How Can You Get a > 5.00% Yield?

And When Is the Best Time to Invest?

Presented By PFM Asset Management LLC

October 12, 2022

pfmam.com

PFM Asset Management LLC
NOT FDIC INSURED: NO BANK GUARANTEE: MAY LOSE VALUE
The Federal Reserve
Consumer Inflation

Factors Contributing to the Consumer Price Index (CPI YoY)

[Bar chart showing trends in various factors contributing to inflation from Dec-19 to Jun-22.]

- Services (Ex Food & Energy)
- Goods (Ex Food & Energy)
- Food
- Energy
- Headline YoY%

Source: Bloomberg, as of August 2022.
The Fed’s Dual Mandate

Price Stability

Maximum Employment
U.S. Economy Added 263,000 Jobs in September; Unemployment Rate Dropped to 3.5%

Unemployment Rate

The labor force participation rate eased to 62.3%.

Federal Reserve Officials Project Elevated Rates Through the End of 2023

Fed Participants’ Assessments of ‘Appropriate’ Monetary Policy

Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members’ judgement of the midpoint of the appropriate target range for the Federal Funds rate at each year-end.
Current spread between 3-month CP and 6-month CP: +0.50%

Current spread between 3-month T-Bills and 3-month CP: +0.40%

Source: Bloomberg, as of 9/29/2022.
How Can I Get a 5% Yield in My Portfolio?
Treasury Yields Dramatically Climb Amid Fed’s Continued Hawkish Rhetoric

Source: Bloomberg, as of 10/11/2022.
Treasury Yield Curve Remains Inverted

Source: Bloomberg, as of 10/11/2022.
Credit Spreads Remain at Attractive Levels

- Investment-grade (“IG”) corporate spreads have widened again with the recent upticks in market volatility, and if this trend continues, high-quality issuers could look more attractive and present opportunities to add allocations to portfolios;
- With the increasing possibility of a 2023 recession, higher-quality credits should be preferred, as banks and financials offer the best relative value but may also be hurt by a material economic slowdown or recession – North American credit is expected to continue to outperform relative to other geographical regions.

Source: Bloomberg, ICE BofAML Indices. OAS is option adjusted spreads. As of 9/29/2022.
## Eligible Investment Types

<table>
<thead>
<tr>
<th>Sector</th>
<th>Allowed By IL Statutes</th>
<th>Allowed By Investment Policy</th>
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</thead>
<tbody>
<tr>
<td>Money Market Funds / LGIP (cash)</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>TERM (Fixed Maturity LGIP 2-12 months)</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>Certificates of Deposit</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>U.S. Treasuries</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>U.S. Agencies</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>Supranational (e.g., World Bank)</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>Municipal Bonds (taxable)</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>U.S. Agency Mortgage-Backed Securities</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>Corporate Notes</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
<tr>
<td>Corporate Bond ETF</td>
<td>Yes ✓</td>
<td>Yes ✓</td>
</tr>
</tbody>
</table>

Source: Illinois Public Funds Investment Act and McHenry County College’s Investment Policy
Why is this Worth my Time?....
Corporates Add Value

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>U.S. Treasury</td>
<td>14.35%</td>
<td>6.33%</td>
<td>3.66%</td>
<td>6.46%</td>
<td>1.29%</td>
<td>2.18%</td>
<td>1.54%</td>
<td>2.30%</td>
<td>2.36%</td>
<td>1.85%</td>
<td>6.56%</td>
<td>5.52%</td>
<td>0.34%</td>
</tr>
<tr>
<td>Bullet Agencies</td>
<td>9.29%</td>
<td>5.43%</td>
<td>3.36%</td>
<td>4.33%</td>
<td>1.24%</td>
<td>2.06%</td>
<td>1.51%</td>
<td>1.93%</td>
<td>1.94%</td>
<td>1.79%</td>
<td>5.64%</td>
<td>4.83%</td>
<td>-0.63%</td>
</tr>
<tr>
<td>Callable Agencies</td>
<td>6.95%</td>
<td>5.42%</td>
<td>3.36%</td>
<td>2.81%</td>
<td>0.91%</td>
<td>1.92%</td>
<td>1.45%</td>
<td>1.32%</td>
<td>1.51%</td>
<td>1.68%</td>
<td>5.60%</td>
<td>4.71%</td>
<td>-0.69%</td>
</tr>
<tr>
<td>Corporate AAA</td>
<td>5.98%</td>
<td>4.81%</td>
<td>3.15%</td>
<td>1.63%</td>
<td>0.70%</td>
<td>1.38%</td>
<td>1.28%</td>
<td>1.19%</td>
<td>1.46%</td>
<td>1.53%</td>
<td>5.40%</td>
<td>4.25%</td>
<td>-0.75%</td>
</tr>
<tr>
<td>Corporate AA</td>
<td>5.56%</td>
<td>3.61%</td>
<td>2.62%</td>
<td>1.61%</td>
<td>0.41%</td>
<td>1.30%</td>
<td>1.20%</td>
<td>1.09%</td>
<td>1.00%</td>
<td>1.52%</td>
<td>4.20%</td>
<td>4.15%</td>
<td>-0.86%</td>
</tr>
<tr>
<td>Corporate A</td>
<td>2.53%</td>
<td>3.54%</td>
<td>2.59%</td>
<td>1.52%</td>
<td>0.03%</td>
<td>1.29%</td>
<td>1.12%</td>
<td>0.81%</td>
<td>0.83%</td>
<td>1.38%</td>
<td>3.95%</td>
<td>3.17%</td>
<td>-0.92%</td>
</tr>
<tr>
<td>Municipals</td>
<td>2.14%</td>
<td>1.85%</td>
<td>2.32%</td>
<td>0.91%</td>
<td>-0.01%</td>
<td>1.24%</td>
<td>0.98%</td>
<td>0.19%</td>
<td>0.82%</td>
<td>1.36%</td>
<td>3.65%</td>
<td>2.76%</td>
<td>-1.10%</td>
</tr>
<tr>
<td>MBS 0-3</td>
<td>0.23%</td>
<td>1.24%</td>
<td>1.67%</td>
<td>0.85%</td>
<td>-0.19%</td>
<td>1.10%</td>
<td>0.90%</td>
<td>0.16%</td>
<td>0.65%</td>
<td>1.08%</td>
<td>3.16%</td>
<td>1.25%</td>
<td>-1.88%</td>
</tr>
</tbody>
</table>

Source: Bloomberg. Annual returns of 1-5 Year ICE BofAML Indices unless specified otherwise.
Sample Portfolio: 1-3 Year

Portfolio Statistics

<table>
<thead>
<tr>
<th>Duration</th>
<th>1.74 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Yield</td>
<td>4.33%</td>
</tr>
</tbody>
</table>

Sector Allocation

- US Treasury 45%
- Federal Agency 10%
- Corporate Notes 25%
- Agency MBS 10%
- Supranational 5%
- Municipal 5%

Credit Quality

- AA 71%
- A 23%
- AAA 6%

Duration Distribution

- 0-1 yr: 9%
- 1-1.5 yr: 44%
- 1.5-2 yr: 27%
- 2-2.5 yr: 19%
- 2.5-3 yr: 9%

Data Source: Bloomberg. Data as of September 23, 2022.
Sample portfolio structured by PFMAM. Please see important disclosures at the end of this presentation.
Sample portfolio is provided for illustrative purposes only and are not a recommendation.

Portfolios based on assumed investment noted on each respective page.

Yield source Bloomberg as of September 23, 2022.

Security universe sourced from Bloomberg and Market Axess and further limited to those issuers permitted by PFMAM’s internal Approved Credit List.

Actual yields and security availability may vary at time of purchase.

As economic and market conditions may change in the future, so may PFMAM’s recommendations as to the sale and purchase of securities in the portfolio.
McHenry County College’s Investment Program
McHenry County College’s Story

- Selected the team at PFMAM in 2014, and quickly got moving on an updated policy, establishing benchmarks, cash flow analysis and moving funds.

- MCC Cash Flow – Optimized operating funds into Long-Term & Short-Term Portfolios
  - Long Term Portfolio
    - Began utilizing more investment types allowed by the College’s policy
      - Commercial Paper
      - Corporate Notes
      - Corporate Bond ETF
      - Supranationals
      - Agency Mortgage-Backed Securities (MBS, CMO, CMBS)
    - has generated solid long-term performance and provided cash when the College needed to tap into reserves.
  - Short Term Portfolio
    - Cash flow driven; short term investments intended to pay bills
    - Yield at Cost of 3.50% as of 10/4/2022
    - September tax dollars invested at yields ranging from 3.68% - 4.12%

- MCC Policy Updates – Added Additional Permitted Investments
  - Added Corporate Notes
  - Added additional 1/3rd corporate capacity (up to 2/3rds now allowable)
McHenry County College’s Q2 Activity

Net Activity by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Net Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>$2,903,849</td>
</tr>
<tr>
<td>Agency CMO</td>
<td>($54,445)</td>
</tr>
<tr>
<td>Agency MBS Pass Through</td>
<td>($124,149)</td>
</tr>
<tr>
<td>Municipal</td>
<td>($146,160)</td>
</tr>
<tr>
<td>Agency CMBS</td>
<td>($628,599)</td>
</tr>
<tr>
<td>U.S. Treasury</td>
<td>($911,002)</td>
</tr>
<tr>
<td>Supranational</td>
<td>($1,043,125)</td>
</tr>
<tr>
<td>Federal Agency</td>
<td>($1,939,101)</td>
</tr>
<tr>
<td><strong>Total Net Activity</strong></td>
<td><strong>($1,942,733)</strong></td>
</tr>
</tbody>
</table>

Based on total proceeds (principal and accrued interest) of buys, sells, maturities, and principal paydowns. Detail may not add to total due to rounding.
When is the Best Time to Invest?
When Is the Best Time to Invest?……Yesterday

▸ Don’t Pay For Liquidity You Don’t Need
  ▶ Optimize cash balances, excess cash leaves investment income on the table
  ▶ Match short term investments with known cash liabilities
  ▶ Funds not intended for spend should be invested in a longer term, reserve portfolio

▸ Do Not Market Time
  ▶ Markets are efficient
    ▪ Future rate hikes are likely already priced into most securities available to Community Colleges
  ▶ Time is Money
    ▪ Time in the market > Timing the Market

▸ Disciplined, Defined Investment Strategy should work in all rate environments
  ▪ Rates Rise – Reinvest at higher yields, beneficial for future income
  ▪ Rates Remain Stable – extending duration = higher yields
  ▪ Rates Fall – Higher yields in longer term investments are locked in, opportunities to realize gains.
Cash Flow Analysis Leads to Longer Term Investing

**Overnight**
- Cash and equivalents, providing immediate availability
- Manage liquidity needs

**Liquidity**
- Laddered investments to known and expected cash flows
- High-quality fixed income

**Core**
- Reserve funds not expected to be spent for the foreseeable future
- Intermediate- & longer-term investments

**Sample Cash Flow Analysis**

<table>
<thead>
<tr>
<th>Millions</th>
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<tbody>
<tr>
<td>$0</td>
</tr>
<tr>
<td>$10</td>
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<tr>
<td>$20</td>
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<tr>
<td>$30</td>
</tr>
<tr>
<td>$40</td>
</tr>
<tr>
<td>$50</td>
</tr>
<tr>
<td>$60</td>
</tr>
</tbody>
</table>

Dec-18 | Jun-19 | Dec-19 | Jun-20 | Dec-20

For illustrative purposes only.
Investment Opportunities in Longer Maturities

- Longer strategies can increase earnings potential, however they also come with increased risk

<table>
<thead>
<tr>
<th>Bank of America Merrill Lynch Treasury Index</th>
<th>Duration (years)</th>
<th>Annualized Total Return</th>
<th>Cumulative Value of $30 Million</th>
<th>Quarters With Negative Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M T Bill</td>
<td>0.24</td>
<td>1.29%</td>
<td>$38,758,139</td>
<td>1 out of 80</td>
</tr>
<tr>
<td>1 Yr Treasury</td>
<td>1.00</td>
<td>1.67%</td>
<td>$41,829,196</td>
<td>8 out of 80</td>
</tr>
<tr>
<td>1-3 Treasury</td>
<td>1.88</td>
<td>2.16%</td>
<td>$46,040,710</td>
<td>15 out of 80</td>
</tr>
<tr>
<td>1-5 Treasury</td>
<td>2.64</td>
<td>2.65%</td>
<td>$50,605,118</td>
<td>23 out of 80</td>
</tr>
<tr>
<td>1-10 Treasury</td>
<td>3.92</td>
<td>3.25%</td>
<td>$56,847,146</td>
<td>26 out of 80</td>
</tr>
</tbody>
</table>

Source: Bloomberg, Bank of America / Merrill Lynch Global Indices; based on historical results – future results may vary. As of December 31, 2021.
Summary Takeaway

▸ Interest rates will rise & fall
  ▹ When?
  ▹ How fast?
  ▹ Establish a disciplined investment strategy to weather all market environments

▸ There are opportunities for your investment program:
  ▹ Active maturity management
  ▹ Diversification - evaluation of sectors
  ▹ Portfolio Segmentation - understanding opportunity costs of excess liquidity & fund balance optimization

▸ Cash Flow is Key
  ▹ Balances available for longer term investing vs. short term funds

▸ Investment Policy
  ▹ Defines allowable investment types and any additional parameters

“Best time to invest was yesterday.
Next best time to invest is today.
Worst time to start investing is tomorrow.”
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