Understanding Fixed Income Investments

FGFOA Nature Coast Chapter

July 16, 2025

Sean Gannon, CTP
Institutional Sales & Relationship Manager

pfm asset management

A Division of U.S. Bancorp Asset Management, Inc.

Meet the Presenter

Sean Gannon

Institutional Sales & Relationship Manager

Sean is based in the Atlanta, GA office and works with cities, counties, authorities, utilities and other public and non-profit organizations throughout the Southeast, providing a “high touch, high value” experience for whatever the client’s needs may be. His focus is on helping clients build out their investment program by utilizing national best practice policies. Sean’s responsibilities include performing portfolio structuring and analysis, reviewing portfolio performance, cash flow modeling, asset allocation analysis and economic research, and reporting.

Back to Basics: Key Investment Concepts

Fixed Income Securities

Definition: A debt obligation of a corporate, governmental entity, or trust.

- May provide periodic coupon payments based on a *fixed* or *floating interest rate*.
- Upon maturity, the face value or principal of the security is redeemed to the investor.

Advantages

- Competitive rates of return
- Opportunity to realize capital gains if interest rates decline
- Fixed maturity value if held to maturity
- Set coupons create predictable cash flow

Disadvantages

- Fixed coupon rate creates inflation risk
- Loss of value possible if interest rates increase
- Rating agency downgrade can negatively effect value

Key Players

Issuers

- The organizations offering or proposing to offer securities for sale to investors
- Agree to pay back the proceeds from a security sale and make the required coupon, principal and/or dividend payments
- Examples:
  - Federal Government and Agencies
  - Municipal Governments
  - Corporations

Investors

- Entities who commit money to investment products with the expectation of financial returns
- Examples:
  - Municipal Governments
  - Insurance Companies
  - Pension/Retirement Funds
  - Mutual Funds
  - You & Me

Types of Fixed Income Securities by Maturity

"Money Market Instruments"

- U.S. Treasury Bills
- Federal Agency Discount Notes
- Commercial Paper
- Bankers' Acceptances
- Repurchase Agreements
- Certificates of Deposit
- Money Market Mutual Funds

Mature in *less than* 1 Year

"Notes and Bonds"

- U.S. Treasury Notes/Bonds
- Federal Agency Notes/Bonds
- Mortgage-Backed Securities
- Corporate Notes
- Mutual Funds
  (aka Bond Funds)

Mature in *over* 1 Year

Pop Quiz

A fixed income security is a debt obligation of a corporation, governmental entity or trust.

A. True

B. False

Pop Quiz

A fixed income security is a debt obligation of a corporation, governmental entity or trust.

A. True

B. False

Basis Points

- Basis Points (bps) are a unit of measure in finance and economics
- One basis point is equivalent 1/100th of a percent

Basis Points	Percentage	Decimal
1 Basis Point	0.01%	0.0001
100 Basis Points	1.00%	0.0100
50 Basis Points	0.50%	0.0050
10 Basis Points	0.10%	0.0010

The difference between 4.90% and 4.95% is 5 basis points

Investing in Fixed Income Securities

Interest Rates

Real Interest Rate

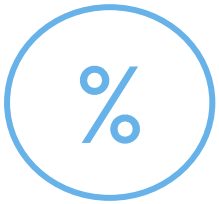
\+

Inflation Premium

\+

Risk Premium

=



Interest Rate
(aka YIELD)

Compensation to the investor

Averages 2 – 3% over long historical periods

Expectations of inflation over the investment term

Preserves the purchasing power of the investor

Compensation for current or possible risks

Source: Bloomberg, as measured by the average 2-year treasury yield over the past 25 years, ended February 1999.

The “Income” in Fixed Income

Par Value (Face Value) – principal amount of the bonds

- Amount that will be repaid by issuer
- Price may be above (premium) or below (discount) the face amount

Coupon Rate (Nominal Yield) – stated interest rate

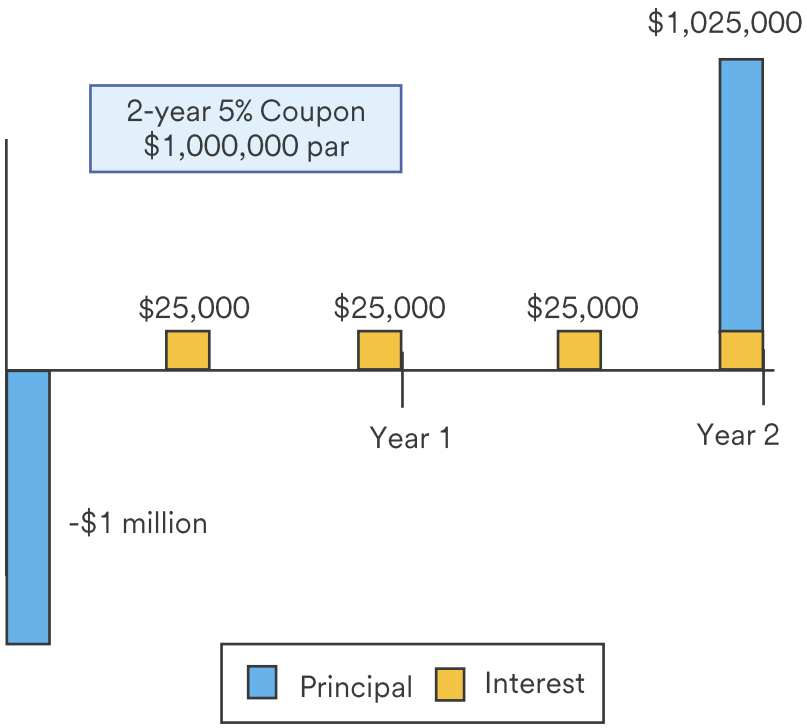
- Expressed as a fixed percentage of par

Coupon Payment – dollar value of interest payment

- Multiply the coupon rate by par value
- Typically paid semi-annually
- Last interest payment is made when the bond matures
- ***(Coupon ÷ Market Price) = Current Yield***

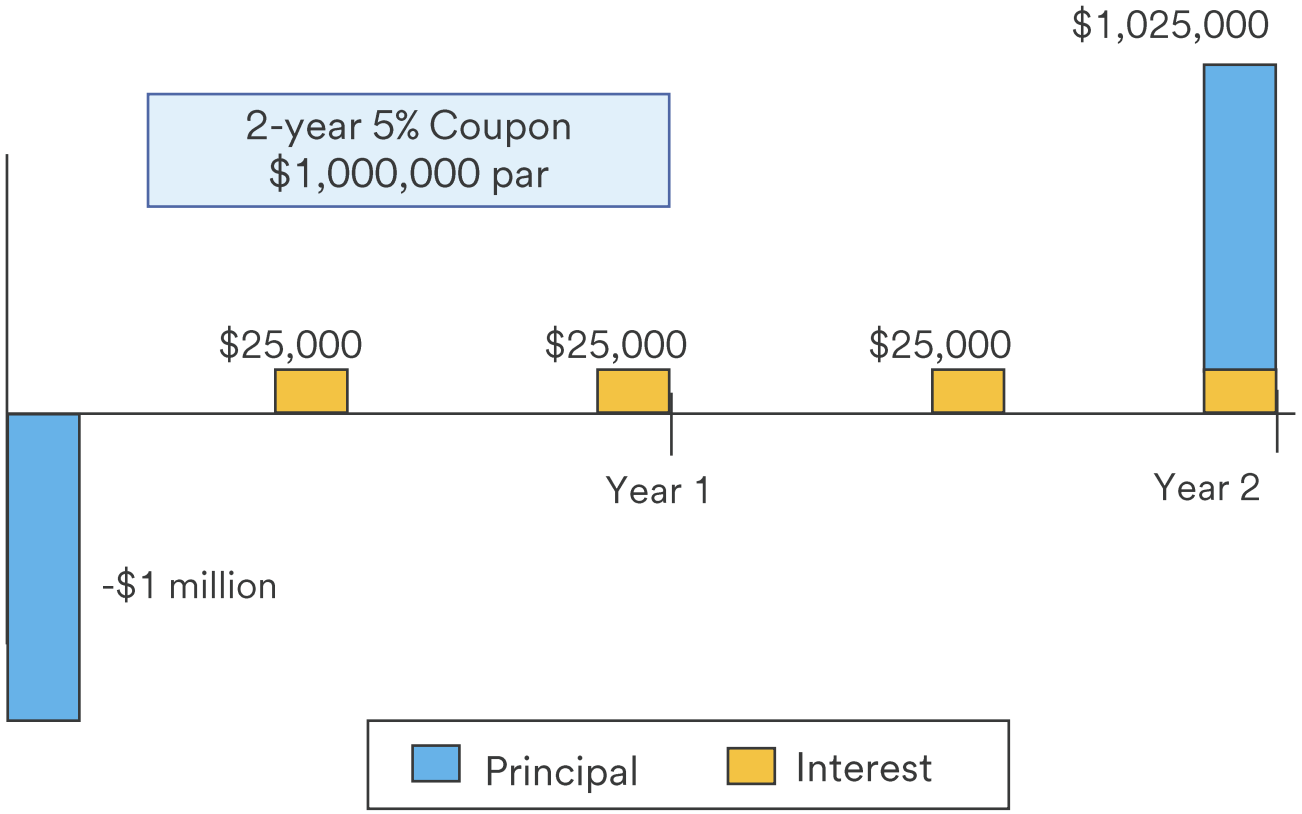
Maturity – end of investment period

- The length of time until the principal is scheduled to be repaid



For illustrative purposes only.

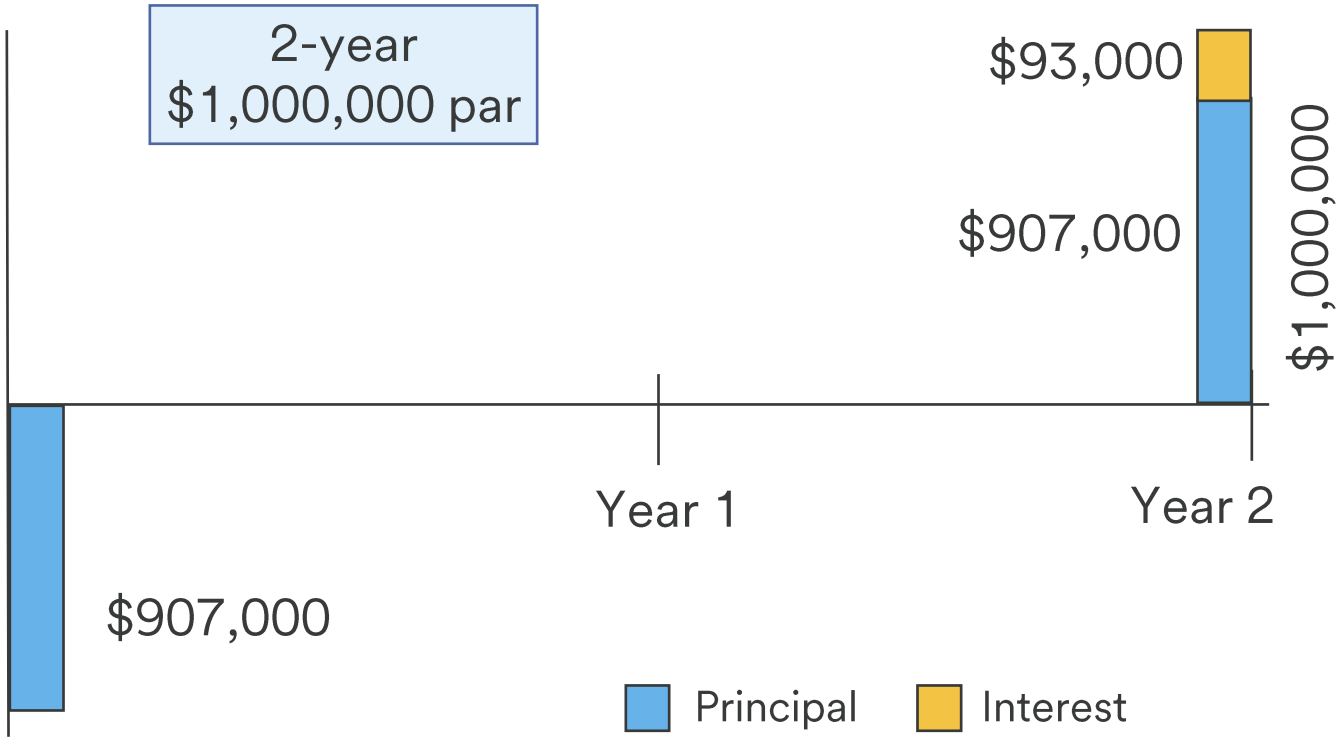
A Closer Look: Typical Coupon Security Periodic Interest Payments



For illustrative purposes only.

Zero Coupon Bonds

- No periodic interest is paid
- All income is paid at maturity
- Income is the difference between the purchase price amount and the par/face (maturity) amount
- Therefore, all are purchased at a discount (assuming interest rates are positive)



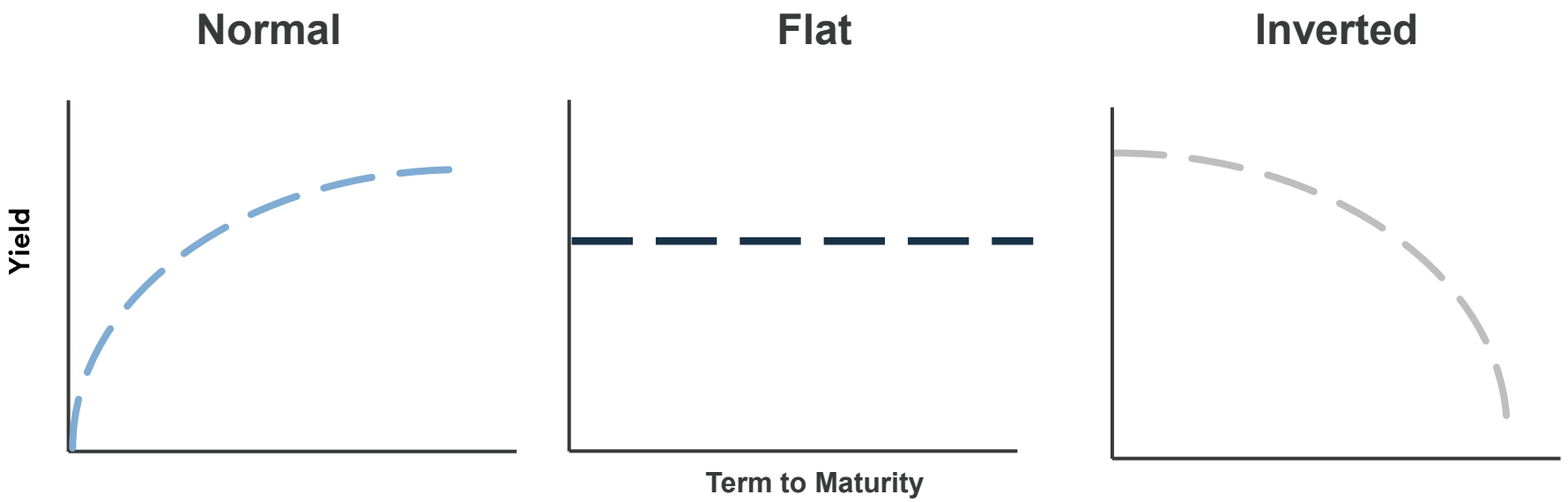
For illustrative purposes only.

Term to Maturity

- Number of years remaining in the life of the bond
- Maturity = Term = Term to Maturity = Final Maturity
- Term Bonds (Bullets) have a single, fixed maturity date
- Call Date – the date on which the issuer may redeem bonds early
- Relative Terms
  - Short Term – 1 to 5 years
  - Intermediate Term – 5 to 12 years
  - Long Term – More than 12 years

Yield Curves

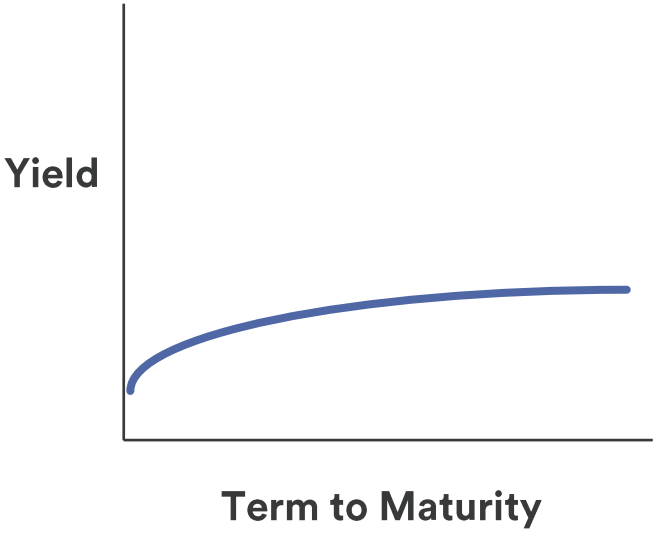
- Shows the relationship between yield and maturity.
- Rates at the short end of the curve (under 1 year) are directly correlated to the **federal funds rate** established by the Federal Open Market Committee.
- The longer end of the curve typically reflects **investor expectations.**
- There are several types of curves:



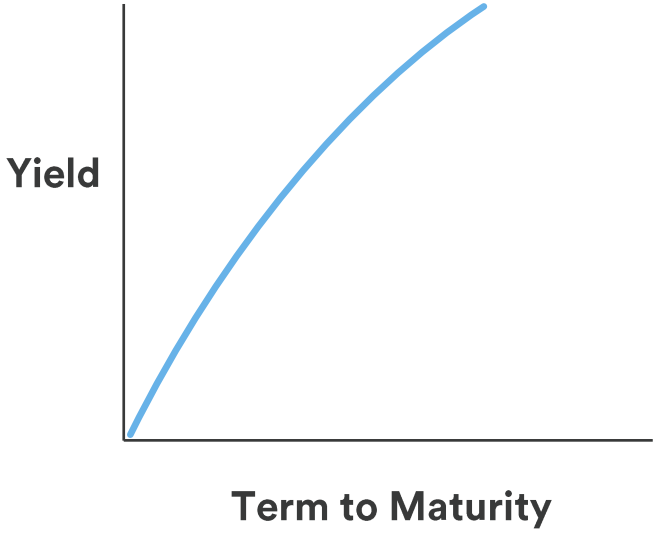
For illustrative purposes only.

Yield Curves

Flat Yield Curve (still "Positive")



Steep Yield Curve (still "Positive")



Steepness of a positively slopped curve is a result of how much greater longer-term yields are versus short term yields.

For illustrative purposes only.

Risks Commonly Associated with Fixed Income Securities

Investment Risks

Interest Rate Risk
Risk that the value of securities changes with different interest rate environments

Liquidity Risk
Risk that portfolio holdings will not be able to be sold at a competitive price

Credit Risk
Risk of default or decline in security value due to changes in creditworthiness of issuer

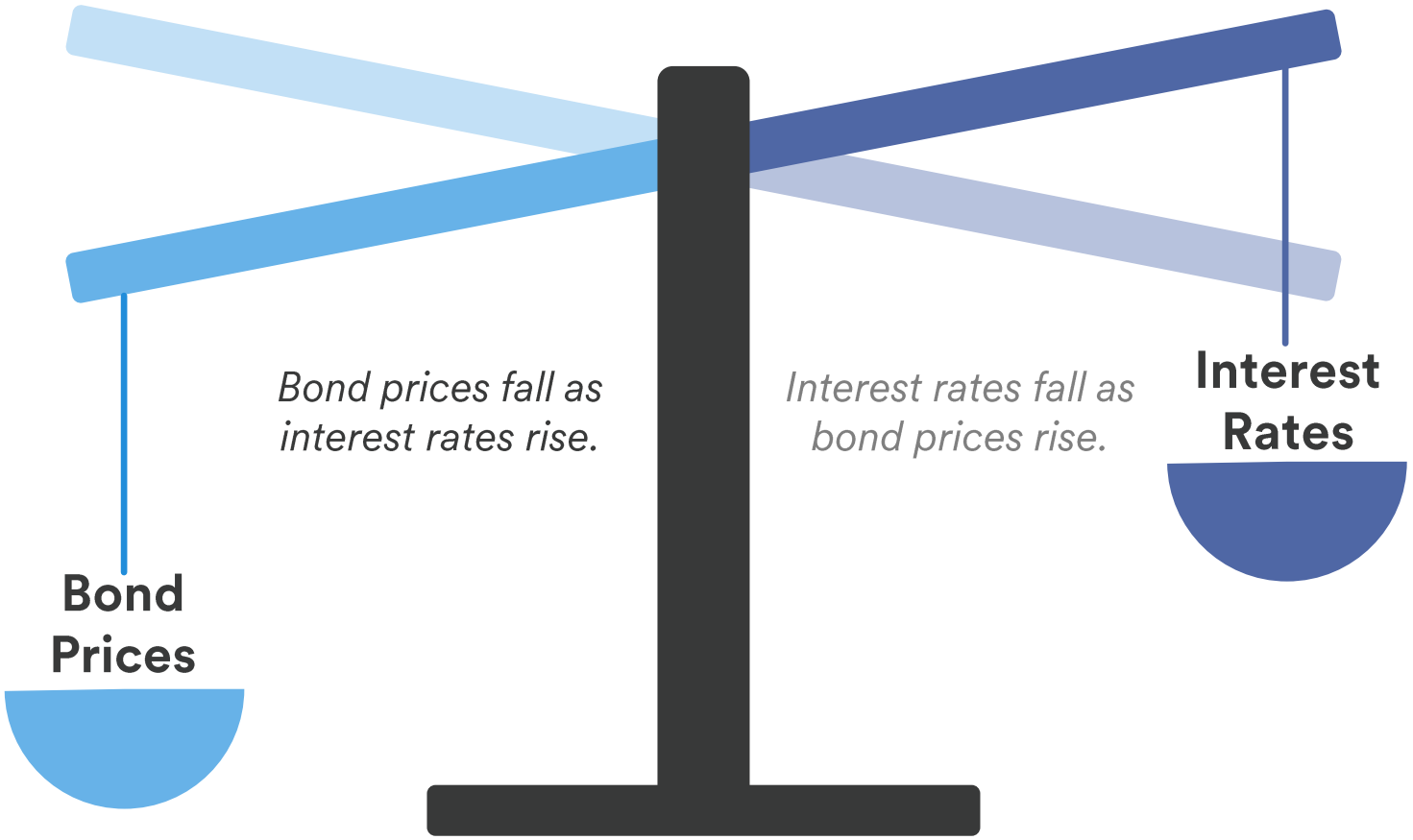
Inflation (Purchasing Power) Risk
Risk that rising inflation causes the loss of purchasing power over time

Call / Prepayment Risk
Risk that an investor receives their principal prematurely, losing future interest payments

Sources: PFMAM; Investopedia.

Interest Rate Risk

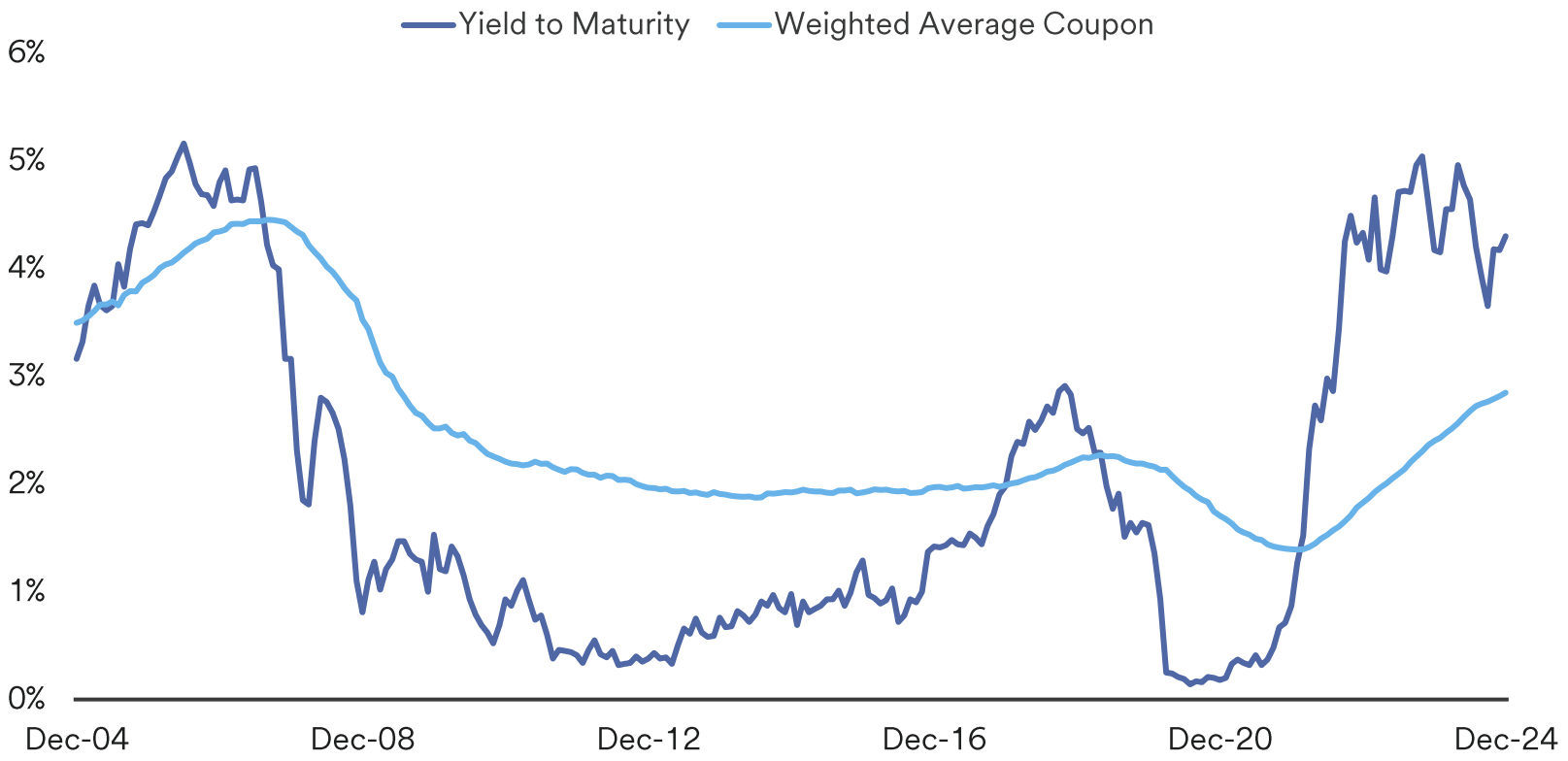
Risk that the value of securities changes with different interest rate environments



Yield to Maturity vs. Weighted Average Coupon Comparison

1-5 Treasury Index YTM vs. Weighted Average Coupon[1]

December 31, 2004 – December 31, 2024



Sources: Bloomberg and ICE BofA Indexes.

[1]The Yield to Maturity at Market (YTM) represents the current market yield of all securities in the index. The Weighted Average Coupon (WAC) is the average original coupon rate on all securities in the index. As securities in the 1-5 Year Treasury index tend to be issued at or near par (with the coupon rate approximately equal to the original yield), the WAC can be viewed as a proxy for the yield at cost of the securities in the index. The WAC tends to exceed the YTM in a falling interest rate environment and trail in a rising interest rate environment.

It is not possible to invest directly in an index. Please see additional notes and disclosures at the end of this presentation.

Pop Quiz

Bond prices and interest rates move in the same direction.

A. True

B. False

Pop Quiz

Bond prices and interest rates move in the same direction.

A. True

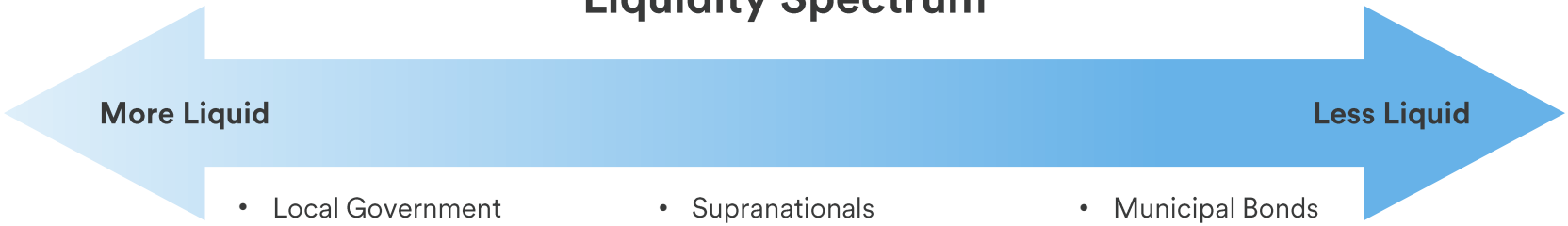
B. False

Liquidity Risk

Risk that portfolio holdings will not be able to be sold at a competitive price

- Substantial penalty for earlier withdrawal
- Capital losses if interest rates have increased

Liquidity Spectrum



- Local Government Investment Pools
- Money Market Funds
- U.S. Treasury Bills
  Agency Discount Notes
- Commercial Paper
- Federal Agencies
- U.S. Treasuries

- Supranationals
- Corporate Bonds
- Asset-Backed Securities
- Federal Agency Mortgage-Backed Securities

- Municipal Bonds
- FDIC-Insured CDs

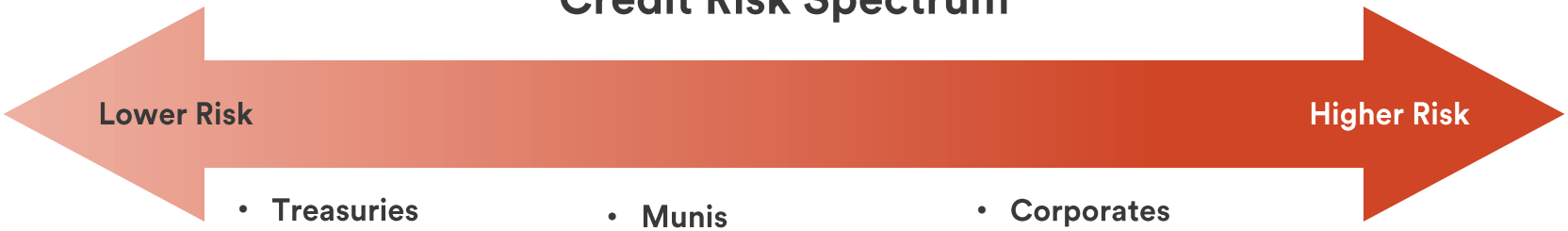
For illustrative purposes only.

Credit Risk

Risk of default or decline in security value due to changes in creditworthiness of issuer

- Bankruptcy
- Rating agency downgrades
- Regulatory changes

Credit Risk Spectrum



- **Treasuries**
- **Agencies**

- **Munis**
  - State
  - County
  - City

- **Corporates**
  - Commercial paper
  - CDs
  - Corporate notes

Explanation of Credit Ratings

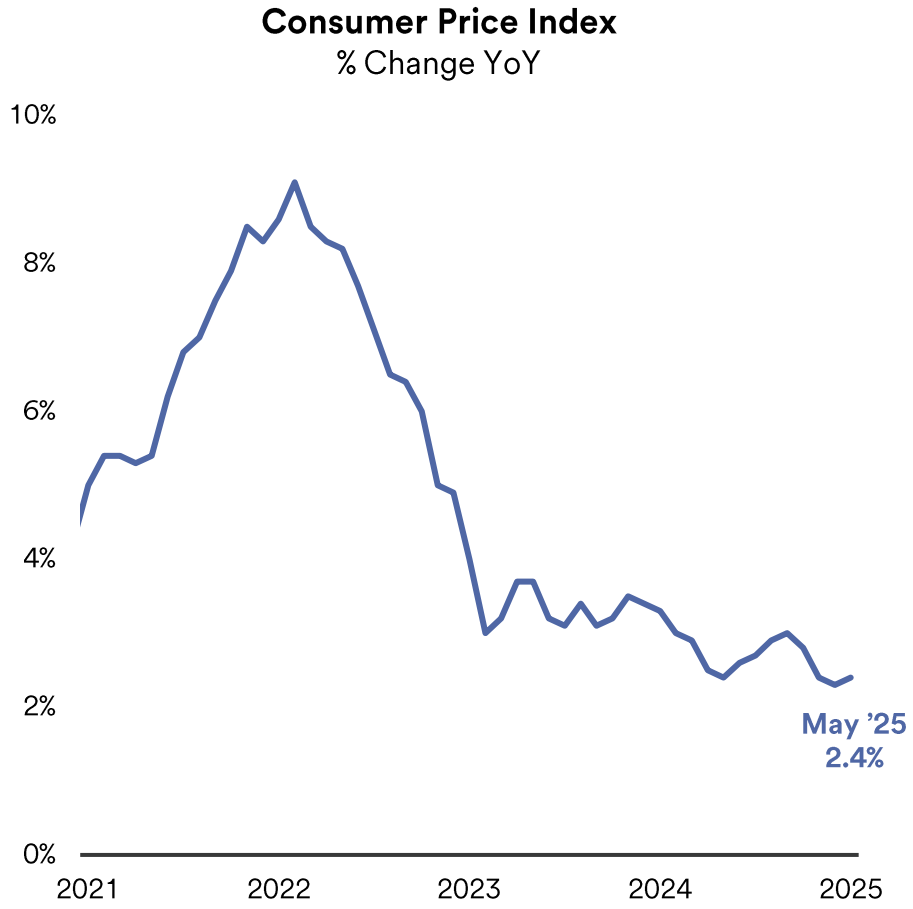
S&P	Moody's	Explanation of Rating
AAA	Aaa	High quality – smallest degree of investment risk
AA	Aa	High quality – differs only slightly from highest-rated issues
A	A	Adequate capacity to pay interest and repay principal
BBB	Baa	More susceptible to adverse effects of changes in economic conditions
BB	Ba	Has speculative elements – future not considered to be well-assured
B	B	Generally lacks characteristics of desirable investment
CCC	Caa	Poor standing – vulnerability to default
C	C	Extremely poor prospect
D	D	In default

Differences in Rating Actions

Jargon	Definition
Credit Rating	• Reflection of the probability of default and loss to investors • Long-term and short-term ratings; local and foreign
Rating Watch	• Indication that a rating agency is reassessing the rating of an entity in response to a change in the credit quality of the issuer • Potential upgrade or downgrade may occur within 3 months
Rating Outlook	• Longer-term projection of a possible ratings change • Potential upgrade or downgrade may occur in 6 months to 2 years

Inflation (Purchasing Power) Risk

Risk that rising inflation causes the loss of purchasing power over time



$1 in May 2015

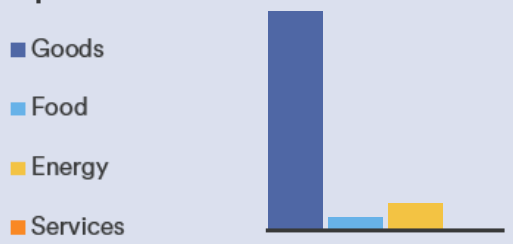
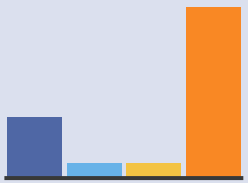
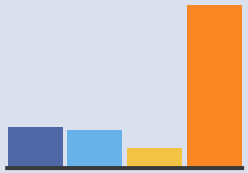
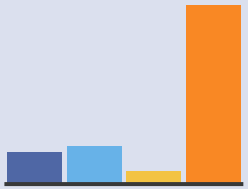
has the same purchasing power as

$1.35 in May 2025

Careful planning and well-informed stewardship can help minimize inflation's adverse effects on entity finances

Source: Bloomberg Finance L.P., as of May 2025.
U.S. Bureau of Labor Statistics CPI Inflation Calculator.

Differences Between Inflation Indicators

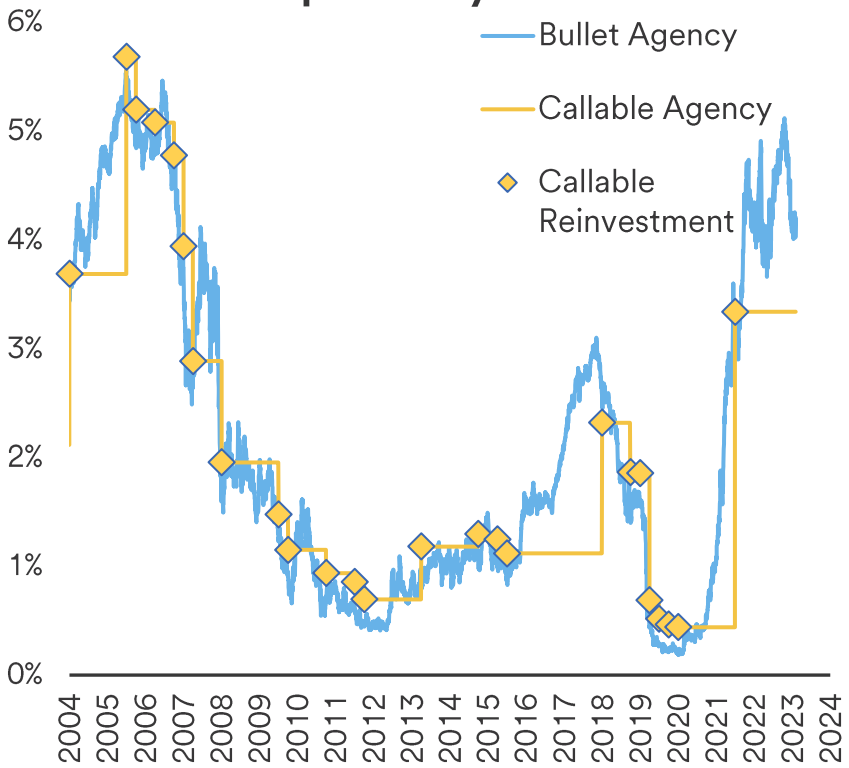
	Import Prices	PPI	CPI	PCE
Definition	Price of goods or services purchased from abroad by U.S. residents	Selling prices received by domestic producers of goods and services	Prices paid by urban consumers for a market basket of goods and services	Prices paid for goods and services purchased by or on behalf of persons
Timing	• Monthly • Before the 15th of the month • 1-month lag	• Monthly • Before the 15th of the month • 1-month lag	• Monthly • Before the 15th of the month • 1-month lag	• Monthly • End of month • 1-month lag
Composition				

Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

Call / Prepayment Risk

- Risk that a security is called away/repaid earlier than the original maturity date, which may result in investing in a lower interest rate environment

Callable Illustration: Optionality Risk



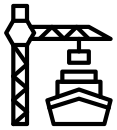
Total Returns
Callable vs. Bullet Agencies

Year	Callable	Bullet	Difference
2004	1.26%	1.15%	0.11%
2005	1.87%	1.72%	0.15%
2006	4.63%	4.46%	0.17%
2007	5.77%	7.12%	-1.36%
2008	4.68%	7.78%	-3.10%
2009	1.83%	2.23%	-0.40%
2010	1.08%	2.68%	-1.59%
2011	1.21%	1.60%	-0.39%
2012	0.69%	0.89%	-0.20%
2013	0.40%	0.43%	-0.03%
2014	0.58%	0.73%	-0.15%
2015	0.92%	0.64%	0.28%
2016	1.00%	0.95%	0.05%
2017	0.86%	0.59%	0.27%
2018	1.82%	1.77%	0.06%
2019	3.04%	3.59%	-0.55%
2020	1.07%	3.12%	-2.05%
2021	-0.35%	-0.46%	0.10%
2022	-4.40%	-3.49%	-0.91%
2023	4.87%	4.55%	0.32%
2024	**4.44%**	**4.20%**	**0.32%**
Annualized Return	**1.75%**	**2.17%**	**0.42%**

Source: Bloomberg. ICE BofA 1-3 Year indices, as of 12/31/2024. Annualized return from 1/1/2004.

Potential Areas of Policy Uncertainty

Taxes
Lower generally taxes viewed as positive for growth but negative for the deficit



Tariffs
Uncertainty surrounding the scope and scale of tariff policy

Immigration
Tighter border policy may have adverse impacts on the labor market

Regulation
Easing regulation is generally viewed as positive for growth

Source: PFMAM.

Pop Quiz

What type of risk is risk of default or decline in security value due to changes in creditworthiness of an issuer?

A. Credit risk

B. Inflation power

C. Liquidity risk

D. Interest rate risk

Pop Quiz

What type of risk is risk of default or decline in security value due to changes in creditworthiness of an issuer?

A. Credit risk

B. Inflation power

C. Liquidity risk

D. Interest rate risk

Fixed Income Sectors

Sector Focus: Treasuries

Government

Treasuries
Federal Agencies
Supranationals
Municipals

Securitized

Agency Mortgage-Backed
Asset-Backed

Credit

Corporate Notes
Commercial Paper
Certificates of Deposit

Cash Alternatives

Money Market Funds
Local Government Investment Pools

What are Treasuries?

- Securities issued directly by and backed by the full faith and credit of the U.S. Government
- Maturities range from short-term to 30 years
- Types: Treasury Bills, Notes, Bonds, floating rate notes, STRIPS, TIPS and SLGS

Potential Benefits:

- Largest segment of the U.S. bond market
- Considered “risk-free”
- Highest liquidity
- Available in large segments

Sector Focus: Federal Agencies

Government

Treasuries

Federal Agencies

Supranationals

Municipals

Securitized

Agency Mortgage-Backed

Asset-Backed

Credit

Corporate Notes

Commercial Paper

Certificates of Deposit

Cash Alternatives

Money Market Funds

Local Government Investment Pools

What are Federal Agencies?

- Securities issued by agencies of the U.S. Government and U.S. Government-Sponsored Enterprises (GSEs), most of which are not explicitly backed by the full faith and credit of the U.S.
- Frequent issuers: Fannie Mae, Freddie Mac, Federal Home Loan Banks, Federal Farm Credit Bank
- Types: discount notes, coupon notes/bonds, callables and floating rate notes

Potential Benefits:

- Incremental yield over Treasury securities
- High liquidity
- Diversification
- High credit quality

Sector Focus: Supranationals

Government

Treasuries

Federal Agencies

Supranationals

Municipals

Securitized

Agency Mortgage-Backed

Asset-Backed

Credit

Corporate Notes

Commercial Paper

Certificates of Deposit

Cash Alternatives

Money Market Funds

Local Government Investment Pools

What are Supranationals?

- Securities issued by a supranational entity, formed by two or more central governments with the purpose of promoting economic development for the member countries
- Examples include the World Bank and the International Finance Corporation

Potential Benefits:

- Incremental spread over Treasury securities
- High credit quality

Sector Focus: Municipal Securities

Government

Treasuries

Federal Agencies

Supranationals

Municipals

Securitized

Agency Mortgage-Backed

Asset-Backed

Credit

Corporate Notes

Commercial Paper

Certificates of Deposit

Cash Alternatives

Money Market Funds

Local Government Investment Pools

What are Municipal Securities?

- Securities issued by state and local governments or their agencies
- General Obligation ("GO") Bonds are backed by the full faith and credit of the taxing authority
- Revenue Bonds are secured by a stream of income typically from the projects funded by the bonds, such as the revenue generated from a toll bridge or sewer system

Potential Benefits:

- Typically high credit quality
- Diversification
- More than 50,000 distinct issuers
- Taxable issues provide alternative to corporates; tax-exempt issues may provide tax advantages to investors

Sector Focus: Mortgage-Backed

Government

Treasuries
Federal Agencies
Supranationals
Municipals

Securitized

Agency Mortgage-Backed
Asset-Backed

Credit

Corporate Notes
Commercial Paper
Certificates of Deposit

Cash Alternatives

Money Market Funds
Local Government Investment Pools

What are Mortgage-Backed Securities?

- Securitized investments created from pools of residential or commercial mortgages
- Securities represent ownership rights to the future principal and interest payments

Potential Benefits:

- Incremental spread over Treasury securities
- High credit quality
- Diversification
- Good liquidity

Sector Focus: Asset-Backed

Government

Treasuries

Federal Agencies

Supranationals

Municipals

Securitized

Agency Mortgage-Backed

Asset-Backed

Credit

Corporate Notes

Commercial Paper

Certificates of Deposit

Cash Alternatives

Money Market Funds

Local Government Investment Pools

What are Asset-Backed Securities?

- Securitized investments backed by assets such as automobile loans, credit card receivables, student loans or corporate loans
- Securities represent ownership rights to the cash flows from these assets

Potential Benefits:

- Attractive risk-adjusted returns
- Incremental spread over government securities
- Diversification
- High credit quality

Sector Focus: Corporate Notes

Government

Treasuries
Federal Agencies
Supranationals
Municipals

Securitized

Agency Mortgage-Backed
Asset-Backed

Credit

Corporate Notes
Commercial Paper
Certificates of Deposit

Cash Alternatives

Money Market Funds
Local Government Investment Pools

What are Corporate Notes?

- Longer-term, unsecured debt securities issued by corporations and financial institutions
- Investment grade credit quality ranges from AAA (prime) to BBB (lower medium grade)

Potential Benefits:

- Incremental yield over government securities
- Good liquidity
- Diversification
- Periodic issuance from a wide range of issuers

Sector Focus: Corporate Notes

Government

Treasuries

Federal Agencies

Supranationals

Municipals

Securitized

Agency Mortgage-Backed

Asset-Backed

Credit

Corporate Notes

Commercial Paper

Certificates of Deposit

Cash Alternatives

Money Market Funds

Local Government Investment Pools

What is Commercial Paper?

- Short-term, unsecured debt securities issued by corporations and financial institutions, generally for working capital purposes
- Maturities typically range from 1 to 270 days

Potential Benefits:

- Incremental yield over government securities
- Relatively high liquidity
- Diversification
- Available daily from a wide range of issuers and in a wide range of maturities

Sector Focus: Corporate Notes

Government

Treasuries

Federal Agencies

Supranationals

Municipals

Securitized

Agency Mortgage-Backed

Asset-Backed

Credit

Corporate Notes

Commercial Paper

Certificates of Deposit

Cash Alternatives

Money Market Funds

Local Government Investment Pools

What are Negotiable CDs?

- Certificates of deposit that are issued by banks and can be bought and sold in a liquid secondary market, unlike typical CDs
- Maturities typically are approximately 1 year and under at issuance; occasionally can be found out to 3 years

Potential Benefits:

- Incremental yield vs. governmental securities
- Relatively high liquidity
- Diversification

Thank you!
Questions?

Disclosures

The views expressed within this material constitute the perspective and judgment of U.S. Bancorp Asset Management, Inc. at the time of distribution and are subject to change. Any forecast, projection, or prediction of the market, the economy, economic trends, and equity or fixed-income markets are based upon current opinion as of the date of issue and are also subject to change. Opinions and data presented are not necessarily indicative of future events or expected performance. Information contained herein is based on data obtained from recognized statistical services, issuer reports or communications, or other sources, believed to be reliable. No representation is made as to its accuracy or completeness.

PFM Asset Management serves clients in the public sector and is a division of U.S. Bancorp Asset Management, Inc., which is the legal entity providing investment advisory services. U.S. Bancorp Asset Management, Inc. is a registered investment adviser, a direct subsidiary of U.S. Bank N.A. and an indirect subsidiary of U.S. Bancorp. U.S. Bank N.A. is not responsible for and does not guarantee the products, services, or performance of U.S. Bancorp Asset Management, Inc.

NOT FDIC INSURED : NO BANK GUARANTEE : MAY LOSE VALUE