



Cash & Investment Management: Building a Strategy for Predictable Income

MTAW 2023 Fall Conference

Today's Agenda



Investment Basics



Cash & Investment Management



Investment Strategies



Investment Basics

KEY TERMS & COMMON INVESTMENTS

Learning the Lingo

The background of the slide is a close-up photograph of water with several concentric ripples. The ripples are created by droplets falling into the water, with the most prominent ones in the lower-left and center-right areas. The water is a light blue color, and the ripples create a sense of movement and depth.

Liquidity: The ease with which an investment can be bought or sold at stated market value and considering transaction costs

Learning the Lingo

Maturity: The stated date upon which the issuer must pay the principal balance to security holders

- Bullet
- Periodic



Learning the Lingo

Principal/Face Amount:
The stated value of an investment (AKA par)



Learning the Lingo

Optional Redemption or “Call” Date:

- Issuers may retain right to pay off bonds – at face or premium value – PRIOR to stated maturity
- Some securities require issuer make bondholders “whole” if exercising optional redemption
 - ✓ Pay bondholders present value of remaining interest

Call Date:
July 1, 2021

2 years' foregone interest

Maturity Date:
July 1, 2023

Learning the Lingo



Coupon: The stated interest rate issuers pay bondholders

Fixed
Variable



Yield: The measure of investor return considering all net cash flows while holding security

May or may not be guaranteed
Yield MAY NOT equal coupon

Learning the Lingo



Premium

- Amount paid for a security in excess of face or par value



Discount

- Amount paid for a security below face or par value



Learning the Lingo

Market Value

- Prevailing or current trading value of a security

Book Value

- Accounting value for a security (price paid +/- premium or discount)

Learning the Lingo: Putting it all Together

3135G0Q22 FNMA FEDERAL NATIONAL MORTGAGE ASSOCIATION

1.875%

09/24/26

AGCY

Details

CUSIP	3135G0Q22
Form	Book Entry
Cpn Freq	Semi-Ann
Cpn Type	Fixed
Benchmark	
Cpn Detail	
Day Count	30/360

Attributes

Sinker	No
Survivor Opt	No

Call Schedule

Callable	No
Par Call	
Sinkable	No
Coupon Dates	Yes
Extraordinary Call	No
Putable	No
Avg. Life	
Step Schedule	No
Put/Call Minimum Notice	
Pre-Re Date	
Make Whole Call	No

All ▼

Date	Side	Qty	Price	Yield	Sprd	Idx
CEP Eval.			104.471	1.03	N/A	
04-01-21	D	8	104.470	1.03	N/A	
04-01-21	B	8	104.470	1.03	N/A	

Ratings

Moody's / S & P	Aaa	AA+
Underlying		
Short Term		

Issuance

Issue Date	09/23/2016
Dated Date	09/27/2016
Orig. Settle	09/27/2016
First Cpn	03/24/2017
Int Acc Date	09/27/2016
Issue Price	99.367000
Issue Yield	1.945
Amt Issued	3,500,000,000
Outstanding Size	3,500,000,000
Min Amt	2
Denom Amt	1

Learning the Lingo: Putting it all Together

3135G0Q22 FNMA FEDERAL NATIONAL MORTGAGE ASSOCIATION		1.875%	09/24/26	AGCY
Ratings: Aaa/AA+	Next Call: NC	Cpn Type: Fixed	Issued (MM): 3,500	
	Min/Den: 2/1	Cpn Freq: Semi-Annual	Outstd (MM): 3,500	
Attributes:		Cpn Detail:		
Ticket Details		Worksheet	Characteristics	%Yield Tax Equiv.
Side	Buy	Price	\$104.888806	Price To Maturity 09/24/26
Quantity (000s)	100	Principal	\$104,888.81	YTW 0.955 0.602
Price	104.88880	Accrued (12 Days)	\$62.50	YTM 0.955 0.602
Concession (Less)	0	Net Money	\$104,951.31	Par Call N/A N/A
Fee	0	Fee	\$0.00	Premium Call N/A N/A
Yield	0.955	Total Money	\$104,951.31	Current Yield 1.788 1.126
Settlement	04/06/21	Ttl Sales Credit	\$0.00	Avg. Life N/A N/A
				Next Sink N/A N/A
				YTW w/Fee 0.955 0.602
				Duration (Yrs) 5.226
				Convexity 0.304
				Position01 (\$) 54.582
				Spread
				Tax Rate 37

Permissible Investments

Wisc. Statutes 66.0603

- Time deposits (Certificate of Deposit)
- Securities issued or guaranteed by federal government, its commission, board or other instrumentality “Treasuries” or “Agencies”
- Municipal bonds/notes of Wisconsin municipalities



Permissible Investments

Wisc. Statutes 66.0603

- **All other securities must:**
 - ✓ Mature no more than 7 years from acquisition
 - ✓ Carry highest or second highest credit rating category

EXAMPLES:

- Municipal bonds issued in any other state
- Corporate obligations
- Asset-backed securities

Permissible Investments

Wisc. Statutes 66.0603

- **Securities of an open-end management investment company or investment trust if:**
 - ✓ They're registered
 - ✓ Do not charge sales load
 - ✓ They invest in US government, commission, board securities
 - ✓ Repurchase agreements are fully collateralized

EXAMPLES:

- Money market & mutual funds

Permissible Investments

Wisc. Statutes 66.0603

- Local government pooled-investment fund (LGIP)



Common Investment Risks

Liquidity Risk:

- The risk, or inability, to convert an asset into cash quickly with minimal transaction costs

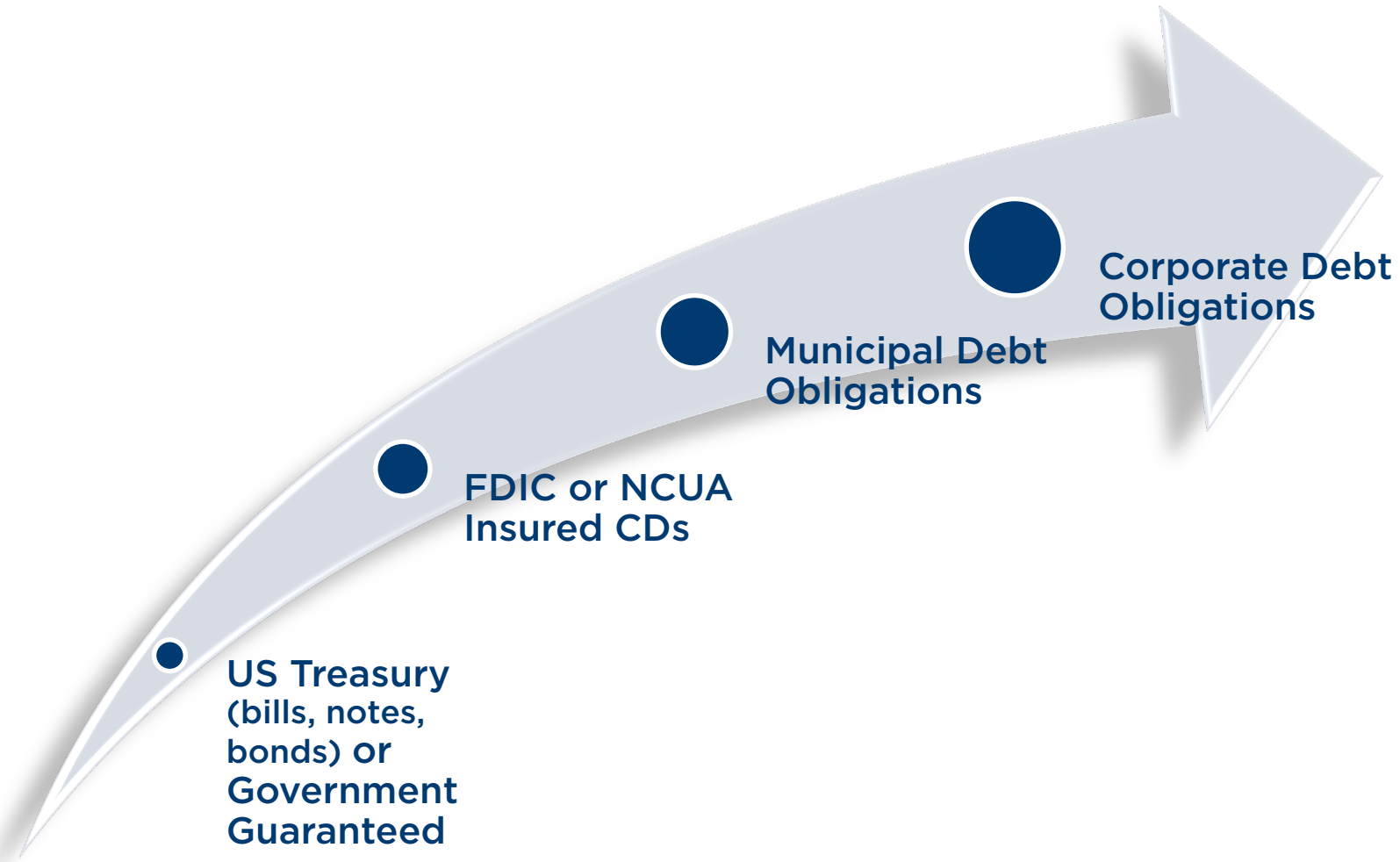
Credit Risk:

- the risk that an issuer or other counterparty to an investment will not fulfill its obligation(s)

Market/Interest Rate Risk:

- The risk that changes in interest rates will adversely affect value of investment

Credit Risk: Lowest to Highest



Fixed Rate vs. Variable Rate

Fixed Rate:

- Predictable income & maturity schedule for budget

Variable Rate:

- Rate (value in some cases) may fluctuate
- Cannot predict income for budget

Let's Talk!



Market Players & Their Roles

Broker

- Matches buyers & sellers
- Holds NO inventory
- Compensated via commission

Dealer

- Buys & sells as broker (agent) and for itself (principal)
- Keeps inventory
- Compensated via commission or “spread”

Both Must

- Treat all parties fairly
- Provide certain disclosures
- Maintain suitability standard of care

Market Players & Their Roles

Investment Provider

- Direct counterparty
- Often holds funds through maturity
- Cannot act as fiduciary
- Compensated via spread

Registered Investment Adviser

- Provides fee-based advice
- Can't charge commission or spread
- Must act as fiduciary
- Typically, does not serve as custodian

Market Players & Their Roles



**Safekeeping
& Custody**

**Negotiated CDs kept
with issuing bank.**

Safekeeping & Custody

Brokerage Custody

- Cash & securities held FBO client
- Referred to as “street name”
- Broker/dealer can lend client securities
- Your assets considered their assets, subject to creditor claims
- SIPC insured up to \$500,000, covers face value
- Likely no fees assessed
- May be able to trade with any broker/dealer

Safekeeping & Custody

Independent Bank Custody

- Cash & securities held in your name
- Your assets, not likely subject to bank's creditors
- Can authorize lending, be compensated
- Can trade with any broker/dealer
- Investment adviser may receive limited authority to transact on your behalf
- Fee-based relationship



Cash & Investment Management

CASH FLOWS & INCOME PROJECTIONS

Investment Program

Cash & investment management = core financial function

Building assets takes years, poor investing can create losses within days

Reliable income source focused on preserving principal

Liquidity, cash balances for operations & capital projects

Governance for appropriate risk mitigation, transparency & continuity

Effective Cash Management

Forecast for Operational Funds

Core vs. liquidity

Treasury management, banking
analysis statements &
investments

Build predictable income to
avoid short-term borrowing and
support budget

Project Forecast

Project timeline

Bond proceeds investing

Offset rising costs of
goods/services & project delays

Budget & Project Planning



Plan ahead

- Increases in costs of goods & services
- Increases in property values
- More income opportunities to support budgets



Create a cash management strategy

- Dovetail with long-range planning
- Avoid idle cash
- Avoid short-term borrowing or liquidating investments prior to maturity

Optimize Earnings: Manage Balances Efficiently



Develop a cash
forecast

Analyze bank
services

Investigate
investment
options

Cash Flow Forecasting



Identifies liquidity needs in operational or project cash balances.



Uncovers cash shortfalls or irregularities.
Minimizes borrowing needs or liquidation of longer-term investments



Optimizes investment opportunities.
Put idle cash to work!

Quick Cash Flow Model

- Gather 2-3 years of monthly:
 - ✓ Bank statements
 - ✓ Receipts
 - ✓ Disbursements
- Identify your “perfect storm”

Lowest 24-36 Month Bank Balance	\$8,000,000
Lowest Revenue Collection Month	\$1,000,000
Highest Expenditure Total Month	\$2,000,000
Worst Case Liquidity Scenario	\$7,000,000

Cash Management

Liquidity = actual cash or near liquid balances

- Funds can be invested: use pool, money market, or other 30-/60-day investments

Core = longer term reserve funds

- Funds should be invested with maturities to match anticipated project or major operational expenditures
- Potentially longer term, based on duration or maturity targets, investment policy

Project Funds Based on Draw Schedule

- Invest debt proceeds based upon project timeline

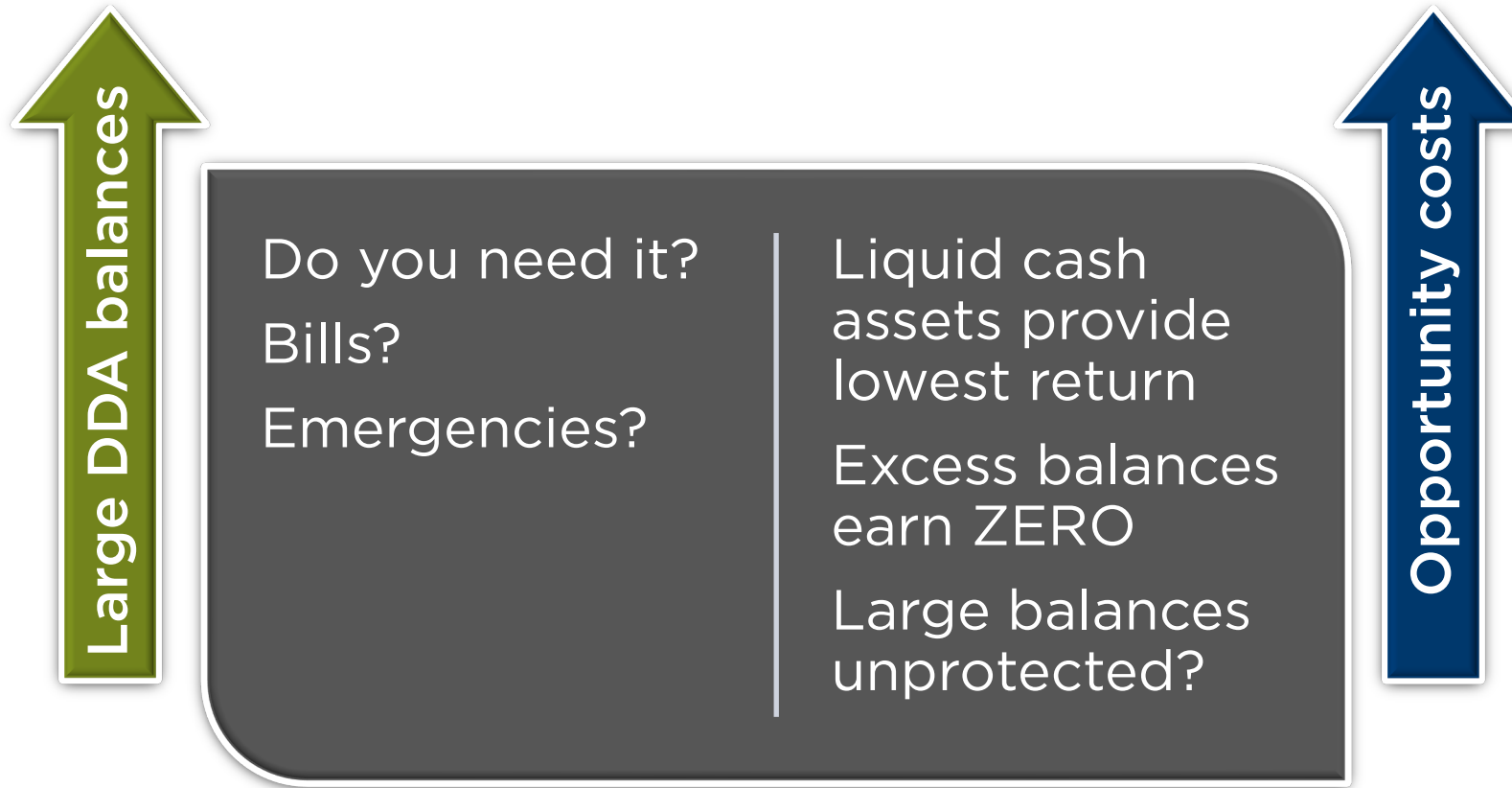
Cash Management: Analyze Bank Services



**Analyze
bank
services**

- Are bank charges competitive?
- Are you using services you're paying for?
- How are you paying for services?

Cash Management: The DDA Conundrum



Reading Your Account Analysis Statement



Balance summary

- Ledger vs. collected vs. investable balance

Results summary

- Earnings credit vs. analyzed fees

Bank service detail

- Review services & charges at least annually

Balances or Sweep? How to Choose

IF...	...THEN
<ul style="list-style-type: none">• Earnings credit > sweep/investment rates	<ul style="list-style-type: none">• MAY be better to pay fees with balances
<ul style="list-style-type: none">• Sweep or investments > earnings credit	<ul style="list-style-type: none">• Invest as much as possible• Pay bank fees
<ul style="list-style-type: none">• More balance than needed for bank fees	<ul style="list-style-type: none">• Sweep or invest excess balances

Cash Management: Investments



**Investigate
investment
options**

- Invest idle cash?
- For how long?
- Develop Investment Program



Investment Strategies

SEEKING TO OPTIMIZE INVESTMENT RETURNS

Interest Rates

Fed funds rate initially expected to remain low through 2023

Persistent inflation tightening monetary policy to combat it

Additional rate increases?

What about potential rate decreases??

Inflation & Federal Funds Rate

Inflation

- Highest measures in 40 years
- Inflationary pressure leads to reduction in value of a dollar today & received in the future

Consumer Price Index (CPI)

- Increased 3.18% (for 12 months ending 7/31/23)
- Up from 3.00% in June
- Delays in supply chain/rising energy prices

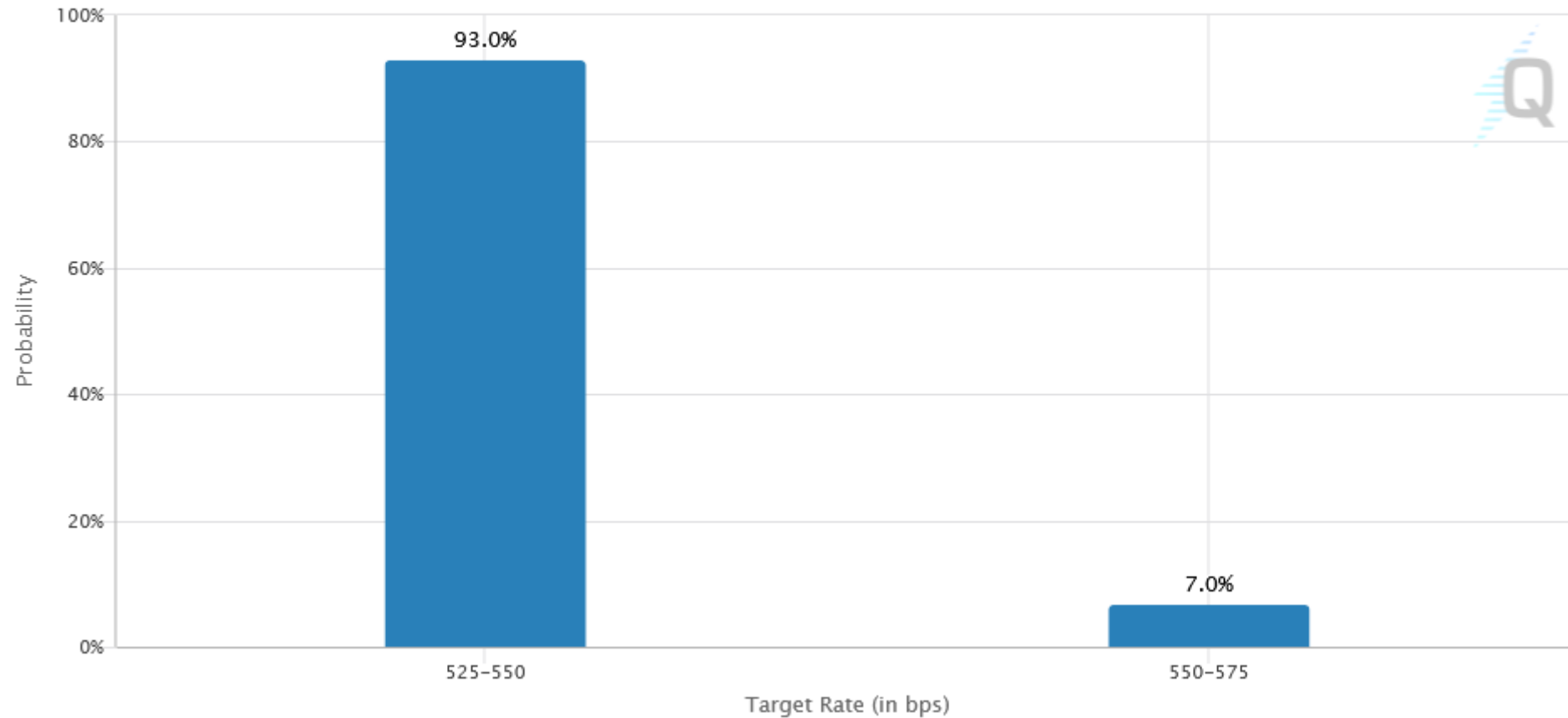
Federal Open Market Committee (FOMC)

- Fed funds range of 5.25% - 5.50% (last time 2007)
- Began the year at 4.25% - 4.50%
- Increase in rates to reduce inflation

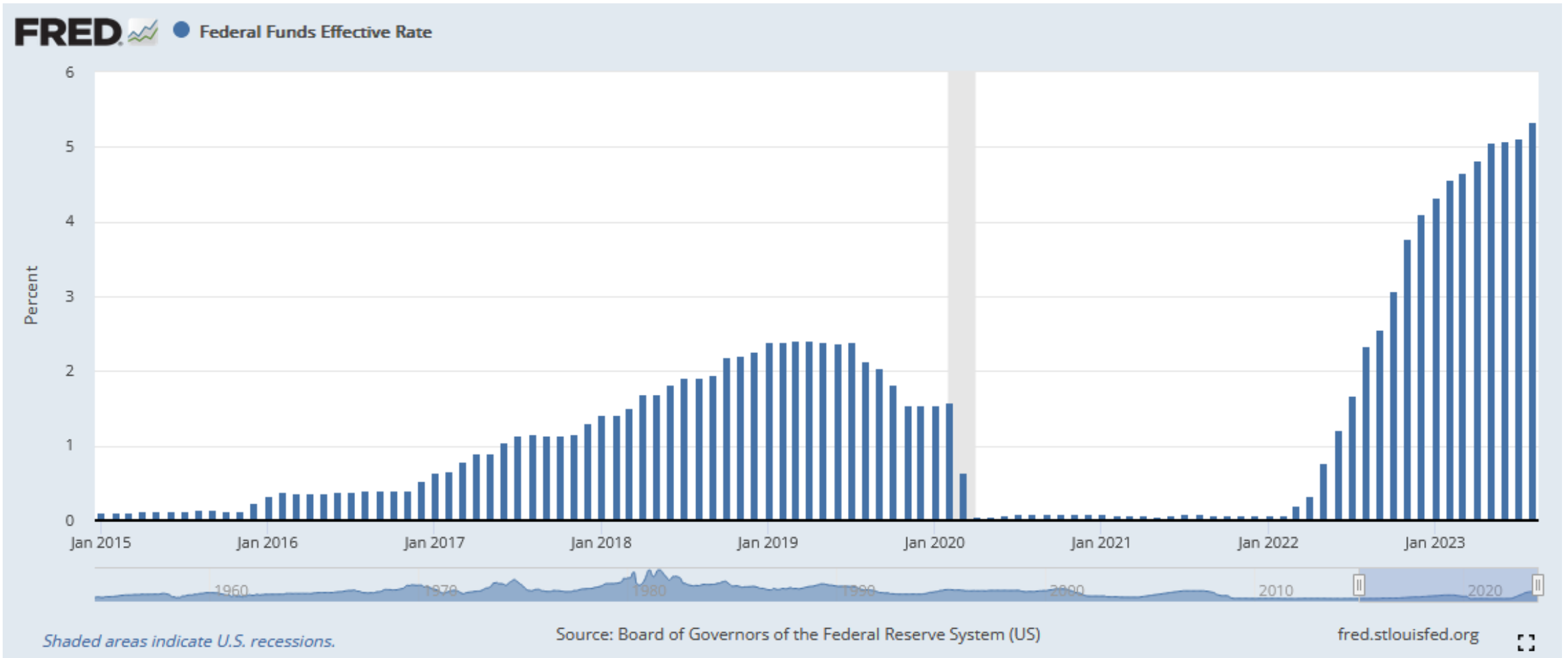
Market Trends: Federal Funds Rate

TARGET RATE PROBABILITIES FOR 20 SEP 2023 FED MEETING

Current target rate is 525-550

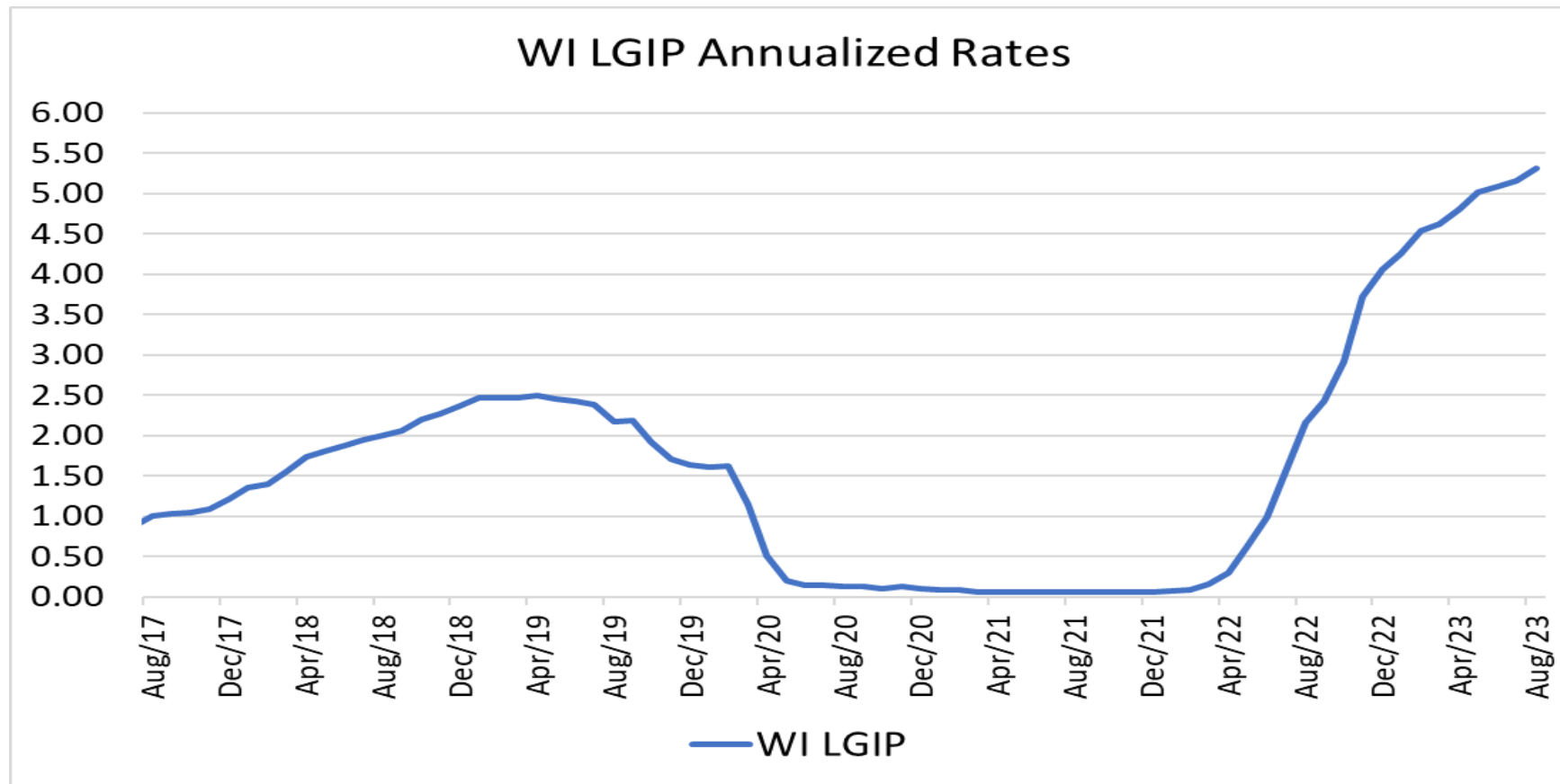


Market Trends: Federal Funds Rate



Market Trends: WI LGIP

Rising rates = cash management & investing opportunities



Market Trends: Fixed Income

Market Rate Comparison as of 09/07/2023

	Taxable Municipal Debt Obligations	Tax-Exempt Municipal Debt Obligations	US Agency	US Treasury	National CD Markets
30 Day	N/A	3.48	5.23	5.35	5.38
60 Day	N/A	3.63	5.32	5.40	5.35
90 Day	5.7	3.88	5.46	5.45	5.35
6 Month	5.5	3.9	5.49	5.52	5.60
12 Month	5.62	3.98	5.56	5.40	5.75
24 Month	5.5	4.17	5.75	4.95	5.55

Market rates, including local bank rates, subject to change and availability.

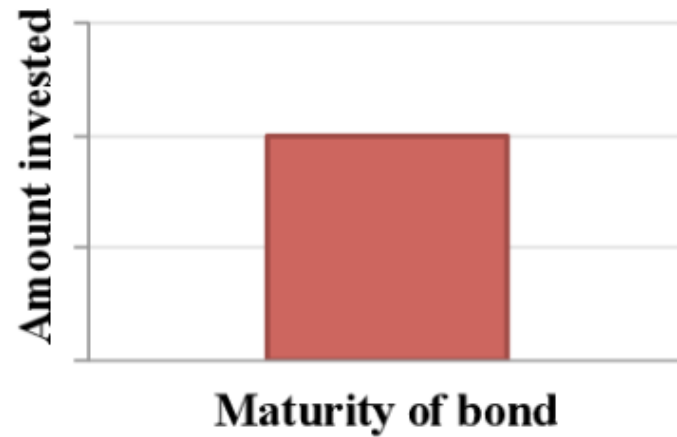
Municipal debt obligations, US Agency, and US Treasury rates based highest rates currently available on highly rated issuers.

CD Rates quoted reflective of banks and credit unions participating in FDIC or NCUA insurance coverage limits up to \$250,000.

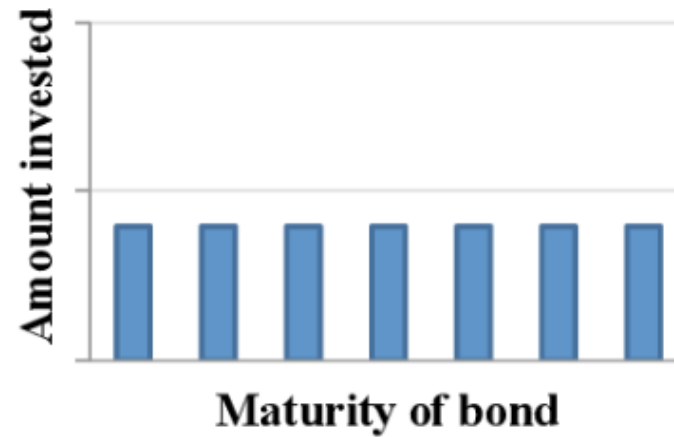
Source: Bloomberg

Basic Strategies

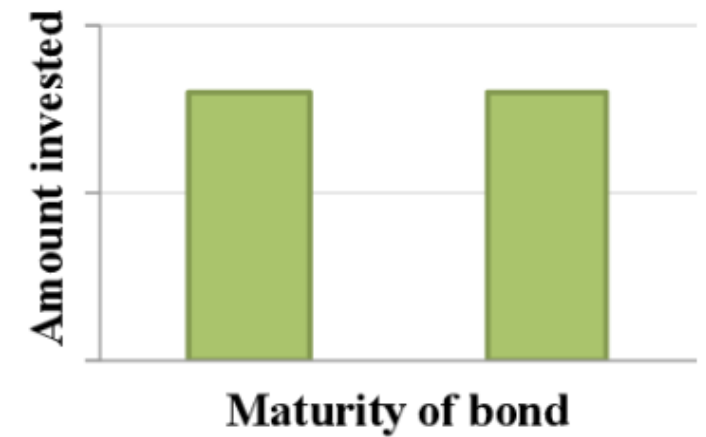
Bullet Strategy



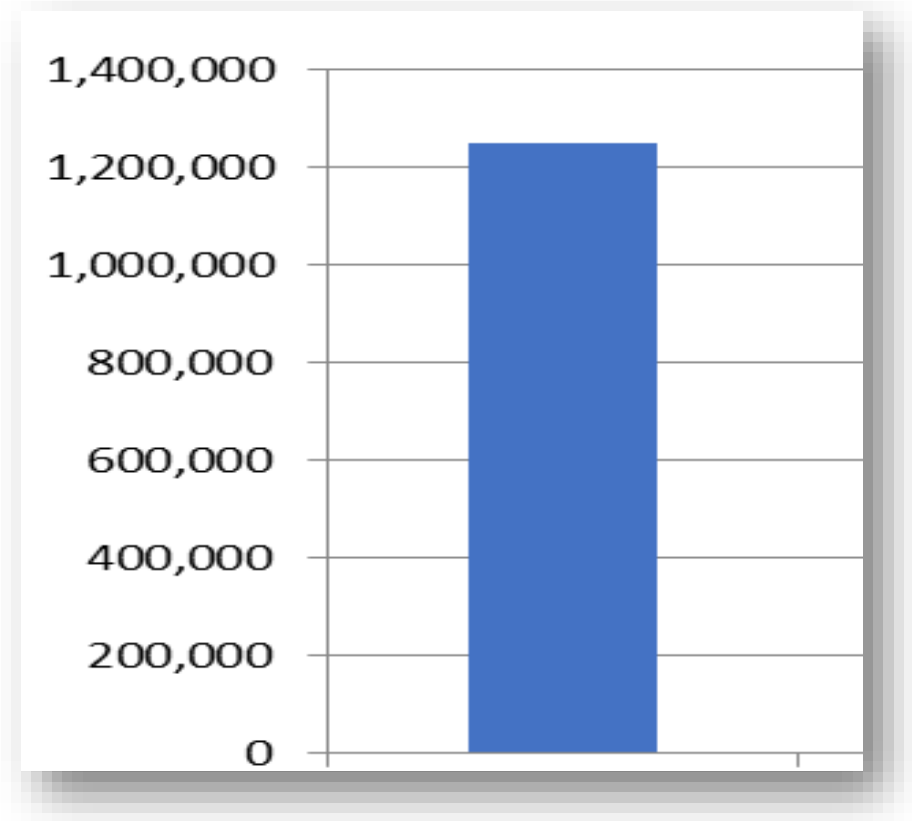
Ladder Strategy



Barbell Strategy

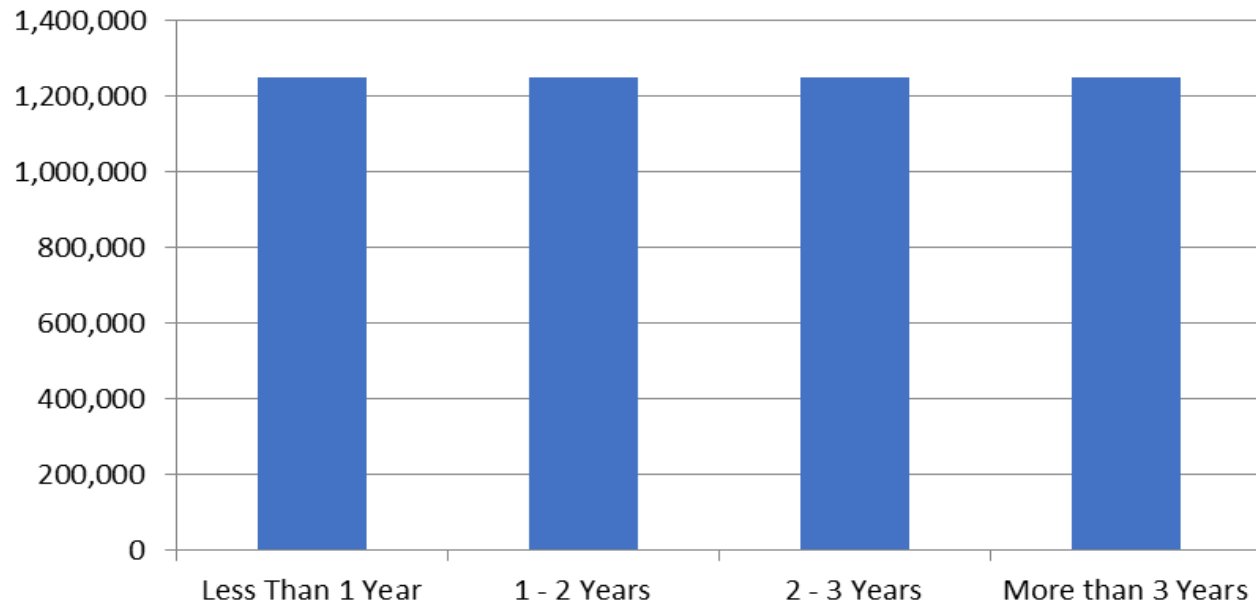


Bullet Strategy



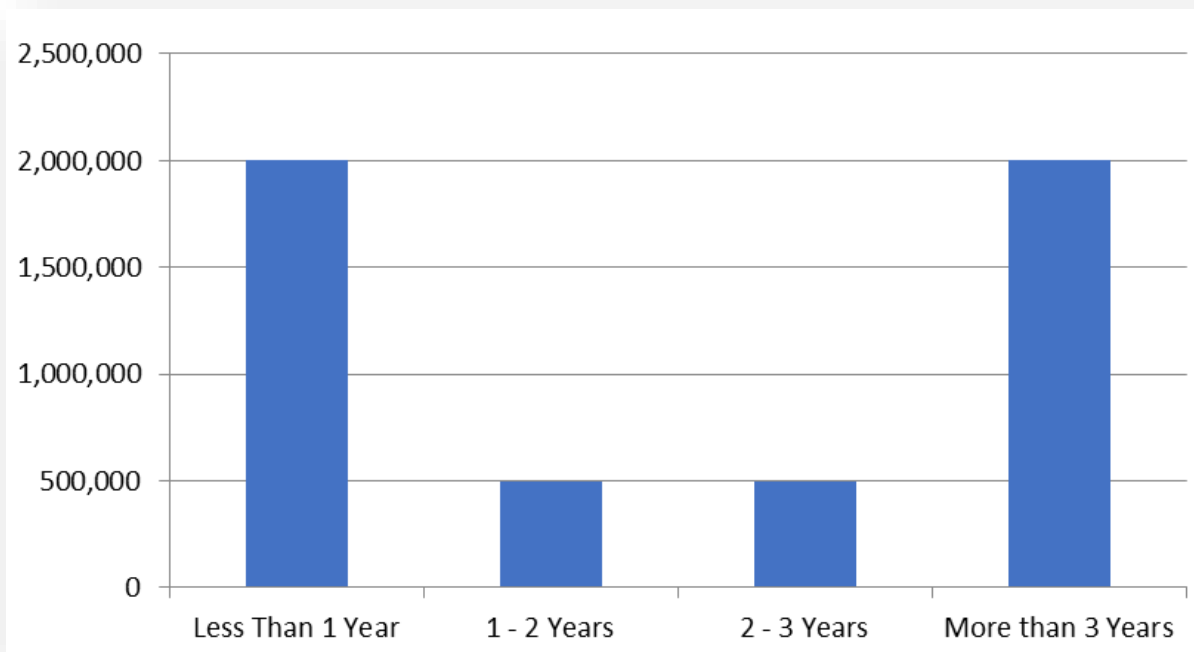
- **Goal:** Invest for an expense with generally known timing & dollar amount
- **Solution:** Bullet

Laddered Strategy



- **Goal:** Generate predictable income
- **Solution:** Bond ladder

Barbell Strategy



- **Goal:** Capture rising short-term rates & reduce income volatility in future years
- **Solution:** Barbell

Remember 3 Things

- Be aware of statutory limitations and key terms for investments
- Build your cash forecast, know your peaks and valleys - invest strategically without fear of “locking up” funds
- Leverage industry resources and professionals



Let's Talk!



Your Presenter



Tami Olszewski, CPFIM
Senior Investment Advisor
tolszewski@ehlers-inc.com
262-796-6189

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