

# Piano Cleveland

April 17, 2024

Review as of March 31, 2024

Presented by:

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# Investment Policy Statement



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**Piano International Association of North Ohio  
dba Cleveland International Piano Competition (CIPC)  
Endowment Fund**

This Investment Policy Statement covers the Cleveland International Piano Competition (CIPC) Endowment Fund (Fund), which comprises the following account(s):

CLEVELAND INTL PIANO COMPETITION 21-75-073-5983568

## **I. Purpose**

The purposes of this Investment Policy Statement (IPS) are (i) to document PNC's and CIPC's understanding of the investment goals and guidelines for the portfolio, including the investment objective, risk tolerance, investment restrictions and asset allocation ranges, (ii) to communicate CIPC's investment goals and guidelines to the Fund's Investment Adviser (currently PNC Institutional Asset Management, or PNC), and (iii) to establish a basis upon which to evaluate the attainment of portfolio objectives.

The purposes of the Fund are to perpetuate and support CIPC and to assure the financial security and long-term success of CIPC.

## **II. Investor Profile**

### **A. Investment Time Horizon:**

The period of time during which the assets will be invested is expected to be for perpetuity.

### **B. Portfolio Risk Tolerance:**

Investment theory and historical capital market return data suggest that over long periods of time there is a relationship between the level of risk assumed and the level of return that can be expected in a portfolio, although there can be no guarantee of returns. In general, higher risk (e.g. return volatility) is associated with higher return. Given this relationship between risk and return, a fundamental step in determining the investment policy is the determination of an appropriate risk tolerance profile. There are a number of factors that influence the risk profile for a portfolio, including: sustainability of income, liquidity, return objectives, time horizon and investment experience. Based on CIPC's and PNC's understanding, CIPC advises PNC that the portfolio risk tolerance is best described as: Willing to take moderate risk as long as the investments have a greater potential for growth over time.

### **C. Investment Objectives:**

The overall investment objective for this portfolio is Growth.

CIPC established the Fund to cover emergency needs intending to withdraw no more than 5% of the Fund's value annually. Donors have made additional contributions to endow specific prizes or activities, making those funds restricted in nature. CIPC will withdraw those restricted funds pursuant to applicable restrictions on such withdrawals and for the use of such funds for the designated prizes and activities.

The Fund shall be operated in accordance with all federal laws and regulations applicable to an endowment fund of an Internal Revenue Code 501(c)(3) entity. It is subject to Internal Revenue Service reporting requirements.

It is the intent of the CIPC Investment Committee that the Fund's Investment Advisor provide a diversified investment portfolio that will enable the Fund to replace

withdrawals over time through total returns (dividends plus interest minus fees, plus or minus price changes affecting the value of securities).

### **III. Restrictions and Limitations**

- No security (other than an index fund) shall comprise more than 10% of the Fund
- All securities will be liquid (i.e. can be turned into cash in three business days)
- No securities will be purchased on margin (The Fund may not borrow for any purpose)
- Fixed income vehicles (except commingled "junk" bond vehicles) must hold a majority of securities rated single-A or better
- Direct investments in derivative securities, futures, or options are not permitted (Mutual funds that utilize these vehicles for the purpose of hedging, rather than speculation, are permitted)
- No Security position where a loss in excess of 100% is possible (e.g. short sales) may be utilized (Mutual funds that short may be purchased, since the Fund's maximum downside exposure is 100% for any mutual fund purchases)
- Stocks, bonds, exchange traded funds (ETFs), cash equivalent vehicles and no-load mutual funds are permissible investments
- Mutual funds which carry a load (i.e. sales charge) are prohibited

### **IV. Strategic Asset Allocation**

Based on the Fund's risk tolerance and investment objective, CIPC expects that the Fund's Investment Adviser will use a Growth with Alternative Investments blend strategy. CIPC understands that the growth strategy seeks capital appreciation, and is designed for investors with intermediate to long-term financial goals. The strategy pursues its investment objective by investing primarily in equity securities, with some fixed income and alternative investments to assist in moderating the volatility typically experienced in an all equity portfolio. The absolute level of income generated by this strategy is expected to be modest.

### **Asset Class Proposed Allocation (%)**

| <b>Asset Classes</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Strategic Target</b> |
|----------------------|----------------|----------------|-------------------------|
| Equities             | 50%            | 70%            | 65%                     |
| Fixed Income         | 5%             | 20%            | 10%                     |
| Alternative Assets   | 15%            | 35%            | 25%                     |
|                      |                |                | 100%                    |

### **V. Strategic Considerations**

CIPC understands that the Strategic Asset Allocation represents a customized investment framework with baseline allocation percentages for each major asset class that the Fund's Investment Adviser has developed. The Fund's Investment Adviser has developed the allocation using both quantitative and qualitative input, data and processes. CIPC expects the Fund's Investment Adviser to invest the assets of this portfolio among various diversified classes of investments. The baseline Strategic Asset

Allocation is a long-term strategic asset allocation that considers equity, fixed income, alternative assets and cash according to the Fund's risk profile. The Fund's Investment Adviser may make tactical changes from time to time in the baseline Strategic Asset Allocation. In addition, the Fund's investments may vary from the baseline allocation due to changes in the value of assets in the account, market conditions and account specific events, such as instructions from CIPC.

#### **VI. Investment Authority**

CIPC has appointed PNC as the Fund's Investment Adviser. PNC's investment authority for the accounts in the portfolio is defined as:

##### **Account Name Account Number**

CLEVELAND INTL PIANO COMPETITION 21-75-073-5983568

##### **Investment Authority**

Full/Sole Discretion

#### **VII. Performance Measurement**

The Fund's performance will be measured in accordance with industry standards and against appropriate benchmarks.

#### **VIII. Additional Comments**

No Additional Comments

#### **IX. Signator's Role**

CIPC understands that as financial circumstances, goals, investment objectives and preferences change, it is important that CIPC communicate those changes to the Fund's Investment Adviser so that appropriate adjustments can be made in the portfolio. The undersigned agree(s) that this IPS applies to all of the accounts that constitute the Fund in the aggregate. The Fund's Investment Adviser may manage each account to its stated investment objective as long as all accounts in the aggregate comply with this IPS. Each of CIPC and the Fund's Investment Adviser is signing this IPS in the capacity defined by the governing instrument for each account listed in this IPS. This IPS is subject to the terms and conditions, including the standard of care and limitations of liability, of the documents, which constitute the governing instruments for the applicable account(s). This IPS has been accepted and approved

By:

  
Petrus Van Der Westhulzen,  
Chief Executive Officer and President

4/18/17  
Date

# Portfolio Review

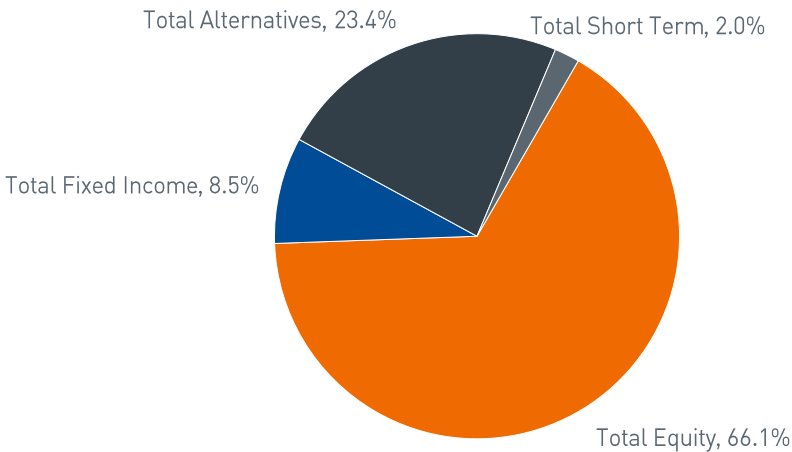


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# Asset Allocation

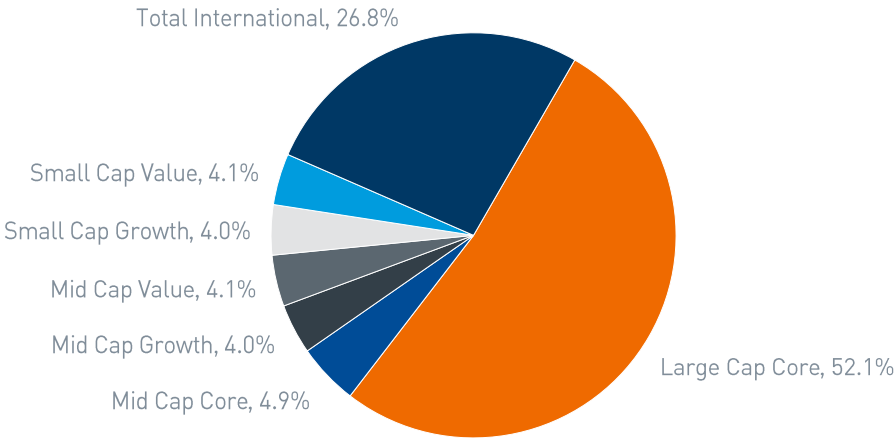
Piano Cleveland  
As of March 31, 2024



| Description         | Market Value (\$) | Portfolio Allocation | Policy Target | Policy Range |
|---------------------|-------------------|----------------------|---------------|--------------|
| Total Equity        | 780,635           | 66.1%                | 65%           | 50-70%       |
| Large Cap Equity    | 406,915           | 34.5%                |               |              |
| Mid Cap Equity      | 101,889           | 8.6%                 |               |              |
| Small Cap Equity    | 62,825            | 5.3%                 |               |              |
| Total International | 209,007           | 17.7%                |               |              |
| Total Fixed Income  | 99,810            | 8.5%                 | 10%           | 5-20%        |
| Total Alternatives  | 275,831           | 23.4%                | 25%           | 15-35%       |
| Total Short Term    | 24,125            | 2.0%                 |               |              |
| Total Portfolio     | 1,180,401         | 100.0%               | 100.0%        |              |

# Equity Asset Allocation

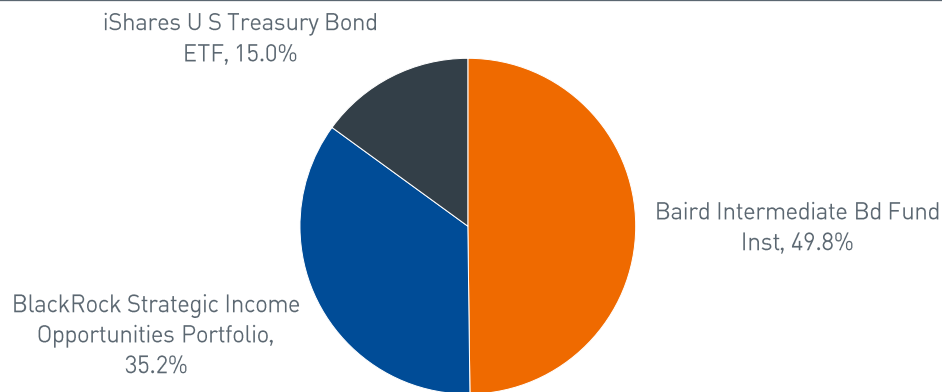
Piano Cleveland  
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| Description         | Market Value (\$) | Equity Allocation | Portfolio Allocation |
|---------------------|-------------------|-------------------|----------------------|
| Large Cap Core      | 406,915           | 52.1%             | 34.5%                |
| Mid Cap Core        | 38,571            | 4.9%              | 3.3%                 |
| Mid Cap Growth      | 31,413            | 4.0%              | 2.7%                 |
| Mid Cap Value       | 31,905            | 4.1%              | 2.7%                 |
| Small Cap Growth    | 31,106            | 4.0%              | 2.6%                 |
| Small Cap Value     | 31,719            | 4.1%              | 2.7%                 |
| Total International | 209,007           | 26.8%             | 17.7%                |
| Total Equity        | 780,635           | 100.0%            | 66.1%                |

# Fixed Income Asset Allocation

Piano Cleveland  
As of March 31, 2024



| Description  | Market Value (\$) | Fixed Income Allocation | Portfolio Allocation |
|--|-------------------|-------------------------|----------------------|
| Baird Intermediate Bd Fund Inst                    | 49,740            | 49.8%                   | 4.2%                 |
| BlackRock Strategic Income Opportunities Portfolio | 35,133            | 35.2%                   | 3.0%                 |
| iShares U S Treasury Bond ETF                      | 14,937            | 15.0%                   | 1.3%                 |
| Total Fixed Income                                 | 99,810            | 100.0%                  | 8.5%                 |

# Alternative Asset Allocation

| Description  | Market Value (\$) | Alternative Allocation | Portfolio Allocation |
|--|-------------------|------------------------|----------------------|
| American Beacon Mgd                                | 49,426            | 17.9%                  | 4.2%                 |
| Angel Oak Multi-Strategy Income Fund Instl Class   | 68,112            | 24.7%                  | 5.8%                 |
| BlackRock Event Driven Eq Inst                     | 80,443            | 29.2%                  | 6.8%                 |
| Eaton Vance Global Macro Absolute Return Advantage | 77,850            | 28.2%                  | 6.6%                 |
| Total Alternatives                                 | 275,831           | 100.0%                 | 23.4%                |

# Portfolio Holdings

Piano Cleveland

As of March 31, 2024

| Description                                    | Ticker | Units | Market Value (\$) | % of Market Value |
|--|--------|-------|-------------------|-------------------|
| <b>Large Cap Core</b>                          |        |       |                   |                   |
| iShares Core S&P 500 ETF                       | IVV    | 774   | 406,915           | 34.5%             |
| <b>Mid Cap Core</b>                            |        |       |                   |                   |
| Hennessy Focus Fund Class Inst                 | HFCIX  | 813   | 38,571            | 3.3%              |
| <b>Mid Cap Growth</b>                          |        |       |                   |                   |
| Madison Mid Cap Fund-R6                        | MMCRX  | 1,774 | 31,413            | 2.7%              |
| <b>Mid Cap Value</b>                           |        |       |                   |                   |
| Allspring Special Mid Cap Value Fund Cl I      | WFPRX  | 635   | 31,905            | 2.7%              |
| <b>Small Cap Growth</b>                        |        |       |                   |                   |
| Transamerica Small Cap Growth                  | TSPIX  | 4,406 | 31,106            | 2.6%              |
| <b>Small Cap Value</b>                         |        |       |                   |                   |
| AMG Rr Sm Cap Val-I                            | ARSIX  | 1,918 | 31,719            | 2.7%              |
| <b>Total International</b>                     |        |       |                   |                   |
| iShares MSCI EAFE Value ETF                    | EFV    | 1,055 | 57,392            | 4.9%              |
| Oakmark Intl Sm Cap-R6                         | OAZEX  | 621   | 12,132            | 1.0%              |
| Pzena Emerg Mkts Value-Inst                    | PZIEX  | 1,699 | 21,319            | 1.8%              |
| Seafarer Overseas Growth & Income Inst         | SIGIX  | 2,033 | 25,699            | 2.2%              |
| Touchstone Sands Cptl Emerging Markets Gr Inst | TSRMX  | 1,422 | 20,583            | 1.7%              |
| Wasatch Intl Opportunit-Inst                   | WIIOX  | 3,775 | 11,892            | 1.0%              |
| WCM Focused Intl Growth-Ins                    | WCMIX  | 2,357 | 59,990            | 5.1%              |
| <b>Total Equity</b>                            |        |       | <b>780,635</b>    | <b>66.1%</b>      |

# Portfolio Holdings (Continued)

Piano Cleveland

As of March 31, 2024



| Description  | Ticker | Units  | Market Value (\$) | % of Market Value |
|--|--------|--------|-------------------|-------------------|
| <b>Fixed Income</b>                                |        |        |                   |                   |
| Baird Intermediate Bd Fund Inst                    | BIMIX  | 4,853  | 49,740            | 4.2%              |
| BlackRock Strategic Income Opportunities Portfolio | BSIIX  | 3,734  | 35,133            | 3.0%              |
| iShares U S Treasury Bond ETF                      | GOVT   | 656    | 14,937            | 1.3%              |
| <b>Total Fixed Income</b>                          |        |        | <b>99,810</b>     | <b>8.5%</b>       |
| <b>Alternatives</b>                                |        |        |                   |                   |
| American Beacon Mgd                                | AHLIX  | 4,611  | 49,426            | 4.2%              |
| Angel Oak Multi-Strategy Income Fund Instl Class   | ANGIX  | 8,013  | 68,112            | 5.8%              |
| BlackRock Event Driven Eq Inst                     | BILPX  | 7,996  | 80,443            | 6.8%              |
| Eaton Vance Global Macro Absolute Return Advantage | EGRSX  | 7,407  | 77,850            | 6.6%              |
| <b>Total Alternatives</b>                          |        |        | <b>275,831</b>    | <b>23.4%</b>      |
| <b>Short Term</b>                                  |        |        |                   |                   |
| Blackrock Liquid Funds FedFund                     | TFDXX  | 2,658  | 2,658             | 0.2%              |
| Cash & Equivl                                      | -      | 21,467 | 21,467            | 1.8%              |
| <b>Total Short Term</b>                            |        |        | <b>24,125</b>     | <b>2.0%</b>       |
| <b>Total Portfolio</b>                             |        |        | <b>1,180,401</b>  | <b>100.0%</b>     |

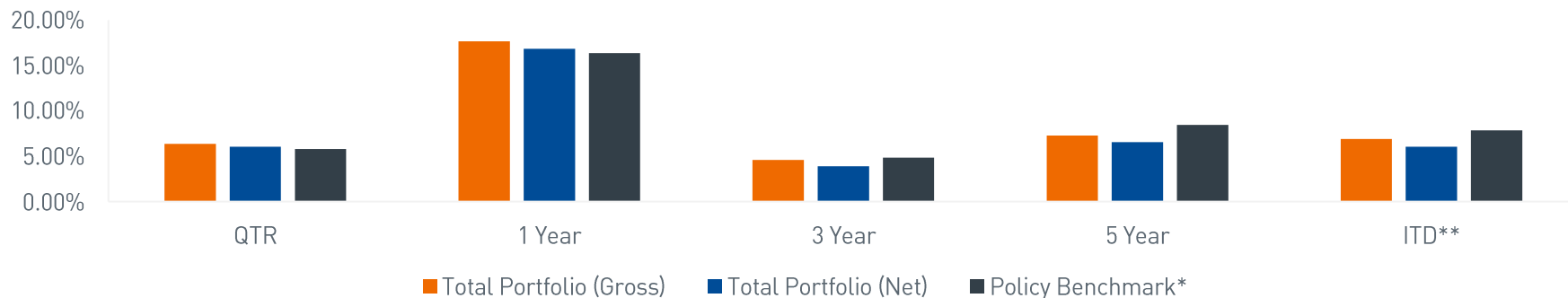
# Investment Performance



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# Total Portfolio Performance

Piano Cleveland  
As of March 31, 2024



| Description                    | QTR          | 1 Year        | 3 Year        | 5 Year       | ITD**        |
|--------------------------------|--------------|---------------|---------------|--------------|--------------|
| <b>Total Portfolio (Gross)</b> | <b>6.38%</b> | <b>17.68%</b> | <b>4.59%</b>  | <b>7.28%</b> | <b>6.92%</b> |
| <b>Total Portfolio (Net)</b>   | <b>6.06%</b> | <b>16.85%</b> | <b>3.89%</b>  | <b>6.55%</b> | <b>6.06%</b> |
| Policy Benchmark*              | 5.81%        | 16.38%        | 4.86%         | 8.47%        | 7.84%        |
| Blended Benchmark*             | 5.92%        | 16.64%        | 4.89%         | 8.27%        | 7.48%        |
| Allocation Benchmark*          | 6.09%        | 16.34%        | 3.86%         | 6.77%        | 6.70%        |
| <b>Total Equity</b>            | <b>8.50%</b> | <b>24.50%</b> | <b>6.17%</b>  | <b>9.96%</b> | <b>9.49%</b> |
| Equity Policy Benchmark*       | 7.96%        | 22.68%        | 6.71%         | 11.12%       | 10.65%       |
| S&P 500 TR                     | 10.56%       | 29.88%        | 11.49%        | 15.05%       | 13.82%       |
| Russell Midcap                 | 8.60%        | 22.35%        | 6.07%         | 11.10%       | 10.82%       |
| Russell 2000                   | 5.18%        | 19.71%        | -0.10%        | 8.10%        | 8.60%        |
| MSCI EAFE Net                  | 5.78%        | 15.32%        | 4.78%         | 7.33%        | 6.44%        |
| <b>Total Fixed Income</b>      | <b>0.31%</b> | <b>4.18%</b>  | <b>-0.66%</b> | <b>1.45%</b> | <b>1.81%</b> |
| Bloomberg Int Govt/Credit      | -0.15%       | 2.69%         | -1.06%        | 1.09%        | 1.50%        |
| <b>Total Alternatives</b>      | <b>3.42%</b> | <b>7.52%</b>  | <b>2.87%</b>  | <b>3.39%</b> | <b>3.06%</b> |
| HFRX Global Hedge              | 2.51%        | 5.70%         | 1.12%         | 3.44%        | 2.36%        |

\*See Appendix – Policy Benchmark Composition for description of benchmarks.

\*\*Inception date is 12/01/2015

Total Portfolio (Gross) shows performance gross of advisory fees and separately managed account (SMA) fees. Total Portfolio (Net) shows performance net of advisory fees, transaction costs, and all manager fees. Performance reflects reinvestment of dividends, interest and capital gain distributions and rebalancing. Indices are unmanaged, are not available for direct investment, and are not subject to management fees, transaction costs or other types of expenses that an account may incur. Past performance is not guarantee of future results.

# Manager Performance

Piano Cleveland

As of March 31, 2024



| Description                                | QTR           | 1 Year        | 3 Year        | 5 Year        |
|--|---------------|---------------|---------------|---------------|
| <b>Large Cap Core</b>                      | <b>10.41%</b> | <b>29.79%</b> | <b>11.23%</b> | <b>14.89%</b> |
| iShares Core S&P 500 ETF                   | 10.41%        | 29.79%        | 11.15%        | 14.84%        |
| <i>S&amp;P 500 TR</i>                      | 10.56%        | 29.88%        | 11.49%        | 15.05%        |
| <b>Mid Cap Growth</b>                      | <b>9.73%</b>  | <b>32.01%</b> | <b>13.00%</b> | -             |
| Madison Mid Cap Fund-R6                    | 9.73%         | 32.01%        | 13.00%        | -             |
| <i>Russell Midcap Growth</i>               | 9.50%         | 26.28%        | 4.62%         | -             |
| <b>Mid Cap Core</b>                        | <b>4.52%</b>  | <b>21.31%</b> | <b>3.56%</b>  | <b>9.28%</b>  |
| Hennessy Focus Fund Class Inst             | 4.52%         | 21.31%        | 3.56%         | 9.63%         |
| <i>Russell Midcap</i>                      | 8.60%         | 22.35%        | 6.07%         | 11.10%        |
| <b>Mid Cap Value</b>                       | <b>9.15%</b>  | <b>18.66%</b> | -             | -             |
| Allspring Special Mid Cap Value Fund CL I  | 9.15%         | 18.66%        | -             | -             |
| <i>Russell Midcap Value</i>                | 8.23%         | 20.40%        | -             | -             |
| <b>Small Cap Growth</b>                    | <b>6.65%</b>  | <b>16.84%</b> | <b>-0.29%</b> | -             |
| Transamerica Small Cap Growth              | 6.65%         | 16.84%        | -0.29%        | -             |
| <i>Russell 2000 Growth</i>                 | 7.58%         | 20.35%        | -2.68%        | -             |
| <b>Small Cap Value</b>                     | <b>8.17%</b>  | <b>21.45%</b> | -             | -             |
| AMG Rr Sm Cap Val-I                        | 8.17%         | 21.45%        | -             | -             |
| <i>Russell 2000 Value</i>                  | 2.90%         | 18.75%        | -             | -             |
| <b>Total International</b>                 | <b>4.33%</b>  | <b>14.10%</b> | <b>-1.33%</b> | <b>5.11%</b>  |
| iShares MSCI EAFE Value ETF                | 4.51%         | 17.34%        | -             | -             |
| <i>MSCI EAFE Value Net</i>                 | 4.48%         | 17.32%        | -             | -             |
| Pzena Emerg Mkts Value-Inst                | 2.95%         | 16.54%        | -             | -             |
| <i>MSCI Emerging Market Net</i>            | 2.37%         | 8.15%         | -             | -             |
| Oakmark Intl Sm Cap-R6                     | 0.51%         | 12.98%        | 3.42%         | -             |
| <i>MSCI ACWI ex USA SMID Value Net USD</i> | 2.21%         | 14.07%        | 2.54%         | -             |

\*\*Inception date is 12/01/2015

Performance is shown gross of advisory fees and separately managed account (SMA) fees. The effect of advisory fees on the portfolio could be material. If these fees were reflected, returns would be lower. Indices are unmanaged, are not available for direct investment, and are not subject to management fees, transaction costs or other types of expenses that an account may incur. Past performance is not guarantee of future results.



# Manager Performance (Continued)

Piano Cleveland

As of March 31, 2024

| Description                                      | QTR          | 1 Year       | 3 Year        | 5 Year       |
|--|--------------|--------------|---------------|--------------|
| Wasatch Intl Opportunit-Inst                     | -0.63%       | 7.88%        | -11.13%       | 2.56%        |
| <i>MSCI ACWI Ex USA SMID Growth Net USD</i>      | 2.69%        | 10.56%       | -1.96%        | 5.15%        |
| Seafarer Overseas Growth & Income Inst           | -0.32%       | 9.60%        | -1.57%        | -            |
| <i>MSCI Emerging Market Net</i>                  | 2.37%        | 8.15%        | -5.05%        | -            |
| Touchstone Sands Cptl Emerging Markets Gr Inst   | 3.21%        | 7.66%        | -11.73%       | -            |
| <i>MSCI Emerging Market Net</i>                  | 2.37%        | 8.15%        | -5.05%        | -            |
| WCM Focused Intl Growth-Ins                      | 11.82%       | 17.87%       | 2.75%         | 11.53%       |
| <i>MSCI ACWI ex USA Growth Net</i>               | 5.91%        | 11.22%       | -0.76%        | 6.24%        |
| <b>Fixed Income</b>                              | <b>0.31%</b> | <b>4.18%</b> | <b>-0.66%</b> | <b>1.45%</b> |
| BlackRock Strategic Income Opportunities Portfol | 0.96%        | 6.55%        | -             | -            |
| <i>Bloomberg US Universal</i>                    | -0.47%       | 2.67%        | -             | -            |
| Baird Intermediate Bd Fund Inst                  | 0.18%        | 3.50%        | -0.94%        | 1.38%        |
| <i>Bloomberg Int Govt/Cr</i>                     | -0.15%       | 2.69%        | -1.06%        | 1.09%        |
| iShares U S Treasury Bond ETF                    | 0.54%        | -            | -             | -            |
| <i>Bloomberg US Aggregate</i>                    | -0.78%       | -            | -             | -            |
| <b>Total Alternatives</b>                        | <b>3.42%</b> | <b>7.52%</b> | <b>2.87%</b>  | <b>3.39%</b> |
| Eaton Vance Global Macro Absolute Return Advanta | 4.89%        | 11.21%       | 5.05%         | 6.29%        |
| <i>HFRX Macro-CTA Index</i>                      | 5.86%        | 6.96%        | 2.20%         | 3.43%        |
| American Beacon Mgd                              | 8.17%        | 7.95%        | 6.49%         | -            |
| <i>HFRX Macro-CTA Index</i>                      | 5.86%        | 6.96%        | 2.20%         | -            |
| BlackRock Event Driven Eq Inst                   | 0.70%        | 5.35%        | 2.42%         | -            |
| <i>HFRX Event Driven</i>                         | 1.28%        | 2.02%        | -2.31%        | -            |
| Angel Oak Multi-Strategy Income Fund Instl Class | 1.82%        | 5.87%        | -1.15%        | -            |
| <i>HFRX Relative Value Arbitrage Index</i>       | 0.68%        | 4.29%        | -0.73%        | -            |

**\*\*Inception date is 12/01/2015**

Performance is shown gross of advisory fees and separately managed account (SMA) fees. The effect of advisory fees on the portfolio could be material. If these fees were reflected, returns would be lower. Indices are unmanaged, are not available for direct investment, and are not subject to management fees, transaction costs or other types of expenses that an account may incur. Past performance is not guarantee of future results.

# Manager Performance (Continued)

Piano Cleveland

As of March 31, 2024



| Description                                       | QTR          | 1 Year       | 3 Year       | 5 Year       |
|---|--------------|--------------|--------------|--------------|
| <b>Total Short Term</b>                           | <b>1.30%</b> | <b>5.25%</b> | <b>2.81%</b> | <b>2.02%</b> |
| Blackrock Liquid Funds FedFund                    | 1.30%        | 5.26%        | -            | -            |
| <i>Bloomberg US Treasury Bill 1-3 Month Blend</i> | 1.32%        | 5.38%        | -            | -            |
| Cash & Equivl                                     | 1.30%        | 5.25%        | 2.82%        | 2.02%        |
| <i>Bloomberg US Treasury Bill 1-3 Month Blend</i> | 1.32%        | 5.38%        | 2.66%        | 2.04%        |

**\*\*Inception date is 12/01/2015**  
Performance is shown gross of advisory fees and separately managed account (SMA) fees. The effect of advisory fees on the portfolio could be material. If these fees were reflected, returns would be lower. Indices are unmanaged, are not available for direct investment, and are not subject to management fees, transaction costs or other types of expenses that an account may incur. Past performance is not guarantee of future results.

# Benchmark Composition

Piano Cleveland

As of March 31, 2024

## Total Portfolio

### Policy Benchmark

| December 2015         | %     |
|-----------------------|-------|
| S&P 500 TR            | 30.00 |
| HFRX Global Hedge     | 25.00 |
| MSCI ACWI Ex US Net   | 20.00 |
| Russell Midcap        | 10.00 |
| Bloomberg Int Govt/Cr | 10.00 |
| Russell 2000          | 5.00  |

### Blended Benchmark

| December 2015         | %     |
|-----------------------|-------|
| MSCI ACWI Net         | 65.00 |
| Bloomberg Int Govt/Cr | 10.00 |
| HFRX Global Hedge     | 25.00 |

### Allocation Benchmark

| March 2024                           | %     |
|--------------------------------------|-------|
| S&P 500 TR                           | 34.34 |
| Russell 2000 Value                   | 2.62  |
| Russell 2000 Growth                  | 2.64  |
| Russell Midcap                       | 3.30  |
| Russell Midcap Growth                | 2.65  |
| Russell Midcap Value                 | 2.63  |
| MSCI Emerging Market Net             | 5.74  |
| Bloomberg Int Govt/Cr                | 4.31  |
| Bloomberg US Aggregate               | 1.29  |
| HFRX Event Driven                    | 6.96  |
| HFRX Relative Value Arbitrage Index  | 5.85  |
| HFRX Macro-CTA Index                 | 10.72 |
| MSCI EAFE Value Net                  | 4.78  |
| MSCI ACWI ex USA Growth Net          | 5.11  |
| Bloomberg US Universal               | 3.03  |
| Bloomberg US Treasury Bill 1-3 Mon   | 1.97  |
| MSCI ACWI Ex USA SMID Growth Net USD | 1.03  |
| MSCI ACWI ex USA SMID Value Net USD  | 1.03  |

*Indices are unmanaged, are not available for direct investment, and are not subject to management fees, transaction costs or other types of expenses that an account may incur. Indices performance results do not represent, and are not necessarily indicative of, the results that may be achieved in accounts investing in the corresponding investment strategy; actual account returns may vary significantly.*

*For definitions of Indices/Benchmarks used in this presentation, please refer to [www.pnc.com/indexdefinitions](http://www.pnc.com/indexdefinitions).*

# Benchmark Composition

Piano Cleveland

As of March 31, 2024



**Equity:**

| Equity Policy Benchmark- December 2015 | %     |
|--|-------|
| S&P 500 TR                             | 45.00 |
| MSCI ACWI Ex US Net                    | 30.00 |
| Russell Midcap                         | 15.00 |
| Russell 2000                           | 10.00 |

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# Taking Stock of the Markets

Investment Strategy

April 2024



**PNC**  
INSTITUTIONAL  
ASSET MANAGEMENT

# Key Macro and Market Themes

The path forward is highly dependent on specific themes

As the probability of a near-term recession continues to fade, investors are faced with several key themes that should continue to impact markets throughout 2024.

## Macroeconomics

1. Easing monetary policy
2. Sticky inflation
3. Labor market strength

## Markets

1. Narrow earnings growth
2. Narrow market leadership
3. Range-bound interest rates

Scan the QR code using your smartphone's camera app to watch a video in which Dan Brady, PNC's Managing Director of Investment Strategy, discusses Key Macros and Market Themes



# Investment Process and Asset Allocations

Each facet of analysis plays a critical role in our decision-making

In the “slower for longer” business cycle, we believe the reward/risk balance at elevated valuations supports diversified, high-quality portfolio within equities and fixed income allocations.

## Investment Process Insights



**Business  
Cycle**

### Tight labor market extends the cycle

Leading economic indicators point to contracting manufacturing activity, whereas strong labor market is supporting personal consumption, which is the largest component of U.S. GDP.



**Valuation  
s**

### Global earnings reacceleration is needed to bring down multiples

Earnings estimates for 2024 have been falling, yet the market rally over the past few months has driven valuations higher. Without an earnings reacceleration, valuations may become extended.



**Technical  
s**

### New global all-time highs as momentum remains positive

In our view, equity markets at all-time highs should be considered a positive as global equity market momentum remains a tailwind.



**Equities**

## Asset Allocation Viewpoints

### Global outlook dependent on earnings growth

We continue to favor quality, global allocations that can weather elevated inflation and high interest rates amid a slowing economy.



**Fixed  
Income**

### Core fixed income is attractive at this phase in the credit cycle

As interest rate volatility falls from extremely high levels, we believe core fixed income remains attractive relative to credit.



**Alternative  
s**

### Broad opportunity set for long-term investors

Alternative investments offer various risk and return, correlation and liquidity profiles for differentiated alpha, potentially aiding risk-adjusted performance and dampening volatility.

Scan the QR code using your smartphone's camera app to watch a video in which Dan Brady, PNC's Managing Director of Investment Strategy, discusses investment process and asset allocations



# Economic and Equity Markets Dashboard

Better-than-expected economic data continues to be a tailwind for markets

Easing financial conditions reduce recession risk in 2024 as labor market remains tight relative to history. Higher borrowing costs and elevated inflation remain a risk to the economic outlook.

## March 2024 Economic Data Dashboard

|  |   |   |
|--|---|---|
| <b>3.4%</b><br>U.S. REAL GDP<br>4Q 2024                    | <b>3.9%</b><br>UNEMPLOYMENT<br>RATE                   | <b>3.2%</b><br>CPI<br>ANNUAL CHANGE                     |
| <b>4.20%</b><br>10-YEAR U.S.<br>TREASURY YIELD             | <b>4.3%</b><br>ANNUAL HOURLY<br>WAGE GROWTH           | <b>1.5%</b><br>U.S. RETAIL SALES<br>GROWTH RATE         |
| <b>-42BASISPOINTS</b><br>2YR/10YR YIELD<br>CURVE INVERSION | <b>275,000</b><br>MONTHLY PAYROLL<br>REPORT ADDITIONS | <b>\$3.54/GAL</b><br>NATIONAL AVERAGE<br>GASOLINE PRICE |

## Equity Market Highlights

|   | 2024E         |            |
|---|---------------|------------|
|   | EPS<br>GROWTH | NTM<br>P/E |
| S&P 500®                                | 10.6%         | 21.0x      |
| Magnificent 7                           | 23.9%         | 31.1X      |
| Russell 2000®                           | 16.4%         | 23.5x      |
| MSCI World ex USA                       | 4.6%          | 14.3x      |
| MSCI EM IMI                             | 18.8%         | 12.2x      |
| S&P 500 EPS<br>Strategists' Median Est. | \$235         |            |
| Bull Case                               | \$250         |            |
| Bear Case                               | \$221         |            |

As of 3/31/2024. Source: Bloomberg L.P., FactSet®, FactSet® is a registered trademark of FactSet Research Systems, Inc., and its affiliates.

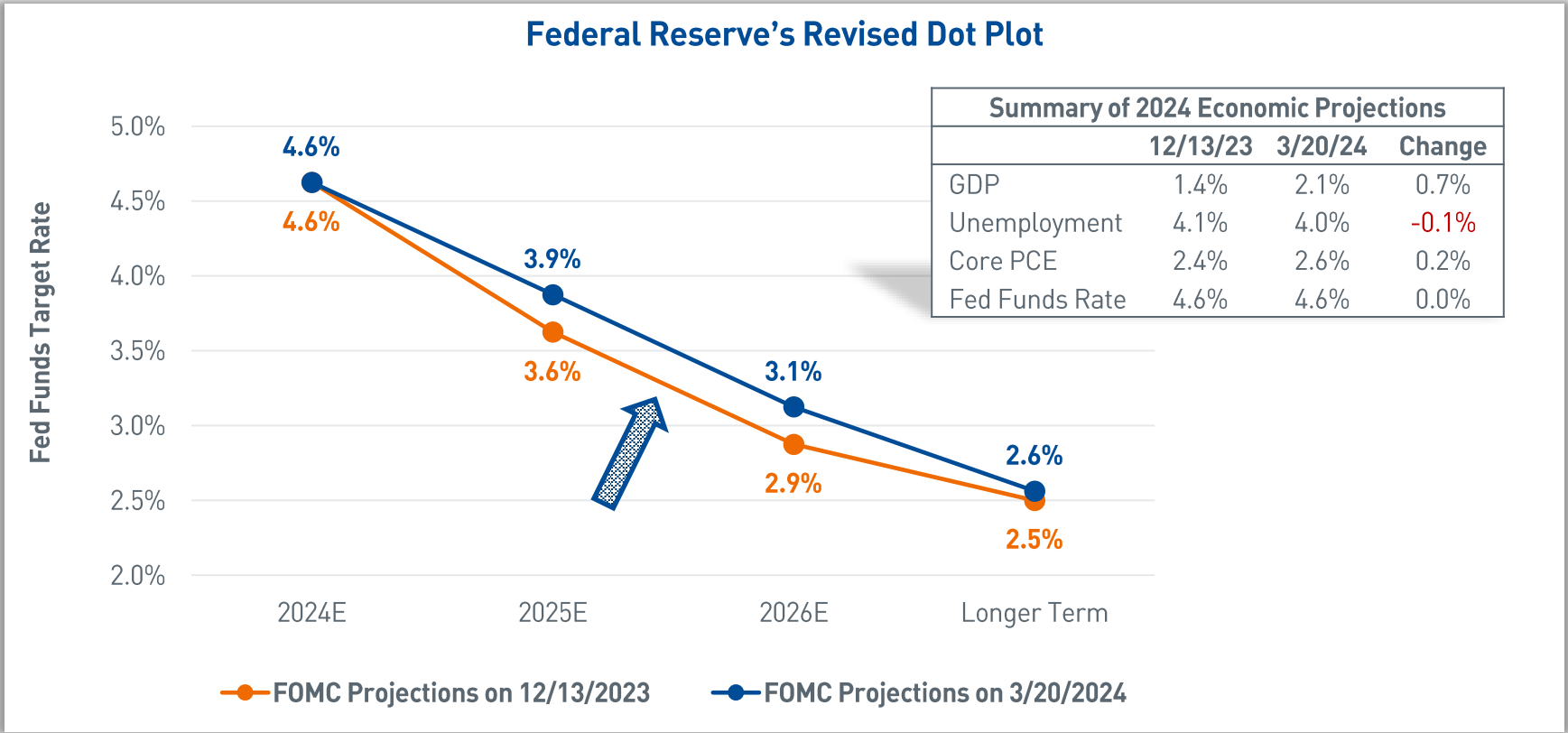


# Federal Reserve Delivers a Dovish Message

As widely expected, the Fed held rates steady at their march meeting

**Updated “dot plot”  
continues to signal  
three rate cuts in 2024**

Consensus expects the Fed will begin to cut interest rates in June, which is in line with PNC Economics’ view. Expectations for 2025 are slightly more restrictive compared to December’s outlook, however Fed officials still expect to ease policy.



# Fed Policy Remains a Key Market Driver

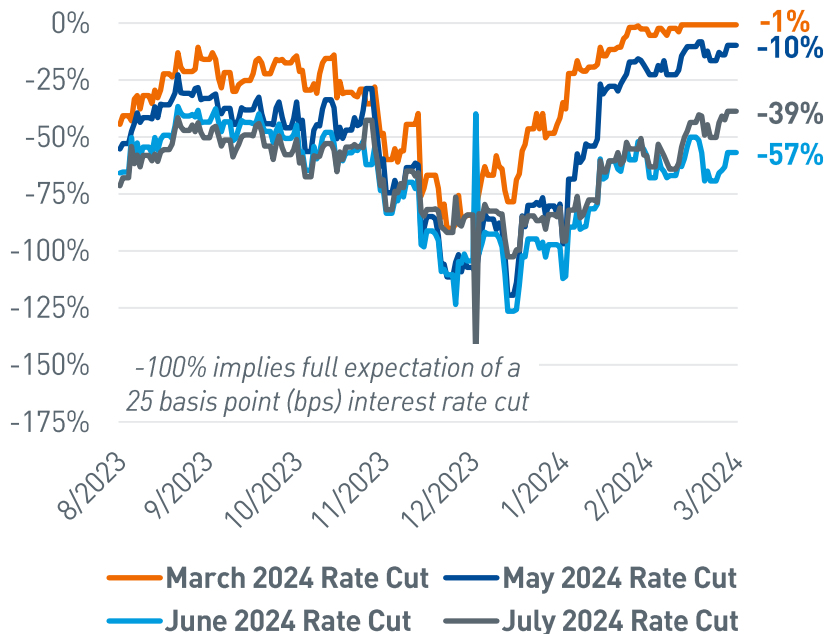
Consensus continues to expect the Fed to ease monetary policy in 2024

**Rate cut expectations  
have moved to June,  
but financial conditions  
are already easing**

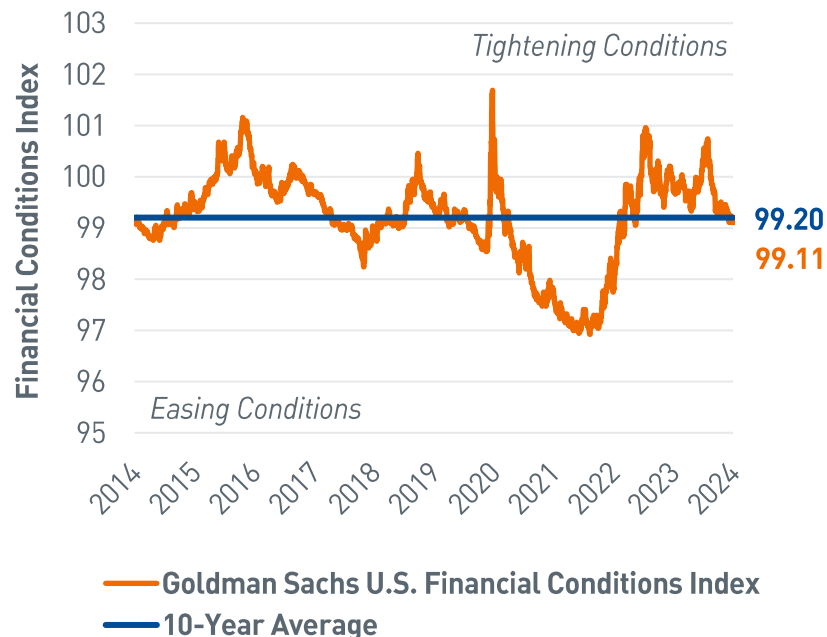
With inflation on a bumpy course towards 2%, Fed officials have signaled plans for interest rate cuts later in 2024.

Financial conditions have already eased back to 2021 levels, before the Fed had even begun to raise interest rates.

## Markets Recalibrate for Rate Cuts in 2024



## Financial Conditions are Easing



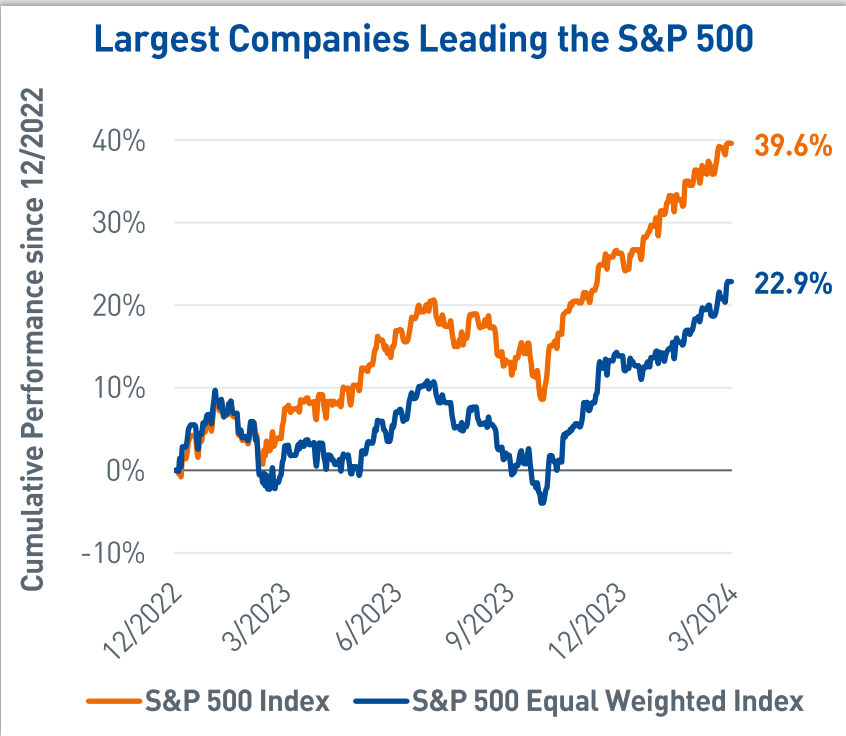
# U.S. Equity Market Reaches All-Time Highs

Market momentum widens beyond the mega-cap growth stocks

The S&P 500® has been driven by the largest companies for over a year

Equities delivered a fifth consecutive positive monthly return as economic and earnings data continue to come in better than expected.

For a sustainable rally, markets will need to broaden beyond the mega-cap growth stocks, but international markets have yet to top their 2021 all-time highs.



### Equity Market Performance

| Index                              | YTD Total Return |
|------------------------------------|------------------|
| "Magnificent 7" (weighted average) | 13.5%            |
| <b>S&amp;P 500®</b>                | <b>10.6%</b>     |
| Nasdaq Composite                   | 9.3%             |
| S&P 500 Equal Weight               | 7.9%             |
| Median S&P 500 stock return        | 7.4%             |
| Russell 2000                       | 5.2%             |
| MSCI World Ex USA                  | 5.6%             |
| MSCI Emerging Markets IMI          | 2.2%             |

As of 3/31/2024. Source: FactSet®, FactSet® is a registered trademark of FactSet Research Systems, Inc., and its affiliates.

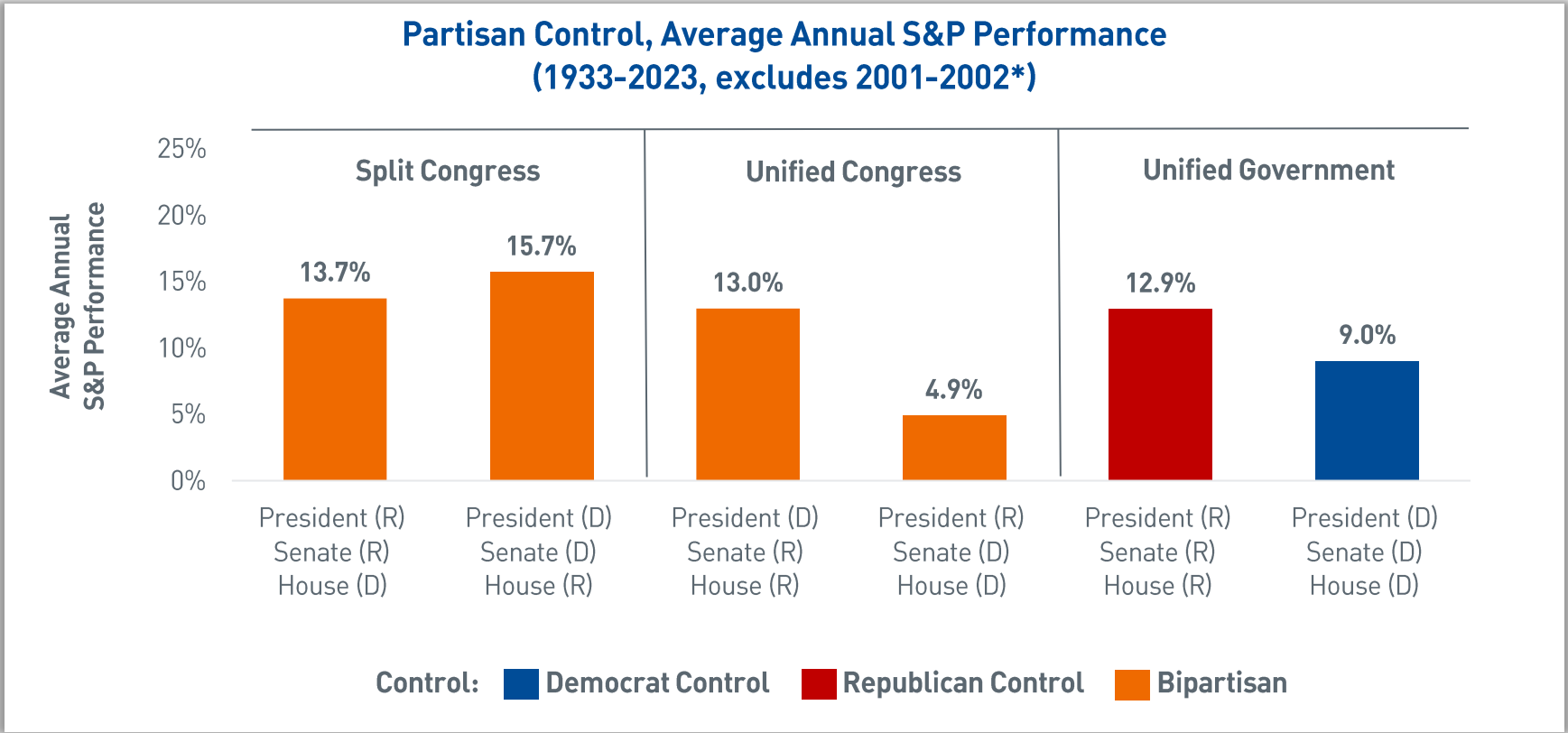
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# U.S. Elections Take Centerstage in 2024

Fiscal policy tools could offset economic weakness ahead of the elections

Investors have historically favored divided government

Markets may be underestimating the potential for expanded fiscal stimulus that could be provided ahead of the 2024 U.S. presidential election. We believe this may be underappreciated and would work to delay any economic weakness.



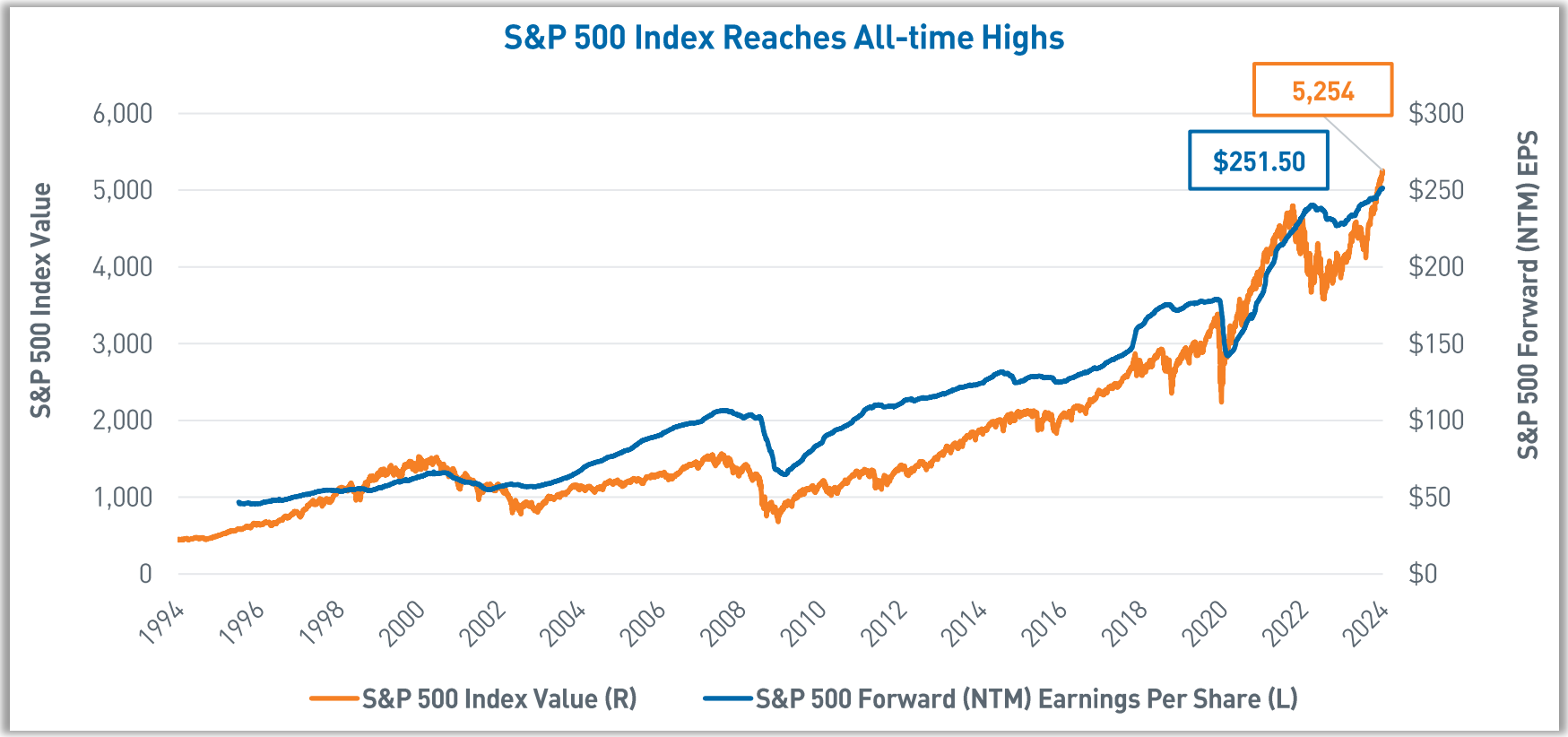
*\*Data excludes 2001-2002 when Senator James M. Jeffords left the Republican party in 2001 to become an Independent and caucus with Democrats.  
As of 3/31/2024. Source: Strategas Securities, LLC, PNC*

# S&P 500 Index and Forward Earnings

Earnings drive stock prices in the long run

**Consensus earnings estimates rise for the S&P 500 rise**

Consensus earnings estimates are above the highs of 2022, indicating very optimistic views that the business cycle reaccelerates from here. We believe these estimates do not reflect a possible slow down and suggest valuations may be rich.



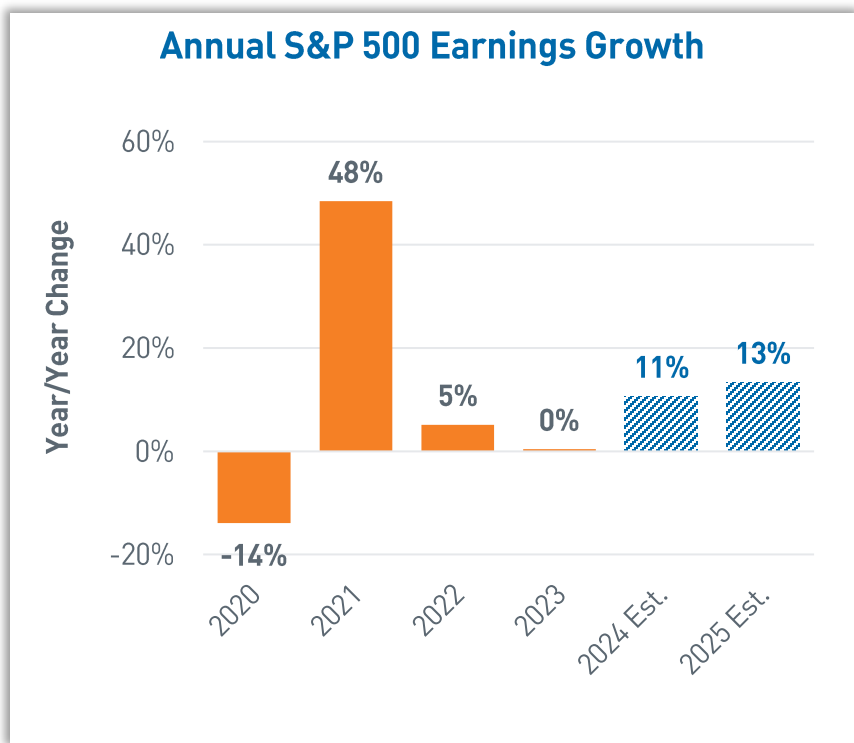
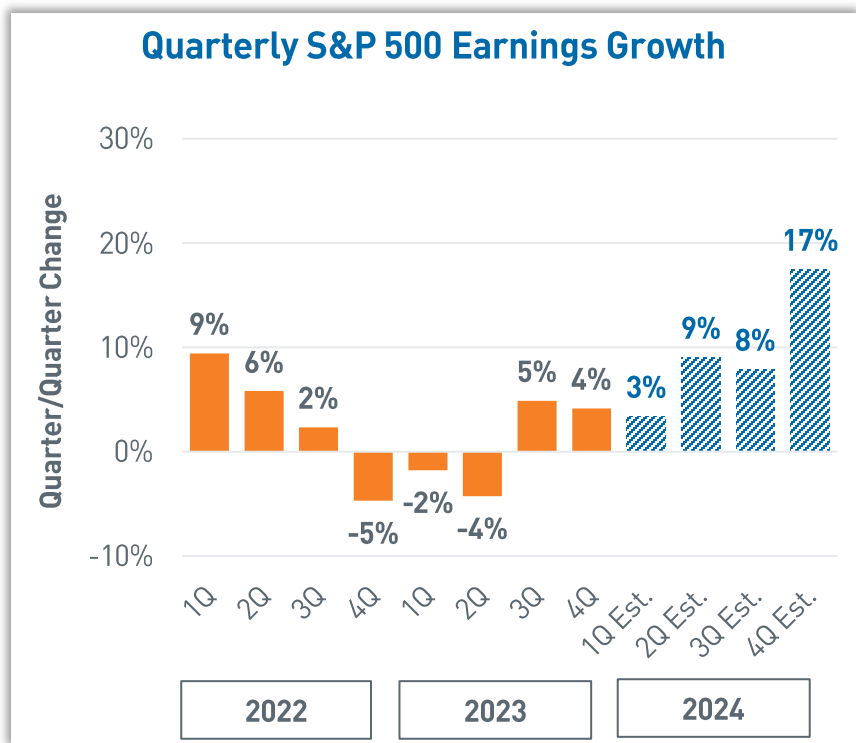
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# S&P 500 Earnings Outlook

Positive revisions trend masks narrow market breadth

The S&P 500 reaches  
all-time highs as  
forward earnings  
estimates rise

Consensus earnings growth for the first quarter is 3.4%, however excluding the “Magnificent 7” stocks (Microsoft Corp., Alphabet Inc., Meta Platforms Inc., Amazon.com, Apple Inc., Tesla Inc., and NVIDIA Corp.), it falls to -2.6%. Consensus earnings estimates for 2024 remain optimistic in our view, leaving valuations rich.



Scan the QR code using your smartphone's camera app to watch a video in which Dan Brady, PNC's Managing Director of Investment Strategy, discusses the S&P 500 Earnings Outlook



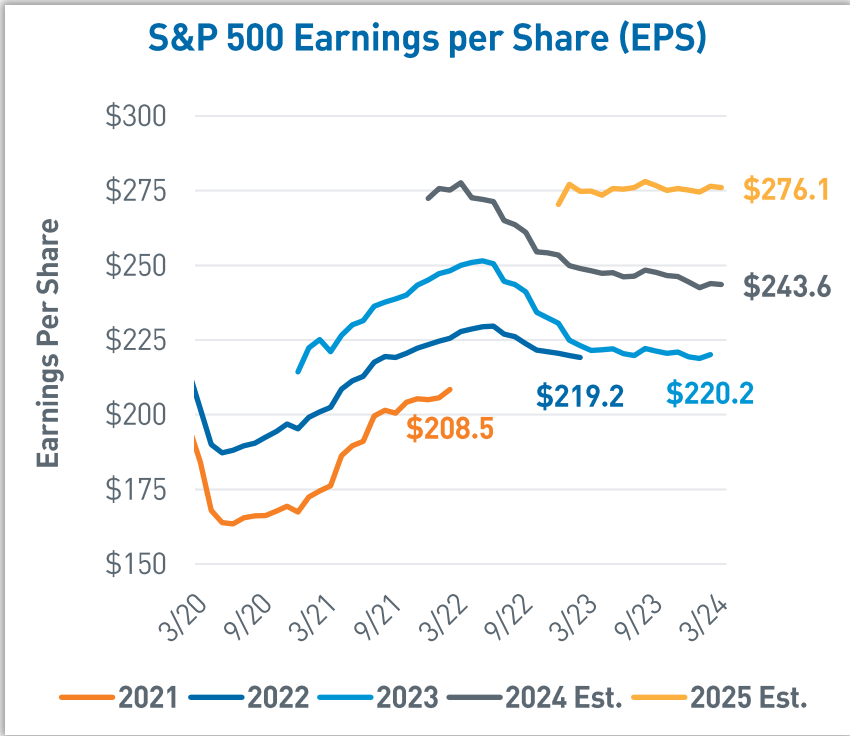
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# S&P 500 Earnings and Valuations

Valuation scenario analysis and the equity risk premium

Rising risks to future multiple expansion

From their peak in summer 2022, S&P 500 forward earnings have now risen 4%. It can be helpful for investors to see different scenarios depicting what it would take for equity markets to climb higher or pull back, without being considered under- or overvalued.



### Implied S&P 500 Price Level using Earnings per Share and Forward Price-to-Earnings

| NTM EPS | Hypothetical Scenario | Price to Earnings (P/E NTM) |       |       |       |       |
|---------|-----------------------|-----------------------------|-------|-------|-------|-------|
|         |                       | 18.0x                       | 19.5x | 21.0x | 22.5x | 24.0x |
| \$183   | 25% downside          | 3,280                       | 3,554 | 3,828 | 4,102 | 4,376 |
| \$219   | 10% downside          | 3,936                       | 4,265 | 4,594 | 4,923 | 5,251 |
| \$244   | *NTM Consensus Est.   | 4,373                       | 4,739 | 5,104 | 5,469 | 5,835 |
| \$268   | 10% upside            | 4,811                       | 5,213 | 5,614 | 6,016 | 6,418 |
| \$305   | 25% upside            | 5,467                       | 5,923 | 6,380 | 6,837 | 7,294 |

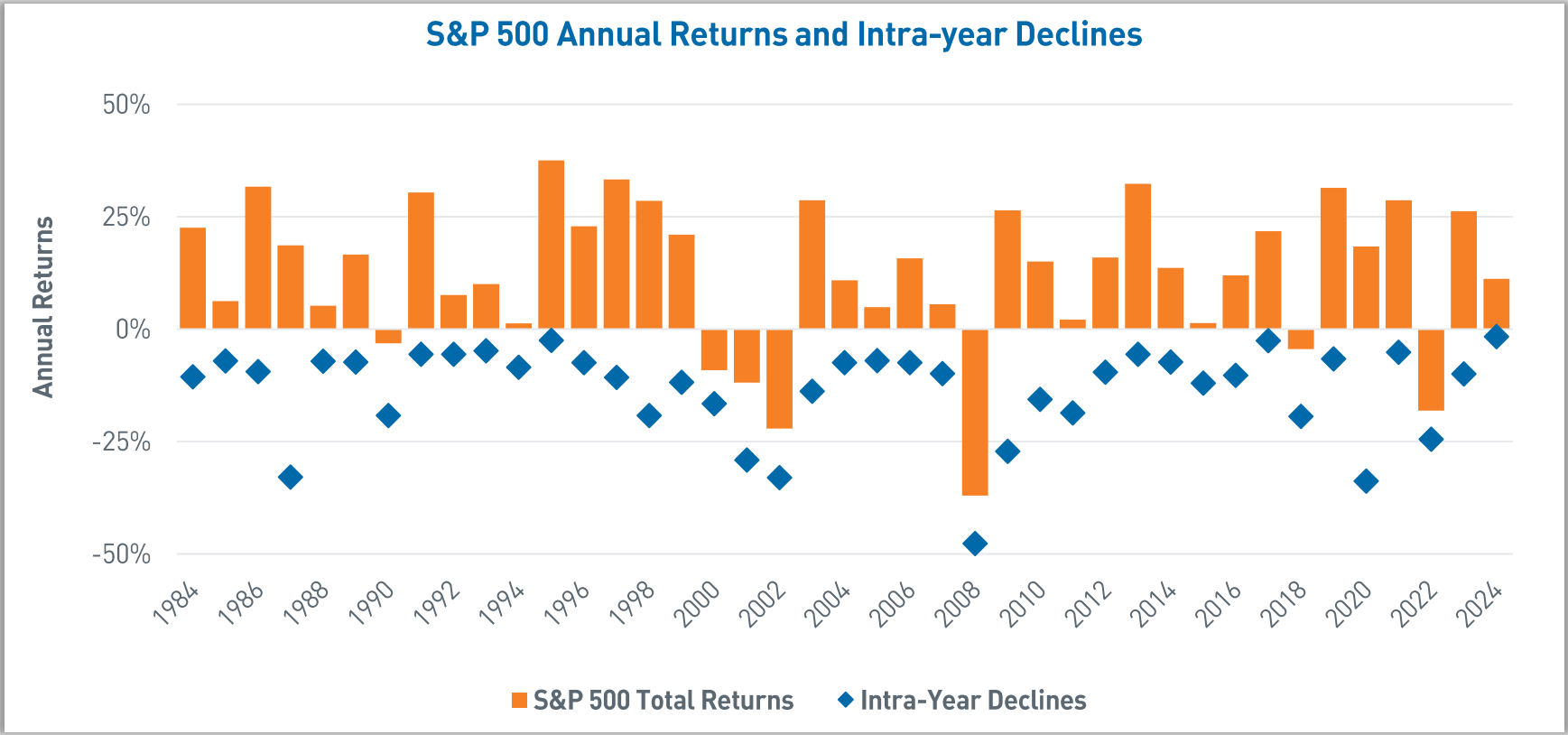
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# S&P 500 Market Volatility

Heightened volatility remains dependent on the path of monetary policy

**Pullbacks happen,  
even in positive  
returning years**

Even in years of positive performance, intra-year pullbacks can be sizeable, so it is critical to analyze pullbacks in different phases of the cycle. Drawdowns are a poor guide for how a year ultimately turns out, so it is important to stay invested.



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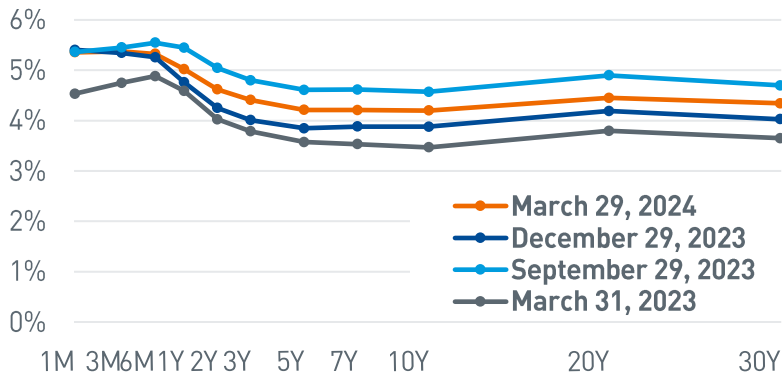


# Interest Rates

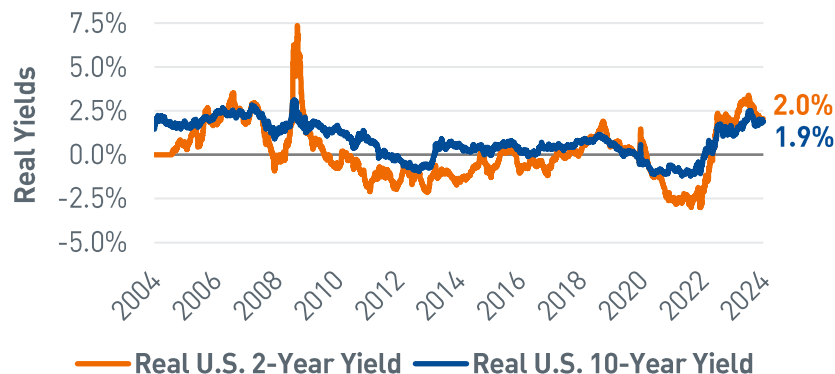
Markets are questioning a near-term Fed “pivot” as inflation remains high

Long-term U.S. Treasuries and real (inflation-adjusted) yields retraced the declines from late last year as expectations of an imminent Fed rate cut got delayed.

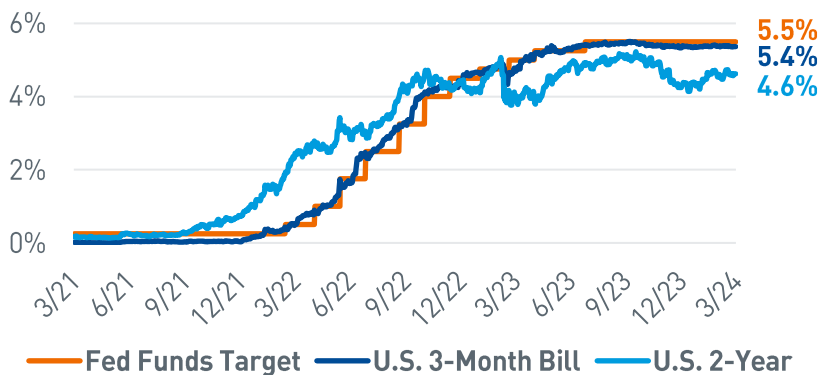
### U.S. Treasury Yield Curve



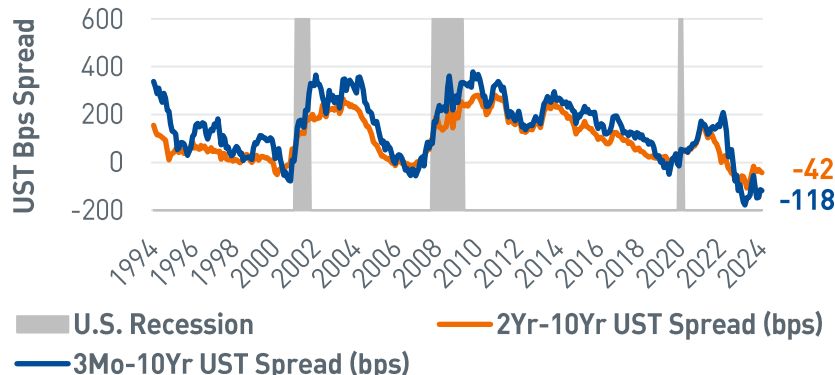
### Real U.S. Treasury Yields



### Short-term U.S. Treasury Yields



### U.S. Treasury Spreads



# Asset Class Performance

Leadership is cyclical and changes with the business cycle

While 2022 marked one of the worst years for stocks and bonds, financial markets rallied in 2023 as the Fed neared the end of its tightening cycle. In 2024, we expect Fed policy and economic strength to drive markets.

| 2009                  | 2010                  | 2011                 | 2012                  | 2013                  | 2014                  | 2015                 | 2016                 | 2017                  | 2018                  | 2019                  | 2020                  | 2021                  | 2022                   | 2023                  | YTD                   |  | LEGEND                                     |
|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|--|--|
| EM<br>82.36           | Small-Cap<br>26.85    |                      | EM<br>18.68           |                       |                       |                      | Small-Cap<br>21.31   | EM<br>36.83           |                       | Large Value<br>31.93  |                       |                       |                        | Large Growth<br>30.03 |                       |  | Large Cap S&P 500®                         |
| High Yield<br>58.21   | Mid-Cap<br>26.64      |                      | Real Estate<br>18.59  |                       |                       |                      | Mid-Cap<br>20.74     | Large Growth<br>27.44 |                       | Large Cap<br>31.49    | Large Growth<br>33.47 |                       |                        | Large Cap<br>26.29    |                       |  | Large Growth S&P 500 Growth                |
| Mid-Cap<br>37.38      | Real Estate<br>25.93  |                      | Mid-Cap<br>17.88      | Small-Cap<br>38.82    | Real Estate<br>24.91  |                      | Large Value<br>17.40 | Intl Dev<br>24.21     |                       | Large Growth<br>31.13 | Small-Cap<br>19.96    | Real Estate<br>39.35  |                        | Large Value<br>22.23  | Large Growth<br>12.75 |  | Large Value S&P 500 Value                  |
| Intl Dev<br>33.67     | EM<br>19.90           |                      | Large Value<br>17.68  | Mid-Cap<br>33.50      | Large Growth<br>14.89 |                      | High Yield<br>17.13  | Large Cap<br>21.83    |                       | Real Estate<br>27.62  | Large Cap<br>18.40    | Large Growth<br>32.01 |                        | Intl Dev<br>17.94     | Large Cap<br>10.56    |  | Mid-Cap S&P 400®                           |
| Large Growth<br>31.57 | High Yield<br>15.12   |                      | Intl Dev<br>16.41     | Large Growth<br>32.75 | Large Cap<br>13.69    |                      | Large Cap<br>11.96   | Mid-Cap<br>16.24      |                       | Mid-Cap<br>26.20      | EM<br>18.39           | Large Cap<br>28.71    |                        | Small-Cap<br>16.93    | Mid-Cap<br>9.95       |  | Small-Cap Russell 2000®                    |
| Real Estate<br>27.22  | Large Value<br>15.10  | Core Bond<br>7.84    | Small-Cap<br>16.35    | Large Cap<br>32.39    | Large Value<br>12.36  |                      | EM<br>9.90           | Large Value<br>15.36  |                       | Small-Cap<br>25.52    | Mid-Cap<br>13.66      | Large Value<br>24.90  |                        | Mid-Cap<br>16.44      | Large Value<br>8.05   |  | Intl Dev MSCI World ex USA                 |
| Small-Cap<br>27.17    | Large Cap<br>15.06    | High Yield<br>4.98   | Large Cap<br>16.00    | Large Value<br>31.99  | Mid-Cap<br>9.77       | Large Growth<br>5.52 | Large Growth<br>6.89 | Small-Cap<br>14.65    |                       | Intl Dev<br>22.49     | Intl Dev<br>7.59      | Mid-Cap<br>24.76      |                        | High Yield<br>13.44   | Intl Dev<br>5.59      |  | EM MSCI EM                                 |
| Large Cap<br>26.46    | Large Growth<br>15.05 | Real Estate<br>4.92  | High Yield<br>15.81   | Intl Dev<br>21.02     | Core Bond<br>5.97     | Large Cap<br>1.38    | Real Estate<br>6.74  | Real Estate<br>7.76   |                       | EM<br>17.65           | Core Bond<br>7.51     | Small-Cap<br>14.82    |                        | EM<br>11.67           | Small-Cap<br>5.18     |  | Core Bond Bloomberg US Aggregate           |
| Large Value<br>21.18  | Intl Dev<br>8.95      | Large Growth<br>4.65 | Large Growth<br>14.61 | High Yield<br>7.44    | Small-Cap<br>4.89     | Core Bond<br>0.55    | Intl Dev<br>2.75     | High Yield<br>7.50    |                       | High Yield<br>14.32   | High Yield<br>7.11    | Intl Dev<br>12.62     |                        | Real Estate<br>10.61  | EM<br>2.17            |  | High Yield Bloomberg US Corp High Yield    |
| Core Bond<br>5.93     | Core Bond<br>6.54     | Large Cap<br>2.11    | Core Bond<br>4.21     | Real Estate<br>1.93   | High Yield<br>2.45    | Real Estate<br>0.21  | Core Bond<br>2.65    | Core Bond<br>3.54     | Core Bond<br>0.01     | Core Bond<br>8.72     | Large Value<br>1.36   | High Yield<br>5.28    |                        | Core Bond<br>5.53     | High Yield<br>1.47    |  | Real Estate MSCI USA IMI Real Estate 25/50 |
|                       |                       | Large Value<br>-0.48 |                       | Core Bond<br>-2.02    | EM<br>-1.79           | Mid-Cap<br>-2.18     |                      |                       | Large Growth<br>-0.01 |                       | Real Estate<br>-5.57  | EM<br>-0.28           | Large Value<br>-5.22   |                       | Core Bond<br>-0.78    |  | POSITIVE RETURNS                           |
|                       |                       | Mid-Cap<br>-1.73     |                       | EM<br>-2.20           | Intl Dev<br>-4.32     | Intl Dev<br>-3.04    |                      |                       | High Yield<br>-2.08   |                       |                       | Core Bond<br>-1.54    | High Yield<br>-11.19   |                       | Real Estate<br>-1.41  |  |  |
|                       |                       | Small-Cap<br>-4.18   |                       |                       |                       | Large Value<br>-3.13 |                      |                       | Large Cap<br>-4.38    |                       |                       |                       | Core Bond<br>-13.01    |                       |                       |  |  |
|                       |                       | Intl Dev<br>-12.21   |                       |                       |                       | Small-Cap<br>-4.41   |                      |                       | Real Estate<br>-5.75  |                       |                       |                       | Mid-Cap<br>-13.06      |                       |                       |  |  |
|                       |                       | EM<br>-19.49         |                       |                       |                       | High Yield<br>-4.47  |                      |                       | Large Value<br>-8.95  |                       |                       |                       | Intl Dev<br>-14.29     |                       |                       |  |  |
|                       |                       |                      |                       |                       |                       | EM<br>-13.86         |                      |                       | Small-Cap<br>-11.01   |                       |                       |                       | Large Cap<br>-18.11    |                       |                       |  |  |
|                       |                       |                      |                       |                       |                       |                      |                      |                       | Mid-Cap<br>-11.08     |                       |                       |                       | EM<br>-19.83           |                       |                       |  |  |
|                       |                       |                      |                       |                       |                       |                      |                      |                       | Intl Dev<br>-14.09    |                       |                       |                       | Small-Cap<br>-20.44    |                       |                       |  |  |
|                       |                       |                      |                       |                       |                       |                      |                      |                       | EM<br>-15.05          |                       |                       |                       | Real Estate<br>-26.90  |                       |                       |  |  |
|                       |                       |                      |                       |                       |                       |                      |                      |                       |                       |                       |                       |                       | Large Growth<br>-29.41 |                       |                       |  |  |
|                       |                       |                      |                       |                       |                       |                      |                      |                       |                       |                       |                       |                       |                        |                       |                       |  | NEGATIVE RETURNS                           |

As of 3/31/2024. Source: Morningstar, PNC. MSCI USA IMI Real Estate 25/50 Index includes the historical results of the MSCI USA IMI Real Estate Index prior to 2017. Indices are unmanaged, not available for direct investment, and not subject to management fees, transaction costs or other types of expenses that an account may incur.

# Index Total Returns - Equity

Narrow 2023 performance leadership masks underlying weakness

|                 |                 | Trailing Total Returns             |         |       |       |        |         |         |          |          |          | PNC Capital Market Projections |            |
|-----------------|-----------------|------------------------------------|---------|-------|-------|--------|---------|---------|----------|----------|----------|--------------------------------|------------|
|                 |                 |                                    |         |       |       |        |         |         |          |          |          | 10 Year Forecast (2024-33)     |            |
|                 |                 | Index                              | 1 Month | QTD   | YTD   | 1 Year | 3 Years | 5 Years | 10 Years | 15 Years | 20 Years | Return                         | Volatility |
| U.S. EQUITY     | U.S. Equity     | Russell 3000                       | 3.2%    | 10.0% | 10.0% | 29.3%  | 9.8%    | 14.3%   | 12.3%    | 15.4%    | 10.1%    |                                |            |
|                 | LCC             | S&P 500                            | 3.2%    | 10.6% | 10.6% | 29.9%  | 11.5%   | 15.0%   | 13.0%    | 15.6%    | 10.2%    | 8.30%                          | 16.90%     |
|                 | LCG             | S&P 500 Growth                     | 2.1%    | 12.8% | 12.8% | 33.7%  | 10.2%   | 15.8%   | 14.6%    | 16.7%    | 11.1%    | 8.45%                          | 17.30%     |
|                 | LCV             | S&P 500 Value                      | 4.5%    | 8.1%  | 8.1%  | 25.6%  | 12.2%   | 13.3%   | 10.6%    | 14.1%    | 8.8%     | 8.15%                          | 17.80%     |
|                 | Sector          | S&P 500 Communication Services     | 4.3%    | 15.8% | 15.8% | 49.8%  | 6.9%    | 13.7%   | 9.4%     | 11.0%    | 8.5%     |                                |            |
|                 | Sector          | S&P 500 Consumer Discretionary     | 0.1%    | 5.0%  | 5.0%  | 28.7%  | 4.3%    | 11.5%   | 12.6%    | 17.8%    | 10.8%    |                                |            |
|                 | Sector          | S&P 500 Consumer Staples           | 3.5%    | 7.5%  | 7.5%  | 7.2%   | 8.0%    | 10.0%   | 9.3%     | 12.3%    | 9.3%     |                                |            |
|                 | Sector          | S&P 500 Energy                     | 10.6%   | 13.7% | 13.7% | 17.7%  | 30.0%   | 12.9%   | 4.7%     | 8.5%     | 8.8%     |                                |            |
|                 | Sector          | S&P 500 Financials                 | 4.8%    | 12.5% | 12.5% | 33.5%  | 9.5%    | 12.8%   | 11.1%    | 14.7%    | 5.1%     |                                |            |
|                 | Sector          | S&P 500 Health Care                | 2.4%    | 8.8%  | 8.8%  | 16.1%  | 10.0%   | 12.1%   | 11.7%    | 14.9%    | 10.3%    |                                |            |
|                 | Sector          | S&P 500 Industrials                | 4.4%    | 11.0% | 11.0% | 26.7%  | 10.4%   | 13.0%   | 11.1%    | 15.8%    | 9.9%     |                                |            |
|                 | Sector          | S&P 500 Information Technology     | 2.0%    | 12.7% | 12.7% | 46.0%  | 19.0%   | 25.4%   | 22.0%    | 21.8%    | 14.6%    |                                |            |
|                 | Sector          | S&P 500 Materials                  | 6.5%    | 8.9%  | 8.9%  | 17.6%  | 7.9%    | 13.3%   | 9.2%     | 12.7%    | 9.0%     |                                |            |
|                 | Sector          | S&P 500 Real Estate                | 1.8%    | -0.5% | -0.5% | 9.6%   | 3.4%    | 5.3%    | 8.0%     | 15.1%    | 8.1%     |                                |            |
|                 | Sector          | S&P 500 Utilities                  | 6.6%    | 4.6%  | 4.6%  | 0.4%   | 4.1%    | 5.9%    | 8.4%     | 10.5%    | 9.0%     |                                |            |
|                 | MCC             | S&P 400                            | 5.6%    | 10.0% | 10.0% | 23.3%  | 7.0%    | 11.7%   | 10.0%    | 14.7%    | 10.1%    | 9.00%                          | 20.80%     |
|                 | MCG             | S&P 400 Growth                     | 5.8%    | 15.6% | 15.6% | 29.3%  | 6.4%    | 12.0%   | 10.4%    | 15.1%    | 10.4%    | 8.95%                          | 20.20%     |
|                 | MCV             | S&P 400 Value                      | 5.4%    | 4.1%  | 4.1%  | 17.2%  | 7.2%    | 10.9%   | 9.2%     | 14.1%    | 9.5%     | 9.05%                          | 22.30%     |
|                 | SCC             | Russell 2000                       | 3.6%    | 5.2%  | 5.2%  | 19.7%  | -0.1%   | 8.1%    | 7.6%     | 12.9%    | 8.1%     | 9.40%                          | 22.00%     |
|                 | SCG             | Russell 2000 Growth                | 2.8%    | 7.6%  | 7.6%  | 20.3%  | -2.7%   | 7.4%    | 7.9%     | 13.4%    | 8.4%     | 9.45%                          | 23.90%     |
|                 | SCV             | Russell 2000 Value                 | 4.4%    | 2.9%  | 2.9%  | 18.8%  | 2.2%    | 8.2%    | 6.9%     | 12.1%    | 7.5%     | 9.00%                          | 23.70%     |
|                 | REITs           | MSCI USA IMI REAL ESTATE 25-50     | 1.8%    | -1.4% | -1.4% | 7.4%   | 0.8%    | 2.7%    | --       | --       | --       | 8.00%                          | 23.60%     |
| NON-U.S. EQUITY | Non-U.S. Equity | MSCI ACWI Ex USA IMI               | 3.1%    | 4.3%  | 4.3%  | 13.2%  | 1.7%    | 6.0%    | 4.3%     | 8.1%     | 5.8%     |                                |            |
|                 | ILCC            | MSCI World ex USA                  | 3.4%    | 5.6%  | 5.6%  | 15.3%  | 4.9%    | 7.5%    | 4.8%     | 8.4%     | 5.8%     | 8.80%                          | 18.80%     |
|                 | ILCG            | MSCI World Ex USA Growth           | 2.4%    | 6.9%  | 6.9%  | 13.7%  | 2.8%    | 7.9%    | 5.7%     | 8.8%     | 6.2%     | 8.90%                          | 18.30%     |
|                 | ILCV            | MSCI World Ex USA Value            | 4.4%    | 4.2%  | 4.2%  | 16.9%  | 6.8%    | 6.6%    | 3.6%     | 7.7%     | 5.1%     | 8.70%                          | 20.20%     |
|                 | ISCC            | MSCI World Ex USA Small Cap        | 4.1%    | 2.6%  | 2.6%  | 10.0%  | -0.9%   | 5.4%    | 4.5%     | 9.9%     | 6.5%     | 9.30%                          | 21.40%     |
|                 | ISCG            | MSCI World Ex USA Small Cap Growth | 3.0%    | 2.3%  | 2.3%  | 7.2%   | -4.2%   | 4.6%    | 4.8%     | 9.9%     | 6.5%     | 9.50%                          | 21.40%     |
|                 | ISCV            | MSCI World Ex USA Small Cap Value  | 5.1%    | 2.9%  | 2.9%  | 12.9%  | 2.2%    | 5.8%    | 4.1%     | 9.8%     | 6.7%     | 9.10%                          | 21.60%     |
|                 | EM              | MSCI Emerging Markets IMI          | 2.1%    | 2.2%  | 2.2%  | 9.8%   | -3.9%   | 3.0%    | 3.2%     | 7.0%     | 6.7%     | 9.80%                          | 24.60%     |
|                 | Global Equity   | MSCI All Country                   | 3.1%    | 8.2%  | 8.2%  | 23.2%  | 7.0%    | 10.9%   | 8.7%     | 11.6%    | 7.8%     |                                |            |
|                 | INFRA           | S&P Global Infrastructure          | 4.5%    | 1.1%  | 1.1%  | 3.1%   | 4.6%    | 4.0%    | 4.2%     | 7.9%     | 6.9%     | 8.50%                          | 17.60%     |

As of 3/31/2024. Source: Morningstar, Inc., FactSet®. Indices are unmanaged, not available for direct investment, and not subject to management fees, transaction costs or other types of expenses that an account may incur.

# Index Total Returns – Fixed Income and Alternatives

Narrow 2023 performance leadership masks underlying weakness

|                        |                 |   |             |              |              |             |              |             |             |             |             | PNC Capital Market Projections |              |
|------------------------|-----------------|---|-------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|--------------------------------|--------------|
| Trailing Total Returns |                 |   |             |              |              |             |              |             |             |             |             | 10 Year Forecast (2024-33)     |              |
| FIXED INCOME           | Index           |   | 1 Month     | QTD          | YTD          | 1 Year      | 3 Years      | 5 Years     | 10 Years    | 15 Years    | 20 Years    | Return                         | Volatility   |
|                        | MUNI            | Bloomberg Municipal Bond                          | 0.0%        | -0.4%        | -0.4%        | 3.1%        | -0.4%        | 1.6%        | 2.7%        | 3.7%        | 3.6%        | 3.20%                          | 4.95%        |
|                        | SHORT MUNI      | Bloomberg Municipal 1-3 Year                      | -0.1%       | 0.0%         | 0.0%         | 2.2%        | 0.5%         | 1.1%        | 1.1%        | 1.3%        | 1.8%        | 2.40%                          | 1.40%        |
|                        | <b>CORE</b>     | <b>Bloomberg US Aggregate</b>                     | <b>0.9%</b> | <b>-0.8%</b> | <b>-0.8%</b> | <b>1.7%</b> | <b>-2.5%</b> | <b>0.4%</b> | <b>1.5%</b> | <b>2.6%</b> | <b>3.0%</b> | <b>4.50%</b>                   | <b>4.30%</b> |
|                        | SHORT           | Bloomberg US Aggregate 1-3 Year                   | 0.4%        | 0.5%         | 0.5%         | 3.6%        | 0.3%         | 1.3%        | 1.3%        | 1.5%        | 2.1%        | 3.70%                          | 1.45%        |
|                        | INTERM          | Bloomberg US Govt/Credit Intermediate             | 0.6%        | -0.2%        | -0.2%        | 2.7%        | -1.1%        | 1.1%        | 1.6%        | 2.5%        | 2.8%        | 4.20%                          | 3.40%        |
|                        | LONG            | Bloomberg US Govt/Credit Long                     | 1.6%        | -2.4%        | -2.4%        | -1.1%       | -6.0%        | -0.6%       | 2.3%        | 4.5%        | 4.4%        | 5.80%                          | 11.10%       |
|                        | TIPS            | Bloomberg US Treasury US TIPS                     | 0.8%        | -0.1%        | -0.1%        | 0.5%        | -0.5%        | 2.5%        | 2.2%        | 3.1%        | 3.4%        | 4.90%                          | 6.50%        |
|                        | BILLS           | Bloomberg US Treasury Bills 1-3 Month             | 0.5%        | 1.3%         | 1.3%         | 5.4%        | 2.7%         | 2.0%        | 1.4%        | 0.9%        | 1.5%        | 3.50%                          | 0.50%        |
|                        | HY              | Bloomberg US Corporate High Yield                 | 1.2%        | 1.5%         | 1.5%         | 11.2%       | 2.2%         | 4.2%        | 4.4%        | 8.9%        | 6.5%        | 6.30%                          | 10.50%       |
| ALTERNATIVES           | LLOAN           | Morningstar LSTA U.S. Leveraged Loan              | 0.9%        | 2.5%         | 2.5%         | 12.5%       | 6.0%         | 5.5%        | 4.5%        | 7.1%        | 4.9%        | 4.90%                          | 7.75%        |
|                        | IBND            | Bloomberg Global Aggregate                        | 0.6%        | -2.1%        | -2.1%        | 0.5%        | -4.7%        | -1.2%       | -0.1%       | 1.6%        | 2.2%        | 5.50%                          | 8.80%        |
|                        | EMD             | Bloomberg EM USD Aggregate                        | 1.7%        | 1.5%         | 1.5%         | 8.4%        | -1.5%        | 1.1%        | 2.9%        | 6.0%        | 5.7%        | 6.30%                          | 9.60%        |
|                        | Hedge Funds     | HFRX Global Hedge Fund (USD)                      | 1.3%        | 2.5%         | 5.7%         | 5.7%        | 1.1%         | 3.4%        | 1.6%        | 2.3%        | 1.3%        | 5.60%                          | 7.00%        |
|                        | Equity Hedge    | HFRX Equity Hedge                                 | 1.3%        | 3.4%         | 10.5%        | 9.7%        | 5.3%         | 5.6%        | 3.1%        | 3.1%        | 1.6%        |                                |              |
|                        | Event Driven    | HFRX Event Driven                                 | 1.1%        | 1.3%         | 1.8%         | 2.0%        | -2.3%        | 2.4%        | 0.3%        | 2.3%        | 1.8%        |                                |              |
|                        | Macro-CTA       | HFRX Macro  | 2.5%        | 5.9%         | 4.3%         | 7.0%        | 2.2%         | 3.4%        | 1.6%        | -0.2%       | 0.8%        |                                |              |
|                        | Relative Value  | HFRX Relative Value Arbitrage                     | 0.5%        | 0.7%         | 5.5%         | 4.3%        | -0.7%        | 1.9%        | 0.8%        | 3.4%        | 1.0%        |                                |              |
|                        | Private Capital | Burgiss Global Private Capital*                   |             | -0.2%        | 2.7%         | 4.0%        | 14.6%        | 12.7%       | 12.6%       | 10.7%       | 12.7%       |                                |              |
|                        | Private Equity  | Burgiss Global Private Equity*                    |             | -0.6%        | 2.7%         | 3.3%        | 15.7%        | 15.7%       | 15.2%       | 13.1%       | 14.6%       |                                |              |
|                        |                 | Burgiss Global Private Equity ex-Venture Capital* |             | -0.1%        | 4.9%         | 8.3%        | 16.6%        | 15.2%       | 14.6%       | 12.8%       | 15.0%       | 10.65%                         | 21.90%       |
|                        |                 | Burgiss Global Venture Capital*                   |             | -2.1%        | -3.2%        | -9.1%       | 13.4%        | 17.1%       | 17.3%       | 14.1%       | 12.7%       |                                |              |
|                        |                 | Burgiss Global Early-Stage Venture Capital*       |             | -2.5%        | -4.7%        | -10.1%      | 16.7%        | 17.3%       | 16.9%       | 13.8%       | 12.5%       |                                |              |
|                        |                 | Burgiss Global Late-Stage Venture Capital*        |             | -2.0%        | -2.3%        | -9.1%       | 10.8%        | 17.3%       | 17.7%       | 15.6%       | 14.6%       |                                |              |
|                        |                 | Burgiss Global Expansion Capital*                 |             | -0.2%        | 2.0%         | 3.5%        | 7.2%         | 6.8%        | 8.2%        | 7.8%        | 10.0%       |                                |              |
|                        |                 | Burgiss Global Buyout*                            |             | -0.1%        | 5.4%         | 9.5%        | 17.4%        | 15.6%       | 15.0%       | 13.1%       | 15.4%       |                                |              |
|                        | Private Debt    | Burgiss Global Private Debt*                      |             | 2.1%         | 6.8%         | 10.1%       | 10.9%        | 7.6%        | 7.9%        | 8.6%        | 10.0%       | 7.70%                          | 15.00%       |
|                        | Real Assets     | Burgiss Global Private Real Assets*               |             | 0.0%         | 0.7%         | 3.0%        | 12.1%        | 6.7%        | 8.0%        | 4.9%        | 8.5%        |                                |              |
|                        |                 | Burgiss Global Real Estate*                       |             | -2.4%        | -3.9%        | -4.5%       | 8.9%         | 6.4%        | 8.6%        | 4.0%        | 7.4%        | 8.30%                          | 12.70%       |
|                        |                 | Burgiss Global Infrastructure*                    |             | 0.8%         | 4.5%         | 9.6%        | 11.4%        | 8.9%        | 9.6%        | 7.3%        | 9.5%        |                                |              |
|                        |                 | Burgiss Global Natural Resources*                 |             | 4.7%         | 3.2%         | 7.1%        | 20.4%        | 5.4%        | 4.7%        | 5.1%        | 10.4%       |                                |              |
|                        |                 | Bloomberg Commodity                               | 3.3%        | 2.2%         | 2.2%         | -0.6%       | 9.1%         | 6.4%        | -1.6%       | 0.3%        | -0.6%       | 6.20%                          | 17.50%       |

\*Private alternative investments are subject to reporting lag; data is available as of most recent reported data; Burgiss Global Private Equity ex-Venture Capital Funds Index, Burgiss Global Private Debt Funds Index, and Burgiss Global Real Estate Funds Index as of 9/30/2023. As of 3/31/2024. Source: Morningstar, Inc., FactSet®, The Burgiss Group, LLC, Indices are unmanaged, not available for direct investment, and not subject to management fees, transaction costs or other types of expenses that an account may incur.

# Capital Market Assumptions: Methodology

## Methodology & Key Assumptions

Results in this report incorporate PNC's Capital Market Assumptions (CMA) for calendar year 2024. These assumptions represent PNC Bank's 10-year projections of risk and return for the respective asset classes. These estimates are updated on an annual basis and take into account economic fundamentals, long-term historical trends, as well as other relevant factors.

### Methodology

CMA returns reflect combining market-implied equilibrium returns with PNC's subjective views using a technique known as Black-Litterman<sup>1</sup>. Black Litterman Methodology blends subjective and market-implied views using a Bayesian approach that takes account of cross-asset-class relationships to help determine an internally consistent set of final estimates. In general, the expected return on every asset class is adjusted so that it is as consistent as possible with both the market-implied equilibrium and our subjective views, even if we do not express a specific subjective view on that asset class. This methodology is an imperfect model of market behavior. Among the simplifications is the assumption that asset returns are adequately summarized by constant means, variances, and correlations. Empirical evidence generally indicates that these statistics are not sufficient to fully characterize asset returns.

The projected returns for hedge funds, private debt, private equity, and private real estate (property) include premiums for the fact that these classes are, in varying degrees, illiquid. The mean returns shown should be interpreted as arithmetic average returns. They are not compounded rates of return. The difference between these two concepts is approximately equal to one-half the asset's volatility squared.

### Key Assumptions

**Risk-free Rate** — As of August 31, 2023, the yield on the 10-year UST is above 4%. This is slightly higher than what we expect over the next 10 years. Our approximation for the risk-free rate remains 3.0%, consistent with our 2023 analysis. We believe this is a reasonable expectation as the Fed normalizes the interest rate environment, likely starting in 2024. For reference, the 2022 analysis used a risk-free rate of 1.5%.

**Inflation** — We use an inflation expectation of 2.25% per year, based on our estimated Consumer Price Index (CPI)<sup>2</sup> level over the forecast period. This is consistent with, but slightly higher than, the Fed's long-run target level of 2%. While CPI has recently run at the highest level in 40 years, over the next 10 years, we believe levels will normalize around 2.25%. This is also consistent with market expectations based on inflation breakeven rates<sup>3</sup>, which are currently trending back toward 2%.

**U.S. Dollar** — We have assumed the Fed's nominal Trade-Weighted U.S. Dollar Index<sup>4</sup> remains flat over the forecast horizon. Given the significant interest rate differentials around the globe, we expect the dollar to largely maintain its current position of relative strength against most other major currencies.

<sup>1</sup> The Black-Litterman methodology was introduced by Fischer Black and Robert Litterman of Goldman Sachs in 1990. It avoids problems inherent in some other methods by incorporating market-implied equilibrium returns consistent with the risk structure of the asset classes. The model works by blending subjective and market-implied views using a Bayesian approach that takes account of cross-asset-class relationships to help determine an internally consistent set of final estimates. In general, the expected return on every asset class is adjusted so that it is as consistent as possible with both the market-implied equilibrium and our subjective views, even if we do not express a specific subjective view on that asset class. <sup>2</sup> The CPI measures changes in the price level of a weighted average market basket of consumer goods and services purchased by households. It is usually calculated and reported by the Bureau of Economic Analysis and Statistics of a country on a monthly and annual basis. <sup>3</sup> The inflation breakeven rate, defined by the U.S. Bureau of Labor Statistics is derived as a discount rate that equates the nominal return on a dollar of investment to the real return (not as an arithmetic difference between the nominal rate and the real rate). <sup>4</sup> The Trade-Weighted U.S. Dollar Index, also known as the broad index, is a measure of the value of the dollar relative to other world currencies. It is a trade-weighted index that improves on the older U.S. Dollar Index by using more currencies and updating the weights yearly rather than on an ad-hoc basis.

Capital Market Projections have been furnished for illustrative purposes only and are not intended as investment advice. Past performance is not indicative of future returns. Indices are unmanaged, not available for direct investment, and not subject to management fees, transaction costs or other types of expenses that an account may incur. Source: PNC

# Capital Market Assumptions: Key Assumptions

## Methodology & Key Assumptions

**Currency Impacts** — International equities generally entail currency exposure, which potentially adds volatility for U.S.-based investors. However, compensation for this additional risk may not be adequate or reliable, and international equities have not historically offered consistent purchasing power protection. Over the short term, when the dollar is strengthening, U.S. equities and fixed income investments tend to outperform their international counterparts. Conversely, when the dollar is weakening, international investments tend to outperform. This is all from the perspective of a U.S.-based investor (defined as an investor whose local currency is the U.S. dollar, whether an individual or institution).

In an international equity portfolio with exposure to a basket of currencies, some will likely have positive returns in local currency terms, while others will be negative. In theory, this counter effect should result in currency exposures netting themselves out over time. In addition, currency returns do not exhibit strong positive correlations and, as such, tend to help diversify equity portfolios. Furthermore, there is ample empirical evidence that has been cited by the CFA Institute, among others, suggesting the standard deviation (i.e., volatility) of currency prices is only about half the standard deviation of stock prices. This suggests to us that an unhedged currency exposure may help reduce the volatility of an international equity portfolio over time. As currencies also tend to revert to a theoretical fair value/mean over time, currency-related volatility risk tends to fall, becoming a less critical component of equity risk. Thus, over the long term, our preference is to be unhedged.

**Cash and Cash Equivalents** — We use the 3-month Treasury bill (T-bill) as our proxy for cash, despite it being subject to inflation and interest rate risk. Although T-bills typically do not generate positive real returns (i.e., inflation-adjusted), they do offer liquidity, safety of principal and exemption from state and local taxes. T-bills tend to carry higher yields than what are available in cash accounts, such as money market funds or deposit accounts, but are comparable on a risk-adjusted basis.

**Volatility** — Our volatility assumptions are primarily driven by a historical blend of both turbulent and quiet market periods, defined within the Windham Portfolio Advisor technology platform as the 30% most statistically unusual observations, which are then classified as turbulent. Based on our analysis of historical market volatility over the past 20-plus years, we use a blend of 60% quiet periods, 40% turbulent periods to derive our assumed asset class volatilities. This methodology has been consistently implemented in our CMA process.

The volatility backdrop over the last five years has increased, even with declines in 2023 relative to 2022. As a result, we expect an increase in overall volatility for the forecasted 10-year horizon. Persistently higher volatility has developed into a “new normal,” brought on, in part, by technological enhancements to financial markets overall. However, the volatility backdrop is not significant enough, in our view, to shift our split between quiet and turbulent periods, given we are forecasting a 10-year horizon.



# Capital Market Assumptions: 10-Year Forecast

2024-2033

| Asset Class                   | Index                              | Projected     |                                | Asset Class             | Index   | Projected     |                                |
|-------------------------------|------------------------------------|---------------|--------------------------------|-------------------------|---|---------------|--------------------------------|
|                               |                                    | Annual Return | Annual Volatility <sup>5</sup> |                         |   | Annual Return | Annual Volatility <sup>5</sup> |
| U.S. EQUITY                   |                                    |               |                                | FIXED INCOME            |   |               |                                |
| US Large Cap – Growth         | S&P 500 Growth                     | 8.45%         | 17.30%                         | Municipal Short-term    | Bloomberg Municipal Bond (1-3 Y)                              | 3.70%         | 1.40%                          |
| US Large Cap – Core           | S&P 500                            | 8.30%         | 16.90%                         | Municipal               | Bloomberg Municipal Bond                                      | 4.50%         | 4.95%                          |
| US Large Cap – Value          | S&P 500 Value                      | 8.15%         | 17.80%                         | Core Short-term         | Bloomberg US Aggregate (1-3 Y)                                | 3.70%         | 1.45%                          |
| US Mid Cap – Growth           | S&P MidCap 400 Growth              | 8.95%         | 20.20%                         | Core                    | Bloomberg US Aggregate  | 4.50%         | 4.30%                          |
| US Mid Cap – Core             | S&P MidCap 400                     | 9.00%         | 20.80%                         | Taxable Intermediate    | Bloomberg US Government/Corporate Intermediate                | 4.20%         | 3.40%                          |
| US Mid Cap – Value            | S&P MidCap 400 Value               | 9.05%         | 22.30%                         | Taxable Long            | Bloomberg US Government/Corporate Long                        | 5.80%         | 11.10%                         |
| US Small Cap – Growth         | Russell 2000 Growth                | 9.45%         | 23.90%                         | U.S. Leveraged Loans    | Morningstar LSTA U.S. Leveraged Loan                          | 4.90%         | 7.75%                          |
| US Small Cap – Core           | Russell 2000                       | 9.40%         | 22.00%                         | U.S. High Yield         | Bloomberg US Corporate High Yield                             | 6.30%         | 10.50%                         |
| US Small Cap – Value          | Russell 2000 Value                 | 9.00%         | 23.70%                         | Int’l Developed Markets | Bloomberg Global Aggregate Ex-US                              | 5.50%         | 8.80%                          |
| Real Estate Investment Trusts | MSCI USA IMI Real Estate 25-50     | 9.80%         | 23.60%                         | Emerging Markets        | Bloomberg Emerging Markets USD Aggregate                      | 6.30%         | 9.60%                          |
|                               |                                    |               |                                | Inflation-linked Bonds  | Bloomberg US Treasury TIPS                                    | 4.90%         | 6.50%                          |
| INTERNATIONAL EQUITY          |                                    |               |                                | ALTERNATIVES            |   |               |                                |
| Int’l Large/Mid – Growth      | MSCI World ex USA Growth           | 8.90%         | 18.30%                         | Private Equity          | Burgiss Global Private Equity ex-Venture Capital <sup>6</sup> | 10.65%        | 21.90%                         |
| Int’l Large/Mid – Core        | MSCI World ex USA                  | 8.80%         | 18.80%                         | Private Debt            | Burgiss Global Private Debt <sup>6</sup>                      | 7.70%         | 15.00%                         |
| Int’l Large/Mid – Value       | MSCI World ex USA Value            | 8.70%         | 20.20%                         | Private Real Estate     | Burgiss Global Real Estate <sup>6</sup>                       | 8.30%         | 12.70%                         |
| Int’l Small – Growth          | MSCI World ex USA Small Cap Growth | 9.50%         | 21.40%                         | Infrastructure          | S&P Global Infrastructure Index                               | 8.50%         | 17.60%                         |
| Int’l Small – Core            | MSCI World ex USA Small Cap        | 9.30%         | 21.40%                         | Commodities             | Bloomberg Commodity Index                                     | 6.20%         | 17.50%                         |
| Int’l Small – Value           | MSCI World ex USA Small Cap Value  | 9.10%         | 21.60%                         | Hedge Funds             | HFRI Fund of Funds Composite Index                            | 5.60%         | 7.00%                          |
| Emerging Markets              | MSCI Emerging Markets IMI          | 9.80%         | 24.60%                         |                         |   |               |                                |

<sup>5</sup> The volatilities for each asset class shown in this table represent our projections for annual volatilities. In performing the underlying analysis, we used historical monthly volatilities (as opposed to daily or weekly) spanning the last 20+ years as a key input. <sup>6</sup> The Private Equity, Private Debt, and Private Real Estate indices have been de-smoothed and the resulting index returns generally tracks the return patterns of the original index, but with greater volatility.

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ASSET MANAGEMENT

# Appendix



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# I-Hub Online Solutions

## Overview and Enhancements

PNC Institutional Asset Management invests in technology to help institutional investors. Our I-Hub solution includes:

| ONLINE ACCOUNT ACCESS  | REPORTING CAPABILITIES  |
|--|---|
| <ul style="list-style-type: none"><li>• Access from any device</li><li>• Customized access for each user</li><li>• Dedicated technical support</li><li>• Messaging including sending documents securely</li><li>• Document retrieval for statements, investment policy statement, fee invoices and more.</li></ul>   | <ul style="list-style-type: none"><li>• Customizable reporting of key account information</li><li>• Benefit payment inquiry access and reporting</li><li>• Paperless statements for authorized persons</li></ul>  |
| OPERATIONAL CAPABILITIES   | SECURITY FEATURES   |
| <ul style="list-style-type: none"><li>• Ability to initiate and manage cash processing</li><li>• Ability to initiate and manage benefit payments</li><li>• Ability to process mutual fund, equity, and fixed income trades</li><li>• Ability to process wires for alternative investment capital calls</li></ul>   | <ul style="list-style-type: none"><li>• Unique login credential with strict password parameters</li><li>• Dual authentication with each login requires additional one-time passcode be sent to email, phone (voice) or text</li><li>• Customizable approval flows for your organization</li><li>• Emails sent to authorized persons for withdrawals that exceed thresholds by withdrawal type</li></ul> |
| LATEST SYSTEM ENHANCEMENTS   |   |
| <ul style="list-style-type: none"><li>• Requirement for One-Time Passcode (OTP) with each login to assist with preventing fraud. Expanded options to receive the OTP include voice call or text message.</li><li>• Allowing a current authorized person to utilize I-Hub to request a new authorized signer be added. The new Authorized Signers form is executed within I-Hub using e-Sign.</li><li>• Messaging enhancement to include the Investment Advisor in addition to the existing options of the Institutional Trust Officer and I-Hub Support.</li></ul> |   |

If you have questions, or would like an I-Hub demo, please reach out to your  
Institutional Trust Officer or contact

**I-Hub Support at 1-877-636-9703 or [pnc.i-hub.support@pnc.com](mailto:pnc.i-hub.support@pnc.com)**

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