



Session 6: Understanding Cash Flow and Forecasting, Part 1 - Concepts

INVESTMENT PLAN AND EXECUTION

CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION
CALIFORNIA MUNICIPAL TREASURERS ASSOCIATION

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Successful Investment Plan Aligns Appropriate Strategy for Purpose

- **Immediate Reserves: <12 months**
 - T-bills/Agency discount notes/CD's
 - Commercial Paper
 - Local Government Investment Pools
- **Semi-Permanent Reserves: 1-5 Years**
 - Treasury Notes/Agency Notes
 - Investment Grade Corporate Bonds
 - Taxable Municipal Bonds
 - Agency Mortgage Securities
- **Permanent Reserves: 5+ Years**
 - Investment Grade Corporate Bonds
 - Mortgage Pass Thru Bonds
 - Taxable Municipal Bonds
 - Treasury Notes / Agency Notes
- **Pension / OPEB : Long Horizon**
 - Corporate Bonds
 - Zero Coupon Treasury/Agency Bonds
 - Equities / Stocks

- Periodically Review & Update Your Investment Policy
 - Authorized investments
 - Diversification
 - Maturity
 - Asset class

EXECUTING INVESTMENT PLAN

- **Broker-Dealer – Self-directed investments**
 - You make all investment decisions
 - Sell investment products (Treasuries, Agencies, Corporates)

- **Investment Advisor – Investment management**
 - Discretionary or Non-discretionary management
 - Separately managed accounts
 - Investment funds/pools

WHEN TO UTILIZE?

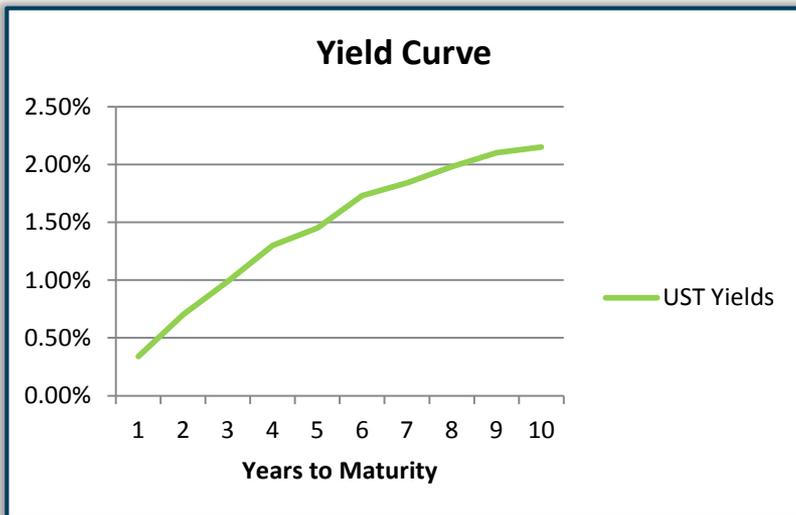
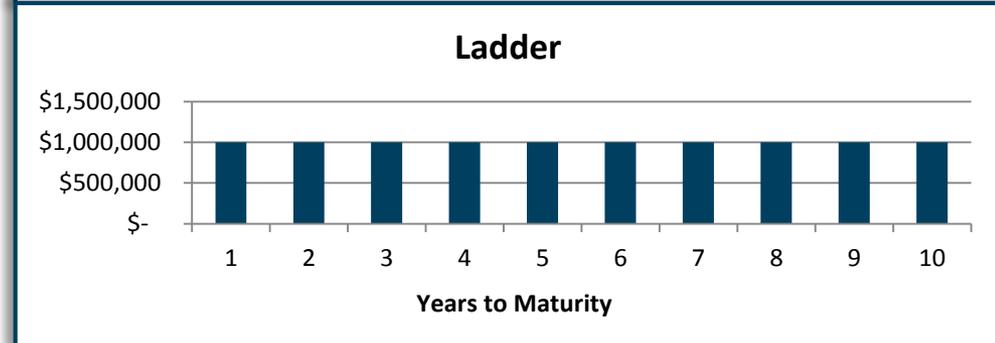
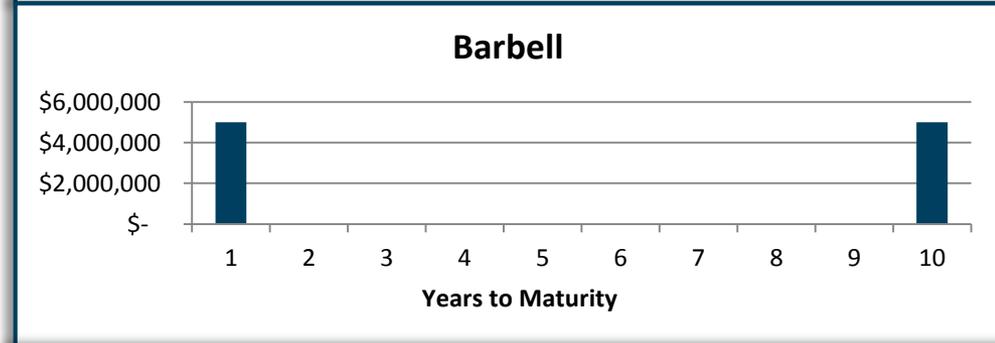
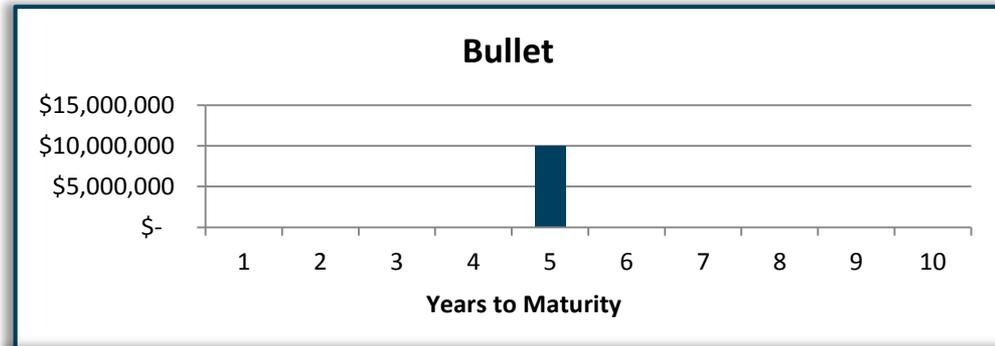
Asset type	LGIP	Broker/Dealer Bank Products	Investment Advisor
Highly Liquid Funds < 9 month	+	+	↔
Medium Term Funds > 1.0 to 2.0 years	↔	+	+
Core Funds > 2.0 years	↔	↔	+
Bond Proceeds (depends on use)		↔	↔
Self Insurance Assets			+
OPEB/Pension Assets			+

POWER OF A LADDER

- Reinvest over time
- Similar to dollar cost averaging in stocks
- Works in all rate environments
 - Rates Fall: Locked in higher yields in longer maturities
 - Rates Stable: Longer maturities will enhance yield
 - Rates Rise: Reinvest at higher yields as bonds mature

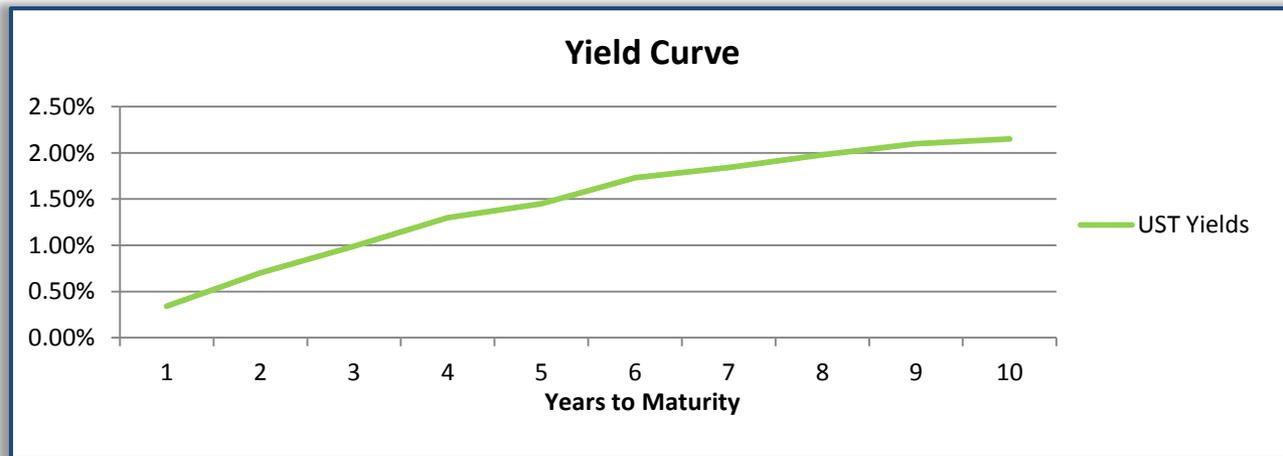
YIELD CURVE STRATEGIES

- \$10 Million Portfolio
- Average Maturity: 5 Years
- Portfolio Yield:
 - Bullet: 1.45%
 - Barbell: 1.24%
 - Ladder: 1.46%



ROLLING DOWN THE YIELD

- In a positively sloped yield curve environment, as the bond ages, it will be re-priced at a lower yield which leads to a higher price
- This enhances the price component of return leading to a total return that is greater than the purchase yield
 - Example: 5-year UST yield 1.45% Price: 99.68
 - Next year this bond will be a 4-year yielding 1.30% Price: 100.29
 - Price change: +.61 Total return: +1.98%
- Find the steepest part of the yield curve to maximize the roll-down strategy



MAINTAIN LIQUIDITY

- Cash flow analysis
 - Keep it simple
 - Be realistic
- Remember unusual expenditures

GENERATE INCOME

- Understand market realities
 - You can't "beat" the market over time
 - Extending maturity increases yield and interest rate risk
 - Match assets and liabilities to reduce risk and provide efficient investing
 - Remember, the market is efficient
- Seek best execution through competitive bids

INVESTMENT APPROACH

- *Invest only in allowable investments*
- *Tailor strategy to meet investment goals*
- *Invest with a disciplined investment plan*
- *Thoroughly understand each investment*



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