

FUNDAMENTALS OF PUBLIC FUNDS INVESTING



INVESTMENT ACCOUNTING, DISCLOSURE, AND REPORTING

Karen Jones

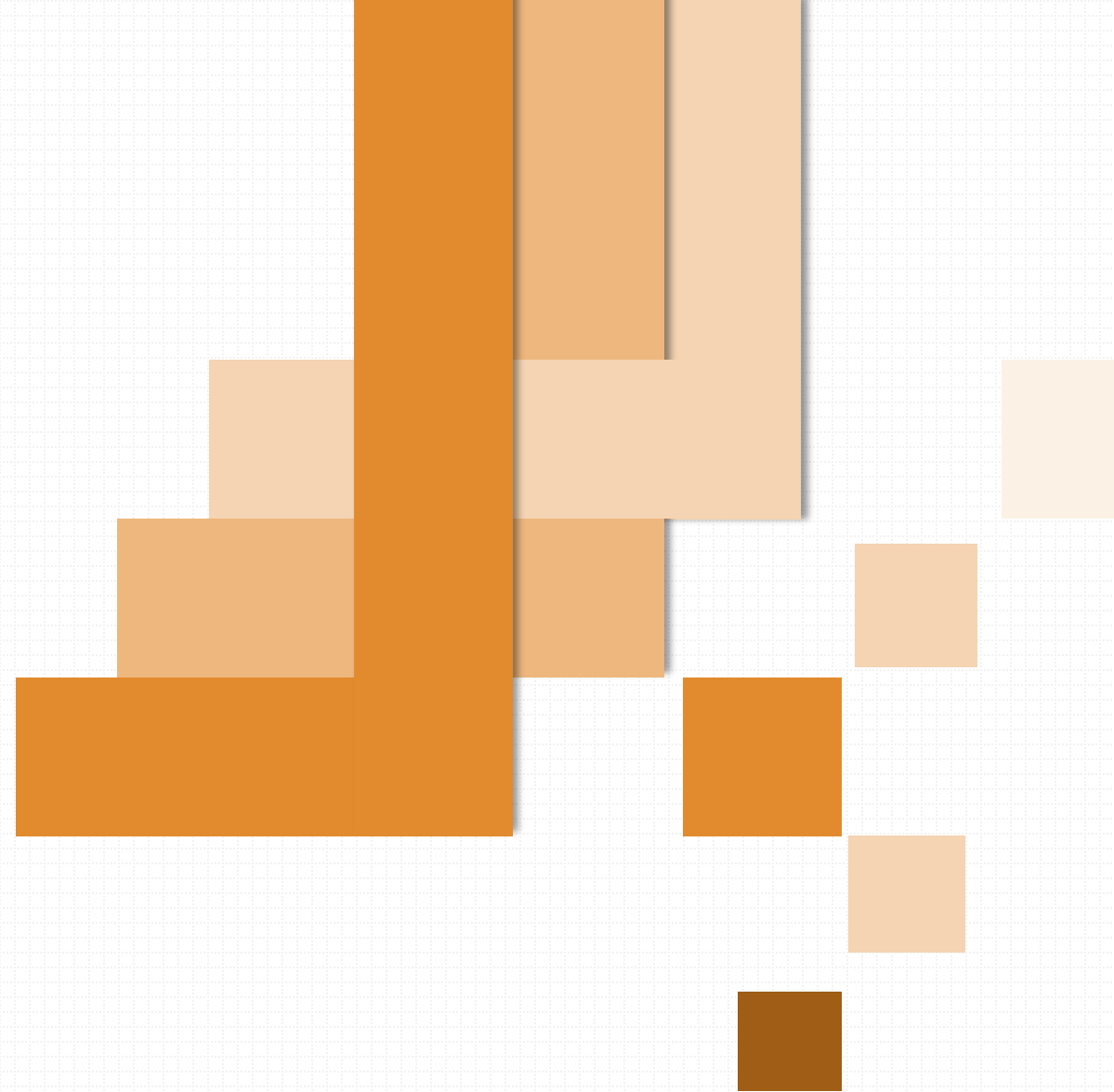
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SESSION OVERVIEW

- Accounting Standards
- Methods of Accounting
- GASB 31
- GASB 72
- GASB 40



Accounting Standards (USA)

Two main standard setters in USA for companies following Generally Accepted Accounting Principles (GAAP)

1

Financial Accounting Standards Board (FASB) (www.fasb.org)

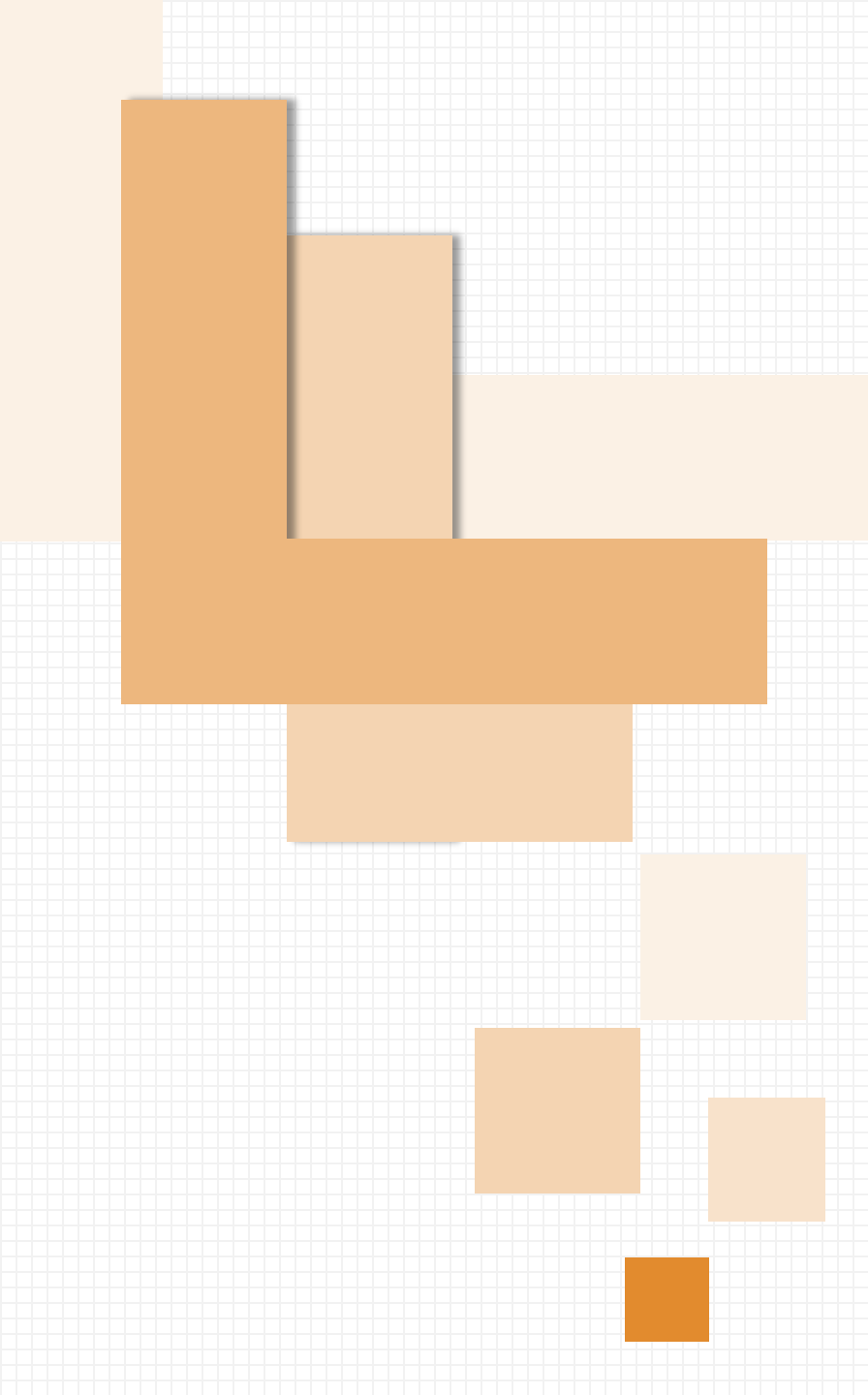
- Establishes financial accounting and reporting standards for public and private companies and not-for-profit organizations
- “Recognized by the Securities and Exchange Commission as the designated accounting standard setter for public companies. FASB develops and issues financial accounting standards to provide useful information to investors and others who use financial reports”¹

[Footnote 1: See FASB website at www.fasb.org](http://www.fasb.org)

2

Governmental Accounting Standards Board (GASB) www.gasb.org

- Establishes accounting and financial reporting standards for U.S. state and local governments that follow GAAP
- There are some governmental exceptions where FASB Accounting Standards are used instead (e.g., a public utility in Arizona uses FASB)



Methods of Accounting Investments

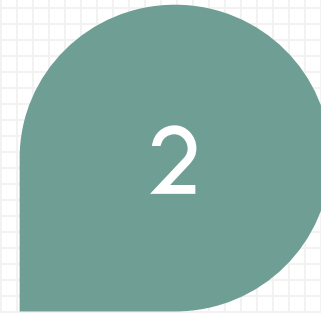
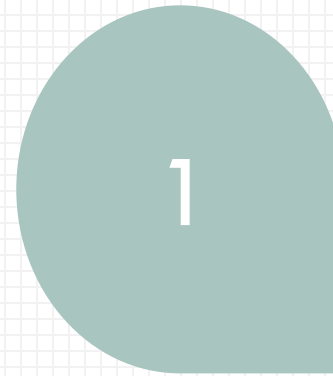
Accounting Valuation Methods

HISTORICAL COST

A measure of value used in accounting in which the value of an asset on the balance sheet is recorded at its original cost when acquired by the company. Historical cost has the disadvantage of not necessarily representing the actual [fair value](#) of an asset, which is likely to diverge from its purchase cost over time.

FAIR VALUE

Defined by Accounting Standards Codification (ASC) Topic 820 as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” (GAS 72 has an identical definition)



BOOK VALUE

The value of an asset originally measured at historical cost adjusted for depreciation, amortization, impairment etc.

Fair Value Basis

Often called “Mark to Market”

- Uses current market values as basis for recognizing certain assets and liabilities
- Recognizes market fluctuation
- Investments are reported at fair value on the balance sheet
- Changes in fair value are reported on the income statement as revenue



FASB – ASC 820 “*Fair Value Measurement*” defines a common fair value measurement methodology when fair value measurement is required by other accounting standards and/or where the fair value option is elected



GASB – GAS 72 “*Fair Value Measurement and Application*” extended the application of fair value reporting to most investments that a government holds

Comparison of Methods – Discount Security

EXAMPLE – Recording the Discount

- Bank of Tokyo Commercial Paper, \$1,000,000 par bought for \$998,576 Aug 2016
- Maturity: Dec 2017
- Discount at purchase: \$1,424
- Amortized cost as of August 31: \$998,751
- Fair value on August 31: \$998,620

Comparison of Methods – Discount Security

RECORDING THE DISCOUNT

Amortized/Book Cost

| Cash | Investments |
|-------------------|-------------|
| 998,576 | 998,576 |
| | 175 |
| Investment Income | |
| 175 | |

Note: GASB and FASB will
record discount in **similar**
fashion

Comparison of Methods – Discount Security

Fair Market Value

| Cash | Investments |
|---|-------------|
| 998,576 | 998,576 |
| | 44 |
| Investment Income (change in fair value) | |
| 44 | |

Note: GASB **differs** from FASB GAAP depending on how the security is classified for FASB.

- GAS 31 indicates there is no need to separate interest income and gains/losses in fair value.
- FASB GAAP requires market gains/losses to be recorded in Other Comprehensive Income for held-for-trading securities; interest will still be recorded as interest income.



GAS 31 “Accounting and Financial Reporting for Certain Investments and for External Investment Pools”

Permissible Methodologies For Investments – GASB

Applicable to all investments held by governmental external investment pools and it establishes fair value standards for investments that have readily determinable fair values.

Investments meeting the definition are generally required to be reported at fair value even if the governmental entity has the ability and intent to hold those investments to maturity.

GAS 31 “Accounting And Financial Reporting For Certain Investments And For External Investment Pools”

EXCEPTIONS TO FAIR VALUE

Governmental entities other than external investment pools are allowed to report **certain short-term debt investments** (e.g., money market investments, participating interest-earning contracts) at **amortized cost** if the investment has a remaining maturity of one year or less at the time of purchase (GAS 31, par. 9).

Nonparticipating interest-earning contracts may be carried **at cost** (GAS 31, par. 8).

External investment pools are allowed to report certain money market investments at **amortized cost**, provided the fair value of those investments is not significantly affected by the impairment of the credit standing of the issuer, or other factors.

Does Not require classification into Trading.
Available for Sale or Held to Maturity.

Permissible Methodologies For Investments – GASB

GAS 31

“Accounting and Financial Reporting for Certain Investments and for External Investment Pools”



Clarifies the meaning of investment as “ a security or other asset that
(a) government holds primarily for the purpose of income or profit and ;
(b) has a present service capacity based solely on its ability to generate cash”



All investment income, including changes in the fair value of investments, is to be reported in the operating statement



Can we separate realized and unrealized gains in the financials statements? **NO**, GAS 31 prohibits the separation of gains in this manner; however, it is permissible to disclose realized gains in the notes

Significant Impacts

- Public entities should report investments at fair value on the balance sheet
- The change in fair value from year to year should be recognized in the operating statement
- Certain investment are not reported at fair value:

1

Investment agreements

2

Money market mutual funds

3

Certain external investment pools

Investment in a Local Government Pool

- A local government's investment in LAIF, CAMP®, or a county pool must also be fair valued
- This would be based upon a proportionate assignment of the total fair value of all the investments in the pool as a percentage of the total cost (carrying value) of the pool
- For LAIF, this information can be obtained at:

<http://www.treasurer.ca.gov/pmia-laif/reports/valuation.asp>

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LAIF


Fair value: \$87,134,699,344

**Divided
by Cost:** \$86,860,632,699

= 1.0031552

If you had \$10,000,000 invested in LAIF,
the fair value at 3/31/2019 would be
\$10,000,000 x 1.0031522

= \$10,031,552

| <div>  <div> State of California Pooled Money Investment Account Market Valuation 3/31/2019 </div> </div> | | | | |
|--|---|-----------------------------|-----------------------------|--------------------------|
| Description | Carrying Cost Plus Accrued Interest Purch. | Amortized Cost | Fair Value | Accrued Interest |
| 1* United States Treasury: | | | | |
| Bills | \$ 18,268,335,075.90 | \$ 18,421,895,178.00 | \$ 18,429,875,500.00 | NA |
| Notes | \$ 25,650,500,423.41 | \$ 25,640,314,068.85 | \$ 25,649,099,000.00 | \$ 105,035,099.00 |
| 1* Federal Agency: | | | | |
| SBA | \$ 685,086,049.69 | \$ 685,086,049.69 | \$ 677,449,271.41 | \$ 1,575,687.26 |
| MBS-REMICs | \$ 23,500,952.01 | \$ 23,500,952.01 | \$ 24,042,372.38 | \$ 109,926.43 |
| Debentures | \$ 2,242,313,243.48 | \$ 2,242,253,139.31 | \$ 2,242,445,400.00 | \$ 9,207,506.20 |
| Debentures FR | \$ - | \$ - | \$ - | \$ - |
| Debentures CL | \$ 100,000,000.00 | \$ 100,000,000.00 | \$ 99,959,500.00 | \$ - |
| Discount Notes | \$ 14,136,370,014.06 | \$ 14,231,832,485.95 | \$ 14,231,987,000.00 | NA |
| 1* Supranational Debentures | \$ 589,090,035.96 | \$ 588,653,024.84 | \$ 590,131,500.00 | \$ 2,789,751.00 |
| 1* Supranational Debentures FR | \$ 150,282,570.93 | \$ 150,282,570.93 | \$ 150,509,181.43 | \$ 877,279.89 |
| 2* CDs and YCDs FR | \$ 575,000,000.00 | \$ 575,000,000.00 | \$ 575,048,000.00 | \$ 1,833,890.28 |
| 2* Bank Notes | \$ 800,000,000.00 | \$ 800,000,000.00 | \$ 800,000,661.88 | \$ 8,034,486.09 |
| 2* CDs and YCDs | \$ 12,700,000,000.00 | \$ 12,700,000,000.00 | \$ 12,700,302,887.53 | \$ 77,895,083.28 |
| 2* Commercial Paper | \$ 5,404,503,333.42 | \$ 5,427,427,944.55 | \$ 5,428,198,069.44 | NA |
| 1* Corporate: | | | | |
| Bonds FR | \$ - | \$ - | \$ - | \$ - |
| Bonds | \$ - | \$ - | \$ - | \$ - |
| 1* Repurchase Agreements | \$ - | \$ - | \$ - | \$ - |
| 1* Reverse Repurchase | \$ - | \$ - | \$ - | \$ - |
| Time Deposits | \$ 4,712,240,000.00 | \$ 4,712,240,000.00 | \$ 4,712,240,000.00 | NA |
| AB 55 & GF Loans | \$ 823,411,000.00 | \$ 823,411,000.00 | \$ 823,411,000.00 | NA |
| TOTAL | \$ 86,860,632,698.86 | \$ 87,121,896,414.13 | \$ 87,134,699,344.07 | \$ 207,358,709.43 |

Fair Value Including Accrued Interest

\$ 87,342,058,053.50

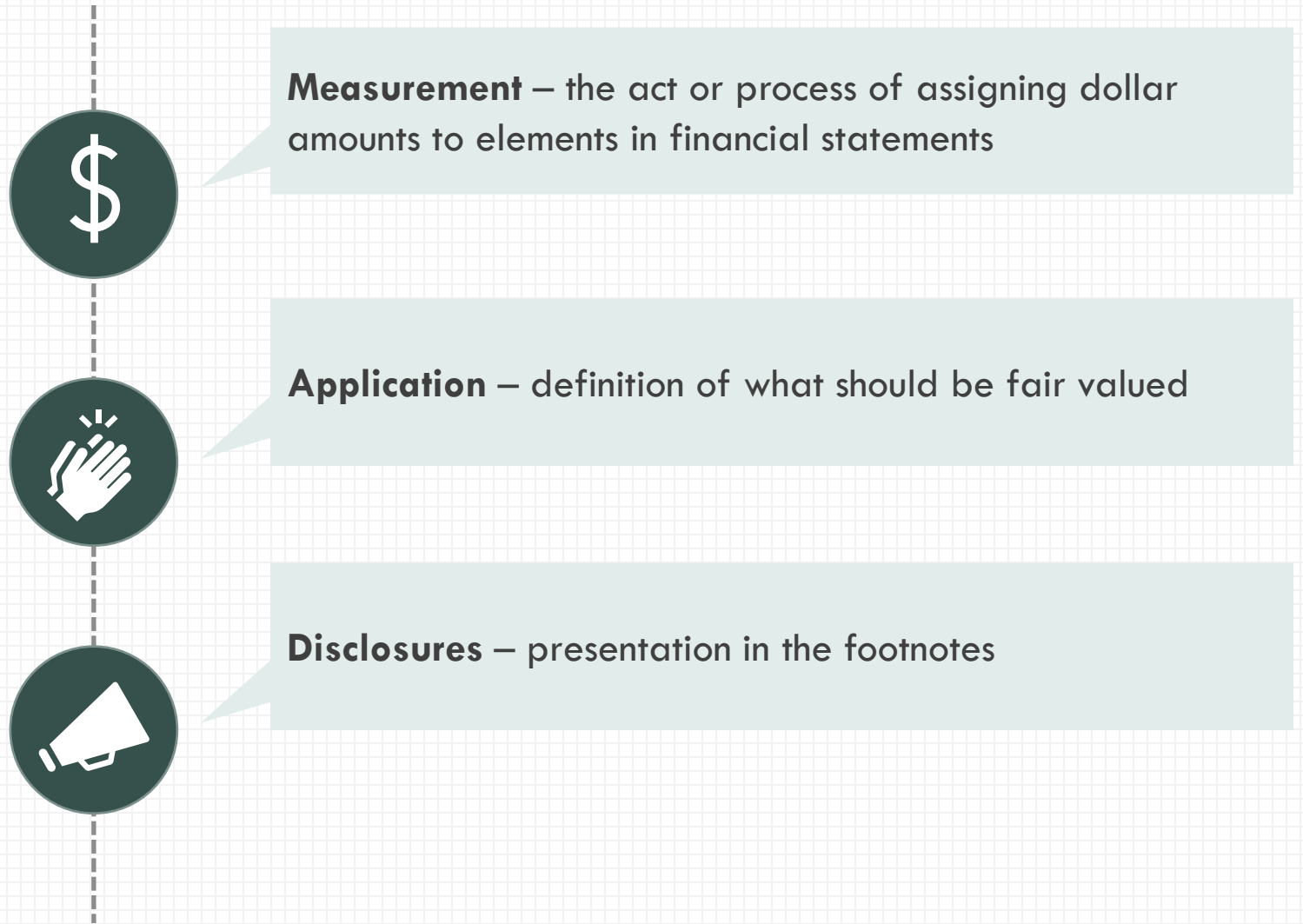
* Governmental Accounting Standards Board (GASB) Statement #72

Repurchase Agreements, Time Deposits, AB 55 & General Fund loans, and
Reverse Repurchase agreements are carried at portfolio book value (carrying cost).



GAS 72 “Fair Value Measurement and Application”

Three Part Statement



Fair Value Measurement



Measurement – the act or process of assigning dollar amounts to elements in financial statements

The **price** that would be received to sell an asset or paid to transfer a liability in an orderly transaction between **market participants** at the **measurement date**



PRICE

- Not adjusted for transaction costs
- Government's principal or most advantageous market



MARKET PARTICIPANTS

- Use assumptions that market participants would use to price asset or liability



MEASUREMENT DATE

- Not necessarily financial statement date

Measurement – Valuation Techniques

Revisions to fair value due to a change in technique is **considered a change in accounting estimate**



Applied in current period and disclosed in the footnotes



Measurement – the act or process of assigning dollar amounts to elements in financial statements

MARKET APPROACH

- Uses prices
- Relevant information generated by market transactions involving identical or similar assets/liabilities

COST APPROACH

- Amount required currently to replace the service capacity of an asset

INCOME APPROACH

- Converts expected future cash amounts into a single amount
- Present value
- Option-pricing models

Measurement



Measurement – the act or process of assigning dollar amounts to elements in financial statements

Risk Adjustments

- Includes a risk premium or discount that market participants would demand as compensation
- Reflects an orderly transaction

Application of Fair Value



Application – definition of what should be fair valued

- Definition of an investment
 - **A security or other asset that a government holds primarily for the purpose of income or profit** and with a present service capacity that is based solely on its ability to generate cash or to be sold to generate cash
- Service capacity
 - Refers to a government's mission to provide services
- Held primarily for income or profit
 - Acquired first and foremost for future income and profit

Application of Fair Value



Application – definition of what should be fair valued

- An asset that is being held in order to further some part of the mission of the local government to provide services is **NOT** required to be reported at fair value
- Determination of whether the asset was acquired solely to generate cash and not for a program objective is determined **at the time of acquisition**
- A **later** change in the usage of the asset will **not** change the initial determination as to whether that asset will be reported at fair value

Application of Fair Value



Application – definition of what should be fair valued

4.40. Q—A city government constructs an office building with the intent to occupy the building for a city program. While the city awaits the grant approval, the city leases the building and receives lease income. Should the building initially be classified as an investment and then reclassified when the city uses the building for the city's program?

A—No. The asset should be classified at acquisition as a capital asset. Because the city intended, at acquisition, to use the building for the purpose of a city program, the building does not meet the definition of an investment. After an asset is classified at acquisition, its classification should not change.

4.41. Q—A city government seeks to provide affordable housing to the community. It lends money to its housing authority (a component unit of the city) to complete the development of an existing affordable-housing project. The housing authority will repay the loan over a 20-year period and will compensate the city with an interest rate commensurate with market conditions. Should the city classify this loan as an investment?

A—No. The loan is a receivable and not an investment because the purpose of the loan is to support its affordable-housing program.

Source: 2016 GASB Implementation Guide

Acquisition Value



Application – definition of what should be fair valued

This statement requires measurement at acquisition value for:

1

Donated capital assets

2

Donated works of art, historical treasures and similar assets

3

Capital assets received through a service concession arrangement

Hierarchy of Fair Value Inputs



Application – definition of what should be fair valued

LEVEL 1

Quoted prices in active markets for identical assets or liabilities

LEVEL 2

Quoted prices for similar assets or liabilities

- Quoted prices for identical or similar assets/liabilities in markets that are not active
- Other than quoted prices that are observable

LEVEL 3

Unobservable inputs

- Inputs when actual market data is not available
- assumptions and considerations that market participants use when pricing the asset

Common Categorization

Don't include the following investments in the fair value hierarchy:

- Money Market Funds
- LAIF
- CAMP®
- Other external investment pools



Application – definition of what should be fair valued

LEVEL 2

- Federal Agency Securities
- Corporate Notes and Bonds
- Municipal Bonds

LEVEL 3

Should be rare in CA

External Investment Pools



Application – definition of what should be fair valued

- 2017 GASB Implementation Guide (Exposure Draft) clarifies how to report External Investment Pools in the schedule of fair value hierarchy
- Q. 4.38:

If pool is compliant with GASB 79 and elects to measure its investments at amortized cost, the government measures the investment at amortized cost, and it should **not be categorized** within the fair value hierarchy.

If the pool measures investments at fair value, regardless of whether the pool transacts with participants at a floating net asset value per share or a fixed net asset value per share (for example \$1.00), positions in external investment pools that are measured at fair value should **not be categorized** within the fair value hierarchy.

Note Disclosures



Disclosures – presentation in the footnotes

- Organized by type or class of asset or liability
- Information for each class or type of asset / liability
 - Fair value measurement at the end of reporting period
 - Level of hierarchy
 - Description of valuation techniques
- For fair value measurements categorized within Level 3
 - Effect of those investments on investment income

Disclosure of Fair Value Inputs



Disclosures – presentation in the footnotes

NOTE: Unless you include a reconciliation of investments NOT measured at fair value, this schedule will not agree to your other investment schedules

The City categorizes its fair value investments within the fair value hierarchy established by generally accepted accounting principles. The City has the following recurring fair value measurements as of June 30, 2016:

| | Fair Value Hierarchy | | | Total |
|---------------------------|----------------------|-------------------|----------|-------------------|
| | Level 1 | Level 2 | Level 3 | |
| US Treasury Notes | \$15,290,373 | - | - | 15,290,373 |
| Federal Agency securities | - | 10,000,000 | - | 10,000,000 |
| Negotiable CDs | - | 9,197,337 | - | 9,197,337 |
| Corporate Bonds | - | 3,773,445 | - | 3,773,445 |
| Total investments | <u>\$15,290,373</u> | <u>22,970,782</u> | <u>-</u> | <u>38,261,155</u> |

For illustrative purposes only.

Disclosure of Fair Value Inputs



Disclosures – presentation in the footnotes

Investments Measured at the NAV (\$ in millions)

| | <u>Fair Value</u> | <u>Unfunded Commitments</u> | <u>Redemption Frequency (if Currently Eligible)</u> | <u>Redemption Notice Period</u> |
|--|-----------------------|---------------------------------|---|---|
| Equity Long/Short | \$40 | | Quarterly | 30-60 days |
| Real Estate Fund | 20 | \$5 | Annually | 30-60 days |
| LGIP | 10 | | Daily | None |
| Total investments measured at the NAV | <u>\$70</u> | | | |

For illustrative purposes only.

Optional Narrative Format



Disclosures – presentation in the footnotes

The City categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The City has the following recurring fair value measurements as of June 30, 20X1:

- U.S. Treasury securities of \$45 million are valued using quoted market prices (Level 1 inputs)
- Corporate bonds of \$12 million are valued using a matrix pricing model (Level 2 inputs).

The City also has a nonrecurring fair value measurement as of June 30, 20X1, for a closed performing arts hall that will no longer be used by the government and therefore is considered to be impaired. The hall has been written down from \$5.6 million to \$3.4 million based on an appraisal of the property (Level 3 inputs).

For illustrative purposes only.

GASB 40

Background

- GASB 40 primarily addresses **disclosure** (not valuation) issues for investments
- Purpose of GASB 40 is to inform the reader about certain risks that are associated with an entity's investment portfolio that are not otherwise apparent by the reporting on that entity's balance sheet

Credit Risk

- The risk that the issuer will not fulfill its obligation to the holder of the investment
- Disclose any state laws or policy requirements associated with this risk
(i.e., where a minimum rating has been stipulated)
- If no requirement for a minimum rating, state so

Credit Risk

- In the notes, can group investments by **type** and simply give **range of ratings** associated with those investments
- Credit quality modifiers (Aa1, Aa2, Aa3) are not required to be disclosed
- Only need to disclose ratings as of end of year
- No rating is required for U.S. Treasury securities
- Must disclose ratings for federal agency securities (FNMA, etc.)
- Disclose credit quality ratings of external investment pools, money market funds or other pooled investments (or mention that they are not rated)
- Identify unrated investments
- Retain for auditor's review evidence of rating as of year end

Credit Risk

[GASBIG 2015-1, Q1.5.5]

.738-2 Q—Do the credit quality ratings of all NRSROs need to be disclosed? What if a government invests in a security that receives split ratings? That is, NRSROs issued different ratings on the same security. What credit quality disclosures should be made?

A—There are several recognized NRSROs at this time. Currently, the Securities and Exchange Commission (SEC) reviews the qualifications of applicant credit quality rating firms to determine if they meet the criteria for becoming an NRSRO. This section does not specifically address whether the credit quality ratings of all NRSROs need to be disclosed.

Many securities have ratings from more than one NRSRO, and sometimes those ratings differ. When multiple ratings exist and the government is aware of the different ratings, the rating indicative of the greatest degree of risk should be presented. However, a government may also choose to disclose additional credit quality ratings, thereby presenting the user with additional credit risk information from which to ascertain the credit risk of the investment.

For illustrative purposes only.

Level of Detail (for all GASB 40 Disclosures)

- All GASB 40 disclosures must be broken down at least by investment type
- For GASB 40 purposes, an investment in an external investment pool (County pool, LAIF, CAMP[®], etc.) is a single investment
- Don't have to "look through" the pool to give disclosures for the various investment types contained in the pool
- Generally, if a major fund **has its own investments** (such as those held in a separate fiscal agent account associated solely with that fund) and those investments have risks that are **materially different** than the risks of that agency's entire portfolio, additional disclosures may be required

Concentration of Credit Risk

- Any one issuer that represents 5% or more of the entity's total portfolio
- If a major fund has its own investments, then this rule is applied at the fund level
- **Exclude:**

1

Assets issued or explicitly guaranteed by the U. S. Government

2

Mutual funds

3

External investment pools (CAMP[®], LAIF, etc.)

Custodial Credit Risk

DEPOSITS

- Custodial credit risk for deposits addresses **how the deposits are held** (with a focus on the use of collateralized accounts)
 - Deposits are checking accounts, savings accounts, and traditional non-negotiable certificates of deposit, etc.
- Exception based
- If a bank account (or Certificate of Deposit) is not **collateralized**, disclose the dollar amounts in excess of FDIC insurance limits
- Retain evidence of collateralization of deposits for auditors (bank agreement specifying commitment to collateralize, etc.)

Custodial Credit Risk

INVESTMENTS

- Custodial credit risk for investments addresses **how the investments are held** (with a focus on who is holding the investment on behalf of the local government)
- Exception based
- Disclosable custodial credit risk generally exists if the investment is being **held by the broker or dealer** that the local government used to buy the investment (instead of using an independent third-party custodian)
- This disclosure does not apply to external investment pools and money market mutual funds

Foreign Currency Risk

- Risk that changes in foreign exchange rates will adversely affect the fair value of an investment



Only applies to investments that are denominated in foreign currencies



Can be satisfied by listing the specific investments showing amount, maturity, and identification of the foreign currency

Interest Rate Risk

The risk that changes in interest rates demanded by the market will adversely affect the fair value of an investment

One of five methods must be used:



Interest Rate Risk

- Method used should be consistent with how that local government manages interest rate risk
- Can use different methods for short term vs. long term portfolios
- Disclose assumptions made for calculation purposes
- Similar investments may be aggregated
 - Disclosure detail should be broken down by investment type
 - Investments with values that are highly sensitive to changes in market interest rates must be described in the notes

Interest Rate Risk

1

Specific identification

| | S & P Rating | Par | Maturity Date | Market Value | % of Portfolio |
|----------------------------------|-----------------|-------------------|---------------|-------------------|-------------------|
| Repurchase Agreement | | | | | |
| Morgan Stanley | | 15,000,000 | 7/15/2014 | 15,000,000 | 20% |
| Commercial Paper | | | | | |
| GE Capital | A-1+ | 2,270,000 | 12/5/2014 | 2,269,000 | |
| Citicorp | A-1+ | 2,065,000 | 12/13/2014 | 2,064,000 | |
| | | 4,335,000 | | 4,333,000 | 6% |
| Corporate Note | | | | | |
| Citicorp | AA- | 2,500,000 | 3/15/2015 | 2,600,000 | 4% |
| Federal Agency Bond/Note | | | | | |
| FAMC Notes | NR | 5,000,000 | 12/1/2014 | 5,050,000 | |
| FNMA Notes (Callable) | AAA | 6,000,000 | 3/11/2015 | 5,950,000 | |
| FHLMC Notes | AAA | 10,000,000 | 1/15/2016 | 10,500,000 | |
| FHLB Notes | AAA | 9,000,000 | 8/15/2016 | 9,300,000 | |
| | | 30,000,000 | | 30,800,000 | 42% |
| Variable Rate Obligations | | | | | |
| FHLB Notes | AAA | 10,000,000 | 12/31/2016 | 10,850,000 | 15% |
| U.S. Treasury Notes | | | | | |
| U.S. Treasury Notes | AAA | 10,000,000 | 11/30/2014 | 10,100,000 | 14% |
| TOTAL SECURITIES | | 71,835,000 | | 73,683,000 | 100% |

For illustrative purposes only.

Interest Rate Risk

2

Segmented Time Distribution

| Investment Type | Fair Value | Investment Maturities (in Years) | | | |
|--|-------------------|----------------------------------|------------------|------------------|-----------------|
| | | Less Than 1 | 1-5 | 6-10 | More Than 10 |
| U.S. Treasuries | \$ 28,729 | \$ 10,865 | \$ 12,864 | \$ 5,000 | \$ — |
| U.S. agencies | 112,974 | 89,360 | 15,000 | 8,614 | — |
| Municipal obligations | 23,896 | 23,896 | — | — | — |
| Corporate bonds | 62,061 | 26,568 | 10,000 | 20,493 | 5,000 |
| Negotiable certificates of deposit | 25,000 | 25,000 | — | — | — |
| Commercial paper | 39,331 | 29,589 | 9,742 | — | — |
| Repurchase agreements | 74,509 | 73,509 | 1,000 | — | — |
| Investment in money market funds | 30,979 | 30,979 | — | — | — |
| Investment in State Local Agency Investment Fund | 30,000 | 30,000 | — | — | — |
| Total | \$ 427,479 | \$ 339,766 | \$ 48,606 | \$ 34,107 | \$ 5,000 |

For illustrative purposes only.

Interest Rate Risk

3

Weighted Average Maturity

| <u>Investment Type</u> | <u>Weighted Average Days to Maturity</u> |
|-----------------------------|--|
| U.S. Treasury notes | 852 |
| U.S. Treasury bonds | 1,642 |
| Federal agency securities | 947 |
| Corporate medium-term notes | 1,460 |
| Commercial paper | 87 |
| Mortgage-backed securities | 2,012 |

For illustrative purposes only.

Interest Rate Risk

4

Simulation Model

- Calculates effect on investment fair values for hypothetical (negative) changes in interest rates
- If this is not being used during the year to monitor interest rate risk in your portfolio, you probably should not use this method for the cash and investment note

Interest Rate Risk

5

Duration

- Calculates in years or months the time to elapse for a group of investments to become due and payable (weighted for the present value of investment cash flows)
- If this is not being used during the year to monitor interest rate risk in your portfolio, you probably should not use this method for the cash and investment note

Interest Rate Risk

5

Duration

- Duration shows that price volatility is influenced by:
 - Timing of cash flows
 - Influenced by coupon rate and yield to maturity

The **higher** the **duration**,
the **greater** the **price**
volatility for changes in
interest rates

| Risk/Return of Various Benchmarks 10 Years Ended 12/31/2016 | | | | |
|--|------------|-----------------------------|--|--------------------------------------|
| Merrill Lynch Index | Duration | Average Annual Return | Cumulative Value of \$10,000,000 | Quarters With Negative Returns |
| 3-Month Treasury Bill | 0.24 Years | 0.80% | \$10,827,443 | 0 out of 40 |
| 6-Month Treasury Bill | 0.49 Years | 1.16% | \$11,223,929 | 0 out of 40 |
| 1 Year Treasury Index | 0.99 Years | 1.43% | \$11,526,041 | 5 out of 40 |
| 1-3 Year Treasury Index | 1.89 Years | 2.12% | \$12,337,210 | 8 out of 40 |
| 1-5 Year Treasury Index | 2.71 Years | 2.76% | \$13,138,611 | 12 out of 40 |
| 1-10 Year Treasury Index | 3.80 Years | 3.55% | \$14,182,314 | 13 out of 40 |
| 1-3 Year Agency Index | 1.86 Years | 2.32% | \$12,584,105 | 5 out of 40 |
| 1-5 Year Agency Index | 2.33 Years | 2.75% | \$13,113,915 | 5 out of 40 |
| 1-10 Year Agency Index | 2.72 Years | 3.19% | \$13,693,368 | 6 out of 40 |
| 1-3 Year Treasury/Agency Index | 1.89 Years | 2.17% | \$12,400,131 | 7 out of 40 |

Examples of Highly Sensitive Investment



Auction rate securities
interest rates are set by frequent remarketing



Coupon multipliers
a variable rate instrument where the interest rate is expressed as a multiple of an underlying index.



Variable rates
with floors, caps, and collars



Securities with **callable**
step-up features



Range notes
interest rates depends on whether the benchmark index falls within a pre-determined range.



Inverse floaters
interest rate moves in the opposite direction of the underlying index



Mortgage-pass through securities
cash flows determined by the mortgage payments of an underlying pool of mortgages

Highly Sensitive Investments

- Retain for auditors' documentation of the details of investment characteristics (descriptions on investment statements and trade tickets do not necessarily provide the level of detail needed to be examined by the auditors)
- For this reason, entities often retain for auditors' review Bloomberg print shots (obtained from the broker) that display all the characteristics necessary for the auditors to evaluate whether the investment has a fair value that is highly sensitive to changes in market interest rates

Legal Compliance Risk

Best practice is for **monthly Treasurer's Report** to provide information as to compliance with these requirements

- For example, identifying the percentage of the portfolio that is held in each category of investments that is subject to limitation)

Prospectuses should also be retained for examination by auditors (for money market funds, mutual funds, and any unusual investments)

MUST BE DISCLOSED

- Allowable investments (and any limitations) under entity's investment policy
- Violations of investment policy or state law

SHOULD BE DISCLOSED

- Differences between investment policy and requirements of state law
- If government's policy is to simply comply with state investment statutes, relevant portions of statute relating to risk
- Bond requirements for investment of bond proceeds



THANK YOU

We look forward to your participation in the next webinar in this series, *Investment Reporting*.



Important Disclosures

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