

CDIAC

CALIFORNIA
DEBT AND
INVESTMENT
ADVISORY
COMMISSION

THE PUBLIC INVESTMENT PORTFOLIO: DIFFERENTIATING MUTUAL FUNDS FROM MONEY MARKET MUTUAL FUNDS AND UNDERSTANDING INVESTMENT POOLS

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Disclaimer

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Mutual Fund Definition

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DEFINITION of 'Mutual Fund'

An investment vehicle that is made up of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and similar assets. Mutual funds are operated by money managers, who invest the fund's capital and attempt to produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

Money Market Fund Definition

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A money market mutual fund is a type of fixed income mutual fund that invests in debt securities characterized by their short maturities and minimal credit risk.

California Government Code §53601 (I)

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§53601(I) (1) Shares of beneficial interest issued by diversified management companies that invest in the securities and obligations as authorized by subdivisions (a) to (k), inclusive, and subdivisions (m) to (q), inclusive, and that comply with the investment restrictions of this article and Article 2 (commencing with Section 53630). However, notwithstanding these restrictions, a counterparty to a reverse repurchase agreement or securities lending agreement is not required to be a primary dealer of the Federal Reserve Bank of New York if the company's board of directors finds that the counterparty presents a minimal risk of default, and the value of the securities underlying a repurchase agreement or securities lending agreement may be 100 percent of the sales price if the securities are marked to market daily.

(2) Shares of beneficial interest issued by diversified management companies that are money market funds registered with the Securities and Exchange Commission under the Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1 et seq.).

(3) If investment is in shares issued pursuant to paragraph (1), the company shall have met either of the following criteria:

(A) Attained the highest ranking or the highest letter and numerical rating provided by not less than two NRSROs.

(B) Retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission with not less than five years' experience investing in the securities and obligations authorized by subdivisions (a) to (k), inclusive, and subdivisions (m) to (q), inclusive, and with assets under management in excess of five hundred million dollars (\$500,000,000).

(4) If investment is in shares issued pursuant to paragraph (2), the company shall have met either of the following criteria:

(A) Attained the highest ranking or the highest letter and numerical rating provided by not less than two NRSROs.

(B) Retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission with not less than five years' experience managing money market mutual funds with assets under management in excess of five hundred million dollars (\$500,000,000).

(5) The purchase price of shares of beneficial interest purchased pursuant to this subdivision shall not include commission that the companies may charge and shall not exceed 20 percent of the agency's moneys that may be invested pursuant to this section. However, no more than 10 percent of the agency's funds may be invested in shares of beneficial interest of any one mutual fund pursuant to paragraph (1).

Money Market Funds vs. Mutual Funds

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□ Money Market Funds

- ▣ Seek to maintain a constant Net Asset Value (NAV) of \$1.00
- ▣ Weighted Average Maturity (WAM): 60 days or less

□ Mutual Funds

- ▣ Do not seek to maintain a constant NAV of \$1.00; value of shares fluctuates
- ▣ WAM: no more than 5 years
- ▣ Loss of principal is acceptable
- ▣ NOT generally recommended for public entities

Risk Mitigation in Money Market Funds

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- Credit Risk
 - First-Tier
 - Second-Tier

- Interest Rate Risk
 - Maximum Final Maturity
 - Maximum Weighted Average Maturity
 - Maximum Weighted Average Life

- Liquidity Risk
 - Daily
 - Weekly

- Concentration Risk

Local Government Investment Pools (LGIPs)

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Local government investment pools are established by state or local governmental entities so they and other public entities may pool their funds for investments.

- State pool (LAIF)
- County investment pools
- Joint Powers Authorities (CAMP, CalTrust)
 - Trusts established in accordance with State law* that invest exclusively in securities permitted by California Government Code §53601.

* Title 1, Division 7, Chapter 5 of the California Government Code

County Investment Pools

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- Permitted by California Government Code §53684
- Managed by county treasurer
- Used by involuntary investors e.g., schools
- Authorized for investment by others at discretion of county treasurer
- Some have credit and/or liquidity ratings
- Pool portfolios vary greatly based on:
 - Pool characteristics (permitted investments, average maturity, withdrawal notice)
 - Risk tolerance
 - Size of the pool
 - Resources for managing investments

Survey of County Investment Pools*

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- Largest investment: Federal Agencies
- Second largest investment: LAIF

Key Statistics

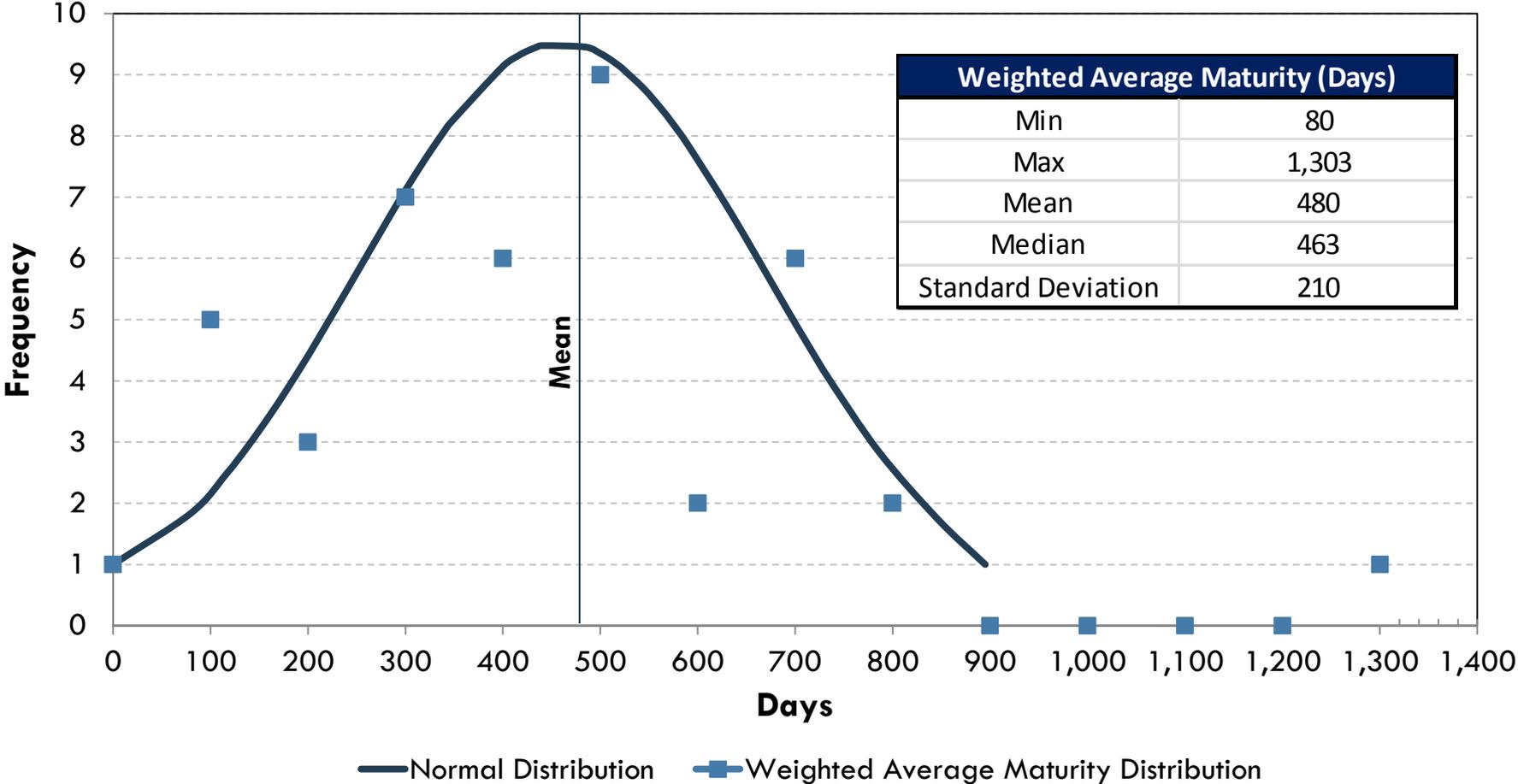
	Max	Min	Median
Weighted Average Maturity (WAM)	3.6 years	80 days	1.3 years
Percent of Assets Maturing in Less than 90 Days	100%	6%	38%
Market-to-Book Ratio (NAV)	1.404	0.910	0.9995

Source: S&P's Annual Survey of California County Investment Pools, June 2014 (55 out of 58 counties)

*63% of responding counties

County Investment Pool WAMs

Weighted Average Maturity (Days)



Shares Issued by a JPA

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- Permitted by California Government Code §53601(p)
- CAMP and CalTrust are managed by professional investment advisory firms
- May invest only in securities authorized by California Government Code §53601
- Authorized for use by all local governments in California
- Portfolios vary greatly based on objectives
 - Principal value constant at \$1.00 per share or price of shares fluctuates
 - Risk tolerance
 - Credit ratings

LGIP Features

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LAIF	County Pools	CAMP	Shares Issued by a JPA		
			CalTrust		
			Short Term	Medium Term	Wells Fargo Heritage MMF
Daily liquidity	Daily liquidity (depending)	Daily liquidity	Notice required	Notice required	Daily liquidity
Dollar-in, dollar-out regardless of NAV	Dollar-in, dollar-out regardless of NAV	Stable \$1.00 NAV	Variable NAV	Variable NAV	Stable \$1.00 NAV
Managed by state treasurer	Managed by county treasurer	Managed by PFM Asset Management	Managed by Wells Capital Management		
Not rated	Some have credit and/or liquidity ratings	AAAm	AAf/S1+	Not rated	AAAm

Source: LAIF and CalTrust websites

LGIP Features (continued)

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LAIF	County Pools	CAMP	Shares Issued by a JPA		
			CalTrust		
			Short Term	Medium Term	Wells Fargo Heritage MMF
Risk: Underlying securities (credit, interest rate)	Risk: Underlying securities (credit, interest rate)	Risk: Underlying securities (credit, interest rate)	Risk: (1) Loss of principal; (2) underlying securities (credit, interest rate)	Risk: (1) Loss of principal; (2) underlying securities (credit, interest rate)	Risk: Underlying securities (credit, interest rate)
Not expected to be impacted by MMF reform	Not expected to be impacted by MMF reform	Not expected to be impacted by MMF reform	Not expected to be impacted by MMF reform	Not expected to be impacted by MMF reform	Will be impacted by MMF reform

Source: LAIF and CalTrust websites

Local Agency Investment Fund (LAIF) Agenda

- LAIF Statute
- LAIF Participation
- PMIA/LAIF Oversight
- PMIA Source of Funds
- PMIA Portfolio Composition
- PMIA Par Values Maturing by Date and Type
- PMIA Average Monthly Yield Comparison
- A Look Ahead

LAIF Statute Summary

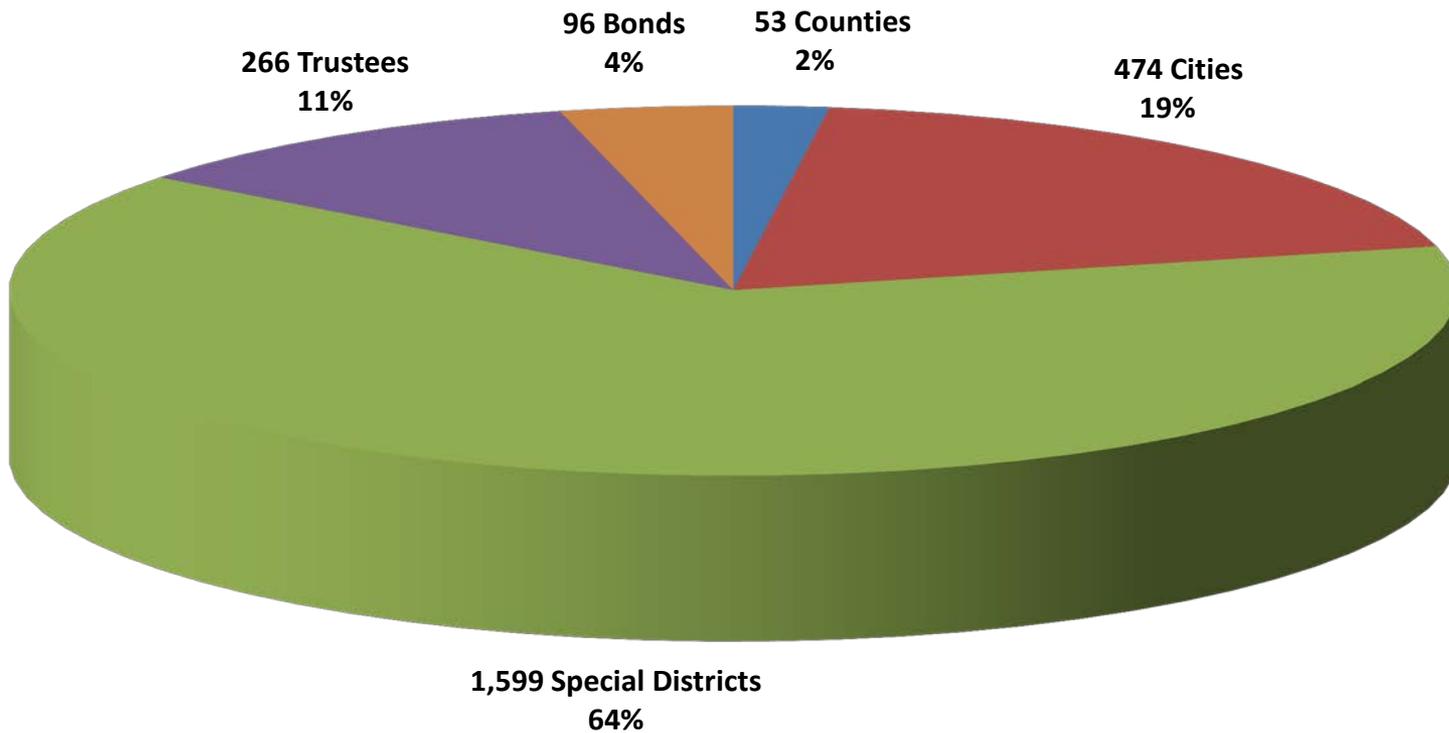
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□ California Government Code § 16429.1

- Creates the Local Agency Investment Fund in trust in the custody of the Treasurer. The Controller maintains a separate account for each governmental unit having deposits in this fund.
- Allows a local governmental official, with the consent of the governing body of that agency, having money in its treasury not required for immediate needs, to remit the money to the Treasurer for deposit in the LAIF for the purpose of investment.
- Also allows nonprofit corporations, whose membership is confined to public agencies or public officials, or an officer of a qualified quasi-governmental agency, with the consent of the governing body of that agency, having idle money, to remit the money to the Treasurer for deposit in the LAIF for the purpose of investment.
- A local agency, with the approval of its governing body, may deposit debt issuance proceeds in the LAIF pending expenditure of the proceeds for the authorized purpose of their issuance. LAIF is authorized to receive and disburse moneys and to provide information to the trustee or fiscal agent engaged by the local agency. LAIF is also authorized to hold investments in the name of and for the account of that trustee or fiscal agent. The Controller maintains a separate account for each deposit of proceeds.
- LAIF participants may determine the length of time their money will be on deposit with LAIF.
- The Local Investment Advisory Board shall determine those quasi-governmental agencies which qualify to participate in LAIF.
- The Treasurer may refuse to accept deposits into LAIF if it would adversely affect the state's portfolio.
- Quarterly interest shall be distributed by the Controller to LAIF participants in amounts directly proportionate to the amounts deposited in their accounts and length of time it remained in their accounts.
- The Treasurer shall distribute a monthly report of investments made during the previous month.

LAIIF Participation as of June 30, 2015

2,488 Agencies



PMIA and LAIF Oversight

Pooled Money Investment Board (Government Code 16480.1):

The Pooled Money Investment Board, consisting of the Treasurer, Controller and Director of Finance, governs the Pooled Money Investment Account. The board meets monthly and designates the amount of money available under GC 16480 for investment in authorized securities, deposits in banks and savings and loan associations, and General Fund loans.

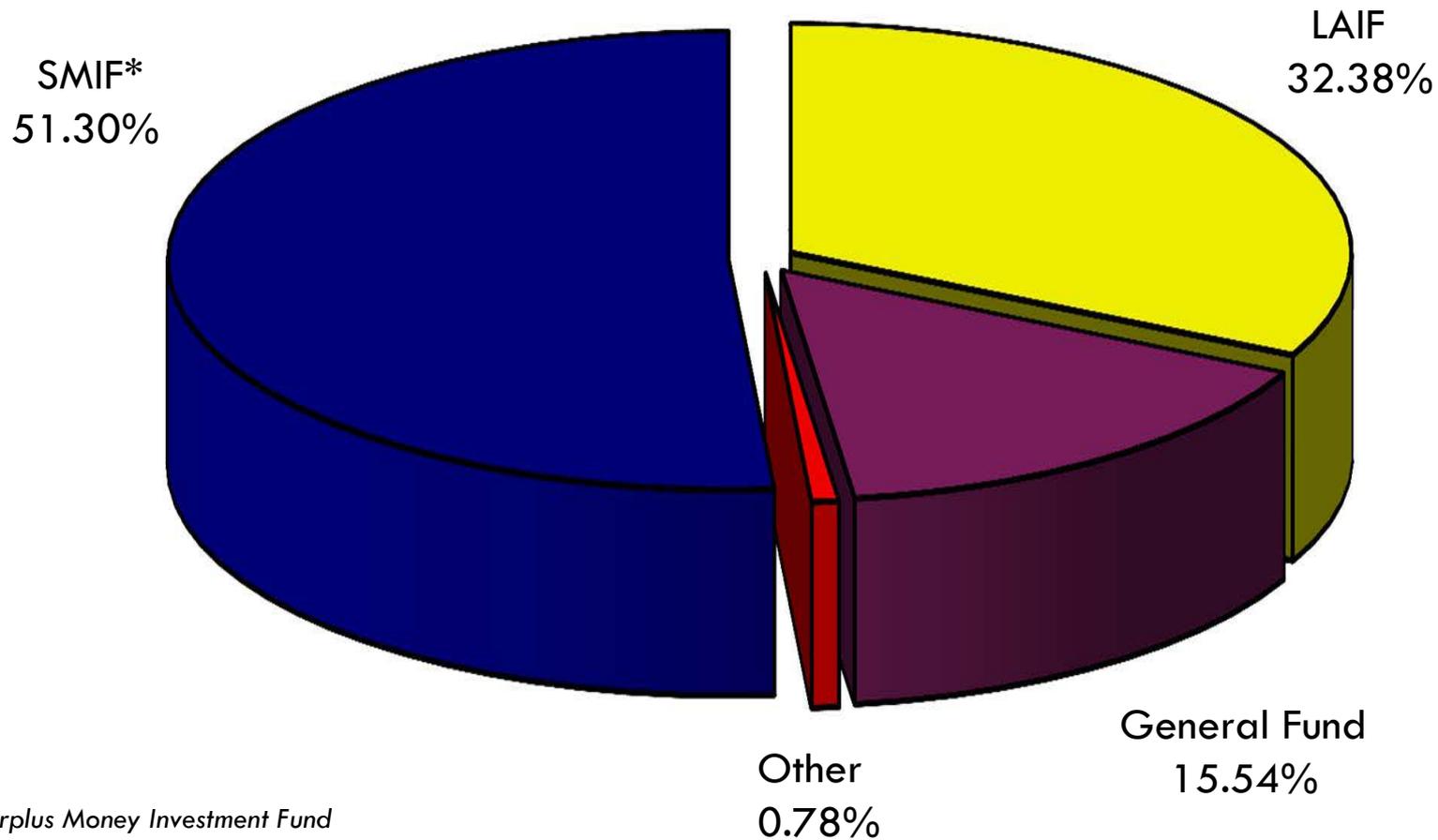
Local Investment Advisory Board (Government Code 16429.2):

The Local Investment Advisory Board consists of five members. The chairman is the State Treasurer, along with two members who are qualified by training and experience in the field of investment or finance, and two members who are treasurers, finance or fiscal officers or business managers, employed by any county, city or local district of municipal corporation of this state, appointed by the Treasurer. The board's primary purpose is to advise and assist the State Treasurer in formulating the investment and reinvestment of moneys in the LAIF, and the acquisition, retention, management, and disposition of investments of the fund.

PMIA Source of Funds as of June 30, 2015

Average Quarterly Balance - \$65.3 billion

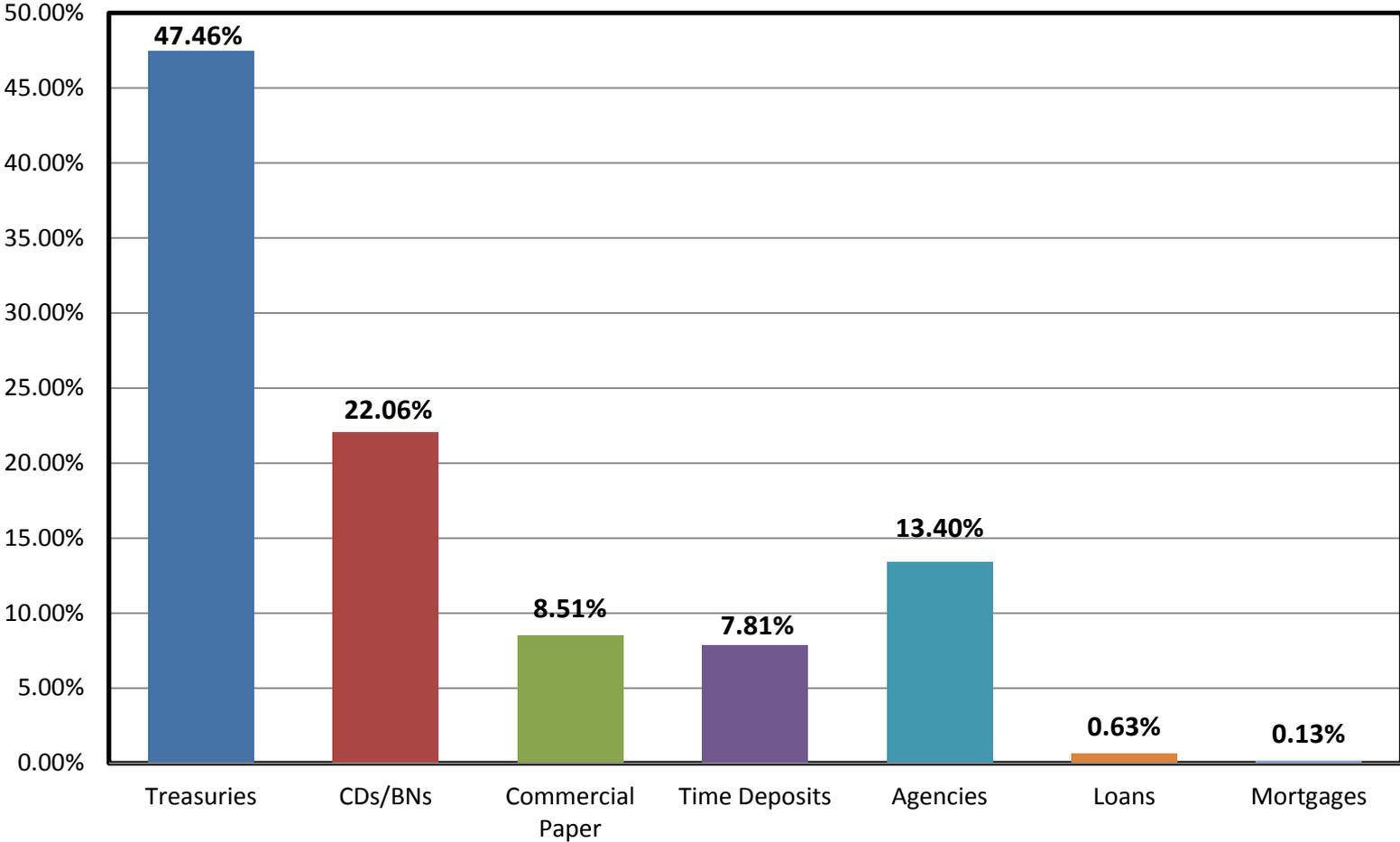
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*Surplus Money Investment Fund

PMIA Portfolio Composition as of June 30, 2015

\$69.6 billion



PMA Par Values Maturing by Date and Type as of June 30, 2015

Maturities in Millions of Dollars

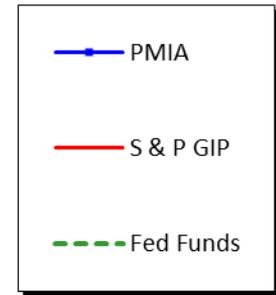
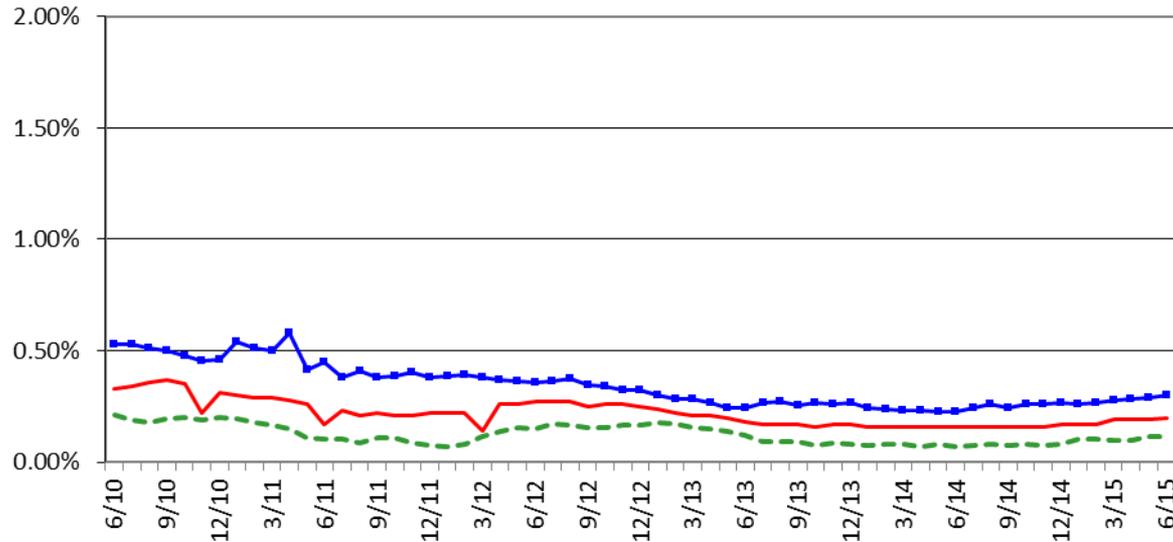
	1 day to 30 days	31 days to 60 days	61 days to 90 days	91 days to 120 days	121 days to 150 days	151 days to 180 days	181 days to 210 days	211 days to 270 days	271 days to 1 year	1 year to 2 years	2 years to 3 years	3 years to 4 years	4 years to 5 year/out
TREASURY	\$ 1,100	\$ 400	\$ 900	\$ 2,550	\$ 950	\$ 1,750	\$ 850	\$ 4,550	\$ 7,300	\$ 12,200	\$ 500		
REPO													
TDs	\$ 1,931	\$ 1,069	\$ 1,294	\$ 360	\$ 483	\$ 302							
AGENCY	\$ 1,176	\$ 100	\$ 100	\$ 200	\$ 50	\$ 550	\$ 1,150	\$ 2,380	\$ 3,075	\$ 882	\$ 781		
CP	\$ 2,500	\$ 950	\$ 1,325	\$ 800		\$ 350							
CDs + BNs	\$ 5,650	\$ 1,700	\$ 2,200	\$ 1,800	\$ 500	\$ 900	\$ 1,100	\$ 400	\$ 1,000	\$ 100			
CORP BND													
TOTAL													
\$ 70,207	\$ 12,356	\$ 4,219	\$ 5,819	\$ 5,710	\$ 1,983	\$ 3,852	\$ 3,100	\$ 7,330	\$ 11,375	\$ 13,182	\$ 1,281	\$ -	\$ -
PERCENT	17.6%	6.0%	8.3%	8.1%	2.8%	5.5%	4.4%	10.4%	16.2%	18.8%	1.8%	0.0%	0.0%

Notes:

1. Figures rounded to the nearest million
2. Does not include AB55 and General Fund loans

PMIA Average Monthly Yield Comparison

June 2010 through June 2015



June Yields

PMIA	0.299%
S&P GIP	0.200%
FED FUNDS	0.115%

A Look Ahead

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- **Safety**
 - ▣ Preservation of principal

- **Liquidity**
 - ▣ Availability of principal

- **Yield**
 - ▣ Prudent return



Overview of Key SEC Changes to Money Market Fund Rules

Reform	Implementation Date	Description
Retail Investor Definition	10/14/16	Retail money market funds will be defined as funds limiting beneficial owners to natural persons. Beneficial ownership by natural persons includes interests held through personal trusts, broker sweep accounts, IRAs, SEP, Simple and KEOGH plans, section 457 deferred compensation plans, 401(k) and other participant directed defined contribution pension and employee benefit plans, 529 college savings accounts and tax-advantaged medical and health savings accounts or those held through omnibus accounts at custodians for the benefit of natural persons.

Overview of Key SEC Changes to Money Market Fund Rules

Retail Fund Exemption

- “Retail” MMF is a MMF with policies and procedures reasonably designed to limit all beneficial owners of the fund to natural persons
- Beneficial ownership is based on direct or indirect, sole or shared voting, and/or investment power

Overview of Key SEC Changes to Money Market Fund Rules

Retail Fund Examples

- SEC says if underlying beneficial owner is a natural person (including shares held in omnibus accounts), shares may be considered retail
- Possible earmark of natural persons—social security number or similar identifier unique to natural persons
- Accounts beneficially owned by natural persons
 - Managed investment accounts in which only natural persons have a pecuniary interest
 - Tax-advantaged savings accounts such as certain retirement, college, or health plans
 - Personal trusts established for the benefit of natural persons
 - Estates

Overview of Key SEC Changes to Money Market Fund Rules

Retail Fund Exemption — Examples Not Retail

- Accounts that are not beneficially owned by natural persons (for example, accounts not associated with social security numbers), such as those opened by
 - ▣ Businesses, including small businesses
 - Corporations, partnerships, limited liability companies, business trusts, or other businesses requiring TINs
 - ▣ State and Local Governments
 - ▣ Defined benefit plans, or
 - ▣ Endowments

would not qualify as retail MMFs

Many questions remain



Overview of Key SEC Changes to Money Market Fund Rules

Reform	Implementation Date	Description
Floating Net Asset Value	10/14/16	Impose a floating net asset value (NAV) requirement on certain money market funds: <ul style="list-style-type: none">• Institutional-prime and institutional-municipal funds must float their NAVs per share to the nearest 1/100th of a cent (e.g., \$1.0000).

Overview of Key SEC Changes to Money Market Fund Rules

Floating NAV – what does it mean?

- Floating NAV MMF must compute its NAV in compliance with rule 2a-4 (definition of “current net asset value”), limiting its use of amortized cost as a fair value to securities with 60 days or less remaining to maturity
 - ▣ Government and retail MMFs may use amortized cost, but must shadow price daily
- Floating NAV MMFS must calculate their NAV per share rounded to the nearest basis point (e.g., \$1.000, \$10.000, or \$100.00)
 - ▣ Government and retail MMFs may penny round

Overview of Key SEC Changes to Money Market Fund Rules

Reform	Implementation Date	Description
Fees and gates	10/14/16	<p>Impose a fees and gates rule on all money market funds (except government funds) as follows:</p> <ul style="list-style-type: none">• Fund boards will have discretion to impose either a liquidity fee of up to 2% or a temporary suspension of redemptions (gate) if a fund's level of weekly liquid assets falls below 30% of its total assets and the board determines that the fee or gate is in the best interest of the fund's shareholders.• Fund boards will be required to impose a liquidity fee of 1% if a fund's level of weekly liquid assets falls below 10%, unless the board determines it is not in the best interests of the fund's shareholders.• Gates are limited to no more than 10 business days and the fund's board may lift the gate sooner.• The SEC stated that it expects fees and gates will be used only rarely, in extreme circumstances when needed to protect the interests of fund shareholders.

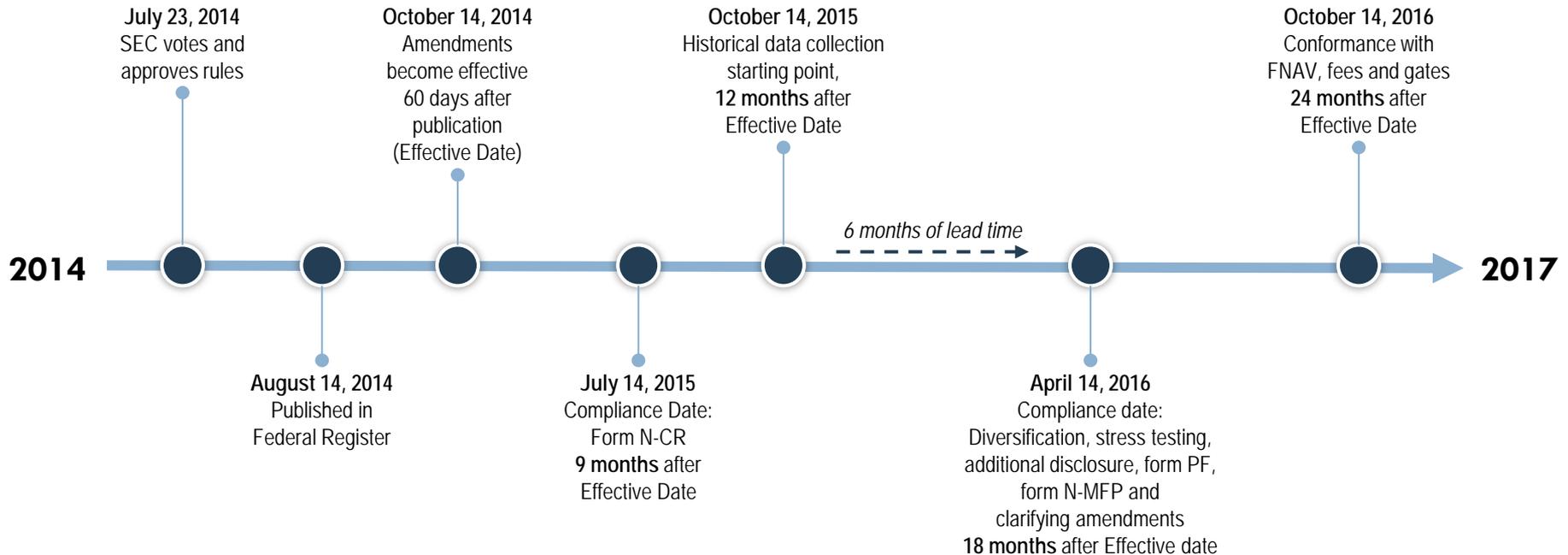
Overview of Key SEC Changes to Money Market Fund Rules

Fees and Gates

- Applicable to all MMFs other than us government MMFs:
- Board can impose up to 2% “Liquidity Fee” (redemption fee) and/or “Redemption Gate” (temporary block on redemptions)
 - If weekly liquid assets (WLA) fall below 30% of total assets
- A 1% fee must be imposed if WLA fall below 10% of total assets unless Board decides otherwise
- Cannot gate more than 10 business days in any 90-day period
- Must remove fee or gate the day after WLA \geq 30%
- U.S. government MMFs may opt into fees/gates (although unlikely to be of use, as government MMFs typically hold a high percentage of WLA)

Overview of Key SEC Changes to Money Market Fund Rules

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Overview of Key SEC Changes to Money Market Fund Rules

Fund Type	Net asset value	Liquidity fee/redemption gate
U.S. Treasury	Stable	No
Government	Stable	No
Retail prime	Stable	Yes
Retail municipal	Stable	Yes
Institutional prime	Floating	Yes
Institutional municipal	Floating	Yes

Overview of Key SEC Changes to Money Market Fund Rules

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- Amortized Cost (\$1.00)
 - ▣ Government MMFs
 - ▣ Retail MMFs

- Market-Based Pricing (\$1.0000)
 - ▣ Institutional Prime
 - ▣ Institutional Municipal

Money Market Fund Rules Will Not Apply to LGIPs

- Money market funds are regulated by the SEC
- Certain LGIPs follow guidance from GASB
- LAIF, county investment pools, and other LGIPs will not have to move to a floating NAV

Why Weighted Average Maturity Should Matter to You

Value of a \$1.00 Investment

Weighted Average Maturity (WAM)

	Money Market Fund		Mutual Fund			
	<u>30 Days</u>	<u>60 Days</u>	<u>90 Days</u>	<u>180 Days</u>	<u>1 Year</u>	<u>1.5 Years</u>
If Rates Rise 3%	0.9975	0.9950	0.9925	0.9850	0.9700	0.9550
If Rates Rise 2%	0.9983	0.9967	0.9950	0.9900	0.9800	0.9700
If Rates Rise 1%	0.9992	0.9983	0.9975	0.9950	0.9900	0.9850
If Rates Rise 0.5%	0.9996	0.9992	0.9988	0.9975	0.9950	0.9925
If Rates Unchanged	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
If Rates Fall 0.5%	1.0004	1.0008	1.0013	1.0025	1.0050	1.0075
If Rates Fall 1%	1.0008	1.0017	1.0025	1.0050	1.0100	1.0150
If Rates Fall 2%	1.0017	1.0033	1.0050	1.0100	1.0200	1.0300
If Rates Fall 3%	1.0025	1.0050	1.0075	1.0150	1.0300	1.0450

NAV changes, share price changes, and dollar losses assume an immediate change in interest rates.

Stable vs. Variable NAV

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- If an LGIP meets the criteria put forth by GASB, the LGIP will be able to round its NAV to the nearest penny.

Impact of 1% Rate Increase

	Stable NAV LGIP	Variable NAV MMF	Variable NAV Mutual Fund or LGIP
WAM	60 days	60 days	1.5 years
NAV	0.9983	0.9983	0.9850
Share price	\$1.0000	\$0.9983	\$0.9850
Loss on \$10 million	\$0	\$17,000	\$150,000
Loss on \$50 million	\$0	\$85,000	\$750,000

NAV changes, share price changes, and dollar losses assume an immediate change in interest rates. For illustrative and educational purposes only.

POOL SAFETY

**Do Not Dive In
Without
Reading the
Rules**

CAMP CODE 110

Analyzing Investment Pools

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- Does the pool meet your investment objectives?
- Are you okay with all the investments allowed by the pool's investment policy?
- Are you okay with the pool's maximum WAM and what it means for the variability of the value of a \$1.00 investment?
- Do you understand the manager's objectives for the portfolio?

What You Need to Know When Making Comparisons

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- Methodology for interest calculation
- Frequency of interest payments
- How the pool treats gains and losses
- Administrative expenses
- Yield compared to market yields
- Safekeeping/custody practices
- Independent audits
- Reporting
- Limitations on investments and withdrawals



LAIF Contact Information

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LAIF

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LAIF Emergency Numbers

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Investment Division

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www.treasurer.ca.gov/pmia-laif/laif.asp

QUESTIONS