program until the final maturity of the invested certificates.

- **MATURITY.** CP must have a maximum maturity of 270 days.
- **CONCENTRATION.** Except for a county or a city and county, the local agency may invest no more than 25 percent of its money in CP and may purchase no more than 10 percent of the outstanding CP of any single corporate issuer.

Section 53635 of the California Government Code authorizes a county, a city and county, or the City of Los Angeles to invest in CP, subject to the restrictions of Section 53601(h) with the following alternative concentration restrictions:

- No more than 40 percent of the local agency's money may be invested in CP.
- No more than 10 percent of the local agency's money may be invested in the CP of any single corporate issuer.
- No more than 10 percent of the outstanding CP of any single corporate issuer may be purchased by the local agency.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in CP under this Section, it must meet the following restrictions:

- **CREDIT.** The issuing corporation must be organized and operated in the U.S. and have assets in excess of \$500 million.
- **MATURITY.** The CP must have a term to maturity of 270 days or less.
- **CONCENTRATION.** The CP may not represent more than 10 percent of the outstanding paper of the issuer.

Section 53601.7 has additional restrictions including the following:

- **CREDIT.** The CP must be rated at least "A" by Standard & Poor's, "P-1" by Moody's Investors Service, or "F-1" by Fitch Ratings. If the issuer has also issued long-term debt, it should be rated at least "A", without regard to +/- or 1, 2, 3 modifiers by Standard & Poor's, Moody's Investors Service or Fitch Ratings.
- **CONCENTRATION.** No more than 5 percent of the total assets held by the local agency may be invested in the securities of any one issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in "first tier" securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in CP if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of CP

- **RELATIVE SAFETY.** CP is riskier than U.S. Treasury securities or federal agency obligations because it is not issued by the federal government. Nevertheless, the CP default rate has been historically quite low. It is possible for a CP issuer to default on CP prior to the maturity of the instrument. Normally, CP issuers use proceeds from new CP issuances to meet upcoming maturities. If investors refuse to purchase the new CP because they are concerned about the issuer's ability to repay, then the rollover process fails and the issuer may not be able to redeem the CP that is outstanding at that time. Another potential risk is that if the CP is backed by a letter of credit (LOC), the LOC may expire

during the term of the CP and would need to be renewed.²⁷

- **LIQUIDITY.** CP is probably the most liquid of the credit-based money market securities and enjoys an active secondary market.
- **YIELD.** For a given credit rating, CP yields typically are higher than similarly rated bank obligations.
- **CREDIT RATING INFORMATION.** The major rating agencies have at least four levels of ratings for CP. Most investors require a minimum rating of A1/P1.
- **GUARANTEES.** CP can be partially or fully guaranteed by creditworthy banks through credit or liquidity support agreements, such as a LOC. Moreover, underlying assets support asset-backed CP.
- **DENOMINATION.** CP minimum denominations of round lot transactions are \$100,000, although direct issuers may accommodate smaller amounts. Asset-backed CP programs usually have a \$250,000 minimum.
- **PRICING.** Like short-term CDs, CP issued by the highest quality institutions typically trades at a slightly higher yield than federal agency discount notes. Asset-backed CP yields more than similarly rated unsecured CP, reflecting its lower liquidity.
- **INTEREST COMPUTATION.** Interest is paid at maturity and is calculated on the basis of the number of days held. CP can be issued at a discount from face value, paying par value at maturity. It also can be issued as “interest bearing,” which means that the

investor pays the full face value at issue, and then receives the face value plus interest at the money market equivalent yield rate upon maturity.

CORPORATE NOTES AND BONDS

Corporate notes (CNs) are debt instruments, typically unsecured (secured by a general promise to pay rather than a specific asset, such as real estate), which are issued by corporations (including limited liability companies), with original maturities of greater than one year and less than ten years. A closely related group of securities are known as medium-term notes (MTNs). Typically, MTNs have maturities ranging from 9 months to 30 years and are issued under the SEC’s shelf-registration rules.²⁸ Shelf registration refers to the practice, permitted by the SEC, of registering a large total amount of debt, and then continuously issuing all or part of the total on any given day, as determined by the issuer’s needs and the investor’s interest in the debt.

CNs are issued as either senior unsecured debt or subordinated debt; senior debt obligations have a first claim on the secured revenues of the issuer; subordinated debt is payable after the senior debt is paid. Interest rates can either be fixed or variable relative to an agreed upon index, such as the London InterBank Offered Rate (LIBOR), a commonly used index of short-term rates. CNs can be issued with varying levels of credit support and collateralization and with periodic payments of principal; the combination of features only is limited by the issuer’s and investor’s needs.

²⁷ A LOC is a limited-term liquidity agreement issued by a third party guaranteeing to pay the principal and interest on a bond issue.

²⁸ California Government Code defines medium-term notes as “all corporate and depository institution debt securities with a maximum remaining maturity of five years or less,” thereby placing a maturity restriction on notes that local agencies may purchase.

Temporary Liquidity Guarantee Program (TLGP)

The FDIC in concert with the Fed and the Treasury created the TLGP for banks, certain bank holding companies and thrifts as Lehman Brothers' bankruptcy disrupted the interbank lending markets, reducing banks' liquidity and impairing their ability to lend. *The FDIC guarantee program provides full coverage for NEWLY issued senior unsecured debt and non-interest bearing deposit transactions accounts.*

All FDIC-insured depository institutions (IDI) are eligible. This includes U.S. branches of foreign banks. Any U.S. bank or S&L holding company as long as at least one subsidiary is an IDI. The FDIC has the authority to designate affiliates of IDIs as eligible for participation in the program.

The FDIC will only guarantee senior unsecured debt with a maturity of more than 30 days. Commercial paper is eligible. The coupons can be fixed, floating or zero. Debt denominated in foreign currency is also eligible. The program excludes: debt with embedded options (callables, convertibles, etc.) and structured notes.

As originally implemented, the debt guarantee was set to expire on June 30, 2012; however the FDIC extended the guarantee to the earlier of the stated maturity date of the debt or December 31, 2012.²⁹ The FDIC's Interim Rule also extended the program to include debt issued through October 31, 2009 (originally scheduled to end on June 30, 2009).

Legal Restrictions

California Government Code Section 53601(k) allows local agencies to invest in corporate notes and bonds, issued by corporations organized and

operating within the U.S. or by depository institutions licensed by the U.S. or any state and operating within the United States, subject to the following restrictions:

- CREDIT. CNs are rated "A" or better by a nationally recognized rating service.
- MATURITY. The remaining term to maturity at purchase is not in excess of five years.
- CONCENTRATION. CNs may not exceed 30 percent of the agency's surplus money to be invested.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in CNs under this Section, it must meet the following restrictions:

- CREDIT. (A) Short-term debt should be rated at least "A-1" by Standard & Poor's, "P-1" by Moody's Investors Service, or "F-1" by Fitch Ratings; if the issuer of short-term debt also has issued long-term debt, this long-term rating should be at least "A", without regard to +/- or 1, 2, 3 modifiers, and (B) long-term debt should be rated at least "A", without regard to +/- modifiers by Standard & Poor's, Moody's Investors Service, or Fitch Ratings.
- MATURITY. The CN must have a remaining term to maturity of not more than 397 days, and the investment must not cause the dollar-weighted average maturity of the funds in the pool to exceed 90 days.

²⁹ The extended expiration date for the guarantee applies only to senior unsecured debt issued on or after April 1, 2009 by issuers eligible to participate in the extension of the TLGP.

- **CONCENTRATION.** No more than 5 percent of the total assets of the investments held by the local agency may be invested in the securities of any one issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in CNs if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of Corporate Notes and Bonds

- **RELATIVE SAFETY.** CNs are perceived to be more risky than governmental securities because of the generally more secure paying ability of government entities and their ability to raise revenues (through taxes, fees, etc.) if needed.
- **LIQUIDITY.** Liquidity in the corporate note sector is lower than liquidity in the government markets. However, it is possible to sell CNs in all but the most disrupted market conditions.
- **YIELD.** Investors demand a yield premium for CNs above government securities as compensation for the assumption of increased credit risk and liquidity risk.
- **CREDIT RATING INFORMATION.** The relevant credit rating for CNs with more than one year remaining is the long-term rating by Moody’s Investors Service, Standard & Poor’s, or Fitch Ratings.
- **GUARANTEES.** Individual issues of CNs may be guaranteed by related or non-related entities; in such instances, the relevant credit risk investors face is that of the guarantor.
- **DENOMINATION.** Minimum CN denominations are as small as \$1,000, but most institutional investors consider positions under \$1 million to be “odd lot” transactions. Middle market transactions fall in the \$1 million to \$5 million range, while trades in multiples of \$5 million are considered to be round lots.
- **PRICING.** CNs, like bank notes and deposit notes, price at a market credit spread above a benchmark U.S. Treasury security relative to their underlying credit rating.
- **INTEREST COMPUTATION.** Interest on CNs, normally paid semi-annually, is calculated on the bond equivalent basis of a 360-day year consisting of twelve 30-day months.

FEDERAL AGENCY AND INSTRUMENTALITY OBLIGATIONS

Federal agency and instrumentality obligations are marketable debt instruments issued by a government-sponsored enterprises (GSE), or a federally related institution, commonly known as federal or U.S. “agencies.”

There are five GSEs that currently market new issues to the public:

- The Federal Farm Credit Bank System (FFCB) provides credit and liquidity in the agricultural industry. FFCB issues discount notes and semi-annual pay coupon securities;
- The Federal Home Loan Bank (FHLB) provides credit and liquidity in the housing market. FHLB issues discount notes and semi-annual pay coupon securities;
- Like FHLB, the Federal Home Loan Mortgage Corporation (FHLMC) provides credit and liquidity in the housing market. FHLMC, also called “FreddieMac,” issues

discount notes, semi-annual pay coupon securities, and mortgage-backed securities;

- Like FHLB and FreddieMac, the Federal National Mortgage Association (FNMA) was established to provide credit and liquidity in the housing market. FNMA, also known as “FannieMae,” issues discount notes, semi-annual pay coupon securities, and mortgage-backed securities; and
- The Student Loan Marketing Association (SLMA) provides credit and liquidity in the student loan market. SLMA, also known as “SallieMae,” terminated its ties to the federal government in 2004, when it privatized its operations as directed by federal legislation. SLMA bonds issued prior to 2005 are recognized as GSE; bonds issued in 2004 and later are corporate debt.

Because both FNMA and FHLMC were deemed to be of critical importance to the functioning of the U.S. housing market and financial system and due to the systemic risk posed by the default of their obligations, both were placed into conservatorship by the government on September 7, 2008. Under the original “preferred stock purchase agreement”, the Treasury was to provide \$100 billion in capital for each company if its liabilities exceeded assets through December 2009. That figure was updated to \$200 billion GSE effective February 18, 2009. Congressional approval would be required to extend the Treasury’s authority to inject capital beyond that date. The Fed also announced on November 25, 2008, that it would purchase up to \$500 billion of FNMA, FHLMC, and GNMA mortgage backed securities and up to \$100 billion of the debt of FNMA, FHLMC and FHLB. While the securities of FNMA and FHLMC do not have the full faith and credit backing of the U.S., government officials have made strong statements of support for these GSEs.

Unlike the GSEs, federally related institutions or government-owned corporations are arms of

the federal government. Most do not participate in the issuance of securities directly into the market. Those that do participate directly include the following:

- The Government National Mortgage Association (GNMA), also known as “GinnieMae,” guarantees (with the full faith and credit of the United States) the timely payment of scheduled principal and interest on mortgage-backed securities issued by private lenders. GNMA securities are known as “modified pass-throughs” because payment of principal and interest is “passed-through” from the mortgage to the investor in the GNMA securities;
- The Private Export Funding Corporation (PEFCO) is a private sector corporation that mobilizes private capital to assist in the financing of U.S. exports. PEFCO issues notes and bonds (though it issues bonds rarely). Obligations of PEFCO are not guaranteed by the full faith and credit of the U.S. government;
- The Export-Import Bank of the United States (Ex-Im Bank) also facilitates U.S. exports by guaranteeing loans for U.S. exporters and making loans to foreign purchasers of U.S. goods and services. The Ex-Im Bank issues notes, bonds, and ABs. However, it issues debt infrequently in the public markets. Its debt is guaranteed by the full faith and credit of the U.S. government; and
- The Tennessee Valley Authority (TVA) provides flood control and power and promotes development in portions of the Tennessee, Ohio and Mississippi River valleys. TVA issues discount notes and bonds. Its debt is not backed by the full faith and credit of the U.S. government.

Legal Restrictions

California Government Code Section 53601(f) allows local agencies to invest in federal agency

and instrumentality obligations subject to the following restriction:

- **MATURITY.** The remaining term to maturity at purchase is not in excess of five years, with certain exceptions (see *Chapter 2, Individual Instruments, Maturity*).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in federal agency and instrumentality obligations under this Section, it must meet the following restriction:

- **MATURITY.** The remaining term to maturity is not in excess of 397 days and the purchase would not cause the dollar-weighted average maturity of the funds in the investment pool to exceed 90 days.

Bond proceeds may be invested in agencies if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of GSEs and Federally Related Institutions.

- **RELATIVE SAFETY.** Payment of principal and interest on securities issued by GNMA and the Ex-Im bank are guaranteed by the full faith and credit of the U.S. government. All other agencies, though not guaranteed, are considered to be very safe from default risk.
- **LIQUIDITY.** The liquidity of federal agency securities varies with the frequency and size of issuance. Securities issued by agencies

that participate frequently in the market, including FNMA and FHLB, tend to have greater liquidity than those that issue less frequently. Large (greater than \$1 billion) issues are more liquid than smaller issues; non-callable issues generally are more liquid than callable issues.

- **YIELD.** The yield on federal agency securities generally is higher than the yield in U.S. Treasury securities with similar characteristics, but lower than the yield on corporate debt obligations.
- **CREDIT RATING INFORMATION.** All federal agency securities carry a “AAA” rating – either implied or actually obtained from the rating agencies.
- **GUARANTEES.** Payment of principal and interest on securities issued by GNMA, and the Ex-Im Bank are guaranteed directly by the full faith and credit of the U.S. government. All other agencies, though not guaranteed, are considered very safe from default risk. Some agency securities may be collateralized or secured by other means.
- **DENOMINATION.** Federal agency securities have a minimum denomination of \$1,000 and have a maximum denomination that is constrained only by available supply, which can be several billion dollars for any specific issue.
- **PRICING.** Federal agency securities are priced at a yield spread above a benchmark U.S. Treasury security that reflects general market conditions.
- **INTEREST COMPUTATION.** Federal agencies issue discount notes, semi-annual payment coupon bonds, and pass-through securities. Interest on discount notes, like interest on commercial paper (CP), is computed on the basis of the actual number of days held. Interest in semi-annual coupon bonds and on

GNMA pass-through securities is calculated on the basis of a 360-day year consisting of twelve 30-day months.

INVESTMENT AGREEMENTS

Investment agreements are contracts with respect to funds deposited by an investor. Investment agreements are often separated into those offered by banks and those offered by insurance companies. In the former case, they are sometimes referred to as “bank investment contracts.” In the latter case, they are referred to as “guaranteed investment contracts.” Insurance companies often issue guaranteed investment contracts as part of their normal annuity business. Regardless of the type of institution offering them, the features are virtually identical.

Investment contracts typically are used for the investment of bond proceeds. The issuer of the investment agreement takes a deposit of funds from the public agency depositor and purchases investments that are held in its general account; the acquired investments are almost always fixed income instruments. The public agency depositor becomes a creditor of the issuer of the investment agreement. The issuer is contractually obligated to repay the principal and specified interest guaranteed to the depositor at the dates and in the amounts set forth in the particular contract.

Legal Restrictions

California Government Code Section 53601 does not permit investment of local agency funds in investment agreements, with the exception of Section 53601.7 noted below. Bond proceeds may be invested in investment agreements if the governing resolution and statutory provisions permits such investment (see California Government Code Section 53601(m)).

Until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in

California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in investment agreements under this Section, it must meet the following restrictions:

- **CREDIT.** Short-term debt should be rated at least “A-1” by Standard & Poor’s, “P-1” by Moody’s Investors Service or “F-1” by Fitch Ratings. If the insurance company also has issued long-term debt, it should be rated at least “A”, without regard to +/-, or 1, 2, 3 modifiers by Standard & Poor’s, Moody’s Investors Service, or Fitch Ratings. Long-term debt should be rated at least “A”, without regard to +/-, or 1, 2, 3 modifiers, by Standard & Poor’s, Moody’s Investors Service, or Fitch Ratings.
- **MATURITY.** Under Section 53601.7, the investment agreement cannot have a remaining term to maturity in excess of 397 days and its purchase cannot cause the dollar-weighted average maturity of the funds in the pool to exceed 90 days.
- **CONCENTRATION.** No more than 5 percent of the total assets of the investments held by the local agency may be invested in the securities of one issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Characteristics of Investment Agreements

- **LIQUIDITY.** Investment contracts used for the investment of bond proceeds permit the depositor to withdraw funds, without loss of interest, on specified dates, or in some cases, anytime after specific dates, for specified purposes. As a result, the issuer of the

investment agreement takes upon itself the risk of change in interest rates over the life of the contract. Conversely, the depositor takes upon itself the credit risk of the issuer; that is, the potential the issuer may not repay the principal and interest on the contract.

Some investment agreements are written for short periods, typically for the investment of construction or acquisition funds arising from a bond issue. Others are written for longer terms, sometimes as long as the life of the bonds, and are intended to be a long-term investment for required reserves such as a debt service reserve fund.

- **CREDIT RATING INFORMATION.** The credit rating of all investment agreements is not the same. Therefore, it is important to understand the nature of the risk exposure assumed by an investor in the purchase of an investment agreement. When a depositor places funds with the insurance company, in the absence of the pledge of collateral, the depositor becomes a general creditor of the insurance company. Should the insurance company go bankrupt or be placed into the hands of a receiver or other regulator as a result of financial difficulty, the standing of the holder of the investment agreement is not the same as the standing of an insurance policyholder. For that reason, it is important to not only know the credit position of the issuer at the time of the placement of the funds, but depositors also must be in a position to monitor that credit position for the life of the agreement as credit ratings may change suddenly and dramatically. This is consistent with California law, which makes safety the primary goal of public investing. Moreover, the agreement itself must be structured so that if the issuer's credit position deteriorates, the depositor is permitted to withdraw the funds. The issuer is required to collateralize the deposit with marketable securities acceptable to the depositor, or some combination of both.

Most issuers of investment agreements enjoy very high credit ratings. Despite this, some public agencies require the issuer to collateralize the investment agreement so that there is some specific group of securities that is available for liquidation in the event of a payment default by the issuer. This is consistent with California law, which makes safety the primary goal of public investing.

- **YIELD.** The yield on an investment contract typically is based upon the credit worthiness of the issuer, term of the agreement, level of collateral required, draw schedule, liquidity requirements, and other factors.
- **GUARANTEES.** Some investment agreements are collateralized or guaranteed by third parties. See *Chapter 2, Securities Lending Agreements*.
- **DENOMINATION.** Denomination limits are not applicable.
- **PRICING.** Investment contracts typically are priced at par.
- **INTEREST COMPUTATION.** Interest on investment agreements typically is computed based on the amount deposited multiplied by the fixed or variable rate agreed to by the parties.

EXAMPLE. City X invests \$1 million of bond proceeds in a guaranteed, "fully-flexible," investment contract, bearing interest at 5 percent, and nominally maturing, at par, in five years. City X may withdraw monies at any time, without penalty, for construction costs.

MEDIUM-TERM NOTES

Medium-term notes (MTNs) are debt obligations that are continuously offered in a range of maturities. The California Government Code restricts local agencies to the purchase of medium-term notes that meet, among other things, certain term and quality standards. See *Chapter 2, Individual Instru-*

ments, *Corporate Notes and Bonds* for a description of characteristics also applicable to MTNs.

Temporary Liquidity Guarantee Program (TLGP). Refer to the TLGP discussion in *Chapter 2, Corporate Notes and Bonds*.

MONEY MARKET MUTUAL FUNDS (ALSO MONEY MARKET FUNDS)

Money market mutual funds (MMMFs), called shares of beneficial interest issued by diversified management companies, are mutual funds that invest exclusively in short-term money market instruments. MMMFs seek the preservation of capital as a primary goal while maintaining a high degree of liquidity and providing current income representative of the market for short-term investments. Industry officials may refer to their funds as "money market funds".

Most mutual funds, other than Money Market Mutual Funds do not strive to maintain a stable Net Asset Value (NAV) of \$1.00; rather their NAV will fluctuate when interest rates rise or fall. Be diligent in your reviews of existing manager experience, of changing management personnel or of changing investment style (i.e. style drift).

MMMFs invest in money market instruments that have a maximum maturity of 397 days. MMMFs are restricted to a maximum dollar weighted average maturity of 90 days. MMMFs generally maintain a Net Asset Value (NAV) of \$1.00 per share.³⁰ It is possible, though very unlikely, for the NAV to significantly rise above or fall below \$1.00 per share. If a NAV falls below \$0.995 per share, an unusual phenomenon, it is known in the industry as "breaking the buck."

Legal Restrictions

California Government Code Section 53601(l)(4) allows local agencies to invest in MMMFs subject to the following restrictions:

- CREDIT. The MMMF either must (A) have obtained the highest ranking or the highest letter and numerical rating provided by not less than two nationally recognized rating organizations or (B) retained an investment advisor registered or exempt with the SEC with not less than five years experience with assets under management in excess of \$500 million.
- CONCENTRATION. Purchases of MMMFs must not exceed 20 percent of the agency's surplus money and no more than 10 percent in shares of any one mutual fund.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in MMMFs under this Section, it must meet the following restrictions:

- CREDIT. It meets the rating or advisor criteria described above under Section 53601(l)(4).
- CONCENTRATION. No more than 10 percent of the local agency's funds may be invested in any one mutual fund. The "20 percent" restriction of Section 53601 is not applicable.

Bond proceeds may be invested in MMMFs if permitted under the governing bond resolution

³⁰ Technically, MMMFs may fluctuate in NAV from \$0.995 to \$1.005 without "breaking the buck."

and statutory provisions governing the bond issuance (see California Government Code Section 53601(l)).

Characteristics of MMMFs

- **RELATIVE SAFETY.** MMMFs generally are considered low risk profile investments. In reality, the creditworthiness of the issues held by the fund constitutes the cumulative risk profile of the fund. Because they strive to maintain a NAV of \$1.00 per share, they are a relatively safer investment compared to mutual funds.
- **LIQUIDITY.** MMMFs are highly liquid and usually are transacted on a same-day basis (as long as time deadlines are met). MMMFs can reserve the right to delay funds delivery up to several days under adverse circumstances.
- **YIELD.** MMMFs provide yields that are similar to the yields on other money market instruments, less the expenses incurred by the fund.
- **CREDIT RATING INFORMATION.** MMMFs can seek to be rated by the nationally recognized credit rating agencies. Most institutional MMMFs are very highly rated.
- **GUARANTEES.** MMMFs are not guaranteed in any manner and are not FDIC insured.
- **DENOMINATION.** MMMFs are denominated on a per share basis of \$1.00 per share.
- **PRICING.** MMMFs are priced based upon the net asset value per share. The expectation is that an MMMF will always be priced at \$1.00 per share. A drop in the NAV of the MMMF below \$1.00, known as “breaking the buck,” indicates the possibility of a serious credit failure within the MMMF.

- **INTEREST COMPUTATION.** MMMFs declare daily distributions of their net investment income and split equally among all shares.

MORTGAGE-BACKED SECURITIES

Mortgage-backed securities (MBS) are created when a mortgagee or a purchaser of residential real estate mortgages creates a pool of mortgages and markets undivided interests or participations in the pool. MBS owners receive a prorata share of the interest and principal cash flows (net of fees) that are “passed through” from the pool of mortgages.

MBS are complex securities whose cash flow is determined by the characteristics of the mortgages that are pooled together. Investors in MBS face prepayment risk associated with the option of the underlying mortgagors to pre-pay or pay-off their mortgage. Most MBS are issued and/or guaranteed by federal agencies and instrumentalities (e.g., Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA), and Federal Home Loan Mortgage Corporation (FHLMC)).

Legal Restrictions

California Government Code Section 53601(o) allows local agencies to invest in MBS subject to the following restrictions:

- **CREDIT.** MBS must be issued by an issuer having an “A” or higher debt rating as provided by a nationally recognized rating service and must be rated in a rating category of “AA” or better by such a rating service.³¹
- **MATURITY.** The remaining term to maturity at purchase may not exceed five years.
- **CONCENTRATION.** MBS, together with asset-backed securities (ABs), may not exceed

³¹ U.S. Government Agency issued MBS generally are not rated and therefore carry the same implicit rating as the issuing agency.

20 percent of the agency's surplus money to be invested. Investors should note that the California Government Code allows public agencies to invest up to 100 percent of their portfolio in federal agency obligations; however, it does not specify under which concentration restrictions federal agency MBS should be considered. Local agencies should consult with their legal counsel regarding this issue. Local agencies should understand the different risks involved with investment in federal agency MBS versus federal agency non-MBS obligations (in particular, the relatively higher prepayment risk associated with MBS).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in MBS under this Section, it must meet the following restrictions:

- **CREDIT.** The same credit restrictions of California Government Code Section 53601.
- **MATURITY.** The term remaining to maturity of such securities may not be in excess of 397 days and cause the dollar-weighted average maturity of the funds in the investment pool to exceed 90 days.
- **CONCENTRATION.** No more than 5 percent of the total assets of the investments held by the local agency may be invested in the securities of an issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in "first tier" securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in MBS if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of MBS

- **RELATIVE SAFETY.** If issued by a federally sponsored agency, MBS have an implicit guarantee (in varying degrees for principal and interest payments) from the federal government much like federal agency securities and therefore have a federal agency credit risk profile. Private firms also may issue MBS. These MBS do not have an implicit guarantee but typically have some form of credit enhancement to obtain the highest credit rating.
- **LIQUIDITY.** MBS are highly liquid, though they may trade at a value significantly different from their original value, subject to market conditions.
- **YIELD.** The complexity of MBS and the risk of prepayment result in higher yields relative to other securities of comparable quality.
- **CREDIT RATING INFORMATION.** Federal agency issued MBS generally are not individually rated by the rating agencies; however, they have implied ratings equal to the quality of the guaranteeing federally sponsored agency. Non-government agency issued MBS may be rated.
- **GUARANTEES.** MBS that are guaranteed by a federally sponsored agency have implicit guarantees in varying degrees for the timeliness of principal and interest payments.
- **DENOMINATION.** MBS can vary in size dependent upon the number of mortgages making up a pool. Size can range from less than \$1 million to greater than \$100 million.
- **PRICING.** MBS bear a price based upon mortgage pool coupons and pre-payment charac-

teristics of a given pool relative to a given U.S. Treasury benchmark of similar maturity.

- **INTEREST COMPUTATION.** MBS generally pay interest monthly based on a 30/360 convention; they also repay principal on a monthly basis. The amount of principal to be paid is not fixed in advance, but is the actual amount of mortgage principal that the mortgagees pay on their loans that is “passed through” to investors.

MUNICIPAL NOTES, BONDS, AND OTHER OBLIGATIONS

Municipal notes, bonds, and other obligations are securities issued by state and local government agencies to finance capital and operating expenses.

State and local government agencies and their instrumentalities issue a wide variety of debt instruments. Traditional municipal bonds are sometimes referred to as “tax-free” bonds, meaning that the interest income on the bonds is excluded from gross income for purposes of federal income taxation. In certain states, the interest income is exempt from state income tax as well. While most municipal bonds bear tax-exempt interest, in recent years, the use of fully taxable bonds by local governments is increasing steadily as the Internal Revenue Code (IRC) and the U.S. Treasury Regulations there under have become stricter.

The characteristics of a municipal bond or note often are very similar to the characteristics of corporate bonds and notes or the U.S. government and federal agency bonds and notes. Municipal bonds normally have a specific maturity date, and bear interest that is scheduled to be paid at specific intervals.

Within the general category of municipal bonds, there are numerous divisions to specify the types of bonds being issued, usually by the source of funds targeted to repay the bonds or by the security or collateral offered to the invest-

tor in such bonds. For example, the two primary divisions of municipal bonds are general obligation bonds and revenue bonds. General obligation bonds are often the most secure, in credit terms, because the issuing government has given a general pledge of its taxing power to secure the repayment of the bonds. Many times this taxing power is unlimited, and as a result, general obligation bonds often are the most secure type of municipal bond available. The holder of a general obligation bond, upon nonpayment, can petition a court of competent jurisdiction to compel the imposition of the tax required to pay debt service. Revenue bonds, by contrast, usually are secured only by the revenue of a particular governmental activity or source of funds, such as water revenues or the payment of special taxes that may be limited as to either amount or the taxpayers subject to the fee or tax.

Auction Rate Preferred/Security (ARS)

An ARS is a government or municipal tax-exempt bond that pays a varying interest rate determined periodically by a Dutch auction. A Dutch auction is a type of forward auction, in which a seller of a large block of items seeks bids within a specified price range for the whole block. The auction begins with a high starting price which is progressively lowered until the seller finds an acceptable bid. At the time of publication, the ARS market had ceased to function.

Variable Rate Demand Note (VRDN)

VRDN is an alternative term for variable rate demand obligation.

Variable Rate Demand Obligation (VRDO)

A VRDO is a security which bears interest at a floating (variable) rate adjusted at specified intervals (such as daily, weekly, or monthly) and can be redeemed at its holder’s option when the rate changes. Also called a floater, variable demand note, or variable demand bond.

Legal Restrictions

California Government Code Sections 53601(c)-(d) allows local agencies to invest in municipal notes, bonds, and other obligations subject to the following restriction:

- **MATURITY.** The remaining term to maturity at purchase is not in excess of five years, with certain exceptions (see *Chapter 2, Individual Instruments, Maturity*).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in municipal notes, bonds, and other obligations under this Section, it must meet the following restrictions:

- **MATURITY.** The term remaining to maturity may not be in excess of 397 days and cause the dollar weighted average maturity of the funds in the pool to exceed 90 days.
- **CONCENTRATION.** No more than 5 percent of the total assets of the investments held in the pool may be invested in the securities of any one issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the securities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in municipal bonds, notes, and other obligations if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of Municipal Bonds

- **RELATIVE SAFETY.** The structure and security of municipal bonds vary significantly and must be examined closely to determine relative safety, especially since state law does not require that such bonds to carry a minimum credit rating.
- **LIQUIDITY.** The amount of liquidity of a municipal bond varies depending with the type. As a general rule, higher rated securities enjoy relatively more liquidity than lower rated securities, based on greater access to a secondary market.
- **YIELD.** Tax-exempt municipal bonds generally bear interest at a rate that is lower, sometimes significantly, from the rates on comparable taxable securities.
- **CREDIT RATING INFORMATION.** Municipal bonds can be sold as both rated and unrated instruments.
- **GUARANTEES.** Some municipal bonds are guaranteed; typical guarantees are bond insurance, letter of credits, and surety bonds. However, the guarantee is only as good as the guarantor. The municipal market has gone through significant changes since 2008, with many guarantors having been downgraded as well.
- **DENOMINATION.** Denominations generally typically are not smaller than \$5,000 and may be much larger depending on bond structure and risks.
- **PRICING.** Municipal bonds are priced like corporate bonds based on yield.
- **INTEREST COMPUTATION.** Depending on type, bonds may bear interest at a current coupon rate or interest may be a function of the difference between the purchase price and par value at maturity (e.g., a zero coupon capital appreciation bond).

MUTUAL FUNDS

California local agencies may invest surplus funds in certain mutual funds called “shares of beneficial interest issued by diversified management companies” pursuant to California Government Code Section 53601(k)(1).

Mutual funds vary widely. California public investors may invest in mutual funds that purchase securities permitted under California Government Code Section 53601. That is, the fund’s investment policy would restrict it to investing in securities of the type, maturity, quality and proportion of portfolio described under the California Government Code.

Most mutual funds, other than Money Market Mutual Funds (see below), do not strive to maintain a stable Net Asset Value (NAV) of \$1.00; rather, their NAV will fluctuate when interest rates rise and fall. Be diligent in your review of manager experience, management changes and style drift.

Legal Restrictions

California Government Code Section 53601(l)(1) allows local agencies to investment in mutual funds subject to the following restrictions:

- CREDIT. The mutual fund either must (A) have obtained the highest ranking or the highest letter and numerical rating provided by not less than two nationally recognized rating organizations or (B) retained an investment advisor registered or exempt with the SEC with not less than five years experience with assets under management in excess of \$500 million.
- CONCENTRATION. Purchases of mutual funds must not exceed 20 percent of the agency’s surplus money that may be invested and no more than 10 percent in shares of any one mutual fund.

- INVESTMENT. The mutual fund must invest in securities permitted under California Government Code Section 53601.
- COMMISSION. Local agencies may not pay a commission related to the purchase of a mutual fund.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in mutual funds under this Section, it must meet the following restrictions:

- CREDIT. It meets the rating or advisory criteria described above under Section 53601.

No more than 10 percent of the total assets of the investments held by a local agency may be invested in any one mutual fund. The “20 percent” restriction of Section 53601 is not applicable.

- INVESTMENT. The local agency may invest in mutual funds that must invest in the securities permitted under Section 53601.

Bond proceeds may be invested in mutual funds if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of Mutual Funds

- RELATIVE SAFETY. Mutual funds eligible for investment by California local agencies usually are well diversified and have high credit quality. The creditworthiness of the issues held by the fund constitutes the cumulative risk profile of the fund. Investors in mutual funds

should review carefully the fund's prospectus, or official statement prior to investing, and must be fully cognizant of the fees and costs associated with investment in the fund.

- **LIQUIDITY.** Mutual funds may be sold for settlement the next day. The price will be determined by the NAV, which fluctuates daily.
- **YIELD.** The yield on a mutual fund will be similar to the yield on its underlying investments, less the costs and fees associated with the fund.
- **CREDIT RATING INFORMATION.** Mutual funds can be rated by the nationally recognized credit rating agencies. California investors only may invest in those rated in the highest category by at least two rating agencies.
- **GUARANTEES.** Mutual funds carry no guarantee and are not insured by the Federal Deposit Insurance Corporation (FDIC).
- **DENOMINATION.** Sometimes, mutual funds require a minimum dollar investment, which may be as low as \$1,000 or as high as \$1 million or more, depending on the fund's requirements.
- **PRICING.** Mutual funds are priced based upon the net asset value per share, which fluctuates with changes in interest rates.
- **INTEREST COMPUTATION.** Mutual funds pay dividends periodically, based on the fund's net income, which is interest earnings on the underlying investments, less costs and other liabilities. The dividend is split equally among all shares.

REPURCHASE AGREEMENTS

A repurchase agreement (repo) is a short-term purchase of securities with a simultaneous agreement to sell the securities back on a specified date at an agreed upon price. The repurchase price is the purchase price plus interest at an agreed upon

rate. The public agency is usually the buyer of securities under a repo. Repos often are an alternative to other short-term instruments and money market funds (MMFs).

Most repos have very short terms to maturity, "overnight repos" are last one day while "term repos" have a maturity greater than one day but typically less than 30 days. However, repos can be arranged for any term agreeable to the counterparties. A repo also may be negotiated on an "open" basis where the repo stays in place as long as both counterparties agree with the interest rate set each day to reflect current interest rate levels.

The amount of money used to purchase the underlying security for a repo is often referred to as a "loan." The underlying security for a repo may be any security allowable by state law and the local government investment policy; however, only if these securities consist of U.S. Treasury securities and federal agency securities and the term of the repo is 90 days or less is the investment protected under federal bankruptcy laws. For the best security, public agencies should require that the underlying security be delivered either to the agency's custodian bank, or to a third-party custodian that acts as an intermediary between the agency and the repo counterparty. This is called a "Tri-Party repo" and is the recommended repo type for local agencies.

Primary government securities dealers and large banks are the typical counterparties to repos. Prior to entering into repos with any counterparty, it is highly recommended that the public agency and the dealer or bank counterparty execute a "Master Repurchase Agreement." The Master Repurchase Agreement sets forth the terms and conditions that underlie each repo. The Securities Industry and Financial Markets Association (SIFMA) has developed a sample Master Repurchase Agreement that is available online at www.sifma.org. Public agencies should read the sample carefully and work closely with their legal counsel to amend it as necessary to meet the specific requirements of their agency.

Legal Restrictions

California Government Code Section 53601(j) allows local agencies to invest in repos subject to the following restrictions:

- **MATURITY.** The term of the agreement may not exceed one year.
- **MARKET VALUE.** The market value of securities that underlay the repo must be valued at 102 percent or greater of the funds borrowed against the securities (adjusted no less than quarterly, though more frequent adjustment offers greater protection to the local agency because the market value of the securities fluctuates daily).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in repos under this Section, it must meet the following restrictions:

- **CREDIT.** Short-term debt should be rated at least “A-1” by Standard & Poor’s, “P-1” by Moody’s Investors Service, or “F-1” by Fitch Ratings. If the issuer of short-term debt also has issued long-term debt, the long-term rating should be at least “A” without regard to +/- or 1, 2, 3 modifiers, by Standard & Poor’s, Moody’s Investors Service, or Fitch Ratings.
- **CONCENTRATION.** No more than 5 percent of the total assets of the investments held by the local agency may be invested in the securities of one issuer. Up to 25 percent of the total assets of the investments held by a local agency may be invested in “first tier” securities of a single issuer for up to three business days after acquisition (but the se-

curities of no more than one issuer may be invested pursuant to this section of the Government Code).

Bond proceeds may be invested in repos if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of Repurchase Agreements

- **RELATIVE SAFETY.** Repos are relatively safe investments compared to other longer-term, non-governmental securities because they are short-term and over-collateralized.

In the past, however, the repo market experienced bankruptcy problems regarding the ownership of the underlying security in instances where counterparty default led to non-payment of the loan on the repo maturity date. The problems revolved around the ownership of the underlying security and whether the holder had the right to liquidate the underlying security if the counterparty had entered into bankruptcy. Use of a well-drafted Master Repurchase Agreement clarifies the relationship between the counterparties.

- **LIQUIDITY.** Repos are considered highly liquid from the perspective that their terms to maturity usually are quite short. However, there is no secondary market for repos, and, thus, no ability to sell a repo prior to its maturity date.
- **CREDIT RATING INFORMATION.** Repos themselves are unrated instruments; however, counterparties may be rated. Public agencies may wish to impose the same credit quality standards on counterparties to repos that they impose on other investments.
- **GUARANTEES.** Repos are not guaranteed, but, as described above, they are collateralized investments.

- **DENOMINATION.** The minimum size of a repo is \$1 million, although smaller transactions can sometimes be arranged with the public agency’s deposit bank.
- **PRICING.** Repos are priced at par, or 100 percent of the value of the loan.
- **INTEREST COMPUTATION.** Interest on a repo is calculated at the agreed upon repo rate on the basis of the actual days in the term, divided by 360.

EXAMPLE. Agency X enters into a repurchase agreement with Big Dealer, Inc. for \$25 million. Agency X arranges for its custody bank to receive specified U.S. Treasury collateral with a market value, including accrued interest, equal to at least \$25.5 million (102 percent of \$25 million), and to pay \$25 million to Big Dealer.

The term of the repo is three days. The negotiated interest rate is 2.5 percent. Three days later, Big Dealer returns the loan to Agency X’s custodian, and the custodian returns the collateral to Big Dealer. The interest calculation is as follows:

$$\begin{aligned} \text{Interest} &= \\ & \$25,000,000 \times 2.5 \text{ percent} \times 3/360 = \\ & \$5,208.33 \end{aligned}$$

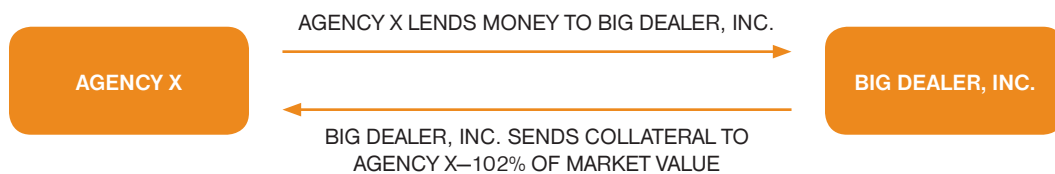
Figure 8 below is a diagram of the process.

REVERSE-REPURCHASE AGREEMENTS

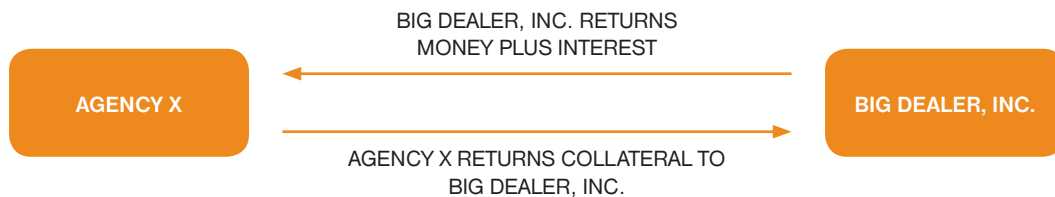
A reverse-repurchase agreement (reverse repo) involves an investor borrowing cash from a financial institution in exchange for securities. The investor agrees to repurchase the securities at a specified date for the same cash value plus an

Figure 8

I. AT INCEPTION



II. AT MATURITY



agreed upon interest rate. Although the transaction is similar to a repo, the purpose of entering into a reverse repo is quite different. While a repo is a straightforward investment of public funds, the reverse repo is a borrowing.

Public agencies borrow using reverse repos for two reasons. The first is to increase liquidity in a portfolio (e.g., when emergency cash is needed but liquidation of investments is undesirable); the second is to enhance yield (e.g., as an arbitrage “play”). If an agency experiences a temporary cashflow mismatch, i.e., needing funds to cover a cash draw, a reverse repo can provide funds without the necessity of selling securities prior to maturity. The reverse repo can be scheduled to mature at the time a maturity occurs that can repay the loan. The second use of reverse repos involves borrowing money at a relatively low rate in order to invest the borrowed funds in higher yielding investments. For example, a public agency might enter into a reverse repo, use U.S. Treasury securities as collateral, pay a low interest rate, and reinvest the borrowed funds in commercial paper (CP), which has a higher yield than the repo. This is an example of using leverage in the portfolio—borrowing money in order to increase funds invested and to earn incremental income.

Reverse repos can be negotiated for periods of time ranging from one day and up. Care should be taken regarding excessive leverage. Legal restrictions have been imposed as a result of losses incurred in Orange County and other jurisdictions in 1994. If reverse repos are used in the manner legally permitted, the risk of losses of the magnitude of those suffered in Orange County is eliminated.

Legal Restrictions

California Government Code Section 53601(j) allows local agencies to invest in reverse repos subject to the following restrictions:

- **MATURITY.** The agreement generally may not exceed a term of 92 days (with certain exceptions); funds obtained from the re-

verse repos shall not be used to purchase another security with a maturity longer than 92 days from the initial settlement date of the reverse-repurchase agreement (subject to certain exceptions).

- **CONCENTRATION.** The total of all reverse repos and securities lending agreements (see *Chapter 2, Individual Instruments, Securities Lending Agreements*) owned by the local agency may not exceed 20 percent of the base value of the portfolio.
- **HOLDING.** The security to be sold must have been owned and fully paid for by the local agency for a minimum of thirty days prior to sale.
- **APPROVAL.** The investment only may be made upon prior approval of the governing body of the local agency.
- **PROVIDER.** The investment only shall be made with primary dealers of the Federal Reserve Bank of New York or with a nationally or state-chartered bank that has or has had a significant banking relationship with a local agency.

For purposes of these restrictions, “base value” of the agency’s pool portfolio is the dollar amount obtained by totaling all cash balances in the pool excluding any amounts obtained through selling securities by reverse repos or securities lending agreements.

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in reverse repos under this Section, it must meet the following restriction:

- The total of all reverse repos on investments owned by the local agency not purchased or committed to purchase does not exceed 20 percent of the market value of the portfolio.

Bond proceeds may be invested in reverse repos if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of Reverse Repurchase Agreements

- **RELATIVE SAFETY.** There are two primary risks that remain in the use of reverse repos. First, a reverse repo is subject to counterparty risk, or the risk that the counterparty may fail to return the agency's securities at maturity. This risk is mitigated by entering into reverse repos only with highly credit-worthy counterparties and by monitoring their credit status continually. Second, the agency undertakes extra credit risk in order to invest reverse repo proceeds into higher yielding securities. The additional credit risk must be properly evaluated to ensure that it is within the guidelines of prudence and safety.
- **LIQUIDITY.** Reverse repos must be held to maturity in most cases. There is no secondary market to provide liquidity during the term of the agreement.
- **CREDIT RATING INFORMATION.** Reverse repos are unrated; however, counterparties, such as banks and primary dealers, usually are rated. It is important to check the counterparty's rating to ensure that it is a highly rated institution.
- **PRICING.** Reverse repos are priced at par. Usually, counterparties require that the underlying security must have a value that is at least 102 percent of current market value. Frequent valuing (e.g., daily, if possible) of the underlying security reduces

the potential for losses because any decline in value would be caught early, thereby allowing the counterparty to request additional security to meet the 102 percent before any further deterioration in value may occur.

- **INTEREST COMPUTATION.** Interest is computed on the basis of actual days borrowed on a 360-day year basis.
- **EXAMPLE.** Figure 9 is a diagram of how a reverse repo works from the public agency perspective:

SECURITIES LENDING AGREEMENTS

Securities lending agreements allow local agencies to earn incremental income on their investment portfolio by loaning securities in their portfolio to financial services companies for a limited time. Most securities lending agreements are collateralized and involve a third party custodian that holds both the securities loaned and the collateral pledged. The third party custodian also may bring additional investment expertise to the transaction. Either securities or cash may be used as underlying security in a securities lending agreement, usually up to 102 percent of the loan value. When securities are pledged as underlying security, the borrower generally pays a lending fee based on the dollar value of the securities being loaned and the length of the loan. This fee is split between the lender and the third party custodian. If cash is used as underlying security, the borrower receives a specified rate of interest on the underlying security. The lender reinvests the cash, and profits from the difference between the return on the reinvestment and the amount paid in interest to the borrower.

Traditionally, pension funds and other institutional investors with significant holdings of securities of varying maturities have participated in securities lending agreements to enhance the return of their portfolios. These investors temporarily loan their securities in exchange for col-

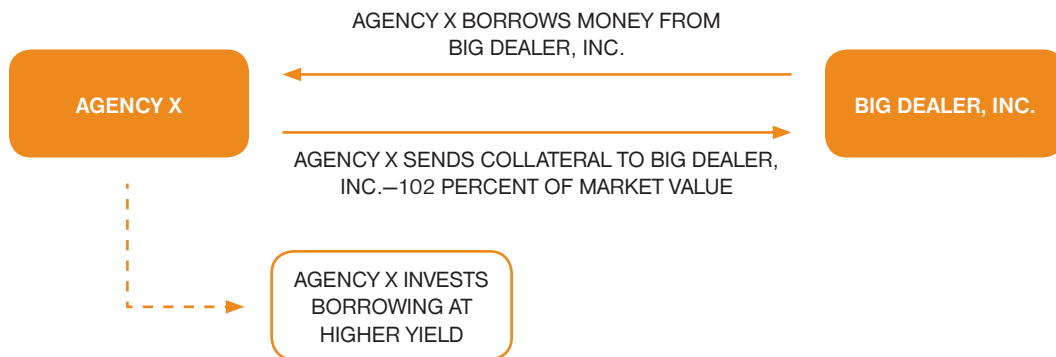
lateral and additional income (such as lending fees) in order to accomplish this goal. Financial service companies typically borrow securities to cover short sales or to complete complex derivative transactions.

In the case of public agency investment, the third party custodian and the public agency enter into a contractual agreement that specifies all of the terms and conditions of their relationship. The

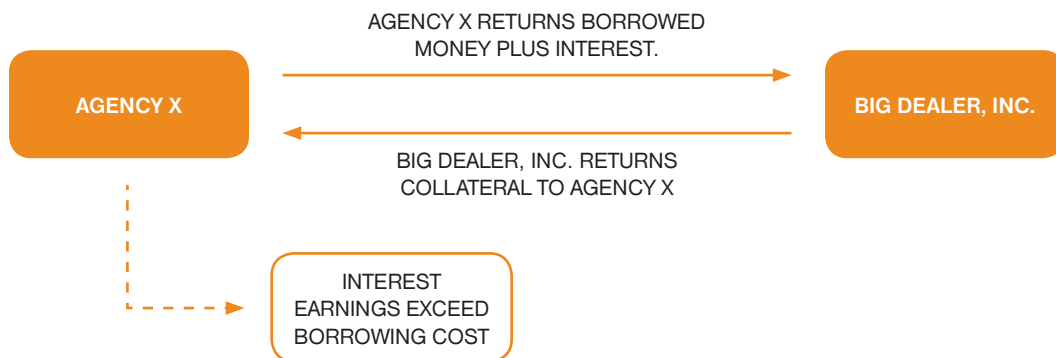
custodian's activities on behalf of the public agency must comply with the agency's investment policy, and with the California Government Code. For undertaking the management of this program, the custodian receives a percentage of the income from securities lending which is negotiated with the public agency.

Of securities permitted for public agency investment, U.S. Treasury securities and federal agency

Figure 9
I. AT INCEPTION



II. AT MATURITY



securities are the most in demand in the securities lending market.

The diagrams under *Chapter 2, Individual Instruments, Reverse-Repurchase Agreements* also describe the securities lending process. The only structural difference between the transactions is that a third-party custodian, such as a bank or primary dealer, manages the program on the agency's behalf. However, the motivation underlying each transaction may vary. Reverse repurchase agreements typically are used to meet cash-flow needs, while securities lending agreements commonly are used to enhance the return on a portfolio.

Legal Restrictions

See *Chapter 2, Individual Instruments, Reverse-Repurchase Agreements* herein for information on legal restrictions and other characteristics common to both securities lending agreements and reverse-repurchase agreements.

STATE GOVERNMENT, LOCAL GOVERNMENT, AND JOINT POWERS AUTHORITY INVESTMENT POOLS

Investment pools are organized and operated by a treasurer, investment officer, or external investment advisory firm. These pools operate much like a mutual fund, with local governments investing money that is pooled with monies from other localities and invested in larger, presumably more efficient, blocks.

Interest typically is allocated to the participating agency on a daily basis, proportional to the size of the investment. In the case of joint powers authorities (JPAs), shares of beneficial interest are issued by the joint powers authority, with each share representing an equal proportional interest in the underlying pool of securities owned by the joint powers authority. Many pools permit frequent deposits and withdrawals of funds, just like a money market fund. Most public agency

investment pools are invested specifically in securities that are eligible under state law for investment by local governments. One exception to this rule is the State Local Agency Investment Fund (LAIF), which is not subject to the same restrictions as local agencies in California. However, local agencies are permitted expressly by state law to invest in LAIF.

In certain counties, treasurers undertake similar activities on behalf of other local governments within their respective counties. This is sometimes dictated by other provisions of state law that, for example, may require certain school districts to deposit their excess funds with an appropriate official for safekeeping and investment. Other local pooling may take place as a result of several local governments banding together for the purpose of creating such a pool; these JPAs are motivated by many of the same factors that motivate the State or local government officials to create a pool, such as economies of scale.

Legal Restrictions

In general, investments purchased as part of a state government, local government, or JPA investment pools are governed by the restrictions of California Government Code Sections 16429.1-16429.4 and 53601 (as described in this section).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in investment pools under this Section, it must meet the restrictions specified herein.

Bond proceeds may be invested in state and local government investment pools if permitted under the governing bond resolution and statutory pro-

visions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of Investment Pools

- **RELATIVE SAFETY.** The goals and objectives of any investment pool should be understood before placing money in it. Some of them seek to maximize yield, and as a result, the value of the investment may vary somewhat over time. These pools are said to have a “variable” net asset value approach. The variability of the net asset value is driven by the fact that many of the pool’s investments are in securities that mature well beyond the average time that a particular investor has money placed in the pool. On the opposite end of the spectrum are pools that seek to maintain a “constant” or “stable” net asset value. These pools typically invest in very short-term securities and often do so at the expense of yield.
- **LIQUIDITY.** State government, local government, and JPA investment pools generally are quite liquid but may contain internal restrictions on timing of withdrawals.
- **YIELD.** See *Relative Safety* above.
- **CREDIT RATING INFORMATION.** The major rating agencies now rate many of these investment pools and monitor them on an ongoing basis for credit quality. Just as any investment portfolio needs capable management and sound investment policies or practices, the pools also require these attributes. Examples of features that the major rating agencies look at in investment pools are the development and use of investment policies, adequacy of disclosure, average maturity of investment, credit quality, and the use of derivative products. Both the major rating agencies and some participants in these pools also closely monitor the volatility of the value of the investments in the pools, particularly if the pool is a variable net asset value pool.

See rating tables for stable and variable net asset value pools in *Appendix B*.

- **GUARANTEES.** State government, local government, and JPA investment pools typically are not guaranteed.
- **DENOMINATION.** Generally, there is no minimum denomination; however, some pools (such as LAIF) may restrict the maximum amount of funds invested per account.
- **PRICING.** Not applicable.
- **INTEREST COMPUTATION.** Interest typically is distributed proportionally to investors based on amount of investment and performance of pool. As stated above, in the case of joint powers authorities (JPAs), shares of beneficial interest are issued by the joint powers authority, with each share representing an equal proportional interest in the underlying pool of securities owned by the joint powers authority. Public agency investment officials should verify the method of interest computation for any investment pool in which they are investing public funds.

STATE AND LOCAL GOVERNMENT SERIES

State and Local Government Series (SLGS) are special U.S. Treasury securities backed by the full faith and credit of the federal government. SLGS exist to assist issuers of tax-exempt obligations in complying with certain Internal Revenue Code (IRC) restrictions relating to arbitrage in connection with the issuance of tax-exempt securities; see *Chapter 5, Tax Exempt Bond Proceeds Investment*.

Generally, the SLGS program provides special securities to issuers of tax-exempt obligations to assist them in structuring and investing defeasance escrows to retire previously issued tax-exempt obligations. The IRC limits the yield on investments held in these escrows to the applicable tax-

exempt bond yield. Issuers may purchase SLGS at specified yields at or below a specific market rate. In addition, as described below, payment dates on SLGS generally can be tailored to meet escrow payment requirements. In an advance refunding of previously issued tax-exempt obligations, the issuer often invests the funds held in the escrow defeasing the prior bonds in SLGS.

SLGS may be purchased as certificates, notes, or bonds. Certificates have a term to maturity from thirty days to one year and pay interest at maturity. Notes have a term to maturity from one year and one day up to ten years and pay interest semiannually. Bonds have a term to maturity from ten years and one day to forty years and pay interest semiannually.

Issuers subscribe for SLGS by filing special forms with the Federal Bureau of the Public Debt no more than sixty days prior to the proposed SLGS delivery date, and no later than seven days prior for subscriptions of more than \$10 million (and five days prior for subscriptions of \$10 million or less).

Legal Restrictions

See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, And Bonds*.

Characteristics of SLGS.

- **RELATIVE SAFETY.** SLGS are considered as safe as other U.S. Treasury securities given the full faith and credit backing of the federal government.
- **LIQUIDITY.** SLGS are not liquid as they may not be sold or transferred. However, they may be redeemed (during certain periods) at a price depending on the current U.S. Treasury borrowing rate for the remaining term maturity of the SLGS in accordance with Treasury Regulations.
- **YIELD.** The maximum SLGS rate on a given date for a term to maturity is typically lower

(5 basis points) than the rate on comparable U.S. Treasury securities.

- **CREDIT RATING INFORMATION.** SLGS are not rated individually by the rating agencies, but have the highest implied ratings due to the full faith and credit backing of the federal government.
- **GUARANTEES.** SLGS are backed by the full faith and credit of the federal government.
- **DENOMINATION.** The SLGS subscriber can specify denominations in a minimum amount of \$1,000 up to any whole dollar amount.
- **PRICING.** SLGS are purchased at face amount.
- **EXAMPLE.** Agency X subscribes for \$1 million of SLGS to fund its defeasance escrow to retire previously issued tax-exempt revenue bonds. The SLGS allow Agency X to tailor payment dates to escrow needs and to tailor investment return to IRC restrictions.

STATE NOTES, BONDS, AND WARRANTS

State notes, bonds, and warrants are debt obligations issued by state governments of the United States, including the State of California.

State notes, bonds, and warrants can be as varied as those issued by local government. In California, the State issues general obligation bonds, revenue bonds, revenue anticipation notes, and bonds arising from financing leases and housing-related bonds. The features of most of the State's borrowings are much like their local counterparts, except that the size of the offerings is much greater and the frequency of issuance is greater.

Unlike local governments however, the State also is permitted to sell its registered warrants (as explained below) as though they were securities. In the State's fiscal system, the State Controller issues warrants against the State Treasury for expenditures authorized by law, including the

annual budget act. When the State Treasurer accepts the warrant for payment, it is paid in cash to the presenter. Sometimes there is not sufficient money in the Treasury to pay cash for the warrant, in which case it is “registered” for payment by the Treasurer. Such a registered warrant can be sold as a financial instrument, much like corporate paper such as commercial paper or discount notes of certain federal agencies. Once money is available in the Treasury, the warrant can be presented for payment.

See *Chapter 2, Individual Instruments, Municipal Notes, Bonds, and Other Obligations* for additional information.

TIME DEPOSITS

Time deposits are issued by depository institutions against funds deposited for a specified length of time. Time deposits include instruments such as deposit notes. They are distinct from certificates of deposit (CDs) in that interest payments on time deposits are calculated in a manner similar to that of corporate bonds whereas interest payments on CDs are calculated similar to that of money market instruments. See *Chapter 2, Individual Instruments, Bank Deposits (Including Collateralized Bank Deposits, Negotiable Certificated of Deposit, Certificates of Deposit, Bank Notes, and Deposit Notes)* for a general description of characteristics common to time deposits.

U.S. TREASURY BILLS, NOTES, AND BONDS

U.S. Treasury securities, including bills, notes, and bonds (collectively referred to as USTs) are obligations issued and guaranteed by the full faith and credit of the federal government. USTs, because they are backed by the full faith and credit of the federal government, are considered by bond market participants as having no credit risk.

U.S. Treasury bills have an initial term to maturity of less than one year, are issued at a discounted face value, and pay interest only at maturity. Notes have an initial term to maturity of more than one year, but not more than ten years, while bonds have an initial term to maturity of more than ten years.

Notes and bonds have stated coupon rates and pay interest semi-annually. Interest rates on USTs are considered benchmark interest rates and are referenced as benchmarks throughout the domestic and international capital markets.

Legal Restrictions

California Government Code Section 53601(b) allows local agencies to invest in USTs subject to the following restriction:

- **MATURITY.** The remaining term to maturity at purchase is not in excess of five years, with certain exceptions (see *Chapter 2, Individual Instruments, Maturity*).

Notwithstanding the investment provisions specified above, until January 1, 2011, a local agency that is a county or a city and county also may invest any portion of its funds using criteria specified in California Government Code Section 53601.7 (see *Chapter 2, Individual Instruments, Type of Investment*). The funds invested must meet certain specific and overall criteria related to the securities purchased. For a county or a city and county to invest in USTs under this section, it may not, at purchase, have a term remaining to maturity in excess of 397 days or would cause the dollar-weighted average of the funds in the investment pool to exceed 90 days.

Bond proceeds may be invested in USTs if permitted under the governing bond resolution and statutory provisions governing the bond issuance (see California Government Code Section 53601(m)).

Characteristics of U.S. Treasury Bills, Notes, and Bonds

- **RELATIVE SAFETY.** Because they are backed by the full faith and credit of the federal government, USTs are deemed “risk-free” from a credit risk profile and are considered to have the highest credit quality.
 - **LIQUIDITY.** USTs have very high liquidity with fully developed primary and secondary markets; it is very easy to obtain bids or offers from multiple brokers/dealers under all but the most disrupted market conditions. At any given time, the value of a UST may be higher or lower than the buyer’s initial cost, depending on current market conditions. As with all fixed income securities, the longer the maturity of the security, the greater will be its sensitivity to fluctuations in market value.
 - **YIELD.** USTs have the lowest yield relative to other securities of similar maturity because of their risk-free credit profile.
 - **CREDIT RATING INFORMATION.** USTs are not rated individually by the rating agencies, but have the highest implied ratings due to the full faith and credit backing of the federal government.
 - **GUARANTEES.** USTs have the full faith and credit backing of the federal government.
 - **DENOMINATION.** U.S. Treasury bills have a minimum denomination requirement of \$10,000, while notes and bonds have a minimum denomination requirement of \$1,000. The maximum denomination is constrained only by the available supply, which can be several billion dollars for any specific issue.
- **PRICING.** USTs are priced in the primary market by an auction process. USTs are priced in the secondary market by a highly quoted over-the-counter market.
 - **INTEREST COMPUTATION.** Interest on U.S. Treasury bills is calculated on a discounted basis, similar to commercial paper and federal agency discount notes. U.S. Treasury notes and bonds pay half of the annual coupon interest every six months.

U.S. TREASURY STRIPS

The U.S. Treasury STRIPS (Separate Trading of Registered Interest and Principal of Securities) program allows principal and interest components of a U.S. Treasury security to be held and traded separately as zero-coupon securities. For example, a ten-year U.S. Treasury note will have twenty separate payments of interest and one payment of principal. (Each of the semi-annual coupons represents a unique cash flow). Upon “stripping,” the individual coupon cash flows become interest STRIPS and the principal component becomes a principal STRIP. Once the stripping is accomplished, the interest and principal STRIPS are traded individually as though they were separate sets of zero coupon bonds maturing on the dates, and in the amounts represented by the coupon payments and the principal payment, respectively.

The U.S. Treasury does not sell zero coupon bonds or notes (other than Series EE Savings Bonds) to the public.³² Instead, it offers a program for primary market dealers to create zero coupon securities by “stripping” the interest component from the bond and selling the two components as separate securities. The program arose in the mid-1980s as the market for zero coupon investments grew dramatically, primarily as a re-

³² Zero coupon securities are those that provide for a zero stated interest rate. The return on such securities is derived from the fact that they are typically sold at a discount.

sult of the then prevailing high interest rate environment. STRIPS typically are used in escrows established to retire tax-exempt bonds (see *Chapter 4, Tax-Exempt Bond Proceeds Investment*).

When the STRIPS program was implemented in 1985, only U.S. Treasury notes and bonds with maturities of ten years or longer were eligible for stripping because there was little market interest in stripping securities with maturities less than ten years. As interest in stripping shorter-term notes developed, the U.S. Treasury determined all bonds and notes issued by the federal government are eligible for the STRIPS program.

Legal Restrictions

STRIPS have the same requirements as other U.S. Treasury securities (see *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*). The California Government Code prohibition on investment in interest-only STRIPS does not apply to U.S. Treasury Interest Securities (TINTS), which are the stripped, interest-only component of certain U.S. Treasury securities sold as a separate investment. Rather, the prohibition only applies to certain mortgage-related investments.

Characteristics of STRIPS

- **RELATIVE SAFETY.** See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*.
- **LIQUIDITY.** Many brokers/dealers have created markets for U.S. Treasury STRIPS by actively trading them. STRIPS also may be delivered and received electronically through the Treasury's book-entry clearing system, increasing their liquidity relative to those investments that cannot.
- **PRICING.** The interest STRIPS and the residual principal from a stripped U.S. Treasury bond or note price like zero coupon security.

The price is derived using the present value formula with the spot yield (i.e., expected yield on a zero coupon U.S. Treasury security) being substituted for the interest rate in the formula.

- **YIELD.** See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*.
- **CREDIT RATING INFORMATION.** See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*.
- **GUARANTEES.** See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*.
- **DENOMINATION.** See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*.
- **INTEREST COMPUTATION.** See *Chapter 2, Individual Instruments, U.S. Treasury Bills, Notes, and Bonds*.



Chapter 3

INVESTMENT PORTFOLIO DEVELOPMENT AND MANAGEMENT

Chapter 3

INVESTMENT PORTFOLIO DEVELOPMENT AND MANAGEMENT

This chapter describes the primary components involved in developing and managing an investment portfolio including state law, federal law, investment policy, cashflow needs, investment objectives and risk minimization. Figure 10 reflects that development and management of a public agency's investment portfolio is a detailed process composed of many parts that at times are a balancing act of competing considerations and agency objectives.

Chapter 3 is a resource for those needing to understand common investment industry concepts and investment strategies used when developing or managing a public agency investment portfolio. When possible, examples, including tables and charts, are included in this chapter to illustrate the concepts and strategies contained herein. This chapter builds on the responsibilities and terms defined in the first two chapters of the *Investment Primer*.

INVESTMENT POLICY

A local agency sets forth its objectives, risk preferences, authorized investments, and other invest-

ment related priorities in an investment policy. An ideal policy merges the constraints and objectives of the local agency investor with the opportunities and risks available in the investment marketplace. California state law currently states that public agencies may provide an annual investment policy to the legislative body and any investment oversight committee of each local agency (see California Government Code Sections 53646(a)(1-2)).

The following section discusses state law relating to local government investment policies, the importance of a policy, considerations for development, key elements, the submission processes, and how to evaluate a policy.

County Requirements

If a county chooses to provide its board of supervisors and any oversight committee with a copy of its investment policy annually, California Government Code Section 53646(a)(1) states, "...the board shall review and approve [any such policy or changes to an existing policy] at a public meeting." California Government Code Section 27133 states that any county that establishes an oversight committee shall provide that committee with an investment policy, which will be

Figure 10

INVESTMENT PORTFOLIO DEVELOPMENT & MANAGEMENT FLOWCHART



reviewed and monitored by the committee. This Section does not provide any further guidelines for how the oversight committee should handle the investment policy. Counties should consult with their legal counsel regarding the interpretation of Sections 27133 and Section 53646(a)(1) as it applies to providing an investment policy to oversight committees.

Other Local Agency Requirements

For local agencies other than counties, either the treasurer or chief fiscal officer may annually render a statement of the investment policy to the legislative body and to any oversight committee. However, for non-county agencies, the legislative body is required only to “consider” the policy or any changes to the policy at a public meeting (see California Government Code Section 53646(a)(2)).

IMPORTANCE OF AN INVESTMENT POLICY

In the previous two decades, investment losses of public funds focused much attention on the absence of comprehensive investment policies in the public sector. Twice since the early 1980’s, the California Legislature passed laws that required local agencies to prepare an investment policy. In the first instance, the investment policy requirement had a sunset clause and was not renewed. After the Orange County bankruptcy in the fall of 1994, the investment policy requirement was reenacted, though, over the period since that time, it has become permissive to avoid imposing a reimbursable mandate. However, it has long been deemed good investment practice to have a written investment policy, and it is now considered a standard of “best investment practices” for government agencies to have a written policy and to review it annually.

A thoughtful and comprehensive investment policy not only provides a level of accountability for investment officials, it promotes a public trust

in investment decisions. The process of developing, reviewing, and monitoring the investment policy serves as an important tool of communication between the investment official, the agency management, and the governing body. It also increases the probability of improved performance when it is part of a disciplined approach to the overall investment process. However, the investment policy is but one step in a comprehensive investment discipline. The policy itself is neither a protection against investment losses nor a guarantee of good performance. When a policy is put in place, state law recommends that investments be monitored and measured against the standards contained in the policy and the results reported to the legislative body and other officials (see California Government Code Section 53646(b)(2)).

The importance of the investment policy is underscored by the development of model investment policies during the 1980s by both the Association of Public Treasurers of the United States and Canada (APT US&C) and the Government Finance Officers Association (GFOA). The APT US&C also has established a certification program for investment policies. A model policy and certification program can be found on the web sites of these associations (see www.gfoa.org and www.aptusc.org, respectively).

CONSIDERATIONS FOR DEVELOPING AN INVESTMENT POLICY

Development of an investment policy is an important early step toward achieving a comprehensive and professional investment program. However, before drafting a policy, the investment official should identify the objectives of the investment program and the resources available to support the program. Many elements of the investment policy are a product of both the objectives of the agency and the resources available to

reach those objectives. Identifying objectives and resources requires that the following information be collected:

- **TYPES OF FUNDS TO BE COVERED BY THE POLICY.** Local agencies should ascertain the types of funds to be addressed by the investment policy; typically, these funds are operating, capital improvement, bond proceeds, and pension.³³
- **LIQUIDITY (CASHFLOW) REQUIREMENTS.** In developing an investment policy, a local agency should carefully analyze its revenue and spending patterns for operating funds, capital funds, bond funds, or pension funds. This information is crucial to determining the agency's liquidity needs (see *Chapter 3, Cashflow Forecasting* below).
- **OTHER AGENCY FUNDS INVESTED.** If the local agency is investing the funds of other government agencies, it should ascertain the nature of the other funds invested and the liquidity requirements of the investors.
- **POLITICAL AND COMMUNITY CLIMATE.** The risk tolerance of the local agency management and the elected officials should be defined in developing an investment policy. A recent history (or incident) of investment losses in the agency or nearby agencies may cause heightened sensitivity to certain investment practices.
- **GOVERNMENT ACCOUNTING STANDARDS BOARD (GASB) 31.** The degree of comfort of the agency's financial management officials with the investment-related implications of GASB 31 must be ascertained. The rules require that unrealized gains (losses) be recognized as income (a deduction from income) on the agency's financial statements at the

³³ Special rules or standards are applicable with respect to the investment of pension funds and proceeds of bond issues (see *Chapter 4, Tax-Exempt Bond Proceeds Investment* and *Chapter 4, Pension Fund Investment*).

end of each year. The longer the maturity (or duration) of the investment portfolio, the higher is the probability that there will be significant unrealized gains or losses.

- **LEGAL AND POLICY CONSTRAINTS.** State and local laws related to permitted investments, reporting, and investment policies must be reviewed carefully to determine which laws, policies, or charter restrictions may apply to investment policy development, including banking and broker relations.
- **STAFF CAPABILITIES.** The local agency should examine the skills and knowledge of internal staff and/or consultant expertise. Local agencies should identify who will have investment responsibilities and whether there is adequate back-up staff available should the designated investment official(s) be absent.
- **RESOURCES.** The evaluation should consider the resources available for investment of funds. The extent to which the agency can provide funding and commitment to support a professional in-house investment program (including investment management tools and credit evaluation services) should be considered.
- **INVESTMENT EVALUATION.** Lastly, the local agency should examine how the investment program and investment results will be evaluated. The evaluation should relate investment objectives to quantifiable performance measurements (see *Chapter 3, Evaluating a Portfolio* below).

ELEMENTS OF A COMPREHENSIVE INVESTMENT POLICY

California Government Code Section requires county governments that choose to produce an investment policy to meet certain reporting requirements. Section 27133 states that an investment policy prepared for an oversight committee shall include the following information:

“(a) A list of securities or other instruments in which the county treasury may invest, according to law, including the maximum allowable percentage by type of security.

(b) The maximum term of any security purchased by the county treasury.

(c) The criteria for selecting security brokers and dealers from, to, or through whom the county treasury may purchase or sell securities or other instruments. The criteria shall prohibit the selection of any broker, brokerage, dealer, or securities firm that has, within any consecutive 48-month period following January 1, 1996, made a political contribution in an amount exceeding the limitations contained in Rule G-37 of the Municipal Securities Rulemaking Board, to the local treasurer, any member of the governing board of the local agency, or any candidate for those offices.

(d) Limits on the receipt of honoraria, gifts, and gratuities from advisors, brokers, dealers, bankers, or other persons with whom the county treasury conducts business by any member of the county treasury oversight committee. These limits may be in addition to the limits set by a committee member’s own agency, by state law, or by the Fair Political Practices Commission.

(e) A requirement that the county treasurer provide the county treasury oversight committee with an investment report as required by the board of supervisors.

(f) The manner of calculating and apportioning the costs, authorized by Section 27013, of investing, depositing, banking, auditing, reporting, or otherwise handling or managing funds.

(g) The terms and conditions under which local agencies and other entities that are not required to deposit their funds in the county treasury may deposit funds for investment purposes.

(h) Criteria for considering requests to withdraw funds from the county treasury, pursuant to Section 27136. The criteria shall include an assessment of the effect of a proposed withdrawal on the stability and predictability of the investments in the county treasury.”

The information required in Section 27133 may serve as the basis for local governments other than counties to develop their investment policies. As stated above, the GFOA offers a model investment policy for local agencies to use as a reference point for developing their own policies. It is important, however, that the local agency tailor the investment policy to meet its needs and funds rather than simply adopt a generic policy. Each agency is unique. What is appropriate for one jurisdiction or fund may not be appropriate for another.

Nevertheless, there is widespread agreement that certain common elements should be addressed in any comprehensive investment policy. The investment policy should include the following elements:

- Scope
- Objectives
- Authorized Dealers and Financial Institutions
- Authorized Investments
- Delegation
- Ethical and Legal Standards
- Internal Controls
- Investment Oversight Committee
- Reporting

- Risk mitigation
- Safekeeping and Custody
- Adoption and Amendments
- Appendices

Scope

The investment policy should include a statement as to which fund or funds the policy covers (i.e., operating funds, bond proceeds, or pension funds). It is strongly recommended that separate investment policies should govern funds with different characteristics, such as operating funds and pension funds, or operating funds and bond funds, as the considerations described in the policy may need to be different for such different types of funds. The investment policy also should specify whether it incorporates the funds of other local government agencies.

Objectives

The investment policy should include a section identifying the agency’s objectives relative to the goals of safety, liquidity, and yield (often referred to as SLY), and should specifically identify priorities. These three goals cannot be maximized simultaneously. Maximizing yield, for example, necessarily entails taking greater risk with respect to safety and/or liquidity. Vague or contradictory statements, such as “the objective is to maximize yield and minimize risk” should be avoided. For public agency funds, the primary objective (as required by California Government Code Section 53600.5) should always be safety of principal; this objective can be stated as a preference for avoiding loss of principal on each individual investment, or alternatively, an expression of concern for avoidance of loss on the portfolio as a whole. In either case, the preference for safety should be stated explicitly in order to avoid future misunderstandings between the investment officer and other officials.

Generally, a second and equally important objective for most types of funds, especially operat-

ing funds, will be liquidity. This typically means ensuring that adequate cash is on hand to meet spending requirements; it also may include holding highly marketable securities in the portfolio (i.e., ones that can be easily liquidated if the need arises). As a third objective, yield should be the least important goal of investment performance for public funds, and it is strongly recommended that the yield goal be stated as the attainment of a “market rate of return” (i.e., a return commensurate with the return on similar investments with a similar maturity structure as the agency’s portfolio). A statement of an objective for anything greater than a market rate of return should be accompanied by an explicit description of risks that the agency finds acceptable to undertake in order to achieve the above-market return. For funds other than operating funds, such as capital improvement or bond funds, it may be appropriate to sacrifice some liquidity in the short run to obtain greater yield. As noted above, certain investments, such as reverse-repurchase agreements, can be used to enhance liquidity on a short-term basis.

In addition to safety, liquidity, and yield, the “objectives section” of an investment policy also should include a statement that all investments will be in conformance with California state law and any local ordinances and policies, as appropriate. Also, a statement to the effect that the investment of public funds is a task that must maintain the public trust would be appropriate in the investment policy.

Authorized Dealers and Financial Institutions

The investment policy should specify the requirements that must be met by those financial institutions and dealers that desire to sell investment securities to the agency, including how frequently such information should be updated. Some common requirements include:

- Brokers/dealers must qualify under the Security and Exchange Commission’s (SEC’s)

Rule 15c3-1 (Net Capital Requirement for Brokers and Dealers);

- Brokers/dealers should be properly registered with the appropriate federal and state regulatory bodies (e.g., SEC, Municipal Securities Rulemaking Board (MSRB), Financial Industry Regulatory Authority (FINRA), California Department of Corporations); and
- Brokers/dealers should sign that they have received a copy of the local agency’s investment policy along with the submission of a broker/dealer questionnaire to the local agency.

The investment policy should require that a list be maintained of those institutions that meet the qualifications; it is recommended that this list be provided in an appendix to the policy so that it can be updated as needed without amending the policy itself.

Authorized Investments

In the case of bond proceeds, the policy should reference the bond documents, which specify how bond proceeds are to be invested. For operating reserves, the investment policy should enumerate all authorized investments. This list should reference applicable state law specifically (not simply stating that the “investments must comply with California Government Code Section 53601”) as well as any local ordinances and policies. The following information should be explicitly stated in the investment policy:

- The maximum allowable percent of portfolio permitted for each type of investment (e.g., bankers acceptances are limited to no more than 40 percent of the portfolio);
- The minimum credit rating requirements for each investment (e.g., all commercial paper shall be rated “A-1” or higher, or the equivalent, by a nationally recognized statistical-rating organization (NRSRO));

- The maximum allowable maturity by type of investment (e.g., bankers acceptances shall have a maximum maturity of 180 days);
- The maximum percent of an issuer permitted in a portfolio (e.g., local agencies may not purchase more than 10 percent of outstanding commercial paper of any single issuer);
- Any limitations or restrictions on repurchase agreements and reverse-repurchase agreements, including any requirement for a Master Repurchase Agreement;
- Other requirements such as collateralization or restrictions on purchases of thinly traded issues;
- The requirements for securities lending agreements (see *Chapter 2, Individual Instruments, Securities Lending Agreements*, for a description);
- The requirements for derivatives (see *Chapter 2, Terms Relating to Financial Products, Derivative*, for a description);
- Mark-to-market requirements;
- Other restrictions relating to diversification;
- Procedures for selling securities at a loss (whether review of legislative body/oversight committee is necessary);
- Procedures for dealing with securities that are out of compliance after purchase; and
- Policy exemptions.

Example

Below in Figure 11, is a table that might be used in an investment policy to summarize the authorized investments and restrictions. The local agency's requirements might be stricter than the requirements of the California Government Code. In this example, the agency only allows the purchase of U.S. Treasury securities up to a maximum maturity of three years, whereas state law allows up to five years and possibly longer if approved by the legislative body specifically or as part of an investment program no less than 3 months prior to the investment.

Figure 11

TYPE OF INVESTMENT	MAXIMUM % OF PORTFOLIO	RATINGS REQUIREMENTS	MAXIMUM MATURITY	MAXIMUM % OF ISSUE	OTHER RESTRICTIONS
U.S. Treasury Securities	100 %	N.A.	3 years	N.A.	
Bankers Acceptances	25 %	A-1 or P-1	180 days	5 %	No more than ten percent of portfolio in a single issuer; Domestic issuer; Issuer has long-term debt rated A or higher
Commercial Paper	15 %	A-1 or P-1	270 days	5 %	Assets > \$500 MM; Issuer has long-term debt rated A or higher; publicly traded

Delegation

If the authority to make investments rests with individuals other than the primary investment official, the investment policy should identify these individuals and/or positions and define their areas of responsibility and authority. If any or all of the investment responsibility is delegated to an external money manager, the investment policy should specify what elements of the investment process are to be delegated and who has responsibility for monitoring the activities of the money managers. Any contracts with external money managers should incorporate the written investment policy.

Ethical and Legal Standards

An ethical and legal standards section should be incorporated within the investment policy (e.g., the prudent investor standard and conflicts of interest). It should cite the legal authority for making the investments and state that the investment official will act in accordance with the “prudent investment standard,” which should be described in detail (see *Chapter 1, Role of the Investment Official, Fiduciary Responsibilities and Prudent Investor Standards*). The agency’s conflict of interest restrictions also should be referenced and what positions are subject to the restrictions.

Internal Controls

The investment policy should include a statement delineating responsibility for establishing and maintaining an internal control structure, as well as a provision for regular audits of internal control procedures. The policy also should specify how and which investment decisions require documentation by the investment staff.

Investment Oversight Committee

The investment policy should discuss the role of the investment oversight committee, if any, and its

relationship to the investment official. The policy should cite the authority to create the committee. The type, frequency and format of reports submitted to the committee should also be included in the policy. California Government Code Section 27133 itemizes the elements that must be included in the county investment policies if an investment oversight committee is established (see *Chapter 1, Role of the Oversight Committee*).

Reporting

The investment policy should include a section discussing reporting of investment transactions and portfolio reports. This section should include what reports will be completed, what elements will be covered, and who will receive the report. Care should be taken to cover those items required by the California Government Code, as well as any local requirements (see California Government Code Sections 53607 and 53646(b) and *Chapter 3, Investment Reporting*). In addition to the elements required by California state law, a comprehensive investment report also should include the average maturity and/or duration of the portfolio as well as the current and cumulative performance of the portfolio. Performance is generally presented as investment “yield”, but local agencies should consider reporting of the portfolio “total return” as well, especially if there is a comparison of the portfolio’s performance with common indices. (See additional discussion of “total return” under *Chapter 1, Role of the Legislative Body, Key Questions to Ask Investment Staff* and *Chapter 3, Evaluating a Portfolio*). If the policy objectives include a desire for the investment return to match a specific return index, the report should provide a comparison of actual results with the chosen index.

Risk Mitigation

The investment policy should describe how the portfolio will be constructed to mitigate risk (see *Chapter 2, Terms Relating to Investment Evalu-*

ation, Safety, Description of Types of Investment Risk). Areas that should be covered include:

- **ACTIVE VERSUS PASSIVE MANAGEMENT.** The investment policy should be specific as to whether investments will be managed actively or passively. See *Chapter 3, Structuring A Portfolio, Portfolio Structuring Strategies And Concepts* below for a discussion of passive and active investment strategies. A local agency would choose an active investment strategy if (1) the agency's investment objective was to achieve a yield that exceeds market average yields, and (2) if the agency is willing to accept the risk that the yield might be lower than the market average return under some circumstances. A passive investment strategy would be appropriate in jurisdictions that choose to accept a market average yield, or with few resources to commit to investment management and/or a very small portfolio.
- **COLLATERALIZATION REQUIREMENTS.** Some investments provide the investor with additional protection from default in the form of "collateral." Collateral means securities, cash, or other assets that are pledged by the issuer to be given to the investor in a situation where the issuer is not able to pay interest and/or principal on the investment. Collateral usually is held by a third-party for the sole benefit of the investor and is given to the investor in the event of default. California state law requires collateralization of public deposits in banks, thrift institutions, and credit unions, including basic checking accounts, savings accounts, and time deposits. Since the first \$100,000 of a deposit in a federally insured institution is backed by insurance, many public agencies waive collateral as a courtesy to the banking institution as it along with insurance is redundant (see *Chapter 2, Individual Investments, Bank Deposits*). Most investments, including U.S. Treasury obligations, federal agency notes (except mortgage-pass-through securities, which are collateralized with mortgages), and most corporate obligations are not collateralized. For non-collateralized securities, an investment policy should require specific reference to credit ratings by recognized credit rating agencies.
- **DIVERSIFICATION ISSUES.** The investment policy should discuss how the investments will be diversified according to types of securities, maturities of securities, and issuers (see California Government Code Sections 53601, 53601.7, 53601.8, 53635 and 53635.8 for percentage restrictions on certain types of securities). For agencies with small portfolios, a practical way to achieve diversification is to invest funds in a money market fund or a qualified investment pool such as the State Local Agency Investment Fund (LAIF), county, or JPA pool; such pools also have the benefit of providing both a wide range of maturities and a high degree of liquidity. Should the agency elect to place funds in a pool, it must recognize that this decision requires the same kind of risk analysis, due diligence, and oversight as any other type of investment.
- **MATURITY RESTRICTIONS.** The investment policy should specify maximum maturity restrictions, both by individual security and for the portfolio as a whole; prohibitions against high concentrations of investments in a single maturity range also should be considered in order to reduce the impact of interest rate changes on the value of the portfolio and/or on reinvestment opportunities.
- **CASHFLOW NEEDS.** The investment policy should identify what actions are permitted should there be a need to raise cash (e.g., sales of securities and reverse-repurchase agreements). References to the requirements of California Government Code Section 53646(b)(3) regarding the agency's ability to meet expenditure requirements for the next six months may be appropriate in this section.

Safekeeping and Custody

The investment policy should specify that all security transactions be conducted on a delivery-versus-payment basis. It also should be stated that securities will be held by a third-party custodian and that receipts of holdings will be matched against confirmations on a timely basis. A third-party custodian has a fiduciary responsibility to the agency for whom securities are being held and not to other parties in the transaction, such as a broker/dealer (see *Chapter 1, Role of the Custodial Bank*).

Adoption and Amendments

The investment policy also should discuss the steps required for submission and adoption of the investment policy, including future amendments as well as the frequency of submission, referencing the requirements of the California Government Code as appropriate (see California Government Code Section 53646(a) and *Chapter 3, Investment Policy, Elements of a Comprehensive Investment Policy, Submission Processes for Investment Policy*, below).

Appendices

The investment policy may include the following topics as appendices:

- Glossary of all investment-related terms used in the policy and reports;
- Copies of relevant laws and policies;
- Copies of agreements (e.g., wiring, safekeeping, and master repurchase agreements);
- List of authorized brokers/dealers and issuers;
- Methods for calculating yield or return; and
- Conflict-of-interest restrictions for investment staff.

SUBMISSION PROCESSES FOR AN INVESTMENT POLICY

California Government Code Section 53646(a) sets guidelines for how local officials should submit an investment policy for approval. It distinguishes between county treasurers and all other local officials.

The county treasurer may present annually an investment policy to both the board of supervisors and any oversight committee, which must then be reviewed and approved by the board of supervisors at a public meeting. The same process shall be followed for any amendments to the policy. California Government Code Section 27133 requires that if an oversight committee is created, an investment policy shall be presented to it for the committee to review and monitor.

For all other local agencies, the treasurer or chief fiscal officer may render annually an investment policy to the legislative body and any oversight committee, which the legislative body of the local agency is required to consider at a public meeting. Again, as with counties, any amendments to the policy must follow the same process. State law has no requirements for non-county oversight committees with regard to actions on investment policies.

RECOMMENDED PRACTICE. Prior to any annual submission of the investment policy to the legislative body, it is prudent for the treasurer or chief fiscal officer to review the policy and to solicit recommendations for possible changes from investment staff, management, and any investment oversight committee. Changes to state law also should be incorporated into the policy.

Although there is no legal requirement for an oversight committee, local agencies should consider the value of having an independent advisory or oversight committee to provide local officials and their staff with an independent perspective on their investment process and insight when

considering changes in investment strategy. If there is an oversight committee, it is prudent that proposed changes to the investment policy be reviewed by the committee prior to submission of the policy to the legislative body. If changes to the policy are substantial, the treasurer may wish to consider asking that the chair or other member of the oversight committee attend the public meeting at which the policy is to be considered and/or adopted. This can provide assurances to the legislative body, as well as to the public, that the policy changes have been adequately and thoroughly reviewed.

HOW TO EVALUATE AN INVESTMENT POLICY

The GFOA has developed a model investment policy against which an agency can compare its own policy (see GFOA website, www.gfoa.org/downloads/sampleinvestmentpolicy.pdf). In addition, the Association of Public Treasurers of the United States and Canada has a model investment policy tutorial and an Investment Policy Certification Program (see www.apтусc.org), which provide guidance in the development of investment policies and offer the assistance of a Certification Committee that will review an investment policy to determine if it meets the standards of the APT US&C. Agencies with an investment policy should review it at least annually to evaluate whether it is current and consistent with state law, local laws and policies, and prudent investor standards.

INVESTMENT REPORTING

The California Government Code specifies reporting requirements for the investment programs of local agencies. Reports provide information about the investment program and the investment policy to the local agency's governing body, oversight committee (where applicable), executive staff, auditors, and the public.

MONTHLY REPORTING

California Government Code Section 53607 authorizes a legislative body to delegate the investment function to the local agency's treasurer. A treasurer who has been delegated the investment function, must submit a report of investment transactions to the governing body each month.

QUARTERLY REPORTING

California Government Code Section 53646(b) states that a treasurer or chief fiscal officer may prepare and submit quarterly reports to the chief executive officer of the agency, the internal auditor, and the body of the agency that provide specified information about the investment program. The legislative body may elect to receive the report on a monthly basis rather than quarterly (see California Government Code Section 53646(d)).

If provided, the quarterly report should include a description of all investments held in the investment portfolio. The description should include all of the following information:

- The type of investment (i.e., U.S. Treasury security, commercial paper);
- The issuer;
- The maturity date;
- The par value of each investment;
- The cost of each investment (“dollar amount invested”);
- The credit rating of each investment at the time of the report; and
- The market value of each security (except LAIF and securities held by another local agency), and the source of the market valuation, which might be a pricing service or the agency's custodial agent.

In addition to the description of investments, the quarterly report also must include a description of any of the local agency's funds, investments, or programs that are under the management of outside parties, such as LAIF, investment pools, outside money managers, and securities lending agents.

California Government Code Section 53646(b) also recommends the quarterly report include the following:

- A statement of compliance of the portfolio to the statement of investment policy, or any deviations from full compliance.
- A statement denoting the ability of the local agency to meet its expenditures for the ensuing six months, or provide an explanation as to why sufficient money will not, or might not be available.
- Any additional information that the government body deems necessary or useful in overseeing the investment function.
- For local agency investments that have been placed in LAIF, in a county investment pool, or in insured accounts in credit unions, banks, or savings and loan association, the treasurer or chief fiscal officer may supply the most recent statement or statements received by the local agency from these institutions in lieu of the information described above.
- The treasurer is not required to submit a quarterly report, as described above, to a legislative body or any oversight committee of a school district or county office of education for securities, investments, or moneys held by the school district or county office of education in individual accounts that are less than \$25,000.

ANNUAL REPORTING

The treasurer of every California local agency should consider submitting to its legislative body

and oversight committee (if any) a statement of investment policy according to California Government Code Section 53646(a).

A county treasurer may provide the statement of investment policy for “review and approval” by the board of supervisors. Local agencies that are not counties may submit their statements of investment policy (and any changes to the policy) to be considered by the governing body at a public meeting.

EXAMPLE

A sample quarterly investment portfolio report is included in Appendix B.

CASHFLOW FORECASTING

This section provides a description of cashflow forecasting, discusses the purpose and legal requirements for cashflow forecasts, and discusses the considerations for different fund types. In addition, it discusses elements to consider when conducting cashflow forecasting for operating funds and capital funds.

The effective marshalling of cash resources to maximize investable funds, while ensuring cash availability when needed, is the objective of cash management in any organization—either public or private. Essentially, the point is to remain as invested as possible while retaining cash balances sufficient to meet liquidity needs.

An integral first step in the effective cash and investment management process is determining how much money is available to invest and what the term of investments should be. Cashflow forecasting, which is the process of estimating projected future cash inflows and outflows on the basis of a combination of (1) historical recurrent cashflow data, (2) assumptions about how historical data will change over time, and (3) current information about expected non-

recurring cashflows, assists in the determination of the amount of investable cash and the appropriate term of investments. The cashflow forecast will use this information to project future cash receipts, disbursements, and cash balances on a daily, weekly, or monthly basis, depending upon the user's goals.

PURPOSE OF CASHFLOW FORECASTS

A cashflow forecast is intended to help an agency understand and, to the extent possible, control the organization's cash resources. The goal is to ensure that cash is available to pay expenditures when needed and that temporarily unneeded cash can be invested optimally in order to maximize earnings on invested funds. Secondarily, observed patterns in cashflow data (increasing property tax revenues or decreasing interest income, for example) can assist local agency financial staff in budgeting for future years by making officials aware of longer-term trends in the agency's cashflow.

LEGAL REQUIREMENT

California law does not specifically mandate the preparation of a formal cashflow forecast. However, California Government Code Section 53646(b)(3) recommends that if a local agency treasurer or chief fiscal officer provides a quarterly report to the legislative body, then it must include a statement that the agency has the ability to meet its expenditure requirements over the ensuing six months. The cashflow forecast provides the basis and support for making that statement.

CONSIDERATIONS FOR DIFFERENT FUND TYPES

Cashflow forecasts are used in developing investment strategies for operating and special purpose funds in the local agency treasury. The discussion of cashflow forecasting in this *Investment Primer* focuses primarily on forecasts of these types of

funds. Cashflow forecasting of bond proceeds and pension funds rely on other factors specific to the nature of these funds.

Structuring and sizing of public agency bond issues, as well as the investment of bond proceeds, necessitates the use of cashflow forecasting to meet both project expenditures and debt service requirements. A cashflow forecast for spending on a capital project that uses internally-generated funds, rather than bond funding, will resemble the cashflow forecast for expending bond proceeds.

Public pension funds use special actuarial forecasting techniques and studies to determine whether the fund's assets will be sufficient to pay its liabilities over the long run and to determine contribution rates into the fund. They are more concerned with the larger question of how to use plan assets to meet plan liabilities, which consist primarily of retirement payments to plan participants as well as anticipated healthcare obligations. Previously healthcare for retired persons was handled on a pay-as-you-go basis, now new legislation requires pension funds to adequately fund their pension plays for expected healthcare obligations going forward. Most pension funds employ specialized pension consultants and actuaries to assist them in making assumptions and studies about long-term returns on investable asset classes, demographics of the plan's participants, contribution rates, funding ratios, and future estimates of plan liabilities.

Cashflows from pension funds, coming primarily from employer and active employee contributions to the plan, plus proceeds from investment transactions are used to pay current liabilities (e.g., retired employee pension payments), or are reinvested by the plan's investment staff, external investment managers, or investment advisors.

CASHFLOW FORECASTING FOR OPERATING FUNDS

Importance of Cashflow Forecasting

Cashflow forecasting creates a number of benefits for the agency, including the following:

- Increasing the probability that cash will be sufficient, but not excessive, in relation to current cash needs of the local agency;
- Allowing for some investment in longer-term or less liquid investments, which under a normal market environment will add incremental yield to the investment portfolio.
- Allowing the agency to match liabilities with portfolio cashflow to avoid the necessity to sell securities prior to maturity or enter into any other potentially disadvantageous financing transactions, in order to meet demands for cash;
- Permitting investment earlier in the day, when short-term investments are often more readily available and bear higher yield;
- Serving as an early warning of possible changes in the organization's cashflow trends, including how proposed new projects or changing economic conditions might impact the cashflow;
- Providing a good database for a local agency to more accurately calculate forecasts of interest earnings for budgetary purposes for the current and future fiscal years;
- Enhancing inter-departmental cooperation, since good cashflow forecasting requires cooperation and input from diverse segments of the organization, including purchasing, accounts payable/receivable, and capital spending;
- Increasing awareness of cashflow inefficiencies within the organization, thus providing

opportunities to improve cash processing and making more funds available sooner for investment; and

- Avoiding costly bank account overdrafts.

Opportunity Costs

Many of the costs associated with poor or non-existent cashflow forecasts are opportunity costs, which are actual, though sometimes difficult to quantify, economic costs. For example, if the balance in a non-interest bearing account is greater than zero, the opportunity cost is the amount of foregone interest earnings that the public agency could have earned on that money if it were invested in an interest-bearing account. If a poor cashflow forecast results in high balances remaining in overnight investments instead of in higher yielding, longer-term investments, the opportunity cost is the difference in interest earnings between the overnight and longer-term investment vehicles. If a poor cashflow results in the local agency having to sell a security to meet a known operating obligation, the opportunity cost is the cost of selling the security, which may include an actual loss of principal if the security is sold at a price lower than purchased.

Recommendations for Mitigating Opportunity Costs

In an ideal world, the best mitigation of opportunity costs would be to have all funds invested, and no funds remaining in non-interest bearing accounts. A bare minimum would be maintained in (usually) lower-yielding, very short-term vehicles; investment in higher yielding (usually longer-term) vehicles would be maximized.

Most treasurers would concur that in the real world, cashflow forecasting can never be that precise. Checks do not always clear as expected; cash receipts can be delayed; unexpected cashflow expenditures can occur. This reality has given rise to the development of techniques for mitigation

of opportunity costs related to imprecise cashflow forecasting. These include the following:

- Checking bank balances at least once a day in order to determine if investable funds have accumulated there, which could be placed in a “late-day” investment;
- Maintaining a database of agency vendors and their history of cashing checks. This will provide for a more informed estimation of necessary daily checking account balances and allow excess daily balances to be invested in higher yielding assets;
- Maintaining a sweep account in conjunction with the demand account so that any cash remaining in the bank account is automatically moved into an interest-bearing investment vehicle;³⁴
- Using Zero Balance Accounts (ZBAs) to serve as disbursement and depository accounts. At the close of each day, the checks and debits for the agency presented to the ZBA are automatically covered by a transfer of funds from an operating account, bringing the ZBA to a daily closing balance of \$0;
- In normal market environments, where investment rates increase as maturities are extended, reducing balances maintained in overnight investments and purchasing securities with slightly longer maturities to increase yield;
- Acquiring some form of overdraft protection to avoid excessive costs of negative bank balances; and
- Using local and remote controlled-disbursement facilities that provide check presentment settlement information, generally at two different times in the morning (approximately at 6am and 9:30am) to more accu-

rately invest surplus funds and meet daily disbursement obligations; and

- Have checks cut for accounts payable reduced from daily to only once or twice a week thereby increasing the agency’s accounts payable float.

In addition, treasury staff may wish to consult with their banker professionals to determine what other techniques are available and suitable for each individual local agency to mitigate opportunity costs.

Roles and Responsibilities Related to Cashflow Forecasting

In most local agencies, the treasurer and/or finance department staff bears the responsibility for preparing cashflow forecasts. While the treasurer has the responsibility for managing an effective investment program, the historical data required to build a cashflow forecast usually can be found within the finance department. Officials responsible for maintaining records of cash receipts and disbursements may be the finance director, the chief fiscal officer, the auditor/controller, or equivalent department in any local agency.

One of the most difficult aspects of the cashflow forecasting process can be obtaining information about non-recurring or unusual cashflows. This information may lie within departments that are not aware of the importance of notifying the treasurer of large cash inflows/outflows. For example, the cash purchase of a new fleet of police cars can have a significant impact on the treasurer’s ability to marshal cash resources effectively. Creating awareness within the local agency of the importance of communicating cashflow information within each department is an ongoing process of education and training, for which the treasurer bears a significant responsibility.

³⁴ For information on the use of sweep account, see CDIAC’s publication *The Use of Sweep Accounts by California Local Governments*.

Sources of Cashflow Information

Public agencies receive cash from many sources, including local taxes, remittance of the local share of taxes collected by the State, grants, bequests, borrowings, interest earnings, maturing investments, and many more. They use cash to pay operating expenses, such as payrolls, vendor payments, current capital costs, and the like. Sometimes cash is earmarked for a special purpose. For example, bond proceeds must be spent on the project the bond issue is financing.

Most local agencies maintain detailed cashflow records within the finance department. Some sources include check or warrant registers, accounts payable/receivable information, and records of receipts of cash from other local agencies, the state and federal government, and departmental deposit records.

The agency's budget documents and legislative analysts can provide assumptions regarding adjustments to historical data to more accurately reflect expected future cashflows.

Close, ongoing coordination among the treasurer, the chief fiscal officer, and legislative and/or revenue analysts is important for accurate cashflow forecasting.

Types of Operating Cashflow Forecasts

There are three types of operating cashflow forecasts:

- The daily cashflow forecast helps determine how much cash is available for investment today, after all cash receipts and disbursements are identified. It employs known bank balance information, expected bank deposits, anticipated check presentments during the day, known wire transfers, interest payments, investment maturities, and sales or purchases to form the basis for the daily investment of cash balances.
- The short-term forecast generally projects cashflow for the current fiscal year, with the

purpose of determining seasonal cashflow peaks and deficits. These forecasts assist investment staff in planning investment maturities to coincide with dates when cash will be needed, as well as determining how much, if any, is available for longer-term investments. It also is used to make revisions to interest earnings forecast during the fiscal year.

- The long-term forecast, which may cover the current and future fiscal years, helps in long-term organizational budgeting, interest earnings forecasts, and financial planning. It is primarily used to determine cashflow trends for financial planning (e.g., forecasting necessary changes to rates charged for public services or the need for financing large expenditures).

The Daily Forecast

The daily cashflow forecast provides the investment staff with information regarding the cash available for today's investment. The development of the daily cashflow forecast requires coordination between the cash management staff, the agency's banks, and departments responsible for tracking cash inflows and outflows.

EXAMPLE. Figure 12 shows a typical daily cashflow worksheet.

The daily forecast begins with the previous day's closing available bank balance. In order to receive the best investment rates, most public agencies obtain this information from their banks via Internet access early in the morning. To this beginning balance are added any immediately available funds expected to be received into the account. Immediately available funds include, among other things, the proceeds of maturing investments, securities sales, interest and dividend income, incoming wire transfers, and "zero-float" deposits. Zero-float deposits are cash and check deposits that are drawn on the same bank where the local agency has their bank account and are not cleared through a controlled-disbursement facility of

Figure 12
CASH AVAILABLE FOR INVESTMENT

Previous day closing available bank balance	
CREDITS:	
Maturing investments/ securities sales	
Interest receipts	
Wire transfers in	
Estimated daily deposit	
Other receipts	
DEBITS:	
Investment purchases	
Wire transfers out	
Checks/warrants anticipated to clear	
Debt service payments	
Payroll transfers	
Other debits	
CASH AVAILABLE:	
Less amount required for compensating balance (if applicable)	
INVESTABLE BALANCE:	

that same bank (e.g., XYZ Bank through their XYZ Bank in Atlanta, Georgia).

The next step in the process is to subtract cash outlays. Expected cash outlays include, for example, investment purchases, outgoing wire transfers, outstanding checks or warrants that are estimated to clear during the day, debt service payments, and payroll transfers. The result is “cash available.” If the agency has a requirement to maintain a compensating balance with the bank, that amount is then subtracted from cash available to obtain the investable balance.³⁵ If a local agency does not want to pay their bank directly for services in cash they can elect to leave funds on deposit with their bank in an amount that will pay for the services rendered. The required amount of compensating balance is determined by a formula where the bank first establishes an interest rate that is multiplied times the balance left on deposit, less the federal insured amount required (approximately 10 percent), times the number of days on deposit to determine the earnings credit amount. This amount is used as an offset against the fees for banking services that can be over or under the actual amount required to fulfill the local agency’s obligation to the bank. Any adjustment typically would be handled by adjusting the required compensating balance in the next calculation period.

If the investable balance is greater than zero, the investment staff can use the balance to purchase securities or make other investments that will facilitate cash availability for future dates and increase interest income for the agency.

If the investable balance is less than zero, the staff can transfer funds into the bank account or can execute a same-day sale of investment securities to cover the cash deficit. If a same-day sale of an investment is contemplated, then the lo-

³⁵ Local agencies who use compensating balances to offset banking charges may wish to consider direct payment of those charges. Due to the fact that bank balances do not earn interest, under most circumstances, compensating balances are more expensive than direct payment of bank charges.

cal agency staff must be aware of daily cash trade settlement deadlines for their broker/dealer and custody bank to effect the timely execution of the sale. Also staff must be aware of settlement issues of same-day security sales that may not be available due to securities lending.

Short-Term Cashflow Forecast

While many municipal cashflows are regular and predictable, agencies experience a timing mismatch of revenues and expenditures over the course of the fiscal year. The majority of property taxes, for example, are received in large increments during two seasonal periods during the year, typically around April 10th and December 10th. On the other hand, payroll expenditures occur regularly. The goal of creating a short-term cashflow forecast is to estimate the organization's net cash position on any day during the fiscal year. The cash manager can then plan to invest cash when available to future dates when cash deficits are expected, thus using the investment portfolio to even out the organization's cashflow.

The short-term cashflow forecasting process has three elements:

- Historical data on recurring cashflow streams;
- Assumptions regarding how historical cashflow will be translated into the future (e.g., some cashflow streams may be growing while others are dwindling) based on past patterns and current budget/forecasts; and
- Non-recurring cashflows such as cash inflows from debt issuance and grants, or outflows for large one-time expenditures or legal settlements.

In order to create a short-term cashflow forecast, the agency must identify major receipt and disbursement streams and track the cashflow from these streams. Although receipt and disbursement streams vary between different agencies and funds, receipt streams might include such categories

as sales tax revenues, property taxes, various fee revenues, and rents received. Expenditure categories include payroll expenses, operating expenses, debt service on outstanding bonds, payments to vendors, and rent paid.

The first step in preparing the short-term cashflow forecast is to gather and record in a spreadsheet historical data on these cashflow streams by category for each day. To create the forecast, historical data is adjusted on the basis of assumptions about how the cashflow streams will change in the future. The revenue/expenditure budget can be the source of these adjustments, as well as forecasts of national, state, and local economic conditions, interest rates, newly enacted legislation, and demographic trends.

Any known, non-recurring cashflows, such as those described above, are then included in the spreadsheet on the dates they are expected to occur.

The spreadsheet sums the daily cash receipts and expenditures to create a net cash position for each day. The investment official can target maturities to dates where the net cash position is negative and then can use net positive cashflows to fund future deficits or for longer-term investing.

Figure 13 is an excerpt from the short-term cashflow forecast of a medium-sized California city. This excerpt projects cash receipts and disbursements on a daily basis for a two-week period for major receipts, disbursements, and investments. Note that the first four days represent actual figures, which the treasurer has input. The remainder of the period displays forecasts for the major categories, based on prior years' information, as modified by assumptions and facts that are known to the treasurer. The treasurer will use the forecast to determine when investments must mature to cover negative daily cashflows, as well as how much and when treasury funds are available for longer-term investing.

Many agencies, particularly smaller ones, may not have the resources, staff, and/or time to de-

Figure 13
SHORT-TERM CASHFLOW FORECAST EXAMPLE*

	ACTUAL MON. 2-FEB-09	ACTUAL TUE. 3-FEB-09	ACTUAL WED. 4-FEB-09	ACTUAL THU. 5-FEB-09	ACTUAL FRI. 6-FEB-09	ACTUAL MON. 9-FEB-09	ACTUAL TUE. 10-FEB-09	ACTUAL WED. 11-FEB-09	ACTUAL THU. 12-FEB-09	ACTUAL FRI. 13-FEB-09
BEGINNING BALANCE	\$2,837,164	\$1,774,664	\$1,934,060	\$1,844,371	\$2,132,929	\$3,502,576	\$2,873,412	\$(3,046,868)	\$3,648,172	\$1,379,873
REVENUES										
Daily Deposits	2,609	625,899	226,701	270,644	112,970	205,277	218,970	235,300	235,300	235,300
Bank Card	(3,207)	6,676	4,871	4,315	3,261	7,921	4,795	4,500	4,500	4,500
Property Tax					228,878					31,167
Sales Tax										
Motor Vehicle in Lieu						687,105				
Highway Users Tax										
Judicial Data	1,895	2,490	1,735	3,115	2,219	1,875	1,600	1,600	1,600	1,600
Wittman Payment Processing Services	16,948		2,882		9,592	22,090		13,100		
Housing and Urban Development (HUD)										67,216

* Totals may not add due to rounding.

Figure 13

SHORT-TERM CASHFLOW FORECAST EXAMPLE (CONTINUED)*

	ACTUAL MON. 2-FEB-09	ACTUAL TUE. 3FEB-09	ACTUAL WED. 4-FEB-09	ACTUAL THU. 5-FEB-09	ACTUAL FRI. 06-FEB-09	MON. 9-FEB-09	TUE. 10-FEB-09	WED. 11-FEB-09	THU. 12-FEB-00	FRI. 13-FEB-09
Housing and Urban Development (HUD)	67,216									
Miscellaneous						42,719				
TOTAL REVENUES	\$85,460	\$635,065	\$236,189	\$278,075	\$356,921	\$966,987	\$225,365	\$254,500	\$241,400	\$35,667
EXPENDITURES										
Warrants Issued				\$(890,568)					\$(1,500,000)	
Estimated Clearing							\$233,303	\$(222,642)	(311,699)	\$(222,642)
Actual Clearing	\$(68,971)	\$(385,126)	\$(662,371)	(261,148)	\$(193,979)	\$(64,300)				
Payroll	(27,791)	(11,250)	(9,507)	(1,288)	(969)	(3,162)				(1,550,000)
Payroll Deductions									(200,000)	
Debt Service										
Miscellaneous	(198)	(292)		(81)		(1,688)				
TOTAL EXPENDITURES	\$(96,960)	\$(396,668)	\$(671,878)	\$(262,517)	\$(194,948)	\$(69,151)	\$(233,303)	\$(222,642)	\$(511,699)	\$(1,772,642)

	ACTUAL MON. 2-FEB-09	ACTUAL TUE. 3-FEB-09	ACTUAL WED. 4-FEB-09	ACTUAL THU. 5-FEB-09	ACTUAL FRI. 06-FEB-09	MON. 9-FEB-09	TUE. 10-FEB-09	WED. 11-FEB-09	THU. 12-FEB-00	FRI. 13-FEB-09
OPERATING CASHFLOW	\$ (11,500)	\$ 238,396	\$ (435,690)	\$ 15,558	\$ 161,972	\$ 897,836	\$ (7,938)	\$ 31,858	\$ (270,299)	\$ (1,736,975)
INVESTMENT ACTIVITY										
New Investment					\$ (2,500,000)		\$ (4,996,342)			\$ (2,500,000)
Maturing Investment					3,500,000			\$ 3,000,000		4,945,000
Investment Interest								66,000		43,750
LAIF Activity										
SWEEP Activity	\$ (1,051,000)	\$ (79,000)	\$ 346,000	\$ 273,000	120,000	\$ (1,527,000)	(916,000)	3,597,182	\$ (1,998,000)	270,000
TOTAL INVESTMENT ACTIVITY	\$ (1,051,000)	\$ (79,000)	\$ 346,000	\$ 273,000	\$ 1,207,675	\$ (1,527,000)	\$ (5,912,342)	\$ 6,663,628	\$ (1,998,000)	\$ 2,758,750
ENDING BALANCE	\$ 1,774,664	\$ 1,934,060	\$ 1,844,371	\$ 2,132,929	\$ 3,502,576	\$ 2,873,412	\$ (3,046,868)	\$ 3,632,880	\$ 1,379,873	\$ 2,401,648
SWEEP BALANCE	\$ 1,814,182	\$ 1,893,182	\$ 1,547,182	\$ 1,274,182	\$ 1,154,182	\$ 2,681,182	\$ 3,597,182		\$ 1,998,000	\$ 1,728,000
LAIF BALANCE	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079	\$ 29,999,079
INVESTMENT BALANCE	\$ 108,658,445	\$ 108,658,445	\$ 108,658,445	\$ 108,658,445	\$ 107,658,445	\$ 107,658,445	\$ 112,654,787	\$ 109,654,787	\$ 109,654,787	\$ 107,209,787

* Totals may not add due to rounding

velop detailed cashflow forecasts. In fact, even some very large agencies find that cashflows are sufficiently predictable that they do not achieve a significant benefit from a time-consuming, detailed process of daily cashflow forecasting. For such agencies, a simpler approach may provide sufficient information upon which to base a solid investment program.

In this approach to cashflow forecasting, the forecaster uses readily available historical data on major categories of cashflow together with current budget information to create a monthly cashflow projection. This simpler cashflow forecast shows monthly cash surpluses and deficits that the cash management staff can use to plan investments. Sufficient investments are targeted to mature on the first day of any cash deficit month and are then rolled over on a daily basis, or maintained in funds that strive to maintain a constant net asset value of \$1.00 such as LAIF, the California Asset Management Program, or a money market fund throughout the month, to meet cash needs on the day they occur. Any surplus cash is invested to future months that show an expected cash deficit.

Figure 14 is an example of a monthly cashflow forecast. Rows 3 through 7 display the Sources of Cash (Revenues); Rows 9 through 12 show Uses of Cash (Expenditures). The example shows a typical mismatch of cash inflows and outflows. As highlighted in Row 14, the agency experiences a net positive cashflow in only two months. The local agency uses its investment portfolio to match its cash inflows and outflows. For example, the highlighted cells in Row 22 show that investment purchases were made in only five of twelve months. There were withdrawals from LAIF in two months (Row 20); and no contributions to LAIF in the remaining months.

The cashflow project in Row 28 shows three months with negative ending balances. An ending negative balance shows that more cash was expended during the month than was received. In this example, the treasurer of this local agency

observes this projection, and plans to correct the situation by withdrawing cash from LAIF to balance the cashflows during the month. Another alternative would be to sell securities from the investment portfolio. In this alternative scenario, the treasurer would choose between LAIF withdrawals and securities sales based on an evaluation of the investment markets, considering such factors as the yield on LAIF compared to the yield on alternative investments and the opportunity cost of each alternative.

Long-Term Cashflow Forecast

Cash and budget managers can use the short-term forecast shown in Figure 12 above as a basis for creating cashflow budgets in outlying years (e.g., a three-year or five-year cash forecast). This longer-term forecast will assist in planning longer-term investments strategies, and can also aid in identifying long-term cashflow trends within the agency.

To create a long-term cashflow forecast, the agency would extend the monthly short-term forecast to future years. Treasury and finance staff may wish to collaborate on assumptions used to adjust current or historical data to fit the expected outcome in outlying years.

CASHFLOW FORECASTING FOR CAPITAL FUNDS

The preservation of capital for earmarked purposes, rather than the optimization of investment income, is the primary goal of investing capital funds, including bond proceeds. Since bond proceeds are borrowed monies, the obligation to repay the debt will remain even if there is erosion in the market value of the invested funds. Accordingly, the development of a cashflow forecast for the drawing of invested capital funds resembles the techniques used for forecasting operating funds cashflows, with certain important exceptions. The first step in the process is determining how much money is available to invest and what the term of investment should be. One must de-

Figure 14
MONTHLY CASHFLOW STATEMENT EXAMPLE (CONTINUED)
(DOLLARS IN THOUSANDS)

	A	B	C	D	E	F	G	H	I	J	K	L
	ACTUAL	ACTUAL	ACTUAL	ACTUAL	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED
	8/1	9/1	9/1	10/1	11/1	12/1	1/1	2/1	3/1	4/1	5/1	6/1
17	Maretable Securities	39,413	42,748	42,282	41,868	40,118	41,238	43,238	40,573	37,573	46,073	44,063
18	TOTAL INVESTMENTS BEGINNING	51,413	51,788	49,988	49,574	47,824	48,944	50,944	48,279	45,279	53,779	51,769
19	INVESTMENT ACTIVITY											
20	Contrib/(Withdraw)-LAIF	(2,960)	(1,334)	0	0	0	0	0	0	0	0	0
21	(Sales)/(Maturities)	(1,415)	(2,313)	(414)	(1,750)	(1,880)	(3,000)	(2,665)	(3,000)	(2,000)	(2,010)	(5,250)
22	Purchases	4,750	1,847	0	0	3,000	5,000	0	0	10,500	0	0
23	INVESTMENTS, ENDING BALANCE											
24	Ending LAIF	9,040	7,706	7,706	7,706	7,706	7,706	7,706	7,706	7,706	7,706	7,706
25	Marketable Securities	42,748	42,282	41,868	40,118	41,238	43,238	40,573	37,573	46,073	44,063	38,813
26	TOTAL INVESTMENTS ENDING	51,788	49,988	49,574	47,824	48,944	50,944	48,279	45,279	53,779	51,769	46,519
27	NET CHANGE IN CASH DUE TO INVESTMENT ACTIVITY	(375)	1,800	414	1,750	(1,120)	(2,000)	2,665	3,000	(8,500)	2,010	5,250
28	ENDING CASH	1,312	1,431	1,691	2,323	5,894	(230)	264	1,114	1,974	(4,083)	(1,001)

velop as complete an understanding as possible of what the uses of the funds will be, when those uses will occur, and in what amounts. One must follow the bond documents in order to understand the allowable use of bond funds. The process used to determine these parameters is capital cashflow forecasting, a process of estimating projected future cash outflows on the basis of a combination of (1) budgeted capital expenditures, (2) assumptions about how closely the expenditure pattern in the capital budget will match the forecast, and (3) consideration of the possibility of cost savings or overruns in the process.

Purpose/Benefits of a Capital Cashflow Forecast

The ultimate purpose of the capital cashflow forecast is to understand and, to the extent possible, control the cash resources of the capital budget. The goal is to ensure that cash is available to pay for capital goods when needed and that temporarily unneeded cash is invested optimally in order to maximize earnings.

Capital cashflow forecasting (similar to cashflow forecasting for operating funds) creates a number of benefits for the agency, including the following:

- Allowing for investment in longer-term or less liquid investments, which usually provide higher returns than more liquid, shorter-term alternatives;
- Avoiding the necessity to sell securities prior to maturity, or enter into any other potentially disadvantageous financing transaction, in order to meet demands for cash;
- Serving as an early warning of possible changes in the capital budget's trends, including how changing economic conditions might impact the expenditure of the capital funds;
- Enhancing inter-departmental cooperation, since good cashflow forecasting requires cooperation and input from diverse segments

of the organization, including purchasing, engineering, planning, and so on; and

- Increasing awareness of opportunities within the organization to improve the economics of any borrowed money, thus reducing the public agency's reliance on borrowed money for capital purposes.

How to Develop the Capital Cashflow Forecast

The daily forecast used in the projection of cashflows is usually much more than is necessary for forecasting capital fund cashflows. Cashflow forecasts covering the period of the capital budget are much more common and are typically more useful than highly detailed, daily forecasts of cash in the agency's operating accounts. Capital cashflow forecasting, which may cover anywhere from a couple of years to as many as ten years, is primarily used to determine cashflow trends for large, visible projects that develop much more slowly than the day-to-day operating requirements of the agency.

The Capital Cashflow Forecast

While operating fund cashflows are often regular and predictable, cashflows for capital projects are driven not by general levels of economic activity or financial factors, but by the requirements of the capital budget to provide major facilities on time to meet the capital needs of the agency.

The goal of creating a capital fund cashflow forecast is to estimate the agency's capital cash position at specific points during the year. The finance officer then can plan to invest cash when available to future dates when draws are expected, thus using the investment portfolio to balance the agency's cashflow and maximize investment returns of funds awaiting expenditure.

Like the cashflow forecasting process for operating funds, the projection of cashflows for capital expenditures has three primary elements:

- The estimation of the timing and dimensions of payments made for the acquisition of capital goods;
- The degree to which those goods are acquired in parts, rather than in their entirety; and
- The balancing of non-recurring cashflows, such as cash inflows from additional debt issuance with the outflows for the large one-time expenditures typical of the capital budget.

To create a cashflow forecast for the agency's capital accounts, the agency must identify major disbursement items and track the component parts of those disbursements. For example, the agency may be funding an expansion to a water treatment plant that will occur over many years and in many phases. Funding for this expansion might come from a combination of borrowed money (e.g., bonds proceeds or state loans), state or federal grants, accumulated capital funds from development impact fees, and reserves accumulated for the purpose of funding such an expansion. Each source of funds has a different set of constraints that should be considered in the cashflow forecast. State or federal grant monies may require the "matching" of expenditures or for the agency's share of the cost of the project at certain times and/or in certain amounts. That means that the cash inflow from the grant cannot be assumed unless and until the local agency's portion of the cost has been earmarked or expended. Borrowed monies become even more complex. Tax-exempt bond proceeds generally must be tracked separately to ensure compliance with federal and state tax, loan, or grant covenants. For example, public agencies should ensure that expenditure of bond proceeds meet Internal Revenue Code expenditure tests for arbitrage purposes. State law places restrictions on certain expenditures of capital monies arising from development impact fees. Finally, some borrowing arrangements (either bond issues or other loans) place restrictions on the nature, timing, or liquidity of proceeds arising

from the loan (see *Chapter 4, Tax-Exempt Bond Proceeds Investment*).

To create the forecast, project data is assembled and spread on the basis of assumptions about how the cashflow streams must materialize to support the requirements of any contractual arrangement for the payment of the project's costs. For example, the arrangement with a general contractor for a building or other capital asset may require payments at the time of mobilization of the contractor onto the job site, as well as when certain construction milestones have been met. Similarly, the contract may allow for withholding of payment until certain "punch list" items have been completed, inspected, and delivered to the agency. In this example, the cashflow forecasting technique needs to account for the fact that the component parts may be delivered either earlier or later than anticipated by the agency. Experience of the agency's project and/or construction managers should be the source of these adjustments, as well as forecasts of interest rates. Any known, non-recurring cashflows are then added to the spreadsheet on the dates they are expected to occur. The spreadsheet sums the periodic cash receipts and expenditures to create a net cash position for the end of the period being measured. The investment official can then target maturities to dates where the net cash position is negative.

EVALUATING CREDIT RISK

Both passive and active investment officials must be mindful of credit risk in their portfolios. Credit risk, as defined in *Chapter 2, Terms Relating To Investment Evaluation, Safety*, is the risk that interest and/or principal payments on a security will not be paid in full and on time, due to the potential for issuer default. By definition, U.S. Treasury securities, which are backed by the full faith and credit of the U.S. government, are free from credit risk. Any security that is not backed

by the full faith and credit of the U.S. government is subject to some degree of credit risk.

A key consideration in structuring a portfolio is understanding its credit risk. The California Government Code allows local agencies to invest in a wide array of fixed-income products, including securities issued by entities whose obligations are not guaranteed by the U.S. government. See *Chapter 2, Individual Instruments* for detailed information relating to permitted investments. Notes and bonds issued by U.S. Government-sponsored enterprises (i.e., FNMA, FHLB, and FHLMC) and U.S. corporations offer higher yields than U.S. Treasury obligations. They also carry a higher level of exposure to credit risk.

Local agencies that choose to invest in securities that have the potential for partial or full default must devote adequate resources to the analysis of their appropriateness in their governmental portfolio. Recent events have demonstrated that it is not sufficient to rely on the rating agency ratings to manage the portfolio's credit risk. Non-government securities offer the potential for higher yields, and, thus, higher income that has a positive impact on the agency's budget. However, in recent years, a number of formerly highly-rated issuers have been downgraded, weakened, and even, in some cases, have defaulted on their obligations. To carry out their fiduciary responsibilities for the funds under their care, investment officials should maintain a list of approved issuers and monitor their exposure to credit risk on an ongoing basis.

To comply with the requirements of the California Government Code regarding acceptable credit quality, investment officials turn to the credit rating agencies, or more formally, "nationally recognized statistical rating organizations," such as Moody's Investors Service, Standard & Poor's, and Fitch Ratings. Many public officials also supplement information from the rating agencies with additional research.

NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATIONS

The major rating agencies include Moody's Investors Service (Moody's), Standard & Poor's (S&P), and Fitch Ratings (Fitch). These agencies are in the business of analyzing the ability of obligors to repay the financial obligations they take on. Financial obligations include, among others, short- and long-term corporate debt, bank deposits, insurance guarantees, and investment pools. The rating agencies base their analyses on information they obtain from the obligor, and information from other reliable sources. They perform analyses of obligors' financial statements, they conduct visits with management, and they analyze macroeconomic factors, such as competition, technology, and labor conditions that may have an impact on an obligor's ability to repay debt.

Rating agencies disseminate their opinions of an obligor's creditworthiness widely and investors rely upon their work in making decisions about which obligors are safe enough to fit a particular investor's risk profile. The opinions of rating agencies also are relied upon by obligors to determine how best to structure debt in order to minimize borrowing costs or optimize the benefits of their obligations.

Rating agencies are independent, objective entities. They are not affiliated with the U.S. government (or any other sovereign) nor are they associated with commercial banks, investment banks, or other organizations. Their value to investors is highly dependent upon their credibility, transparency, and reliability. As a result, they guard these highly and provide a valuable service to the financial markets.

CREDIT RATINGS

The rating agencies summarize their opinions about an obligor in the form of a "credit rating." The list of credit ratings of long-term corporate obligations may be familiar to most in-

vestors, ranging from the highest— investment grade ratings: AAA (S&P, Fitch)/Aaa (Moody’s) through A3/A- (the lowest rating acceptable for California local agency investors), all the way down to “C” and “D,” indicating default or potential imminent default on an obligor’s payment of financial obligations.

Credit rating agencies modify the main categories of their ratings in order to show the relative standing of issuers within a particular rating category. Moody’s uses a 1-3 modifier, with one indicating a relatively high standing within the category (e.g., A1), 2 indicating a mid-level relative standing (A2), and three indicating a standing in the lower range of the overall rating (A3). S&P uses a plus (+), minus (-), or no modifier after the main rating category in a similar way.

Tables that present comparable credit ratings on several separate categories of investments from three rating agencies are available in *Appendix C*.

Obligors rated in one of the four highest credit rating categories (AAA/Aaa, AA/Aa, A/A, BBB/Bbb) are considered to be “investment grade,” while issuers rated below BBB/Bbb are considered to be more speculative. Note that California local agencies may only invest in long-term securities rated “A” or higher. Of course, a credit rating of “A” or higher is not a guarantee of prompt, full repayment of an obligation.

Rating agencies issue credit ratings on various asset classes. Those of primary interest to California local agency investors include the following:

- Ratings on long-term taxable notes and bonds (e.g., corporations and governmental agencies);

- Ratings on short-term taxable obligations (e.g., commercial paper);
- Ratings on long-term municipal obligations;
- Ratings on short-term municipal obligations;
- Ratings on bank deposits; and
- Ratings on local government investment pools (LGIPs).³⁶

Credit Rating Changes

Moody’s, S&P, and Fitch all recognize that the creditworthiness of an issuer can change over time. If a rating agency is in the process of reviewing an issuer’s credit rating and anticipates that their review may result in a change to the credit rating, they may notify investors through a published list of such situations. Most changes to credit ratings occur within about three months of publication, except when the change is based on the outcome of a specific event, such as a merger or regulatory change. At Moody’s, that list is known as the “Watchlist.” S&P calls it “CreditWatch,” while Fitch refers to it as “Rating Watch.” All three rating agencies publish the names of corporations under review and the direction of the change in the rating (i.e., downgrade, upgrade, or unknown). The existence of these publications provide the benefit of alerting investors to the possibility of a change in rating in advance of when it might actually occur. This gives the investor an opportunity to act prior to an actual upgrade or downgrade (though the market usually reacts to a corporation being placed on a watch list in addition to a rating change).

While CreditWatch, Watchlist, and Rating Watch provide an indication of possible rating changes due to a specific event, the agencies also provide a

³⁶ In recent years, the rating agencies have undertaken the analysis of investment pools in which local agencies may participate, including county pools. LGIP credit ratings are based on creditworthiness of the overall portfolio, as well as on volatility, or stability of dollar value, of the pool.

longer-term view of obligors. A credit “outlook” assesses potential for change over longer periods of time; for example, one year. A credit outlook for a specific issuer may be “positive,” “negative,” or “stable.”

Benefits Provided by Rating Agencies

Rating agencies provide stable and reliable sources of information about creditworthiness. They devote significant professional resources to credit analysis and the analysis of sector trends. Their reports and ratings receive wide dissemination. Lastly, they provide a systematic, uniform guide to creditworthiness.

Disadvantages

Ratings change over time and can change overnight, making it incumbent upon investment officials, as fiduciaries, to monitor creditworthiness on a regular basis. Negative changes are not always reported within a timeframe that allows for reaction. Rating agencies provide investors only with their opinions of the credit quality of any given issue. They do not provide any guarantees of payment; nor do they warrant that their opinions are correct. Rating agencies rely on financial information received from the issuer and, of course, cannot predict the future. Lastly, ratings only cover credit risk, and not other risks that investors are subject to, such as event risk, volatility, and market risk.

CREDIT ANALYSIS

Public agency investment officials should conduct their own independent credit research on any federal agency and corporate obligations they plan to purchase. A list of those issuers they have approved for purchase should be maintained. The issuer list should be reviewed on a regular basis and as market conditions warrant. In general, such credit research entails the review and analysis of pertinent current and historical information about the issuer, and, on that basis, the

formation of an independent opinion of the creditworthiness of the issuer.

Sources of Pertinent Information

Timely financial and business information about an issuer of debt is available in certain forms that corporations are required to file with the Securities and Exchange Commission (SEC). These documents are available at the SEC website: www.sec.gov, and include:

- FORM 10-K. A lengthy description of the business and assets of the business, equity holdings of corporate officers and board members; financial information about the firm; names and biographies of board members and the executive team; and audited financial statements. Corporations must file Form 10-K annually within 90 days of the end of their fiscal year, depending on the type of filer.
- FORM 10-Q. Quarterly financial information and material events, which must be filed within 40-45 days of the end of a fiscal quarter, depending on the type of filer.
- FORM 8-K. A report of the occurrence of any material events or corporate changes of importance to investors or security holders and not previously reported by the registrant. It provides more current information on certain specified events than would Forms 10-K or 10-Q. Depending on the nature of the event or change, Form 8-K currently must be filed within two to four business days after the specified events or changes have occurred.

The local agency also can review other documents (such as annual and quarterly reports to shareholders and press releases) produced by the corporation for the public, but not necessarily filed with the SEC. These documents, as well as other current information, can often be found on the corporation’s website.

In addition to their SEC filings, companies that are regulated (e.g., utilities, banks, and brokers/dealers) also must prepare reports for their regulatory authorities. These regulatory reports are also available to the public.

Analytical Use of Pertinent Information

Credit analysts may use publicly available information and information they gather from a company's management team or from other analysts to formulate their own opinions about the likelihood of timely and complete repayment of a bond obligation. Analysis is roughly classified in the following categories:

- Analyzing a company's current ability to meet its future debt service (principal and interest) payments;
- Evaluating a company's financial statements;
- Reviewing the ways in which general economic conditions will affect the company's financial strength and business prospects; and
- Understanding the covenants and restrictions that pertain to the specific obligation under study.

Analysts compute ratios related to such factors as interest coverage, total debt service coverage, and financial statement analysis.

Although credit research begins with publicly available numbers, mere calculation of financial ratios is insufficient to formulate a useful opinion on a given issue. Good credit research is an inexact science and a good credit analyst combines knowledge and experience with a wide-ranging and creative approach to macro- and micro-economic considerations. Because thorough coverage of credit research is beyond the scope of this publication, those interested should review the source books listed in *Appendix A*.

Third-Party Sources for Credit Analysis

Investment officials who do not have sufficient internal resources to conduct their own credit analyses frequently turn to third-party providers of such research.

Many brokers/dealers provide credit research to their customers at no cost. However, local agencies should exercise care in reviewing such research because of the potential inherent bias, as brokers/dealers sell to investors the securities that they analyze and also underwrite securities for the issuers of securities they sell.

There also are independent, third-party providers of credit research. These third-party providers ideally have no ties to underwriting debt or equity issues, advising issuers, or selling bonds to investors. They provide their research to customers for a fee and should have no potential conflicts of interest.

There is no single resource that compiles information about third-party credit research providers. Public officials interested in such services may ask colleagues for referrals. In addition, a number of third-party credit analysts provide their research to their customers via *Bloomberg L.P.* Most offer a free trial subscription. If investors like the service and wish to become subscribers, they can then enroll to receive the information through *Bloomberg L.P.*, or directly through email and/or the Internet.

STRUCTURING A PORTFOLIO

State law governs the investment of local agency public funds in California. Within the mandates of state law, public investors prepare investment policies that reflect their specific investment objectives, cashflow requirements, and risk preferences.

The goal of investment portfolio management is to identify and invest in securities to create a

portfolio that best meets all of the organization's investment objectives at an acceptable level of exposure to risk.

KEY FACTORS INFLUENCING PORTFOLIO STRUCTURE

There are a number of key factors that impact and/or restrict the type and/or maturity of investments purchased:

State and Federal Laws

The investment of public funds for most local agencies in California, including general law cities, counties, and special districts, is subject to the provisions of the California Government Code. The law includes a description of permitted investments for surplus and other monies among other matters. See *Chapter 2, Individual Investments* for a detailed discussion of the state law restrictions for different types of investments.

The Internal Revenue Code restricts the investment of the proceeds of tax-exempt public debt and certain other funds related to such debt; these federal restrictions primarily relate to earning and retaining "arbitrage" on bond proceeds and are described in *Chapter 4, Tax-Exempt Bond Proceeds Investment*.

Agreements/Indentures

The investment of bond proceeds is generally governed by the provisions of the bond issuance documents. See *Chapter 4, Tax-Exempt Bond Proceeds Investment*.

Cashflow Needs

One of the most important objectives in the investment of public funds is ensuring that funds are available to fund an organization's cashflow needs. Investment officials must identify periods when cash will be needed from the

portfolio and invest funds to mature on those dates. Furthermore, most investment officials will want to provide a cushion of cash to meet unexpected cash outlays. This cushion may be maintained in short-term investments, money market funds, or in LAIF. The process of cashflow forecasting is described in detail in the previous section.

Investment Policy

A successful investment program begins with a thorough understanding of the agency's investment goals and constraints as they relate to the safety, liquidity, and yield of the portfolio. These should be articulated as clearly and precisely as possible in the investment policy document (see *Chapter 3, Investment Policy*).

The goal of safety should be defined in terms of specific allowable exposures to various risks, such as market, credit, and call risks. See *Chapter 2, Terms Relating to Investment Evaluation* for a discussion of these concepts. The policy may refer to the cashflow forecast, which defines liquidity in terms of providing cash when needed to meet financial obligations. The investment policy may provide a definition of market liquidity in terms of how efficiently securities from the portfolio can be sold if the need arises (i.e., the number of dealers that make a market in a particular security, the size of the issue, the characteristics of the issue). The last goal, yield, is always a function of the risks undertaken and the practical duration of the investment. The yield objective can be developed and further defined in terms of yield relative to a market benchmark or a peer group.

Portfolio structuring is essentially the process of defining and continuously refining the institution's investment goals with reference to objective and quantifiable benchmarks so that investments will meet the agency's goals and constraints with the least possible exposure to the risks of the marketplace.

PORTFOLIO STRUCTURING STRATEGIES AND CONCEPTS³⁷

In developing a portfolio structuring strategy, it is the investor's primary goal to balance the portfolio's safety and liquidity with the secondary goal of yield. Safety is achieved through careful selection and monitoring of high credit quality investments and matching maturities of investments to cash needs. Liquidity is achieved by allocating sufficient assets to short-term securities to adequately meet cashflow requirements. Only then can funds be invested in securities that may offer higher expected returns over the long run. The goal is to optimize return while adhering to the agency's risk parameters and providing needed liquidity.

Public investors frequently will segment their portfolio into two distinct parts. One part, which is used to provide an ongoing source of ready liquidity for cashflow, is invested in short-term, liquid investments such as LAIF, U.S. Treasury bills, Federal Agency discount notes, or other types of cash-equivalent investments. The other part of the portfolio is considered to be a reserve that is not needed for current operating and capital expenditures. The reserve portfolio is targeted to a somewhat longer duration that fits the agency's specific investment objectives and risk preferences. The reserve portfolio may be invested using either a passive or active investment strategy.

Passive Investment Strategies

The return on an investment portfolio is a function of its exposure to such risk factors as fluctuations in interest rates, changes in credit quality or market perceptions of credit risk, and changes in the shape of the yield curve.

In a passive investment strategy, the investment official does not rely on any analysis of future changes in these risk factors, with the exception of credit risk, which has to be monitored to prevent principal loss. Rather, the investment official engages in a strategy of investing and reinvesting without regard to possible short-term changes in market conditions. This passive approach to management is said to "minimize the expectational inputs" in the investment management process.

There are three primary passive investment strategies, as applied to local agency portfolios:

1. **BUY AND HOLD.** In this strategy, securities are purchased with the intent of holding them to maturity. Interest income and the reinvestment of interest income are the only sources of return in the portfolio. Changes in current market value resulting from interest rate fluctuations are not important because securities are held to maturity.

Often, one of the goals of a buy and hold strategy is to minimize staff time and resources committed to the investment program. One aspect of this goal is to avoid spending time and effort on securities analysis. To accomplish this, buy and hold strategy investors usually focus on purchasing securities that will limit or reduce the potential default risk and that will ensure the reliability of their cashflows from interest income.

To ensure that all securities in the portfolio can be held to maturity without the necessity of sale, buy and hold investors should purchase only very safe securities, such as U.S. Treasury and federal agency securities. Corporate securities may default, introducing credit risk and cashflow uncertainty into the

³⁷ The concept of duration is used extensively in the following discussion of passive and active investment management strategies. Readers may wish to review the definition of "duration" found in *Chapter 2, Terms Relating to Components of a Debt Instrument*. Also, CDIAC has published an issue brief entitled *Duration Basics* that may be downloaded from its website, www.treasurer.ca.gov/cdiac.

portfolio. Similarly, callable securities carry greater market risk since the call feature may result in early redemption of the securities, creating the need to reinvest and possibility reduce interest income over the life of the investments. Callable securities also may increase a portfolio's risk if they are not called and the local agency assumed they would be. If the local agency requires additional cash, it may need to sell the callable security in an unfavorable environment.

If a local agency is considering investing in either a corporate or callable security, it must determine whether it will be sufficiently compensated for the additional risk of the investment and perhaps limit its exposure to such risk by establishing a maximum percentage of its portfolio that can be invested in such securities. For example, in the case of a callable security, the local agency should assume the "worst case" scenario in the decision to purchase the investment (that the security is "called" on the first call date) and have a plan to deal with the potential reinvestment of agency funds. It also should have a strategy to deal with potential liquidity needs of the agency if the investment is not called. The agency may consider limiting its investment in callable securities, for example, to 20 percent of its total portfolio. As another alternative, buy and hold investors may wish to purchase only government securities; otherwise, they should invest more time in evaluating and monitoring the potential risks (e.g., credit risk, market risk, etc.) of existing and potential investments.

LADDERED PORTFOLIO. A laddered portfolio is an excellent way to implement a buy and hold strategy. It allocates equal percentages of the portfolio to each maturity segment permitted under the policy. The maturity ladder provides a regular source of liquidity through maturing investments. It minimizes the number and cost of invest-

ment transactions and uses only a relatively small amount of staff time and resources. Figure 15 displays a laddered structure used for a typical California public agency with a five-year maximum term to maturity. A laddered structure can be implemented for any maximum maturity.

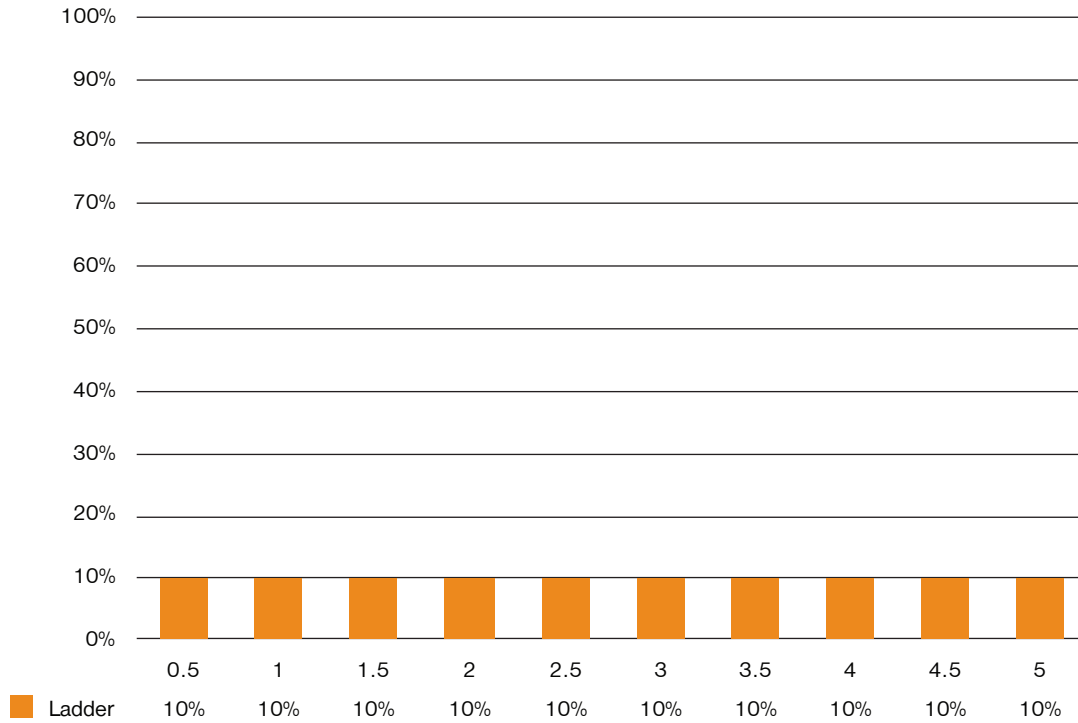
A laddered portfolio also tends to insulate the portfolio from reinvestment risk. In a laddered structure, maturing investments (unless needed for liquidity purposes) are reinvested to the farthest maturity in order to preserve the laddered structure. This reinvestment strategy is carried out in any interest rate environment, without consideration of whether interest rates are perceived to be especially high or especially low. Sometimes investments are made in an environment where interest rates are rising and sometimes when rates are falling. With a consistent strategy of reinvesting to the farthest end of the ladder, the effects of changes in the interest rate environment tend to average out over time.

As in any passively managed portfolio, the investment official must be concerned about exposure to credit risk, unless the securities that comprise the ladder are default-free U.S. Treasury obligations or highly safe federal agency securities. If corporate securities (e.g., medium-term notes, commercial paper, and other money market instruments) are permitted, then the investment official must be concerned about proper diversification of portfolio risk and monitoring credit quality. Similarly, if the local agency is considering investing in callable securities, they should exercise caution and weigh the pros and cons of such an investment (see the discussion in *Chapter 3, Structuring a Portfolio, Portfolio Structuring Strategies and Concepts, Buy and Hold*).

2. **BULLET STRUCTURE.** In a bullet strategy, an investment official directs all portfolio ma-

Figure 15

EXAMPLE OF A PORTFOLIO LADDER STRATEGY



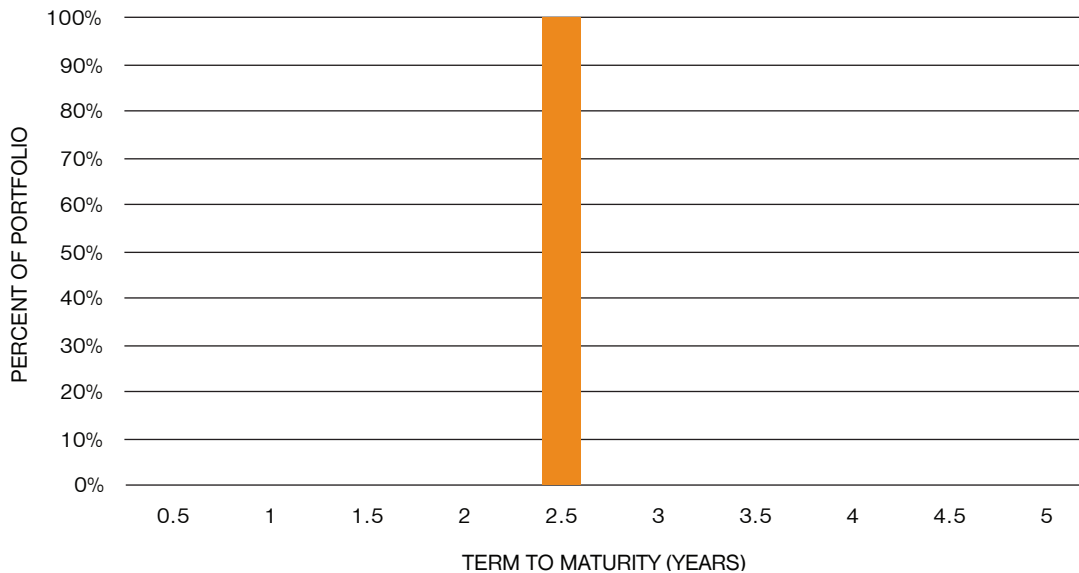
turities to a specific period or date, known as the portfolio “horizon.” Obviously, such a strategy would not be suitable for many portfolios, which rely on a stream of maturities for liquidity. However, it can be an excellent strategy for funds with known payment dates such as a principal and interest funds associated with a bond issue. An investment official invests the present value of a known future cash outlay (for example, a large debt service payment) to the date on which it will be required. The use of a bullet strategy to fund such a future liability removes any un-

certainty about payment of the liability. A bullet strategy employed to meet a known future cash outlay is also sometimes known as a “dedicated portfolio.” Figure 16 shows an example of such an investment strategy.

3. **BENCHMARKING.**³⁸ Benchmarking is an investment strategy designed to mirror the characteristics of a particular segment of the market that reflects the public agency’s investment objectives and constraints. In general, the market segment that the agency selects is called the benchmark index. Benchmarking is considered a passive strategy because, like the

³⁸ This strategy also may be referred to as “investing to a benchmark,” but should not be confused with using a benchmark to evaluate the performance of a portfolio.

Figure 16
EXAMPLE OF A BULLET STRUCTURE



buy and hold strategy discussed above, this strategy does not require the investor to make judgments or forecasts about future market conditions such as changes in the general level of interest rates or the shape of the yield curve. However, it is not a purely passive strategy because the investment official periodically (usually once per month, at a minimum) reviews the important characteristics of the portfolio relative to the index measure and then rebalances the portfolio by selling and buying securities to keep portfolio characteristics—particularly weighted average maturity (WAM) or duration, sector allocation, and distribution of securities along the yield curve—similar to the benchmark index. Benchmarking is an active or partially active strategy in that it explicitly recognizes the need to transact periodically in order to attain and to maintain the target WAM/duration and sector allocation over time. In a benchmarking strategy it

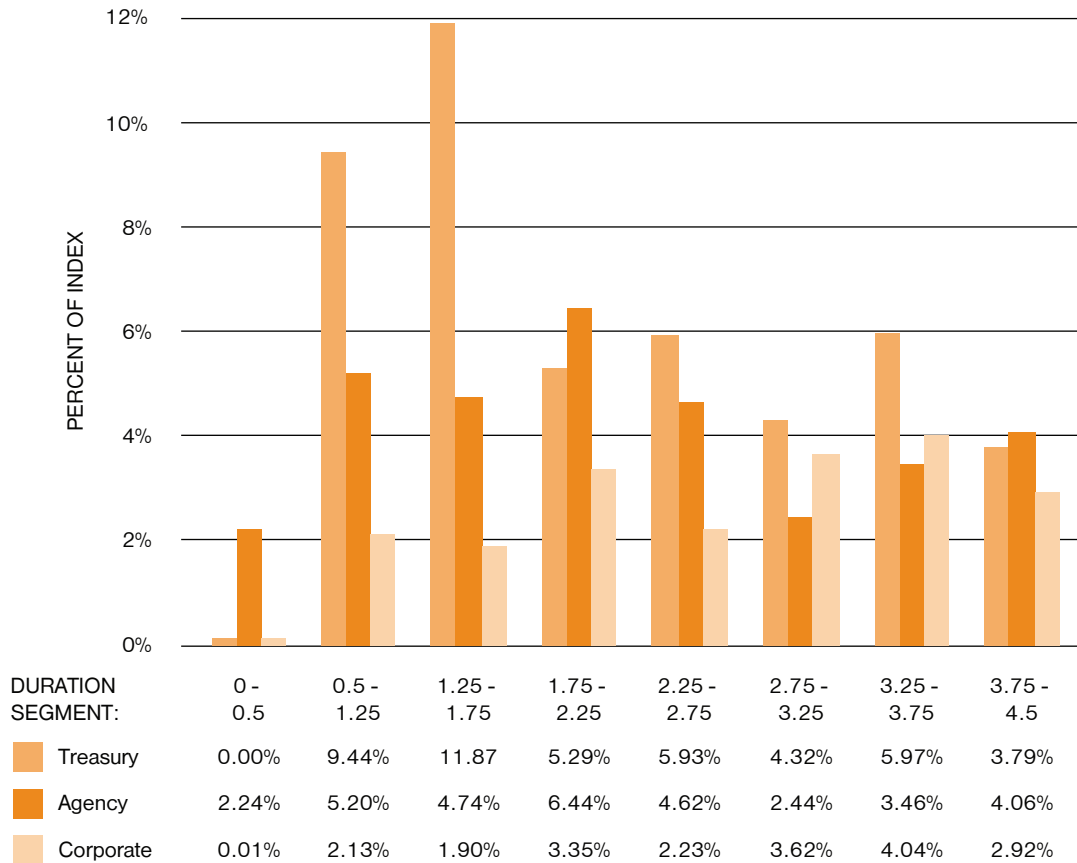
is important that the agency's portfolio mirror not only the sector allocation and average duration of the benchmark index, but also the benchmark index's allocation of securities of different durations.

Figure 17 illustrates the composition of an unmanaged benchmark index of U.S. Treasury, federal agency, and A-rated and higher corporate securities with maturities from one to five years. All U.S. Treasury, federal agency, and appropriately rated corporate securities with a minimum issue size of \$150 million and a maturity between one and five years are included in the benchmark index.

Figure 17 shows the percent of the benchmark index in each sector at each "duration segment." For example, the 3.25-3.75 duration segment of the benchmark index includes approximately six percent U.S. Treasury securi-

Figure 17

BENCHMARK INDEX: SECTOR ALLOCATION BY DURATION SEGMENT



ties, 3.5 percent federal agency securities, and 4.0 percent corporate securities, for a total of 13.5 percent of the portfolio invested in securities with a duration of 3.25 to 3.75.

An investment official using the benchmarking technique would strive to achieve a portfolio that has the same overall average duration, sector (e.g., U.S. Treasury, federal agency, and corporate securities), and duration allocations. That is, a graph of a passively managed portfolio would resemble the graph of the benchmark index.

Benchmarking is a more dynamic strategy than simple buy and hold. The characteristics of the index will change somewhat over time with changes to market conditions and adjustments to the specific holdings that are included in the benchmark index. The benchmarking investment official will review the average duration and sector and duration allocations of the index at least monthly and will rebalance the portfolio periodically to maintain portfolio characteristics similar to those of the benchmark index. Benchmark indices are reconstituted at the end of each

month, which would be the appropriate time for the investment official to consider obtaining a listing of the reconstituted index and rebalancing his/her portfolio to match it. This information is available from Bloomberg L.P. or from a broker/dealer.

Figure 18 compares the key characteristics of a laddered and an indexed portfolio.

Active Investment Strategies

While a passive investment official accepts a level of risk and return that is provided by the market, an active investment official seeks to enhance the portfolio's risk/return profile through strategies that take advantage of conditions in the fixed-income markets that change as economic and financial conditions change.

When considering the implementation of active strategies, local agencies should consider that the

fixed-income market is extremely efficient. In an efficient market, all participants in the market know all of the information about securities (including prices) virtually instantaneously. It is difficult for any single investor to consistently achieve returns that exceed average market returns without changing the risk profile of the portfolio. Therefore, active public sector investors must be certain that they understand the risks and the potential rewards of active management strategies they seek to implement.

There are five basic active fixed-income strategies:

1. **INTEREST RATE ANTICIPATION STRATEGIES.** Since term to maturity is the key portfolio measure of sensitivity to interest rate changes, interest rate anticipation strategies involve adjustments to portfolio duration or WAM. Investment officials who prepare forecasts of future interest rate changes will adjust their portfolios' sensitivity to such changes. Spe-

Figure 18
COMPARISON OF LADDERED AND INDEXED PORTFOLIOS

LADDERED PORTFOLIO	INDEXED PORTFOLIO
Transactions (purchases) occur only when securities mature or when new cash is added to the fund.	Transactions (purchases and sales) occur periodically (e.g., monthly) in order to rebalance the portfolio to the characteristics of the index.
Provides liquidity through maturing investments or range of maturities, including short-term investments.	Provides liquidity through maturing investments, sales, and short-term investments.
Minimizes use of staff resources and time since it requires so few transactions.	More commitment of staff resources and time to understand the strategy and execute transactions.
More fluctuation in portfolio characteristics (i.e., duration and allocation along the maturity spectrum) since rebalancing only occurs when securities mature.	Requires frequent transactions so that agency's portfolio mirrors same characteristics as index. For example, portfolio duration will be matched to the duration of the index every time a transaction occurs.
Portfolio not necessarily tied to a market index, although it can be. If performance evaluation occurs, a laddered portfolio probably will show deviations from index characteristics and return primarily due to the frequency of transactions (buying/selling investments).	Portfolio management is closely tied to the characteristics of the index, thus facilitating comparison of return and risk characteristics to those of the index.

cifically, an opinion that interest rates will fall causes the investment official to increase the duration or WAM of the portfolio, while an anticipation that rates will rise causes the investment official to decrease portfolio duration or WAM.

To limit the risk of an inaccurate forecast of interest rates, most active investment officials will limit duration or WAM adjustments in some way. For example, the duration or WAM may be shifted away from the target duration or WAM by no more than 25 percent. The actual limitation on duration or WAM adjustments is a policy issue that must be determined by the local agency, based on their investment objectives and risk preferences.

Accurately forecasting future interest rates is difficult—a portfolio manager must be correct about not only the direction of an interest rate change, but also the magnitude and timing of the change. Therefore, interest rate anticipation strategies are unlikely to provide significant added return in the long run, relative to the portfolio's market benchmark, although they may provide higher returns in a given month or quarter.³⁹

2. **YIELD CURVE STRATEGIES.** The yield curve is a graph of the yields on fixed-income securities with various terms to maturity. When yields change in the market, the yields on securities of different maturity usually do not all change by the same amount. The potential for unequal changes in yield and price for securities of different maturities offers the opportunity for active investors to adjust the duration or maturity structure of their portfolios, without affecting the overall duration or WAM of the portfolio. That is, a yield curve strategy is predicated on a change in

the structure of the yield curve. It is not a bet on the direction of interest rates overall.

Figure 19 illustrates a yield curve strategy. The line titled “Current” represents the current structure of the yield curve, with a large difference between the yields on short-term and long-term securities. The line titled “Future” represents the yield curve projected by the active investment official at a future time. Note that in the case of line “Future,” short rates have risen, while the yield on longer-term securities has fallen.

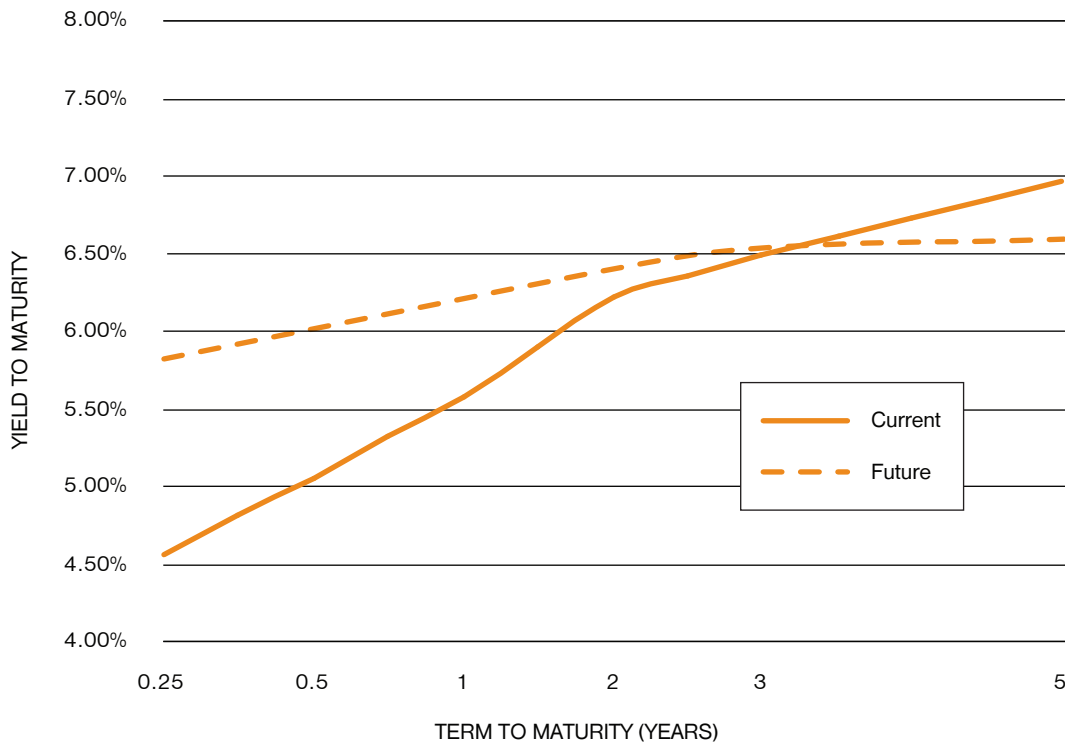
In order to take advantage of this projected yield curve shift the active investment official would change the portfolio structure. For example, 50 percent of the portfolio would be invested in the short-term security, and 50 percent in the long-term bond. The investment official would not change the overall duration of the portfolio, but only its structure.

If the active investment official is correct, and yields change in the manner predicted, then both the short and the long ends of the portfolio will benefit. The short-term security will be reinvested, or rolled over, into higher short-term rates. The long-term security, purchased at a time when interest rates were higher, provides a higher yield than currently available on bonds of the same maturity. The result could be returns that exceed the returns of the benchmark index over the long-term.

3. **SECTOR ALLOCATION STRATEGIES.** Perhaps the most common active management strategy is to emphasize certain market sectors in the portfolio. For example, in recent years, federal agency securities have generally provided higher yields than U.S. Treasury securities of equal maturity. This higher yield is related to the slightly higher risk of agencies, which are

³⁹ See discussion of benchmarks under *Chapter 3, Structuring a Portfolio, Portfolio Structuring Concepts and Strategies, Passive Investment Strategies.*

Figure 19
YIELD CURVES



not guaranteed by the full faith and credit of the U.S. Treasury. Over time, the yield differential between federal agency and U.S. Treasury securities changes, increasing when their perceived risk is higher, and shrinking when investors perceive the risk to be less. Upon evaluation of the risk factors, many public agency investment officials have felt comfortable increasing their exposure to the federal agency sector of the market, while decreasing their exposure to U.S. Treasury securities. The choice to emphasize one market sector (i.e., federal agency or corporate securities) over another, less risky sector (i.e., U.S. Treasury securities) must be based on the investment objectives and risk preferences of each local agency individually. It is recommended that

such a choice be documented in the investment policy and its supporting documents.

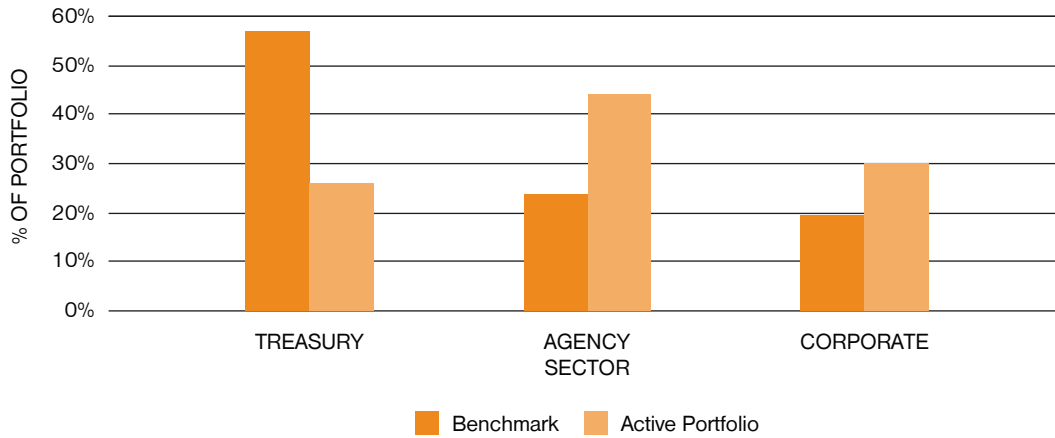
Figure 20 displays the sector allocation of the Merrill Lynch 1-5 Year A-rated and above Corporate/Government Index.

This particular benchmark is comprised of approximately 58 percent U.S. Treasury securities, 23 percent federal agency securities, and 19 percent corporate securities.

A pure passive strategy would exactly mirror the sector allocation of the chosen benchmark. In this example, the hypothetical active portfolio includes a smaller allocation in U.S. Treasury securities, but a greater allocation in federal agency and

Figure 20

SECTOR ALLOCATION, BENCHMARK VS. MERRILL 1-5 YR. INDEX



corporate securities. The investment official has made this allocation decision in expectation of earning greater returns than the benchmark.

4. SECURITY SELECTION STRATEGY. Another technique of active management is the careful review of a wide range of available securities in order to select and purchase specific securities within each market sector that have a higher “value” than other securities in the same sector. This incremental value may come from a temporary over-supply of a particular issue, risk/return characteristics of an individual security, the difference between the official’s analysis of a security as compared to the market, or from a multitude of other factors. Techniques and tools public agency may use to analyze securities and locate high value securities are found under *Chapter 3, Structuring a Portfolio, Sources for Purchasing Securities* below.
5. TIMING STRATEGIES. In this Investment Primer, timing strategies stand in con-

trast to interest rate anticipation strategies, which also are sometimes referred to as timing strategies. In a timing strategy as defined here, the active investor tries to time the purchase of a security within a very short time frame (usually days) to take advantage of intra-period price fluctuations. Technical analysis, which is a subset of timing strategies, is a method of evaluating securities by analyzing statistics generated by market activity, past prices, and volume. Technical analysts do not attempt to measure a security’s intrinsic value; instead, they look for patterns and indicators that will determine a security’s future performance.

The following example describes the timing strategies concept. Figure 21 describes the change in price of a particular two-year U.S. Treasury note over a 34-day period. The active investor has decided to purchase this security and intends to buy it before the end of the period, but hopes to buy it at a relatively high yield (low price point) during the month.

Figure 21

YIELD ON TWO-YEAR U.S. TREASURY NOTE, 3/01/08 THROUGH 3/19/09



In the example, the investment official considered purchasing this security on February 7, but observed that the yield had been declining since early February. The investment official decided to wait a few days and see if the yield would increase. After it did, the investment official purchased the security on February 14 at a yield that was about 0.10 percent higher than on February 7.

To avoid the possibility of missing out altogether on the opportunity to purchase a needed security, the active investor must carefully set limits on timing strategies. For example, the investor may set time constraints on the purchase of the security and decide to purchase it prior to the close of business on

the last day of the month, even if the timing strategy has not succeeded.

SOURCES FOR PURCHASING SECURITIES

Whether employing passive or active strategies, the investment official ultimately faces the challenge of selecting securities to place in the portfolio. The following describes how the investment official goes about finding those securities. They can purchase securities from primary dealers, non-primary dealers, brokers, and direct issuers, collectively known as “the street” or the “sell side.” A large volume of trade executions currently is accomplished via the Internet.

Primary Dealers

Primary dealers are banks and securities broker-dealers that trade in U.S. government securities with the Federal Reserve Bank of New York (Fed). They are obligated to participate in the securities transactions that the Fed conducts in order to implement monetary policy. Primary dealers usually maintain securities in their own inventories and act as principals in securities transactions with their customers. Acting as principal means that they sell from their own inventories. A current list of primary dealers can be found on the Fed's website at www.newyorkfed.org.

Non-Primary Dealers

Also known as regional or secondary dealers, non-primary dealers sell securities from their own inventories, but do not trade directly with the Fed.

Brokers

Unlike dealers, brokers do not maintain their own inventory of securities. Rather, they act as intermediaries between customers, facilitating securities transactions between two parties (see *Chapter 1, Role of the Broker/Dealer*).

Direct Issuers

Some large corporations that are actively and continuously involved in the debt markets choose to offer their securities directly to investors rather than through underwriters. Examples of direct issuers include General Electric Credit Corporation, American Express Corporation, and Prudential Securities. These direct issuers offer commercial paper and medium-term notes directly to institutional customers. The minimum size of direct issuer transactions is generally \$100,000. Going to the issuer directly, however, does not necessarily guarantee the best price, particularly if the investment official's purchase is relatively small. In general, the

smaller the denomination purchased, the higher the price and the greater the margin of profit built in for the issuer.

Online Trading Platforms

Not surprisingly, securities trading is becoming increasingly automated. Online trading systems such as Tradeweb® and MarketAxess® provide efficient access to the inventories of numerous securities dealers all in one place. Investors can use such systems to find securities that best fit their needs, to receive competitive offerings from several dealers on the securities they have decided to purchase, and to document the competitive process.

Institutional investors who use online trading platforms for pricing and trading U.S. Treasury securities, federal agency securities, corporate notes, and commercial paper pay approximately \$100 per page of trading information, totaling several hundred dollars per month, depending on the types of securities traded.

COMPARING SECURITIES WITH SIMILAR CHARACTERISTICS

Once investment objectives are defined, constraints considered, and the investment policy developed, the investment official must select individual securities to complete the portfolio structure. There are certain strategies or types of analyses that can be employed to assist in the selection process.

Comparison—Relative Price/Yield

Investment officials spend a significant amount of time in the process known as price discovery. They can request prices from several brokers/dealers, and/or they can research current prices directly online. The process of price discovery results in finding the securities that best meet a specific maturity.

There are many securities available to fill a particular maturity. For example, a need for a

U.S. Treasury security with two years to maturity could be met by one of several outstanding U.S. Treasury note issues with approximately two years remaining to maturity. Following are two specific comparative strategies, including examples of how to use them to purchase “high-value” securities.

“On-the-Run” vs. “Off-the-Run” Securities

The U.S. Treasury issues securities periodically through an auction process. The most recently issued securities in each maturity range are known as “on-the-run” issues. Securities issued as a result of prior auctions are known as “off-the-run” issues. Sometimes, under certain market conditions, there can be a substantial difference in the yield of on-the-run vs. off-the-run issues. This usually occurs because market participants (usually brokers/dealers who inventory securities and very active market traders) are willing to pay a higher price for the greater market liquidity of on-the-run issues. For investors, the liquidity premium is not as important. Such an investor can sometimes achieve a higher yield by purchasing an off-the-run issue that is very similar to the current issue in every other respect. Figure 22 shows an example of prices of two U.S. Treasury notes at the same point in time. The first security is an on-the-run, two-year note; the second security is an off-the-run, two-year note that was issued earlier in the month.

Most of the time, the slightly higher yield on the off-the-run issue provides a much greater benefit

to a local agency than would the greater liquidity of the lower yielding issue. In this case, the five basis points difference translates into \$5,000 per \$1,000,000 investment per year.

New Issue vs. Secondary Market

Federal agencies and corporations often issue debt through underwriters who purchase the entire debt issue and then re-sell it to their customers. During the period around the issue date, these securities are known as “new issues.” Prior to the initial settlement date, during the “when-issued” period, they often trade at par or slightly below and are sold without any accrued interest. In the process of discovering the best values, it is often helpful to compare new issues to older issues with similar terms that are available from the same issuer. These older issues trade in the “secondary market.” Secondary issues often trade more cheaply (i.e., at higher yields) than new issues with very similar characteristics.

Figure 23 shows two Citigroup, Inc. issues that were available for purchase on the same day. Note that the secondary market issue, with a maturity that is just 35 days shorter than the new issue, can be purchased at a yield that is ten basis points higher than the new issue. This is a good example of how searching the market for all available inventory can offer a great benefit to the local agency investment officer.

Figure 22

**COMPARISON OF ON-THE-RUN TO OFF-THE-RUN TWO-YEAR U.S. TREASURY NOTES
COMPARISON DATE 5/02/01**

	SECURITY	MATURITY DATE	ISSUE DATE	YIELD
On-the-run	U.S. Treasury Note	4/30/03	4/30/01	4.25%
Off-the-run	U.S. Treasury Note	3/31/03	4/02/01	4.30%

Figure 23

COMPARISON OF NEW ISSUE AND SECONDARY MARKET OFFERING

ISSUE TYPE	DESCRIPTION	MOODY'S RATING	MATURITY DATE	YIELD TO MATURITY
New	Citigroup, Inc.	Aa1	03/06/2007	5.14%
Secondary	Citigroup, Inc.	Aa1	02/01/2007	5.24%

COMPARING SECURITIES WITH DIFFERENT CHARACTERISTICS

Relative price comparisons offer investors a straightforward means of evaluating securities that are very similar to one another, in terms of issuer, term to maturity, and other characteristics. When issuer, maturity term, and credit quality are roughly equal, the investor is primarily interested in simply determining which offers the higher yield.

When securities are dissimilar (i.e., different terms to maturity, different call structures, different issuers, etc.), the investor must analyze the risks of choosing one over the other in addition to the return on investment.

While relative price comparison of similar issues, as described above, is fairly clear-cut, the comparison of unlike securities is complex and ambiguous. There are many tools available to perform this type of analysis. It is important that investors be aware of the logic and mathematics that underlie the individual tools for comparing unlike securities. It is equally important that they understand the limitations and drawbacks of these tools. Two of the most common tools to compare securities with somewhat different characteristics are horizon or total return analysis and breakeven or gap analysis. They are described below. In addition, there are many other tools for analyzing and comparing securities with somewhat different characteristics. These include variations on Option-Adjusted Spread

(OAS) Analysis for callable bonds and horizon analysis over multiple interest rate scenarios. Please refer to *Appendix A* for further information about analytic tools.

Horizon or Total Return Analysis

Horizon analysis is one tool that allows a meaningful comparison of securities that have somewhat different characteristics. For example, an investment official may need to decide between two Federal National Mortgage Association (FNMA) issues that have different call features. A callable bond is a security with a feature that allows the issuer of the bond the opportunity to redeem it at a stated time and price (see *Chapter 2, Terms Relating to Components of a Debt Instruments, Call Provision in a Callable Bond*, for further discussion of callable bonds). Both securities have a three-year term to maturity, but one is callable in six months (denoted as 3Y/NC6). The other is callable in one year (denoted as 3Y/NC1). The bond with a call after six months has a higher yield and so will provide more income if it is not called. But what if the call is exercised, forcing the investment official to reinvest the proceeds in a lower rate environment? In that case, perhaps the bond with a one-year call provision might be a better choice.

By computing the total return on each of the two bonds over a defined time period (given the investment official's assumptions about future interest rates) horizon analysis provides a measure of an expected rate of return on the two bonds. This

method facilitates analysis under different possible future scenarios, allowing the treasurer to analyze what the outcome will be if interest rates rise or fall by specified amounts, or remain unchanged.

In our example, the investment official wants to quantify the returns on the two bonds over a one-year horizon for a \$1 million investment, given the following assumptions:

- Interest, when paid, will be reinvested at the bond rate (five percent for the 3Y/NC6, and 4.90 percent for the 3Y/NC1).
- If the 3Y/NC6 is called, the cash received (principal plus interest) will be reinvested at 4.5 percent. (The rate is lower because bonds are usually called in a lower rate environment).
- Both bonds will trade at par at the end of one year. (This will not necessarily be the case, but is assumed in the example for the sake of simplicity).

Figure 24 shows the cashflows from the 3Y/NC1 issue:

- Line 1 is the calculation of the first cashflow—an interest payment due six months from the initial issue date, calculated at the coupon rate of 4.90 percent.

- Line 2 calculates the amount of interest that will be earned over the subsequent six months through the reinvestment of the interest payment calculated in Line 1.
- Line 3 is the calculation of the second half of the year cashflow—an interest payment due twelve months from the initial issue date.
- Line 4 shows the value of the initial investment (principal) after one year.
- Line 5 shows the total value of all cashflows from the bond during the one-year period.

Figure 25 shows the cashflows from the 3Y/NC6, assuming the bond is not called:

- Line 1 is the calculation of the first cashflow—an interest payment due six months from the initial issue date, calculated at the coupon rate of five percent.
- Line 2 calculates the amount of interest that will be earned over the subsequent six months through the reinvestment of the interest payment calculated in Line 1.
- Line 3 is the calculation of the second half of the year cashflow—an interest payment due twelve months from the initial issue date.

Figure 24

THREE-YEAR, NON-CALL ONE-YEAR (3Y/NC1)

1	Interest payment in six months	=	$4.90\%/2 \times \$1,000,000$	=	\$24,500
2	First interest payment compounded over next six months	=	$\$24,500 \times 4.90\%/2$	=	\$600
3	Second six-month interest payment	=	$4.90\%/2 \times \$1,000,000$	=	\$24,500
4	Principal value at end of one year	=		=	\$1,000,000
5	TOTAL CASHFLOWS	=		=	\$1,049,600

Figure 25**THREE-YEAR, NON-CALL SIX-MONTHS (3Y/NC6)—NOT CALLED**

1	Interest payment in six months	=	$5.00\%/2 \times \$1,000,000$	=	\$25,000
2	First interest payment compounded over next six months	=	$\$25,000 \times 5.00\%/2$	=	\$625
3	Second six-month interest payment	=	$5.00\%/2 \times \$1,000,000$	=	\$25,000
4	Principal value at end of one year	=		=	\$1,000,000
5	TOTAL CASHFLOWS	=		=	\$1,050,625

Figure 26**THREE-YEAR, NON-CALL SIX-MONTHS (3Y/NC6)—CALLED**

1	Interest payment in six months	=	$5.00\%/2 \times \$1,000,000$	=	\$25,000
2	First interest payment compounded over next six months	=	$\$25,000 \times 4.50\%/2$	=	\$563
3	Second six-month interest payment (since the bond was called, the second interest payment comes from the reinvestment of the proceeds received at call)	=	$4.50\%/2 \times \$1,000,000$	=	\$22,500
4	Principal value at end of one year	=		=	\$1,000,000
5	TOTAL CASHFLOWS	=		=	\$1,048,063

- Line 4 shows the value of the initial investment (principal) after one year.
- Line 5 shows the total value of all cashflows from the bond during the one-year period.

Figure 26 shows the cashflows from the 3Y/NC6, assuming the bond is called:

- Line 1 is the calculation of the first cashflow—an interest payment due six months from the initial issue date, calculated at the coupon rate of five percent.
- Line 2 calculates the amount of interest that will be earned over the subsequent six

months through the reinvestment of the interest payment calculated in Line 1. In this case, the bond is called. In accordance with Assumption 2 above, the reinvestment rate is lower in this case.

- Line 3 is the calculation of the second half of the year cashflow—an interest payment due twelve months from the initial issue date. Note that since the bond was called, the second interest payment comes from the reinvestment of the proceeds received at call.
- Line 4 shows the value of the initial investment (principal) after one year.

- Line 5 shows the total value of all cashflows from the bond during the one-year period.

Figure 27 summarizes the results of the comparison:

Horizon analysis makes the difference apparent. If the 3Y/NC6 is not called, then it has a higher return over the one-year horizon period. However, if interest rates fall, and the issuer calls the bond, then the 3Y/NC1 is a more attractive alternative.

Using the information from horizon analysis, the investment official can make a better choice between the two alternatives, based on internal expectations about future interest rates. The drawback of horizon analysis is, of course, that the investment official's expectations about future interest rates may well be wrong, and, thus, the choice may not be optimal.

Breakeven or Gap Analysis

Sometimes an investment official must compare the benefits and potential risks of choosing a

short-term investment and then reinvesting at a future date versus immediately investing to the full term. Breakeven analysis (or gap analysis) is designed to compare a rate over a single term to rates over two consecutive terms that together total the single term.

For example, an investment official has the choice of investing in a ten-month security at a rate of 2.18 percent or, in the alternative, investing in a five-month security at a rate of 1.90 percent and then investing in a second five-month security at the maturity date of the first. Breakeven analysis calculates the rate would be necessary at the second five-month term to equal the rate that was available for the full ten-month term.

In Figure 28, 2.407 percent is known as the "breakeven rate." The investment official must re-invest at a minimum rate of 2.407 percent for the last five months of the investment period in order to achieve the equivalent of the single ten-month term rate. Investment officials can use their own

Figure 27

SUMMARY OF HORIZON ANALYSIS

	THREE-YEAR, SIX-MONTH NON-CALL AT FIVE PERCENT	THREE-YEAR, ONE-YEAR NON-CALL AT 4.90 PERCENT
Cashflow after one year— NO CALL	\$1,050,625	\$1,049,600
Cashflow after one year— WITH CALL	\$1,048,063	\$1,049,600

Figure 28

	YIELD	INTEREST ON \$1,000,000
Single security ten-month term rate	2.18%	\$18,166
Five-month rate	1.90%	\$7,917
"Breakeven rate" = Minimum rate needed for remaining five months to equal single security ten month rate	2.407%	\$10,249

assumptions about future changes in interest rates to decide between the two alternatives.

In addition, there are financial tools available for breakeven analysis. Bloomberg L.P. has a straightforward gap analysis screen available to its subscribers. The Bloomberg screen for the analysis is presented in Figure 29. The user would enter the number of days in the term (300, in this case), the start date (2/1/09), the end date (11/28/09), and the center date (6/21/09). The center date is the maturity date of the first investment in a sequence of two investments that together match the term of the single ten-month investment. In the lower box on the screen, the user fills in two of the three boxes. Note that there are separate columns for entering a CD rate or the discount

(disc) rate. Like the analysis above, the Bloomberg screen shows that an investor who purchases a 150 day security at 1.90 percent would have to see the 150 day rate rise to 2.407 percent at the reinvestment date in order to match the term rate of 2.18 percent.

EVALUATING A PORTFOLIO

An investment program exists in a dynamic environment. The market is in a continuous state of change, responding to real, anticipated, or perceived changes in fundamental economic conditions and risk/return tradeoffs among investment alternatives. Furthermore,

Figure 29
BLOOMBERG GAP ANALYSIS SCREEN

<HELP> for explanation. Corp **GA1**

GAP BREAKEVEN ANALYSIS

TERM	DAYS	300	START DATE	2/ 1/09	END DATE	11/28/09
HEAD/TAIL	CENTER DATE	6/21/09	CD BASIS	- ACT	360	
			DISCOUNT BASIS	- ACT	360	

ENTER A RATE FOR TWO OF THE THREE PERIODS

	CD RATE	CD RATE	DISC RATE	DISC RATE	DAYS
TERM	2.180			2.141	300
HEAD	1.900			1.886	140
TAIL		2.407		2.382	160

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2009 Bloomberg Finance L.P.
 SN 580247 6730-940-0 24-Mar-2009 13:30:32

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the investment objectives of a public agency may shift as a result of changes in the local economy or changes in the priorities of the agency's governing body.

Once the initial portfolio structure is in place, an investment official must then turn to the ongoing challenge of meeting the agency's changing investment objectives in an investment market that is itself constantly in motion.

MANAGING TO CHANGING OBJECTIVES

It is not unusual for an institution's investment objectives to change over time. For example, an agency may have had a long-standing policy of financing capital improvements with borrowed funds. However, changing conditions in the borrowing markets or changes in the philosophy of the governing body may make borrowing a less desirable option. The governing body may decide to pay for future improvements only with available resources. Such a decision might create different objectives for the agency's investment program. Instead of targeting an average maturity of 2.5 years, it might be necessary for the investment official to shorten the portfolio to an average maturity of six months. As investment objectives change, investment officials must be prepared to respond effectively by either lengthening or shortening portfolio duration, improving liquidity, or raising cash.

The investment policy should be reviewed periodically to ensure that it accurately reflects the agency's current objectives. At a minimum, this can be done on an annual basis in conjunction with the submission of the policy to the governing body for their review and/or adoption.

MANAGING TO CHANGING MARKET CONDITIONS

At any given time, price and yield levels on financial assets such as stocks and bonds are effi-

ciently priced. That is, price/yields fully reflect all available information that is relevant to the valuation of that security. Current prices represent the value of securities, according to the collective perception of investors who have instantaneous access to all available market information. Efficient pricing of all assets at a particular point in time is known as a state of market equilibrium.

Equilibrium does not last long in the market. Any time new information comes into the market—for example, new economic data, corporate earnings releases, terrorist attacks or threats, new inflation reports, and uncountable other bits of data—investors absorb this information and instantaneously and collectively buy and sell securities to bring the market to a new state of market equilibrium. For example, if the majority of investors hearing a new report of economic weakness believe that interest rates on bonds will fall, they would respond by buying bonds. This added demand for bonds results in an increase in price that continues until investors believe that the price has reached the “right” level. The new level of equilibrium remains until new information causes investors to form another opinion, and so the cycle continues.

This pattern of constant change offers both opportunity and risk to investors, including public agencies. For example, an investment official who has an opinion about future market prices that is different from the consensus may take a contrary position. For example, a consensus may form that the Federal Reserve Open Market Committee (“the Fed”) will lower the Federal Funds rate at its next meeting, which, in turn, may cause the yield on two-year securities to drop. In our example, investors purchase two-year securities, hoping to lock in a higher yield. They continue to purchase the bonds until the increased demand they have created causes the prices to rise (yield to fall) until equilibrium is reached.

However, the investment official holds a contrary opinion, believing the Fed will not lower the

Federal Funds rate. This investment official does not purchase two-year securities, thinking that if the Fed doesn't lower the Federal Funds rate, the yield on two-year securities will rise.

This situation provides an example of both the opportunity and the risk offered by changing market conditions. If the public agency investment official is correct, the agency will benefit from this strategy; however, if the investment official is wrong, the agency will have lost an opportunity to lock in a higher yield.

Passive Portfolio Management

By definition, passive investment officials do not base their investment decisions on expectations about future market levels. Rather, passive investment officials, whether using a laddered or benchmarking technique, maintain the same strategy at all times and expect to achieve returns that approximate the market return (see *Chapter 3, Structuring a Portfolio, Portfolio Structuring Strategies and Concepts, Passive Investment Strategies*, above for a discussion of passive portfolio management). Passive investment officials are essentially reactive; that is, they adjust the characteristics of their portfolios in response to maintaining the structure of their portfolio (e.g., laddered) rather than adapting it in anticipation of market changes. Their goal is to achieve market returns rather than seeking finding value outside of their chosen strategy.

On the other hand, there are circumstances when even a passive investment official must pay attention to how the ever-changing markets might impact the liquidity, quality, and/or return of the portfolio. For example, in a recessionary economy, the credit quality of corporate bonds may be negatively impacted. Even a passive investment

official may decide to sell corporate securities out of the portfolio under such conditions, believing that continuing to hold them might adversely affect portfolio returns.

Active Portfolio Management

Active investment officials attempt to achieve returns that are greater than market returns by taking security positions that reflect their own opinion on future market conditions, with the implicit assumption that the price structure of the market will change in ways that will favor their choices. Some methods for potentially achieving greater market returns include:

- Selecting investments that are undervalued by the market;
- Allocating investments to different sectors than their benchmark;
- Selecting duration weightings along the yield curve that are different than their benchmark; and
- Maintaining overall investment portfolio durations that do not exactly mirror their benchmark.

Active investment officials use a variety of techniques to develop long-term and short-term forecasts of future conditions. These may include analyzing available data to create long-term and/or short-term forecasts of future price/yield conditions that assist them in implementing active management decisions. They may base their forecasts on a combination of factors including information about business and economic cycles, political considerations, demographic trends, federal borrowing levels, and many others.⁴⁰

⁴⁰ The specific development of forecasts based on factors such as these is beyond the scope of this book. For information on this topic, see for example: Girard Miller with Corrine Larson and W. Paul Zorn. *Investing Public Funds, Second Edition*. (Government Finance Officers Association, 1998).

Rebalancing Portfolios

Effective active investment officials monitor market conditions continually. They are willing to change or “rebalance” portfolio composition any time they believe their action will add value to their portfolios. However, market analysts note that rebalancing strategies based on changing market conditions are not always successful, even though they may initially appear to offer the promise of higher returns. One unanswered question is whether the opinion of any single market participant can be consistently better than the collective market opinion, as observed in market equilibrium.

Nevertheless, active investment officials should recognize that portfolio rebalancing concepts and techniques may be different for different types of funds—operating funds, capital funds, pension assets, and in asset/liability matching.

Examples of Rebalancing Based on Changing Market Conditions

In *Chapter 3, Structuring a Portfolio, Portfolio Structuring Strategies and Concepts, Active Investment Strategies* above, five different active portfolio management strategies were discussed:

- Interest rate anticipation strategies;
- Yield curve strategies;
- Sector allocation strategies;
- Security selection strategies; and
- Timing strategies.

How active investment officials reevaluate their portfolios in relation to changing market conditions for each of these strategies is discussed below.

Interest Rate Anticipation Strategies

The level of interest rates and the shape of the yield curve at any moment represent price equi-

librium for bonds of different maturities. An active investment official may have an opinion about the future level of interest rates that is not reflected in the current market equilibrium.

Figure 30 represents the U.S. Treasury yield curve on March 23, 2009. That is, it represents the state of equilibrium that existed at the close of the market on that date.

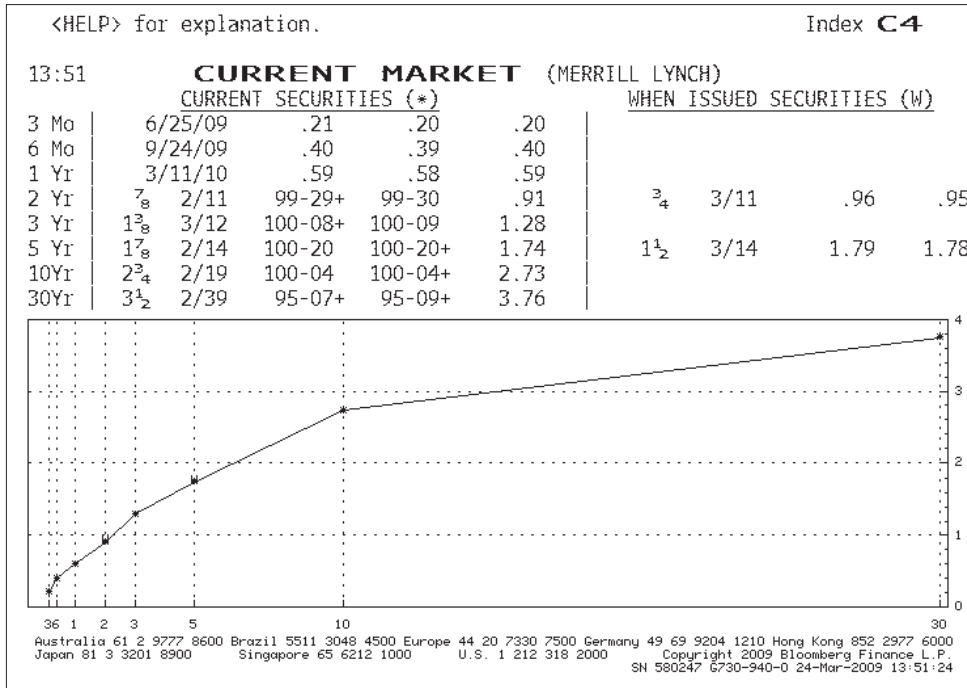
An investment official who is actively managing his/her portfolio may observe that the yield on three-month U.S. Treasury bills is 1.17 percent and the yield on two-year U.S. Treasury notes is 1.64 percent. That is, the market consensus is that available information tells us that two-year U.S. Treasury notes yields 47 basis points (0.47 percent more than the three-month U.S. Treasury bill).

However, in this example, the opinion of this particular investment official, having gathered all available information about the economy, is that (1) the economy is strengthening more than others realize and (2) increased defense spending and reduced tax revenues will lead to treasury borrowings (that is, selling of bills, notes, and bonds) that will be greater than the consensus forecast. These two factors, the investment official believes, will increase supply and lower prices on U.S. Treasury notes. The investment official concludes that the price of the two-year U.S. Treasury note will fall in the next month in a way that the market collectively does not anticipate. Therefore, the investment official buys the lower-yielding three-month U.S. Treasury bill, expecting to sell it and purchase the two-year U.S. Treasury note at a lower price (and, hence, higher yield) in one month.

Based on a thorough review of all available information that is relevant to the valuation of U.S. Treasury securities, the investment official has made an active decision to postpone the purchase of the two-year U.S. Treasury note. In one month, the investment official will find out whether or not his/her decision resulted in greater or lower returns than the market consensus.

Figure 30

U.S. TREASURY YIELD CURVE, MARCH 23, 2009



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Yield Curve Strategies

An investment official that uses yield curve strategies is attempting to add value by making judgments about the relationship of short and long-term yields, rather than the absolute level of yields.

Figure 31 illustrates the active yield-curve management decision:

In this case, the investment official observes that, under the current market equilibrium (the line titled “Current”), the difference in yields between the five-year U.S. Treasury note and the three-month U.S. Treasury bill is approximately 240 basis points (6.96 percent - 4.56 percent = 2.40 percent). Having analyzed all available information, this investment official believes that

in the near-term, the yield on the three-year U.S. Treasury note will remain virtually unchanged, but that the relationship between shorter- and longer-term rates will change—essentially pivoting around the three-year note (see the line titled “Future”). Short-term rates will rise more than the consensus anticipates (e.g., in anticipation of the Federal Reserve tightening its monetary policy) and longer-term rates will fall more than anticipated (e.g., in anticipation of the Federal Reserve attempting to control inflation).

This investment official may change the structure of the portfolio from its usual laddered shape to a “barbell” shape. With a barbell shape, the portfolio duration/WAM remains the same, but the investment official sells three-year securities and

uses the proceeds to buy three-month and five-year securities. If the investment official's forecast is more accurate than the consensus, the portfolio will benefit from reinvesting maturing short-term securities at higher yield levels, while, at the same time, benefiting from having "locked-in" higher long-term yields.

Sector Allocation Strategies

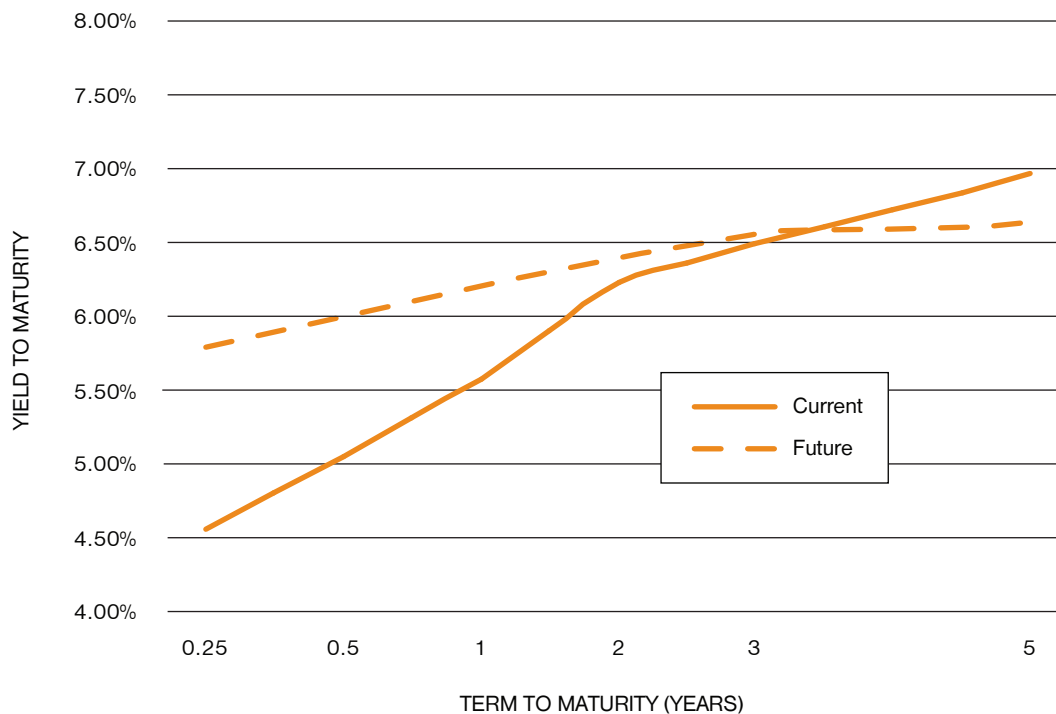
California public agency treasurers are allowed to invest in a number of different market sectors. Treasurers may choose among U.S. Treasury securities, federal agency securities, certain corporate notes, as well as other categories.

Like other market relationships, the yield spreads among various market sectors change over time

based on current investor perceptions about economic conditions and/or investment risk. For example, the yield on federal agency securities is usually higher than the yield on comparable maturity U.S. Treasury notes. However, the amount of difference in yield between these two sectors changes considerably over time, based on investor consensus about the risk of federal agency note risk.

A common active management strategy for public agencies is to concentrate investments in the federal agency sector, while minimizing investment in lower-yielding U.S. Treasury securities. Public agency treasurers who have made this decision are (implicitly or explicitly) acting on the belief that the higher yield on federal agency securities will, in the long run, add value to their portfolios, because agency risk proved to be not

Figure 31
YIELD CURVES



as high as the overall market believes. Historically, this belief generally has proved to be true.

Security Selection Strategies

It is unusual in an efficiently priced market (such as the U.S. bond market) to find similar securities that are priced differently. To the extent that this does occur, active investment officials strive to increase portfolio earnings by selling securities that are priced “too high,” and replacing them with similar securities that are priced “too low” (see, especially, *Chapter 3, Structuring a Portfolio, Comparing Securities, Comparison—Relative Price/Yield* above).

Timing Strategies

A passive investment official likely would invest the proceeds of a maturing investment immediately in a selected investment. On the other hand, an active portfolio may make the purchase at an advantageous time during the month.

As new information continuously flows into the market, price relationships change and equilibrium is reestablished. An active investment official may observe the changing price relationships and postpone an investment purchase until a more favorable condition develops. See *Chapter 3, Structuring a Portfolio, Portfolio Structuring Strategies and Concepts, Active Investment Strategies*, in particular, for an example.

EVALUATING THE RESULTS OF THE INVESTMENT PROGRAM

In evaluating the effectiveness of an investment program, local agency officials and staff should be able to measure whether their investment program is meeting the agency’s goals for safety and liquidity and if the strategies used are adequate to take advantage of the opportunities that the market offers—without subjecting the portfolio to unwanted or unknown risks. There are tools available that can assist the agency in evaluating their investment program. These tools include

assessing and adjusting portfolio liquidity, using portfolio yield to maturity comparisons to benchmarks, portfolio yield-to-maturity comparisons with other local agencies, realized yield comparisons, and total return comparisons. Those tools used to evaluate the return on an investment portfolio may have strengths and/or weaknesses that the local agency should be aware of before relying on them in evaluating their investment program.

Assessing and Adjusting Portfolio Liquidity

The most valuable tool for evaluating the adequacy of portfolio liquidity is the agency’s cashflow history and forecast. By comparing actual cash receipts and disbursements to projections, a public agency investor can evaluate the agency’s cashflow trends. If actual receipts turn out to be significantly lower than projections, while cash disbursements remain level or increase, the cash manager may decide to shorten the overall investment portfolio.

A gradual portfolio shortening may be accomplished by reinvesting all maturing securities and other cash receipts in shorter-term instruments or by selling longer-term securities and reinvesting the proceeds in short-term vehicles.

By contrast, a comparison of cashflow projections to actual cashflows may show an improving trend. If the cash manager believes the trend will continue over the long-term, portfolio lengthening may be appropriate. Lengthening can occur through the reinvestment of maturing securities and other cash inflows in longer-term vehicles or by extending the maturity range of the portfolio ladder.

Portfolio Yield to Maturity Comparisons

One measure of portfolio return currently used by California local agencies is the yield to maturity (YTM) of the portfolio. The investment official typically calculates the average YTM at cost and compares it to the YTM of an acceptable benchmark portfolio. Common benchmark portfolios might include three-month U.S. Treas-

treasury bills, the state LAIF, the two-year U.S. Treasury note, or a 12 to 24 month rolling average of U.S. Treasury bills. Local agencies select benchmark portfolios like these because they are seen as representative of their portfolios or as alternatives that are available to them. The portfolio is seen as doing well if the yield is higher than the benchmark portfolio yield and not doing as well if the yield is lower than the benchmark portfolio.

YTM is a reasonable method of analyzing non-callable securities at the time of purchase. It provides a snapshot of how much return is expected in the future from a particular security on the purchase date and, therefore, provides a means of comparison among alternatives. This method also does not involve complex calculations or expensive software as both YTM should be readily available.

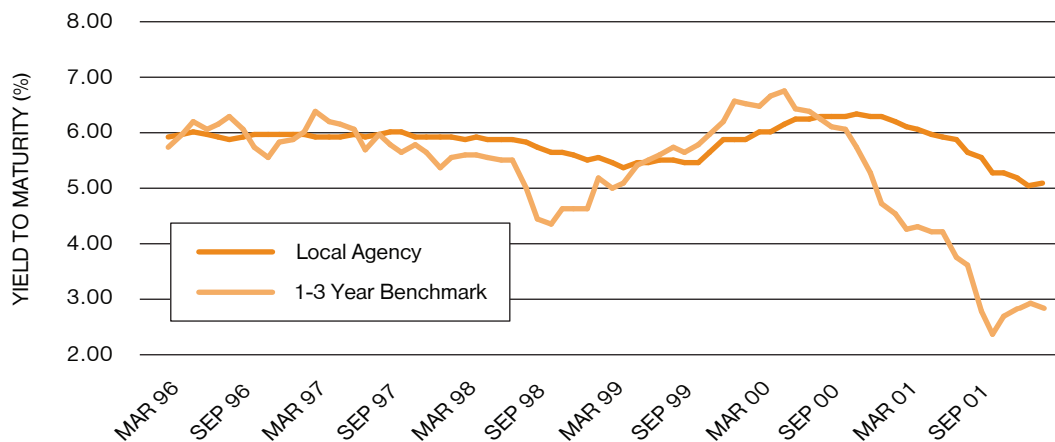
YTM comparisons to a benchmark portfolio, however, may not be an adequate measure of portfolio return over a past period. Performance measurement is a means of measuring how well the expectation of return incorporated in YTM was fulfilled. Portfolio YTM on a given date is

still a measure of the promise of future return, not the actual return delivered by the portfolio over a past period. It is a “snapshot” of the earning rate on a particular day and has no meaning in terms of the historic earnings of the fund.

Investment officials who use YTM as a measure of historical return may compare portfolio YTM, calculated at the original, historical cost of each investment, to a market benchmark YTM, which is the current, not historical, YTM. In a falling interest rate environment, historical cost-based portfolio YTM will always be higher than the YTM on the benchmark; in a rising rate environment, cost-based YTM will always be lower than benchmark YTM. Thus, a YTM comparison between a portfolio and its benchmark may not provide useful information about either the skill of the investment official or the extent to which portfolio objectives were met by the strategy in place.

Figure 32 below illustrates this problem. It compares the YTM on a California local agency portfolio to the YTM on its benchmark portfolio, the 1-3 Year U.S. Treasury

Figure 32
COMPARISON OF YIELD TO MATURITY



Index. Even though the maturity structure of the local agency is quite similar to the maturity structure of the benchmark portfolio, the agency's YTM lags the benchmark portfolio's YTM throughout the market cycle. This is because the comparison is not truly "apples-to-apples." While the agency reports its yield at historic cost, the benchmark portfolio is always reported in terms of its current YTM. Since the comparison looks at two different YTM (agency historic cost vs. benchmark portfolio current yield), it is difficult to derive conclusive information from the comparison that would assist the local agency in assessing specific performance aspects of its investment program.

Portfolio YTM Comparison with Other Local

Comparing individual portfolio performances of local agencies has numerous risks. Most investment officials are well aware of the inadequacy of comparing their returns to returns achieved by other local agencies. It usually is not possible to evaluate the specific risk preferences, liquidity needs, and investment objectives of other investors. For example, the target duration/WAM of the local agency's portfolio may be substantially different from the target duration/WAM of the comparison portfolio. The agency's investment policy may place constraints on the investment process that the comparison portfolios do not follow. The basis of calculating yield between the agency portfolio and the comparison portfolios may be different. For these reasons, therefore, it is generally impossible to know if the manager's returns compare favorably or not with another portfolio.

Realized Yield

Some practitioners have attempted to address the shortcomings of YTM and to measure results by calculating the portfolio's "realized" yield, which is the total of actual interest earnings plus realized gains and losses during the measurement period divided by the average portfolio book value during the measurement period. This measure provides a more accurate measure of the return actually earned on the investment than YTM if the investment is not held to maturity because it takes into account reinvestment returns and changes in the security's price. Otherwise, if held to maturity, realized yield is equal to YTM.

The realized yield calculation, however, does not take into account the impact of current sales on the future earnings of the portfolio. What if a treasurer only sold securities that had a value higher than cost, but retained all securities valued lower than cost? In that case, the realized yield measure would show exceptionally good returns in one period followed by especially poor returns in the next period. Moreover, there is no available realized yield benchmark to use as a comparison.

Time-Weighted Total Return Comparison

The time-weighted total return ("total return") on a portfolio is the total change in value of that portfolio resulting from investment activity during the measurement period, but not from capital contributions or capital withdrawals (unless these values are calculated daily).⁴¹ Unlike YTM, which is a snapshot of portfolio yield on one day, total return calculates the change in value of the port-

⁴¹ The cash balance of most investors' portfolios, including most local agencies, fluctuates over time, due to seasonal cashflow changes (such as property taxes coming in, or debt service payments going out). The formula for the calculation of total return, as described above, assumes that no contributions or withdrawals (often called "capital changes") occurred during the measurement period. There are methods of total return calculation that take into account capital changes in a portfolio during the measurement period. They are somewhat difficult to administer manually; however, there are portfolio accounting packages and services that correctly calculate portfolio return when capital changes have occurred. Please see the resources in *Appendix A* for further information about calculating total return when capital changes occur.

folio over the entire measurement period. The investment official then can compare the change in value of the portfolio to the change in value of a benchmark portfolio.

In calculating total return, it is important to distinguish between changes in value that are the result of investment activity and changes that are the result of contributions to or withdrawals from the fund. For example, it is not appropriate to give the investment official credit for a large property tax payment that is deposited into the account during the measurement period.

CALCULATION. The generalized calculation for total return is as follows:

$$R_{TR} = \frac{MV_E - MV_B}{MV_B}, \text{ where}$$

R_{TR} = total return

MV_E = ending market value,
including interest accruals

MV_B = beginning market value, including
realized earnings and interest accruals

Note from the formula that the calculation is based on the market value of the assets, not book value or cost. This means that the total return includes not only interest earnings and realized gains and losses, but also unrealized market value changes. Thus, total return can be positive or negative during any given period. A negative total return means that the interest earnings from the portfolio were more than equally offset by unrealized market value losses in the portfolio. Most often, market value losses are due to increases in the general level of interest rates, although some market value losses are due to changes in credit quality or other factors.

There are several families of fixed-income indexes that are widely available to institutional investors as benchmarks. The publishers of these indexes calculate total return (including earnings and unrealized gains and losses) using industry

standard formulas. Investors are able to select a market benchmark from among the wide range of choices that has risk characteristics (especially duration/WAM and sector allocation) close to those in their own investment policies. Since the methodology for calculating total return is standardized, it is possible for investors to have a direct comparison of the risk/total return profile of their portfolios to the risk/total return characteristics of the corresponding benchmark. Examples of benchmarks that have been used by California public agency investors include the Merrill Lynch U.S. Corporate and Government Bond 1-5 Year A Rated and Above Index and the Lehman Brothers 1-3 Year Treasury Index.

With any passive management strategy, the investment official can expect that the total return on the portfolio will be similar to the total return on the index over time. For the passive investor, the total return on the index is not a minimum return, but rather an approximate target return. Investors will incur transactions costs (including safekeeping and custody charges that are paid directly from the fund any/or commissions paid to effect transactions). The index itself does not incorporate any transaction costs. Therefore, passive strategies may result in total returns over an extended period that are slightly lower than the benchmark return, due to the cost of transactions.

If active management strategies are employed, then there is a built-in expectation for returns to exceed the index return over time. Total return performance measurement will assist in determining if the active strategies employed by the investment official are effective over time in achieving returns that are higher than the designated index returns. This information will assist the investment official and the oversight committee in refining their active management program.

Since interest rates are changing continuously, the total return fluctuates from period to period. This periodic fluctuation in return is known as the "volatility of return." The higher the average

duration/WAM of a portfolio, the greater will be that volatility of return for both the portfolio and the benchmark. If a benchmark accurately reflects the risk/return profile of the portfolio, then the volatility of return should be similar for both. If the portfolio volatility is substantially lower or higher than the benchmark volatility, it may be an indication that the portfolio risk profile is different from that described in the investment policy or that the benchmark is inappropriate.

For example, Figure 33 below shows the monthly return on an actively managed local agency portfolio. Its monthly volatility of return tracks its benchmark (the 1-3 Year Government Index) very closely, indicating that its risk level is similar to the risk level of the benchmark. Note that it does not track the three-month U.S. Treasury bill return at all, indicating that the three-month U.S. Treasury bill would not be an appropriate benchmark for this portfolio, which has significantly different risk characteristics (i.e., higher duration/WAM and different sector allocation).

Figure 34 shows portfolio growth over time of the same local agency portfolio, the 1-3 Year Government Index, and the three-month U.S. Treasury bill. Note that both the portfolio and the 1-3 Year Index grow in a similar fashion over time. However, the return pattern on the three-month U.S. Treasury bill is quite different. Also, the local agency portfolio return over the entire period is slightly higher than the index return, indicating that the active management strategies have been effective.

Examples of the Total Return Calculation

- **EXAMPLE 1.** City A has an active management strategy. The Treasurer strives to maintain duration at a level that is equal to the duration of their benchmark, but the policy permits active management of the sector allocation of the portfolio relative to the benchmark.

City A has chosen the Merrill Lynch Composite 1-5 Year Treasury Index as its benchmark. Securities permitted under the policy

Figure 33

LOCAL AGENCY VS. BENCHMARK, PORTFOLIO VOLATILITY OF RETURN

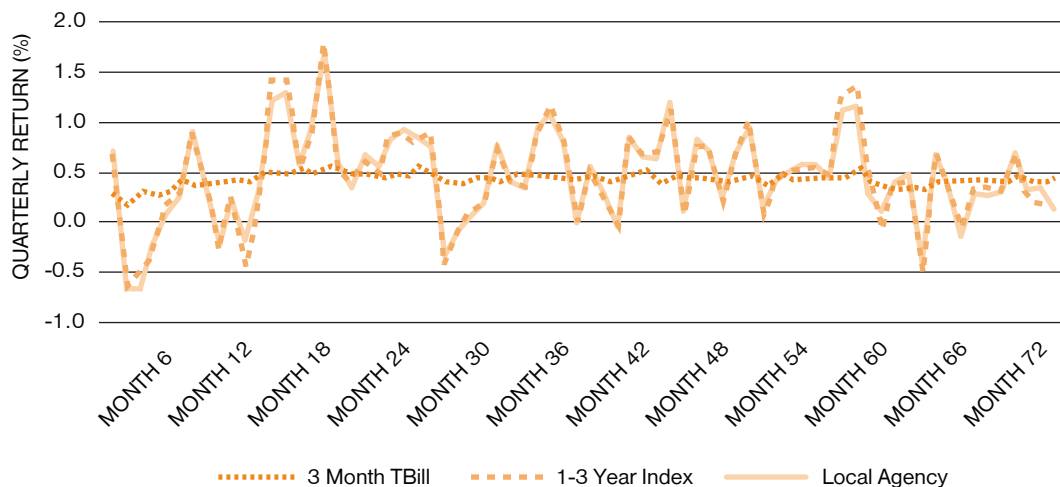
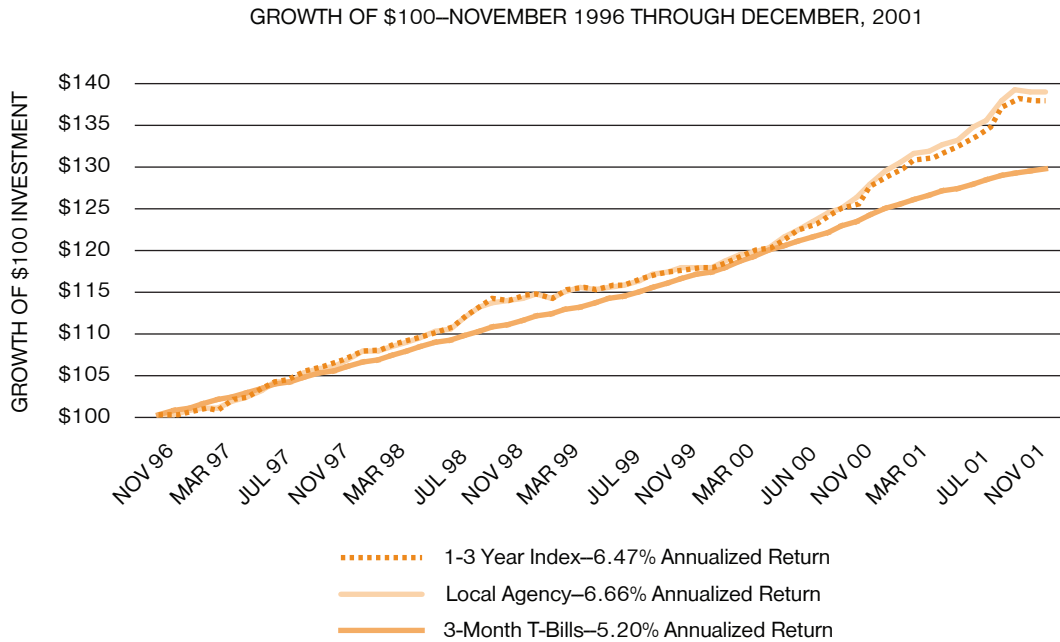


Figure 34
PORTFOLIO GROWTH, LOCAL AGENCY VS. BENCHMARK



include U.S. Treasury securities (no limit), non-callable federal agency securities (no limit), and corporate notes (limited to a maximum of ten percent of the portfolio).

The market value of City A's portfolio was \$25,412,399 (including accrued interest) on September 30, 2008. The market value of the portfolio on December 31, 2008 was \$26,533,085.80 (including realized earnings and accrued interest). There were no additions or withdrawals from City A's portfolio during the quarter.

Total return for the portfolio is calculated according to the formula below:

$$\frac{\text{Ending Market Value} - \text{Beginning Market Value}}{\text{Beginning Market Value}}$$

or

$$\frac{\$26,533,085.80 - \$25,412,399}{\$25,412,399} = 4.41\%$$

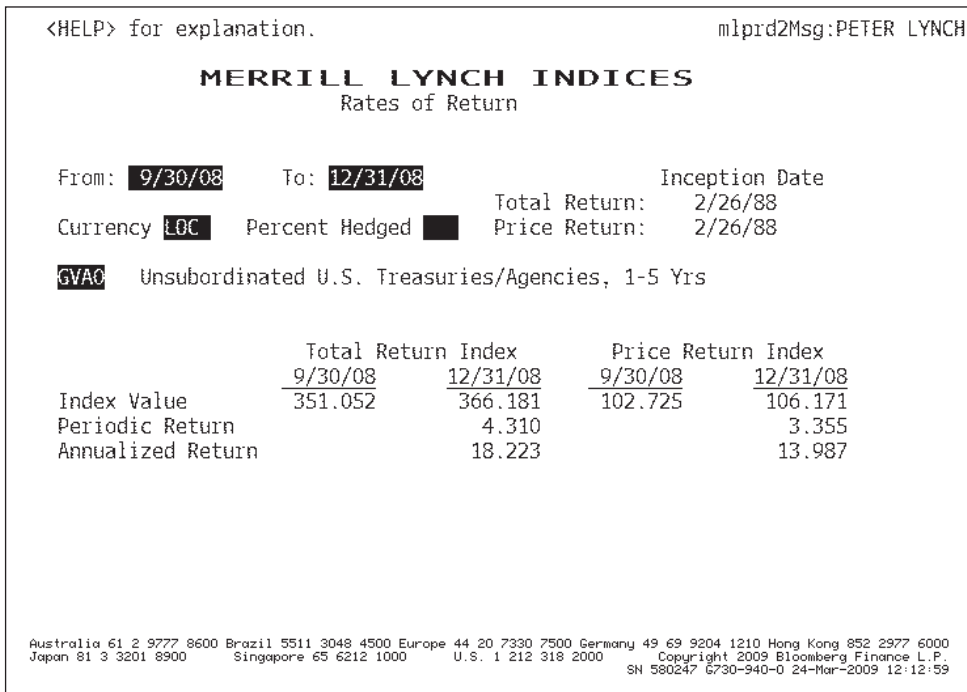
This calculation shows that the total return on City A's portfolio was 4.41 percent.

City A subscribes to the Bloomberg service, and checks for the return on the benchmark index, which is updated and displayed there on a daily basis.

As the Bloomberg display in Figure 35 shows, the total return on the benchmark index for the quarter ending December 31, 2008 (denoted as "Periodic Return") was 4.31 percent.

Comparison between City A and the Merrill Lynch 1-5 Year Composite Government

Figure 35



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Treasury Index reveals that the City’s total return was 0.10 percent, or 10 basis points, higher than the return on the benchmark. The Treasurer of City A had expected this outcome, since the City’s strategy for the quarter involved owning a greater percent of the portfolio in federal agency securities and corporate notes than the Index. The Treasurer knew that the return on both the federal agency and the corporate sector were higher than the return on the U.S. Treasury sector, which the Treasurer had intentionally underweighted, relative to the benchmark. The Treasurer’s analysis of portfolio performance showed that for this particular quarter, the strategy of emphasizing federal agency securities and corporate notes, while maintaining portfolio duration equal to the duration of

the benchmark, has resulted in higher-than-benchmark returns.

- **EXAMPLE 2.** District B, which has greater cashflow requirements than City A, has chosen the Merrill Lynch 1-3 Year U.S. Treasury Index as its benchmark. District B’s policy allows its Treasurer to actively manage both duration and sector allocation in the portfolio. Like City A, District B over-weighted the federal agency and corporate sector. However, the Treasurer of District B feared that interest rates would rise during the quarter and, therefore, established a portfolio average duration that was 25 percent lower than the benchmark duration. The benchmark duration at the end of the quarter was approximately 1.6 and the District’s duration was 1.2.

On September 30, 2008, the market value (including accrued interest) of District B's portfolio was \$52,000,000. On December 31, 2008, the market value was \$53,320,280 (including realized earnings and accrued interest). Using the total return calculation, we calculate the District's return as follows:

$$\frac{\$53,320,280 - \$52,000,000}{\$52,000,000} = 2.539\%$$

This calculation shows that the total return on District's portfolio was 2.539 percent for the period.

District B's treasurer subscribes to the Bloomberg Service and checks the total

return of the Merrill Lynch 1-3 Year U.S. Treasury Index (see Figure 36). It was 2.686 percent for the quarter, which was 0.147 percent higher than the return on the District's portfolio.

During the quarter, interest rates fell across the yield curve, and, concurrently, the market value of all bonds rose. Since District B's portfolio had a shorter duration than the benchmark, the market value of the District's bonds grew less than the market value of the benchmark's bonds. The Treasurer's call on interest rates (that they would rise) did not materialize; therefore, the District's portfolio had a lower return than the benchmark for this period.

Figure 36

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<HELP> for explanation.                                mlprd2 Index IND
MERRILL LYNCH INDICES
Rates of Return

From: 9/30/08      To: 12/31/08      Inception Date
Currency LOC      Percent Hedged      Total Return: 12/31/75
Price Return: 1/31/78
G102 U.S. Treasuries, 1-3 Yrs

Total Return Index      Price Return Index
9/30/08      12/31/08      9/30/08      12/31/08
Index Value   1050.387      1078.596      122.154      124.359
Periodic Return      2.686      1.805
Annualized Return      11.087      7.354

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2009 Bloomberg Finance L.P.
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Choosing Among the Various Options

The most ideal method for evaluating portfolio risk and return is to calculate the time-weighted total rate of return on the portfolio and compare it to the total return on a market index that is similar in duration/WAM and sector composition to the agency's portfolio. This methodology is widely used and accepted by investment professionals and is currently in use by a growing number of California public agencies. The method requires intensive spreadsheet calculations, however, which can be mitigated by access to a Bloomberg terminal or assistance from an investment advisor or broker/deal to obtain total return analysis for the benchmark index and, possibly, for the local agency's portfolio. Nevertheless, the calculation of total return together with appropriate benchmark comparisons offers investors a reliable, quantitative method of evaluating over time the risks and results of the portfolio.

If a local agency is unable to implement total return analysis as part of their routine evaluation of their portfolio, the other methods cited above may provide some general gauge of overall performance. However, given the caveats cited above, local agencies should exercise caution in relying on any method other than total return analysis for specific comparisons of their portfolios. Rather than relying on inaccurate or misleading measures of performance, a local agency would be better served evaluating its portfolio on a regular basis (at a minimum, quarterly) to ensure it is achieving its goals as outlined in its investment policy and verifying that the maturity distribution of its portfolio provides adequate liquidity for its short-term (i.e., at least six months) cash needs. Local agencies that have portfolios with durations of approximately 90 days or less can use the realized yield calculation for general comparison purposes. Their returns calculated using the realized yield formula will approximate the total return calculation due to the short duration of the portfolio.

PORTFOLIO OPERATIONS MANAGEMENT

Public officials are faced with a multi-faceted and complex set of tasks when they manage a local agency investment program that may involve millions or billions of public dollars. Certain local agency officials (e.g., treasurers, finance directors, and/or governing bodies) bear fiduciary responsibility for the proper management of cash and securities in the cash management and investment program. In addition to overall fiduciary liability, officials must ensure that investments comply with applicable federal and state laws and local investment policies. Overall, public officials must be sure that the overriding investment goals of safety, liquidity, and yield—in that order—are met and maintained.

PORTFOLIO OPERATIONS CHECKLIST

The management and oversight of an investment portfolio entails duties that range from a daily check on cash balances and maturing investments to an annual policy review. Those charged with this responsibility may find it helpful to systematize all these tasks through a portfolio operations checklist that categorizes the job into daily, monthly, quarterly, and annual tasks. Portfolio operations checklists are useful tools to assist local agencies in portfolio structuring and administration.

In developing a checklist of portfolio operations tasks, officials will want to consider some of the following questions:

- How can I ensure that the overriding portfolio/cash management goals of safety, liquidity and yield are met?
- What is the current law governing the investment of public funds? Has it changed recently? Are there changes under consideration in the State legislature?

- Is our current investment policy consistent with our goals for safety, liquidity, and yield?
- What is the level of compliance of the portfolio with State law and with the investment policy?
- What third parties currently provide services to the cash management/investment program? Is the level and type of service satisfactory?
- Is our cashflow forecasting model providing sufficient information? Can the forecasting system be improved?
- What is the cash balance in the bank account each day? Do we need or have overdraft protection?
- Do we need cash to cover expenditures or do we have excess cash that should be invested?
- What are the characteristics of the portfolio (i.e., average maturity, duration, maximum maturity, amount in short-term investments, etc.)?
- What individual securities, funds, and pools are held in the portfolio? Do they comply with the current investment policy?
- What is the credit quality of the investment portfolio?
- What is the credit quality of each security in the investment portfolio?
- Are we in compliance with accepted standards for accounting for and reporting arbitrage earnings on bond proceeds?
- For reports that are submitted to the governing body, are they submitted in a timely manner? Could these reports be improved?
- Are internal controls reviewed for effectiveness on an annual basis?

Of course, each local agency would need to structure its checklist in a way that meets its specific objectives and calendars. A sample checklist appears below. Not all agencies will need to perform all of the tasks listed while others may find that they need a much more extensive list.

Checklist Example

Following is an example of checklist tasks, organized into daily, weekly, monthly, quarterly and annual items. While this checklist may be used as a guide, it is strongly recommended that each local agency develop an individualized checklist, based on the requirements and needs of that particular agency.

DAILY TASKS

- ✓ Cash management tasks:

Bank balances,
Overdrafts, and
Cashflow (receipts/disbursements).

- ✓ Reinvestment of maturing securities plus interest.

WEEKLY TASKS

- ✓ Review credit quality of non-governmental issuers; take action as necessary.

MONTHLY TASKS

- ✓ Review portfolio compliance with investment policy and California Government Code.
- ✓ Review portfolio characteristics.
- ✓ Adjust portfolio strategy if necessary.
- ✓ Obtain fair market value of all securities in portfolio.
- ✓ Prepare and present monthly transactions report, if applicable, including assets (cost and market value), transactions, interest accruals, and other information as applicable.

- ✓ Update cashflow history and projections.

QUARTERLY TASKS

- ✓ If local agency chooses, prepare and provide an investment report to governing body/investment oversight committee, auditor, etc.
- ✓ Monitor the status of proposed legislation that might impact the investment program.

ANNUAL TASKS

- ✓ Review California Government Code sections that apply to investments and Treasury.
- ✓ Review investment policy; amend as desired to reflect changes in policy, practice or state code.
- ✓ If local agency chooses, provide investment policy to governing body for consideration and/or adoption/approval.
- ✓ Review internal controls for adequacy and separation of responsibilities.
- ✓ Analyze cashflow projection; correct, if applicable, to increase accuracy.
- ✓ Review performance of third-party providers, such as banks, brokers/dealers, investment advisors, financial advisors, etc.
- ✓ Review services provided and additional services available.
- ✓ Review arbitrage calculations on bond proceeds and remit excess as required.
- ✓ Review internal controls and procedures, evaluate their effectiveness, and identify and correct any gaps or inefficiencies.



Chapter 4

OTHER (NON-SURPLUS) FUND INVESTMENT

OTHER (NON-SURPLUS) FUND INVESTMENT

Chapter 4 discusses the investment of tax-exempt bond proceeds and pension funds. Compared to surplus funds, bond proceeds and pension funds have unique characteristics and are subject to other legal restrictions. The first part of this chapter describes general considerations impacting the investment of tax-exempt bond proceeds. The next portion applies those considerations to commonly used tax-exempt bonds.

PROCEEDS OF TAX-EXEMPT OBLIGATIONS

Most government debt obligations bear interest which the debt holders may exclude from their calculation of “adjusted gross income” when calculating their annual tax liability. They are frequently referred to as “tax-exempt” obligations. Issuers may offer lower interest payments because their debt holders may earn the interest without paying taxes.

The restrictions on investing the proceeds of tax-exempt obligations differ from those imposed on investments of surplus funds. The restrictions may be imposed by Internal Revenue Code and

federal tax regulations, California constitutional and statutory law, and third-party agreements (such as trust indentures and escrow agreements).

For additional information on tax-exempt transactions and investing tax-exempt proceeds, readers should consult CDIAC’s *California Debt Issuance Primer*.

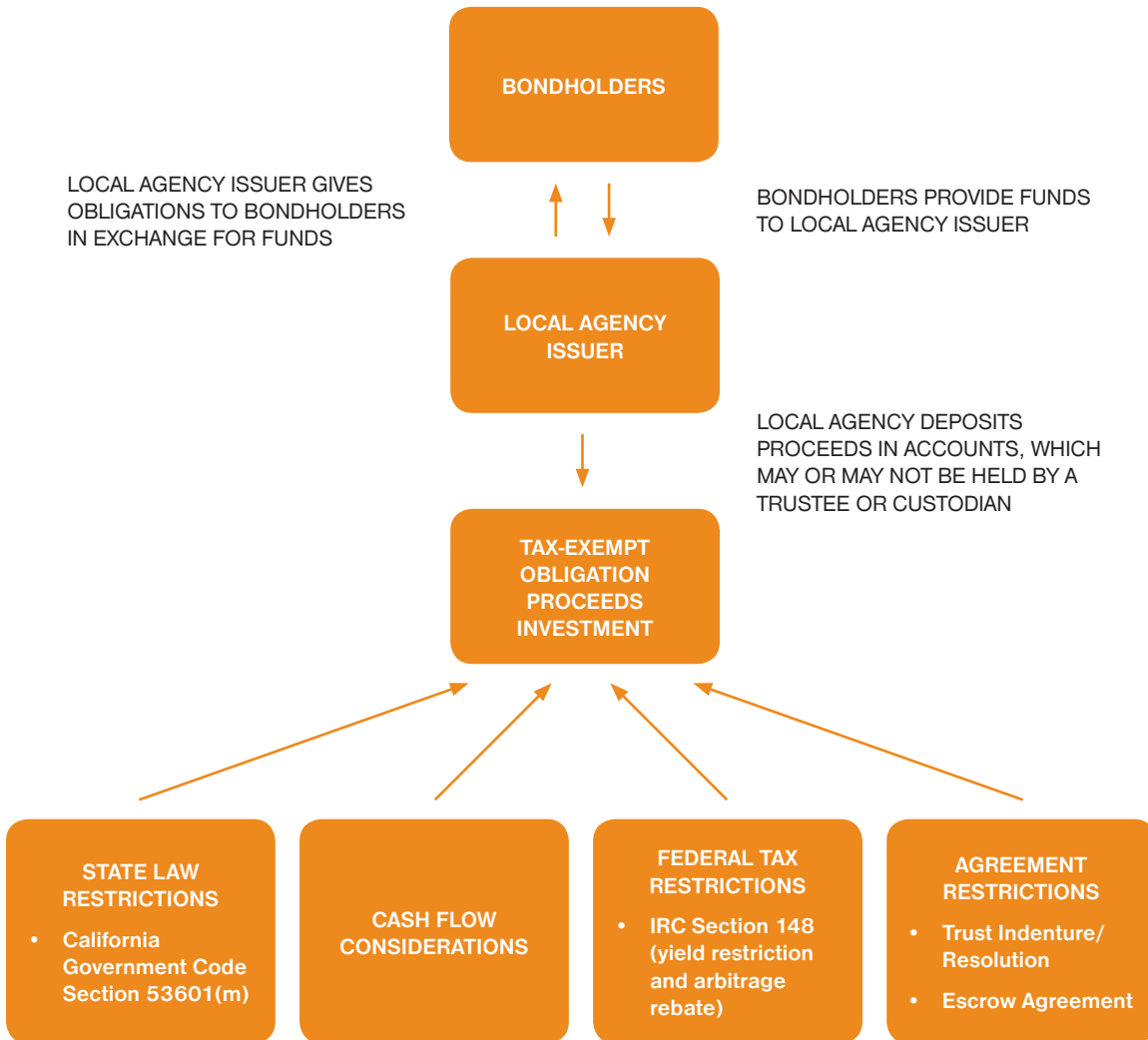
For portfolio development, readers may consult the previous chapter, *Chapter 3, Structuring a Portfolio*. However, tax-exempt bond proceeds have unique features that fundamentally impact portfolio structuring. Figure 37 identifies how the general restrictions can affect the investment of bond proceeds.

STATE LAW CONSIDERATIONS

The California Government Code imposes different limitations on the investment of tax-exempt bond proceeds than it does on other monies. California Government Code Section 53601(m) provides that tax-exempt bond proceeds are to be invested in accordance with the controlling ordinances, resolution, indenture, or agreement of the local agency unless otherwise provided by state law governing the specific type of bond is-

Figure 37

GENERAL RESTRICTIONS AFFECTING THE INVESTMENT OF BOND PROCEEDS



suance (see also California Government Code Section 5903 (regarding taxable bond proceeds) and Section 5922 (regarding a similar statement applicable to hedging transactions)). Consequently, subject to bond document restrictions (as described in *Chapter 4, Typical Restrictions on the Investment of Certain Funds*), tax-exempt and taxable bond proceeds can be invested in a wider class of investments than other local agency funds. One example of this wider class of investments is the guaranteed investment contract (GIC), which is frequently utilized for investing bond proceeds.⁴²

FEDERAL TAX CONSIDERATIONS

The Internal Revenue Code (IRC) requires that issuers account for the proceeds of tax-exempt bonds separately, and specifies how an issuer may invest and expend bond proceeds.⁴³ By limiting arbitrage, IRC Section 148 and its associated Treasury Regulations affect how issuers invest the proceeds of tax-exempt obligations.

Arbitrage

The tax preference enjoyed by the holders of tax-exempt bonds affords state and local governments the opportunity to earn “arbitrage” when issuing tax-exempt bonds. For example, when a government entity borrows funds at a tax-exempt rate and invests the bond proceeds in taxable-rate investments, it can enjoy investment earnings (“arbitrage”) on the difference between the lower tax-free interest payment and the higher taxable payment. To curb the issuance of tax-exempt bonds for the purpose of earning arbitrage (rather than for financing governmental projects), Congress adopted arbitrage restrictions on tax-exempt bonds, beginning in the late 1960s. IRC Section 148 imposes: (1)

“yield restriction” rules and (2) the “arbitrage rebate” requirement. Both are discussed below. To understand the effect of Section 148, it is important to understand basic concepts applicable to both yield restriction and the arbitrage rebate requirement. These concepts include bond proceeds, bond yield, and investment yield.

Bond Proceeds

The IRC imposes investment restrictions, which include yield restriction and the arbitrage rebate requirement, on the “proceeds” of a tax-exempt bond issue. The IRC defines the term proceeds in a broad manner to include funds that are not necessarily derived from the sale of an issuer’s tax-exempt bonds. Proceeds include the following:

- **SALE PROCEEDS.** Sale proceeds are monies actually derived from the sale of a tax-exempt bond issue.
- **INVESTMENT PROCEEDS.** Investment proceeds are earnings from sale proceeds.
- **REPLACEMENT PROCEEDS.** Replacement proceeds are monies (not necessarily derived from the sale of a bond issue) that have a close nexus to the payment of debt service on the tax-exempt bond issue. Replacement proceeds typically include two main types of funds:
 - **SINKING FUNDS.** Sinking funds are funds expected to be used to pay debt service on a tax-exempt bond issue, such as principal and interest accounts, that serve to match current revenues with the debt service requirements of a bond issue. These funds, if generally depleted at least annually, are commonly referred

⁴² California Government Code Section 53601.7(e)(12) also allows a county or a city and county to invest surplus cash in contracts issued by insurance companies provided they meet certain specified restrictions.

⁴³ See especially IRC sections 103, and 141 through 150.

to as “bona fide debt service funds” in the tax certificate for the bond issue. Replacement proceeds also can include a sinking fund established to pay debt service on a bond issue that is not expected to be depleted annually, such as an escrow fund, funded from issuer monies (e.g., the general fund) to defease and retire a bond issue.

- **PLEDGED FUNDS.** Even if a fund is not expected to be used to pay debt service, it will be considered containing proceeds of a bond issue if, based on the facts and circumstances, amounts in the fund will be available to pay debt service if the issuer encounters financial difficulties. Examples of such a fund include a debt service reserve fund and a fund containing issuer or conduct borrower monies pledged to a credit enhancer of a bond issue (see U.S. Treasury Regulation Section 1.148-1).
- **TRANSFERRED PROCEEDS.** Transferred proceeds are sale proceeds of an issue that is refinanced (or refunded) that “transfer” and become proceeds of the refunding issue under a formula provided by U.S. Treasury Regulations (see U.S. Treasury Regulation Section 1.148-9).

Issue

The yield restriction and arbitrage rebate requirement imposed by the IRC generally applies to an “issue” of tax-exempt bonds. A bond issue is defined as bonds that meet all of the following requirements:

- **TIME REQUIREMENT.** The sale dates of the bonds are no less than fifteen days apart. The date a purchase agreement for the bonds is entered into is generally the sale date.
- **FINANCING STRUCTURE.** The bonds are sold pursuant to the same plan of financing. This

is one of the most difficult tests to apply, as the IRS has not clearly defined a “plan of financing.” Whether bonds are sold pursuant to one or more official statements is not necessarily determinative. The IRS has indicated that key factors are the purpose of the bonds and the structure of the financing. The IRS has stated that bonds to finance a single facility or related facilities are sold pursuant to the same plan of financing while short-term tax and revenue anticipation notes for working capital and long-term certificates of participation are generally not part of the same plan of financing.

- **PAYMENT SOURCE.** The bonds must be expected to be paid from substantially the same source of funds. Guarantees, such as bank credit enhancement, from unrelated parties, are disregarded for this test.
- **SPECIAL RULES.** Described below are notable factors in determining what constitutes an issue.

TAXABLE BONDS. Taxable bonds are generally not considered part of the same issue as tax-exempt bonds.

COMMERCIAL PAPER. The IRS provides special rules for applying the IRC’s investment yield restriction and arbitrage rebate requirement to commercial paper. Generally, commercial paper is short-term debt, typically having a maturity of 270 days or less (see *Chapter 2, Individual Instruments, Commercial Paper*, for a description). The Treasury Regulations generally permit an issuer to treat all “new money” commercial paper notes issued pursuant to a commercial paper program within a period of 18 months plus all “rollover” or refunding commercial paper notes issued under the same program as a single tax-exempt bond issue for purposes of the yield restriction and arbitrage rebate requirement despite the fact that multiple short term notes are

sold under the program. This is important because many of the arbitrage yield and rebate restrictions are applied to an “issue” and require a local agency to ascertain the “issue date” of the “issue.” For example, the final arbitrage rebate payment for a bond issue must be paid within sixty days of the retirement of the bonds of the “issue.” If each commercial paper note were considered a separate issue, arbitrage rebate compliance would be so complicated that a commercial paper program might not be feasible as each note would have its own yield, proceeds, and rebate compliance.

The Treasury Regulations generally provide that all commercial paper that satisfies the following tests may be treated as part of one “issue” and be treated comparable to a single issue of long-term variable rate demand obligation bonds:

1. **SAME PROGRAM.** The notes must be issued under the same commercial paper program, to finance or refinance the same governmental purpose, pursuant to a single master legal document.
2. **18-MONTH LIMIT.** Any notes for new money capital costs (as compared to refinancings) must be issued within an 18-month period generally beginning on the issue date of the first roll of notes.
3. **REFINANCINGS.** Any notes issued to retire other notes may generally be issued for up to 30 years provided there is no increase to the principal amount outstanding after the end of the initial 18-month period.

For yield restriction and arbitrage rebate compliance, the issue date of an issue of commercial paper is the first date the aggregate amount issued under the program exceeds the lesser of \$50,000 or five percent of the total to be issued.

Bond Yield

Bond yield is the discount rate that equates the value when discounting the debt service payments on the bond to the bond “issue price.” Issue price generally is defined to be the initial offering price of bonds (if publicly offered) or the price paid by the first buyer (if privately sold). Bond yield may be increased by taking into account payments for credit enhancement, such as bond insurance and/or a surety bond.

Figure 38 shows an example of a bond yield proof computation for a fixed rate bond issue with credit enhancement.

VARIABLE RATE ISSUES

Bond yield is computed in a different manner for variable rate bond issues, for which the actual interest rate is not fixed for the life of the bond issue. For variable rate bond issues, bond yield generally is computed in “snapshots” at the end of every five years (see U.S. Treasury Regulation Section 1.148-4). Figure 39 illustrates this with a proof of the bond yield for an example using variable rate certificates of participation.

HEDGED ISSUES

Sometimes an issuer will issue variable rate bonds and either simultaneously or later will enter into a “hedge.” A hedge is an investment made with the intention of minimizing the effect of adverse movements in interest rates or securities prices. Typical instruments used to hedge include interest rate swaps or caps. Under certain circumstances, primarily where the hedge closely matches the bond issue, the hedge may be taken into account (i.e., integrated) in computing the bond yield for the issue (see U.S. Treasury Regulation Section 1.148-4). Figure 40 is an example of a bond yield proof with an interest rate swap that is taken into account in computing bond yield.

Figure 38

BOND YIELD COMPUTATION, FIXED RATE

Assume Local Agency X issues \$35,000,000 of general obligation bonds on April 30, 2010. Such bonds are serial bonds maturing on August 1, 2011 through August 1, 2036, with a term bond maturing on August 1, 2040 (with sinking fund payments on August 1, 2037 through August 1, 2040), each bearing a fixed rate of interest as described below. Assume Local Agency X elects to purchase bond insurance for the bond issue, at an upfront price of \$122,000.00.

As shown in the proof below, the bond yield is equal to the discount rate (2.0706976 percent) which when calculating the present value for each debt service payment as of the bond issuance date (see present value

column below) produces \$35,359,121.95, the issue price of the bonds, minus the bond insurance premium of \$122,000.00. Because certain serial bonds (those maturing on August 1, 2022 through August 1, 2029) were sold with substantial amounts of premium, the Treasury Regulations treat those bonds as being called on an earlier date for purposes of the bond yield proof.

Details regarding the scope of special rules that impact the bond yield proof if there is significant premium or discount on the bonds is beyond the scope of this Investment Primer. Those rules can be found in U.S. Treasury Regulation Section 1.148-4.

BOND PRICING

MATURITY DATE	AMOUNT	RATE	YIELD	PRICE
SERIAL BOND				
8/1/2011	\$165,000	3.500%	1.570%	102.383
8/1/2012	610,000	3.500	1.870	103.577
8/1/2013	630,000	3.500	2.320	103.674
8/1/2014	655,000	3.500	2.670	103.313
8/1/2015	675,000	3.500	2.870	103.048
8/1/2016	700,000	3.500	3.120	102.140
8/1/2017	725,000	3.500	3.280	101.406
8/1/2018	750,000	3.500	3.470	100.209
8/1/2019	775,000	4.000	3.670	102.564
8/1/2020	810,000	4.000	3.920	100.665
8/1/2021	840,000	4.000	4.070	99.368
8/1/2022	875,000	5.500	4.220	111.365

MATURITY DATE	AMOUNT	RATE	YIELD	PRICE
8/1/2022	875,000	5.500	4.220	111.365
8/1/2023	920,000	5.500	4.340	110.233
8/1/2024	975,000	5.500	4.520	108.562
8/1/2025	1,025,000	5.500	4.620	107.647
8/1/2026	1,080,000	5.500	4.720	106.741
8/1/2027	1,140,000	5.500	4.820	105.845
8/1/2028	1,205,000	5.500	4.920	104.957
8/1/2029	1,270,000	5.500	4.970	104.517
8/1/2030	1,340,000	5.000	5.070	99.112
8/1/2031	1,405,000	5.000	5.120	98.448
8/1/2032	1,480,000	5.000	5.170	97.759
8/1/2033	1,550,000	5.125	5.190	99.119
8/1/2034	1,630,000	5.125	5.220	98.693
8/1/2035	1,715,000	5.250	5.270	99.713
8/1/2036	1,805,000	5.250	5.320	99.007
SUBTOTAL	\$26,750,000			
TERM BOND				
8/1/2040	8,250,000	5.500%	5.620%	98.254
SUBTOTAL	\$8,250,000			
TOTAL	\$35,000,000			

Figure 38

BOND YIELD COMPUTATION, FIXED RATE (CONTINUED)

PROOF OF ARBITRAGE YIELD

DATE	DEBT SERVICE	PRESENT VALUE TO 04/30/2010 AT 5.0706976%	DATE	DEBT SERVICE	PRESENT VALUE TO 04/30/2010 AT 5.0706976%
2/1/2011	\$1,316,288.40	\$1,267,594.15	2/1/2020	772,862.50	474,248.94
8/1/2011	1,039,287.50	976,093.14	8/1/2020	1,582,862.50	947,269.85
2/1/2012	871,400.00	798,177.54	2/1/2021	756,662.50	441,630.56
8/1/2012	1,481,400.00	1,323,368.13	8/1/2021	10,086,662.50	5,741,571.63
2/1/2013	860,725.00	749,892.72	2/1/2022	506,387.50	281,120.59
8/1/2013	1,490,725.00	1,266,655.87	8/1/2022	506,387.50	274,169.44
2/1/2014	849,700.00	704,130.43	2/1/2023	506,387.50	267,390.17
8/1/2014	1,504,700.00	1,216,084.63	8/1/2023	506,387.50	260,778.52
2/1/2015	838,237.50	660,704.63	2/1/2024	506,387.50	254,330.36
8/1/2015	1,513,237.50	1,163,251.84	8/1/2024	506,387.50	248,041.64
2/1/2016	826,425.00	619,578.71	2/1/2025	506,387.50	241,908.42
8/1/2016	1,526,425.00	1,116,078.90	8/1/2025	506,387.50	235,926.85
2/1/2017	814,175.00	580,582.01	2/1/2026	506,387.50	230,093.19
8/1/2017	1,539,175.00	1,070,434.76	8/1/2026	506,387.50	224,403.77
2/1/2018	801,487.50	543,619.90	2/1/2027	506,387.50	218,855.03
8/1/2018	1,551,487.50	1,026,297.47	8/1/2027	506,387.50	213,443.49
2/1/2019	788,362.50	508,601.13	2/1/2028	506,387.50	208,165.76
8/1/2019	1,563,362.50	983,642.85	8/1/2028	506,387.50	203,018.54

DATE	DEBT SERVICE	PRESENT VALUE TO 04/30/2010 AT 5.0706976%	DATE	DEBT SERVICE	PRESENT VALUE TO 04/30/2010 AT 5.0706976%
2/1/2029	506,387.50	197,998.58	2/1/2038	174,625.00	43,507.14
8/1/2029	506,387.50	193,102.75	8/1/2038	2,179,625.00	529,617.39
2/1/2030	506,387.50	188,327.98	2/1/2039	119,487.50	28,315.83
8/1/2030	1,846,387.50	669,701.26	8/1/2039	2,234,487.50	516,429.64
2/1/2031	472,887.50	167,279.41	2/1/2040	61,325.00	13,822.84
8/1/2031	1,877,887.50	647,859.17	8/1/2040	2,291,325.00	503,700.86
2/1/2032	437,762.50	147,290.92	TOTAL	\$68,362,225.90	\$35,359,121.95
8/1/2032	1,917,762.50	629,301.31			
2/1/2033	400,762.50	128,255.88			
8/1/2033	1,950,762.50	608,864.96			
2/1/2034	361,043.75	109,901.29			
8/1/2034	1,991,043.75	591,085.30			
2/1/2035	319,275.00	92,440.15			
8/1/2035	2,034,275.00	574,422.97			
2/1/2036	274,256.25	75,527.49			
8/1/2036	2,079,256.25	558,448.23			
2/1/2037	226,875.00	59,427.56			
8/1/2037	2,126,875.00	543,337.46			

Figure 39

BOND YIELD COMPUTATION, VARIABLE RATE

Assume Local Agency X elects to issue \$10,000,000 of variable rate certificates of participation on September 1, 2011, all maturing on September 1, 2021 with no accrued interest. Assume such certificates bear interest at a floating rate reset semiannually by a remarketing agent such that the certificates are remarketed at par. On the certificate issuance date, Local Agency X cannot compute its bond yield because its interest rates on the certificates for the life of the certificate issue have not yet been determined. Assume interest on the certificates is payable on September 1 and March 1 of each year. The Treasury Regulations permit Local Agency X to compute its bond yield in snapshots as

follows. Assume the actual interest rate on the certificates for the first five years (ending on September 1, 2016) are as described below.

Local Agency computes its bond yield for the first five-year period (as verified in the Certificate Yield Proof below), the bond yield being 1.9073249 percent with the discount rate producing an issue price of \$10,000,000. Local Agency X utilizes this bond yield with respect to investments held during the first five-year period. The bond yield for subsequent periods will be based on the actual certificate rates during those periods.

INTEREST RATES ON CERTIFICATES DURING FIRST FIVE YEARS

DATE	INTEREST RATE
9/1/2011	2.000%
3/1/2012	3.000%
9/1/2012	2.000%
3/1/2013	1.000%
9/1/2013	2.000%
3/1/2014	3.000%
9/1/2014	2.000%
3/1/2015	1.000%
9/1/2015	1.000%
3/1/2016	2.000%

CERTIFICATE YIELD PROOF

DATE	DEBT SERVICE PAYMENT	PRESENT VALUE TO 09/01/2011 AT 1.9073249%
3/1/2012	\$99,453.55	\$98,514.06
9/1/2012	150,819.67	147,983.68
3/1/2013	99,178.08	96,393.88
9/1/2013	50,410.96	48,532.95
3/1/2014	99,178.08	94,581.30
9/1/2014	151,232.88	142,861.02
3/1/2015	99,178.08	92,802.81
9/1/2015	50,410.96	46,724.90
3/1/2016	49,726.78	45,655.34
9/1/2016	10,100,546.45*	9,185,950.06
		10,000,000.00

* Assumes \$10,000,000 deemed principal payment

Figure 40

BOND YIELD COMPUTATION, INTEREST RATE SWAP

Assume Local Agency X issues \$10,000,000 of variable rate revenue bonds on January 1, 2011, all sold at par, all maturing on January 1, 2041. Assume the interest rate on the bonds is reset semiannually by a remarketing agent enabling such bonds to be remarketed at par. To hedge its interest rate on the bonds, Local Agency X enters into an interest rate swap with Provider A, an insurance company, on January 1, 2011. Under the swap, the notional amount is \$10,000,000, the swap is to stay effective through the life of the bonds,

and Local Agency X is to pay a fixed rate of 5 percent to Provider A semiannually while receiving from Provider A a variable rate based on a municipal swap index. Despite the difference between the actual interest rate on the bonds and the index Provider A uses to make payments to Local Agency X, Local Agency X computes its bond yield for the life of the bond issue as if the bonds were fixed-yield bonds bearing interest at 5 percent. The following shows a proof verifying the 5 percent rate.

BOND YIELD PROOF

DATE	DEBT SERVICE PAYMENTS (UTILIZING HEDGE PAYMENTS)	PRESENT VALUE TO 01/01/2011 AT 5.0000000%
7/1/2011	\$250,000.00	\$243,902.44
1/1/2012	250,000.00	237,953.60
7/1/2012	250,000.00	232,149.85
1/1/2013	250,000.00	226,487.66
7/1/2013	250,000.00	220,963.57
1/1/2014	250,000.00	215,574.22
7/1/2014	250,000.00	210,316.31
1/1/2015	250,000.00	205,186.64
7/1/2015	250,000.00	200,182.09
1/1/2016	10,250,000.00*	8,007,283.62
TOTAL	\$12,500,000.00	\$10,000,000.00

* Assumes \$10,000,000 deemed principal payment

Investment Yield

A third key concept to understanding the tax restrictions applicable to a tax-exempt bond issue is investment yield. There are two main restrictions relating to investment yield.

MARKET PRICING RULES

Investments purchased with bond proceeds must be bought and sold pursuant to arms length transactions at a market price. To buy an investment at a price higher than market (or to sell at a price lower than market) artificially reduces the true yield of the investment, and, according to the IRS, diverts potential arbitrage earnings to private persons that might need to be remitted to the federal government (see this section below under *Arbitrage Rebate*). U.S. Treasury Regulation Section 1.148-5 provides for detailed rules for determining the market value of an investment. These rules are listed in Figure 41.

YIELD BURNING AUDITS. In past years, the IRS conducted numerous audits of refunding transactions with portfolios of U.S. Treasury securities that were obtained prior to the institution of the bidding requirements referenced in Figure 41. The audits have resulted in major settlements by various brokers/dealers with the IRS, with disgorgements of the profits (by brokers/dealers) that the IRS believes were illegally obtained by charging prices in excess of fair market value.

ADMINISTRATIVE COSTS

In computing the yield on investments obtained from tax-exempt bond proceeds, only certain “qualified administrative costs” may be taken into account. These costs include the following:

- Reasonable, direct costs to purchase the investment, such as separately stated brokerage or selling commissions. Indirect costs may be recovered for certain mutual funds and widely held investment pools.

- For guaranteed investment contracts, the broker’s fee that may be recovered and not affect investment yield may not exceed the lesser of (i) a “reasonable” amount and (ii) the present value of annual payments equal to 0.05 percent of the weighted average amount reasonably expected to be invested each year of the term of the contract. The Internal Revenue Service has published Treasury Regulations that attempt to articulate what is a “reasonable” broker’s fee. Such regulations provide that for calendar year 2009 a fee is “reasonable” if it does not exceed the lesser of (a) \$35,000, and (b) 0.2 percent of the amount invested, or if more, \$4,000; and for any issue, all broker’s fees paid relating to the issue are not in excess of \$99,000. For calendar years after 2009, the dollar amounts are increased by a cost-of-living adjustment as specified in the Treasury Regulations.

- For yield restricted refunding escrows, the fee that may be recovered (and not affect investment yield) may not exceed the lesser or \$10,000 or 0.1 percent of the initial principal amount of investments deposited.

Costs may not include carrying costs, such as legal and accounting fees, recordkeeping and custody costs, overhead costs of issuers, and rebate computation costs. The following examples illustrate restrictions on administrative costs relating to a guaranteed investment contract:

EXAMPLE 1. Local Agency X issues on January 1, 2009, \$5 million principal amount of lease revenue bonds for public parking, the final bond maturing on January 1, 2039. The bond issue has a \$500,000 reserve fund. Local Agency X would like to purchase a ten year guaranteed investment contract on January 1, 2009, for the reserve fund and is told by brokers that the fee for such service is \$1,900.

Figure 41

TREASURY REGULATIONS FOR DETERMINING THE MARKET VALUE OF INVESTMENT

U.S. TREASURY OBLIGATION

- Purchase price deemed fair market value.
-

CERTIFICATES OF DEPOSIT (FIXED RATE ONLY)

- Yield must not be less than comparable U.S. treasury obligations.
 - Yield must not be less than highest yield published or posted by provider on comparable deposits offered to public.
-

GUARANTEED INVESTMENT CONTRACTS

- Bona fide bidding process is conducted for investment.
 - Bid specifications must be in writing.
 - Specifications must include all material terms.
 - Specifications must notify providers that submission of a bid is a representation that the provider did not consult with any other potential provider about its bid, the bid was determined without regard to any other formal or informal agreement that the potential provider has with the issuer or any other person, and that the bid is not being submitted solely as a courtesy.
 - The term of the specifications must be commercially reasonable.
 - The terms of the solicitation must take into account the issuer's reasonably expected deposit and draw down schedule.
 - All potential providers must have an equal opportunity to bid.
 - At least three reasonably competitive providers must be solicited.
 - The issuer must receive at least three bids from providers that do not have a material financial interest in the bond issue (e.g., not the underwriter of the bonds).
 - The bidding agent may not bid.
 - The winning bid must be the highest yielding bid.
 - The investment provider must certify the administrative costs it pays (e.g., broker's fees).
 - The following records must be retained until three years after the last bond is redeemed:
 - Copy of the contract or purchase agreement.
 - Receipts for payment and administrative costs and any certifications.
 - Written back-up of bids submitted and solicitation.
 - During certain periods of time, it may be difficult to obtain the requisite number of bids to be within the safe-harbor. Purchasing an investment outside of the safe-harbor should be carefully evaluated by counsel.
 - Proposed Treasury Regulations would revise the safe-harbor to permit electronic bidding for investments in an auction like process.
 - In recent years, the Department of Justice has conducted a massive investigation regarding rigged bidding procedures with respect to the provision of guaranteed investment contracts. That investigation uncovered irregularities in bidding practices. State and Local governmental entities should seek legal advice regarding compliance with the bidding safe-harbor.
-

INVESTMENTS FOR YIELD RESTRICTED REFUNDING ESCROWS

- Same bidding requirements described above under guaranteed investment contracts.
 - The winning bid must be the lowest cost bid (including any broker's fees) on either an investment-by-investment basis or for the portfolio.
 - The lowest cost bid must not be greater than the cost of the most efficient portfolio of SLGS (see *Chapter 2, Individual Instruments, State And Local Government Series*) determined at the time bids submitted.
 - Same certification and record keeping as for guaranteed investment contracts, including keeping data relating to SLGS comparison referenced above.
 - Proposed Treasury Regulations would revise the safe-harbor to permit electronic bidding in an auction like process.
-

The maximum broker's fee that may not affect bond yield is computed under the U.S. Treasury Regulations as follows:

$$0.2\% \times \$500,000 = \$1,000$$

Since \$1,000 is less than the \$4,000 minimum specified in U.S. Treasury Regulations, the \$4,000 minimum may be used as the per investment safe harbor amount.

The "five basis points test" under the U.S. Treasury Regulations for guaranteed investment contracts is computed as follows:

AVERAGE PRINCIPAL AMOUNT

DATE	INVESTMENT PER YEAR	0.05 PERCENT	PRESENT VALUE*
1/1/09	\$500,000	\$250	\$238.0952
1/1/10	500,000	250	226.7574
1/1/11	500,000	250	215.9594
1/1/12	500,000	250	205.6756
1/1/13	500,000	250	195.8815
1/1/14	500,000	250	186.5538
1/1/15	500,000	250	177.6703
1/1/16	500,000	250	169.2098
1/1/17	500,000	250	161.1522
1/1/18	500,000	250	153.4783
TOTAL		\$2,500	\$1,930.4340

* The present value calculation utilizes a five percent discount rate, being the rate on the guaranteed investment contract.

Since the U.S. Treasury Regulations per investment safe harbor amount and the U.S. Treasury Regulations "five basis points test" for guaranteed investment contracts are

both greater than the fee quoted to Local Agency X, the agency believes the broker's fee is reasonable.

EXAMPLE 2. Local Agency X issues on March 1, 2009 \$500 million of certificates of participation to build a convention center. Local Agency X would like to invest \$450 million of the proceeds in a three-year guaranteed investment contract, with the following draw schedule:

DRAW SCHEDULE

8/1/09	\$100,000,000
3/1/10	\$200,000,000
3/1/11	\$200,000,000

Local Agency X's broker asserts that a five basis point fee is reasonable, resulting in a commission of \$304,988.70, as follows:

AVERAGE PRINCIPAL AMOUNT

DATE	INVESTMENT PER YEAR*	0.05 PERCENT	PRESENT VALUE*
3/1/10	\$450,000,000	\$225,000	\$214,285.70
3/1/11	200,000,000	100,000	90,702.95
TOTAL			\$304,988.70

* The present value is calculated utilizing a 5 percent discount rate.

Local Agency X's bond counsel informs Local Agency X that the Internal Revenue Service might view \$304,988.70 as being not reasonable for the services provided and suggests that no more than \$35,000 be paid using the standards set forth in the U.S. Treasury Regulations.

Commingled Funds

It is important to ensure that the return on tax-exempt bond proceeds investments comply with federal yield restriction and arbitrage rebate requirements. For segregated funds invested directly by a local agency, determining receipts and expenditures for investments generally is straightforward. More complicated issues exist for commingled funds, including those held by investment pools. See *Chapter 2, Individual Investments, State Government, Local Government, and Joint Powers Authority Investment Pools* for a description of state, local, and joint powers authority investment pools. U.S. Treasury Regulation Section 1.148-6 provides detailed accounting rules for commingled funds:

- **FISCAL YEAR.** The fiscal year is the calendar year unless the fund adopts another fiscal year time frame. The fund may use any consistent fiscal year period that does not exceed three months and is consistently applied.
- **ALLOCATION TIMING.** Not less frequently than the close of each fiscal period, all payments and receipts must be allocated by the fund to investors.
- **ALLOCATION METHOD.** Allocations must be made to investors on a consistently applied, reasonable basis, which includes methods that allocate in proportion to either average daily balances during the fiscal period or the average of the beginning and ending balances of the amounts in the fund for the fiscal period.
- **MARK-TO-MARKET REQUIREMENT.** If any one party (or related entities) owns more than 25 percent of the beneficial interests in the fund, the fund must mark-to-market the investments in the fund on either the last day of the fiscal year or the last day of each fiscal period. Any deemed net gains or losses must be allocated to investors. The mark-to-market requirement does not apply if the remaining

weighted average maturity of all investments held by the fund during the fiscal year does not exceed 18 months.

Yield Restriction

The first set of rules relating to yield restriction prohibit a local agency from actually earning a yield on investments allocated to tax-exempt bond proceeds in excess of the yield on the tax-exempt bonds (see U.S. Treasury Regulation Section 1.148-2).

The yield restriction rules do not generally provide that every investment need have its own yield below the yield on the bond issue. Rather, the “blend” of yields on bond proceeds investments over time must not be more than the yield on the bonds. The following example illustrates this concept.

EXAMPLE. Local Agency X must deposit \$10,000,000, on January 1, 2009, in a custody fund held by Bank A to secure a letter of credit provided by Bank A for Local Agency X’s \$100,000,000 variable rate bond issue, issued on January 1, 2009. Because the \$10,000,000 custody account is pledged to Bank A, a credit enhancer, and reasonably available in the event of financial difficulties of Local Agency X, the custody account is treated as bond proceeds. Local Agency X is advised by bond counsel that the custody account is yield restricted to the bond yield which has been calculated to be 5.25 percent. On January 1, 2009, Local Agency X buys two investments with the custody account: (i) \$9,000,000 principal amount guaranteed investment contract earning 5.30 percent maturing in five years, (January 1, 2014, paying interest semi annually on January 1, and July 1) and (ii) \$1 million in U.S. Treasury Obligations, State and Local Government Series during that same five year period (for simplicity, the rate of interest is assumed to be one percent and payment dates are assumed to be the same as the guaranteed investment contract). A proof of the calculated yield on

all the investments at the end of the first five years is show in Figure 42.

The blended yield of 4.87 percent is less than the bond yield of 5.25 percent and such funds are presently in compliance with yield restriction.

EXCEPTIONS TO YIELD RESTRICTION

Not all bond proceeds need to be yield restricted. Several exceptions (which are elective) exist:

- **PROJECT OR CONSTRUCTION FUNDS.** Project or construction funds funded from bond proceeds are not subject to yield restriction for three years subsequent to the bond issuance date provided the following three tests are met:
 1. **EXPENDITURE TEST.** At least 85 percent of the monies are reasonably expected to be expended within three years;
 2. **TIME TEST.** The issuer incurs a substantial binding obligation to expend at least five percent of the sale proceeds on capital projects within six months of the issue date; and
 3. **DUE DILIGENCE TEST.** The issuer proceeds with due diligence to expend the monies.
- **RESERVE FUNDS.** A “reasonably required” reserve fund for a bond issue generally is not subject to yield restriction if the amount held therein is not in excess of the least of (i) 10 percent of the principal amount of the issuance, (ii) maximum annual debt service, and (iii) 125 percent of average annual debt service.
- **BONA FIDE DEBT SERVICE FUNDS.** Debt service funds, such as principal and interest accounts, that are utilized to match current revenues and debt service, are not subject to yield restriction provided such funds are depleted at least once each year except for a reasonable carry over amount not to exceed the greater of (a) the earnings on the fund

for the immediately preceding bond year or (b) 1/12th of the principal and interest payments on the issue for the immediately preceding bond year.

- **INVESTMENT EARNINGS.** Investment earnings on tax-exempt bond proceeds are not subject to yield restriction for one year from the date of receipt.
- **CERTAIN REFUNDINGS.** Proceeds of tax-exempt bonds held to retire another tax-exempt bond issue within 90 days or less generally are not subject to yield restriction.

SPECIAL RULES RELATING TO YIELD RESTRICTION

Primarily because of the imposition of the arbitrage rebate requirement in 1986, the IRS has

Figure 42
YIELD CALCULATION

DATE	RECEIPTS	PRESENT VALUE (4.87%)
7/1/09	\$243,500	\$237,711.70
1/1/10	243,500	232,061.00
7/1/10	243,500	226,544.70
1/1/11	243,500	221,159.40
7/1/11	243,500	215,902.20
1/1/12	243,500	210,770.00
7/1/12	243,500	205,759.70
1/1/13	243,500	200,868.60
7/1/13	243,500	196,093.70
1/1/14	10,243,500	8,053,129.00
TOTAL		\$10,000,000.00

created special rules that minimize the application of the yield restriction requirements. In certain specified instances, the IRS permits a local agency to comply with yield restriction by making a payment of excess earnings to the federal government, called a “yield reduction payment,” instead of actually having to hold investments at the appropriate restricted yield. The primary situations where such yield reduction payments generally are permitted include (i) construction or project fund monies held for new money purposes more than three years from the bond issuance date, and (ii) for proceeds of variable rate bond issues (including for certain advance refunding issues hedged by LIBOR swaps).

Arbitrage Rebate

The arbitrage rebate requirement of Section 148(f) of the IRC is an additional “tier” of restrictions imposed by Congress on tax-exempt bond proceeds investment. The arbitrage rebate restrictions require a local agency to remit to the federal government earnings on tax-exempt bond proceeds investments that exceed the applicable tax-exempt bond yield. The arbitrage rebate requirement requires local agencies to remit earnings that are permitted under the yield restriction rules such as earnings resulting from the investment of money in a typical debt service reserve fund at a yield in excess of the bond issuance yield.

Arbitrage rebate is computed based on a future value method whereby both payments and receipts for investments are future valued utilizing the bond yield. At least 90 percent of the accrued rebate must be paid no later than 60 days following the five-year anniversary of the bond issuance date and every five years thereafter. One hundred percent of the accrued rebate must be paid within 60 days of retirement of the last bond of the issue. The bond issuer must select a “computation date,” for rebate, which generally can be any date. Issuers are entitled to an annual \$1,000 rebate credit to help defray the cost of the rebate computation.

EXAMPLE. An example of an arbitrage rebate calculation on a construction fund (which is contained in U.S. Treasury Regulation Section 1.148-3) is described in Figure 43.

EXCEPTION TO ARBITRAGE REBATE REQUIREMENTS

As with yield restriction, there are several exceptions to the arbitrage rebate requirement. These exceptions are described below:

- **SMALL ISSUER EXCEPTION.** The small issuer exception generally is available only to local agencies with taxing power that issue no more than \$5,000,000 of tax-exempt bonds during a calendar year, or \$15,000,000 of tax-exempt bonds during a calendar year provided the additional amount above \$5,000,000 is for the construction of public school facilities.
- **EXPENDITURE EXCEPTIONS.** There are several exceptions related to the timing of specific project expenditures:
 - **SIX-MONTH EXCEPTION.** The six-month exception requires actual expenditure of project or construction proceeds within six months.
 - **EIGHTEEN-MONTH EXCEPTION.** The 18-month exception is available only for “new money” transactions (not refinancings), and generally requires actual expenditure of project or construction proceeds within the following timeframes: 15 percent within six months, 60 percent within 12 months, and 100 percent within 18 months.
 - **TWO-YEAR CONSTRUCTION EXCEPTION.** The two-year construction exception generally is available if at least 75 percent of the project or construction proceeds of an issue are to be used on “new money” construction costs, and such monies are actually expended within the follow-

Figure 43

ARBITRAGE REBATE CALCULATION, CONSTRUCTION FUND

On January 1, 1994, City A issues fixed-rate bonds and invests all of the bond proceeds of the issue (\$49 million). The bond issue has a yield of 7.0 percent per year compounded semiannually (computed on a 30 day month/360 day year basis). From the investment, City A immediately expends the following amounts for governmental purposes identified in the issue:

DATE	AMOUNT
2/1/94	\$3,000,000
5/1/94	\$5,000,000
1/1/95	\$5,000,000
9/1/95	\$20,000,000
3/1/96	\$22,000,000

City A's first rebate calculation is as follows:

City A chooses January 1, 1999, as its first computation date. This date is the latest date that may be used to compute the first required rebate payment as it is exactly five years from the bond issuance date. The rebate amounts as of this date are computed by determining the future value of the receipts and the payments for the investment. The compounding interval is a 6-month (or shorter) period, and the 30-day month/360day year basis is used as this convention was used to compute yield on the issue. The rebate amount, as of January 1, 1999, is as follows:

DATE	RECEIPTS (PAYMENTS)	FUTURE VALUE (7.0 PERCENT)
1/1/94	(\$49,000,000)	(\$69,119,339)
2/1/94	3,000,000	4,207,602
5/1/94	5,000,000	6,893,079
1/1/95	5,000,000	6,584,045
1/1/95	(1,000)	(1,317)
9/1/95	20,000,000	25,155,464
1/1/96	(1,000)	(1,229)
3/1/96	22,000,000	26,735,275
1/1/97	(1,000)	(1,148)
REBATE AMOUNT (1/01/99)		\$452,432

The example assumes that all \$49,000,000 of bond proceeds are continuously invested. The \$49,000,000 entry represents the purchase with all bond proceeds of an investment. The \$3,000,000, \$5,000,000, \$20,000,000, and \$22,000,000 entries represent the withdrawal of monies from investment (or a receipt, from investment). The annual \$1,000 payment represents the allowed rebate credit. City A pays 90 percent of the rebate amount or \$407,189 to the IRS within 60 days of January 1, 1999.

On the next required computation date, January 1, 2004 (five years from the first computation date), the future value of the payments and receipts is as follows:

DATE	RECEIPTS (PAYMENTS)	FUTURE VALUE (7.0 PERCENT)
1/1/99	\$452,432	\$638,200
REBATE AMOUNT (1/01/04)		\$638,200

As of this computation date, the future value of the payment treated as made on January 1, 1999, is \$574,380, which equals at least 90 percent of the rebate amount as of this computation date (\$638,200 x 0.9), and thus no additional rebate payment is due as of this date.

On January 1, 2009, City A redeems all the bonds, and thus this date is a final computation date. The future value of the receipts and payments as of this date is as follows:

DATE	RECEIPTS (PAYMENTS)	FUTURE VALUE (7.0 PERCENT)
1/1/04	\$638,200	\$900,244
1/1/09	(1,000)	(1,000)
REBATE AMOUNT (1/01/09)		\$899,244

As of this computation date, the future value of the payment made on January 1, 1999, is \$810,220 and thus an additional rebate payment of \$89,024 is due. This payment reflects the future value of the 10 percent-unpaid portion. This payment would not be owed had the issuer paid the full rebate amount as of any prior computation date.

ing timeframes — 10 percent within six months, 45 percent within one year, 75 percent within 18 months and 100 percent within two years.

INVESTMENT IN U.S. TREASURY OBLIGATIONS, STATE AND LOCAL GOVERNMENT SERIES

An exception to the arbitrage rebate requirement also is available through the investment U.S. Treasury Obligations, State and Local Government Series (SLGS).⁴⁴ SLGS exist to assist issuers of tax-exempt obligations in complying with certain Internal Revenue Code (IRC) restrictions relating to arbitrage in connection with the issuance of tax-exempt securities. See IRC Section 148 and the U.S. Treasury Regulations promulgated there under.

IMPACT OF ARBITRAGE RESTRICTIONS

The investment strategies chosen by a local agency may be affected depending upon whether “positive” or “negative” arbitrage exists with respect to accounts containing tax-exempt bond proceeds. Positive arbitrage may exist if the market yields on appropriate investments for the applicable bond fund are in excess of the applicable tax-exempt bond yield. If the market yields on appropriate investments for the bond fund potentially are less than the applicable tax-exempt bond yield, negative arbitrage is said to exist.

Regardless of whether positive or negative arbitrage exists in the applicable bond fund, in order to analyze investment possibilities and the impact of the positive or negative arbitrage, the local agency must ascertain whether the proceeds are subject to the yield restriction rules or satisfy an exception; that is, whether the bond proceeds in

the fund are yield restricted or not.⁴⁵ If the bond proceeds held in the fund are not yield restricted, the local agency must ascertain whether the bond proceeds in the fund are exempt from the arbitrage rebate requirement or are subject to such requirement. Local agencies typically consult their bond counsel to determine whether their bond funds are yield restricted or subject to the rebate requirement. Typically, the answers to these questions are contained in a “Tax Certificate” or “Arbitrage Certificate” that is a part of the official transcript for the bonds. Different investment strategies may be appropriate depending upon the answers to the above-described inquiries. These are discussed below.

YIELD RESTRICTED FUNDS – POSITIVE ARBITRAGE. Under IRC Section 148, yield restricted bond proceeds must be invested in investments with a combined or “composite” yield not in excess of the applicable bond yield. Arbitrage rebate payments to the federal government will not satisfy such limitations.⁴⁶

Generally, yield restriction may be accomplished on a “blended” basis by combining the yields on all investments of the applicable tax-exempt bond issue, regardless of where held. However yields on yield-restricted funds may not be blended with yields on funds that are not subject to yield restriction. In addition, yields generally can blend over time such that higher and lower yields earned over different time frames can be combined in determining the overall yield restricted investment yield. Amounts held as cash are considered uninvested and cannot be blended with investment yields (see U.S. Treasury Regulation Section 1.148-5).

⁴⁴ This exception is not available for investment in tax-exempt obligations the interest on which is a preference item for purposes of the alternative minimum tax.

⁴⁵ See *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restriction*.

⁴⁶ Yield reduction payment possibilities may be available in certain instances; see *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Special Rules Relating to Yield Restriction*.

If actual yield restriction is required in a potentially positive arbitrage environment, the local agency (with the assistance of consultants) must either purchase U.S. Treasury Obligations, State and Local Government Series (SLGS) (as described in *Chapter 2, Individual Investments, State and Local Government Series*) or locate appropriate investments such that the composite yield with respect to the investments allocated to the yield restricted funds is not in excess of the bond yield. A local agency may not simply pay more than market value for an investment thereby decreasing the potential positive arbitrage. This is commonly referred to as “yield burning,” which is impermissible and has been the subject of significant U.S. Treasury enforcement activity. Instead, the local agency must either purchase or allocate appropriate investments at market yields by selecting those investments that provide a composite yield at or below the bond yield but still at a market rate, or purchase SLGS even if other available investments provide a higher yield. SLGS are special securities permitted under the IRC and issued by the Bureau of Public Debt that permit an issuer to specify the yield on the investment to a rate that complies with IRC restrictions (i.e., potentially below the market rate). The following two examples illustrate these concepts:

- **EXAMPLE 1 – YIELD RESTRICTED BUILDING FUND.** Local Agency X issues fixed rate tax-exempt general obligation bonds to fund its projected construction needs for the next six years. Local Agency X understands from its bond counsel that the bond proceeds which are held in the Building Fund are yield restricted and no exception is available because of the relatively long projected expenditure schedule and the nature of the project being financed (see *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restrictions*). Local Agency X has a projected six-year draw schedule for the proceeds in the Building Fund but knows that draw schedules are frequently altered. Local

Agency X’s bond yield has been determined to be 5.5 percent. If Local Agency X were to purchase a portfolio of U.S. Treasury Bills to fund its projected draw schedule, the composite yield on the portfolio would be 5.8 percent — in excess of the bond yield (i.e., positive arbitrage) and in violation of the yield restriction requirement. Additionally, Local Agency X is concerned about liquidity — if Local Agency X’s cashflow needs change, Local Agency X will be potentially subject to market risk on the sale of the U.S. Treasuries. Local Agency X’s financial advisor suggests to Local Agency X that a collateralized guaranteed investment contract, with a flexible draw schedule, would be a better investment for the present situation for a number of reasons. The investment contract, permitted under the bond documents, is expected to yield only slightly below the bond yield — thus complying with yield restriction limitations. Further, the investment contract, given market rates assumed in this example, can be structured with a fully flexible draw schedule — eliminating liquidity problems. Since the investment agreement is to be 100 percent backed by U.S. Treasuries, it meets Local Agency X’s credit concerns. Their financial advisor does not recommend purchasing SLGS as they are a relatively illiquid investment (see *Chapter 2, Individual Investments, State and Local Government Series*). Local Agency X agrees to purchase the investment contract.

- **EXAMPLE 2 – YIELD RESTRICTED DEFEASANCE ESCROW.** Local Agency X issued tax-exempt general obligation bonds in 1998 which are callable beginning January 1, 2008. Local Agency X has decided to issue tax-exempt refunding bonds during 2005 to retire the 1998 bonds on January 1, 2008. Document restrictions require Local Agency X to defease the 1998 Bonds. A defeasance, under the governing bond resolution, can be accomplished only with cash or securities

directly issued by the federal government. Local Agency X has received advice from its bond counsel that a defeasance escrow fund with fixed payment dates must be established to retire the 1998 bonds and that investments in this fund are “yield restricted.” The underwriter who has been assisting Local Agency X with the bond issuance has advised Local Agency X that a portfolio of U.S. Treasury Securities, closely matching its cashflow needs in the escrow, would yield in excess of the bond yield. However, SLGS can be purchased to yield almost exactly the bond yield with payment dates exactly matching Local Agency X’s cashflow needs. Local Agency X decides to purchase SLGS.

YIELD RESTRICTED FUNDS – NEGATIVE ARBITRAGE. Potential negative arbitrage on yield restricted funds containing tax-exempt bond proceeds presents local agencies with different challenges. Although the agency can theoretically earn up to the bond yield on the funds, market conditions may not provide such a return with appropriate investments. In such an instance, the local agency might closely examine its cashflow, credit, and liquidity needs to ascertain whether a higher return would be possible given the agency’s investment criteria. There may be costs, in terms of credit quality and liquidity, to obtaining a better return. In many circumstances, issuers have opportunities to partially or wholly mitigate the costs of negative arbitrage. These opportunities take the form of earning non-rebatable positive arbitrage on investment of funds of the same bond issue held in other accounts (e.g., positive arbitrage in a Debt Service Reserve Fund (“Reserve Fund”) that offsets negative arbitrage incurred in a construction fund or refunding escrow). Rebate payments due to the federal government are a function of all bond proceeds

investments over the life of a bond issue. Consequently, positive and negative arbitrage incurred in different funds and/or at different times are effectively “netted” against each other for purposes of determining final rebate payment obligations.

Given that Reserve Funds generally may be invested in longer-term instruments with yields higher than the bonds’ arbitrage yield, they are by far the most common source of this non-rebatable positive arbitrage. However, any other bond proceeds, including sinking fund-type accounts created post-issuance, also can produce similar results.⁴⁷

Because maximizing the potential to earn and keep this type of “off-setting” positive arbitrage can require specific action at or prior to the time of issuance (e.g., electing to waive a temporary period), these considerations should be part of the bond issue’s “structuring considerations” (see *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Issue*).

- **EXAMPLE 1 – NEGATIVE CONSTRUCTION FUND OFFSETTING RESERVE.** Local Agency X issues tax-exempt bonds and deposits the bond proceeds in two funds: a debt service reserve fund and a construction fund. Local Agency X is advised by its bond counsel that the construction fund is yield restricted while the reserve fund is not; both funds, however, are subject to the arbitrage rebate requirement. Local Agency X is advised by its financial advisor that in the current market it can purchase an investment contract for the reserve fund yielding 6.1 percent — far in excess of the bond yield of 4.8 percent. The financial advisor states this is because of the relatively long term permitted for the reserve fund investment under the bond resolution. The financial advisor states that an investment agreement for the construction fund,

⁴⁷ However, if the negative arbitrage is incurred in a construction fund, the so-called “temporary period” must be waived in order to “blend” that negative arbitrage with any positive arbitrage earned in yield-restricted funds such as defeasance escrows.

meeting Local Agency X's liquidity and credit needs, would likely yield only 4.3 percent. Local Agency X decides to purchase investment contracts for both funds after evaluating all of its investment possibilities. Local Agency X also considered the fact that the negative arbitrage on the construction fund could offset some of the positive arbitrage on the reserve fund for arbitrage rebate purposes thereby reducing the amount of arbitrage earnings that Local Agency X will have to rebate to the federal government.

- **EXAMPLE 2 – COMBINING AN ADVANCE REFUNDING AND NEW MONEY ISSUE INTO A SINGLE ISSUE.** Local Agency X plans on issuing bonds to fund a new capital project and the construction fund investments are expected to create substantial amounts of negative arbitrage. Local Agency X also is considering an advance refunding of a prior issue of tax-exempt bonds issued in 2003. The escrow for the refunding of the 2002 bonds will terminate in 2013, and these relatively long-term investments are expected to generate yields in excess of the yield on the refunding bonds if issued on a stand-alone basis. To maximize the overall earnings the issuer can retain, the issuer decides to issue all bonds as a single, multi-purpose issue and to waive the construction fund temporary period. Because all proceeds are now part of a single issue, the negative arbitrage from the construction fund can be netted against the positive arbitrage in the advance refunding escrow. Under most circumstances, this approach is permissible under federal tax laws, rules, and regulations.

Issuers also should be aware that investment products may be available that facilitate recapturing negative arbitrage. One “structured investment product” application product that has been developed to address negative arbitrage in an advance refunding escrow is a “forward delivery agreement” (also known

as an “escrow float agreement”). Under such an agreement, the bond issuer may receive an upfront payment of cash from the agreement provider (such as an insurance company) in return for permitting the provider to have the use of certain of the issuer's bond funds expected to exist in the future.

- **EXAMPLE 3 – FORWARD DELIVERY AGREEMENT.** Local Agency X plans on issuing tax-exempt bonds to advance refund a prior issue of tax-exempt bonds issued in 2001. The yield on the bonds is expected to be 5.64 percent. The yield on the escrow, if invested with U.S. Treasury, Time Deposit Securities, State and Local Government Series (SLGS), would be 5.01 percent (see *Chapter 2, Individual Investments, State and Local Government Series* for a description). Local Agency X determines that an escrow invested in open market U.S. Treasury notes would produce a yield of 5.45 percent. Unfortunately, the maturity dates of the Treasury notes in the escrow do not conform precisely with the dates monies are needed to pay debt service on the 2001 bonds; consequently, there are periods in which large sums of cash in the escrow would need to be reinvested in the future at then-prevailing interest rates. Because those future earnings cannot be relied upon today, the current escrow cost is higher—effectively assuming a 0 percent reinvestment rate. Local Agency X decides to acquire a forward delivery agreement to provide for the future investment of such monies in the escrow. Under the agreement, Insurance Company X has the right to sell to the Escrow Agent at a 0 percent yield U.S. Treasury obligations on the dates that the original escrow securities mature (which, again, is prior to the date that cash is needed to pay debt service on prior bonds). Under such an agreement, Insurance Company X pays Local Agency X an upfront payment for the right to invest the future monies in the escrow at 0 percent. The upfront payment is taken into account

in computing the overall yield on the investments in the escrow for arbitrage yield restriction compliance.

Other techniques are often available to maximize the return to a local agency investing tax-exempt bond proceeds. Local agencies should consult their advisors and bond counsel regarding the potential opportunities.

NON-YIELD RESTRICTED FUNDS SUBJECT TO REBATE REQUIREMENT – POSITIVE ARBITRAGE. A unique aspect of investing tax-exempt bond proceeds is that a local agency may have little incentive to earn a return above the tax-exempt bond yield because earnings above the bond yield must be remitted to the federal government unless an exception is available. Further, the local agency may actually have a disincentive to earn positive arbitrage because it typically will have to engage a consultant to calculate the appropriate amount due the federal government and handle the mechanics of payment. However, as previously stated, the local agency must earn a market return on its bond proceeds (see U.S. Treasury Regulation Section 1.148-5). The U.S. Treasury Regulations provide rules regarding when an investment will be deemed purchased at a market price. Generally, a bidding procedure is required for investment contracts and securities to be held in certain yield restricted funds (including defeasance escrows). See *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Investment Yield, Market Pricing Rules* for details relating to these rules and U.S. Treasury Regulation Section 1.148-5.

In lieu of earning positive arbitrage that needs to be rebated to the federal government, a local agency might seek investments with a lower yield but perhaps greater credit quality or increased liquidity — maximizing the overall benefits of the investment. Additionally, local agencies might seek to purchase investments that earn market returns that are at or slightly below the bond yield, to avoid the need to pay consultants to calculate

the rebate requirement. The following example illustrates these concepts.

- **EXAMPLE – RESERVE FUND.** Local Agency X has an outstanding tax-exempt bond issue, which will mature in ten years, with a bond funded reserve fund. Local Agency X's bond counsel has advised that the reserve fund is not yield restricted but is subject to the arbitrage rebate requirement. Local Agency X recently paid a consultant to calculate the rebate requirement and paid the rebate to the federal government. Local Agency X is now contemplating investing the reserve fund for the remainder of the life of the outstanding bond issue. Local Agency X wants to avoid future rebate computations, if possible, but understands that a ten-year investment agreement or repurchase agreement will likely yield above the tax-exempt bond yield. Rather than earn positive arbitrage with the accompanying rebate responsibilities, Local Agency X chooses to purchase an investment agreement with appropriate draw provisions and a slightly shorter term to maturity such that the interest rate is slightly below the tax-exempt bond yield. Local Agency X also selects an investment agreement with an institution that is more credit worthy than others available. In choosing such an investment, Local Agency X understands that it incurs the risk of potential negative arbitrage on the reserve fund when it seeks to reinvest the proceeds after the investment contract matures.

NON-YIELD RESTRICTED FUNDS/SUBJECT TO REBATE REQUIREMENT – NEGATIVE ARBITRAGE. See *Chapter 4, Proceeds of Tax-Exempt Obligations, Impact of Arbitrage Restrictions, Yield Restricted Funds—Negative Arbitrage* regarding the ability to blend positive and negative arbitrage.

NON-YIELD RESTRICTED FUNDS/SUBJECT TO A REBATE EXCEPTION – POSITIVE ARBITRAGE. Where tax-exempt bond proceeds are not subject to yield restriction and are covered by an arbi-

trage rebate exception, a local agency is free to both earn and keep its investment earnings, regardless of yield. See *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restriction, Exceptions to Yield Restriction and Exceptions to Arbitrage Rebate* above.

If a local agency is endeavoring to meet an arbitrage rebate expenditure exception, it is important that the investments of bond proceeds mature such that the local agency will be able to expend the proceeds in the required timeframes. The local agency should seek appropriate legal and financial advice regarding the structuring of its portfolio and its expenditure plans in such instances. The following example illustrates this concept:

- **EXAMPLE – POSITIVE CONSTRUCTION FUND.** Local Agency X executes and delivers variable rate certificates of participation for the purpose of financing the construction of a new community center. Because Local Agency X expects to expend the certificate proceeds within two years, Local Agency X’s bond counsel advises Local Agency X that the certificate proceeds held for construction are not subject to yield restriction. Local Agency X is endeavoring to satisfy the 2-year construction exception to the arbitrage rebate requirement. Local Agency X carefully structures its portfolio with a mix of U.S. Treasury bills and an investment contract that provide adequate liquidity such that it can actually expend the proceeds held for construction within the mandated IRC timeframes (10 percent within six months, 45 percent within one year, 75 percent within eighteen months, and 100 percent within two years). Local Agency X is hoping to earn and keep positive arbitrage on the “spread” between the variable rate certificate yield and the yield on the investments allocated to the proceeds.

NON-YIELD RESTRICTED FUNDS/SUBJECT TO A REBATE EXCEPTION – NEGATIVE ARBITRAGE. As previously described, negative arbitrage can be

used to offset future positive arbitrage and positive arbitrage earned on bond proceeds in other funds. In certain instances, in order to take advantage of negative arbitrage, a local agency might wish to not claim its exception to yield restriction and/or not avail itself of a rebate exception. The following example illustrates these concepts:

- **EXAMPLE – NEGATIVE ARBITRAGE ON RE-FUNDING ESCROW.** Local Agency X has issued revenue bonds to refinance revenue bonds that financed an airport facility. The proceeds of the refunding bonds, after payment of issuance costs, were deposited in a reserve fund and in an escrow fund to retire the old bonds within sixty days (on their call date). To satisfy credit concerns, Local Agency X was required to deposit additional funds (not consisting of bond proceeds) in the reserve fund. Bond counsel advised Local Agency X that because of the size of the reserve fund, a portion of it was subject to yield restriction. Because Local Agency X can only “blend” the yields on yield restricted funds of an issue, and to simplify the complexity of investing the reserve fund, Local Agency X does not claim any exception to invest the reserve fund above the bond yield. The reserve fund has been invested in a five-year investment contract with a yield slightly above the bond yield. To offset the positive arbitrage, Local Agency X does not claim any available exception to yield restriction and does not take advantage of an arbitrage rebate exception with respect to the refinancing escrow that has been invested in U.S. Treasury securities yielding far below the bond yield.

Consultants

Because of the complexity of the IRC restrictions, local agencies may engage consultants (including investment advisors) to assist local agencies with their IRC responsibilities including advice as to investment of bond funds. Consultants retained might include financial

advisors that assist local agencies in structuring investment portfolios for funds holding bond proceeds, such as a “yield restricted” escrow portfolio for a refinancing transaction or a portfolio designed to assist an issuer in satisfying an exception to the arbitrage rebate requirement dependent upon the timing of expenditure of bond proceeds. See *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Arbitrage Rebate, Exceptions to Arbitrage Rebate* for details relating to rebate exceptions. A local agency also might engage a consultant (such as an arbitrage rebate consultant, investment advisor or financial advisor) to compute its arbitrage rebate liability with respect to a bond issue or to structure an investment portfolio to avoid the necessity for the arbitrage rebate computations (i.e., a portfolio yield at or below the applicable bond yield). A sample RFP for Arbitrage Rebate Services is in *Appendix B*.

AGREEMENT CONSIDERATIONS

Although restrictions on investment imposed by an agreement can cover a wide variety of funds, agreement restrictions are typical with respect to bond proceeds investment. Most trust indentures or resolutions contain “permitted investment” provisions that restrict the type of investments available for the funds governed by the applicable document. It is important to understand that a public agency’s lenders (the bond holders) may face significant risks if the investment of the borrowed monies is made in instruments that may theoretically provide the cashflow required to complete a project but were exposed to unique market risk. For example, investment in an instrument that is callable prior to its stated maturity can negatively impact the cashflow available to acquire the capital goods if the called bond must be reinvested at then lower rates. For this reason, the major rating agencies and most institutional investors distinguish between the “cashflow requirement” approach and the “market value” approach to investment of bond funds.

In the “cashflow requirement” approach, the lender assumes that any investment vehicle used for the investment of bond proceeds is at least of the same credit quality as the bonds that provided such funds and that the investment will be held to maturity.

In the “market value” approach, the underlying assumption is that much, perhaps all, of the required cashflow will be met through the liquidation of the investment vehicle before, sometimes well before, its stated maturity. In the “market value” approach, it is common for lenders to insist on over-collateralization of the investment. This is a feature that is common in the use of investment agreements for bond proceeds. See *Chapter 2, Individual Investments, Investment Agreements* for a description of an investment agreement.

To conform bond proceeds investment to the expectations and requirements of rating agencies, investors, and credit enhancers, investment restrictions are typically documented in the applicable bond resolution or indenture. Frequently, credit enhancers of the applicable bonds (e.g., the bond insurer or letter of credit bank) or applicable bond rating agency provide input on what investments are considered permissible for the bond reserve fund, project fund, and debt service funds. Additional restrictions typically are provided in the bond governing document for defeasance securities. Typically, defeasance securities are limited to direct obligations of the federal government.

CASHFLOW CONSIDERATIONS

The nature of the cashflow requirements of bond funds will dictate the use of a “bullet,” “laddered,” or “barbell” strategy approach to investment, as opposed to a particular formula. See *Chapter 3, Structuring a Portfolio, Portfolio Structuring Strategies and Concepts, Passive Investment Strategies*, for a discussion of these concepts. Since the maturity distribution of the investment portfolio should be driven by the agency’s

cashflow needs, the investment of bond proceeds is similar to that of other agency surplus cash; that is, it has more to do with the expenditure pattern than with the fact that the funds are proceeds of a bond issue or other capital raising activity. Notwithstanding that, the documents that control the investment of bond proceeds, as well as the federal tax regulations, should always be thoroughly understood before embarking on any investment plan for such funds.

TYPICAL RESTRICTIONS ON THE INVESTMENT OF CERTAIN FUNDS

The following describes typical funds that hold bond proceeds and the typical investment restrictions that apply to such funds:

CONSTRUCTION FUNDS

A “construction fund” (or “project fund”) generally is a fund established under a bond resolution or indenture to be used to fund capital project costs for the applicable tax-exempt bond issue. Such a fund may be held by a trustee or custodian or directly by the bond issuer (or conduit borrower, if applicable).

Local agencies generally define their liquidity needs for a construction fund by generating cashflows in the form of a “draw schedule.” Actual draws, even in the best of circumstances, seldom correspond exactly with the projected draw schedule. Therefore, construction funds need to have sufficient liquidity to meet actual draws for project costs on a timely basis.

Because of federal tax restrictions, the projected life of construction funds is typically three years or less. This relatively short duration of such funds typically results in lower investment yields as compared to funds with longer durations such as reserve funds.

State Law Restrictions

See *Chapter 4, Proceeds of Tax-Exempt Obligations, State Law Considerations*.

Federal Tax Restrictions

Under IRC Section 148, construction funds generally are subject to yield restriction and arbitrage rebate requirements unless exceptions are available (see *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restriction and Arbitrage Rebate*). The typical exception to yield restriction for a construction fund is the “temporary period exception.” Under the temporary period exception, tax-exempt bond proceeds in the construction fund are not subject to yield restriction for three years beginning on the tax-exempt bond issuance date. However, to qualify for the temporary period exception, the applicable entity must (i) reasonably expect to expend, for capital project costs, at least 85 percent of the construction fund monies within three years of the bond issuance date, (ii) incur within six months of the issue date a substantial binding obligation to a third party to expend at least five percent of the construction fund monies on capital projects, and (iii) spend the proceeds in the construction fund with due diligence (see U.S. Treasury Regulation Section 1.148-2 and *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restriction*). Most new money transactions to finance capital costs are structured to meet the three-year temporary period exception described above. A longer temporary period exception (five years) is available for certain long-term projects (see U.S. Treasury Regulation Section 1.148-2).

After the three-year temporary period expires, any unexpended construction proceeds are subject to yield restriction. However, Treasury Regulations allow a local agency to satisfy such yield restriction by making a special type of rebate payment of the excess earnings, called a “yield reduction payment,” to the federal government (see U.S.

Treasury Regulation Section 1.148-5 and *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restriction and Arbitrage Rebate*). Thus, most construction funds (i.e., those that satisfy the three-year temporary period exception) typically are not subject to actual yield restriction of individual investments for the life of the fund.

Construction funds, however, are subject to the arbitrage rebate requirement unless an exception is available. It is possible for construction funds to be structured to satisfy an exception to arbitrage rebate (see *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Yield Restriction and Arbitrage Rebate*).

Agreement Restrictions

Special restrictions on investing bond proceeds typically include those required by credit enhancers or rating agencies to ensure that funds have sufficient security and liquidity to meet projected project costs.

CAPITALIZED INTEREST FUNDS

Generally, capitalized interest funds are monies raised through the issuance to pay interest accruing on the bond issue prior to the issuer's first intended out-of-pocket payment. Capitalized interest typically is funded during the early months and years prior to project completion when sufficient revenues to pay debt service on the bonds are not available. Thus, capitalized interest funds typically have a relatively short life of no more than three to five years, and relatively lower investment yields than funds with longer durations such as reserve funds. Unlike the typical construction fund, capitalized interest funds (at least for fixed-rate bond issues) typically have known payment amounts and dates such that liquidity needs can be ascertained for investment purposes. Capitalized interest may be held directly in a construction fund or in a separate account within a debt service fund.

State Law Restrictions

See *Chapter 4, Proceeds of Tax-Exempt Obligations, State Law Considerations*.

Federal Tax Restrictions

For federal income tax purposes, capitalized interest funds generally are viewed as funds subject to the same restrictions as construction funds (see *Chapter 4, Typical Restrictions on the Investment of Certain Funds, Construction Funds*).

Agreement Restrictions

Credit enhancers or rating agencies may require capitalized interest funds to be invested in relatively high-grade securities, such as U.S. Treasury obligations.

DEBT SERVICE FUNDS

Debt service funds typically hold monies to be used to pay debt service on tax-exempt bonds. Debt service funds usually hold revenues to pay current debt service, although under certain instances monies may prefund debt service for longer periods.

Because debt service funds are typically funded a few months, weeks, or days, as applicable, prior to a debt service payment date, and depleted at least annually, such funds typically cannot be invested to generate high yields. Investments must typically mature or otherwise provide for liquidity on debt service payment dates.

State Law Restrictions

See *Chapter 4, Proceeds of Tax-Exempt Obligations, State Law Considerations*.

Federal Tax Restrictions

Debt service funds are not subject to yield restriction under U.S. Treasury Regulations, provided the debt service fund is to be depleted at least annually (except for a permitted de minimis

amount). This type of debt service fund is typically referred to as a “bona fide debt service fund.” Further, for most fixed-rate, long-term governmental bonds issues, such a debt service fund is not subject to the arbitrage rebate requirement. However, debt service funds for private activity bonds and variable rate governmental bonds that have annual earnings of \$100,000 or more, are subject to the arbitrage rebate requirement. See IRC Section 148(f) and the U.S. Treasury Regulations promulgated there under.

Also, debt service funds that are not expected to deplete on an annual basis generally are subject to actual yield restriction.

Agreement Restrictions

Rating agencies or credit enhancers may impose investment restrictions on debt service funds.

RESERVE FUNDS

A “reserve fund” (or “debt service reserve fund”) generally is a pledged fund typically established under a bond resolution or indenture to provide additional security to bond investors or a credit enhancer, if applicable, in the event of the inability of the bond issuer to pay debt service on the bonds. If revenues normally available to pay debt service deteriorate, the reserve fund is available to fund scheduled bond payments. Although draws on reserve funds are not expected at initial issuance, investments held in such a fund typically have sufficient liquidity on all dates that monies in it potentially could be drawn pursuant to the governing documents (e.g., a debt service payment date). Consequently, investments chosen for reserve funds typically can have longer durations than those for construction funds, and perhaps, a higher yield — but they must include draw rights on debt service payment dates.

State Law Restrictions

See *Chapter 4, Proceeds of Tax-Exempt Obligations, State Law Considerations*.

Federal Tax Restrictions

Because of federal income tax considerations under IRC Section 148, reserve funds are typically sized at the least of (i) 10 percent of bond proceeds, (ii) maximum annual debt service, or (iii) 125 percent of average annual debt service. Although it is possible, under certain circumstances, that a reserve fund is larger than described above, to the extent amounts in the reserve fund are equal to or less than the tax limit, such monies are not subject to yield restriction. Debt service reserve funds generally are subject to the arbitrage rebate requirement unless a small issuer exception is available.

Agreement Restrictions

Often, a debt service reserve fund is established to obtain credit enhancement or to obtain a credit rating. Credit enhancers and rating agencies generally specify permitted investments for the reserve fund.

REFUNDING ESCROWS

A “refunding escrow” is established under an escrow agreement with an escrow bank/trustee that holds monies and/or securities sufficient in amount and time to retire or redeem tax-exempt bonds (or certain portions of debt service on such bonds) as described in the escrow agreement. The duration of the refunding escrow is dependent upon the repayment/redemption terms of the applicable tax-exempt bonds and can range from a day to many years.

State Law Restrictions

See *Chapter 4, Proceeds of Tax-Exempt Obligations, State Law Considerations*.

Federal Tax Restrictions

The IRC typically restricts the yield of refunding escrows that have durations of more than

90 days to the applicable tax-exempt bond yield (see U.S. Treasury Regulation Section 1.148-9). With the exception of U.S. Treasury Obligations, State and Local Government Series (SLGS), issuers are required to purchase and sell investments, including those in refunding escrows, at fair market value, in “arm’s length” transactions. Issuers are prohibited from purchasing securities at an increased price (i.e., not reflecting the market) to artificially lower the investment yield to comply with the IRC yield limitations (see *Chapter 4, Proceeds of Tax-Exempt Obligations, Federal Tax Considerations, Investment Yield, Market Pricing Rules* for a full discussion). To comply with the above described limitations, issuers typically invest refunding escrows in SLGS, the terms of which (including interest rate and payment dates) can be tailored to comply with IRC restrictions and refunding escrow payment requirements.

Agreement Restrictions

In many instances, the refunding escrow will be the only source of repayment of the refunded bonds. Such bonds will need to be considered defeased or no longer outstanding under the applicable bond documents. Bond indentures or resolutions typically restrict the type of securities that can be deposited in a refunding escrow to those that are considered to have no default risk, such as U.S. Treasury securities, SLGS and STRIPS. Further, state law, in certain instances, may require the use of federal securities in a refunding escrow (see California Streets & Highway Code Section 9615).

Investment advisors, financial advisors, or underwriters typically structure the refunding escrow to ensure that adequate funds are available to repay the applicable tax-exempt bond debt service subject to the escrow agreement, and that the chosen investments comply with IRC restrictions. The cashflows for the refunding escrow typically are required, under the applicable bond documents, to be verified by certified public accountants. Further, state law, in certain instances, may re-

quire a verification report (see, for example, California Streets & Highway Code Section 9616).

ISSUER PURCHASES OF THEIR OWN TAX-EXEMPT BONDS

In recent months, the financial markets, including the tax-exempt bond market, have experienced significant upheaval. The municipal market has witnessed the downgrading and dissolution of bond insurers as well as the exiting of certain classes of buyers from the municipal market. Certain issuers, with exposure to variable interest rates, have experienced extreme increases in borrowing costs. Such issuers have considered purchasing their own bonds, on a temporary basis, with a future expectation to either resell those bonds to third parties or otherwise restructure or refinance the bonds. Bond counsel has been concerned that the purchase of governmental tax-exempt bonds (in contrast to those financing conduit loans to third party entities) might result in a deemed extinguishment of the tax-exempt bonds. In response to such concerns, the IRS has released Notice 2008-88, 2008-42 I.R.B. 933, which provides for a temporary rule allowing issuers to purchase certain of their tax-exempt variable rate governmental bonds, without resulting in an extinguishment, provided they hold such bonds no later than December 31, 2009. Existing guidance, however, does not clarify the impact on bond yield in the event of such a purchase.

In 2008, in response to the collapse of the auction rate securities market and liquidity constraints faced by tax-exempt bond issuers, the California Legislature adopted California Government Code Section 5925. Under this provision, state or local government issuers may purchase or otherwise acquire their own bonds without canceling, extinguishing or otherwise affecting such bonds. Repurchased bonds will be treated as being outstanding for all purposes.

Issuers are encouraged to consult their own tax advisors regarding tax-exempt bond compliance issues relating to a bond purchase.

PENSION FUND INVESTMENT

Most public investment officials have no direct responsibility for the investment of pension assets. Only a small number serve as trustee for a retirement system, while a larger number have the responsibility of administering pension plans such as “457 deferred compensation plans.” This section provides a broad overview of retirement plans available to public employees in California, with a more detailed discussion of defined benefit pension plans. For those public officials with an interest in pursuing this subject in greater detail, there are many organizations that can provide in-depth information about all areas of pension fund administration and investments.⁴⁸

Pension fund investing is a discipline with only a limited number of elements in common with the investment of surplus cash. Because their needs and interests are quite separate from those of the typical public agency investor, public pension administrators and investors have formed their own state and national organizations, through which they have developed publications and held conferences and seminars that address the concerns of their profession. The literature covering the field of pension investing and pension administration is voluminous. Moreover, the fields of “defined benefit” and “defined contribution”

pensions each has its own separate organizations and professional publications.

In California, nearly every local agency offers what is commonly called a defined benefit pension plan under which employees, upon retirement, are entitled to a fixed monthly payment based on factors such as age, salary, and length of service. Most California cities and counties also offer a deferred compensation or 457 plan, while school employees are offered a supplemental plan known as a 403(b) plan. Both the 457 and the 403(b) plans are voluntary with benefits based upon the value of the assets in the plan when the employee retires. A few agencies also offer 401(k) and 401(a) plans and/or a supplemental defined contribution pension plan.

The following sections purposely provide more detailed information regarding defined benefit plans, not as an endorsement of these plans but as a reflection of the type of retirement plan affecting most public sector employees in California. General operational information regarding voluntary retirement plans (i.e., 457 and 403(b) plans) also is provided.

DEFINED BENEFIT PLANS

The oldest and most widespread type of retirement plan is the defined benefit plan. Under this type of plan, employees upon retirement receive a taxable monthly benefit based upon a combination of age, length of service, and highest annual salary achieved. Thus, the amount of the monthly benefit received by retirees can vary

⁴⁸ The Government Finance Officers Association provides a wide array of publications, policies, and best practices in the area of pension administration. Two excellent resources are Girard Miller's *Investing Public Funds* (1998) and Kathleen J. Harm, *A Public Employee's Guide to Retirement Planning* (2nd Edition). Other organizations with pension-related missions include: The National Association of State Retirement Administrators (NASRA), the National Conference on Public Employees Retirement Systems (NCPERS), the California Association of Public Retirement Systems (CalAPRS), the National Council on Teacher Retirement (NCTR), the National Association of Government Deferred Compensation Administrators (NAGDCA), the National Defined Contribution Council (NDCC), the National Association of Public Pension Attorneys (NAPPA), the Association of Public Pension Fund Auditors (APPFA), and the International Foundation of Employee Benefit Plans (IFEBP).

widely. Participation in these types of plans generally is mandatory for all or most employees and is funded with contributions from both the employer and employees.⁴⁹ Employees typically are subject to a vesting period of five to ten years. Employees who leave the system before they are vested normally are entitled to receive any monies that they contributed to the system, but none of the employer contribution. Although it varies from plan to plan, the age at which employees may elect to collect retirement benefits under this type of plan typically is 55 for general members or 50 for public safety members. For teachers, the normal retirement age is 60, but can be as early as age 50 if the employee has 30 years of creditable service. Features included in this type of plan include survivor benefits and cost of living adjustments (COLAs), generally capped at some level (e.g., two to three percent). The funds used to pay benefits for these plans are held in trust for the beneficiaries (i.e., retired employees), and are managed by a board of trustees, usually comprised of employees, elected officials and appointed citizens. Many of the local agency retirement plans also offer the feature of reciprocity with defined benefit plans of other agencies. This allows employees to change jobs within California and still receive retirement benefits based upon some combination of service and salary in each agency for which they have worked.

As of June 2008, 448 cities and 36 counties in California have an agreement with the California Public Employees Retirement System (CalPERS), which operates the largest pension plan in the U.S. (Figure 44 lists the counties participating in CalPERS).⁵⁰ While CalPERS invests

Figure 44
CALIFORNIA COUNTIES
PARTICIPATING IN CALPERS
(AS OF JUNE 2008)

ALPINE	MADERA	SANTA CRUZ
AMADOR	MARIPOSA	SHASTA
BUTTE	MODOC	SIERRA
CALAVERAS	MONO	SISKIYOU
COLUSA	MONTEREY	SOLANO
DEL NORTE	NAPA	SUTTER
EL DORADO	NEVADA	TEHAMA
GLENN	PLACER	TRINITY
HUMBOLDT	PLUMAS	TUOLUMNE
INYO	RIVERSIDE	YOLO
KINGS	SAN BENITO	YUBA
LAKE	SAN FRANCISCO (City and County) ⁵⁰	
LASSEN	SANTA CLARA	

Source: CalPERS Comprehensive Annual Financial Report (Fiscal Year End June 30, 2008)

⁴⁹ In many agencies, the employer pays some or all of the employees' contribution. This benefit is known as an "offset".

⁵⁰ CalPERS was created in 1931 for state employees only. Beginning in 1937, other public entities were allowed to contract with CalPERS to provide retirement benefits. Classified school employees became eligible in 1947. The sections of the Government Code pertaining to CalPERS can be found at Title 2, Division 5, Parts 3 through 8, Sections 20000 through 22970.89.

Per the June 30, 2008 CalPERS CAFR, San Francisco has both City and County employees and is listed in both areas; however, it is included only in the "total" count of the Cities & Towns category.

and administers the retirement funds, the contribution rates for each participating agency are calculated based upon the actuarial characteristics of the agency's employees and investment return assumptions. CalPERS offers a variety of retirement formulas that are determined by the member's employer, occupation and the specific provisions in the contract between the agency and CalPERS. There are three types of retirement plans offered: service retirement or "normal" retirement, disability retirement for employees who can no longer perform their jobs due to illness or injury, and industrial disability retirement for safety members or members whose agency has contracted for industrial disability retirement benefits and whose job-related injuries or illnesses resulted in disability, leaving them unable to work. CalPERS also provides death benefits for active and retired members paid to eligible beneficiaries or survivors.

The CalPERS board of trustees consists of six elected members, three appointed members, and four Ex Officio members: the State Treasurer, the State Controller, the Director of the State Department of Personnel Administration, and a designee of the State Personnel Board.

Alternatively, 21 counties and at least four cities have their own defined benefit retirement plans with a separate and independent board of trustees. Of these, 20 counties operate separate and independent plans authorized by what is known as the "1937 Act," which requires the counties to adopt the disability retirement provisions of California Government Code Section 31500. San Luis Obispo County and the cities of Los Angeles, San Diego, Fresno, and Pasadena have established defined benefit plans under yet another legal authority found in the State Constitution.⁵¹

Teachers and other school employees in California (kindergarten through community college) are covered by a separate defined benefit pension plan known as the California State Teachers Retirement System, or CalSTRS.⁵² The requirements and benefits of the CalSTRS plan are structured similarly as other defined benefit plans described above. University of California employees and California State University employees are each covered by their own respective pension plans.

Legal Restrictions

The governing bodies of defined benefit systems in California operate independently with respect to investments. The California Government Code specifies that for defined benefit plans, any type of investment is permissible so long as it is considered prudent by the body authorized to make investments. Additionally, California Government Code Section 31595 directs such bodies to discharge their duties with respect to the system or pension trust:

- "[s]olely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system";
- "[w]ith the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims"; and
- "[s]hall diversify the investments of the system so as to minimize the risk of loss

⁵¹ Article XI, Sections 4 and 6.

⁵² Established under Chapter 694, Statutes of 1913 (AB 1263) as the Public School Teachers' Retirement Salary Fund, effective July 1, 1913.

and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.”

Pension Plan Management and Oversight Responsibilities

Investment of defined benefit pension assets is performed within an entirely different framework than the investment of surplus cash. Although state law does not provide a list of authorized investments for pension funds, fiduciary standards and practices with respect to pension investing are well established. It is widely understood by pension fiduciary experts that the primary duty of trustees is to manage funds in the exclusive interest of the beneficiaries; minimizing employer contributions is a secondary duty.

In California, a board of trustees oversees each defined benefit plan. Typically the board is comprised of both officers and employees of the agency, as well as members of the public appointed by the legislative body. In some agencies, the board of trustees may include a retiree. The board does not have day-to-day investment responsibilities, but hires staff and professional money managers to perform this function.

The responsibilities of the trustees with respect to investments include:

- Adopting investment objectives and asset allocation policies;
- Hiring investment managers to perform the day-to-day investment functions;
- Adopting performance goals;

- Evaluating the performance of the investment managers relative to performance goals and terminating managers who fail to meet them; and
- Re-balancing assets as needed.

These tasks are accomplished with the assistance of professional staff. The board employs a pension administrator, who in turn assembles a staff to assist in carrying out the policies of the board. This staff generally will include one or more investment officers to perform the day-to-day activities at the direction of the board, including hiring, evaluating, and terminating the professional money managers as well as rebalancing assets in accordance with the allocation policy. In addition, the investment officer may be responsible for the investment of some assets, such as cash.

Another position that is important for the investment function is the pension consultant. In virtually all pension systems, the board of trustees will hire a pension consultant to assist it and staff in carrying out the duties described above. Typical duties of a pension consultant include asset allocation studies, staff/trustee education, manager searches, and manager evaluations.

To assist trustees and pension administrators in investment management of pension plans, the following have been identified as guiding principles of defined benefit public retirement systems:⁵³

1. Adopt written investment objectives and policies that should include the following elements:
 - Specify the expected return over a defined period of time;

⁵³ The Public Pension Coordinating Council, created in 1990, has been credited with identifying the guiding principles of defined benefit public retirement systems. The Council is comprised of representatives of three national associations whose members have a direct interest in public pension system administration: the National Association of State Retirement Administrators, the National Conference on Public Employees Retirement Systems, and the National Council on Teacher Retirement.

- Describe the relationship between expected return and the actuarial return assumptions;
 - Allocate investments among selected asset classes and define the permissible deviation limits for each category; specify, if appropriate, all authorized or prohibited investments within each asset class;
 - Document the assumed risk and return characteristics of each asset class; and
 - Define roles and responsibilities of all parties in the investment process, including the trustees, staff, consultants, and investment managers.
2. Adopt fiduciary standards (in California, these are defined by Government Code Sections 31595 and 53216.6).
 3. Obtain performance evaluations from a qualified investment consultant. The system's investment returns should be compared with its investment objectives (e.g., indices) and appropriate composite returns of other institutional investors with comparable assets and/or portfolios. Return comparisons should be made by asset class and for the total portfolio. The consultant providing such measurements should have experience in pension performance evaluation. Neither the consultant nor the consulting firm should be receiving income or other benefits from any sources that might create a real or perceived conflict of interest. Under California law, investment managers and consultants are required to file conflict of interest statements with the Fair Political Practices Commission.
 4. Impose minimum qualifications on those who make investment transaction decisions. The governing board should stipulate requirements for education and experience in writing.
 5. Adhere to written performance objectives to be agreed between the fund and the manager/

advisor of each separately managed portfolio within the fund; this requires that each manager's investment style (e.g., domestic large cap value stocks or small cap growth stocks) be defined and documented. Both risk and return expectations should be specified for each portfolio. The performance of each manager/portfolio relative to all these parameters should be monitored and progressive corrective actions taken in accordance with an established documented plan.

In addition to these five principles, trustees should consider the adoption of an education policy for the trustees of the pension plan. Often, trustees come to a pension board with little experience or knowledge of the above principles. Moreover, the role of the pension trustee is made more complex due to its oversight and policy responsibilities (such as benefits administration and actuarial assumptions) in addition to investment responsibilities. It is important that pension trustees take positive steps to educate themselves on their roles and responsibilities, as well as achieve familiarity with the terms and concepts of pension fund management.

Investment Principles

The approach to investing the assets of a defined benefit plan differs greatly from that of investing surplus cash. An important element of any defined benefit pension fund is its obligation to pay a specified income stream for the life of every current and future retiree, and possibly that of their beneficiary. The defined benefit pension fund derives cash flows to pay monthly benefits through member contributions and income and capital gains from an investment portfolio. The income and rate of return objectives of the portfolio are determined by the need to fund the current and future actuarial liabilities of its members. In order to do this, the investment portfolio must be structured to provide a rate of return that will fulfill its benefit obligations.

Because the investment horizon is quite long, short-term risk is considered to be an acceptable trade-off in order to achieve a long-term rate of return sufficient to preserve or enhance the value of pension assets relative to inflation. Because pension funds have a long-term horizon, they can withstand short-term market losses resulting from volatility in the financial markets. Investment in riskier assets, such as stocks, is expected (though not guaranteed) to generate long-term returns that more than compensate for their additional market risk. Over a long-term period of, for example, ten years or more, diversifying assets across both equities and fixed income securities can actually reduce risk as compared to a portfolio of 100 percent bonds or 100 percent stocks. While the reasons for this can be demonstrated mathematically, the common-sense explanation is that stocks and bonds often move in opposite directions; therefore, a portfolio containing both stocks and bonds will have less volatility on a whole than a portfolio comprised solely of stocks or bonds.

Most pension fund portfolios are regulated by an explicit investment policy developed and implemented by the pension governing board. The investments are structured and managed to provide a target rate of return while carrying a prudent level of risk. The typical composition is one of cash and cash equivalents, fixed income, real estate and equity investments.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents generally include bank deposits, money market funds, and other highly liquid, short-duration products similar to those used by public fund investors for operating funds. Both return and risk on these assets tend to be low, having a stabilizing effect on the volatility of the portfolio as a whole. Some funds designate a certain percentage of the fund to be allocated to cash. Other funds do not designate cash as a separate asset class, but assume that there will always be a cash component of the fund because some cash is always held by managers of other assets as

a result of timing differences between sales and purchases and/or an investment strategy. In addition, cash is held in the fund checking account to pay administrative costs and benefit payments.

FIXED INCOME/BONDS

Fixed income securities include bonds, guaranteed investment contracts, some mortgage-backed securities and some zero coupon securities. These assets have a longer duration than cash and, thus, have more price volatility. Because they generally have a higher coupon than cash-equivalent securities, fixed income securities can provide a reliable income stream to help fund system liabilities. On the down side, periods of high or prolonged inflation can erode the value of longer duration instruments. However, because non-U.S. bonds offer additional diversification and sometimes additional yield, a growing number of government pension systems are adding an international bond component. Another possible use of fixed income securities in a pension fund is to build a portfolio to match a specific liability or liabilities. In certain interest rate environments, it may be possible to construct a portfolio that would provide a return that would match or exceed the cash flow needs of a defined and limited liability stream (e.g., a limited group of retirees). Typical public sector allocation to fixed income/bond investments is between 35 percent and 60 percent of the pension fund.

EQUITIES

Equities usually represent the largest asset class in a defined benefit pension plan; this class is normally further subdivided into several categories: capitalization (e.g., large, medium, and small), style (e.g., growth and value) and country or region (U.S. versus non-U.S.). In addition, equity assets are sometimes classified according to industry sector. Finally, it is increasingly common for investment strategies to include index funds, which are comprised of all the stocks in a certain index (e.g., the Standard & Poor's 500 Index) in

proportion to their weight in the index. Typical public section allocation to equity investments is between 25 percent and 65 percent of the fund.

REAL ESTATE

Investment of funds in real estate can be approached in several ways. For smaller funds, it is most common to use a pooled fund. Medium- and large-size pension systems may invest in both pooled funds and individual properties. Alternatively, two or more pension systems may share in the ownership of a single property. Pension funds also may invest in real estate investment trusts (REITS). While technically these are equities, and therefore have the liquidity of equities, the assets of the trusts are real estate. Typical public section allocation to real estate investment ranges from no investment to 15 percent of the fund.

In addition to the four asset classes listed above, many funds, especially the larger ones, also use alternative investments such as venture capital, corporate partnerships, futures and options, commodities, hedge funds, etc. In June 2000, the CalPERS board committed almost \$500 million for “The California Initiative,” which is designed to deploy equity capital in traditionally underserved markets primarily located in California. Working with selected fund managers, the money would be used for investment as seed and early stage capital, later state venture capital, growth/expansion stage capital, middle market buyouts, and to encourage corporate partnerships to relocate or expand operations in underserved areas. The portion of the total fund allocated to such alternative investments will generally be a small percentage (e.g., no more than five percent per asset class).

In large pension funds, a separate manager usually is hired to invest each asset class, and more than one manager may be hired to manage a single large class of assets in order to achieve more diversification. In small funds, it is common to hire a single investment manager to invest all asset classes. While this approach has the

disadvantage of having all assets managed by a single firm, it often is not practical or cost effective to hire separate managers to manage small amounts of money.

Asset Allocation

Asset allocation is the method of choosing the types of investments and their relative weight in the portfolio. The purpose of asset allocation is to provide an optimal mix of investments that has the potential to produce the desired returns with the least amount of fluctuation in the overall value of the investment portfolio.

The classes of investments used by public pension funds today have evolved over time, with public funds generally following the lead of private sector pension funds. In the early half of the last century, most public pension funds were constrained by law to only a few types of investments. As both public pension and financial markets grew and portfolio theory evolved, many states including California eventually adopted “prudent investor” statutes, moving away from the early practice of legislating a list of permitted investments.

By spreading funds among several styles or investment types, there is an increased probability that if one investment type is decreasing in value, another is increasing in value. Asset allocation programs include a long-term decision component called “strategic” and a shorter term, or operational component is called “tactical”. Strategic asset allocation decisions are generally concerned with the allocation of assets into broad classes of equities, fixed income, or real estate. Tactical allocation decisions are made relative to a strategic plan but are implemented in order to take advantage of market conditions relative to a subclass of assets.

Typically pension boards set a strategic “target asset allocation” for the investment portfolio. An example might be 60 percent public equities, 30 percent bonds and 5 percent real estate and 5 percent other private equity investments. The pension fund normally will target a minimum

balance in cash or cash equivalents because of the long-term nature of the fund and the low returns associated with cash.⁵⁴

From there they determine the types of stock, bonds, and real estate investments to hold. These would be classified as being domestic equities, foreign equities, treasury bonds, corporate bonds, real estate and others. The fund manager will then analyze how the investment returns are related to each other and make substitutions to attempt to increase returns while staying within prudent levels of risk.

The portfolio allocation mix is adjusted within stated parameters to reflect current market conditions. It is also reviewed and measured against pre-established benchmarks to judge performance. Generally, large pension funds like CalPERS and CalSTRS target a 50-60 percent exposure to public equities (foreign, domestic), 25-35 percent exposure to fixed income securities (government and corporate bonds), 5-10 percent to real estate and 5-10 percent to private equity investments.

Mechanics and Actuarial Assumptions

The defined benefit pension fund's main objective is to determine the current and future benefit payments (liabilities) versus the level of current contributions and future investment income (assets) needed to satisfy the benefit payments. Pension fund management's goal is to determine the optimum level of contributions to fully fund the promised benefits. Pension fund math, reduced to its simplest form, can be described by the formula:

$$C + I = B + E$$

Where:

C = Contributions (employer, employee, or both)

I = Income from investments

B = Benefits paid

E = Expenses for plan administration

In a defined benefit plan, benefits (B) can be thought of as a moving target. As salary increases and service is extended, B becomes larger. Based on complex actuarial calculations, a contribution amount (C) is determined which will allow for the accumulation of the assets and investment income (I) needed to pay for B. Expenses (E) will be a variable, based on the plan's business policy.

If B is predicted accurately but I is less than expected, then the one alternative for bringing the formula back into balance is to increase C. If I is greater than expected, C can be reduced. In most cases, C is the responsibility of the employer and employee. The employer's risk increases if I is less than expected, and it may need to increase contributions or reduce benefits for new employees.

ACTUARIAL VALUATION

A comprehensive analysis of each of the above variables must be undertaken by an actuarial firm to determine a "best guess" at their current and future values along with the level of investment income needed to fully fund the promised benefits.

Actuarial liabilities are created by a promise to pay a specified benefit if certain events occur or certain conditions are met. Actuarial liabilities are not the same thing as accounting liabilities. That is, they are dependent upon one of several possible events occurring.

⁵⁴ Public equities are securities that trade in an organized, liquid exchange, such as the New York Stock Exchange (NYSE) or Financial Industry Regulatory Authority Automated Quote (NASDAQ). Private equity investments represent ownership interests that do not trade on organized exchanges; thus, they do not have the liquidity characteristics inherent in major market exchanges. In the past, pension funds generally have invested in public equities because of their greater liquidity and the difficulty of measuring private equity performance based on established public benchmarks. However, more recently, private equity investments have gained favor with large pension systems.

Actuarial assets are determined by the dollar amount and composition (asset allocation) of the investment portfolio.

The actuarial valuation is a determination by an actuary of the value of a pension plan's assets and liabilities. The valuation, which is based on statistical probability, is used to determine if the assets are adequate to fund the plan's liabilities. If the value of the assets is not adequate, the plan sponsor must increase its contributions to make up the deficiency; if the assets are more than adequate, the plan sponsor can reduce contributions. The frequency of the actuarial valuation depends on the total membership. Total membership is the sum of the number of employees in active service, terminated employees who have accumulated benefits but are not yet receiving them and retired employees and beneficiaries currently receiving benefits. Typical frequencies are every other year for plans with 200 or more members and triennially for plans with less than 200 members.

ACTUARIAL COST OF BENEFIT PAYMENTS (ACTUARIAL LIABILITIES)

There are two components to the actuarial cost of benefits (actuarial liabilities):

- **NORMAL COST.** The normal cost may be thought of as the ongoing cost of the pension program. It is the annual cost for funding current and future benefits, if the actuarial assumptions are exactly met and if there is no change in the benefit level.
- **UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL).** When actuarial assets are determined to be less than actuarial liabilities, a shortfall is created. The cost to amortize these previously accrued but unfunded benefits is called the Unfunded Actuarial Accrued Liability (UAAL).⁵⁵ The amortization charge for a positive UAAL is the annual rate that this liability

is being paid off, or "funded." The technical definition of the UAAL depends on the specific actuarial cost methods used in the valuation.

Typically, a stream of payments payable for members and/or beneficiaries lifetimes are forecast with the expected cash flows discounted to reflect the time-value of money using an assumed rate of return (i.e., discount rate). To evaluate the potential actuarial liabilities, the actuary must estimate the (1) dollar value of benefits and (2) when they will commence. Factors that determine the dollar value of benefits are determined by contract. This would include formulas based on service time, age, and salary. Factors that determine the timing of benefits are based on one of four events; death, termination, disability, and retirement.

INVESTMENT RETURN ASSUMPTION

The investment return assumption is a major actuarial assumption, and the most visible. It determines the discounted value of future benefits and how fast assets are expected to accumulate through the investment process. There are two components to the investment return assumption. The first component is inflation, which is not affected by the plan's asset allocation. The second component is the real rate of return net of investment expenses, which is affected by asset allocation, market forces, and manager performance.

There is no standard rate assumption for large public plans, but many use the 7.5 to 8.5 percent range for their investment return assumption, which includes an inflation component and a current real rate of return assumption. If a plan has a current investment return assumption of 8.25 and the inflation component is 3.00 percent, then the current real rate of return assumption is 5.25 percent, net of investment expenses. If the inflation component is changed and there is no change in the expected real rate of return,

⁵⁵ It is possible to have a negative UAAL—this implies an actuarial surplus for the fund.

the amount of the change will be equal to the change in the inflation assumption.

ACTUARIAL COST METHODS

Different ways of assigning the discounted expected cash flow (present value) to past and future periods are called actuarial cost methods. Over the long term, the cost of the pension is going to be equal to the difference between the sum of the benefits, refunds and expenses paid out and the sum of employee contributions and investment earnings.

Because contributions of employers and employees remain relatively constant from year to year and are set by law, poorer investment returns and unfavorable demographic changes will either decrease the current actuarial surplus or create an unfunded liability. Conversely, greater investment returns and favorable demographic changes will increase the actuarial surplus or reduce the unfunded liability.

In order to pre-fund a defined benefit program properly, it is necessary to determine the appropriate amount of employer and employee contributions to be made to the program. This is the function of an actuarial cost method – to produce a pattern of contributions that meet the goals and requirements of a defined benefit program.

TYPES OF ACTUARIAL COST METHODS. All methods differ only in the manner in which they recognize the value of benefits, which are generally split between benefits related to past and future service. The major types generally fall into one of the following categories:

1. **ACCRUED VERSUS PROJECTED.** Accrued benefit methods split the benefit into portions “earned” by the participants each year under the provisions of the particular plan. Projected benefit methods first project what the total plan benefit will be, then spread the cost of the benefit over one or more costs bases. These methods are commonly used when the benefit formula of the plan is determined by the level of compensation in the final years before retirement.
2. **INDIVIDUAL VERSUS AGGREGATE.** Individual cost methods determine the cost of benefit portions for each participant and add up the individual costs to get the cost of the whole plan. Aggregate cost methods assign a benefit for all participants as a whole directly to a cost base. Aggregate methods tend to average out the extreme characteristics of any one participant, such as age or salary.
3. **LEVEL PAYMENT VERSUS LEVEL PERCENT OF PAYROLL.** Level payment methods use a period of years as a cost base, and each year receives an equal amount of cost. The result is similar to constant payments on an insurance policy. Level percent of payroll methods use total payroll over a period of time as a cost base. Over that time each dollar of payroll receives an equal amount of cost. That is equivalent to saying that cost is a level percent of payroll. This is the most common general category of actuarial cost methods used for public pension plans, because it spreads the cost as a level percentage of wages/salaries and, therefore, does the best job of creating equitable treatment among successive generations of taxpayers.
4. **SINGLE BENEFIT VERSUS SEPARATE PAST SERVICE BENEFIT.** Single benefit methods put all benefits for each individual into one cost pool before allocation to any cost base. Separate past service benefit methods regard the total benefit as split into a benefit portion for initial past service and a portion for service after the start of the plan. Flexibility in defining cost is achieved by spreading the cost of each portion over a different cost base. The cost of the past service portion is often referred to as the initial supplemental liability of the plan.

CalPERS (along with most large public pension plans) employs a version of the level percent of payroll method. Under the “entry age normal” method, a local agency’s total “normal benefit cost” for each employee from date of hire to date of retirement is expressed as a level percentage of the related total payroll cost. Normal benefit cost under this method is the level amount the employer must pay annually to fund an employee’s projected retirement benefit. This level percentage of payroll method is used to pay for any unfunded accrued actuarial liabilities. The actuarial assumptions used to compute contribution requirements also are used to compute the unfunded actuarial accrued liability. The member does not have a net pension obligation since it pays these actuarially required contributions monthly.

IMPLICATIONS OF A POSITIVE UAAL

As discussed above, the UAAL is not an accounting liability. It is the actuarial liability associated with prior years under the plan’s selected actuarial cost method, assuming that the plan will continue into the future.

There is nothing inherently wrong with having a positive UAAL; however, actuarial liabilities that persist and are not eventually covered by anticipated changes in other variables such as contributions, etc. could eventually lead to future problems funding retirement benefits. It is important for pension trustees and managers to determine whether or not the pension fund system is making systematic progress in amortizing a positive UAAL over a reasonable period of time. The number of years that it will take the current contribution schedule to fully pay for the UAAL is referred to as the program’s “funding period.”

If pension fund trustees and managers see a consistent pattern of actuarial losses from one year to the next, they should have the fund’s actuary perform a study to determine whether or not the current assumptions need adjustment. The study will include assumptions regarding types

and frequency of benefits, member population demographics, and trends in events such as employment and retirement options, along with reviewing the components that comprise the assumed rate of return associated with the investment fund. Results of the study may dictate changing required contributions from employer and employees, modifying the asset allocation of the investment portfolio, or issuing pension obligation bonds to make up the shortfall of actuarial assets to liabilities. Pension obligation bonds are described in more detail below.

PENSION OBLIGATION BONDS (POBS). Pension obligation bonds (POBs) are financing instruments intended to refund all or part of a public agency UAAL owed to their pension system.

In order to achieve the expected budgetary relief, the issuer hopes to issue pension obligation bonds with a lower interest rate than the pension’s assumption interest earnings rate. In essence, the desired result is to reduce the interest rate cost and, therefore, recover the borrowing costs and reduce the employer’s contribution rate for the UAAL, including interest cost over the amortization period. This is similar to refinancing any debt at a lower interest rate to reduce your debt service payment. In addition, the issuer may hope that the investment earnings on the bond proceeds will provide additional budgetary relief. Market risk can impact may impact the end results. Issuing a POB usually will produce a near-term reduction in contributions to the retirement plan; however, the long-term, actual investment performance of the retirement plan will determine the final net savings or costs of issuing a POB. Again, the desired result is that the transaction reduces the annual pension contribution required to fund the plan by more than the total cost of borrowing.

Issuers originally issued POBs as tax-exempt bonds. Currently, pension obligation bonds generally are issued on a taxable basis because of federal arbitrage restrictions.

A POB is a financial instrument, and like any other, it involves risks that should be considered fully before issuance. First, the UAAL is just a “snapshot” at a specific point in time. As new benefits are added or factors affecting the underlying actuarial estimates change, the UAAL may become positive or negative. Issuing a POB does not eliminate this potential risk. Second, there is no guarantee that pension fund investments will earn/exceed actuarial assumptions. To realize the real saving from issuing a POB due to the reduction of the interest rate on the UAAL, the issuer needs to earn an investment return that equals the actuarial interest assumption rate during the period the POB is outstanding. Theoretically, in an ideal market situation, investing bond proceeds from a POB in higher risk investment instruments could produce a rate of return sufficient to service the debt and add to the pension fund portfolio. However, short-term market downturns producing low or negative investment returns can cause the public agency’s UAAL to rise to the pre-POB issuance level or higher. An employer hoping to reduce or eliminate its UAAL amortization payment by using a POB may find itself in the undesirable position of owing a pension contribution (including UAAL amortization payment) at the same time the POB debt payments are due. Moreover, issuing POBs to fund annual pension contributions can have a negative impact on the issuer’s credit rating if the projected returns fail to materialize and the issuer needs to increase pension contributions along with servicing the POB debt. Finally, public agencies that receive federal grant funding should confirm that the POB does not adversely affect their ability to include the cost of funding employee retirement benefits in their grant claiming process. Generally, if the total POB debt service is less than the actuarially calculated total UAAL contributions absent POBs, claiming is allowed.

DEFERRED COMPENSATION PLANS

There are several deferred compensation plans offered by public agencies in California:

- **457 PLANS.** The second common type of retirement plan offered by California cities, counties, and the State government is a deferred compensation plan known as a “457 plan.” This type of plan, which public agencies began adopting in the 1970s, allows employees to defer, on a voluntary basis, a portion of their annual salary up to a maximum limit established under federal law that currently matches 401k plan levels.⁵⁶ The deferred portion of the salary is not taxed until it is paid out subsequent to retirement. Hence the classification of “deferred compensation”. With a 457 plan, employees receive a monthly or quarterly statement showing the values of the assets in their account. Funds in deferred compensation plans are held in trust for the exclusive benefit of the participants and their beneficiaries and are typically monitored by a deferred compensation plan committee.

This type of plan is more portable than defined benefit plans because it does not require vesting. This feature is advantageous for employers seeking to hire management employees, such as Chief Administrative Officers and City Managers, who tend to change jobs more frequently than other government employees. It also allows funds to be transferred to other tax qualified plans without incurring a taxable event under federal tax laws.

In earlier years, the investment option offered to employees was generally a guaranteed investment contract that paid a fixed rate of return. In more recent years, employees in these types of funds have been offered more

⁵⁶ In 2008, the maximum contribution limit is \$15,500.

choices of investments, similar to the options available in a private sector 401(k) plan, such as mutual funds and index funds. A third party under contract to the agency generally administers these plans, and in most cases it is the third party administrator that provides the insurance contract and/or the investment funds offered under the plan.

Other features of 457 plans include various “catch-up” provisions, which allow accelerated contributions under certain circumstances, no penalty for early withdrawal and a recently enacted rollover provision that allows funds to be transferred to other plans.

- **403(B) PLANS.** Employees of schools and nonprofit hospitals are eligible to participate in a type of defined contribution plan known as a “403(b) plan.” Like the 457 plans, 403(b) plan employee contributions are elective and, in California, school districts do not make matching contributions. The contribution limits are the same as for 457 plans, and the types of investment options available also parallel those offered under 457 plans.
- **401(K) PLANS.** Some California public agencies (including the State) offer a “401(k) plan.” However, government agencies that had not adopted a 401(k) plan as of 1986 cannot now adopt one. Governments that adopted such a plan prior to 1986 can con-

tinue to offer it. No employer contribution is required, but the employee contribution is pre-tax. The maximum contributions are the same as for 457 plans.

Legal Restrictions

Neither state nor federal law provides a list of specific required or prohibited investments for any of the deferred compensation and defined contribution pension plans. Generally, public agencies are advised to follow the Employee Retirement Income Security Act (ERISA)⁵⁷ guidelines that require investment choices protecting the employees from undue risk. In addition, it is incumbent on the employer to provide for investment education so that the employee understands his/her investment options, including concepts such as risk, diversification, and asset allocation.

For most plans, employees may select investment options from a wide menu of employer-selected investment choices. However, some of the older 457 plans still have investments directed by participating employers through a third party that provides only a “stable value” guaranteed insurance contract, which protects principal but does not offer the prospect of asset growth over and above inflation. In recent years, most such plans have expanded the investment options offered to employees to include a variety of investment products such as no-load mutual funds.

⁵⁷ ERISA is a federal law intended to ensure that employees receive pension and other benefits promised by their employers. Many provisions of ERISA and the IRC are intended to ensure that tax-favored pension plans do not favor the highest-paid employees over rank-and-file employees in the way benefits are provided. To achieve these ends, ERISA has a complex series of rules that cover pension, profit-sharing, stock bonus, and other benefit plans, such as health and life insurance. ERISA supersedes almost all state laws that affect employee benefit plans and has thus created a single federal standard for employee benefits. Government retirement plans are exempt from ERISA.

An employer’s responsibilities under ERISA vary, depending on the type of plan involved. Pension plans are subject to all rules, including reporting and disclosure, financial management of benefit plan assets, administration of benefit plans, and participation, vesting, and funding requirements.

Compliance with ERISA and related laws is extremely complex. An attorney or other professional benefit advisor should be consulted regarding its provisions and implications for government sponsored pension plans.

Pension Fund Management and Oversight

Because deferred compensation plans are optional and offered only as a supplement to the agency's core defined benefit plan, for many years it was considered sufficient for these plans to offer only a stable-value investment option through a guaranteed insurance contract. During the high interest environment of the 1980s, these investments were very attractive to the employees. However, as interest rates declined and the stock market rose in value, local governments came under increasing pressure to provide employees with more investment options. Now it is common for a wide variety of choices to be offered to employees under these plans. With more investment options, state and local agencies have increased their emphasis on educating employees so that they can make informed investment decisions.

The trustees of these plans also need to follow many of the principles of managing a defined benefit plan as described in the previous subsection. These include careful evaluation of the funds and fund managers, ensuring that the funds offered have clear and written objectives, and periodic review and evaluation of investment options for performance and consistency with stated fund objectives. As with defined benefit plans, it is advisable that a consultant be used to assist the trustee in these duties.

Investment Options

The most frequently used instruments in these types of funds are as follows:

- **STABLE-VALUE PRODUCTS.** These funds are "guaranteed" by the provider and pay either a fixed or variable rate of return. A popular option for public employees is one that locks in a given interest rate, but restricts transfers to other funds.
- **MUTUAL FUNDS.** In the 1980s, employers, using third party providers, began offering publicly traded mutual funds; these became very

popular with employees during the 1990s. It is important for employers to provide a diversified group of funds to meet participants' differing return and risk objectives. While individual funds may be diversified, they still require oversight, perhaps through the assistance of a consultant. Employers need to balance the need for diversification of funds with the potential for fund proliferation as too many funds to choose from may cause employee confusion and lower participation.

- **INDEX FUNDS.** Index funds, like mutual funds, have become more widespread within defined compensation and defined contribution pension plans. The advantage of index funds is that the management fees generally are lower than actively traded funds (both mutual and individually managed funds).
- **COMMINGLED TRUST FUNDS.** These funds may be provided by a bank or by a group of participating employers, and they allow smaller agencies to reduce costs by commingling their assets. This arrangement also can provide additional fiduciary protection by using a common board of trustees, as well as the diversification benefits of multiple managers.

DEFINED CONTRIBUTION PLANS

A few agencies in California offer a defined contribution plan under IRC section 401(a). This type of plan is similar to a 401(k) plan and is known as a money purchase plan. Under the rules of a 401(a) defined contribution plan, the employer establishes a specific and fixed contribution rate for both the employee and the employer. Subsequently, there can be no discretionary adjustment of the contribution rates. In terms of administration and investment options, a money purchase plan is similar to a deferred compensation plan; that is, each employee has his or her own account, receives a monthly or quarterly statement, and generally has a choice of multiple investment options. The plan is administered as a trust, and

usually a third party is hired to provide administrative, investment, record-keeping, and educational services.

Because defined contribution or money purchase plans are mandatory for employees, employees generally are more sensitive to elements of the plan design such as reporting, investigating investment options, educating employees, and communicating with the provider. Moreover, as the account of each employee grows in value, it becomes a larger and larger share of the employee's total retirement savings, thus, heightening employee interest in and concern about all elements of the plan. For the employer, this suggests a need for greater focus on fiduciary issues and close attention to details of the plan design.

Legal Restrictions

The legal restrictions for defined contribution plans are similar to deferred compensation plans (see *Chapter 4, Pension Fund Investment, Deferred Compensation Plan, Legal Restrictions*).

Pension Fund Management and Oversight

To the extent that an agency chooses a defined contribution plan as a replacement for either a defined benefit plan or participation in the federal Social Security system,⁵⁸ fiduciary considerations are of greater importance in the selection of investment options. While public sector plans are not covered under ERISA, it is recommended that ERISA fiduciary requirements be used as a guideline. This means that a sufficient variety of investment options should be offered so that the employee is not forced to concentrate all of his or her investments in too few funds. The employer also should provide employees with education about their investment options by presenting information about the individual funds as well

as strategies to achieve investment goals without taking undue risk.

Investment Options

The investment options for defined contribution plans are similar to deferred compensation plans (see *Chapter 4, Pension Fund Investment, Deferred Compensation Plan, Investment Options*).

EVALUATING OPTIONS: CHOOSING A SUPPLEMENTAL PENSION PLAN

Nearly all California state and local agency employees are members of a defined benefit pension plan. In addition, the vast majority of government agencies offer their employees a 457 plan (local governments) or a 403(b) plan (schools). Those agencies that offer employee-matching programs may see greater participation in such programs compared to those that do not. This is one consideration for those California agencies that do not participate in Social Security, because most of their employees will be entirely dependent upon the defined benefit plan for retirement income.

Agencies in this situation also may wish to consider adoption of a supplemental pension plan that would cover all employees. Since 401(k) plans are no longer available to government agencies (except for those that had adopted a plan prior to 1986), the alternative is a money purchase plan under IRC Section 401(a). As suggested in *Chapter 4, Pension Fund Investments, Defined Contribution PLANS*, one disadvantage of a money purchase plan for the employer is that the contribution rate adopted in the plan is irrevocable. In addition, because employee participation is mandatory, the employer's fiduciary responsibilities are greater, and plan design considerations such as investment options, reporting, investor education, and provider services are important.

⁵⁸ Under current law, local agencies are no longer permitted to withdraw from Social Security. However numerous California agencies do not currently participate in Social Security.

Because of these above considerations, internal resources needed for ongoing plan administration will be greater than those required for an optional deferred compensation plan. This is especially true in the area of employee education, where employees must be knowledgeable about investment concepts such as diversification and asset allocation when faced with a broad range of investment options offered under these plans.

Employers may consider reducing the overall costs of a supplemental pension plan covering all employees through investment management. For example, an agency may consider using the same funds being managed for the defined benefit plan investment options for the supplemental plan participants. However, the operational differences between defined benefit plans and deferred contribution/defined contribution plans (e.g., allowance for deferred contribution/defined contribution plan members to make daily transfers among funds) may make this option cost prohibitive. Most defined benefit plans do not allow members to invest in separate funds that offer daily pricing. The custodial costs associated with daily pricing of individual member accounts is significant; as such, only a few large state-level pension funds have used the same funds for both defined benefit and deferred compensation/defined contribution plans.

Moreover, potential conflicts could arise when the interests and desires of the defined contribution participants differ from those of the trustees of the defined benefit plan. For example, defined benefit plan trustees must be concerned about the long-term soundness and performance of the fund, and therefore short-term volatility is both expected and accepted. The needs of defined contribution participants, however, may frequently be more short term. A participant nearing retirement, for exam-

ple, may not wish to see significant volatility in his or her defined contribution assets. This situation has the potential of placing conflicting expectations on the plan trustees. Therefore the trustees of the plan and their fiduciary counsel should be consulted prior to taking the step of allowing defined contribution assets to be invested in the funds of the defined benefit plan.

OTHER POST-EMPLOYMENT BENEFITS (OPEBs)

State and local governments may extend to employees contractual benefits which, though earned during the employee's working years, are payable after the employee separates from active service. These contractual benefits represent a form of debt, as the benefits—or their actuarial value—must be honored by the government in the future. Pension benefits are the most familiar example of this kind of debt. Other post-employment obligations can include health, vision and dental care for annuitants, life insurance and long-term care.⁵⁹

Collectively known as “other post employment benefits” (OPEBs), the value of these non-pension liabilities can be calculated on an actuarial basis, in a manner similar to the way pension boards calculate outstanding pension debt. To earn an OPEB benefit, an employee may have to serve the government for several years. For example, a state retiree qualifies for graduated state contributions to health benefits if he or she served the state for at least 10 years. Annuitants and their families receive a 50 percent contribution with ten years of service, increasing the value of the benefit by five percent of costs for each year vested, until reaching the 100 percent level. (State employees hired prior to 1985 are fully vested for health benefits upon retirement.⁶⁰)

⁵⁹ Public Employee Post-Employment Benefits Commission, *Funding Pensions & Retiree Health Care for Public Employees* (Sacramento, CA: State of California). 2007. 175.

⁶⁰ Legislative Analyst, *Analysis of the 2006-07 Governor's Budget: Perspectives and Issues*. (Sacramento, CA: Legislative Analyst's Office) February 2006. 121.

Like an actuarial calculation for pension benefits, the employer's costs for financing OPEBs have an actuarial basis with a normal cost for the year (the present actuarial value of benefits earned by current employees). Until recently, most California governments financed these costs on a pay-as-you-go basis. That is, they made no attempt to pre-fund the benefits.

In 2004, the Governmental Accounting Standards Board (GASB) issued a statement, entitled "Accounting and Financial Responsibility for Employees for Post Employment Benefits Other Than Pensions," requiring a calculation for each state and local government's OPEB liability. The statement, commonly cited as GASB 45, specifically requires that all state and local governments calculate their annual required contribution (ARC). The ARC has two components:

- Normal cost, and
- The unfunded actuarial accrued liability (UAAL) assuming a funding period of up to 30 years.

The ARC identifies the annual employer contribution necessary to fully finance the OPEB liability for current and prior employees over the funding period. In any year that local governments contribute an amount less than the ARC, they will incur a net OPEB obligation (NOO). The cumulative value of NOOs must be reported as liabilities on the municipality's financial statement.

GASB 45 requires all state and local governments to estimate their OPEB liability for 2008-09 or sooner, depending on the size of the government's annual revenues. See Figure 45 for details. The evaluations must be updated once every two to three years, depending on the number of the particular government's members.

Figure 45

**GASB 45
FIRST ACTUARIAL EVALUATION DATES**

ANNUAL REVENUE (IN BILLIONS)	EFFECTIVE FOR FISCAL YEAR
> \$100	2006
\$10 to \$100	2007
< \$10	2008

Though the standard imposes no requirements on how a government finances its OPEB costs, state and local governments may find financial advantages for pre-funding them, notably:

1. **ATTRIBUTING THE FULL COST OF CURRENT EMPLOYMENT.** Common public finance principles encourage attributing all debt costs to the taxpayers who benefit from the debt and in proportion to their benefit. In the case of employee costs, this means having current-year taxpayers finance the full costs of current employees, as they are earned.
2. **USING INVESTMENT EARNINGS TO HELP FINANCE FUTURE PAYMENTS.** By pre-funding OPEB costs, state and local governments can earn investment returns on the contributions until the beneficiary begins drawing benefits. If investment earnings exceed the cost of inflation, the earnings may help defray the costs of providing the benefit.⁶¹
3. **IMPROVING THE GOVERNMENT'S CREDIT RATING.** When state and local governments fully assess and report on their outstanding debt liabilities, market confidence can lower borrowing costs.⁶²

⁶¹ Roger L. Davis, *Pension Obligation Bonds and Other Post-Employment Benefits* 3rd Edition (Orrick, Herrington and Sutcliffe). 39.

⁶² Bill Lockyer, *Looking Beyond the Horizon*. Sacramento, CA: (State Treasurer's Office). October 1, 2007. 27.

4. INCREASING PUBLIC UNDERSTANDING, TRANSPARENCY AND ACCOUNTABILITY. According to the Governor's commission on OPEBs, governments can build taxpayer "awareness, support and trust" from taxpayers by ensuring full disclosure on the cost of employee benefits are fully disclosed.⁶³

Given the nature of future OPEB costs, pre-funding can increase annual costs for a government for the first ten years, when compared to pay-as-you go. In later years, however, pre-funding can reduce annual costs for a given level of benefits.⁶⁴ State and local governments may pre-fund benefits by:

1. ESTABLISHING SPECIAL RESERVES OR DEDICATED FUNDS. By appropriating a prepayment into an OPEB reserve or fund, a government can create an account from which to pay its future liabilities. Because allocations into a reserve or dedicated fund may not be considered to be held in trust for purposes of financing annuitant benefit, these allocations generally may not be used to reduce an OPEB liability.⁶⁵
2. CREATING AN OPEB TRUST, SUCH AS A 401 (H) ACCOUNT OR 115 TRUST. Federal tax law provides for the creation of accounts and trusts to finance post-employment benefits. Municipalities may establish these accounts or trusts for purposes of financing future benefits.⁶⁶
3. INCREASING TAXABLE BORROWING. Governments may also consider issuing a bond (including a general obligation, lease or revenue bond) to establish a fund for paying benefits. The interest on this borrowing is likely to be taxable, so the interest payment made by the government may be higher than is common among local governments. However, by borrowing to capitalize an OPEB fund, the government may earn an investment return in excess of the borrowing costs, thereby reducing the long-term costs for providing benefits. An OPEB obligation bond (OPEBOB) is similar to a Pension Obligation Bond (POB).⁶⁷

⁶³ Gerald L. Parsky "Message from the Chairman" *Funding Pension & Retiree Health Care for Retirees*. (Sacramento, CA) 2007. 4.

⁶⁴ *Op. cit.*, Public Employees Post-Employment Benefits Commission. 177.

⁶⁵ *Op. cit.*, Davis. 33

⁶⁶ *Ibid.* 35.

⁶⁷ Alan Carniol, Jim Link and Jamie Whitaker, "Planning for Other Post-Employment Benefit (OPEB) Liabilities," *Debt Line*. January 2007. 1



Chapter 5

LIABILITY AND ETHICAL ISSUES

LIABILITY AND ETHICAL ISSUES

Public officials are entrusted to meet their investment responsibilities with prudence and due diligence, while adhering to the highest ethical standards. Chapter five discusses the statutory and regulatory restrictions on public officials with respect to their fiduciary responsibility for public fund investment. It addresses potential criminal and civil consequences for failing to follow applicable laws and/or failing to meet fiduciary responsibilities, as well as certain current ethical issues confronting public officials. The following references are to current state statutes that public agency officials should be familiar with as they perform their fiduciary responsibilities. The analysis contained herein should not be construed as legal advice or opinions on any specific facts.⁶⁸

LIABILITY FOR PUBLIC FUND INVESTMENT

CRIMINAL LIABILITY

Public officials, such as a member of a legislative body or a city treasurer, have the same criminal liability for the more common crimes found in the California Penal Code as other citizens.

Penal Code

The California Penal Code provides for various crimes that could be committed by a public official in connection with public fund investment. These crimes include, but are not limited to, the following:

- **EMBEZZLEMENT, FALSIFICATION OF ACCOUNTS, AND MISAPPROPRIATION.** Pursuant to California Penal Code Sections 424, 503, and 504, an officer of a local agency may be charged with a felony and must forfeit his office if found appropriating funds for his

⁶⁸ Current as of July 1, 2009.

own use, making unauthorized loans, keeping false accounts or making false entries, fraudulently altering any account, and willfully refusing to remit public monies.

- **NEGLECT TO KEEP OR PAY OVER PUBLIC FUNDS.** Pursuant to California Penal Code Section 425, every officer charged with the safekeeping of public funds may be charged with a felony for neglecting to keep or pay over the funds in the manner prescribed by law.
- **UNAUTHORIZED PAYMENTS, GRATUITIES, REWARDS.** Pursuant to California Penal Code Section 70, a public official who knowingly asks, receives or agrees to receive any payments, gratuity, or reward for doing an official act is guilty of a misdemeanor.

Government Code

Crimes applicable to public officials are described in various parts of the California Government Code. The following is a brief description of the principal ones:

- **PUBLIC CONTRACTS.** According to California Government Code Sections 1090 and 1097, public officials are prohibited, punishable by fine or imprisonment and disqualification from office, from being financially interested in any public contract made by them. This may include financial interest in an investment, such as a corporate bond for which the official has a substantial interest in the corporation.

Section 1090 was enacted before the Political Reform Act of 1974 (see *Chapter 5, Ethical Issues*) and prohibits self-dealing. Section 1090 applies if a financially interested officer or em-

ployee is a member of a board or other body of the public agency that actually approves or executes the contract regardless of whether the officer participates in or abstains from the actual decision.⁶⁹ Section 1090 also applies if a person (e.g., staff of public agency or advisory board member) has a financial interest in public contracts but only if that person actually participates in making the contract.⁷⁰

Section 1090's application is broad and applies to the direct and indirect financial interest of all board members, officers, employees, and consultants involved in public fund investment.⁷¹ This includes being financially interested in an investment to be made by the public agency.

- **CONFIDENTIAL INFORMATION.** According to California Government Code Section 1098, a public officer is prohibited from willfully or knowingly disclosing for pecuniary gain confidential information acquired by him in the course of his duties. Confidential information includes information that could reasonably be expected to have a material financial effect on any investment that the officer or employer (or any person who provides pecuniary gain to the officer or employer in return for the information) has at the time of use or disclosure of the information and that was received in the course of investing public funds. For example, a treasurer might be deemed to have violated Section 1098 if he or she receives confidential information in the course of investing public funds and discloses such information to an investment provider for the treasurer's own pecuniary gain.
- **POLITICAL REFORM ACT.** According to California Government Code Section 81000 et

⁶⁹ *Thompson v. Call*, 38 Cal.App. 3d 633 (1985), cert. denied.

⁷⁰ *Fraser-Yamor Agency, Inc. v. County of Del Norte*, 68 Cal. App. 3d 201 (1999).

⁷¹ *People v. Honig*, 48 Cal.App.4th 289 (1996), rehearing denied.

seq., willful violations of the Political Reform Act of 1974 are punishable as misdemeanors. The Political Reform Act of 1974 controls conflicts of interest of public officials through disclosure of information and prohibitions on decision-making. A more detailed analysis of the Political Reform Act of 1974 is discussed in *Chapter 5, Ethical Issues*.

- **CATCH-ALL PROVISION.** According to California Government Code Section 1222, the willful omission to perform any duty enjoined by law on the public official is considered a misdemeanor. This includes willfully not investing public funds in a prudent manner under California Government Code Section 53600.3 and 27000.3, not complying with the terms of an investment policy, or purchasing impermissible investments under California Government Code Section 53601. In addition, city charters and local ordinances may impose additional duties on public officials and should be checked carefully.

REMOVAL

An official also may be removed from public office under certain conditions prescribed in the California Government Code.

Willful or Corrupt Misconduct

Pursuant to California Government Code Section 3060, a public official, responsible for public fund investing, may be removed for willful or corrupt misconduct in office. The courts have determined that this Code Section should be reserved for serious misconduct that involves crimi-

nal behavior or a purposeful failure to carry out mandatory duties of office.⁷²

Deposit of Money

Pursuant to California Government Code Section 53681, an officer or employee of a local agency who deposits money belonging to, or in the custody of, the local agency, in any other manner than that prescribed for depositing public funds in the California Government Code (see Title 5, Division 2, Part 1, Chapter 4, Article 2 (commencing with Section 53630) of the California Government Code), is subject to forfeiture of his/her office. Consequently, care should be taken by treasurers and other officials to comply with such requirements. See *Chapter 2, Individual Instruments, Bank Deposits*, for a discussion of these requirements.

CIVIL LIABILITY

A public official, such as a treasurer or a member of a legislative body, may be found to be civilly liable for damages if the public official's actions harm a person or an entity. In general, as long as the official acts are within the limits of his or her delegated powers (or within the discretion of his or her office), he or she is generally not liable; however, a departure from such limits may result in liability. Public entities also can be potentially liable for damages relating to public fund investment.

Basis of Liability

The basis of liability for public fund investment is generally based upon the following:

⁷² *Steiner v. Superior Court of Orange County*, 50 Cal. App. 4th 1771 (1996). In *Steiner*, the District Attorney sought to unseat two members of the Orange County Board of Supervisors, Mr. Steiner and Mr. Stanton, because they allegedly violated their duties to adequately supervise the Orange County treasurer, Robert Citron, and others. During Mr. Steiner and Mr. Stanton's terms, Mr. Citron engaged in risky investment practices that resulted in a loss of public funds in excess of a billion dollars. The Court determined that Mr. Steiner and Mr. Stanton had not engaged in willful misconduct necessary for removal under Government Code Section 3060. The court believed that something more than neglect or negligence was necessary to constitute willful misconduct.

- **FRAUD.** California Civil Code Section 1709 provides the statutory basis of a cause of action for fraud or deceit and states the following:

“[O]ne who willfully deceives another with intent to induce him to alter his position to his injury or risk, is liable for any damage which he thereby suffers.” Accordingly, the elements a plaintiff must establish to state a cause of action for fraud are: (a) misrepresentation, which includes false representations, concealment or nondisclosure, (b) knowledge of falsity, (c) intent to defraud, (d) justifiable reliance, and (e) damage.⁷³

- **NEGLIGENCE.** To be liable for negligence, the public official must have breached a duty of care owed to the plaintiff. Investment officials are considered fiduciaries and are subject to prudent investor standards. Not upholding the prudent investor standard can result in liability based on negligence for both the public official and the local agency. See California Government Code Sections 53600.3 and 27000.3 and *Chapter 1, Role of the Investment Official*.
- **BREACH OF CONTRACT.** Public agencies may enter into contractual obligations with respect to the investment of public funds. For example, a contractual obligation can exist between local agencies and a county that operates an investment pool. Failing to honor the terms of such contracts (or breach the terms of the contract) can result in liability for both the public official and the local agency.
- **LEVELS OF RESPONSIBILITY.** As described in *Chapter 1, Role of the Investment Official*, an investment official is a fiduciary and is sub-

ject to the prudent investor standard of California Government Code Section 53600.3. The prudent investor standard requires the investment official to act:

“With care, skill, prudence, and diligence under the circumstances then prevailing, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims to safeguard the principal and maintain the liquidity needs of the agency.”

If the governing body or investment official is found to have violated the prudent investor standard, he may be held liable for negligence. For example, an official may be deemed to have failed to uphold the standard by inadvertently not following the restrictions of the applicable investment policy. However, merely making investment choices that turn out not to be favorable to the public agency may not necessarily be a violation of the prudent investor standard and may not result in liability (see *Chapter 5, Liability for Public Fund Investment, Civil Liability, Immunities*).

Although the legislative body is a fiduciary under the California Government Code, it may delegate its investment authority annually to a local agency treasurer (see California Government Code Section 53607). County boards of supervisors may delegate investment responsibility to the treasurer and if so delegated, no longer are fiduciaries; they retain, however, an oversight function (see California Government Code Section 27000.3). Delegation of any investment duties from the treasurer to his/her staff, however, does not relieve the treasurer of his or her fiduciary duty.⁷⁴ Thus,

⁷³ 5 *Witkin California Law* (9th Ed.), Section 676, p. 778.

⁷⁴ Attorney General’s Office Opinion No. 95-807, June 19, 1996.

the treasurer remains a fiduciary subject to the prudent investor standard.

California Government Code Section 815.2(a) states that a public entity may be “liable for injury proximately caused by an act or omission of an employee of the public entity within the scope of his employment if the act or omission would, apart from this section, have given rise to a cause of action against that employee or his personnel representative.” Thus, a public entity may be held liable for the actions of its officials (e.g., city treasurer, board of supervisors) with respect to public fund investment, though some exceptions may apply (see *Chapter 5, Liability for Public Fund Investment, Civil Liability, Immunities*).

Immunities

The California Government Code does provide for certain immunities for public officers, members of governing bodies, and for the public agency itself.

DISCRETIONARY ACTS

One of the most important immunities for a public official (such as a treasurer) and a member of a governing body is that for discretionary acts. Section 820.2 of the California Government Code provides that:

“Except as otherwise provided by statute, a public employee is not liable for an injury resulting from his act or omission where the act or omission was the result of the exercise of the discretion vested in him, whether or not the discretion be abused.”

Moreover, California Government Code Section 815.2(b) provides that:

“Except as otherwise provided by statute, a public entity is not liable for an injury resulting from the act or omission of a public official or employee where the public official or employee is immune.”

The purpose of discretionary immunity generally is to allow officials freedom from liability to make policy decisions. The courts have narrowly construed this discretionary immunity. Generally, discretionary immunity protects public officials and the public entity for policy-making decisions. However, failure to implement correctly policies or other restrictions may result in loss of immunity. For example, an investment official who does not follow the restrictions of the California Government Code in investing public funds may find himself liable with no immunity.⁷⁵ Further, acts that include a failure to follow contractual requirements or investment policies are not necessarily immune and may result in liability for the public official and the public agency.

INVALID STATUTES

A second immunity protects public officers acting under statutes that are declared invalid or unconstitutional. California Government Code Section 820.6 provides:

“If a public employee acts in good faith, without malice, and under the apparent authority of an enactment that is unconstitutional, invalid or inapplicable, he is not liable for any injury caused thereby except to the extent that he would have been liable had the enactment been constitutional, valid and applicable.”

⁷⁵ For example, in *Whitmore Union Elementary School District v. County of Shasta*, 87 Cal. App. 4th 574 (2001), a county treasurer was sued by a school district because the treasurer failed to invest the surplus funds of the school district in accordance with the restrictions of the California Government Code. The failure to legally invest the funds resulted in civil liability that was not subject to immunity.

INJURIES CAUSED BY OTHERS

Additionally, California Government Code Section 820.8 provides immunity for injuries caused by others:

“Except as otherwise provided by statute, a public employee is not liable for an injury caused by the act or omission of another person. Nothing in this section exonerates a public employee from liability for injury proximately caused by his own negligent or wrongful act or omission.”

STOLEN FUNDS

California Government Code Section 822 provides immunity for a public official for money stolen from his official custody. However, it does not exonerate a public employee from liability “if the loss was sustained as a result of his own negligent or wrongful act or omission.”

Duty to Defend and Indemnify

In many instances, the local agency must defend the public official and indemnify him/her should the official be involved in a claim (see California Government Code Section 995). A public entity generally must indemnify its employees if the claim arises out of an action or omission within the “scope of employment” and the employee acted reasonably and cooperates in good faith in the defense (see California Government Code Section 825(a)). The courts have defined broadly the terms “scope of employment” in this context. Investing in a manner that violates the prudent investor standard or provisions of the California Government Code may still be within the scope of employment. Furthermore, California Government Code Section 990 authorizes cities to insure its officials and to pay the cost of premiums for insurance coverage.

A public entity may refuse to defend an employee whose actions or failure to act constitute fraud, corruption, malice or are not within the

scope of employment (see California Government Code Section 995.2). A defense may not be required for criminal or disciplinary proceedings (see California Government Code Sections 995.4 through 995.8).

Examples

The following examples illustrate potential civil liabilities of a public agency and its officials and employees.

WATER DISTRICT SURPLUS FUNDS INVESTMENT

Water District A invests its surplus funds with County X. Under an agreement with Water District A, County X is required to invest Water District A’s funds in certain investments permitted by Water District A’s investment policy. County X Treasurer is extremely busy administering the county’s funds and an investment pool that contains funds of over twenty-four different entities. County X Treasurer fails to check the contract with Water District A and accidentally purchases, with Water District A’s funds, investments not permitted under the agreement with Water District A (but otherwise are permissible under the California Government Code). Upon receiving its reports from County X with respect to its investment activity, Water District A discovers the impermissible investments. County X promptly sells the applicable investments at a loss and reinvests Water District A’s funds.

County X Treasurer’s actions may result in liability to both County X Treasurer personally and to County X. Water District A may be entitled to damages from County X Treasurer and County X based upon breach of contract and/or negligence. Discretionary immunity may not be applicable for County X Treasurer (and County X), as he had no discretion, in his position, to purchase the impermissible investments. County X Treasurer will likely be entitled to indemnification from County X as he was operating within the scope of his employment.

CITY SURPLUS FUND INVESTMENTS

City X Treasurer handles the investment of the surplus and other funds for the city. City X Treasurer aspires to higher office and spends several months of his term campaigning rather than managing the investment of City X funds. City X Treasurer relies on his professional staff (that have recently undergone significant turnover) and a broker/dealer that has frequently transacted business with City X. Although the investments purchased and held by City X during this time period technically comply with City X's investment policy, the California Government Code, and other legal requirements, City X suffers a large loss of funds primarily because the maturity structure of the investments is not appropriate for the cashflow needs (that were anticipated) during the period.

Although City X Treasurer's actions may have been negligent, he likely will have immunity from actions raised by specific plaintiffs, such as an individual whose trust funds were invested by City X, under Section 820.2 of the California Government Code because he invested within his discretion and operated within the scope of his office. Further, the City will not be liable because the treasurer is immune under California Government Code Section 815.2(b).

COUNTY SURPLUS FUNDS INVESTMENT

New County X Treasurer has been delegated the investment responsibility by the Board of Supervisors of County X. Consequently, the County X Board of Supervisors is no longer responsible for investing County X surplus funds – they do however retain an oversight function.

Despite the existence of an excellent investment policy (written by County X's former treasurer) and an oversight committee, the new County X Treasurer inadvertently invests County X surplus funds (plus the funds of numerous other local agencies that invest their funds in the County X investment pool) in two

types of investments that result in significant losses for County X and its pool participants. First, based on the advice of a broker/dealer, County X Treasurer invests forty percent of the County pool in medium-term notes—in violation of the concentration limits of the California Government Code. Second, County X Treasurer deposits a substantial portion of the County X investment pool with Shady Bank, without realizing that it did not, at the time of investment, have an overall rating of satisfactory in its most recent evaluation by the Federal supervisory agency.

The following year a substantial number of the medium-term notes purchased by County X Treasurer default. In addition, Shady Bank enters bankruptcy. County X Treasurer may be found liable (and not entitled to immunity) for negligence to the various entities who invested in the County X pool and suffered damages as a result of County X Treasurer's failure to follow the restrictions of the California Government Code relating to the purchase of medium-term notes and the Shady Bank deposits. Discretionary immunity does not generally protect acts that fail to properly implement laws or restrictions. However, County X Treasurer will likely be entitled to indemnification by County X, as he will be deemed to have acted within the scope of employment. Although the Board of Supervisors delegated responsibility for investments to County X Treasurer, that did not relieve them of their oversight function. Given that they had an opportunity for a year to review County X Treasurer's investment activities (and receive reports), and failed to discover (or take action) relating to the impermissible investments, it is possible that they also might be found liable for negligence to the pool investors (and not be entitled to immunity). However, it generally will be more difficult to find negligence by the Board of Supervisors in this situation than for the County X Treasurer. As with the County X Treasurer, members of the Board of Supervisors likely will be entitled to indemnification by County X.

County X, itself, might be held liable for damages to the pool participants, as the actions of County X Treasurer were not entitled to immunity. Also, County X Treasurer may have to forfeit his office for failing to follow the depository law under California Government Code Section 53681.

ETHICAL ISSUES

Many ethical issues present themselves to public agencies considering the investment of their funds. Many of the conflict of interest laws attempt to provide a mechanism whereby possible conflicts are anticipated, permitted under appropriate circumstances, and disclosed in a consistent, accessible manner. The theory behind many of these laws is that certain situations that potentially involve ethical problems or conflicts may be permitted if the situation and other facts are disclosed and accessible to enable those involved to make informed decisions about the effect of the particular ethical situation. At the core of the ethical discussion of conflicts of interest is the notion that persons making important decisions for their financial interests are in a position to do so only if they have all relevant information available to them, in a timely manner, and that they have the grasp of the significance of the information on their decision.

Often, individuals within a community will offer to serve as unpaid members of a board, commission, panel, or other similar oversight body. Conflicts of interest and other ethical problems can arise when the actions taken by the public body has a potential or perceived beneficial impact on a member of the body. Public agencies should carefully consider in the development of their policies how conflicts of interest and other ethical problems will be identified, disclosed, and understood in the administration of their investment programs.

CONFLICTS OF INTEREST

While there are many possible conflicts that may arise for public agencies, the majority are covered through “common-sense” disclosure of relationships. Disclosure of these relationships should include, at the minimum, the following features: the existence of the possible conflict; all of the profit or compensation to be earned by the party proposing the transaction, regardless of source; and whether reasonable alternatives, with more advantageous economic results to the agency, are available. Public agencies should consider their own level of experience and involvement in the markets in determining the manner and level of disclosure to require of their advisors or managers. For example, public agencies that are infrequent investors will have a more difficult time determining the consequences of possible conflicts of interest and, therefore, should be particularly careful in developing disclosure standards for their agency.

The timing of disclosure is critically important. Disclosure after the fact does not permit the public agency to make alternative choices or to consider the full consequence of its actions. Accordingly, public agencies that adopt disclosure policies should consider requiring disclosure of possible conflicts of interest well before the initiation of a particular transaction, investment program, or modification of position. Moreover, good disclosure is written down, not passed along orally. Oral disclosures are often forgotten or have a greater potential for misinterpretation.

Finally, among the most important considerations in the disclosure of possible conflicts of interest are the individuals to whom the disclosure is made. The local agency should carefully consider the appropriate medium, timing, and targeting of its disclosure. To aid public officials in this regard, the California Fair Political Practices Commission (FPPC) has developed a methodology and rules for the disclosure of possible conflicts of interest by public officials.

Fiduciaries, including treasurers and investment managers, have a “duty of loyalty” to their clients and/or constituents. Simply stated, the duty of loyalty means that the treasurer or investment manager should not accept monetary or economic compensation from a transaction involving the public agency without first disclosing the extent of the compensation and then obtaining the consent of the public agency prior to acceptance. Moreover, the duty of loyalty extends beyond simple disclosure of possible economic gains. It also implies a duty to inform the local agency of all of the information needed to make an informed decision regarding the conflict.

Examples of situations where the disclosure of information relating to the conflict may be necessary and helpful include, but are not limited to the following:

- **COMPENSATION PAID TO OTHERS.** In the case of compensation paid by parties other than the agency, the primary example is the custom of providers of guaranteed investment contracts to pay fees or commissions to brokers or advisors who introduce the transaction to the public agency. These fees or commissions can be significant, and the public agency should be aware well before the beginning of the transaction what the practices and expectations are of the parties who are assisting the public agency with obtaining the investment.
- **CONSULTANTS TO SECURE CONTRACTS.** Sometimes, financial service providers use consultants for the purpose of gaining introduction to and influence with elected officials who make decisions about employment of the providers or the selection of the investment transactions that may be furnished by such providers. The public agency should carefully consider the existence of the fee or other monies paid to the consultants in evaluating whether the recipient’s advice or product is useful for the agency (see Municipi-

pal Securities Rulemaking Board Rule G-38 for information on required broker/dealer disclosure of the use of consultants).

- **PAYMENTS TO PUBLIC OFFICIALS.** Public officials who hold elective office must finance their own election campaigns. Financial service providers and other persons or entities that interact with elected officials may contribute to their campaigns. If an employee of an advisor or broker/dealer has contributed to the campaign of an elected official, and the elected official subsequently participates in a decision to enter into a transaction that would benefit that advisor’s firm, it stands to reason that both the elected official and the employee/employee’s firm should be aware of the possible conflict that may arise. It is important for public agencies and financial service providers to understand state law restrictions related to such contributions (see *Chapter 5, Ethical Issues, the Political Reform Act and Fair Political Practices Commission*).
- **OTHER CONTRACTUAL RELATIONSHIPS.** Financial service providers may have contractual relationships with persons or entities beyond their normal scope of work, which may introduce the possibility of conflicts of interest. For example, an investment advisor may have a major stockholder of a broker/dealer firm as a client. If the advisor recommends an investment transaction involving the broker/dealer firm, the public agency should know of the relationship between the investment advisor recommending the transaction and the broker/dealer firm before the transaction is considered.

Consider also the case of an investment advisor who has entered into a “solicitor agreement” with a former public official. If the former public official solicits his or her former public agency for a transaction that would benefit both the advisor and him/her, then it also stands to reason that the existence

of the arrangement between the advisor and the former public official should be disclosed to the decision makers of the public agency.

THE POLITICAL REFORM ACT AND THE FAIR POLITICAL PRACTICES COMMISSION

The Political Reform Act of 1974 (see California Government Code Section 81000 et seq.) addresses conflicts of interest in two ways — disclosure and disqualification. While this *Investment Primer* is not intended to provide a comprehensive description of the various requirements of the Political Reform Act, the concepts discussed below are applicable to the most common situations a public official may encounter in dealing with possible conflicts of interest.

The Political Reform Act’s basic rule is as follows:

“No public official at any level of state or local government shall make, participate in making or in any way attempt to use his official position to influence a governmental decision in which he knows or has reason to know he has a financial interest.” (California Government Code Section 87100)

The conflict, however, must have a “material effect” (distinguishable from the effect on the public generally) on the public official, or a member of his or her family, and the material effect must be “reasonably foreseeable” (see California Government Code Section 87103). In order to aid public officials, the FPPC has developed an eight-step process for identifying possible conflicts. The steps are as follows:

- The person making the decision must be a “public official” as that term is defined by law (see California Government Code Section 82048);
- The person must be “making, participating in or influencing a governmental decision”

(see 2 Cal. Code of Regs. Sections 18700, 18702-18702.4);

- The person must have “economic interests” in the possible outcomes of the decision (see California Government Code Section 87103 and 2 Cal. Code of Regs. Sections 18703-18703.5);
- The economic interest must be “directly or indirectly affected” by the decision (see 2 Cal. Code of Regs. Sections 18704-18704.5);
- The effect on the economic interest must be “material” (see California Government Code Section 87103; 2 Cal. Code of Regs. Sections 18705-18705.5);
- The outcome of the decision on the economic interest must be “reasonably foreseeable” (see 2 Cal. Code of Regs. Sections 18700, 18706);
- The person making the decision must be able to determine whether the decision will affect the economic interest in a manner that is either “substantially the same as the effect on the public generally,” or unique to the decision makers economic interest (see California Government Code Sections 87103; 2 Cal. Code of Regs. Sections 18707-18707.10); and
- The decision maker is not making the decision as part of a “legally required participation” in the process (see California Government Code Section 87101 and 2 Cal. Code of Regs. Section 18708).

In the view of the FPPC, the term “public officials” can include persons other than the elected official making the policy decision. In this context, a public official can be a “member, officer, employee or consultant” of the public agency (see California Government Code Section 82048), if such a person “participates” or “influences” the making of a governmental decision. For example, a public official could include not only the treasurer of a public agency but also its staff and investment advisor.

Disclosure

Disclosure of possible conflicts of interest alerts public officials to personal interests that might be affected while they are performing their official duties (i.e., making governmental decisions). Disclosure also helps inform the public about possible conflicts of interest.

Under the Political Reform Act, public officials at every level of state and local government must disclose their personal financial interests. These include disclosure of investments in business entities; interests in real estate; sources of personal income, including gifts and loans; and management or employment with business entities. Each state and local agency must adopt a conflict of interest code tailoring the disclosure requirements for each position within the agency to the types of governmental decisions a person holding that position would make. Disclosure of such information is made on FPPC *Form 700, A Statement of Economic Interests* (see California Government Code Sections 87200 and 87302).

Disqualification

If a public official has a conflict of interest, the official may be required to disqualify himself or herself from making or participating in a governmental decision, or using his or her official position to influence or attempt to influence a governmental decision. When the decision is being made by a governmental body in a meeting subject to the open meeting laws, the public official in some cases is also required to publicly announce the conflict of interest and leave the room during both the discussion and vote on the decision (see California Government Code Section 87105; 2 Cal Code of Regs. Section 18702.5).

In most cases, the receipt of campaign contributions is not a basis for disqualification by a public official. However, certain public officials who make decisions in proceedings involving licenses, permits, or other entitlements for use (e.g., planning commissioners, board members of joint powers authorities and other regional governing or planning agencies, and members of other state and local boards and commissions) are subject to the restrictions of California Government Code Section 84308. This Section prohibits solicitation or receipt of campaign contributions from parties, participants, or their agents, in proceedings involving licenses, permits, or other entitlements for use. The law also requires an official's disqualification in those proceedings if the official has received campaign contributions above a threshold amount from a party or participant within the 12 months preceding the decision. Finally, Section 84308 requires disclosure of such campaign contributions.

Resources

Additional material relating to the application of the Fair Political Practices Act can be found on the FPPC's web site at www.fppc.ca.gov.

The California Secretary of State also operates a useful system called the "California Automated Lobbying and Campaign Contribution and Expenditure Search System" or "Cal-Access" at www.cal-access.ss.ca.gov.

COUNTY TREASURER ON OVERSIGHT COMMITTEE

California Government Code Section 27132 specifies the general categories from which members of a county oversight committee shall be chosen; however, it does not specify who *should* be a member of the committee.⁷⁶ Among the list

⁷⁶ Other non-county local agencies are not required to establish oversight committees. If such local agencies choose to establish oversight committees, they may look to Government Code Section 27132 for guidance in choosing members of the committees but are not required to adhere to it.

of potential members of the county oversight committee is the county treasurer. Since the committee's central task is to oversee the treasurer's policies, some may believe that allowing the treasurer to sit on the oversight committee represents a conflict of interest.

The questions of whether or not a county treasurer should sit on the oversight committee should be discussed and handled by the board of supervisors and the treasurer. The board of supervisors and treasurer should consider the advantages and disadvantages of having someone with the treasurer's influence and expertise sitting on the oversight committee. They should consider the role of the treasurer in managing the portfolio (i.e., whether the portfolio is managed internally or an external investment advisor is used). The more discretion given to any one individual, the greater the need for oversight procedures. The treasurer also should consider his/her future employment possibilities because he/she cannot seek employment within the financial services industry for one year after leaving the oversight committee.

“SOCIAL RESPONSIBILITY” AND THE INVESTMENT OF PUBLIC FUNDS

Certain public agencies may object to making investments in companies, other governments or entities that in turn invest in activities that the agency considers objectionable. For example, in the 1970s and 1980s, some local governments adopted investment policies dealing with investment of public funds in companies or entities doing business in South Africa, a nation that supported apartheid. More recently, local agencies have, in their investment policies, addressed the issues of “corporate governance” in the wake of “Enron,” unionization of the workforce, “enslavement” of Jews during the holocaust, alcohol and tobacco, nuclear weapons, and landmines. There are any number of combinations or activities that may appear in the future, and public agencies should consider both whether the limitation or control of investment activities will be both ef-

fective and consistent with the overall objectives and strategic goals of the investment policy. Fiduciary responsibility and the role of a prudent investor are terms that the public official should be intimately familiar with when investing public funds. The California Probate Code Sections 16002, 16003, 16045, and 16046 provide guidelines for prudent investors.

AVOIDING MISTAKES

The job of evaluating investment alternatives today is much more complex than it was in the time when many of the laws and regulations governing the investment of funds were written. A financial service provider may develop a “new” approach to a topic and present it to public investors as a way of improving yield, reducing risk, or otherwise enhancing the return on the agency's portfolio. The recommended approach may not be directly addressed in the applicable statute or regulation governing the investment activities of the agency. In these situations, the public agency should attempt to foster a “culture of patience” so that the full consequences of its investment actions may be thoughtfully considered and discussed. Public agencies should have the financial service provider document in detail the potential circumstances under which its proposed investment may experience a loss and the financial implications for the public agency associated with such a loss. All investments have a degree of financial risk, and the financial service provider should define clearly that risk. To ensure that there is a clear understanding of the product, the public agency should ensure that the financial service provider presents detailed cash flows of the product over a long-term investment horizon under various interest rate scenarios (for example, rising, declining and remaining constant) to reveal some of the financial risks that may be experienced over the life of the investment.

Public agencies should be cautious of opportunities described as proprietary or that require an immediate response. Public agencies also should

exercise caution when opportunities are presented and decisions requested from the highest level of public authority rather than the treasurer or investment officer, who may have more knowledge of the agency's immediate investment priorities and cash flow needs. By requiring adequate, timely disclosures of possible conflicts and by adhering to documented, comprehensive policies for engaging in new activities, public agencies can avoid potential problems. Public agencies also may consider consulting with their peers and/or an external financial advisor to determine if a proposed investment has a long record of positive experience and is deemed legally appropriate for public agency use in California. Moreover, public agency staff should be well trained to recognize potential problems before they occur, so that their choices and actions mirror the goals set forth in the agency's investment policy.



Appendix A
RESOURCES

Appendix A

RESOURCES

Appendix A provides a list of federal and state agencies and professional organizations that provide education and/or information regarding public fund investment. The information

includes names, addresses, phone numbers, and websites. A list of some useful websites that have additional investment-related information has also been included.

1. FEDERAL AGENCIES

NAME	ADDRESS	PHONE	WEBSITE
UNITED STATES INTERNAL REVENUE SERVICE (IRS)		Toll Free Customer Service: (877) 829-5500	www.irs.gov/govt/index.html
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)	100 F Street, N.E . Washington, D.C. 20549	(888) SEC-6585 (202) 942-8088	www.sec.gov www.advisorinfo.sec.gov

2. STATE AGENCIES

NAME	ADDRESS	PHONE	WEBSITE
CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION (CDIAC)	915 Capitol Mall, Room 400 Sacramento, CA 95814	(916) 653-3269	www.treasurer.ca.gov/cdiac
CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM (CALPERS)	Lincoln Plaza Complex 400 Q Street Sacramento, CA 95811	(888) 225-7377	www.calpers.ca.gov

2. STATE AGENCIES (CONTINUED)

NAME	ADDRESS	PHONE	WEBSITE
DEPARTMENT OF CORPORATIONS	1515 K Street, Suite 200 Sacramento, CA 95814	(916) 445-7205	www.corp.ca.gov
DEPARTMENT OF FINANCIAL INSTITUTIONS (LOCAL AGENCY SECURITY PROGRAM)	1810 13 th Street Sacramento, CA 95811	(916) 323-7013 (916) 322-1547	www.dfi.ca.gov/licenses/lasp/
FAIR POLITICAL PRACTICES COMMISSION (FPPC)	428 J. Street, Suite 620 Sacramento, CA 95814	(866) 275-3772	www.fppc.ca.gov
STATE TREASURER'S OFFICE (LOCAL AGENCY INVESTMENT FUND (LAIF))	915 Capitol Mall, Room 106 Sacramento, CA 95814	(916) 653-3001	www.treasurer.ca.gov/pmia-laif/

3. PROFESSIONAL ORGANIZATIONS

NAME	ADDRESS	PHONE	WEBSITE
ASSOCIATION FOR FINANCIAL PROFESSIONALS	4520 East West Highway, Suite 750 Bethesda, MD 20814	(301) 907-2862	www.afponline.org
ASSOCIATION OF PUBLIC PENSION FUND AUDITORS (APPFA)	P. O. Box 156 Wynantskill, NY 12198		www.appfa.org
ASSOCIATION OF PUBLIC TREASURERS OF THE UNITED STATES AND CANADA (APT US&C)	962 Wayne Ave, Suite 920 Silver Springs, MD 20910	(301) 495-5560	www.aptusc.org
CALIFORNIA ASSOCIATION OF COUNTY TREASURERS AND TAX COLLECTORS (CACTTC)	1415 L Street, Suite 200 Sacramento, CA 95814	(916) 441-1850	www.cacttc.org
CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS (CALAPRS)	P. O. Box 7223 Auburn, CA 95604	(530) 888-9252 (800) 738-4730	www.calaprs.org
CALIFORNIA MUNICIPAL TREASURER'S ASSOCIATION (CMTA)	1400 K Street Sacramento, CA 95814	(916) 658-8226	www.cmta.org

NAME	ADDRESS	PHONE	WEBSITE
CALIFORNIA SOCIETY OF MUNICIPAL FINANCE OFFICERS (CSMFO)	1215 K Street, Suite 2290 Sacramento, CA 95814	(877) 282-9183	www.csmfo.org
CALIFORNIA STATE ASSOCIATION OF COUNTIES (CSAC)	1100 K Street, Suite 101 Sacramento, CA 95814	(916) 327-7500	www.csac.counties.org
FINANCIAL INDUSTRY REGULATORY AUTHORITY (FINRA)	Los Angeles Office: 300 South Grand Avenue, 16 th Floor Los Angeles, CA 90071 San Francisco Office: 120 Kearny Street, Suite 2100 San Francisco, CA 94104	Main Line: (301) 590-6500 BrokerCheck Hotline: (800) 289-9999	www.finra.org
GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB)	401 Merritt 7 P.O. Box 5116 Norwalk, CT 06856-5116	(203) 847-0700	www.gasb.org
GOVERNMENT FINANCE OFFICERS ASSOCIATION (GFOA)	203 N. LaSalle Street, Suite 2700 Chicago, Illinois 60601 Federal Liaison Center: 1301 Pennsylvania Avenue, N.W., Suite 309 Washington, D.C, 20004	(312) 977-9700 (202) 393-8020	www.gfoa.org
INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFIT PLANS (IFEFP)	18700 W. Bluemound Road Brookfield, WI 53045	(888) 334-3327	www.ifebp.org
LEAGUE OF CALIFORNIA CITIES	1400 K Street, Suite 400 Sacramento, CA 95814	(916) 658-8200	www.cacities.org
MUNICIPAL SECURITIES RULEMAKING BOARD (MSRB)	1900 Duke Street, Suite 600 Alexandria, VA 22314	(703) 797-6600	www.msrb.org
NATIONAL ASSOCIATION OF PUBLIC PENSION ATTORNEYS (NAPPA)	930 Florin Road, Suite 200 Sacramento, CA 95831	(916) 429-2545	www.nappa.org
NATIONAL ASSOCIATION OF STATE TREASURERS (NAST)	Mailing Address: P.O. Box 11910 Lexington, KY 40578-1910 Physical Address: 2760 Research Park Drive Lexington, KY 40511	(859) 244-8175	www.nast.net

3. PROFESSIONAL ORGANIZATIONS (CONTINUED)

NAME	ADDRESS	PHONE	WEBSITE
NATIONAL CONFERENCE ON PUBLIC EMPLOYEES RETIREMENT SYSTEMS (NCPERS)	444 N. Capitol Street, N.W., Suite 630 Washington, D.C. 20001	(877) 202-5706	www.ncpers.org
NATIONAL COUNCIL ON TEACHER RETIREMENT (NCTR)	7600 Greenhaven Drive, Suite 302 Sacramento, CA 95831	(916) 394-2075	www.nctr.org
NATIONAL DEFINED CONTRIBUTION COUNCIL (NDCC)	714 Hopmeadow Street, Suite 3 Simsbury, CT 06070	(860) 658 5058 (860) 658 5161	www.ndcconline.org
NATIONAL FEDERATION OF MUNICIPAL ANALYSTS (NFMA)	P.O. Box 14893 Pittsburgh, PA 15234	412-341-4898	www.nfma.org
THE NATIONAL ASSOCIATION OF STATE RETIREMENT ADMINISTRATORS (NASRA)	Mailing Address: P. O. Box 14117 Baton Rouge, LA 70898 Physical Address: 2070 Silverside Drive, Suite 203C Baton Rouge, LA 70808	(225) 757-7452	www.nasra.org

4. OTHER INVESTMENT RELATED RESOURCES

WEBSITE	DESCRIPTION
www.bloomberg.com	Provides news, commentary, market data, charts and analyses of information on the financial industry and markets.
www.cfainstitute.org	List of current reading materials for the Chartered Financial Analyst (CFA) designation.
www.emma.msrb.org	Centralized on-line site to find key information about municipal securities.
www.muninetguide.com	Online guide and directory to municipal-related content on the Internet, emphasizing municipal bonds, state and local government, and public finance.



Appendix B

SAMPLE INVESTMENT DOCUMENTS

Appendix B

SAMPLE INVESTMENT DOCUMENTS

Appendix B provides examples of documents for public agencies to use as guidance when retaining outside investment-related services and reporting quarterly investment performance. The following sample documents are included in Appendix B:

- REQUEST FOR PROPOSALS FOR INVESTMENT ADVISORY SERVICES
- INVESTMENT MANAGEMENT AGREEMENT (DISCRETIONARY)
- INVESTMENT MANAGEMENT AGREEMENT (NON-DISCRETIONARY)
- REQUEST FOR PROPOSALS FOR FINANCIAL ADVISORY SERVICES
- BROKER/DEALER QUESTIONNAIRE
- QUESTIONNAIRE FOR CUSTODIAL SERVICES
- REQUEST FOR PROPOSALS FOR TRUSTEE SERVICES
- REQUEST FOR PROPOSALS FOR ARBITRAGE REBATE SERVICES
- QUARTERLY REPORT BY TREASURER TO GOVERNING BODY

SAMPLE REQUEST FOR PROPOSALS FOR INVESTMENT ADVISORY SERVICES

REQUEST FOR PROPOSALS INVESTMENT ADVISORY SERVICES [NAME OF PUBLIC AGENCY]

The [Name of Public Agency] is soliciting Requests for Proposals (RFP) from interested firms for the provision of investment management services for [Name of Public Agency]. The average daily balance of the invested assets is approximately \$ _____ .

The investment of [Name of Public Agency]'s funds is guided by the applicable State statutes and the [Name of Public Agency]'s investment policy. A copy of the investment policy is attached for your information.

Questions regarding this RFP should be directed to:

Name
Title
Name of Public Agency
Address
City, State Zip Code
Phone Number

I. CRITERIA FOR SELECTION

- A. Understanding the scope of assignment.
- B. Experience and qualifications of firm and individuals assigned.
- C. Recommended approach to management of the [Name of Public Agency]'s portfolio.
- D. Familiarity with state and federal investment and reporting requirements *[Note: If Agency is seeking assistance for investment of bond proceeds, it may wish to include familiarity with federal arbitrage restrictions].*
- E. Fees charged.

II. SELECTION TIMETABLE

- A. [Month Day, Year] Proposals due by [Time] PST.
- B. [Month Day, Year] Proposals evaluated by the Treasurer and Finance Staff/Interviews held.
- C. [Month Day, Year] [Name of Public Agency] [Board/Council] approves selection and awards contract.

III. FORMAT FOR PROPOSALS

Please format your response to this RFP in the following manner:

A. Organization

1. Describe your organization, date founded, ownership and other business affiliations. Provide number and location of affiliated offices. Specify the number of years your organization has provided investment management service.
2. Describe your firm's revenue sources (e.g., investment management, institutional research, etc.) and comment on your firm's financial condition.
3. Within the past three years, have there been any significant developments in your organization (e.g., changes in ownership, new business ventures)? Do you expect any changes in the near future?
4. Describe any U.S. Securities and Exchange Commission (SEC) censures or litigation involving your organization, any officer, or employee at any time.
5. Identify the types of accounts managed by your firm (e.g., government, pension, corporate, high net worth, endowment/foundation).
6. Describe the firm's fiduciary liability and/or errors and omissions insurance coverage. Include dollar amount of coverage.

B. Personnel

1. Identify the number of professionals employed by your firm by classification.
2. Provide an organization chart showing function, positions, and titles of all the professionals in your organization.
3. Provide biographical information on investment professionals that will be involved in the decision-making process for our portfolio, including number of years at your firm. Identify the person who will be the primary portfolio manager assigned to the account.
4. Describe your firm's compensation policies for investment professionals.

C. Assets Under Management

1. Summarize your institutional investment management asset totals by category for your latest reporting period in the following table:

	Operating Funds	Other Funds (specify)
Governmental	\$ _____	\$ _____
Other Institutional	\$ _____	\$ _____

- Provide the number of separate accounts whose portfolios consist of operating funds. [Note: If Agency is issuing RFP for investment of bond proceeds, it may wish to request the number of accounts whose portfolios consist of bond proceeds.]
- List in the following table the percentage by market value of aggregate assets under management for your latest reporting period:

Type of Asset	Percent by Market Value
U.S. Treasury securities	_____
Federal Agency obligations	_____
Corporate securities rated AAA-AA	_____
Corporate securities rated A	_____
Corporate securities rated BBB or lower	_____
Other (specify _____)	_____

- Describe the procedures that your firm has in place to address the potential or actual credit downgrade of an issuer and to disclose and advise a client of the situation.
- Provide data on account/asset growth over the past three years. Indicate the number of accounts gained and the number of accounts lost.
- List your five largest clients. Identify those that are exclusively operating fund relationships and/or those that are other relationships (e.g., bond fund, retirement fund).
- Provide a copy of the firm's Form ADV, Parts I and II (including all schedules).
- Provide proof of State of California Registration, if your firm is not eligible for SEC registration.
- Provide a sample contract for services.

D. Philosophy/Approach

- Describe your firm's investment philosophy for public clients, including your firm's philosophy regarding average duration, maturity, investment types, credit quality, and yield.
- Describe in detail your investment process, as you would apply it to [Name of Public Agency]'s portfolio.

3. What are the primary strategies for adding value to portfolios (e.g., market timing, credit research, trading)?
4. Describe the process you would recommend for establishing the investment objectives and constraints for this account.
5. Do you have or would you recommend there be policy restrictions with respect to maturity, sector, quality, and coupon?
6. Describe in detail your process of credit risk management, including how you analyze credit quality, monitor credits on an ongoing basis, and report credit to [Name of Public Agency].
7. Describe your firm's trading methodology.
8. Describe your firm's decision-making process in terms of structure, committees, membership, meeting frequency, responsibilities, integration of research ideas, and portfolio management.
9. Describe your research capabilities as they would pertain to the [Name of Public Agency]'s portfolio. What types of technical analysis do you use? [Note: If Agency is issuing RFP for investment of bond proceeds, it may wish to inquire as to the firm's capabilities and experience for tracking and reporting arbitrage.]
10. Describe the firm's approach to managing relationships with the broker-dealer community.

E. Portfolio Management

1. Are portfolios managed by teams or one individual?
2. What is the average number of accounts handled per manager?
3. Which professional staff member will be the primary client contact for [Name of Public Agency]?
4. How frequently are you willing to meet with us?
5. Describe procedures used to ensure that portfolios comply with client investment objectives, policies, and bond resolutions.

F. Fees Charged

1. Please include a copy of your firm's fee schedule applicable to this RFP.
2. Identify any expenses that would not be covered through this fee structure and would be required in order to implement the firm's program.
3. Is there a minimum annual fee?

4. Please provide a statement of fees for such additional services as arbitrage rebate related services.
5. Are fees charged when there is no activity in the account?

G. Performance Reporting

1. Please describe how you typically report performance.
2. Please provide performance history for the past five years for current accounts comprised of securities with maturities, quality and sectors similar to those of [Name of Public Agency]. Indicate whether your returns are calculated and compiled in accordance with the GIPS standards. If not, how does the performance presentation differ from GIPS standards?
3. Do your reports conform to State reporting standards? Are you willing to customize your reports to meet our specifications?
4. How will you notify us of investment transactions?
5. Are confirmation of investment transactions sent directly by the broker/dealer to the client?

H. References

Provide a list of at least [Number] client references in California. References should be public agencies with portfolio size and investment objectives similar to [Name of Public Agency]. Include length of time managing the assets, contact name, and phone number.

I. Insurance Requirements

Exhibit A defines the insurance requirements that will need to be met prior to the [Board/Council]'s approval of any agreement for services.

J. Submittal of proposals

1. [Number] of copies of the proposal shall be submitted in a sealed envelope bearing the caption “[RFP for (Name of Public Agency)] and addressed to:

Name of Public Agency
Address
City, State Zip Code
Attention: Name of Agency Contact
2. Proposal must be received no later than [Time] PST on [Month Day, Year].

3. Proposals should be verified before submission. The [Name of Public Agency] shall not be responsible for errors or omissions on the part of the respondent in preparation of a proposal. The [Name of Public Agency] reserves the right to reject any and all proposals, to wave any irregularities, or informalities in the proposals, and to negotiate modifications to any proposal.

SAMPLE INVESTMENT MANAGEMENT AGREEMENT (DISCRETIONARY)

INVESTMENT MANAGEMENT AGREEMENT (INSTITUTIONAL CLIENT, NON-ERISA)

_____ (Client) hereby retains _____
(Advisor) as Investment Advisor on the terms and conditions set forth herein.

I. TERM

The term of this Agreement shall commence upon the execution of this Agreement and shall continue until this Agreement is terminated effective upon receipt of notice of termination in writing delivered by the terminating party.

II. FEES

Client shall compensate Advisor monthly an amount calculated on the average market value of Client's portfolio, in accordance with the following schedule:

Assets Under Management	Annual Investment Management Fee
-------------------------	----------------------------------

The fees expressed above do not include any custody fees that may be charged by Client's bank or other third party custodian.

Fees shall be prorated to the effective date of termination on the basis of actual days elapsed, and any unearned portion of prepaid fees shall be refunded. Client is not required to pay any start-up or closing fees; there are no penalty fees.

Fees shall be deducted monthly in arrears from Client's custody account.

III. CLIENT REPRESENTATIVE

In its capacity as investment manager, Advisor shall receive all instructions, directions and other communications on Client's behalf respecting Client's account from _____ (Representative). Advisor is hereby authorized to rely and act upon all such instructions, directions and communications from such Representative or any agent of such Representative.

IV. INVESTMENT POLICY

In investing and reinvesting Client's assets, Advisor shall comply with Client's Investment Policy, which is attached hereto as Exhibit A.

V. AUTHORITY OF ADVISOR

Advisor is hereby granted full discretion to invest and reinvest all assets under its management in any type of security it deems appropriate, subject to the instructions given or guidelines set by Representative.

VI. NOTICES

Any notice shall be mailed to Client at the following address:

Client Name
Address
City, State Zip Code

and to Advisor at the following address:

Advisor Name
Address
City, State Zip Code

VII. CUSTODY OF SECURITIES AND FUNDS

Advisor shall not have custody or possession of the funds or securities that Client has placed under its management. Client may appoint a custodian to take and have possession of its assets.

VIII. INVESTMENT ADVICE

Client recognizes that the opinions, recommendations and actions of Advisor will be based on information deemed by it to be reliable, but not guaranteed to or by it. Provided that Advisor acts in good faith, Client agrees that Advisor will not in any way be liable for any error in judgment or for any act or omission, except as may otherwise be provided for under the Federal Securities laws or other applicable laws.

IX. PAYMENT OF COMMISSIONS

Advisor may place buy and sell orders with or through such brokers or dealers as it may select. It is the policy and practice of Advisor to strive for the best price and execution and for commission and discounts that are competitive in relation to the value of the transaction and which comply with Section 28(e) of the Securities and Exchange Act of 1934. Nevertheless, it is understood that Advisor may pay a commission on transactions in excess of the amount another broker or dealer may charge, and that Advisor makes no warranty or representation regarding commissions paid on transactions hereunder.

X. OTHER CLIENTS

It is further understood that Advisor may be acting in a similar capacity for other institutional and individual clients, and that investments and reinvestments for client's portfolio may differ from those made or recommended with respect to other accounts and clients even though the investment objectives may be the same or similar. Accordingly, it is agreed that Advisor will have no obligation to purchase or sell for Client's account any securities that it may purchase or sell for other clients.

XI. NO ASSIGNMENT

This Agreement may not be assigned by Advisor without Client's consent, but may be amended at any time by mutual agreement in writing.

XII. GOVERNING LAW

It is understood that this Agreement shall be governed by and construed under and in accordance with the laws of the State of California.

XIII. SEVERABILITY

Any provision of this Agreement that is prohibited or unenforceable shall be ineffective only to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof.

XIV. RECEIPT OF BROCHURE

Client has received the disclosure statement or "brochure" required to be delivered pursuant to Rule 204-3 of the Investment Advisors Act of 1940 (Brochure).

Client understands that it has the right to terminate this Agreement without penalty within five (5) days after entering into this Agreement.

CLIENT

BY _____ DATE _____

ADVISOR

BY _____ DATE _____

SAMPLE INVESTMENT MANAGEMENT AGREEMENT (NON-DISCRETIONARY)

INVESTMENT MANAGEMENT AGREEMENT

This Agreement, dated as of the ____ day of _____ 20____ (the “Agreement”), is by and between _____ (the “Advisor”) and the _____ (the “Client”). The parties agree as follows:

1. APPOINTMENT

Client hereby appoints Advisor as the investment advisor of those assets designated by the Client (the “Advisory Account”).

2. DUTIES OF ADVISOR

Advisor shall invest the assets of the Advisory Account as directed by the Client in accordance with the written investment objectives, policies, and restrictions of the Client. Client shall provide the Advisor with an initial Investment Policy or list of authorized investments that shall be incorporated in Exhibit A.

The Advisor will provide the Client monthly a written report detailing transactions for the period and an inventory of the investments in the Advisory Account. It is agreed that the Advisor, in the maintenance of records, does not assume responsibility for the accuracy of information furnished by the Client or any other person.

Any additional investment management services the Advisor shall provide to the Client are listed in Exhibit B.

3. NON-DISCRETIONARY AUTHORITY

It is agreed that decisions concerning investments subject to this agreement shall be made by the Client’s authorized representative with the assistance of the Advisor. The approval of the Client is required prior to the execution of any investment transaction for the Advisory Account. The Advisor, when expressly instructed by the Client, will buy or sell securities and place orders for the execution of such transactions with or through such brokers, dealers, or issuers as the Advisor may select, subject to approval by the Client.

4. CHANGES IN INVESTMENT POLICIES OR ASSETS IN THE ACCOUNT

The Client is required to notify Advisor promptly in writing of any modifications to the investment objectives, policies or restrictions applicable to the

Advisory Account. The Client agrees to notify the Advisor promptly of any withdrawal of securities from the Advisory Account initiated by the Client.

5. ALLOCATION OF BROKERAGE

When placing orders for the execution of transactions for the Advisory Account, the Advisor will take into consideration not only the available prices but also other relevant factors such as, without limitation, execution capabilities and safekeeping arrangements. The Advisor will exercise good faith in obtaining the best price and execution for each transaction for the Advisory Account.

6. SAFEKEEPING AND CUSTODY

Advisor will not have custody or possession of assets in the Advisory Account of the Client. The Client shall select and authorize a custodian bank or brokerage firm to hold the assets of the Advisory Account in safekeeping for the Client. The Client shall be solely responsible for all fees involved with any custodial arrangements.

7. FEES

The compensation of the Advisor for its services under this Agreement shall be calculated and paid in accordance with the Fee Schedule in Exhibit C, as the same may be amended from time to time by mutual agreement of the Client and the Advisor.

8. LIMITATION OF LIABILITY

The Advisor will not be liable for any error in judgment or any acts or omissions to act except those resulting from the Advisor's gross negligence, willful misconduct or reckless disregard of its duties and obligations under this Agreement. Nothing herein shall in any way constitute a waiver or limitation of any right of any person under the federal and state securities laws.

9. SERVICES TO OTHER CLIENTS

It is understood that the Advisor performs investment advisory services for other clients. The Client agrees that the Advisor may give advice and take action with respect to any of its other clients that may differ from advice given, or the timing, or nature of action taken, with respect to the Advisory Account.

10. REPRESENTATIONS BY CLIENT

Client represents that the terms of this Agreement do not violate any obligation by which Client is bound, whether arising by contract, operation of law, or otherwise, and that this Agreement has been duly authorized by appropriate action and is binding upon Client in accordance with its terms.

**11. ACKNOWLEDGMENT OF RECEIPT OF BROCHURE
(FORM ADV PART II)**

Client hereby acknowledges receipt of Advisor's Brochure (Form ADV Part II) at least 48 hours prior to the date of execution of this Agreement in compliance with Rule 204-3 of the Investment Advisors Act of 1940 ("Act").

12. NOTICE

All notices and other communications shall be deemed effective when received, in writing, at the address appearing below. Receipt of written notice shall be presumed if mailed postpaid by registered or certified mail, return receipt requested. Each party shall be entitled to presume the correctness of such address until notified in writing to the contrary.

13. TERMINATION; ASSIGNMENT; AMENDMENT

This Agreement may be terminated at any time by either party giving to the other at least thirty days prior notice of such termination confirmed in writing. If any fees have been paid in advance, the Advisor will refund to the Client a prorata share of the fee. No assignment, as that term is defined in the Act, of this Agreement shall be made by either party without the consent of the other. This Agreement may be amended or modified at any time by mutual agreement in writing.

14. COUNTERPARTS

This Agreement may be executed in two or more counterparts, each one of which shall be deemed to be an original.

15. GOVERNING LAW

To the extent federal law does not apply, this Agreement shall be construed in accordance with and governed by the laws of the State of _____ .

16. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement of the parties with respect to the management of the Advisory Account. The Exhibits referenced herein are incorporated into the Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective representatives as of the date first above written.

CLIENT NAME _____

APPROVED BY _____

ATTESTED TO BY _____

REVIEWED BY _____

ADDRESS _____

ADVISOR NAME _____

BY _____

ADDRESS _____

ADVISOR NAME _____

EXHIBIT A

Authorized Investments

(Insert a copy of public agency's investment policy)

EXHIBIT B

Work to be Performed

_____ (the "Advisor") will provide the following services to the _____ as the Client's investment advisor:

- Provide full-time non-discretionary management of the portion of the investment portfolio under advisement.
- Develop and implement investment strategies that will enhance portfolio performance under current and future market conditions within the parameters of the Client's investment policy and cash flow needs.
- Provide technical and fundamental market research including yield curve analysis.
- Obtain and document competitive prices for securities transactions.
- Assist with trade settlements.
- Review and update the Client's investment policy and written investment procedures.
- Perform due diligence reviews of current and proposed brokers/dealers.
- Evaluate safekeeping and custodial procedures and agreements.
- Monitor the creditworthiness of the Client's depository and custodian bank and investments in the portfolio.

- Work with the Client to develop and update cash flow projections.
- Provide monthly investment reports for the portfolio detailing securities holdings, daily activity reconciliation, portfolio composition and sector analyses, portfolio return, and weighted average maturities.
- Provide separate semi-annual and annual portfolio performance reports.
- Provide training to staff on cash, treasury and investment management subjects.
- Attend meetings with investment staff, management, and the Client's governing body.

EXHIBIT C

Fee Schedule for Investment Advisory Services

The annual fee for providing investment advisory services for the _____ is _____ basis points per year. The fee for investment advisory services is based on the average value (cost basis) of assets under management. A prorata portion of the annual fee (1/12) is billed each month based on the average asset value of the portfolio for the month. The fee shall be payable upon receipt of billing from the Advisor.

SAMPLE REQUEST FOR PROPOSALS FOR FINANCIAL ADVISORY SERVICES

REQUEST FOR PROPOSALS FINANCIAL ADVISORY SERVICES [NAME OF PUBLIC AGENCY]

The [Name of Public Agency] is seeking proposals from a qualified firm (herein, a “Consultant”) to provide professional financial advisory services to the [Name of Public Agency]. The [Name of Public Agency] wishes to debt finance _____ .

_____ (herein, the “Project”). This Request for Proposals (RFP) describes the required scope of services, the selection process, and the minimum information that must be included in the proposal. Failure to submit information in accordance with this RFP’s requirements and procedures may be cause for disqualification.

I. BACKGROUND AND DESCRIPTION

A. General Information

[Description of Public Agency]

B. Population and Housing

[Description of population and housing]

C. Employment

[Description of employment situation]

D. Sources of Revenue

[Description of sources of revenue]

II. SCOPE OF SERVICES

A. Establish the Financing Objectives

1. At the onset of the financing transaction process for the Project, the Consultant shall review the [Name of Public Agency]’s financing needs and in conjunction with the [Name of Public Agency]’s management, outline the objectives of the financing transaction to be undertaken and its proposed form.
2. Unless previously determined, the Consultant shall recommend the method of sale of debt and outline the steps required to achieve efficient market access.

B. Develop the Financing Timetable

1. The Consultant shall take the lead role in preparing a schedule and detailed description of the interconnected responsibilities of each team member and update this schedule, with refinements, as necessary, as the work progresses.

C. Monitor the Transaction Process

1. The Consultant shall have primary responsibility for the successful implementation of the financing strategy and timetable that is adopted for each debt issue relating to the Project.
2. The Consultant shall coordinate (and assist, where appropriate) in the preparation of the legal and disclosure documents and shall monitor the progress of all activities leading to the sale of debt.
3. The Consultant shall prepare the timetables and work schedules necessary to achieve this end in a timely, efficient, and cost-effective manner and will coordinate and monitor the activities of all parties engaged in the financing transaction.

D. Prepare the Official Statement

1. The Government Finance Officers Association (GFOA) guidelines encourage full disclosure so that potential investors have sufficient data to analyze each proposed financing.
2. Upon the direction of the [Name of Public Agency], the Consultant shall take the lead in preparation of the Official Statement for each debt issue relating to the Project to insure that the [Name of Public Agency]'s Official Statement is compiled in a manner consistent with industry standards, typically including the following matters:
 - a. Legal authority for the financing.
 - b. Security for the financing.
 - c. Restrictions on additional financings.
 - d. Purpose and funds for which the financing is being issued.
 - e. Governmental system.
 - f. Financial management system.
 - g. Revenue sources (e.g., historic, current, and projected).
 - h. Outstanding financings.

- i. Planned future financings.
 - j. Labor relations and retirement systems.
 - k. Economic base.
 - l. Annual financial statements.
 - m. Legal opinions regarding tax exemption.
 - n. Such other matters as the context may require.
3. The Consultant shall maintain and update the Official Statement on its word processing system until such time as it is near final and suitable for transfer to the financial printer, in order to minimize the costs of revisions made by the printer.
 4. Because the [Name of Public Agency] ultimately assumes responsibility for disclosures, the [Name of Public Agency] may enlist the services of a Disclosure Consultant for preparation of the Official Statement. The Consultant should coordinate their efforts with the Disclosure Consultant, if one is hired.

E. Procure and Coordinate Additional Service Providers

1. Should the [Name of Public Agency] desire, the Consultant may act as [Name of Public Agency]'s representative in procuring the services of financial printers for the Official Statement and related documents, and for the printing of any securities.
2. The Consultant may act as the [Name of Public Agency]'s representative in procuring the services of trustees, paying agents, fiscal agents, feasibility consultants, redevelopment consultants, or escrow verification agents or other professionals, if the [Name of Public Agency] directs.

F. Provide Financial Advice to the [Name of Public Agency] Relating to Financing Documents

1. Simultaneous with assisting in the preparation of Official Statements for each debt issue relating to the Project, the Consultant shall assist the managing underwriters, bond counsel and/or other legal advisors in the drafting of the respective financing resolutions, notices, and other legal documents.
2. In this regard, the Consultant shall monitor document preparation for a consistent and accurate presentation of the recommended business terms and financing structure of each debt issue relating to the Project, it being specifically understood, however, that the Con-

sultant's services shall in no manner be construed as the Consultant engaging in the practice of law.

G. Compute Sizing and Design Structure of Debt Issue

1. The Consultant shall work with the [Name of Public Agency]'s staff to assist in the sizing of the debt issue and to design a financing structure for each debt issue relating to the Project that is consistent with the [Name of Public Agency]'s objectives, that coordinates each transaction with outstanding issues, and that reflects current conditions in the capital markets.

H. Plan and Schedule Rating Agency Presentation and Investor Briefings

1. The Consultant shall develop a plan for presenting the financing program to the rating agencies and the investor community.
2. The Consultant shall schedule rating agency visits, if appropriate; the Consultant will develop presentation materials and assist the [Name of Public Agency]'s officials in preparing for the presentations.

I. Conduct Credit Enhancement Evaluation and Procurement

1. Upon the [Name of Public Agency]'s direction, the Consultant will initiate discussions with bond insurers, letter of credit providers, and vendors of other forms of credit enhancements to determine the availability of and cost benefit of securing financing credit support.

J. Conduct Market Analysis and Evaluate Timing of Market Entry

1. The Consultant shall provide regular summaries of current municipal market conditions and trends, and how these may favorably or unfavorably affect the [Name of Public Agency]'s proposed financing.
2. Competitive Sales
 - a. For competitive sale of debt, the Consultant shall undertake such activities as are generally required for sale of securities by competitive bid including, but not limited to the following:
 - (1) Review and comment on terms of Notice of Sale or Notice Inviting Bids.
 - (2) Provide advice on debt sale scheduling.
 - (3) Provide advice on the use of electronic bidding systems.
 - (4) Coordinate bid opening with the [Name of Public Agency] staff and officials.

- (5) Verify bids received and make recommendations for acceptance.
- (6) Provide confirmation of issue sizing, based upon actual bids received, where appropriate.
- (7) Coordinate closing arrangements with the successful bidder(s).

3. Negotiated Sales

- a. In the case of a negotiated sale of debt, the Consultant shall perform a thorough evaluation of market conditions preceding the negotiation of the terms of the sale of debt and will assist the [Name of Public Agency] with the negotiation of final issue structure, interest rates, interest cost, reoffering terms and gross underwriting spread and provide a recommendation on acceptance or rejection of the offer to purchase the debt.
- b. This assistance and evaluation will focus on the following areas as determinants of interest cost:
 - (1) Size of financing.
 - (2) Sources and uses of funds.
 - (3) Terms and maturities of the debt issue.
 - (4) Review of the rating in pricing of the debt issue.
 - (5) Investment of debt issue proceeds.
 - (6) Distribution mix among institutional and retail purchasers.
 - (7) Interest rate, reoffering terms and underwriting discount with comparable issues.
 - (8) Redemption provisions.

K. Recommend Award of Debt Issuance

1. Based upon activities outlined above, the Consultant will recommend accepting or rejecting offers to purchase the debt issue.
2. If the [Name of Public Agency] elects to award the debt issue, the Consultant will instruct all parties and help facilitate the actions required to formally consummate the award.

L. Provide Pre-Closing and Closing Activities

1. The Consultant shall assist in arranging for the closing of each financing.
2. The Consultant shall assist counsel in assuming responsibility for such arrangements as they are required, including arranging for or monitoring the progress of bond printing, qualification of issues for book-entry status, signing and final delivery of the securities, and settlement of the costs of issuance.

M. Special Financing Services

1. The Consultant shall assist the [Name of Public Agency], as needed, in delivering special financial-related services that may be needed for any debt issue relating to the Project.
2. Services that may be required include feasibility consultants required to deliver services relating to the Project, or credit providers, such as bank, insurance companies, and private lenders.
3. At each point where a special service is required, the Consultant shall research and develop a set of specifications for the desired service, develop a distribution list and supervise the circulation of the request for proposals.
4. The Consultant also may assist the [Name of Public Agency], as needed and directed, in development of a plan for the investment of bond proceeds. Such services may include, but not be limited to, the following:
 - a. INITIAL ANALYSIS AND INVESTMENT RECOMMENDATION. The Consultant will analyze the [Name of Public Agency]'s investment requirements as set forth in the controlling documents for each Bond Issue designated by the [Name of Public Agency], and will (i) provide a capital needs analysis, cash requirements analysis, and investment requirement analysis; and (ii) recommend the appropriate investment medium required to meet such investment requirements.
 - b. [NAME OF PUBLIC AGENCY] CONTROL. The [Name of Public Agency] may choose to follow or disregard any recommendations or advice furnished by the Consultant and may make such recommendations or advice available to others for the purpose of implementing such recommendations.
 - c. STRUCTURING THE REQUEST FOR BIDS DOCUMENT. The Consultant will work with the [Name of Public Agency]'s financing team to create an investment structure and bid document that provides the maximum flexibility while maintain-

ing safe and sound investment practices consistent with the [Name of Public Agency]'s investment policy. The Consultant will submit the bid document to the [Name of Public Agency] and to the [Name of Public Agency]'s bond counsel for review, prior to distribution to prospective bidders. The Consultant will prepare and distribute the bid packages and interface with all of the bidders to insure the greatest response to the bid request.

- d. CONDUCTING THE BID PROCESS. The Consultant will conduct the bid process according to current Treasury Regulations and make appropriate certifications to the [Name of Public Agency] and to the [Name of Public Agency]'s bond counsel regarding the bids of each qualified provider submitting an acceptable bid. The [Name of Public Agency] will know the exact results of each bid prior to the awarding of the investment(s).
- e. COORDINATING THE CLOSING OF THE INVESTMENT CONTRACT. The Consultant will work with the appropriate parties of the financing team in gathering all comments and revisions to the investment contract.
- f. OTHER SERVICES. The Consultant may provide similar services to those specified above with respect to structured portfolios.

III. PROPOSAL REQUIREMENTS

A. General

- 1. The proposal should be concise, well organized, and demonstrate the responders' qualifications and experience applicable to the Project.
- 2. Responders will be evaluated based on the information submitted in accordance with Section B. below.

B. Contents

- 1. Proposals submitted in response to this RFP shall be in the following order and include:
 - a. EXECUTIVE SUMMARY. Include a one-page overview of the entire proposal describing the highlights of the proposal.
 - b. IDENTIFICATION OF RESPONDER.
 - (1) Legal name and address of company.
 - (2) Legal form of company (e.g., partnership, corporation, joint venture). If joint venture, identify the members of

the joint venture and provide all information required under this section for each member.

- (3) If company is wholly owned subsidiary of a parent company, identify the parent company.
- (4) Addresses of office(s) located in California.
- (5) Number of years that company has maintained office in California.
- (6) Number of employees in California.
- (7) Name, title, address and telephone number of person to contact concerning the proposal.

c. EXPERIENCE.

- (1) Describe Consultant's experience in completing similar consulting efforts.
- (2) List three public agencies for which similar work is conducted.
- (3) Specify the name of company and designated project manager, phone numbers, and type of work performed.
- (4) Consulting projects currently being performed may be submitted for consideration.

d. PROJECT ORGANIZATION AND KEY PERSONNEL.

- (1) Describe proposed project team organization, including identification and responsibilities of key personnel. Indicate role and responsibilities of prime consultant and all sub-consultants.
- (2) Provide detailed discussion of the experience of Consultant's project manager and other key staff members on projects of similar size, capacity, and dollar value. For each similar project, include client's name, contact person, and phone numbers.

e. DELIVERY OF SERVICES. Include a description of overall approach to delivery of requested services.

f. COST PROPOSAL.

- (1) Describe your proposed fee schedule and billing policy relating to word processing time, travel and mileage, reimbursable expenses, and telephone and fax charges.

- (2) The City reserves the right to negotiate proposed fees prior to awarding a contract.
- (3) The fee schedule should include fee structure for the various services and where appropriate provide hourly rate basis information.

IV. SUBMITTAL REQUIREMENTS

- A. The Consultant must submit a signed original proposal, clearly marked on the cover, and four copies of the proposal. The proposed fee schedule shall be provided in a separate sealed envelope marked "Proposed Fee Schedule".
- B. The proposal shall be signed by an individual or individuals authorized to execute legal documents on behalf of the Consultant.
- C. The proposal must be received no later than 5:00 p.m. PST, on _____, 20 ____ at the office of:

Name of Public Agency
Address
City, State Zip Code
Attention: Name of Contact
- D. Failure to comply with the requirements of this RFP may result in disqualification.
- E. Proposals and/or modifications thereto received subsequent to the hour and date specified above will not be considered.

V. PRE-SUBMITTAL ACTIVITIES

- A. All questions regarding the RFP should be presented in writing as soon as possible to:

Name of Public Agency
Address
City, State Zip Code
Attention: Name of Contact
- B. The [Name of Public Agency] reserves the right to revise the RFP prior to the date that proposals are due. Revisions to the RFP shall be mailed to all potential entities.
- C. The [Name of Public Agency] reserves the right to extend the date by which the proposals are due.

VI. CONSULTANT SELECTION PROCESS

- A. A Consultant Selection Committee will be established for the review of proposals.
- B. Based on the proposals submitted, the Selection Committee will select a shortlist of qualified firms for this project.
- C. The Committee may interview the short-listed firms. Based on the proposal and interview, the Committee will rank the finalists as to qualifications. The Committee will recommend the selected firm to the [Name of Public Agency]'s [Board/Council] and will request authority to enter into negotiations with the selected firm.
- D. Upon receipt of the [Board/Council]'s authorization to negotiate, the [Name of Public Agency] will establish a negotiating team and enter into negotiations with the selected firm. Negotiations will cover: detailed scope of work, contract schedule, contract terms and conditions, technical specifications, and price. If the negotiating team is unable to reach an acceptable agreement with the selected firm, the negotiating team will recommend to the [Board/Council] that the negotiations be terminated and that negotiations with the second ranked firm be initiated.
- E. After negotiating a proposed agreement, the negotiating team will recommend to the [Board/Council] that the [Name of Public Agency] enter into the proposed agreement.

VII. SCHEDULE FOR SELECTION AND AWARD

- A. The [Name of Public Agency] anticipates that the process for nominating and selecting a consultant and awarding the contract will be according to the following tentative schedule:

[Month Day, Year] Proposals due by 5 PM.

[Month Day, Year] Proposals evaluated by Consultant Selection Committee.

[Month Day, Year] [Board/Council] awards contract.

VIII. LIMITING TERMS AND CONDITIONS

- A. This RFP does not commit the [Name of Public Agency] to award a contract, to defray any costs incurred in the preparation of a proposal pursuant to this RFP, or to procure or contract for work.

- B. All proposals submitted in response to this RFP become the property of the [Name of Public Agency] and public records, and as such may be subject to public review.
- C. The [Name of Public Agency] reserves the right to cancel, in part or in its entirety, this RFP including but not limited to: selection schedule, submittal date, and submittal requirements.
- D. The [Name of Public Agency] reserves the right to request additional information and/or clarifications from any or all Consultants to this RFP.
- E. The selected consultant will be required to sign an “Agreement for Professional Services” prepared by the [Name of Public Agency].
- F. The [Name of Public Agency] requires contractors, consultants and vendors doing business with it to obtain insurance as shown in the Agreement for Professional Services. The required insurance certificates must comply with all requirements of the standards as shown in the Agreement and the original copy must be provided within 30 days notice of selection and prior to the commencement of any work on the project.

SAMPLE BROKER/DEALER QUESTIONNAIRE

QUESTIONNAIRE FOR BROKER/DEALER SELECTION

- I. Name of broker/dealer.
- II. Name of broker/dealer representative and backup personnel.
- III. Address of office that will service this public agency.
- IV. Is your firm a primary dealer or non-primary dealer?
- V. What is your experience with California public agency clients?
- VI. Show how your firm qualifies under SEC Rule 15C3-1 (Uniform Net Capital Rule).
- VII. Attach registration documentation for the broker/dealer and the broker/dealer representative.
- VIII. Does your firm have the minimum level of capital to comply with applicable regulatory requirements? Include documentation.
- IX. In what product area(s) does your firm qualify as a market maker and/or have a strong market presence? Demonstrate.
- X. Does your firm have a compliance department?
- XI. Demonstrate that your firm is well established and has an acceptable track record.
- XII. Has your firm been the subject of any complaints to regulatory bodies?
- XIII. Has your firm been involved in litigation regarding your brokerage practices?
- XIV. Please provide a minimum of three references for accounts similar to this public agency.
- XV. In what ways can you and your firm add value to this agency's investment process?
- XVI. What types of research and analytics can you provide to public agency clients?

SAMPLE QUESTIONNAIRE FOR CUSTODIAL SERVICES

QUESTIONNAIRE FOR SELECTION OF CUSTODIAL SERVICES FOR CITY OF _____

ORGANIZATION

- I. Provide your firm's complete name, address, telephone number, facsimile number, and electronic mail address. Include the name and title of the primary relationship manager.
- II. Describe the ownership structure of your firm, and how this relates to the parent organization and any related affiliates.
- III. Provide a brief overview of your firm's line(s) of business.
- IV. Describe your firm's custody program in terms of its position and level of importance in your firm and your firm's commitment to this program in the context of the overall corporate strategy.
- V. What is your firm's experience related to proxy processing and/or class actions?
- VI. What is your firm's experience related to global custody and securities lending?
- VII. Describe any significant organizational developments in your firm within the past three years, such as changes in ownership, restructuring or personnel reorganizations.
- VIII. Is your firm, its parent, or related affiliate(s), a registered investment advisor with the U.S. Securities and Exchange Commission (SEC) under the Investment Advisors Act of 1940? Please describe the significance of registration (or non-registration) to the custody program.
- IX. Describe your firm's financial condition; include your firm's long-term and short-term debt ratings for the past three years. Provide copies of your firm's audited annual reports for the last year.
- X. Within the past three years, has your firm or an officer or principal of your firm been involved in any litigation, legal proceedings, or investigations by a regulatory authority? If the answer is yes to any of these, please give a detailed explanation and the current status.
- XI. Please provide an organization chart outlining the relationship and reporting hierarchy of custody within the bank.

- XII. Please provide an organization chart of the structure within the custody area.
- XIII. What is the total of all assets in custody?
- XIV. Describe the legal status of assets held in custody, as compared to bank assets.
- XV. Please give the number of custody clients.
- XVI. What is the asset size of the average client, the five largest clients, and the five smallest clients?
- XVII. How many public fund accounts have you gained and lost in each of the past three years? For each account lost, indicate the reason for termination.
- XVIII. What percent of the bank's overall earnings are derived from custody services?
- XIX. What is the history of the custody function at the bank (i.e., inception, mergers, purchases, etc.)?

ADMINISTRATION

- I. How many staff members are devoted exclusively to the delivery of custodial services?
- II. Describe how your client service department is organized. Identify key individuals and specific responsibilities of those who would be assigned to this account.
- III. What is the rank and level of authority of the account administrator who would be assigned to this account?
- IV. How many clients does the account administrator in Question III manage?
- V. What is the average personnel turnover rate in each area of custody?
- VI. How much and what type training is provided for custody staff each year?
- VII. When did the bank last measure service quality and customer service? Provide the results of that project.
- VII. Do you offer educational sessions, user conferences, etc. for clients? If yes, please list and briefly describe these educational offerings.

- IX. Please provide the names, addresses, and phone numbers of three references.

ACCOUNTING AND REPORTING

- I. Does your system report or accommodate trade date, contractual settlement date, cash basis accounting, or a combination?
- II. Does your system perform accrual accounting?
- III. What transactions are not accrued?
- IV. Do you offer reports on media other than hard copy? Please specify.
- V. Can your system report brokerage commissions in a variety of configurations (i.e., by account, by manager, by broker, etc.)?
- VI. How soon after year-ends are audited annual statements and reports available?
- VII. Please provide a hard copy sample of your monthly accounting statement.
- VIII. Are you willing and able to prepare special reports from available data? Is there an extra charge for this service?

AUDIT CONTROLS

- I. Provide copies of your most recent annual report, 10-K, and 8-K filing.
- II. Provide copies of any internal control opinions issued by your independent auditors specifically related to your custody services within the last three years.
- III. What levels of management review are made of audit reports and who or what level is required to implement changes to correct audit deficiencies noted?
- IV. Who is responsible for monitoring audit recommendations made to management?

CUSTODY/SAFEKEEPING

- I. What is the source of your pricing data for bonds, and how frequently are prices updated?
- II. Do asset valuations include accrued income and pending transactions?

- III. How are valuation differences resolved between the investment manager and the Custodian?
- IV. Can the client specify alternative pricing sources?

CASH MANAGEMENT

- I. Are income payments credited in same day funds?
- II. Do you sweep cash automatically?
- III. What percentage of “fails” did you experience in the last three years for sales and for purchases?
- IV. Do you net buy and sale “fails”?
- V. What are the time restrictions for investment transactions relayed to you?
- VI. List the short-term investment vehicles available to your clients that would be appropriate for the City. Include:
 - Fund Name
 - Investment philosophy and objective
 - Types of allowable investments
 - Investment performance (current and past three years)
 - Management/administration fees and conditions

SYSTEM CAPABILITIES

- I. Is the custody department supported by a dedicated data processing, programming, and application staff? What is the number of personnel?
- II. How long has the current hardware been in place? When is the next hardware upgrade planned?
- III. Do you have back-up and recovery capabilities in place for emergencies? Where is the back-up system located?
- IV. Please provide information related to your disaster recovery and business resumption plans.
- V. When was the software developed?
- VI. Was the software developed internally or externally?

- VII. How much funding has been committed to computers and data processing during the past three years?
- VIII. How much funding has been committed to enhancements and upgrades over the next three years?
- IX. Do you have on-line capabilities for clients and their investment managers?
- X. How many of your clients utilize your on-line services?
- XI. Describe the flexibility of the system.
- XII. Describe the limitations of the system.
- XIII. Do you provide training for client personnel in the use of the system?
- XIV. Can data from your on-line system be exported to applications such as Microsoft Excel, Access, etc?
- XV. Does the system have a module for performance measurement?
- XVI. Does the system provide brokerage commission data?

PERFORMANCE MEASUREMENT/PORTFOLIO ANALYTICS

- I. Do you offer performance evaluation capabilities?
- II. What universe comparison services do you offer?
- III. Do you have portfolio attribution capabilities that produce a deliverable product on a quarterly basis?
- IV. Do you use internally developed systems or are outside vendors employed for performance measurement and portfolio analysis?
- V. If you use the services of external vendors, which vendors and products are used?
- VI. Are you willing to load historical data?
- VII. How soon after designated periods are preliminary and final performance reports available?

FEEES FOR CUSTODY

- I. Please describe in detail your fee schedule for custody services.

CONVERSION FROM EXISTING CUSTODIAN

- I. How long is a typical transition?
- II. Provide an estimated conversion calendar, including actions required on the part of the City and the Custodian and the time frame for completing each task.
- III. Briefly describe your conversion approach (e.g., Do you have dedicated resources for conversions such as personnel, equipment, and/or consultants?).
- IV. Briefly describe the custody service capabilities that set you apart from your competition.

SAMPLE REQUEST FOR PROPOSALS FOR TRUSTEE SERVICES

REQUEST FOR PROPOSALS MUNICIPAL TRUSTEE SERVICES [NAME OF PUBLIC AGENCY], [NAME OF BOND ISSUE]

The [Name of Public Agency] is soliciting proposals from qualified administrators for the purpose of serving as trustee for the proposed issuance of an estimated \$ _____ million of _____ bonds (the “Bonds”) to construct and acquire a _____. It is anticipated that the Bonds will close in late _____ 20 _____, although this date is subject to change.

PROPOSALS:

Please address all proposals to:
Name of Public Agency
Address
City, State Zip Code
Attention: Contact Person

MARK THE PROPOSAL PACKAGE:

“Proposal for Trustee Services for the [Name of Public Agency]”

PLEASE DIRECT QUESTIONS CONCERNING THIS RFP TO:

Contact Person, telephone number

PROPOSAL DUE DATE:

Noon (PST) on [Month Day, Year].
Late proposals will not be accepted.

I. GENERAL INFORMATION

A. Introduction

[Description of Public Agency and bond issues, timing of bond issue]

II. PROPOSAL REQUIREMENTS

A. Proposal Preparation

1. Concise proposals are encouraged - no proposal should exceed ten (10) pages. Elaborate brochures and binding are not necessary. Electronic submission of proposals for trustee services is highly encouraged.

B. Proposal Content

1. The proposal must include the following information:
 - a. A brief description of your trust department's organization. Please include the number of years of operation and a detailed description of the legal relationship between local offices, affiliates, and home office or parent.
 - b. Please specify office location and description of duties for each principal function, if the functions are performed in separate locations.
 - c. Identify the account representative by name, including location and telephone number for each primary function. Describe that person's experience (e.g., how many years at your banking institution and how many years in the same type of business) and list three public agency references to confirm customer service satisfaction. Identify an alternative representative's name and phone number and his/her years of experience.
 - d. Please provide a sample of an account transaction report or format.
 - e. Finally, please submit the compensation required for your services for the transaction (see Attachment A—Fees). Please be clear about any fees charged for trustee counsel to review documents and/or setup fees, if any. Clearly summarize what fees will be due immediately upon acceptance and what fees will be charged annually thereafter.

C. Proposal Submission

1. Proposals may be submitted in printed form or electronically to the address below:

Name of Public Agency

Address

City, State Zip Code

Attention: Contact Name

Email address: Contact Person e-mail Address

All electronic submissions must be substantiated with one signed original submission having a U.S. Mail postmark or similar postmark verification dated no later than the RFP submission deadline.

2. The Consultant should include two copies of any printed proposals submitted. Proposals must be received at the above addresses no

later than Noon (PST) on [Month Day, Year]. Late proposals will not be accepted.

III. REVIEW OF PROPOSALS

- A. Generally, the selected trustee must be legally organized and qualified to do business in California. In addition, the trustee shall be a bank or trust company, having, or whose parent or holding company shall have, a combined capital (exclusive of borrowed capital) and surplus of at least \$50,000,000 and shall be subject to supervision or examination by federal or state banking authorities.
- B. Written proposals submitted will be evaluated based upon, but not limited to, related experience of the respondents, knowledge of the [Name of Public Agency], professional qualifications of individuals to be assigned to the financing, experience with _____ financings, fees, and overall proposal content.
- C. Proposals will be reviewed by [Name of Public Agency] staff and its advisors. Trustee will be selected based upon written proposals alone.
- D. The [Name of Public Agency] reserves the right to reject any and all proposals and to waive informalities and minor irregularities in any proposal reviewed. Further, the [Name of Public Agency] may reject any proposal that does not conform to the instructions herewith. Additionally, the [Name of Public Agency] reserves the right to negotiate all final terms and conditions of any agreement entered into.
- E. Nothing in the RFP shall be deemed to commit the [Name of Public Agency] to engage any trustee or to proceed with the sale of any bonds.

ATTACHMENT A

FEES [NAME OF BOND ISSUE]

Service	Fees
FIXED ONE TIME FEES	
Trustee Acceptance Fee	\$ _____
Legal Fees*	\$ _____
Other (specify)	\$ _____
FIXED ANNUAL FEES	
Trustee Administration	\$ _____
Dissemination Agent (if applicable)	\$ _____

Other (specify) \$ _____

INVESTMENT AND TRANSACTIONAL FEES (IF APPLICABLE) \$ _____

ANCILLARY FEES SPECIFIC TO THE FINANCING ONLY (SPECIFY) \$ _____

OUT-OF-POCKET EXPENSES \$ _____

TOTAL DUE AT CLOSING \$ _____

* Provide name, firm, address, telephone number, facsimile number, and e-mail address of Trustee Counsel:

SAMPLE REQUEST FOR PROPOSALS FOR ARBITRAGE REBATE SERVICES

REQUEST FOR PROPOSALS ARBITRAGE REBATE SERVICES [NAME OF PUBLIC AGENCY]

The [Name of Public Agency] is requesting proposals from qualified consulting firms to assist with arbitrage rebate compliance of its debt financings.

The timetable for the selection process is as follows:

Request For Proposal Release Date	Month Day, Year
Proposal Due Date	5:00 PM (PST), Month Day, Year
City Review & Evaluation	Month Day, Year
Final Selection & Contract Award	Month Day, Year

All questions regarding this proposal should be in written form and submitted to:

Name of Public Agency
Address
City, State Zip Code
Attention: Contact Name

I. BACKGROUND AND DESCRIPTION

- A. The purpose of this Request for Proposals (RFP) is to describe the requirements for the contracting of arbitrage rebate compliance services to the [Name of Public Agency].

[Brief Description of Public Agency]

- B. The [Name of Public Agency] is seeking arbitrage rebate compliance services to (1) provide ongoing advice and consultation on matters relating to the [Name of Public Agency]'s financings, (2) comply with federal tax laws relating to rebate of arbitrage earnings on certain tax-exempt bonds issued by the [Name of Public Agency], and (3) determine the amount of rebatable arbitrage, if any, payable to the U.S. Treasury for each financing. The [Name of Public Agency] seeks a direct consulting arrangement for compliance services. Prior engagements have been assigned and bundled with other professional services provided to the [Name of Public Agency].
- C. Proposals should illustrate how your firm can offer complete compliance services to meet the [Name of Public Agency]'s needs in future

bond financings and refundings. The firm selected must demonstrate expertise and experience in the calculation of arbitrage rebate amounts. In addition, the firm must display an understanding of the related issues and constraints of the arbitrage regulations and laws.

- D. The [Name of Public Agency] intends to engage an arbitrage rebate compliance consultant for a minimum of three years from the effective contracted date; however, the [Name of Public Agency] reserves the right to supplement or modify the engagement at any time at its sole discretion.

II. PREPARATION OF THE PROPOSAL

- A. Firms are expected to examine the specifications and related documents contained herein, and submit the information/documentation specified.

III. SUBMISSION OR RECEIPT OF PROPOSAL

- A. Each firm shall furnish the information required by the RFP. In submitting a proposal, firms are encouraged to address the specific points of information requested herein. Proposals shall not exceed ten typed-written pages, excluding the required attachments and promotional material.
- B. MSWord, WordPerfect, MSEXcel, and/or Adobe PDF files are preferred for electronic submissions. Marketing, background, and promotional materials may be submitted electronically, however, they must be submitted in a separate email from the original electronic submittal. Electronic files may be submitted to the following e-mail address:

Contact Person e-mail Address

- C. Any submitted electronic files must be of a file size of less than one megabyte. All electronic submissions must be substantiated with one signed original submission having a postmark verification dated no later than the RFP submission deadline.
- D. One original, signed copy should be submitted via U.S. Mail or express delivery to the [Name of Public Agency] at the following address:

Name of Public Agency
Address
City, State Zip Code
Attention: Contact Name

- E. The deadline for receipt of all submissions (including electronic) is no later than 5:00 PM (PST), [Month Day, Year].
- F. Every effort will be made to confirm the receipt of a proposal submitted by the deadline via email reply. Late submissions will not be considered.

Unless stated to the contrary, the person signing the response will be designated as the appropriate representative for purposes of communications from the [Name of Public Agency].

- G. Any questions, discrepancies, errors, or ambiguities in the RFP or addenda (if any) should be reported in writing to [Name of Contact]. Should it be found necessary, a written addendum will be communicated to all respondents. The [Name of Public Agency] will not be responsible for any oral instructions, clarifications or other communications by its representatives.
- H. The [Name of Public Agency] reserves the right to reject any or all proposals and to disregard typographical, mathematical, or other errors. In addition, the [Name of Public Agency] is not required to award the financial services agreement to any proposing firm. The [Name of Public Agency] and its agents are not authorized to reimburse any costs incurred in the preparation and submission of RFP responses.

IV. ACCEPTANCE OF OFFER

- A. The signed proposal shall be considered an offer on the part of the proposing firm. Such offer shall be deemed accepted upon execution of a signed engagement letter or services agreement.

V. CRITERIA FOR ACCEPTANCE OF PROPOSAL

- A. A selection and contract award will be granted to the arbitrage rebate compliance consultant with qualifications and services that best meets the needs of the [Name of Public Agency]. The following criteria will be included for evaluation as part of [Name of Public Agency]'s analysis:
 1. Professional ability, knowledge, experience, and expertise to provide arbitrage rebate compliance services.
 2. Expertise and experience in working with active issuers with emphasis on bond matters involving multiple participants.
 3. Quality, availability, and adaptability of the services to the particular needs requested.
 4. Proposed fee structure for arbitrage rebate compliance services in connection with bond issues and for related questions that may arise from time to time.
 5. Other information deemed appropriate and in the best interests of the [Name of Public Agency].

VI. COMPLIANCE WITH LAWS AND PERMITS

- A. The successful firm shall comply with all local, state, and federal directives, orders and laws as applicable to this RFP and any subsequent engagement.

VII. DISCREPANCIES, ERRORS, AND OMISSIONS

- A. Any discrepancies, errors, or ambiguities in the RFP or addenda (if any) should be reported in writing to _____. Should it be found necessary, a written addendum will be incorporated in the RFP and will become part of the agreement for services. The [Name of Public Agency] will not be responsible for any oral instructions, clarifications, or other communications.

VIII. RIGHT TO REJECT PROPOSAL

- A. The right is reserved to reject any or all proposals and to disregard typographical, mathematical or obvious errors. The [Name of Public Agency] will not pay costs incurred by any firm in the preparation of the RFP or related costs.

IX. EVALUATION OF RESPONSES

- A. Proposals will be reviewed and evaluated by the [Name of Public Agency] [Month Day, Year]. If required, a short-listing of proposals may be considered and oral presentations from proposing firms may be requested at a later date.

X. EXECUTION OF THE AGREEMENT

- A. Upon selection, the [Name of Public Agency] will negotiate and finalize the contract for services.

XI. DISPUTES AND COMPLAINTS

- A. All complaints or grievances should be first submitted in writing to _____ who will take prompt remedial action. _____ shall investigate the validity of the complaint and present the findings in writing to the proposing firm.
- B. If the firm is dissatisfied with the remedies identified, it may then make an appeal to _____. This policy does not preclude consideration of legal questions in connection with any decisions made by the [Name of Public Agency].

XII. SCOPE OF SERVICES

- A. For each bond issue of the [Name of Public Agency] and corresponding participant borrowing, the Compliance Rebate Consultant is to:
1. Verify that the issue and related borrowings are subject to the rebate requirements, including determination and verification of exceptions to rebate requirements.
 2. Review, verify, and/or calculate the bond yield for each bond issue and related borrowings.
 3. Unless otherwise directed by the [Name of Public Agency], annually compute and verify the allowable yield limit for the issue:
 - a. The estimated cumulative rebate liability, if any, as of the elected bond year end for annual calculation periods; or
 - b. Amount of excess earnings, if any, rebatable to the U.S. Treasury for the fifth year (or final) installment date as required by Treasury Regulations.
 4. Calculate the excess investment earnings and cumulative rebate liability, taking into account any proceeds that are or have become subject to the yield restriction requirements.
 5. Identify, and separately account for, all “Gross Proceeds” (as that term is defined in the rebate requirement) of the bond issue, including those requiring allocation analyses due to “transferred proceeds” and/or “commingled funds” circumstances.
 6. Deliver appropriate documentation required to support calculations.
 7. Provide an executive summary identifying the methodology employed, major assumptions, conclusions, and any recommendations for changes in the [Name of Public Agency]’s recordkeeping and investment policy.
 8. Assist the [Name of Public Agency] as necessary in the event of an Internal Revenue Service (IRS) inquiry.
 9. Consult with [Name of Public Agency]’s staff as necessary regarding arbitrage-related matters.
 10. Provide assistance and consultation as necessary to retain records and documentation at least six years after the issue’s final maturity or other retention periods as may be prescribed by law.

11. Advise the [Name of Public Agency] of the necessity of a legal opinion that arbitrage calculation results are consistent with the rebate requirements or an explanation as to why such opinion is unnecessary.

XIII. QUALIFICATIONS AND OTHER FACTUAL INFORMATION

A. Proposing Firm and Personnel Data

1. Name and address of your firm and the key contact individual to be assigned for this engagement. Identify the individual(s) primarily responsible for servicing the [Name of Public Agency]. This information should describe the qualifications, educational and professional background and special training of the individuals to be involved.
2. Briefly describe your firm's history, ownership, organizational structure, and location of its management.
3. Describe in general your firm's major strengths and service capabilities.
4. Provide an informational listing of tax-exempt transactions for which the key contact individual was involved and any other tax-exempt transactions involving your firm for the last two calendar years.
5. Provide three references for local governmental clients and contact persons.
6. Describe your firm's comprehensive general liability coverage including professional errors and omissions coverage.
7. Provide a statement of assurance to the effect that your firm is not currently in violation of any regulatory rules and regulations, if applicable, that may have an impact on your firm's operations.
8. Describe any litigation or proceeding whereby, during the past two years, a court or any administrative agency has ruled against the firm or any affiliated person in any matter related to the professional activities of the firm. Similar information shall be provided for any current or pending litigation.
9. Indicate whether your firm has been involved in an IRS audit of a client's rebate compliance report. Explain the firm's involvement and the outcome of the audit.

XIV. PROPOSED FEES AND EXPENSES

- A. Include a proposed schedule of fees and expenses. Reference any minimums, caps, differential transactional pricing (new money, refundings,

number of participants, etc.), contingent arrangements, or other limiting factors for fees and/or expenses.

XV. SUPPLEMENTAL SUBMISSIONS

- A. Include your firm's standard form agreement for arbitrage rebate compliance services.
- B. Using the Disclosure Certificate attached hereto as Appendix A, list any related-party business interests and any potential conflicts of interest due to any other clients, contracts or property interests.
- C. Additional relevant information may be provided, subject to the limitations expressed herein.

XVI. MISCELLANEOUS QUESTIONS

- A. What legal assurances does your company/firm provide that work performed is consistent with federal tax and other applicable laws? Describe any legal opinions that may be required to satisfy each arbitrage calculation. Describe the legal expertise available to your firm, particularly with regard to the provisions of Section 148(f) of the Internal Revenue Code (IRC) and Regulations promulgated there under. If the requisite legal expertise is available within your firm, describe your firm's expertise with the relevant provisions of the IRC and applicable rules and regulations. If the legal advice is to be provided outside your firm, identify the source of this expertise and explain the source's knowledge of the relevant Code and Regulation sections. Provide an estimate of the scope and cost of legal advice, including estimated hours and fee rates.
- B. Does your company/firm provide related services, yield optimization, or other investment advice services that may be of interest to the [Name of Public Agency]? Describe these services.

XVII. APPENDICES

APPENDIX A: Consultant's Disclosure Certificate

APPENDIX B: [Name of Public Agency] Overview & Summary
Review of Debt Issuance

The following items are available upon request:

APPENDIX C: Reporting Schedule By Outstanding Bond Issue

The following information is available prior to any engagement for services:

APPENDIX D: (for each outstanding bond issue)

Official Statements
Issuer's IRS 8038/8038G Forms
Arbitrage Certificates for Issuer

APPENDIX E: Copies of Compliance Reports
(for each outstanding bond issue)

APPENDIX A

DISCLOSURE CERTIFICATE

RE: _____

This Certificate is given in connection with the Request for Proposals for Arbitrage Rebate Compliance Services from the [Name of Public Agency].

_____ (the "Rebate Compliance Consultant") hereby certifies that the following business relationships exist between the Rebate Compliance Consultant and [Name of Public Agency]:

[List each entity for which a business relationship exists, or has existed within the previous year. For example, if the Consultant is currently retained or has served in the capacity of a consultant, to an entity listed herein for which compensation was paid or received; the Consultant shall disclose the name of the entity and the nature of the business relationship.]

BY _____

DATE _____

NAME _____

TITLE _____

APPENDIX B

DESCRIPTION OF [NAME OF PUBLIC AGENCY]

GENERAL

[General description of public agency]

DEBT ISSUANCE SUMMARY

[Provide summary of applicable bond issues]

SAMPLE QUARTERLY REPORT BY TREASURER TO GOVERNING BODY

PORTFOLIO SUMMARY, QUARTER ENDING DECEMBER 31, 2002

	PAR VALUE	MARKET VALUE	BOOK VALUE	% OF PORTFOLIO	DAYS TO MATURITY	YTM (360 DAYS)
INVESTMENTS						
Government Agency Coupon Securities	\$52,675,000.00	\$52,050,330.01	\$51,843,255.41	40.12	146	2.925
Commercial Paper Disc. - At Cost	2,000,000.00	1,986,793.50	1,986,818.33	1.54	4	1.731
LAIF - Local Agency Investment Pool	40,000,000.00	40,000,000.00	40,000,000.00	30.96	1	
MMA Nations Treasury Reserve	899,314.50	899,314.50	899,314.50	0.70	1	
Medium Term Notes	33,355,000.00	34,635,568.39	34,487,086.33	26.69	320	3.432
TOTAL INVESTMENTS	\$128,929,314.50	\$129,572,006.40	\$129,216,474.57	100.00%	148	
CASH AND ACCRUED INTEREST						
Passbook/Checking (not included in yield calculations)	\$231,230.37	\$231,230.37	\$231,230.37			
Accrued Interest at Purchase*		0.00	0.00			
Ending Accrued Interest		949,330.02	949,330.02			
SUBTOTAL		\$1,180,560.39	\$1,180,560.39			
TOTAL CASH AND INVESTMENTS VALUE	\$129,160,544.87	\$130,752,566.79	\$130,397,034.96			

* \$196,231.76 accrued at purchase is included in book and market values.

TOTAL EARNINGS	DEC. 31 (MONTH ENDING)	FISCAL YEAR TO DATE
Current Year	\$338,063.18	\$1,734,182.76
Average Daily Balance	\$129,729,182.45	\$122,008,632.58
Effective Rate of Return	3.09%	2.82%

For the quarter ending December 31, 2002, the Pooled Portfolio was in compliance with the local agency's investment policy and California Government Code Sections 53600 et seq. and 53635, and the Treasurer's Liquidity Projections for the Period January 1, 2003 - December 31, 2003.
All funds were under control of the local agency (i.e., no external management).

PORTFOLIO DETAILS - INVESTMENTS, QUARTER ENDING DECEMBER 31, 2002

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
GOVERNMENT AGENCY COUPON SECURITIES											
31331LD54	04/15/2002	Federal Farm Credit Banks	03/21/2005	2,000,000.00	2,015,000.00	2,001,339.29	4.600	AAA	4.397	79	FTI
31331LG77	04/22/2002	Federal Farm Credit Banks	04/22/2005	1,000,000.00	1,010,000.00	1,000,000.00	4.690	AAA	4.626	111	FTI
3133MEUD1	03/21/2002	Federal Farm Credit Banks	05/15/2003	1,000,000.00	1,011,875.00	1,007,204.35	4.500	AAA	2.979	134	FTI
3133MQHT4	08/21/2002	Federal Farm Credit Banks	08/19/2005	1,620,000.00	1,622,801.25	1,621,788.75	3.000	AAA	2.769	49	FTI
3133MM5X7	09/16/2002	Federal Farm Credit Banks	03/11/2005	2,055,000.00	2,067,081.69	2,072,851.10	4.080	AAA	2.356	69	FTI

PORTFOLIO DETAILS - INVESTMENTS, QUARTER ENDING DECEMBER 31, 2002 (CONTINUED)

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
3133MTYU6	12/06/2002	Federal Farm Credit Banks	12/06/2005	2,000,000.00	2,008,750.00	2,000,000.00	3.000	AAA	2.959	156	FTI
3133MTYS1	12/13/2002	Federal Farm Credit Banks	12/13/2005	2,000,000.00	2,004,375.00	2,000,000.00	3.050	AAA	3.008	71	FTI
3134A4HG2	03/20/2002	Federal Home Loan Mort. Co.	09/15/2003	1,000,000.00	1,015,625.00	1,000,975.70	3.500	AAA	3.352	257	FTI
3134A4FF6	03/25/2002	Federal Home Loan Mort. Co.	06/15/2003	1,000,000.00	1,014,687.50	1,006,357.27	4.500	AAA	3.146	165	FTI
312925FV7	04/11/2002	Federal Home Loan Mort. Co.	04/11/2005	2,000,000.00	2,012,500.00	2,005,510.00	4.000	AAA	3.388	100	FTI
312925JB7	04/30/2002	Federal Home Loan Mort. Co.	04/30/2004	1,000,000.00	1,005,000.00	1,000,000.00	3.000	AAA	2.959	119	FTI
312925TY6	06/28/2002	Federal Home Loan Mort. Co.	06/30/2004	2,000,000.00	2,011,875.00	2,000,000.00	2.750	AAA	2.712	180	FTI
312925VU1	07/22/2002	Federal Home Loan Mort. Co.	01/10/2005	2,000,000.00	2,002,325.00	2,005,100.00	2.550	AAA	2.150	9	FTI
31294K69	08/28/2002	Federal Home Loan Mort. Co.	01/16/2004	1,000,000.00	1,004,903.33	1,010,333.33	3.500	AAA	1.825	15	FTI
312925H45	08/28/2002	Federal Home Loan Mort. Co.	08/15/2005	1,000,000.00	1,010,379.72	1,003,999.72	3.350	AAA	3.011	226	FTI
3128XDGS2	11/13/2002	Federal Home Loan Mort. Co.	05/13/2005	2,000,000.00	2,006,250.00	1,999,000.00	2.625	AAA	2.689	132	FTI
312925UX6	11/27/2002	Federal Home Loan Mort. Co.	06/27/2005	2,000,000.00	2,020,000.00	2,017,845.71	3.875	AAA	2.040	177	FTI

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
312925U99	12/13/2002	Federal Home Loan Mort. Co.	08/27/2004	1,000,000.00	1,014,221.11	1,012,361.11	2.500	AAA	1.757	236	FTI
312925Y46	12/17/2002	Federal Home Loan Mort. Co.	09/02/2005	2,000,000.00	2,035,200.00	2,030,360.00	3.150	AAA	2.249	245	FTI
3128X0RB7	12/27/2002	Federal Home Loan Mort. Co.	12/27/2005	2,000,000.00	2,012,920.00	2,000,000.00	3.250	AAA	3.205	177	FTI
3128XOSL4	12/30/2002	Federal Home Loan Mort. Co.	06/24/2005	2,000,000.00	2,006,958.33	2,000,708.33	2.125	AAA	2.096	357	FTI
3136F1LZ1	03/01/2002	Federal Nat'l Mortgage Assoc.	08/19/2004	2,000,000.00	2,006,875.00	2,001,344.83	3.950	AAA	3.758	46	FTI
3136F1AB0	03/20/2002	Federal Nat'l Mortgage Assoc.	08/15/2003	1,000,000.00	1,016,875.00	1,006,672.48	4.000	AAA	3.264	226	FTI
3136F1YR5	04/29/2002	Federal Nat'l Mortgage Assoc.	10/29/2004	2,000,000.00	2,018,750.00	2,000,000.00	4.200	AAA	4.142	118	FTI
3136F2BN7	08/27/2002	Federal Nat'l Mortgage Assoc.	08/15/2005	1,000,000.00	1,011,133.33	1,006,133.33	3.400	AAA	2.832	226	FTI
3138F1J68	08/28/2002	Federal Nat'l Mortgage Assoc.	11/22/2004	1,000,000.00	1,011,250.00	1,008,611.36	3.950	AAA	2.170	141	FTI
3136F2HA9	09/10/2002	Federal Nat'l Mortgage Assoc.	03/10/2005	2,000,000.00	2,005,625.00	1,998,400.00	3.000	AAA	3.119	68	FTI
3136F2PZ5	11/07/2002	Federal Nat'l Mortgage Assoc.	11/07/2005	2,000,000.00	2,002,500.00	2,004,375.00	3.300	AAA	2.817	37	FTI
31359MPU1	11/14/2002	Federal Nat'l Mortgage Assoc.	11/14/2005	2,000,000.00	2,024,375.00	2,000,000.00	3.250	AAA	3.205	317	FTI

PORTFOLIO DETAILS - INVESTMENTS, QUARTER ENDING DECEMBER 31, 2002 (CONTINUED)

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
3136F2CE6	11/22/2002	Federal Nat'l Mortgage Assoc.	08/23/2005	2,000,000.00	1,027,718.75	1,022,983.75	3.375	AAA	2.480	600	FTI
3136F2UP1	11/27/2002	Federal Nat'l Mortgage Assoc.	05/27/2005	2,000,000.00	2,003,750.00	1,999,000.00	2.800	AAA	2.862	57	FTI
31359MPY3	11/27/2002	Federal Nat'l Mortgage Assoc.	11/28/2005	2,000,000.00	2,008,750.00	2,000,000.00	3.000	AAA	2.959	146	FTI
				52,675,000.00	52,050,330.01	51,843,255.41			2.925	146	
COMMERCIAL PAPER DISC. - AT COST											
1255F1N22	08/20/2002	CIT Group Inc.	01/02/2003	1,000,000.00	993,393.70	993,437.50	1.750	P1	1.762	1	Bloomberg
7954W1N82	08/20/2002	Salomon Smith Barney	01/08/2003	1,000,000.00	993,399.80	993,380.83	1.590	P1	1.701	7	Bloomberg
					1,986,793.50	1,986,818.33			1.732	4	
LAIF- LOCAL AGENCY INVESTMENT POOL											
SYS990001		Local Agency Investment Fund		40,000,000.00	40,000,000.00	40,000,000.00				1	LAIF
					40,000,000.00	40,000,000.00				1	
MMA NATIONS TREASURY RESERVE											
63859B709		Nations Funds	01/08/2003	899,314.50	899,314.50	899,314.50	1.020	Aaa		1	IDC
					899,314.50	899,314.50				1	

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
MEDIUM TERM NOTES											
025816AK5	12/06/2002	American Express	06/23/2004	1,545,000.00	1,648,700.40	1,646,658.78	6.750	A1	2.229	539	IDC
046003JS9	02/27/2001	Associates Corp.	11/01/2003	1,760,000.00	1,821,670.40	1,759,277.01	5.750	Aa1	5.712	304	IDC
073902BJ6	05/29/2001	Bear Stearns Co. Inc.	03/30/2003	1,000,000.00	1,009,940.00	1,005,154.92	6.200	A2	5.032	88	IDC
073902BM9	12/06/2002	Bear Stearns Co. Inc.	03/02/2004	1,000,000.00	1,062,168.33	1,062,768.33	6.150	A2	2.269	426	IDC
14812LR94	05/21/2002	Caterpillar Financial Services	08/01/2003	975,000.00	1,018,410.00	1,014,630.23	4.800	A2	2.959	212	IDC
12557WCG4	12/20/2001	CIT Group Holdings	11/14/2003	1,150,000.00	1,013,580.75	1,007,518.82	7.500	A2	3.945	317	IDC
201615DJ7	05/30/2001	Commercial Credit Co.	01/15/2003	1,000,000.00	1,001,100.00	1,005,092.31	5.875	Aa1	4.734	14	IDC
211135QR2	03/30/2001	Continental Bank	02/01/2003	1,000,000.00	1,004,120.00	1,012,521.03	7.875	Aa2	5.139	31	IDC
172967AW1	11/26/2002	Citigroup Inc.	03/15/2004	1,000,000.00	1,215,134.72	1,218,734.22	5.800	Aa1	1.992	439	IDC
201615DJ7	05/30/2001	Commercial Credit Co.	01/15/2003	1,000,000.00	1,001,100.00	1,005,092.31	5.875	Aa1	4.734	14	IDC
211135QR2	03/30/2001	Continental Bank	02/01/2003	1,000,000.00	1,004,120.00	1,012,521.03	7.875	Aa2	5.139	31	IDC

PORTFOLIO DETAILS - INVESTMENTS, QUARTER ENDING DECEMBER 31, 2002 (CONTINUED)

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
25766CAZ7	12/21/2001	Donaldson, Lufkin & Jenrette	05/04/2004	1,700,000.00	1,050,140.00	1,026,075.73	6.150	Aa3	4.241	489	IDC
337358DB8	12/13/2002	First Union Corp.	08/15/2004	1,250,000.00	1,872,757.78	1,876,871.78	7.100	Aa3	2.124	592	IDC
36962GSY1	04/02/2002	General Electric Capital Corp.	05/19/2003	1,000,000.00	1,270,725.00	1,272,144.35	5.880	Aaa	3.157	136	IDC
36962GVF8	04/05/2002	General Electric Capital Corp.	09/11/2003	1,000,000.00	1,036,220.00	1,030,509.30	6.750	Aaa	3.541	253	IDC
45974VYQ5	01/29/2002	International Lease Finance	01/28/2004	1,000,000.00	1,016,680.00	1,000,000.00	3.950	A1	3.898	392	IDC
45974VXY9	05/23/2001	International Lease Finance	07/01/2003	1,000,000.00	1,015,520.00	999,371.82	4.950	A1	4.974	181	IDC
45974VYB8	12/26/2002	International Lease Finance	06/07/2004	1,000,000.00	1,044,027.22	1,048,297.22	5.500	A1	2.601	523	IDC
45974VXJ2	03/16/2001	International Lease Finance	05/01/2003	1,000,000.00	1,011,120.00	1,000,522.87	5.220	A1	5.056	120	IDC
524908BT6	10/29/2001	Lehman Brothers Holdings	04/01/2003	1,670,000.00	1,687,034.00	1,693,437.41	6.250	A2	3.304	90	IDC
524908BL3	12/13/2002	Lehman Brothers Holdings	05/15/2004	1,000,000.00	1,071,506.11	1,077,626.11	7.375	A2	2.180	500	IDC

CUSIP	PURCHASE DATE	ISSUER	MATURITY DATE	PAR VALUE	MARKET VALUE	BOOK VALUE	STATED RATE	MOODY'S	YTM (360 DAYS)	DAYS TO MAT./CALL	PRICING SOURCE
585510CH1	07/22/2002	Mellon Financial	11/15/2003	1,000,000.00	1,034,950.00	1,028,427.06	5.750	A1	2.792	318	IDC
5901BYJC6	03/05/2002	Mellon Financial	05/07/2004	1,000,000.00	1,043,660.00	1,020,446.80	5.460	Aa3	3.965	492	IDC
5901BYKB6	07/29/2002	Merrill Lynch	06/15/2004	1,000,000.00	1,043,720.00	1,032,663.61	5.350	Aa3	3.047	531	IDC
5901BYGA3	08/28/2002	Merrill Lynch	02/06/2004	1,305,000.00	1,363,350.90	1,362,528.75	5.700	Aa3	2.762	401	IDC
59018YDE8	03/21/2001	Merrill Lynch	01/06/2003	1,000,000.00	1,000,000.00	1,003,845.58	5.920	Aa3	5.030	5	IDC
638585AR0	12/20/2001	NationsBank Corp.	05/15/2003	1,000,000.00	1,019,660.00	1,018,873.27	7.000	Aa2	3.067	134	IDC
638585BJ7	11/25/2002	NationsBank Corp.	07/15/2004	2,000,000.00	2,169,976.11	2,167,836.11	6.125	Aa2	2.229	561	IDC
638585AF6	02/28/2002	NationsBank Corp.	08/15/2003	1,000,000.00	1,029,720.00	1,033,479.32	6.500	Aa3	3.008	226	IDC
713411AA4	12/17/2002	Pepsi Bottling	02/17/2004	1,000,000.00	1,058,836.67	1,057,676.67	5.375	A1	1.884	412	IDC
79549BCK1	03/16/2001	Salomon Smith Barney Ltd.	01/15/2003	1,000,000.00	1,001,140.00	1,004,097.12	6.125	Aa1	5.178	14	IDC
SUBTOTAL AND AVERAGE				33,355,000.00	34,635,568.39	34,487,086.53			3.432	320	
TOTAL AND AVERAGE				\$128,929,314.50	\$129,572,006.40	\$129,216,474.57				148	

STATEMENT OF INTEREST EARNINGS

FOR THE PERIOD OCTOBER 1, 2002 - DECEMBER 31, 2002		YIELD TRENDS GROSS YIELD HISTORY*		
POOLED INVESTMENT ACCOUNT		QUARTER	POOL	LAIF
GROSS INTEREST EARNINGS (on Accrual Basis)	\$789,486	Dec-02	2.6674%	2.3200%
Less: Administrative Expenses	(41,358)	Sep-02	2.9610%	2.6278%
Banking Expenses	(15,973)	Jun-02	3.4332%	2.7469%
Net Interest Earnings Apportioned	\$732,155	Mar-02	4.2300%	2.9600%
PORTFOLIO RETURN OF INVESTMENT		Dec-01	4.6900%	3.5200%
Average Pooled Funds Invested	\$117,426,611	Sep-01	5.1300%	4.4700%
Gross Yield on Investments	2.6674%	Jun-01	5.7400%	5.3183%
Net Yield on Investments	2.4737%	Mar-01	6.4000%	6.1600%
TREASURY RETURN ON INVESTMENT		Dec-00	6.2700%	6.5200%
Average Pooled Funds in Treasury	\$118,744,120	Sep-00	6.3100%	6.4700%
Gross Yield on Pooled Treasury Funds	2.6378%	Jun-00	5.9000%	6.1800%
Net Yield on Pooled Treasury Funds	2.4462%	Mar-00	5.9100%	5.8000%
DIRECT INVESTMENT ACCOUNT		Dec-99	5.7000%	5.4900%
Average Direct Funds Invested	\$1,386,234	Sep-99	5.4500%	5.2100%
TOTAL AVERAGE FUNDS INVESTED	\$118,812,846	Jun-99	5.4900%	5.0829%
		Mar-99	5.6900%	5.1900%
		Dec-98	5.6300%	5.4599%

* The yield history represents gross portfolio yields; costs have not been deducted.

LIQUIDITY PROJECTIONS FOR THE PERIOD JANUARY 1, 2003 - DECEMBER 31, 2003 (IN THOUSANDS)

ACTUAL MONTH/YEAR	TREASURER'S RECEIPTS ACTUAL	TREASURER'S DISBURSEMENTS ACTUAL	TREASURER'S SURPLUS OR (DEFICIT) (A-B)	INVESTMENTS			ESTIMATE SURPLUS (F+C)	
				MONTH YEAR	PORTFOLIO MATURITIES	LAIF		TOTAL (D+E)
Jul-02	\$26,973	\$39,798	(\$12,825)	Jul-03	\$1,000	\$23,117	\$24,117	\$11,292
Aug-02	32,462	35,842	(3,380)	Aug-03	3,000	22,737	25,737	22,357
Sep-02	24,491	33,506	(9,015)	Sep-03	2,000	15,722	17,722	8,707
Oct-02	28,861	35,248	(6,387)	Oct-03	0	9,335	9,335	2,948
Nov-02	36,908	33,776	3,132	Nov-03	3,735	16,202	19,937	23,069
Dec-02	64,868	53,001	11,867	Dec-03	0	28,069	28,069	39,936
Jan-02	32,959	32,001	958	Jan-03	5,000	40,000	45,000	45,958
Feb-02	34,747	33,022	1,725	Feb-03	1,000	40,000	41,000	42,725
Mar-02	30,692	35,710	(5,018)	Mar-03	1,000	35,982	36,982	31,964
Apr-02	64,669	45,406	19,263	Apr-03	1,670	40,000	41,670	60,933
May-02	29,470	35,292	(5,822)	May-03	4,250	38,428	42,678	36,856
Jun-02	30,750	35,236	(4,486)	Jun-03	1,000	34,942	35,942	31,456
TOTALS	\$437,850	\$447,838	(\$9,988)			\$23,655		

Sufficient liquidity exists to meet the mandated six months cash flow expenditure requirements. The historical receipts have been adjusted for expected non-re-occurring participant activity.

CREDIT RATING DESCRIPTIONS

Appendix C

CREDIT RATING DESCRIPTIONS

Credit ratings reflect the associated risk of a security or entity's credit worthiness as evaluated by a Nationally Recognized Statistical Rating Organizations (NRSRO) commonly referred to as credit rating agencies as described earlier in Chapter 2 and Chapter 3. In addition to its own analysis, a public agency will take into consideration a credit agency rating when investing public

funds. Of the nine recognized rating agencies, the three largest and most commonly used by public agencies are Fitch Ratings (Fitch), Moody's Investor Service (Moody's), and Standard and Poor's (S&P); their comparable ratings for long-term taxable and tax-exempt debt and short term investments are defined in the following tables.

LONG-TERM TAXABLE DEBT CREDIT RATING DEFINITIONS

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Aaa	Judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as "gilt-edged." Interest payments are protected by a large or by an exceptionally stable margin and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.	AAA	The obligor's capacity to meet its financial commitment on the obligation is extremely strong.	AAA	Lowest expectation of credit risk. They are assigned only in case of exceptionally strong capacity for timely payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

LONG-TERM TAXABLE DEBT CREDIT RATING DEFINITIONS (CONTINUED)

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Aa	Judged to be of high quality by all standards. Together with the Aaa group they comprise what are generally known as high-grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa securities or fluctuation of protective elements may be of greater amplitude or there may be other elements present which make the long-term risk appear somewhat larger than the Aaa securities.	AA	Differs from the highest rated obligations only in small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.	AA	A very low expectation of credit risk. They indicate very strong capacity for timely payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A	Judged to possess many favorable investment attributes and are to be considered as upper-medium-grade obligations. Factors giving security to principal and interest are considered adequate, but elements may be present which suggest a susceptibility to impairment some time in the future.	A	Somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.	A	Low expectation of credit risk. The capacity for timely payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to changes in circumstances or in economic conditions than is the case for higher ratings.
Baa	Considered medium-grade quality (i.e., obligations that are neither highly protected nor poorly secured). Interest payments and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and in fact have speculative characteristics as well.	BBB	Exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.	BBB	Exhibiting a low expectation of credit risk. The capacity for timely payment of financial commitments is considered adequate, but adverse changes in circumstances and in economic conditions are more likely to impair this capacity. This is the lowest investment-grade category.

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Ba	Judged to have speculative elements; future cannot be considered as well assured. Often the protection of interest and principal payments may be very moderate, and thereby not well safeguarded during both good and bad times over the future. Uncertainty of position characterizes bonds in this class.	BB	Less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions, which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.	BB	Possibility of credit risk developing, particularly as the result of adverse economic change over time; however, business or financial alternatives may be available to allow financial commitments to be met. Securities rated in this category are not investment grade.
B	Generally lack characteristics of the desirable investment. Assurance of interest and principal payments or of maintenance of other terms of the contract over any long period of time may be small.	B	More vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.	B	Significant credit risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is contingent upon a sustained, favorable business and economic environment.
Caa	Poor standing. Such issues may be in default or there may be present elements of danger with respect to principal or interest.	CCC	Currently vulnerable to nonpayment, and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.	CCC	Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon sustained, favorable business or economic developments.
Ca	Speculative in a high degree. Such issues are often in default or have other marked shortcomings.	CC	Currently highly vulnerable to nonpayment	CC	Default of some kind appears probable.
C	Lowest rated class of bonds, and issues so rated can be regarded as having extremely poor prospects of ever attaining any real investment standing.	C	Currently highly vulnerable to nonpayment. Bankruptcy petition may have been filed or similar action taken, but payments on this obligation are being continued.	C	Imminent default.

LONG-TERM TAXABLE DEBT CREDIT RATING DEFINITIONS (CONTINUED)

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
		D	In payment default. Used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless S&P believes that such payments will be made during such grace period. Used upon the filing of a bankruptcy petition or the taking of a similar action if payments on an obligation are jeopardized.	DDD DD D	Entities rated in this category have defaulted on some or all of their obligations. Entities rated 'DDD' have the highest prospect for resumption of performance or continued operation with or without a formal reorganization process. Entities rated 'DD' and 'D' are generally undergoing a formal reorganization or liquidation process; those rated 'DD' are likely to satisfy a higher portion of their outstanding obligations, while entities rated 'D' have a poor prospect of repaying all obligations.

SHORT-TERM TAXABLE DEBT CREDIT RATING DEFINITIONS

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Prime-1/ P1	Superior ability for repayment of senior short-term debt obligations, as evidenced by leading market positions in well-established industries; high rates of return on funds employed; conservative capitalization structure with moderate reliance on debt and ample asset protection; broad margins in earnings coverage of fixed financial charges and high internal cash generation; well-established access to a range of financial markets and assured sources of alternate liquidity.	A-1	Strong capacity to meet its financial commitments. Within this category, the plus sign (+) designates that the obligor's capacity to meet its financial obligations is extremely strong.	F1	Highest credit quality. Indicates the strongest capacity for timely payment of financial commitments.
Prime-2/ P2	Strong ability to repay senior short-term debt obligations, evidenced by many characteristics cited under P1 above, but to a lesser degree. Earnings trends and coverage ratios, while sound, may be more subject to variation. Capitalization characteristics, while still appropriate, may be more affected by external conditions. Ample alternate liquidity is maintained.	A-2	Satisfactory capacity to meet its financial commitments. Somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in the highest rating category.	F2	Good credit quality. A satisfactory capacity for timely payment of financial commitments, but the margin of safety is not as great as in the case of the higher ratings.

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Prime-3/ P3	Acceptable ability to repay senior short-term obligations. The effect of industry characteristics and market compositions may be more pronounced. Variability in earnings and profitability may result in changes in the level of debt-protection measurements and may require relatively high financial leverage. Adequate alternate liquidity is maintained.	A-3	Adequate capacity to meet financial obligations. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.	F3	Fair credit quality. The capacity for timely payment of financial commitments is adequate; however, near-term adverse changes could result in a reduction to non-investment grade.
Not Prime	Does not fall within any of the rating categories above.	B	Currently has the capacity to meet its financial commitment on the obligation; however, adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.	B	Speculative. Minimal capacity for timely payment of financial commitments, plus vulnerability to near-term adverse changes in financial and economic conditions.
		C	Currently susceptible to nonpayment. May be used to cover a situation where a bankruptcy petition has been filed or similar action taken, but payments on this obligation are being continued.	C	High default risk. Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon a sustained, favorable business and economic environment.
		R	Under regulatory supervision owing to its financial condition.	D	Default. Denotes actual or imminent payment default.
		SD or D	Obligor has failed to pay one or more of its financial obligations when due.		

BANK DEPOSIT CREDIT RATING DEFINITIONS¹

RATING	MOODY'S ²	RATING	FITCH RATINGS ³
Aaa	Exceptional credit quality with smallest degree of risk. While the credit quality of these banks may change, such changes as can be visualized are most unlikely to impair the banks' strong positions materially.	A	A very strong bank. Characteristics may include outstanding profitability and balance sheet integrity, franchise, management, operating environment or prospects.
Aa	Excellent credit quality, but rated lower than Aaa banks because susceptibility to long-term risks appears somewhat greater. Margins of protection may not be as great as with Aaa-rated banks, or fluctuations of protective elements may be of greater amplitude.	B	A strong bank. There are no major concerns regarding the bank. Characteristics may include strong profitability and balance sheet integrity, franchise, management, operating environment or prospects.
A	Good credit quality. However, elements may be present that suggest a susceptibility to impairment over the long term.	C	An adequate bank, which, however, possesses one or more troublesome aspects. There may be some concerns regarding its profitability and balance sheet integrity, franchise, management, operating environment or prospects.
Baa	Adequate credit quality. However, certain protective elements may be lacking or may be characteristically unreliable over any great length of time.	D	A bank, which has weaknesses of internal and/or external origin. There are concerns regarding its profitability and balance sheet integrity, franchise, management, operating environment or prospects. Banks in emerging markets are necessarily faced with a greater number of potential deficiencies of external origin.
Ba	Questionable credit quality. Often the ability of these banks to meet deposit obligations may be uncertain and therefore not well safeguarded in the future.	E	A bank with very serious problems, which either requires or is likely to require external support.
B	Poor credit quality. Assurance of punctual payment of deposit obligations over any long period of time is small.		

RATING	MOODY'S ²	RATING	FITCH RATINGS ³
Caa	Extremely poor credit quality. May be in default, or there may be present elements of danger with regard to financial capacity.		
Ca	In default on deposit obligations.		
C	In default on deposit obligations, and potential recovery values are low.		

¹ Standard and Poor's does not rate bank deposits. It ranks banks and other issuers according to their long-term and short-term debt issuance.

² For bank deposits.

³ Rates banks, but not deposits (specifically). An individual rating may be followed by the suffix "(s)", denoting that it is largely based on public information, supplemented by data obtained from the rated entity.

LONG-TERM TAX-EXEMPT DEBT CREDIT RATING DEFINITIONS

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Aaa	Demonstrates the strongest creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	AAA	Highest rating. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.	AAA	Highest credit quality. Assigned only in case of exceptionally strong capacity for timely payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
Aa	Demonstrates very strong creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	AA	Differs from the highest rated obligation only in small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.	AA	Very high credit quality. Very strong capacity for timely payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A	Present above-average creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	A	Somewhat more susceptible to the adverse effects of change in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.	A	High credit quality. The capacity for timely payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to changes in circumstances or in economic conditions than is the case for higher ratings.

LONG-TERM TAX-EXEMPT DEBT CREDIT RATING DEFINITIONS (CONTINUED)

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Baa	Demonstrates average creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	BBB	Adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.	BBB	Good credit quality. The capacity for timely payment of financial commitments is considered adequate, but adverse changes in circumstances and in economic conditions are more likely to impair this capacity. This is the lowest investment-grade category.
Ba	Demonstrates below-average creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	BB	Speculative. Faces major ongoing uncertainties or exposure to adverse business, financial or economic conditions, which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.	BB	Speculative. Possibility of credit risk developing, particularly as the result of adverse economic change over time; however, business or financial alternatives may be available to allow financial commitments to be met. Securities rated in this category are not investment grade.
B	Demonstrates weak creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	B	More vulnerable to non-payment than obligations rated 'BB,' but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.	B	Highly speculative. Indicates significant credit risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is contingent upon a sustained, favorable business and economic environment.
Caa	Demonstrates very weak creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	CCC	Currently vulnerable to nonpayment and is dependent upon favorable business, financial and economic conditions for the obligor to meet its financial commitment on the obligation. In the event of adverse business, financial or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.	CCC	High default risk. Capacity for meeting financial commitments is solely reliant upon sustained, favourable business or economic developments.

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Ca	Demonstrates extremely weak creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	CC	Currently highly vulnerable to nonpayment.	CC	Default is probable.
C	Demonstrates the weakest creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.	C	Subordinated debt that is highly vulnerable to nonpayment. Bankruptcy petition may have been filed, but payments are being continued.	C	Imminent default.
		D	Default.	DDD DD D	Default. The ratings of obligations in this category are based on their prospects for achieving partial or full recovery in a reorganization or liquidation of the obligor.

SHORT-TERM TAX-EXEMPT DEBT CREDIT RATING DEFINITIONS

RATING ¹	MOODY'S	RATING	S&P ²	RATING	FITCH RATINGS
MIG 1/ VMIG 1	Superior credit quality; excellent protection afforded by established cashflows, highly reliable liquidity support, or demonstrated broad-based access to the market for refinancing.	SP-1	Strong capacity to pay principal and interest. An issue determined to possess a very strong capacity to pay debt service is given a plus (+) designation	F1	Highest credit quality. Indicates the strongest capacity for timely payment of financial commitments.
		A-1	Degree of safety regarding timely payment is strong. Those issues determined to possess extremely strong safety characteristics are denoted by a plus (+) sign.		
MIG 2/ VMIG 2	Strong credit quality; margins of protection are ample although not as large as in the preceding group.	SP-2	Satisfactory capacity to pay principal and interest, with some vulnerability to adverse financial and economic changes over the term of the notes.	F2	Good credit quality. A satisfactory capacity for timely payment of financial commitments, but the margin of safety is not as great as in the case of the higher ratings.
		A-2	Capacity for timely payment on issues with this designation is satisfactory. However, the relative degree of safety is not as high as for issues designated 'A-1'.		

SHORT-TERM TAX-EXEMPT DEBT CREDIT RATING DEFINITIONS (CONTINUED)

RATING¹	MOODY'S	RATING	S&P²	RATING	FITCH RATINGS
MIG 3/ VMIG 3	Acceptable credit quality; liquidity and cashflow protection may be narrow, and market access for refinancing is likely to be less well established.	SP-3 A-3	Speculative capacity to pay principal and interest. Issues carrying this designation have an adequate capacity for timely payment. However, they are more vulnerable to the adverse effects of changes in circumstances than obligations carrying the higher designations.	F3	Fair credit quality. The capacity for timely payment of financial commitments is adequate; however, near-term adverse changes could result in a reduction to non-investment grade.
Speculative Grade (SG)	May lack sufficient margins of protection.	B C	Only speculative capacity for timely payment. Doubtful capacity for payment.	B C	Speculative. Minimal capacity for timely payment of financial commitments, plus vulnerability to near-term adverse changes in financial and economic conditions. High default risk. Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon a sustained, favorable business and economic environment.
		D	Default.	D	Default. Denotes actual or imminent payment default.

¹ Moody's Investment Grade (MIG) and Variable-Rate Moody's Investment Grade (VMIG)

² Notes due in three years or less are rated using the 'SP' scale; commercial paper is rated using the 'A' scale

STABLE NET ASSET VALUE (NAV) LOCAL GOVERNMENT INVESTMENT POOLS AND MONEY MARKET MUTUAL FUNDS CREDIT RATINGS DEFINITIONS

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Aaa	Of an investment quality similar to Aaa-rated fixed income obligations; that is, they are judged to be of the best quality.	AAAm	Excellent safety. Superior capacity to maintain principal value and limit exposure to loss. (The letter 'G' follows the rating symbol when a fund's portfolio consists primarily of US government securities.)	AAA	Highest credit quality. Assigned only in case of exceptionally strong capacity for timely payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Aa	Of an investment quality similar to Aa-rated fixed income obligations; that is, they are judged to be of high quality by all standards.	AAm	Safety is very good. Strong capacity to maintain principal value and limit exposure to loss.	AA	Very high credit quality. Very strong capacity for timely payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A	Of an investment quality similar to A-rated fixed income obligations; that is, they are judged to possess many favorable investment attributes and are considered as upper-medium-grade investment vehicles.	Am	Safety is good. Sound capacity to maintain principal value and limit exposure to loss.	A	High credit quality. The capacity for timely payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to changes in circumstances or in economic conditions than is the case for higher ratings.
Baa	Of an investment quality similar to Baa-rated fixed income obligations; that is, they are considered as medium-grade investment vehicles.	BBBm	Safety is fair. Adequate capacity to maintain principal value and limit exposure to loss.	BBB	Good credit quality. The capacity for timely payment of financial commitments is considered adequate, but adverse changes in circumstances and in economic conditions are more likely to impair this capacity. This is the lowest investment-grade category.
Ba	Of an investment quality similar to Ba-rated fixed income obligations; that is, they are judged to have speculative elements.	BBm	Safety is uncertain. Vulnerable to loss of principal value.	BB	Speculative. Possibility of credit risk developing, particularly as the result of adverse economic change over time; however, business or financial alternatives may be available to allow financial commitments to be met. Securities rated in this category are not investment grade.
B	Of an investment quality similar to B-rated fixed income obligations; that is, they generally lack characteristics of a desirable investment.	Bm	Safety is limited. Very vulnerable to loss of principal value.	B	Highly speculative. 'B' ratings indicate that significant credit risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is contingent upon a sustained, favorable business and economic environment.

**STABLE NET ASSET VALUE (NAV) LOCAL GOVERNMENT INVESTMENT POOLS
AND MONEY MARKET MUTUAL FUNDS CREDIT RATINGS DEFINITIONS (CONTINUED)**

RATING	MOODY'S	RATING	S&P	RATING	FITCH RATINGS
Caa	Of an investment quality similar to Caa-rated fixed income obligations; that is, they are of poor standing.	CCCm	Extremely vulnerable to loss of principal value.	CCC	High default risk. Capacity for meeting financial commitments is solely reliant upon sustained, favorable business or economic developments.
Ca	Of an investment quality similar to Ca-rated fixed income obligations; that is, they represent obligations that are speculative in a high degree.	Dm	Fund has failed to maintain principal value; realized or unrealized losses exceed 0.5 percent of net asset value.	CC	Default appears probable.
C	Of an investment quality similar to C-rated fixed income obligations; that is, they are the lowest-rated class of bonds.			C	Imminent default.
				DDD	Default. The ratings of obligations in this category are based on their prospects for achieving partial or full recovery in a reorganization or liquidation of the obligor.
				DD	
				D	

**VARIABLE NET ASSET VALUE (NAV) LOCAL GOVERNMENT INVESTMENT POOLS
AND BOND MUTUAL FUNDS CREDIT RATING DESCRIPTIONS¹**

RATING	MOODY'S ²	RATING	S&P ³	RATING	FITCH RATINGS ⁴
Aaa-C	See Stable Net Asset Value Local Government Investment Pools and Money Market Mutual Funds Credit Rating Definitions.	AAAf	Pool's portfolio holdings provide extremely strong protection against losses from credit default.	AAA-D	See Long-Term Taxable Bond Credit Rating Definitions.
MR1	Very low sensitivity to changing interest rates and other market conditions.	Aaf	Pool's portfolio holdings provide very strong protection against losses from credit default.	V-1+	Lowest market risk. The rating is assigned only to money market funds or local government investment pools that should not experience loss of principal value to shareholders or participants even in severely adverse interest rate environments.

RATING	MOODY'S ²	RATING	S&P ³	RATING	FITCH RATINGS ⁴
MR2	Low sensitivity to changing interest rates and other market conditions.	Af	Pool's portfolio holdings provide strong protection against losses from credit default.	V-1 and V-2	Low market risk. Total returns exhibit relative stability, performing consistently across a broad range of interest rate scenarios. These funds offer low risk exposure to interest rates and changing market conditions.
MR3	Moderate sensitivity to changing interest rates and other market conditions.	BBBf	Pool's portfolio holdings provide adequate protection against losses from credit default.	V-3 and V-4	Moderate market risk. Total returns perform consistently over intermediate to long-term holding periods, but will exhibit some variability over shorter periods due to greater exposure to interest rates and changing market conditions.
MR4	High sensitivity to changing interest rates and other market conditions.	BBf	Pool's portfolio holdings provide uncertain protection against losses from credit default.	V-5 to V-7	Moderate to high market risk. Total returns experience significant variability across a broad range of interest rate scenarios. These funds typically exhibit significant exposure to interest rates and changing market conditions, and may face additional risks from mortgage prepayments, derivatives, leverage, illiquid markets, and/or foreign currencies.
MR5	Very high sensitivity to changing interest rates and other market conditions.	Bf	Pool's portfolio holdings exhibit vulnerability to losses from credit default.	V-8 to V-10	Speculative market risk. Total returns may experience extreme variability across a broad range of interest rate scenarios. These funds typically exhibit substantial exposure to interest rates and changing market conditions, as well as mortgage prepayments, derivatives, leverage, illiquid markets, and/or foreign currencies.
		CCCf	Pool's portfolio holdings make it extremely vulnerable to losses from credit default.		

**VARIABLE NET ASSET VALUE (NAV) LOCAL GOVERNMENT INVESTMENT POOLS
AND BOND MUTUAL FUNDS CREDIT RATING DESCRIPTIONS (CONTINUED)¹**

RATING	MOODY'S ²	RATING	S&P ³	RATING	FITCH RATINGS ⁴
		S1	Low volatility. Aggregate level of risk that is less than or equal to that of a portfolio comprised of government securities that provide maturing within 1-3 years and denominated in base currency of the fund.		
		S2	Low to moderate volatility. Aggregate level of risk that is less than or equal to that of a portfolio comprised of government securities that provide maturing within 3-7 years and denominated in base currency of the fund.		
		S3	Moderate volatility. Aggregate level of risk that is less than or equal to that of a portfolio comprised of government securities that provide maturing within 7-10 years and denominated in base currency of the fund.		
		S4	Moderate to high volatility. Aggregate level of risk that is less than or equal to that of a portfolio comprised of government securities that provide maturing beyond ten years and denominated in base currency of the fund.		
		S5	High volatility. These funds may be exposed to a variety of significant risks including high concentration risks, high leverage, and investments in complex structured and/or illiquid securities.		
		S6	Highest volatility. These funds include those with highly speculative investment strategies with multiple forms of significant risks, with little or no diversification benefits.		

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- ¹ Pool is subject to NAV fluctuation due to changes in market conditions.
 - ² Moody's uses the same ratings for Variable NAV Pools and Bond Mutual Funds as for Stable NAV Pools and Mutual Funds. For Variable NAV pools, Moody's also assigns market risk (MR) ratings, indicating the degree of market value volatility.
 - ³ Assigns ratings based on credit quality (AAAf-CCCf) and ratings based on market volatility (S1-S6).
 - ⁴ In addition to assigning a credit rating based on its long-term bond ratings, Fitch assigns volatility ratings to variable NAV funds and pools (V-1 through V-10).

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