



**MIAMI UNIVERSITY  
INVESTMENT SUBCOMMITTEE MEETING  
Wednesday, June 21, 2023  
104 Roudebush Hall  
Oxford, OH  
3:00 – 5:00 pm**

**AGENDA**

- |      |   |              |
|------|---|--------------|
| I.   | Non-endowment review <ul style="list-style-type: none"><li>- Capital stack</li><li>- Tier allocation</li><li>- Cash flow</li><li>- Investment income</li></ul>                        | Guiot/SIG    |
| II.  | Fiscal Year to Date Update <ul style="list-style-type: none"><li>- Investment performance review</li><li>- Non-endowment and Endowment</li></ul>                                      | SIG          |
| III. | Annual Policy Reviews <ul style="list-style-type: none"><li>- <a href="#">Debt Policy</a></li><li>- Endowment Spending Policy</li><li>- Endowment Administrative Fee Policy</li></ul> | Guiot/Viezer |
| IV.  | Updates <ul style="list-style-type: none"><li>- Pooled Investment Fund</li><li>- Third party service providers</li><li>- Steward report</li></ul>                                     | Viezer/Guiot |
| V.   | Accomplishments/Goals <ul style="list-style-type: none"><li>- FY23 calendar</li></ul>   | Guiot/Viezer |
| VI.  | Adjourn   |              |

Attachments: [Presentation](#)  
[Appendices](#)

June 23, 2023  
Finance and Audit

**RESOLUTION R2023-xx**

WHEREAS, the University's administration regularly reviews with its financial advisor the overall debt of the institution for determining available debt capacity and the implications of existing and potential future debt on the operating budget of the University; and

WHEREAS, such reviews also include a review of the University's existing debt policy to better ensure it aligns with the current bond market and financial priorities of the University; and

WHEREAS, a recent review of the debt policy identified modest changes to the debt policy that would better align the policy with the current bond market and recent changes to the charter of the Finance and Audit Committee.

NOW, THEREFORE, BE IT RESOLVED: the Board of Trustees hereby adopts the proposed revisions to the University's debt policy, as indicated in the attached document.

## MIAMI UNIVERSITY DEBT POLICY

The primary objective of Miami University's use of debt is to optimally allocate debt as a limited capital resource in funding carefully selected projects that further the University's mission and fulfill its strategic objectives. This policy sets forth the goals and strategies the University expects to utilize to accomplish this objective.

### GOALS

1. To prudently use debt as a source of capital to fund capital projects that relate to the strategic priorities of the University but have limited opportunities for financing from other sources such as state appropriations, philanthropic giving, or grants.
2. To manage the University's overall debt level to maintain a ~~minimum~~ credit rating in the ~~range of the high "A" to low "AA" categories~~ category, according to the major rating agencies.
3. To maintain a weighted average net cost of capital below ~~5.50%~~ 5.0% by carefully structuring financings to take advantage of interest rate cycles and available financing vehicles.
4. To maintain debt capacity ratios ~~in excess of the minimum acceptable composite score~~ as outlined by the State of Ohio (see addendum) ~~and that~~ allow the University to achieve its credit rating, cost of capital, and long-term viability objectives.
5. To assure that projects financed have a prudent plan for debt repayment.

### DEBT MANAGEMENT STRATEGIES

#### 1. Identification of capital projects

Major capital projects are prioritized through the University's long-range capital plan. The capital plan is constructed within the framework of the University's financial plan and is aligned annually with the University's budget. Sources of funding for capital projects include state capital appropriations, gifts or grants, annual capital renewal or replacement budgets, internal reserves, and bond financing.

Bond financing, because of its long-term financial implications, is to be used strategically on projects for which other funding sources are limited, and will be coordinated when possible so that multiple projects may be accommodated in a single borrowing to create efficiencies.

The planning process undergoes extensive review and discussion with University management and the Board of Trustees' Finance and Audit Committee. As each individual project in the capital plan is initiated, the project and its financing plan is reviewed by the Finance and Audit Committee and approved by the Board of Trustees. Any future obligations resulting from the financing plans, such as debt service payments or outstanding gift pledges, are reviewed annually with the Finance and Audit Committee as part of the University's normal budget planning to ensure that the financing plans remain viable. If they need to be adjusted, they are adjusted within the framework of the overall financial plan for the University.

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### 2. Debt capacity

Miami University's debt capacity can be defined as:

1. ~~A~~ level of outstanding debt at which the University can maintain its high credit ratings and a low cost of borrowing, and
2. ~~A~~ practical level of annual debt service payments that the University can comfortably cover from predictable sources of repayment.

The University intends to maintain ~~minimum~~ underlying credit ratings in the ~~high~~ "A" to low "AA" ~~range~~ category in order to issue debt at relatively low interest rates. The University does not intend to issue the maximum possible levels of debt, but intends to maintain a comfortable reserve of debt capacity. A prudent level of debt provides access to capital but does not unduly burden the institution's budget with annual repayment obligations. Furthermore, a moderate and consistent debt burden also serves the goal of intergenerational equity; one generation of tuition-payers is not overburdened at the expense of another generation.

Debt capacity is generally measured through ratio analysis. Ratios provide a consistent measure of the debt level carried by an institution in relation to its balance sheet, revenues and expenses. Ratio analysis provides insight into debt capacity from two perspectives: by monitoring trends over time and in comparison to benchmarks. It is the intent of the University to maintain a strong financial position that will support a favorable ratio analysis measured against national standards, peer and in-state comparisons, and credit rating agency medians. Some of the key ratios currently utilized for evaluating debt capacity are attached as Addendum A. Ratios should be reviewed with the Board of Trustees at the end of each fiscal year as part of the financial update and prior to new bond issuance with pro-forma data.

### 3. Interest rate management

The primary objective of interest rate management is to make strategic and structural decisions on each University financing in order to minimize the aggregate interest expense to the University. After reviewing historical long-term interest rate cycles and industry benchmarks, the University has established a goal of maintaining a weighted average net cost of capital below ~~5.50%~~ 5.0%. It is recognized that this goal may not be achievable in very high interest rate environments; in such situations, the goal

will be to achieve the lowest cost of capital available under the circumstances. ~~Methods of Debt portfolio considerations for~~ maintaining a low cost of capital include:

1. Issuing fixed vs. variable rate debt
2. Maturity length and principal amortization
3. Call provisions and the use of premium and discount coupons
4. Managing interest rate cycles
5. Selective use of interest rate swaps and other derivative products
6. Diversifying the universe of its potential investors
7. Negotiated vs. competitive sales
8. Maintaining its strong credit ratings
9. Selective use of credit enhancement or liquidity

A ~~secondary~~ objective of interest rate management is to minimize the uncertainty and variability of interest expense. Thus, although variable-rate bonds generally have lower interest costs than fixed-rate bonds, they also introduce volatility risk into the University's debt service obligations. ~~It is expected to be advantageous to include variable rate debt in the University's capital structure at high points in the economic interest rate cycle. However, it is not anticipated that variable rate exposure would exceed 40% of overall outstanding debt at any point in time.~~

Interest rate exposure may also be managed through the use of interest rate swaps and other derivative products. Such products provide an indirect, rather than direct, means of managing interest risk. If, after thorough analysis, a derivative product is clearly beneficial in reducing debt service cost and/or interest rate risk, such a product may be used with approval of the Board of Trustees. Swaps and other derivatives used as part of the debt portfolio must be tied directly to University debt instruments and may not be used for speculative purposes.

Each proposed new debt issuance will be evaluated in the context of the interest rate environment at that time, debt products available in the marketplace, the University's then-existing mix of outstanding obligations, and the time horizon of the projects to be financed. The potential upside and downside risks of various debt instruments and structures will be analyzed to determine the most advantageous structure to meet the University's long-term goals given the existing environment.

#### 4. Repayment planning

All debt financing must be accompanied by a feasible plan for repayment of its principal and interest obligations. Sources of repayment may include project-specific revenues, auxiliary enterprise revenues, gift revenues, general University receipts, expense reductions, or other sources. If the financing involves variable rate debt, the repayment plan must take into consideration the impact of a change in interest rates. Pro forma projections will be based on conservative assumptions that provide reasonable comfort that the repayment obligations can be prudently managed.

In some situations, a prudent method of repayment planning will be to budget and fund a segregated Debt Service Reserve Fund. There may also be circumstances where a

mandatory Debt Service Reserve Fund is included in the legal bond covenants. In cases where the use of such a reserve is planned and/or mandated, the University will incorporate the appropriate funding into its budget and will make best efforts to fulfill the funding plan.

5. Refinancing opportunities

The University will monitor its debt portfolio for refunding and/or restructuring opportunities that may arise from changes in the interest rate environment. In addition, when issuing debt for new project purposes, the University should consider any potential refunding to be issued in combination with such new project financing. A number of factors will be evaluated in making refinancing decisions, including:

1. Call features of outstanding debt
2. Rate reduction potential
3. Time beyond call to maturity
4. Call premium
5. Escrow efficiency
6. Overall market conditions

In general, a refinancing opportunity will be considered advantageous if it results in a net present value savings of 3% or greater.

6. Regulatory and tax considerations

Authority for issuance of bonds is provided by Sections 3345.11 and 3345.12 of the Ohio Revised Code. The Ohio Board of Regents has further authority to approve debt for which the general receipts of the University are pledged as security. University management will be responsible to seek and obtain approval by the Ohio Board of Regents in advance of a bond issuance.

Bonds issued by Miami University are often eligible for tax-exemption, and therefore subject to IRS rules and regulations governing tax-exempt obligations. University management will use its best efforts to comply with the appropriate IRS rules and regulations. Specifically, management will remain cognizant of IRS regulations concerning arbitrage, private use, and unrelated business income.

7. Approvals

Debt in amounts of \$2,000,000 or less must be approved by the Vice President for Finance and Business Services.

Debt in excess of \$2,000,000 and any debt that is publicly issued must be approved by the Vice President for Finance and Business Services, the Finance and Audit Committee, and the Board of Trustees.

## ADDENDUM A DEBT CAPACITY RATIOS

### MIAMI UNIVERSITY DEBT POLICY

Through the 1997 enactment of Senate Bill 6, a standardized method for monitoring the financial health of Ohio's state-assisted college and universities was established. Key ratios monitored by the Ohio Board of Regents (OBOR) are:

- **Viability Ratio:** expendable net assets divided by total debt. This ratio is a measure of an institution's ability to retire its long-term debt using available current resources. A viability ratio in excess of 100% indicates that the institution has expendable fund balances in excess of its plant debt. A viability ratio above 60% is considered good, while a ratio below 30% may be a cause for concern.
- **Primary Reserve Ratio:** expendable net assets divided by total operating expenses. This ratio is a measure of an institution's ability to continue operating at current levels without future revenues. A primary reserve ratio of 10% or greater is considered good, while a ratio below 5% may be a cause for concern.
- **Net Income Ratio:** change in total assets divided by total revenues. This ratio measures an institution's financial status in terms of current year operations. A negative net income ratio results when an institution's current year expenses exceed its current year revenues. A positive ratio indicates the institution experienced a net increase in current year fund balances.
- **Composite Score:** weighted summary statistic of the above three ratios. Each ratio is assigned a score of 1-5 based on predetermined ranges and then weighted, with 30% to the viability ratio, 50% to the primary reserve ratio, and 20% to the net income ratio. The scoring process emphasizes the need for campuses to have strong expendable fund balances, manageable plant debt, and a positive operating balance. The highest possible composite score is 5.0. The minimum acceptable composite score is 1.75. A score at or below this minimum level for two consecutive years will result in being placed on fiscal watch by OBOR.

In addition ~~to the above ratios~~, the major rating agencies such as Moody's, [Fitch](#), and Standard & Poor's track a series of financial indicators including [but not limited to](#):

- **Annual debt service as a percent of operating expenses:** A ratio greater than 10% generally represents an excessive debt burden, while 7% is considered to be moderately high.
- **Operating Margin:** operating surplus as a percent of revenues (excluding gift revenues)
- **Debt Service Coverage:** operating surplus divided by debt service expense
- [Spendable cash & investments to debt](#)
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April 2011 June 2023 DRAFT

- ~~Total debt per student~~
- Total financial resources per student



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- **Monthly days cash on hand**
- **Total financial resources per student**

Miami University

# Board of Trustees Investment Subcommittee

June 21, 2023

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# What Actions Will Be Taken in the Meeting?



## What Actions Will the Board of Trustees Investment Subcommittee Be Asked to Perform?

- Approve March 1, 2023 meeting minutes.
- Approve changes to the Debt Policy.



# What Are the Key Takeaways?

*(Pages covered in parentheses)*



- FY23 cash flow through April is trending as expected and investment earnings through April are forecasted to finish above the FY23 budget. (11-13)
- Fiscal year to date through April, the Tier III portfolio has secured net-of-fee returns of 6.2% versus the benchmark's net return of 5.7%. (17)
- The Tier III portfolio's relative outperformance for the fiscal year to date period was driven by manager selection, particularly in the non-U.S. equity and hedge fund asset classes, as well as by portable alpha. (21-22)
- To raise liquidity in anticipation of a relative repricing of asset classes, at the end of the first quarter we began to reduce our exposure to hedge funds from overweight toward neutral. (23)

# Presenter Biographies



## **Nikki Kraus, CFA**

*President and Chief Client Officer*

- President and Chief Client Officer of Strategic and a member of its Board of Managers and Management Committee.
- 28 years of experience in the OCIO industry, having most recently served as Director of Institutional Business at Hirtle, Callaghan & Co., where she attracted and serviced a broad range of clients. Before that she held various positions at SEI Investments Company working with OCIO clients.
- Serves on the Investment Advisory Subcommittee of the John Templeton Foundation.
- Serves on the U.S. Impact Committee for 100 Women in Finance and as a mentor for Girls Who Invest.
- Co-author of *Endowment Management for Higher Education* (most recent edition published in February 2022), a publication released by the Association of Governing Boards of Universities and Colleges (AGB), and *Endowment Management for Foundations and Nonprofits*, published in October 2022, in partnership with AGB and the Council on Foundations.
- Extensive experience working with college and university endowments. Active collaboration with National Association of College and University Business Officers (NACUBO) for nearly a decade and has presented or spoken at NACUBO events multiple times (NACUBO EMF in 2020, 2019, 2018, 2017 and 2013 and on Endowment Study Webcast in 2013 for 2012 study). Speaker at many AGB events (2016, 2017, 2018 twice, 2019 and 2020). Often asked to provide insights on best practices for college and university Investment Committees.
- B.A. in English and Computer Applications from the University of Notre Dame.
- CFA charterholder and a member of the CFA Society of Washington, D.C.
- Years in Industry: 28.

# Presenter Biographies



## **Markus Krygier, Ph.D.**

*Co-Chief Investment Officer*

- Member of the Office of the CIO, responsible for all aspects of Strategic's investment process, portfolios, and performance. Also, a member of Strategic's Board of Managers and the Management Committee.
- Assesses, coordinates and communicates Strategic's economic, capital markets, investment strategy and management outlook. Works closely with investment, research and analytical staff in developing, integrating, and implementing investment policy for the firm's clients.
- Member of Strategic's Diversity, Equity, and Inclusion Committee.
- Previously Deputy Chief Investment Officer at Amundi Asset Management in London. Prior to Amundi, at Dresdner Kleinwort in London as a Managing Director, Chief Debt Strategist and Global Head of FX Strategy; at the International Monetary Fund as economist in the International Capital Markets division; and as Head of Global Strategy at Credit Agricole Asset Management in London and Paris.
- Ph.D. in Economics from Wayne State University, holds the Advanced Studies Certificate in International Economic Policy Research from the Kiel Institute of the World Economy, an M.A. in Economics from Wayne State University, and completed his undergraduate studies in Economics and Political Science at the University of Freiburg in Germany.
- Years in Industry: 27.



## **Leah Posadas**

*Director, Client Portfolio Management*

- Works closely with the investment and research teams to develop and implement investment solutions that meet clients' objectives.
- Chair of Strategic's Diversity, Equity, and Inclusion Committee.
- Prior to joining Strategic in 2014, she was a Vice President and Portfolio Analyst at Lazard Asset Management, where she worked with the global tactical asset allocation and fixed income strategies. She began her career as a Junior Analyst at Mosaic Capital Advisors, a long-short hedge fund based in New York City.
- B.S. in Finance and a B.S. in Entrepreneurial Studies from the University of Minnesota.
- Years in Industry: 17.

# Investment Subcommittee Agenda

June 21, 2023 / 3:00 p.m.

**I. Approval of Meeting Minutes – Guiot**

**II. Non-Endowment Review – Guiot / Strategic**

- a. Capital Stack
- b. Tier Allocation
- c. Cash Flow
- d. Investment Income

**III. Fiscal Year-to-Date Update:**

Investment Performance Review – Strategic

- a. Non-Endowment
- b. Endowment

**IV. Annual Policy Reviews – Guiot / Viezer**

- a. Debt Policy
- b. Endowment Spending Policy
- c. Endowment Administrative Fee Policy

**V. Updates – Guiot / Viezer**

- a. Pooled Investment Fund
- b. Third Party Service Providers
- c. Steward Report

**VI. Accomplishments / Goals – Guiot / Viezer**

**VII. Appendices (see separate attachment)**

- a. Performance Update Supplemental Slides
- b. Capital Markets Outlook
- c. April 2023 Performance Detail
- d. Additional Footnotes

# Approval of Meeting Minutes

**BOARD OF TRUSTEES  
MIAMI UNIVERSITY  
Minutes of the Investment Subcommittee Meeting  
Roudebush Hall, Room 104  
Miami University, Oxford, Ohio  
March 1, 2023**

The meeting of the Investment Subcommittee was called to order at 3:00 p.m. by National Trustee Mark Sullivan who was acting Chair for the meeting. The meeting was held in Roudebush Hall, Room 104 on the Oxford campus. Along with National Trustee Mark Sullivan, Subcommittee members; Trustees Steve Anderson, and Mary Schell were present. Subcommittee Chair and National Trustee Biff Bowman was absent.

In addition to the Subcommittee members, Senior Vice President David Creamer, and Secretary to the Board of Trustees Ted Pickerill, from the President's Executive Cabinet were present. Representatives from the outside CIO, Strategic Investment Group (SIG), included; Nikki Kraus, Markus Krygier, Leah Posadas, in person, and Christopher Pond via telephone. Associate Treasurer and Miami Foundation CFO Bruce Guiot, and Director of Investments Tim Viezer, were also present.

Following a motion by Trustee Schell and a second by Trustee Anderson, the minutes from the prior meeting were unanimously approved by voice vote, with all voting in favor and none opposed.

Bruce Guiot reviewed with the Sub-committee the capital stack comprised of the endowment pool, the University's non-endowment investments, and operating cash. He relayed:

- Operating cash flow so far for FY23 through December 31st is tracking to forecast, he explained that the Tier 1 decline is the normal semi-annual draw down cycle which follows the receipt of tuition payments.
- The endowment/PIF was valued at \$683 million as of December 31st.

SIG reviewed with the Sub-committee investment performance for FY23 through December 31st for both the non-endowment and endowment. They relayed:

- Returns are positive for the first half of the fiscal year and have outperformed benchmarks.
- Rising interest rates intended to moderate inflation continue to present challenges as the markets attempt to gain visibility around the impact on the economy.
- The non-endowment was up about 0.9% for the FYTD.
- Endowment/PIF was up about 1.7% FYTD (though some private capital figures are still being collected).

- Results for January were strongly positive, but some loss was experienced in February.

The Sub-committee reviewed updates to SIG's capital market assumptions and conducted an annual stress test of both endowment and non-endowment portfolios to get a sense of the potential impact of a significant market event. The results were within the expected risk tolerance. The Sub-committee also discussed the potential impact of a drawdown on the endowment's ability to make its annual distributions. It appears that a loss of up to 8% would not have a material impact on distributions.

The Sub-committee discussed the [University's debt policy](#), which has not been updated since 2011. The Sub-committee expects to bring recommendations to the May meeting of the full Finance and Audit Committee that reflect changes in both the debt markets and the University's financial condition.

Finally, the Sub-committee reviewed the non-endowment's investment policy and affirmed it with no recommended changes.

With no more business to come before the Sub-committee, Trustee Anderson moved and Trustee Schell seconded a motion to adjourn which was unanimously approved by voice vote, with all voting in favor and none opposed, and the meeting adjourned at 5:00 p.m.

Attachments:

- [March 2023 meeting Presentation](#)
- [March 2023 meeting Appendices](#)



Theodore O. Pickerill II  
Secretary to the Board of Trustees

# Non-Endowment Review



# University Capital Stack

## Capital Stack as of April 30, 2023



### MU/MUF Capital Stack

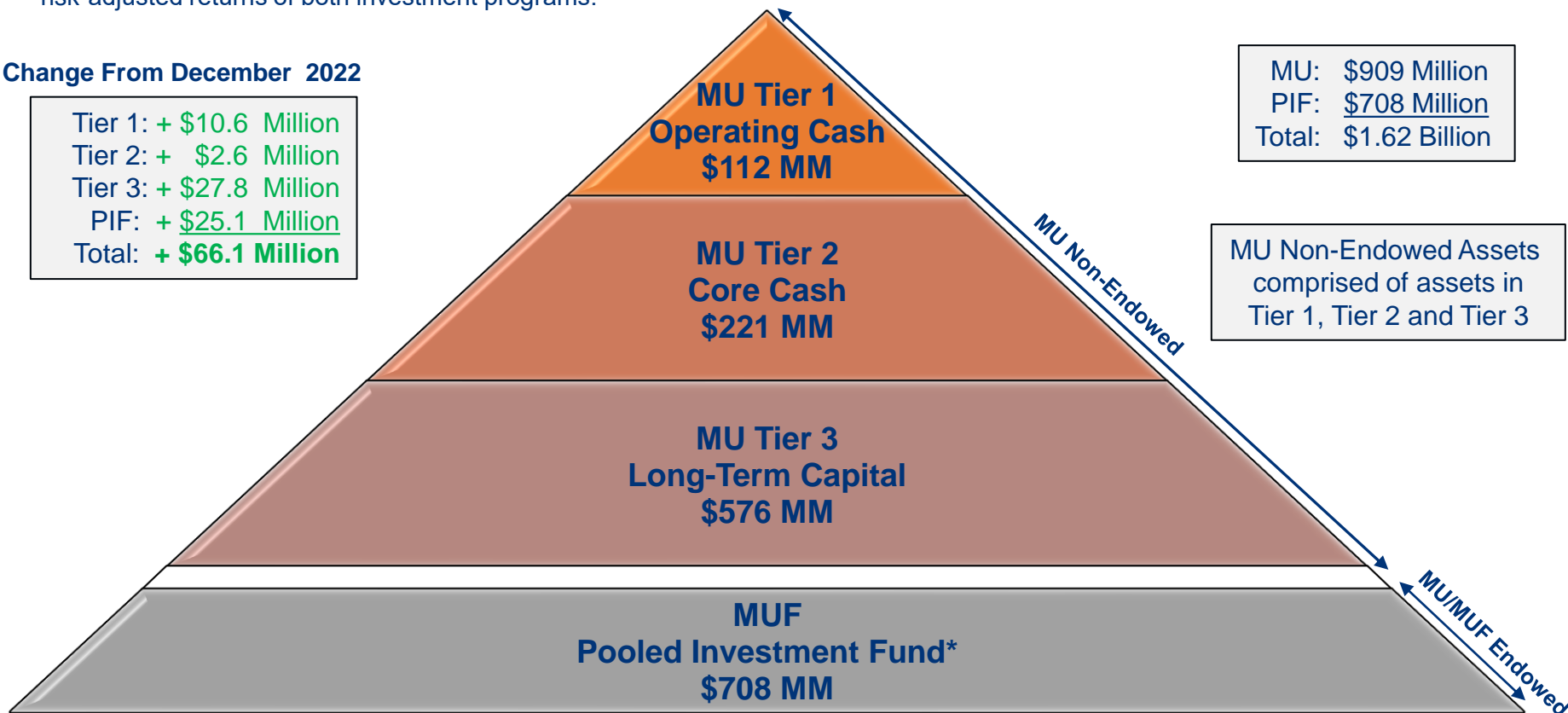
MU Non-Endowed and MUF Pooled Investment Fund Investment Policy Statements: “For investment strategy purposes, the University’s Non-Endowment and Foundation Pooled Investment Fund portfolios should be considered together. The liquidity, risk, and return characteristics of the combined pools provide the opportunity to more effectively deploy capital and improve the overall risk-adjusted returns of both investment programs.”

### Change From December 2022

Tier 1:	+ \$10.6 Million
Tier 2:	+ \$2.6 Million
Tier 3:	+ \$27.8 Million
PIF:	+ \$25.1 Million
<b>Total:</b>	<b>+ \$66.1 Million</b>

MU:	\$909 Million
PIF:	\$708 Million
<b>Total:</b>	<b>\$1.62 Billion</b>

MU Non-Endowed Assets comprised of assets in Tier 1, Tier 2 and Tier 3

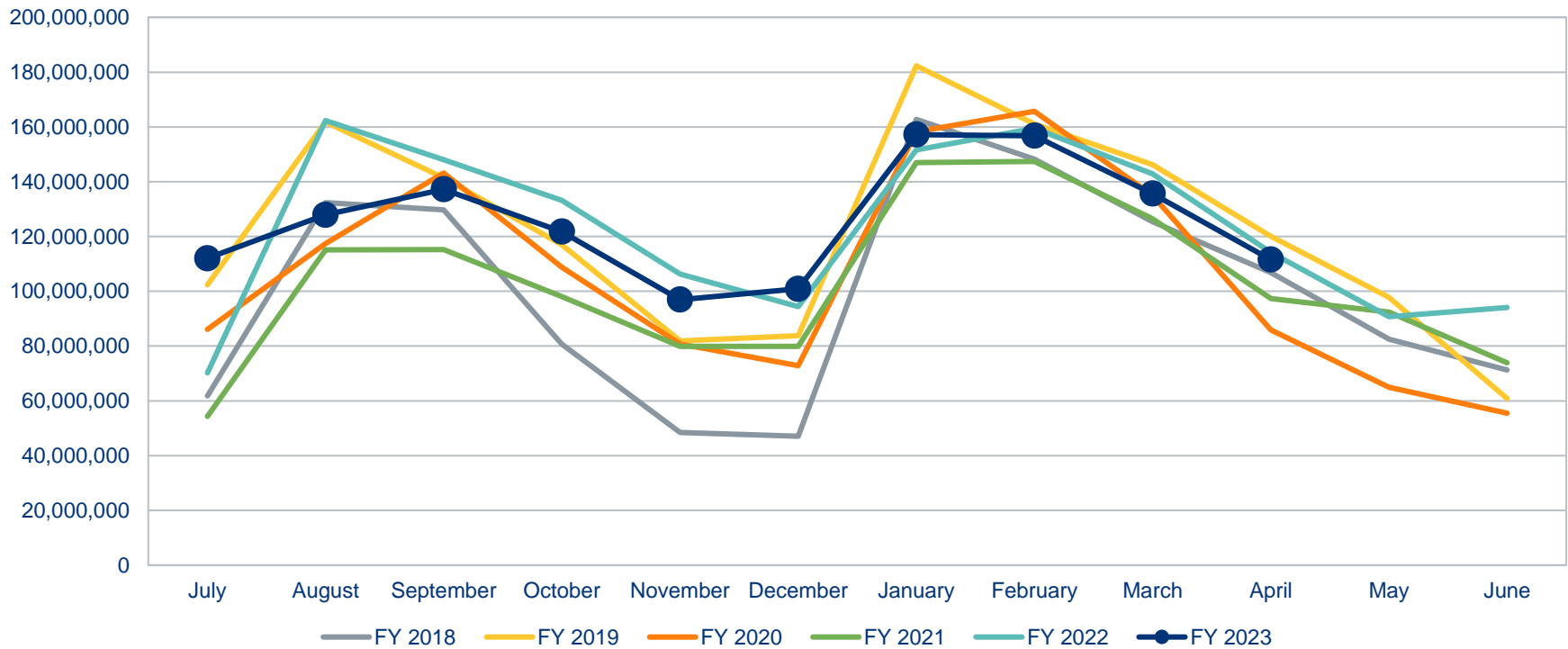


\*An additional \$19.6 million in cash is in transition to the PIF endowment as of April 30, 2023.

# Last Five-Year Cash Flow Cycle



Tier I Operating Cash By Month and Fiscal Year



# Non-Endowment Observations and Conclusions

April 2023



- Tier I FY23 cash flow through April is trending in line with forecast
  - Expecting to finish 6/30 above target balance, at around \$75 million
  - Expecting FY24 cash needs to increase due to projects
  - Short-term yields are compensating with minimal risk
  - Maintain cash balance
- Tier II Baseline balance as of 4/30: \$190 million
  - Reserve for Investment Fluctuations balance: \$135.6 million
  - Reserve for Investment Fluctuations target: \$140 million
  - Maintain Tier II balance
- Investment earnings through April are forecasted to finish above budget
  - Investment earnings budget: \$15.0 million
  - Investment earnings through 4/30: \$40.2 million gain (estimated)
  - Total budget impact as of 4/30: \$25.2 million surplus (estimated)
  - FY23 investment earnings above budget will increase reserve
  - Maintain Tier III balance

# Fiscal Year-to-Date Update: Investment Performance Review Non-Endowment Endowment

# Miami University Non-Endowment Portfolios

## Investment Performance Review – as of April 30, 2023

Asset Class <i>Benchmark</i>	Market Value (\$ mill)	Strategic Portfolio (%)	Rates of Return (%)										Inception Date
			1 Month	3 Month	Fiscal Year To Date	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year	Since Policy Inception	Since Inception	
Miami University Long-Term Capital Tier III (Net of Sub-Mgr Fees)	576.208	100.0%	0.9	0.3	6.4	5.2	1.8	10.2	5.7	4.6	8.0	4.8	30-Jun-02
Miami University Long-Term Capital Tier III (Net of Sub-Mgr and Strategic Fees)	576.208	100.0%	0.9	0.3	6.2	5.1	1.6	10.0	-	-	7.7	-	31-Dec-18
<i>Total Portfolio Policy Benchmark</i>			0.8	0.2	5.9	5.2	0.2	7.6	4.8	4.1	7.1	4.6	
<i>Total Portfolio Policy Benchmark (Net of Fees)</i>			0.8	0.2	5.7	5.1	0.1	7.4	-	-	6.9	-	
Miami University - Baseline Tier II (Net of Sub-Mgr Fees)	190.199	100.0%	0.3	1.0	2.0	1.4	1.9	0.5	1.3	1.1	1.2	2.4	30-Jun-02
Miami University - Baseline Tier II (Net of Sub-Mgr and Strategic Fees)	190.199	100.0%	0.3	1.0	2.0	1.4	1.8	0.4	-	-	1.2	-	31-Dec-18
<i>Total Portfolio Policy Benchmark</i>			0.2	1.1	1.7	1.5	1.6	0.1	1.2	0.9	1.2	1.9	
<i>Total Portfolio Policy Benchmark (Net of Fees)</i>			0.2	1.1	1.7	1.5	1.6	0.0	-	-	1.0	-	
Miami University Special Initiatives Fund (Net of Sub-Mgr Fees)	30.518	100.0%	0.2	0.8	1.0	1.5	1.0	(0.9)	-	-	2.0	2.0	19-Sep-18
Miami University Special Initiatives Fund (Net of Sub-Mgr and Strategic Fees)	30.518	100.0%	0.2	0.8	1.0	1.4	0.9	(1.0)	-	-	1.9	1.9	19-Sep-18
<i>Total Portfolio Policy Benchmark</i>			0.2	0.8	1.0	1.4	0.9	(1.0)	-	-	1.9	1.9	
Miami University Core Cash (Net of Sub-Mgr Fees)	220.717		0.3	1.0	1.9	1.4	1.7	0.3	1.8	1.3	1.7	2.5	30-Jun-02
Miami University Core Cash (Net of Sub-Mgr and Strategic Fees)	220.717		0.3	1.0	1.8	1.4	1.7	0.2	-	-	1.7	-	31-May-18
Total Miami University Client Group (Net of Sub-Mgr and Strategic Fees)	796.925		0.7	0.5	4.9	4.0	1.7	7.0	4.2	3.3	3.5	3.5	30-Jun-02

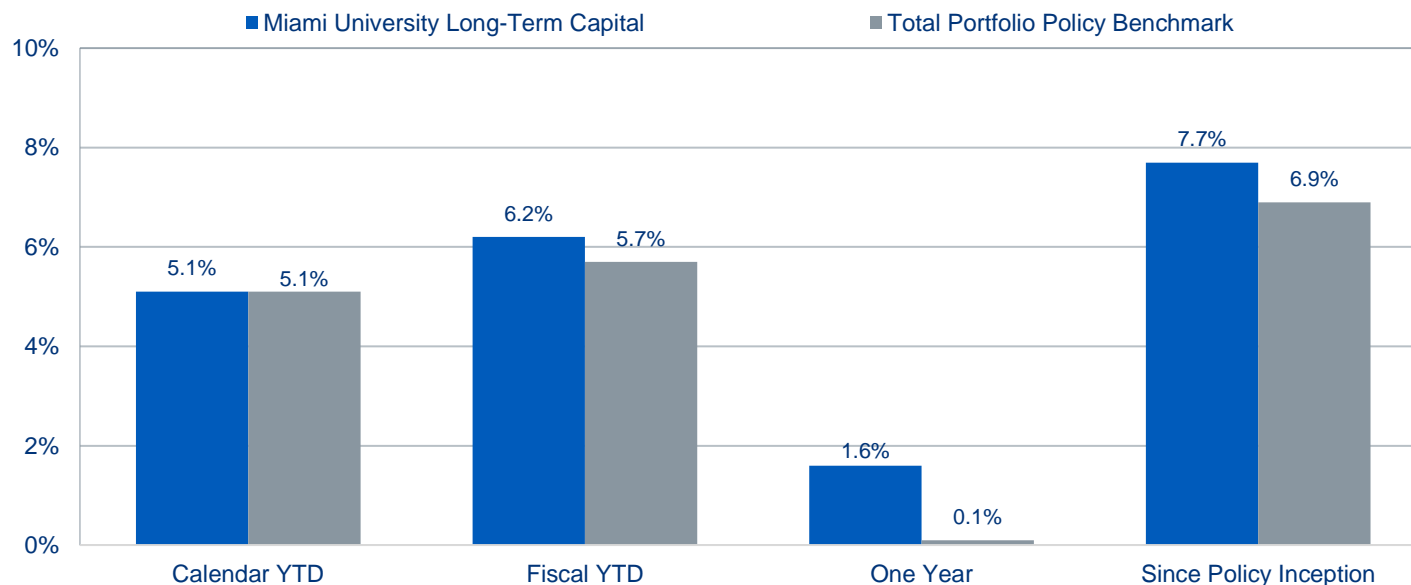
# Miami University Non-Endowment (LTC)

## Performance Drivers, Observations, and Conclusions

- 1. The Long-Term Capital (Tier III) portfolio returned 5.1% net of all fees calendar year-to-date through April 30, 2023, in line with the policy benchmark return of 5.1% over the same period.**
- 2. Fiscal year-to-date through April 30, 2023, the Tier III portfolio was up 6.2%, ahead of the benchmark's 5.7% gain.**
  - Absolute returns were up due mainly to strong results in public equities (11.5%) and hedge funds (3.3%).
  - On a relative basis, the portfolio has outperformed due to manager selection and asset class positioning in U.S. equities (+50 bps versus benchmark), non-U.S. equities (+90 bps), hedge funds (+150 bps), and fixed income (+50 bps).
- 3. Preliminary results for May are weak on an absolute basis, with the portfolio down -1.3% for the month but slightly ahead of the -1.4% return of the policy benchmark.**
  - Preliminary month-to-date results for the Tier III portfolio through June 7 are positive, with the portfolio returning 1.7%, in line with the benchmark.
- 4. We anticipate volatile market performance globally throughout 2023, but continue to see a favorable environment for active management.**
  - Amid the market volatility, Strategic has stuck to its disciplined investment approach and implementation.
  - We continue to believe that the current opportunity set for active managers to add value remains the most attractive of the past several decades.

# Miami University Non-Endowment (LTC)

Investment Performance – as of April 30, 2023



**Total Portfolio  
Added Value:**

**+0.0%**

**+0.5%**

**+1.5%**

**+0.8%**

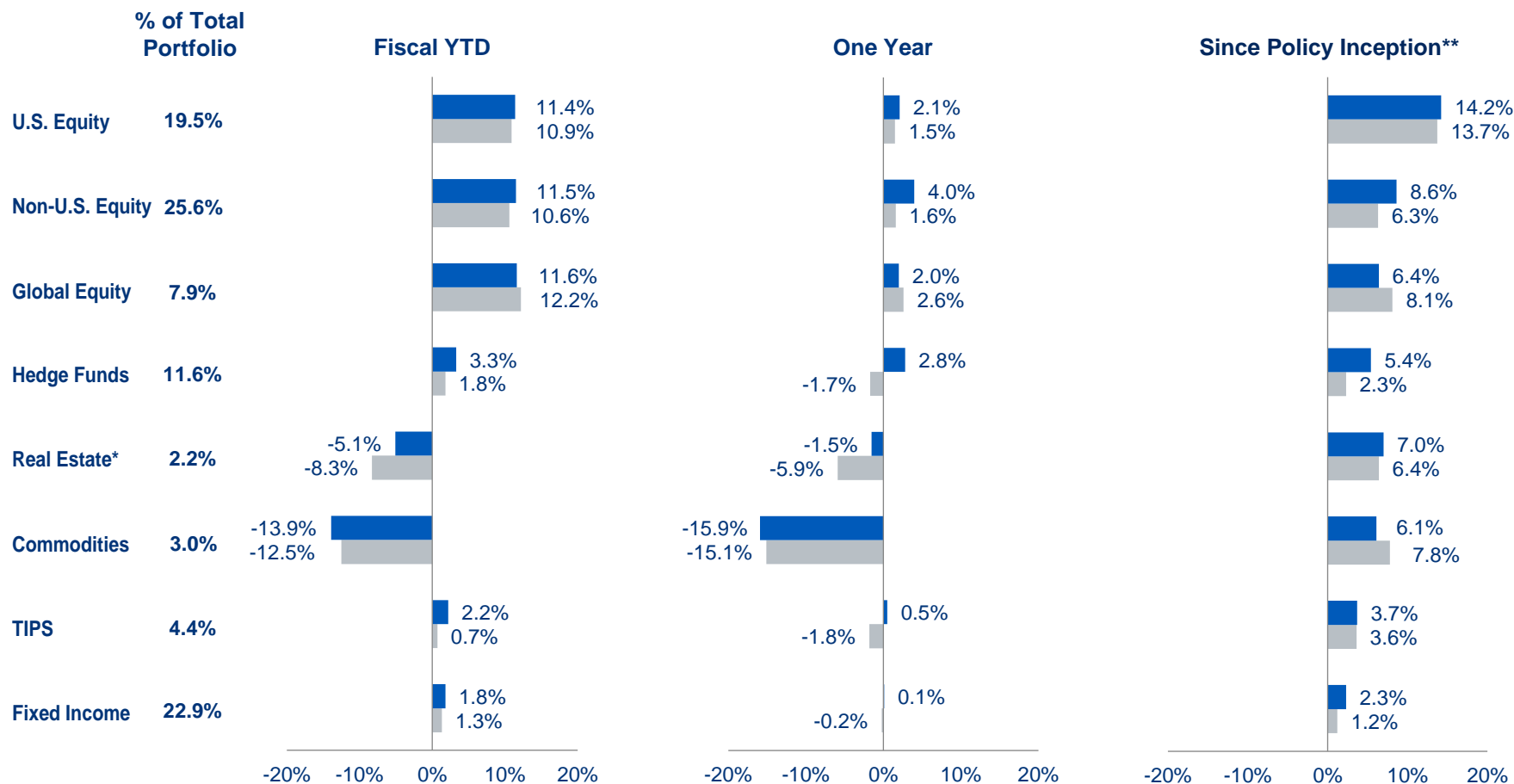
**Fiscal year-to-date the portfolio returned 6.2% net of all fees,  
ahead of the policy benchmark by 50 bps.**

Total portfolio added value and graphed returns may differ slightly due to rounding. Data as of April 30, 2023.

All total portfolio returns are shown net of sub-manager and Strategic fees. All policy benchmark returns are shown net of estimated passive management fees and rebalancing costs.

# Miami University Non-Endowment (LTC)

## Investment Performance Review – as of April 30, 2023



■ Miami University Long-Term Capital  
 ■ Total Portfolio Policy Benchmark

Data as of April 30, 2023.

See Appendix deck, section "Additional Footnotes" for information on underlying policy benchmarks by asset class.

\*Returns displayed are internal rates of return (IRR)

\*\*Returns since policy inception represent returns from 1/1/2019 to 4/30/2023. The following asset classes were created after policy inception and their returns are shown back to their original dates as follows:

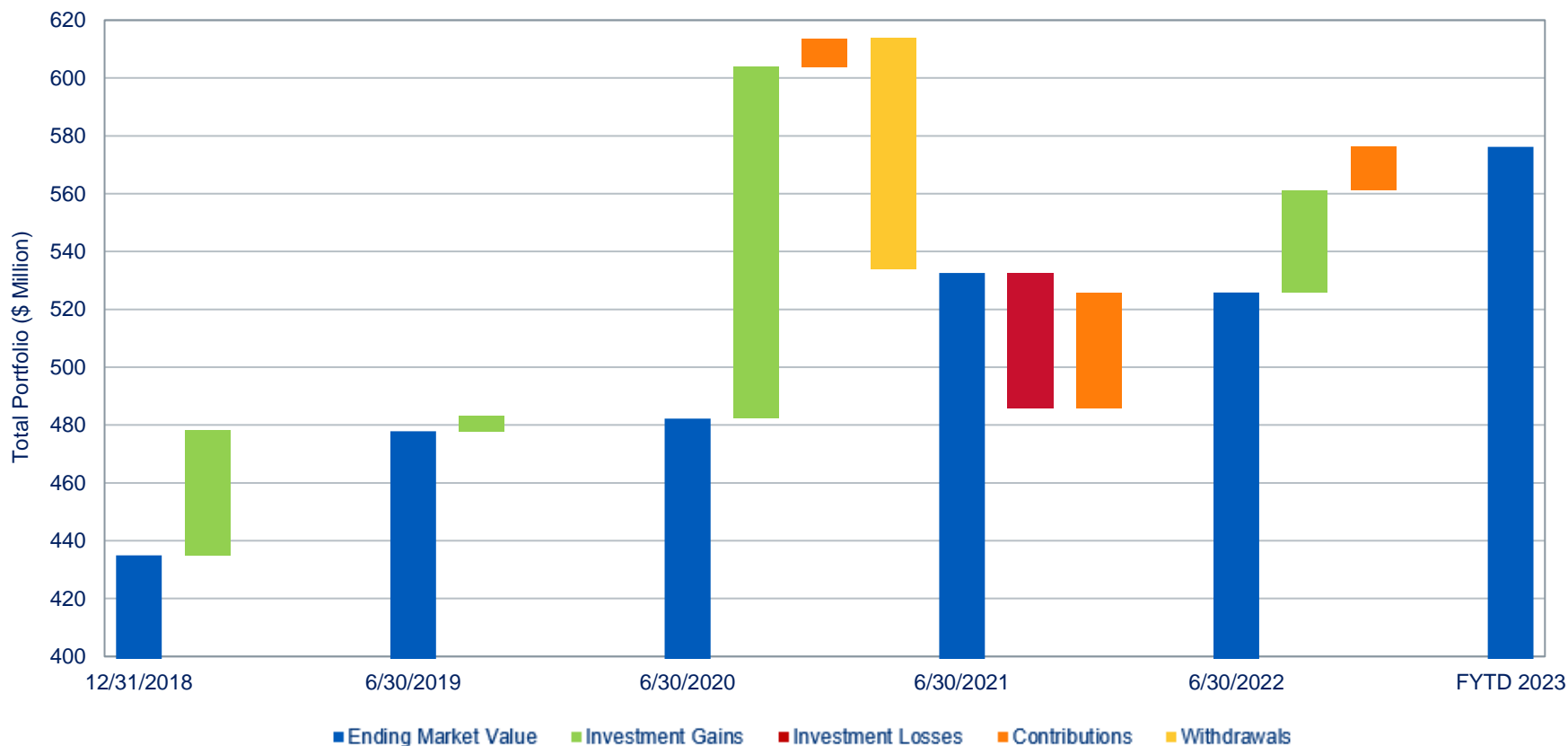
Global Equity- 4/30/2019, Real Estate- 6/28/2019, Commodities- 1/31/2019, TIPS- 1/30/2019

Asset class returns are shown net of sub-manager fees. Asset class policy benchmark returns are shown gross of assumed passive fees.



# Portfolio Review – Miami University Non-Endowment (LTC)

## Portfolio Growth Since Inception – by Fiscal Year

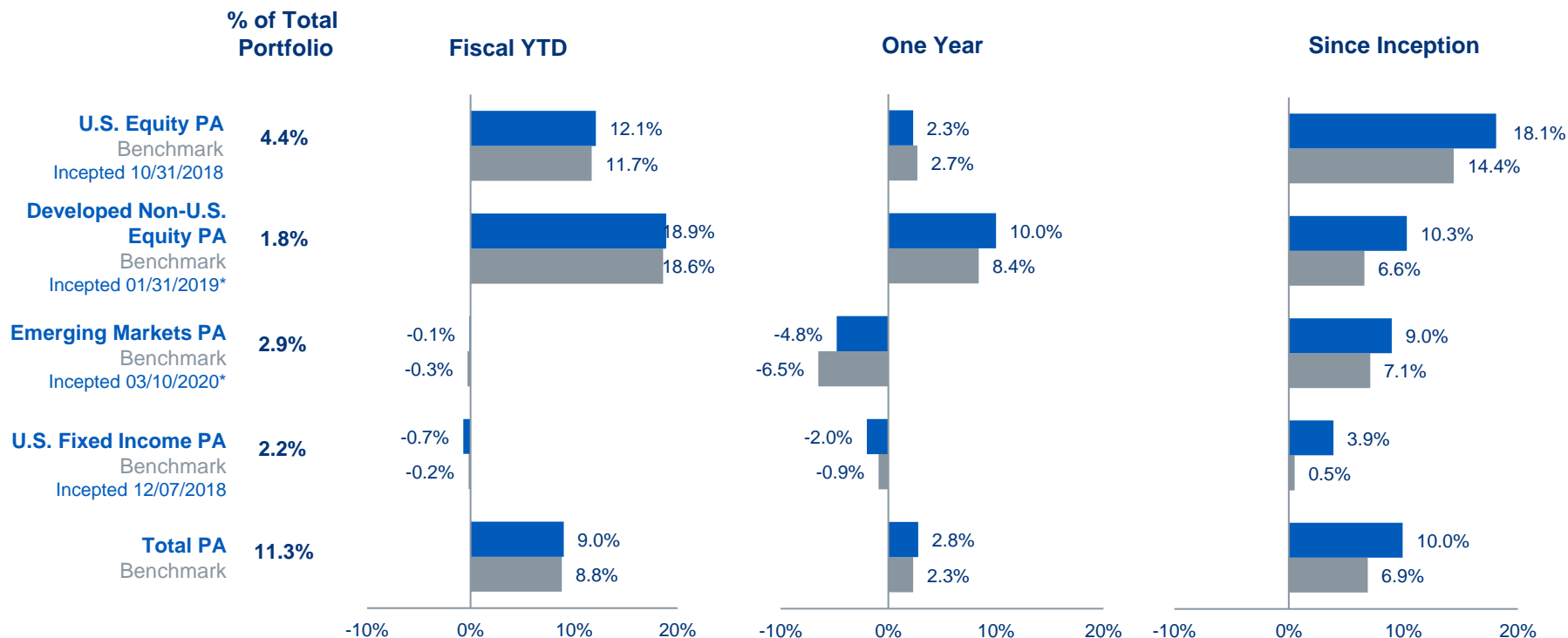


Since policy inception (December 31, 2018), investment returns have generated over \$159 million of net gains within the Tier III portfolio.

FYTD 2023 is through April 30, 2023.

# Portfolio Review – Miami University Non-Endowment (LTC)

## Portable Alpha Returns – as of April 30, 2023



**Portable Alpha has contributed over 42 basis points to total portfolio annualized added value since policy inception.**

Data as of April 30, 2023.

\*Both Developed Non-U.S. Equity and Emerging Markets Portable Alpha positions have been inceptioned and terminated at least once before their current inception date. Figures from previously inceptioned positions are not included in position returns in the bar graphs above, but are included in the value-added calculations.

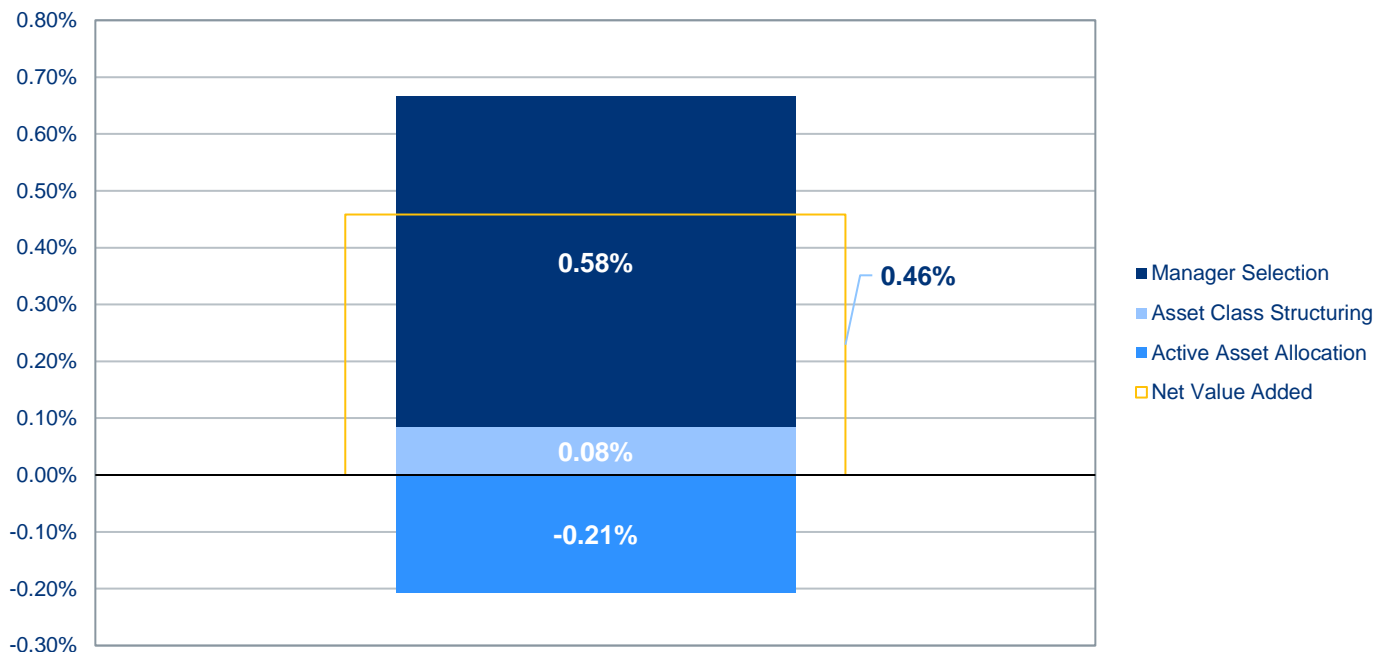
The Portable Alpha strategy is created by overlaying hedge funds with future contracts. The strategy is reported at the notional value of the futures position with a return that combines the return of the hedge fund exposure with the return of the futures contracts.

Portable Alpha Benchmarks: A custom benchmark that is the weighted average of the returns of the indices corresponding to the underlying futures contracts, where the weights are based on the notional value of said contracts and are rebalanced monthly.

# LTC Review – Value Added Attribution

Miami University Non-Endowment (LTC) – Fiscal Year to Date as of April 30, 2023

Value-Added Attribution: Total Portfolio



## Portfolio Attribution vs Policy Benchmark

### Largest Contributors:

Portable Alpha (HF Selection)\*\*: +0.25%  
Manager Selection - Non-U.S. Equity: +0.23%  
Credit Barbell: +0.20% (Structuring)

### Largest Detractors:

Manager Selection – Fixed Income: -0.19%  
Portable Alpha (HF vs. Cash)\*\*: -0.12% (Structuring)  
U.S. Equity Value Tilt: -0.10% (Structuring)

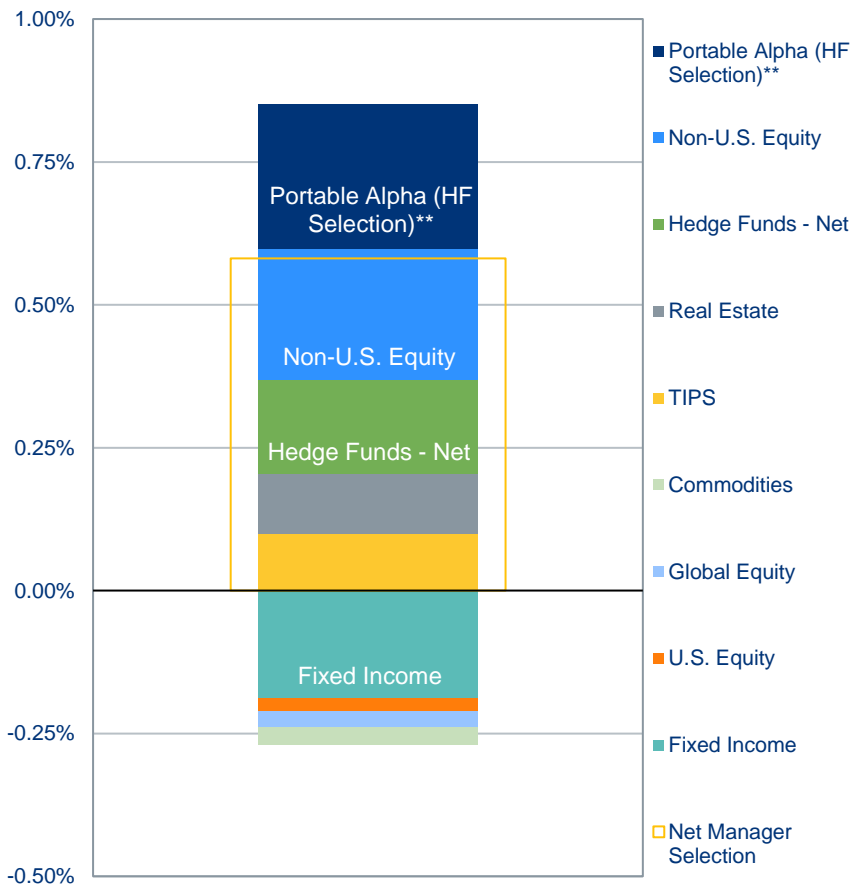
The impact of net fees is allocated across the Active Asset Allocation, Asset Class Structuring, and Manager Selection categories in the following proportions: 10% Active Asset Allocation, 20% Asset Class Structuring, 70% Manager Selection.

\*\*The decision to implement portable alpha is tracked and evaluated in two parts: 1. A structuring decision to invest in HF style weights as opposed to cash and 2. the actual performance of HF managers invested in as part of the portable alpha strategy relative to their style benchmarks.

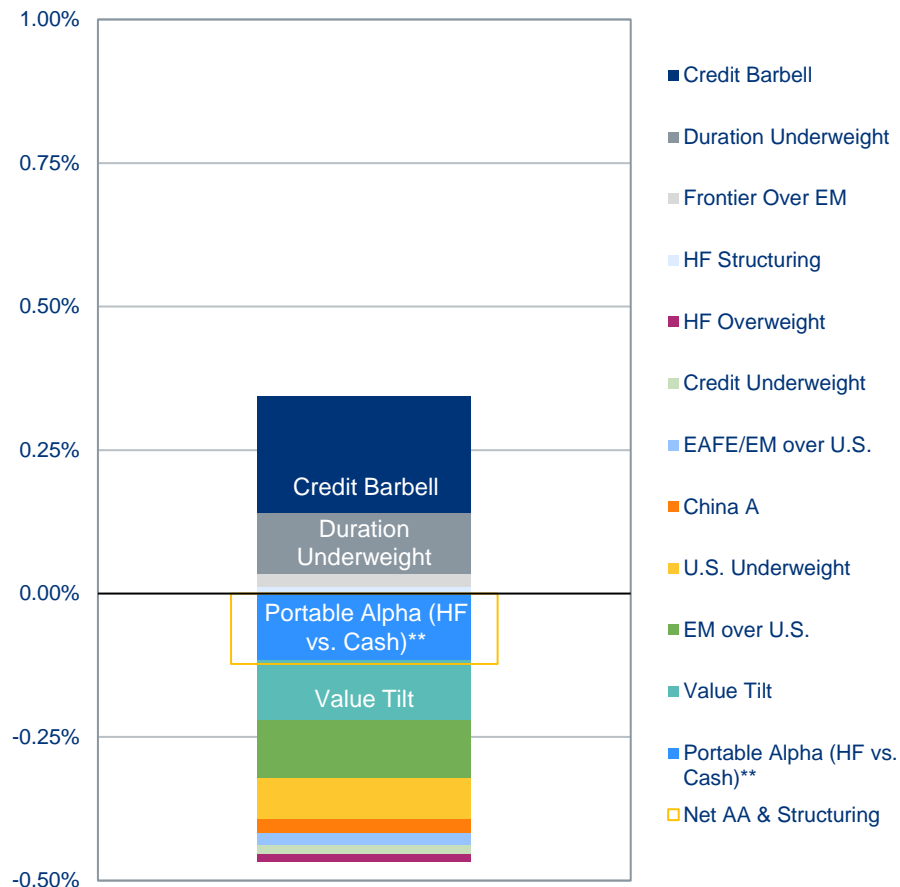
# LTC Review – Value Added Attribution

Miami University Non-Endowment (LTC) – Fiscal Year to Date as of April 30, 2023

**Value-Added Attribution: Manager Selection**



**Value-Added Attribution: Active Asset Allocation & Structuring**



The impact of net fees is allocated across the Active Asset Allocation, Asset Class Structuring, and Manager Selection categories in the following proportions: 10% Active Asset Allocation, 20% Asset Class Structuring, 70% Manager Selection.

\*\*The decision to implement portable alpha is tracked and evaluated in two parts: 1. A structuring decision to invest in HF style weights as opposed to cash and 2. the actual performance of HF managers invested in as part of the portable alpha strategy relative to their style benchmarks.

# Investment Policy, Asset Allocation, and Risk

## Miami University Non-Endowment (LTC), as of March 31, 2023

### RISK BASED ASSET ALLOCATION (%)

### RISK ANALYSIS (%)

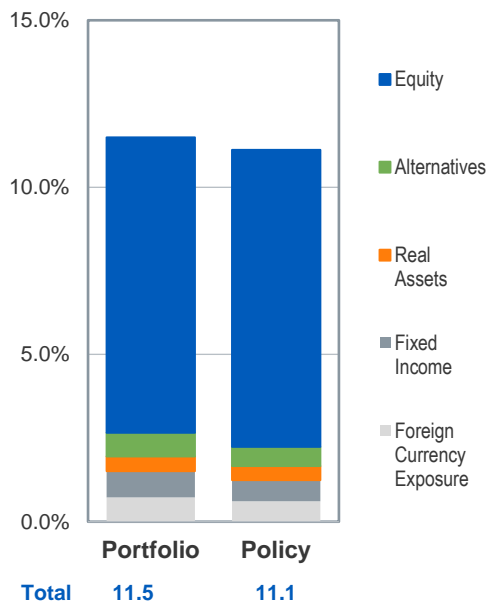
Asset Category	Range	Long-term Policy Portfolio	Policy Benchmark Weights	Current Portfolio	Active Strategy	Policy Benchmark Risk	Portfolio Risk	Tracking Error
<b>Equity</b>	<b>44.0 - 64.0</b>	<b>54.0</b>	<b>54.0</b>	<b>53.8</b>	<b>(0.2)</b>	<b>8.9</b>	<b>8.8</b>	<b>0.25</b>
U.S. Equity	17.0 - 37.0	27.0	27.0	23.9	(3.1)	4.2	3.6	0.01
Developed Non-U.S. Equity	8.0 - 28.0	18.0	18.0	19.1	1.1	2.9	3.0	0.10
Emerging Market Equity	0.0 - 19.0	9.0	9.0	10.9	1.9	1.8	2.2	0.15
<b>Alternatives</b>	<b>0.0 - 22.0</b>	<b>12.0</b>	<b>12.0</b>	<b>10.7</b>	<b>(1.3)</b>	<b>0.6</b>	<b>0.7</b>	<b>0.54</b>
Hedge Funds (Net)	0.0 - 22.0	12.0	12.0	10.7	(1.3)	0.6	0.7	0.54
<i>Hedge Funds (Gross)</i>	<i>0.0 - 27.0</i>	<i>22.0</i>	<i>22.0</i>	<i>23.0</i>	<i>1.0</i>	<i>0.6</i>	<i>0.7</i>	<i>0.54</i>
<i>Asset Allocation Overlay</i>	<i>(20.0) - 0.0</i>	<i>(10.0)</i>	<i>(10.0)</i>	<i>(12.3)</i>	<i>(2.3)</i>	<i>0.0</i>	<i>0.0</i>	<i>0.00</i>
<b>Real Assets</b>	<b>3.0 - 23.0</b>	<b>10.0</b>	<b>10.0</b>	<b>9.7</b>	<b>(0.3)</b>	<b>0.4</b>	<b>0.4</b>	<b>0.01</b>
Real Estate	0.0 - 7.0	3.0	2.0	2.2	0.2	0.1	0.1	0.01
Commodities	0.0 - 9.0	3.0	3.0	3.1	0.1	0.3	0.3	0.00
TIPS	1.0 - 11.0	4.0	5.0	4.4	(0.6)	0.1	0.1	0.00
<b>Fixed Income</b>	<b>14.0 - 34.0</b>	<b>24.0</b>	<b>24.0</b>	<b>23.1</b>	<b>(0.9)</b>	<b>0.6</b>	<b>0.8</b>	<b>0.28</b>
U.S. Investment Grade	6.5 - 31.5	21.5	21.5	17.4	(4.1)	0.4	0.4	0.15
U.S. High Yield	0.0 - 12.5	2.5	2.5	5.6	3.1	0.2	0.4	0.13
Municipal Bonds	- - -	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Non-U.S. Fixed Income	0.0 - 10.0	0.0	0.0	0.1	0.1	0.0	0.0	0.00
<b>Cash (Net Exposure)</b>	<b>0.0 - 20.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.7</b>	<b>2.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>
<b>Foreign Currency Exposure</b>		<b>27.0</b>	<b>27.0</b>	<b>31.7</b>	<b>4.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.11</b>
<b>TOTAL</b>		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>	<b>11.1</b>	<b>11.5</b>	<b>1.2</b>

See Appendix deck, section "Additional Footnotes", for definitions and methodologies regarding the information shown in the table.

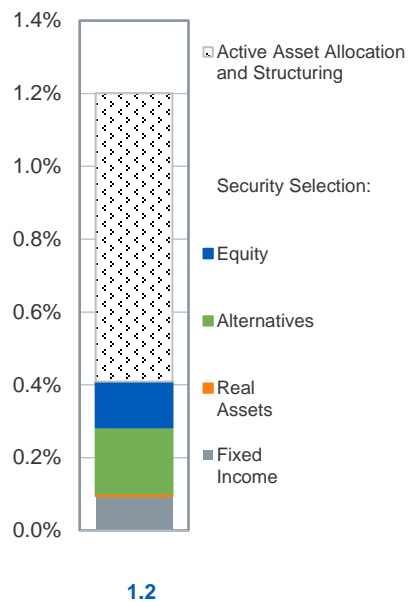
# Risk Summary

Miami University Non-Endowment (LTC), as of March 31, 2023

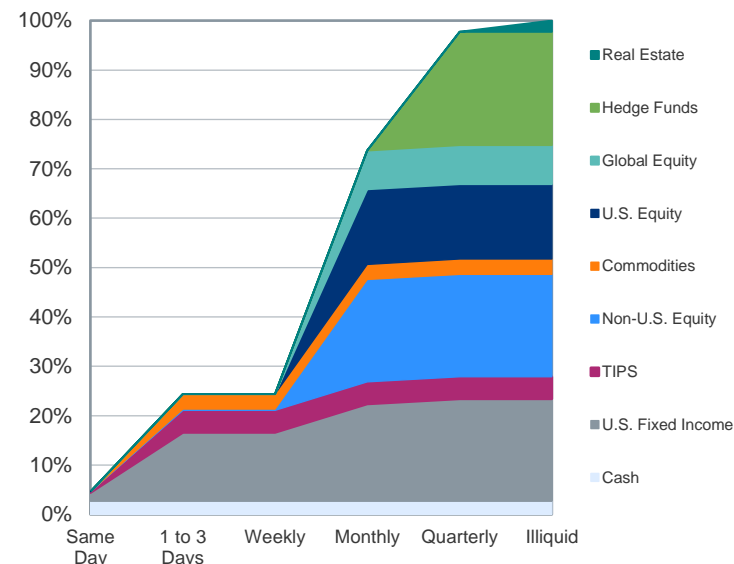
## TOTAL RISK



## ACTIVE RISK



## LIQUIDITY



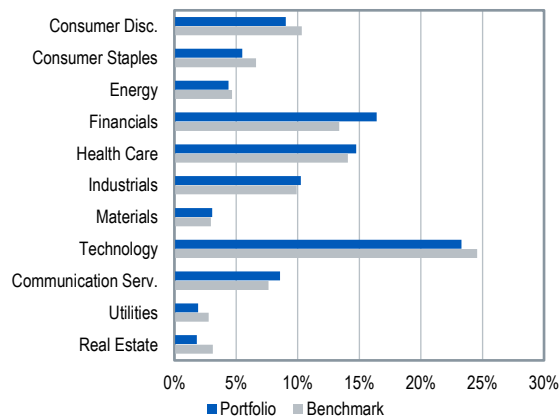
**Total Risk** – Decomposes estimated future annualized standard deviation of returns by asset class to illustrate the contributions to total risk from each. Total risk is calculated using current positions and Strategic's proprietary risk model.

**Active Risk** – Refers to the standard deviation of the difference between the portfolio and policy returns.

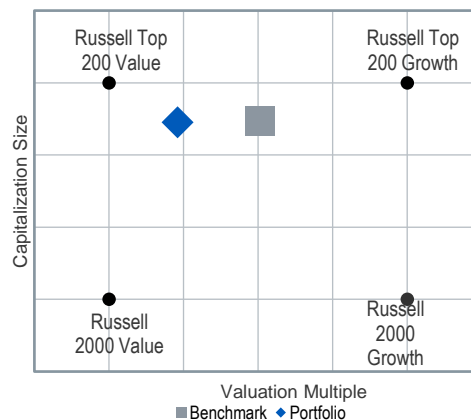
# U.S. Equity Posture

## Miami University Non-Endowment (LTC), as of March 31, 2023

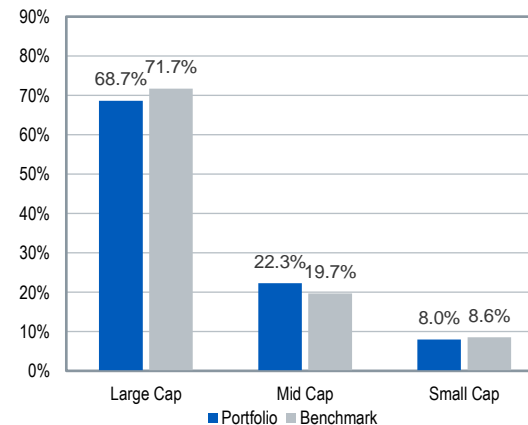
### SECTOR EXPOSURE



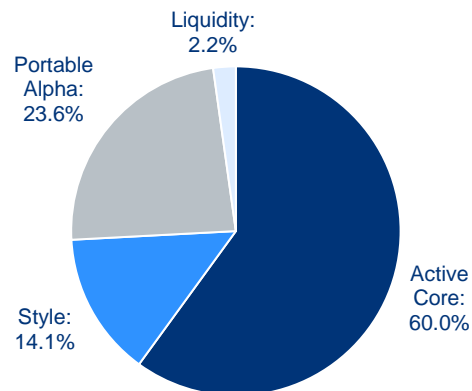
### STYLE ANALYSIS



### MARKET CAPITALIZATION



### MANAGER ALLOCATION



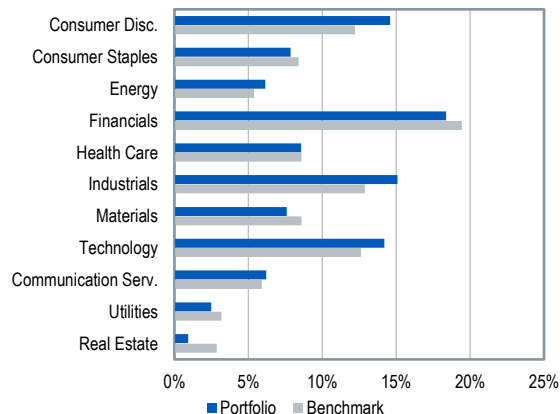
### FUNDAMENTALS

	Portfolio	Benchmark
Yield (%)	1.5	1.5
Est Current Year P/E	15.9	17.6
EPS 5-Yr Est Growth (%)	12.5	12.4
Wtd Avg Market Cap (\$ bil)	371.3	467.9
Price/Book	3.3	3.5
Price/Operating Cash Flow	14.3	15.6
Price/Sales	1.7	2.1
ROE (%)	16.9	16.5

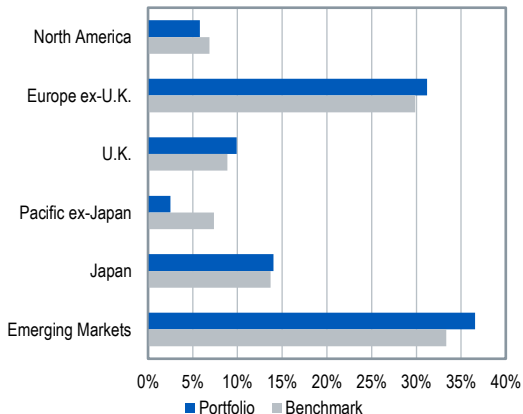
# Non-U.S. Equity Posture

Miami University Non-Endowment (LTC), as of March 31, 2023

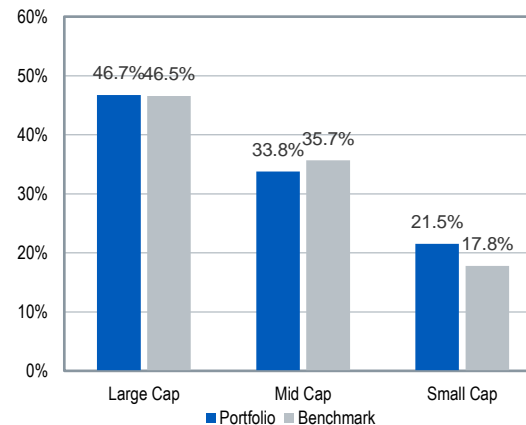
## SECTOR EXPOSURE



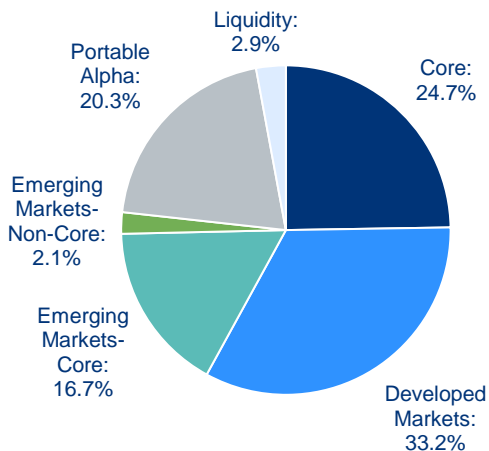
## GEOGRAPHIC EXPOSURE



## MARKET CAPITALIZATION



## MANAGER ALLOCATION



## FUNDAMENTALS

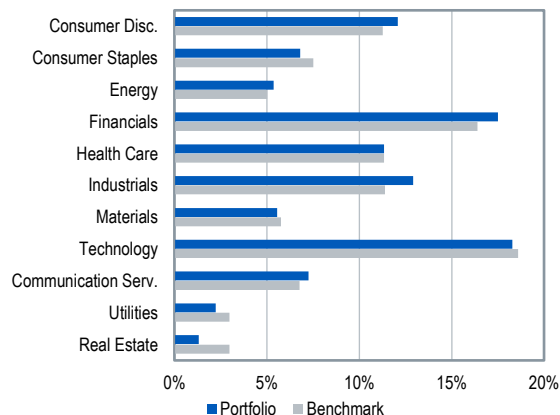
	Portfolio	Benchmark
Yield (%)	2.7	2.3
Est Current Year P/E	10.8	12.1
EPS 5-Yr Est Growth (%)	11.9	11.2
Wtd Avg Market Cap (\$ bil)	75.8	83.0
Price/Book	1.4	1.6
Price/Operating Cash Flow	7.9	10.2
Price/Sales	0.9	1.2
ROE (%)	11.9	11.5



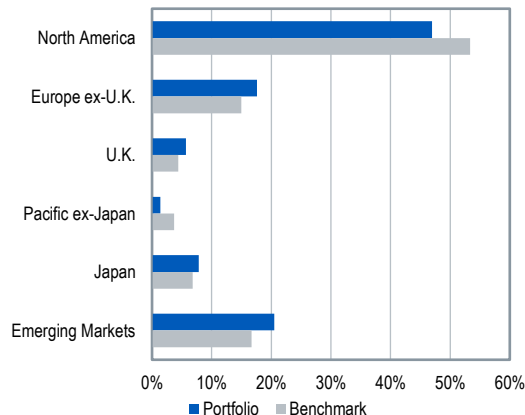
# Total Equity Posture

Miami University Non-Endowment (LTC), as of March 31, 2023

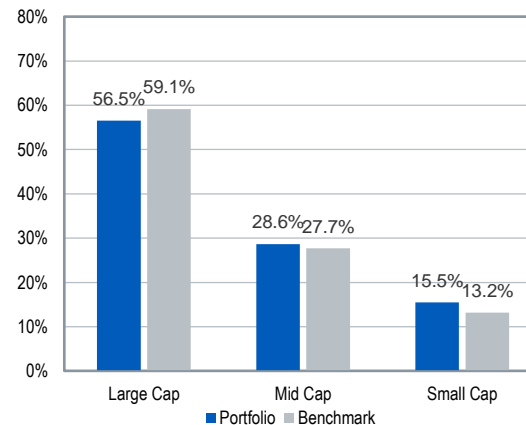
## SECTOR EXPOSURE



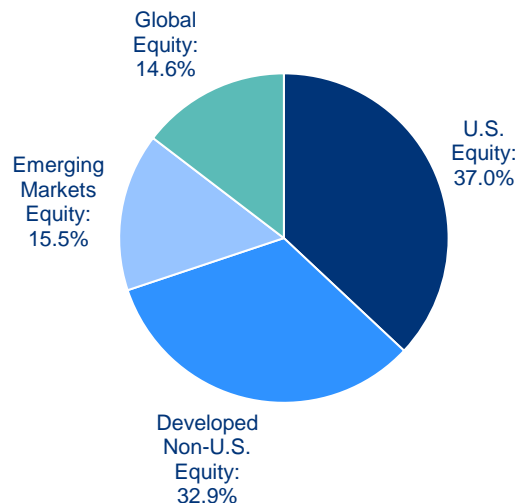
## GEOGRAPHIC EXPOSURE



## MARKET CAPITALIZATION



## MANAGER ALLOCATION



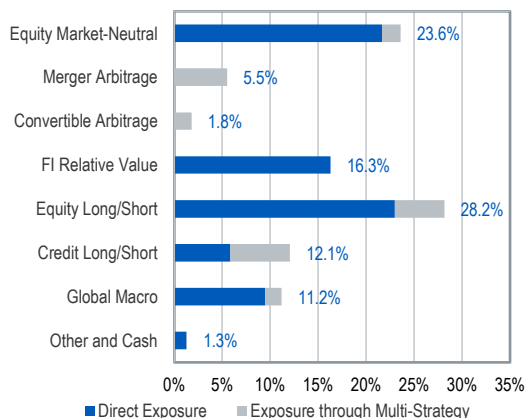
## FUNDAMENTALS

	Portfolio	Benchmark
Yield (%)	2.2	1.9
Est Current Year P/E	12.7	14.6
EPS 5-Yr Est Growth (%)	12.2	11.9
Wtd Avg Market Cap (\$ bil)	205.9	275.5
Price/Book	1.9	2.2
Price/Operating Cash Flow	9.9	12.5
Price/Sales	1.1	1.5
ROE (%)	13.3	13.1

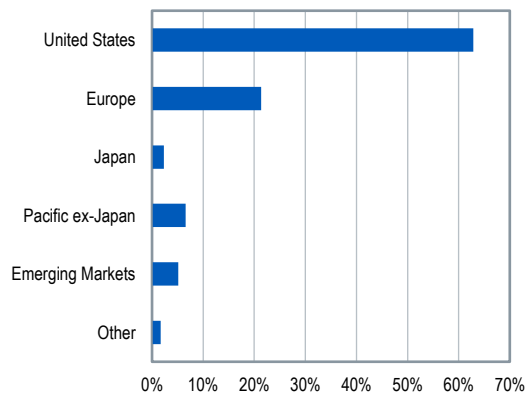
# Hedge Funds Posture

Miami University Non-Endowment (LTC), as of March 31, 2023

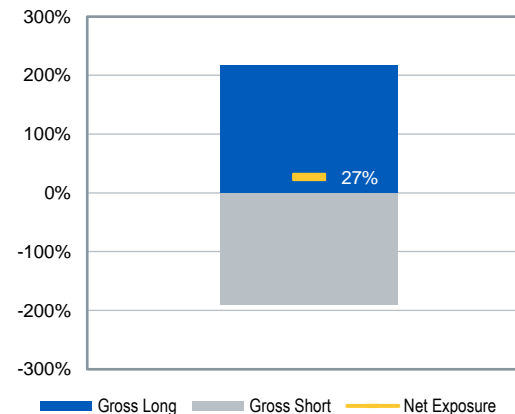
## STYLE ALLOCATION



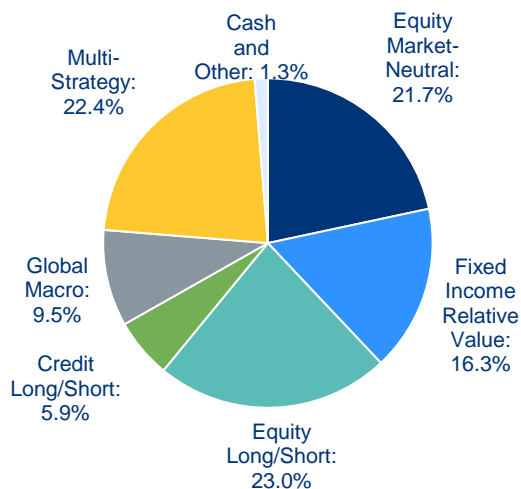
## GEOGRAPHIC EXPOSURE



## MARKET EXPOSURE



## MANAGER ALLOCATION



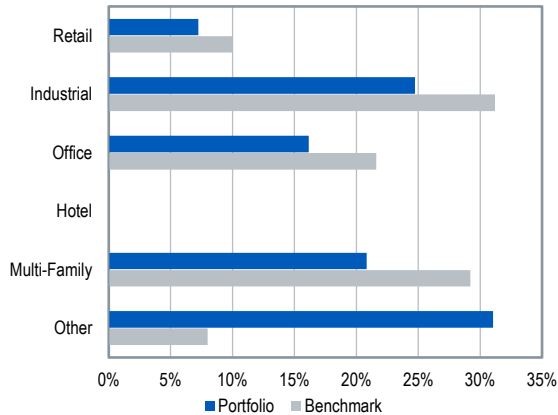
## RISK BETAS (5 Years)

	Portfolio	Benchmark
<b>Beta to S&amp;P 500</b>	<b>0.09</b>	<b>0.19</b>
Significance	99%	99%
<b>Beta to U.S. Treasuries</b>	<b>(0.29)</b>	<b>(0.11)</b>
Significance	99%	-
<b>Beta to Citi High Yield</b>	<b>0.21</b>	<b>0.39</b>
Significance	99%	99%
Statistical Significance: 99% 95% 90%		
"-" indicates the significance level of the factor was less than 90%		

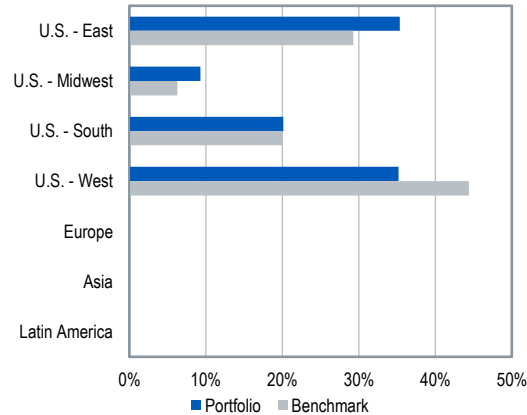
# Real Estate Posture

## Miami University Non-Endowment (LTC), as of March 31, 2023

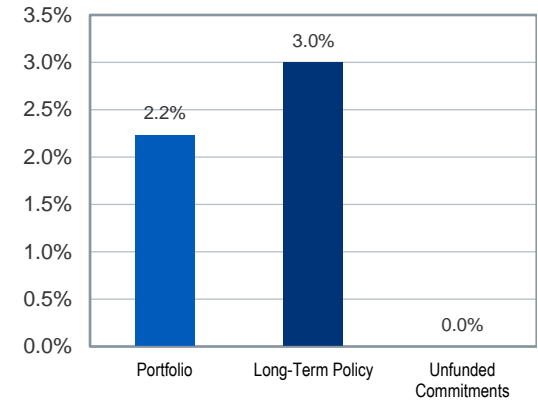
### SECTOR EXPOSURE



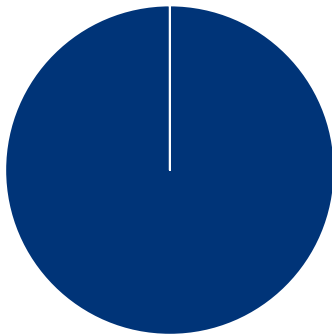
### GEOGRAPHIC EXPOSURE



### ALLOCATION & UNFUNDED COMMITMENTS



### MANAGER ALLOCATION\*

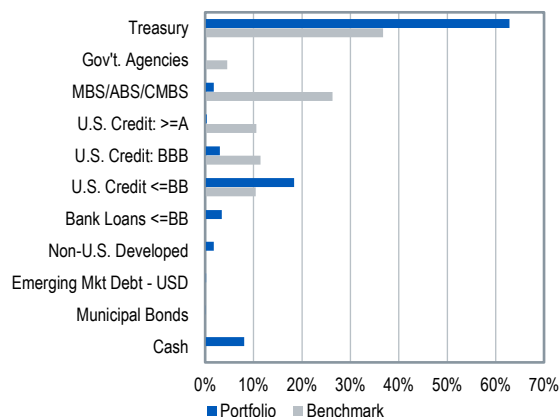


Core  
Open-End:  
100.0%

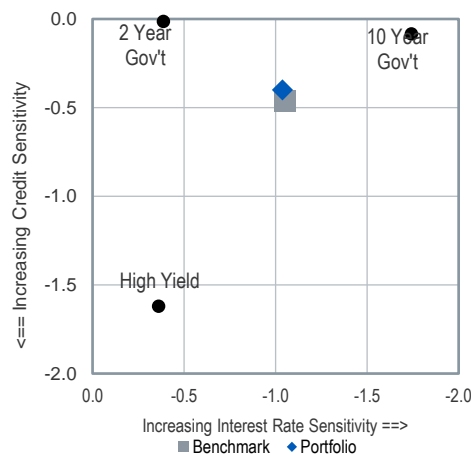
# Fixed Income Posture

## Miami University Non-Endowment (LTC), as of March 31, 2023

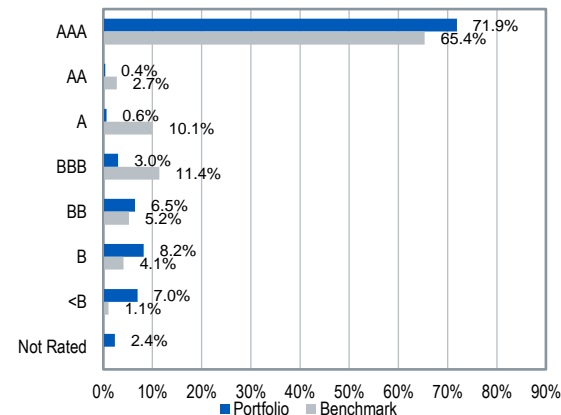
### SECTOR EXPOSURE



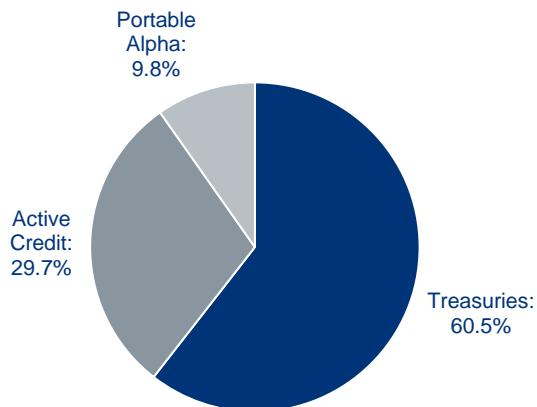
### STYLE ANALYSIS



### CREDIT RATING EXPOSURE



### MANAGER ALLOCATION



### FUNDAMENTALS

	Portfolio	Benchmark
Fixed Income Weight (%)	23.0	24.0
Credit Quality	A+	AA
Duration (yrs)	6.3	6.1
Effective Maturity (yrs)	10.1	8.2
Yield (%)	5.2	4.8

# Investment Portfolio Strategy

**Valuations in many markets remain stretched. Fixed Income duration has been increased and is now close to neutral relative to policy. Given the significant rise in yields and the abrupt swing in monetary policy, economic growth is likely to slow meaningfully. We retain our overweight to hedge funds aiming to benefit from record-wide valuation spreads and ongoing market dislocations.**

Asset Class	Current Position	Comments
<b>U.S. Equities</b>	<b>Underweight</b>	<b>U.S. valuations are expensive both in absolute terms and relative to non-U.S. markets. Value stocks will continue to benefit from elevated valuation dispersion.</b>
<b>Large Value Large Growth Small Capitalization</b>	Overweight Underweight Neutral	The Fed is focused on rising inflation risks, tightening policy faster than previously anticipated. A still constructive macro environment will benefit cyclicals and value stocks. Pandemic flare-ups continue to create bumps in the economic road but markets are largely looking past current interruptions. Valuations are stretched. Growth remains expensive relative to value stocks. Small and mid-cap stocks are fairly valued relative to large caps.
<b>Non-U.S. Equities</b>	<b>Overweight</b>	<b>Non-U.S. equity valuations are relatively attractive, providing a constructive setting for an eventual rebound.</b>
<b>Developed Markets Non-U.S. Small Cap Emerging Markets</b>	Overweight Neutral Overweight	While Europe is lagging the U.S. due to the Russian war, the energy crisis, and Political disruptions in the UK, the EU and UK economies are likely to catch up in the medium term and trade at a significant valuation differential. The valuation of EM equities remains attractive and, as a group, emerging equity markets provide more scope for value added than their more advanced counterparts.
<b>Alternatives</b>	<b>Neutral</b>	<b>Hedge funds are likely to benefit from wide valuation dispersion and crisis-driven market dislocations.</b>
<b>Hedge Funds Private Equities</b>	Neutral Neutral	Relatively low correlations within public markets create powerful diversification benefits for our hedge fund allocation. Wide levels of valuation dispersion create an attractive opportunity set for security selection and alpha generation.
<b>Real Assets</b>	<b>Neutral</b>	<b>We return to a neutral stance on real estate as we favor a sizable allocation to real assets overall in light of inflation risks.</b>
<b>Real Estate TIPS Commodity Futures</b>	Neutral Neutral Neutral	Real estate offers attractive inflation protection in an environment of higher and more volatile price pressures. On a stand-alone basis U.S. TIPS trade much more in line with equilibrium expectations.
<b>Fixed Income</b>	<b>Underweight</b>	<b>Nominal and real yields have risen sharply as the inflation surge has prompted an unprecedented pace of policy tightening. Credit spreads still need to reflect growth headwinds to a greater degree motivating an underweight to credit. Active management still attractive in less efficient market segments.</b>
<b>U.S. Treasury Risk Credit Risk</b>	Neutral Underweight	Real U.S. Treasury yields have risen to equilibrium levels as the Federal Reserve has committed to a restrictive policy stance until inflation falls back to target levels. Corporate bond spreads have recently widened but remain unattractive. Active management opportunities for security selectors still exist within mortgage, higher-yielding credit, and more complex fixed income sectors. We removed our duration underweight given the rise in real yields.

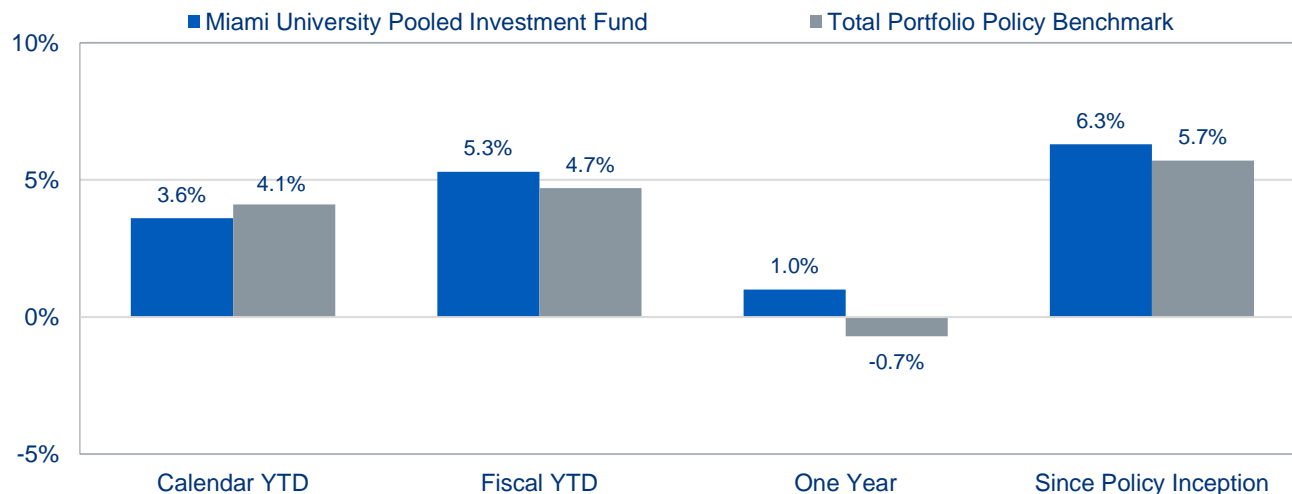
Current outlook and strategy provided for illustrative purposes only and is subject to change at the sole discretion of Strategic.  
Positioning as of April 30, 2023.

# Fiscal Year-to-Date Update: Investment Performance Review

## Non-Endowment Endowment

# PIF Performance Review

## Calendar Year Investment Performance – as of April 30, 2023



**Total Portfolio  
Added Value:**

**-0.5%**

**+0.6%**

**+1.7%**

**+0.6%**

**Fiscal year to date, the portfolio returned 5.3% net of all fees, ahead of the policy benchmark by 60 bps.**

Numbers may differ slightly due to rounding. All total portfolio returns are shown net of sub-manager and Strategic fees. All policy benchmark returns are shown net of estimated passive management fees and rebalancing costs. Legacy manager returns are net of sub-manager fees and gross of Strategic fees. Legacy benchmark returns are gross of estimated passive fees and rebalancing costs. As of 3/31/2023 legacy investments are 10.8% of the total portfolio. Since Policy inception is the period from 9/30/2018 to 4/30/2023.

# PIF Performance Review ex-Illiquids

Performance as of April 30, 2023

	\$ Millions	% of Total PIF Assets	1 Month	3 Month	Fiscal YTD	Calendar YTD	1 Year	3 Year	Since Policy Inception - 10/1/2018
<b>Miami - Pooled Investment Fund ex. Illiquids Performance</b>									
<i>as of April 30, 2023</i>									
Miami University Pooled Investment Fund - Ex. Illiquids (Net of Sub-Mgr Fees) <sup>1, 2</sup>	\$533.9	75.4%	0.7%	-0.3%	7.5%	5.2%	1.8%	10.7%	5.9%
Miami University Pooled Investment Fund - Ex. Illiquids Benchmark (Gross) <sup>3</sup>			0.7%	-0.1%	6.5%	5.4%	-0.1%	8.0%	4.9%

	\$ Millions	% of Total PIF Assets	1 Month	3 Month	Fiscal YTD	Calendar YTD	1 Year	3 Year	Since Policy Inception - 10/1/2018
<b>Miami - Pooled Investment Fund Performance</b>									
<i>as of April 30, 2023</i>									
Miami University Pooled Investment Fund (Net of Sub-Mgr Fees) <sup>2</sup>	\$708.3	100.0%	0.5%	-0.4%	5.4%	3.7%	1.1%	11.4%	6.5%
Miami University Pooled Investment Fund Policy Benchmark (Gross) <sup>3</sup>			0.6%	-0.1%	4.9%	4.2%	-0.5%	9.2%	5.9%

1 Performance excludes all Opportunistic, Private Equity, Real Estate and Timber investments since policy inception.

2 Performance is net of sub-manager fees and gross of Strategic fees.

3 Benchmark performance is weighted average of asset class policy benchmark performance.



# Annual Policy Reviews

- Debt Policy
- Endowment Spending Policy
- Endowment Administrative Fee Policy

## MIAMI UNIVERSITY DEBT POLICY

The primary objective of Miami University's use of debt is to optimally allocate debt as a limited capital resource in funding carefully selected projects that further the University's mission and fulfill its strategic objectives. This policy sets forth the goals and strategies the University expects to utilize to accomplish this objective.

### GOALS

1. To prudently use debt as a source of capital to fund capital projects that relate to the strategic priorities of the University but have limited opportunities for financing from other sources such as state appropriations, philanthropic giving, or grants.
2. To manage the University's overall debt level to maintain a ~~minimum~~ credit rating in the ~~range of the high "A" to low "AA" categories~~ category, according to the major rating agencies.
3. To maintain a weighted average net cost of capital below ~~5.50%~~ 5.0% by carefully structuring financings to take advantage of interest rate cycles and available financing vehicles.
4. To maintain debt capacity ratios ~~in excess of the minimum acceptable composite score~~ as outlined by the State of Ohio (see addendum) ~~and that~~ allow the University to achieve its credit rating, cost of capital, and long-term viability objectives.
5. To assure that projects financed have a prudent plan for debt repayment.

### DEBT MANAGEMENT STRATEGIES

#### 1. Identification of capital projects

Major capital projects are prioritized through the University's long-range capital plan. The capital plan is constructed within the framework of the University's financial plan and is aligned annually with the University's budget. Sources of funding for capital projects include state capital appropriations, gifts or grants, annual capital renewal or replacement budgets, internal reserves, and bond financing.

Bond financing, because of its long-term financial implications, is to be used strategically on projects for which other funding sources are limited, and will be coordinated when possible so that multiple projects may be accommodated in a single borrowing to create efficiencies.

The planning process undergoes extensive review and discussion with University management and the Board of Trustees' Finance and Audit Committee. As each individual project in the capital plan is initiated, the project and its financing plan is reviewed by the Finance and Audit Committee and approved by the Board of Trustees. Any future obligations resulting from the financing plans, such as debt service payments or outstanding gift pledges, are reviewed annually with the Finance and Audit Committee as part of the University's normal budget planning to ensure that the financing plans remain viable. If they need to be adjusted, they are adjusted within the framework of the overall financial plan for the University.

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## 2. Debt capacity

Miami University's debt capacity can be defined as:

1. A level of outstanding debt at which the University can maintain its high credit ratings and a low cost of borrowing, and
2. A practical level of annual debt service payments that the University can comfortably cover from predictable sources of repayment.

The University intends to maintain ~~minimum~~ underlying credit ratings in the ~~high "A" to low "AA" range~~ category in order to issue debt at relatively low interest rates. The University does not intend to issue the maximum possible levels of debt, but intends to maintain a comfortable reserve of debt capacity. A prudent level of debt provides access to capital but does not unduly burden the institution's budget with annual repayment obligations. Furthermore, a moderate and consistent debt burden also serves the goal of intergenerational equity; one generation of tuition-payers is not overburdened at the expense of another generation.

Debt capacity is generally measured through ratio analysis. Ratios provide a consistent measure of the debt level carried by an institution in relation to its balance sheet, revenues and expenses. Ratio analysis provides insight into debt capacity from two perspectives: by monitoring trends over time and in comparison to benchmarks. It is the intent of the University to maintain a strong financial position that will support a favorable ratio analysis measured against national standards, peer and in-state comparisons, and credit rating agency medians. Some of the key ratios currently utilized for evaluating debt capacity are attached as Addendum A. Ratios should be reviewed with the Board of Trustees at the end of each fiscal year as part of the financial update and prior to new bond issuance with pro-forma data.

## 3. Interest rate management

The primary objective of interest rate management is to make strategic and structural decisions on each University financing in order to minimize the aggregate interest expense to the University. After reviewing historical long-term interest rate cycles and industry benchmarks, the University has established a goal of maintaining a weighted average net cost of capital below ~~5.50%~~ 5.0%. It is recognized that this goal may not be achievable in very high interest rate environments; in such situations, the goal

will be to achieve the lowest cost of capital available under the circumstances. ~~Methods of~~ Debt portfolio considerations for maintaining a low cost of capital include:

1. Issuing fixed vs. variable rate debt
2. Maturity length and principal amortization
3. Call provisions and the use of premium and discount coupons
4. Managing interest rate cycles
5. Selective use of interest rate swaps and other derivative products
6. Diversifying the universe of its potential investors
7. Negotiated vs. competitive sales
8. Maintaining its strong credit ratings
9. Selective use of credit enhancement or liquidity

A secondary objective of interest rate management is to minimize the uncertainty and variability of interest expense. Thus, although variable-rate bonds generally have lower interest costs than fixed-rate bonds, they also introduce volatility risk into the University's debt service obligations. ~~It is expected to be advantageous to include variable rate debt in the University's capital structure at high points in the economic interest rate cycle. However, it is not anticipated that variable rate exposure would exceed 40% of overall outstanding debt at any point in time.~~

Interest rate exposure may also be managed through the use of interest rate swaps and other derivative products. Such products provide an indirect, rather than direct, means of managing interest risk. If, after thorough analysis, a derivative product is clearly beneficial in reducing debt service cost and/or interest rate risk, such a product may be used with approval of the Board of Trustees. Swaps and other derivatives used as part of the debt portfolio must be tied directly to University debt instruments and may not be used for speculative purposes.

Each proposed new debt issuance will be evaluated in the context of the interest rate environment at that time, debt products available in the marketplace, the University's then-existing mix of outstanding obligations, and the time horizon of the projects to be financed. The potential upside and downside risks of various debt instruments and structures will be analyzed to determine the most advantageous structure to meet the University's long-term goals given the existing environment.

#### 4. Repayment planning

All debt financing must be accompanied by a feasible plan for repayment of its principal and interest obligations. Sources of repayment may include project-specific revenues, auxiliary enterprise revenues, gift revenues, general University receipts, expense reductions, or other sources. If the financing involves variable rate debt, the repayment plan must take into consideration the impact of a change in interest rates. Pro forma projections will be based on conservative assumptions that provide reasonable comfort that the repayment obligations can be prudently managed.

In some situations, a prudent method of repayment planning will be to budget and fund a segregated Debt Service Reserve Fund. There may also be circumstances where a

mandatory Debt Service Reserve [Fund](#) is included in the legal bond covenants. In cases where the use of such a reserve is planned and/or mandated, the University will incorporate the appropriate funding into its budget and will make best efforts to fulfill the funding plan.

5. Refinancing opportunities

The University will monitor its debt portfolio for refunding and/or restructuring opportunities that may arise from changes in the interest rate environment. In addition, when issuing debt for new project purposes, the University should consider any potential refunding to be issued in combination with such new project financing. A number of factors will be evaluated in making refinancing decisions, including:

1. Call features of outstanding debt
2. Rate reduction potential
3. Time beyond call to maturity
4. Call premium
5. Escrow efficiency
6. Overall market conditions

In general, a refinancing opportunity will be considered advantageous if it results in a net present value savings of 3% or greater.

6. Regulatory and tax considerations

Authority for issuance of bonds is provided by Sections 3345.11 and 3345.12 of the Ohio Revised Code. The Ohio Board of Regents has further authority to approve debt for which the general receipts of the University are pledged as security. University management will be responsible to seek and obtain approval by the Ohio Board of Regents in advance of a bond issuance.

Bonds issued by Miami University are [often](#) eligible for tax-exemption, and therefore subject to IRS rules and regulations governing tax-exempt obligations. University management will use its best efforts to comply with the appropriate IRS rules and regulations. Specifically, management will remain cognizant of IRS regulations concerning arbitrage, private use, and unrelated business income.

7. Approvals

Debt in amounts of \$2,000,000 or less must be approved by the Vice President for Finance and Business Services.

Debt in excess of \$2,000,000 and any debt that is publicly issued must be approved by the Vice President for Finance and Business Services, the Finance and Audit Committee, and the Board of Trustees.

**ADDENDUM A  
DEBT CAPACITY RATIOS**

**MIAMI UNIVERSITY  
DEBT POLICY**

Through the 1997 enactment of Senate Bill 6, a standardized method for monitoring the financial health of Ohio's state-assisted college and universities was established. Key ratios monitored by the Ohio Board of Regents (OBOR) are:

- **Viability Ratio:** expendable net assets divided by total debt. This ratio is a measure of an institution's ability to retire its long-term debt using available current resources. A viability ratio in excess of 100% indicates that the institution has expendable fund balances in excess of its plant debt. A viability ratio above 60% is considered good, while a ratio below 30% may be a cause for concern.
- **Primary Reserve Ratio:** expendable net assets divided by total operating expenses. This ratio is a measure of an institution's ability to continue operating at current levels without future revenues. A primary reserve ratio of 10% or greater is considered good, while a ratio below 5% may be a cause for concern.
- **Net Income Ratio:** change in total assets divided by total revenues. This ratio measures an institution's financial status in terms of current year operations. A negative net income ratio results when an institution's current year expenses exceed its current year revenues. A positive ratio indicates the institution experienced a net increase in current year fund balances.
- **Composite Score:** weighted summary statistic of the above three ratios. Each ratio is assigned a score of 1-5 based on predetermined ranges and then weighted, with 30% to the viability ratio, 50% to the primary reserve ratio, and 20% to the net income ratio. The scoring process emphasizes the need for campuses to have strong expendable fund balances, manageable plant debt, and a positive operating balance. The highest possible composite score is 5.0. The minimum acceptable composite score is 1.75. A score at or below this minimum level for two consecutive years will result in being placed on fiscal watch by OBOR.

In addition ~~to the above ratios~~, the major rating agencies such as Moody's, Fitch, and Standard & Poor's track a series of financial indicators including but not limited to:

- Annual debt service as a percent of operating expenses: A ratio greater than 10% generally represents an excessive debt burden, while 7% is considered to be moderately high.
- Operating Margin: operating surplus as a percent of revenues (excluding gift revenues)
- Debt Service Coverage: operating surplus divided by debt service expense
- Spendable cash & investments to debt
- Monthly days cash on hand

~~April 2011~~ June 2023 DRAFT

- ~~Total debt per student~~
- Total financial resources per student

# Endowment Spending Policy

June 2017



The Trustees of Miami University recognize their fiduciary responsibility to manage prudently the funds that have been and will be given to the University's endowment. Spending from these funds is intended to benefit Miami University in perpetuity; therefore, the spending policy is intended to achieve a balance between the need to preserve the purchasing power of the endowment principal at the time of the donation and the need to maximize current distribution to support the programs designated by the contributors.

## GOALS

The Trustees hereby reaffirm the following goals for the University's endowment spending distribution:

1. To preserve and grow the charitable impact and intergenerational equity of donor funds in perpetuity.
2. To maintain a spending formula that protects the real value of the endowment principal, recognizing that maximizing endowment growth also maximizes distribution growth.
3. To strive for stability and predictability of distributed amounts from year to year, recognizing that a certain level of volatility is inherent in the endowment's investment policy.
4. To assure past and future contributors that donated funds are, and will continue to be, prudently managed to achieve and maintain the intended charitable impact in perpetuity.

## SPENDING CALCULATION

Annually, each endowed fund will make a distribution determined by averaging the market value of the previous twelve quarters as of March 31st of the current fiscal year. This three-year average value shall then be multiplied by the spending rate of 4.0%.

If an individual endowed fund has sufficient accumulated earnings to make a full calculated distribution, then that amount shall be distributed. If an individual endowed fund has a positive accumulated earnings balance, but that balance is less than the full calculated amount, then a partial distribution shall be made until the accumulated earnings balance is zero. If an individual fund has a negative accumulated earnings balance, then just realized dividends and interest allocated to that fund shall be distributed.

Annually, the Senior Vice President for Finance and Business Services and staff will evaluate this policy and the resulting distributions.

The Board of Trustees shall consider the policy with the care that an ordinarily prudent person in a like position would exercise under similar circumstances, considering the following factors:

1. The duration and preservation of the University's endowment fund;
2. The purposes of the University and the University's endowment fund;
3. General economic conditions;
4. The possible effect of inflation or deflation;
5. The expected total return from income and appreciation of investments;
6. Other resources of the University;
7. The investment policy of the University.



# Endowment Administrative Fee Policy

September 2019



## OBJECTIVE

The objective of the Administrative Fee Policy is to reimburse Miami University to support certain expenses related to the advancement and investment of the Miami University endowment fund and annual fund.

## REVENUE

An administrative fee of 1.00 percent will be calculated against the market value of the Miami University endowment investment pool as of March 31<sup>st</sup> (in conjunction with the annual spending distribution calculation). The administrative fee may be reduced or waived for any endowed gift with the approval of the Senior Vice President for University Advancement and the Senior Vice President for Finance and Business Services. The total administrative fee revenue will be distributed to the University's Education & General Fund before the end of the following fiscal year and used to offset certain costs incurred in that fiscal year as described below.

## EXPENSES

The administrative fee revenue shall be used to offset expenses as follows:

- **Advancement:** A portion of the administrative fee shall be used to fund advancement related expenses including but not limited to the salaries, operating, travel, and entertainment expenses of university advancement staff as determined by the Senior Vice President for University Advancement
- **Investment:** A portion of the administrative fee shall be used to fund investment related expenses, including but not limited to the salaries of finance and business services staff related to investment and administration of endowment funds, travel and registration expenses related to external investment manager meetings and conferences, external audit fees, and external investment fees as determined by the Senior Vice President for Finance and Business Services

Any administrative fee balance not spent in the current fiscal year may be accumulated and carried forward to a future fiscal year.

This policy and the administrative fee rate will be reviewed on an annual basis by the Miami University Finance and Audit Committee.

# Updates

## Pooled Investment Fund Third Party Service Providers Steward Report

# Pooled Investment Fund

## Updated Strategic Asset Allocation

ASSET CLASS	Current Strategic Asset Allocation	Updated Strategic Asset Allocation
<b>Equity</b>	<b>43.0%</b>	<b>43.0%</b>
<b>U.S.</b>	<b>19.0%</b>	<b>26.0%</b>
<b>Developed Non-U.S.</b>	<b>12.0%</b>	<b>12.5%</b>
<b>Emerging Markets</b>	<b>12.0%</b>	<b>4.5%</b>
<b>Alternatives</b>	<b>37.0%</b>	<b>37.0%</b>
<b>Private Equities</b>	<b>25.0%</b>	<b>25.0%</b>
<b>Hedge Funds*</b>	<b>12.0%</b>	<b>12.0%</b>
Hedge Funds (Gross)	19.0%	19.0%
(Alpha Overlay)	7.0%	7.0%
<b>Real Assets</b>	<b>8.0%</b>	<b>8.0%</b>
<b>Real Estate</b>	<b>3.0%</b>	<b>3.0%</b>
<b>Timber</b>		
<b>Commodities</b>	<b>2.0%</b>	<b>2.0%</b>
<b>TIPS</b>	<b>3.0%</b>	<b>3.0%</b>
<b>Fixed Income</b>	<b>12.0%</b>	<b>12.0%</b>
<b>U.S. Fixed Income</b>	<b>12.0%</b>	<b>12.0%</b>
U.S. Investment Grade	12.0%	12.0%
U.S. High Yield		
<b>Opportunistic</b>	<b>0-15%</b>	<b>0-15%</b>
<b>Cash</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>
<b>EXPECTED COMPOUND RETURNS:</b>		
<b>Expected Nominal Return</b>	<b>8.7%</b>	<b>8.5%</b>
<b>Expected Real Return</b>	<b>5.9%</b>	<b>5.8%</b>
<b>RISK STATISTICS:</b>		
<b>Volatility</b>	<b>14.4%</b>	<b>14.0%</b>
<b>Quarterly Liquidity or Better</b>	<b>60%</b>	<b>60%</b>

- *Updated Strategic Asset Allocation* adjusts the allocations within public equity while keeping the same overarching allocation as *Current Strategic Asset Allocation*. This results in modestly lower expected risk and return.

This information is confidential and proprietary. Return estimates are geometric. These risk and return results are inclusive of the excess return and risk from active management and are based on our proprietary, forward-looking, long-term equilibrium capital market assumptions, which assume that asset classes are fairly priced, and that correlations and volatilities are at equilibrium levels. Returns are shown net of expected management fees. This analysis is provided for illustrative purposes only, does not represent actual portfolios, is not intended as investment advice, and is subject to change at the sole discretion of Strategic. Actual portfolios and their risks and returns may differ significantly from the results above. Please see Important Disclosures at the end of the presentation for disclosures about expected risk and return.

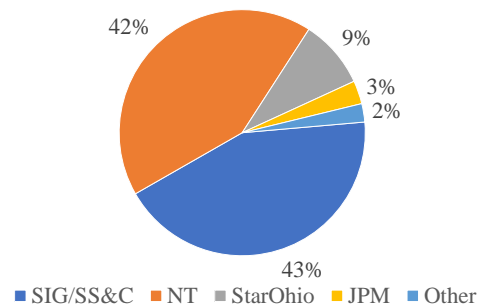
**To:** Miami University Investment Subcommittee  
**From:** Bruce Guiot and Tim Viezer  
**Subject:** Review of Third Party Investment Service Providers’ Fiduciary Practices  
**Date:** April 21, 2023

**Summary**

Miami University’s (“MU”) two main investments-related third-party service providers (“TPSP”) - Northern Trust and Strategic Investment Group (“SIG”) - have all re-affirmed their Self-Assessment of Fiduciary Excellence (“SAFE”).

In FY 2023, we again reviewed the SOC 1 reports for the two main investments-related TPSPs and three other TPSPs: JP Morgan, PNC and SS&C. The auditors’ found all five TPSPs’ management descriptions fairly represented their respective systems and there was reasonable assurance that the systems’ controls were suitably designed and operated effectively. We also asked more questions about cybersecurity and staff and client turnover, finding no issues.

Estimated MU Risk Exposure Based Upon Market Value



**Background**

We adopted tools developed by Fi360<sup>1</sup> as a foundation for prudent investment fiduciary practices. Fi360 is a fiduciary software, data, analytics, and training company. Its standards-setting body – the Center for Fiduciary Studies – has developed the Prudent Practice handbooks and awards the Accredited Investment Fiduciary® (“AIF”) and Accredited Investment Fiduciary Analyst® (“AIFA”) designations. Fi360 is also a founding member of the Centre for Fiduciary Excellence (“CEFEX”). CEFEX is an independent global assessment and certification organization.

An entry-level (Level I) verification is called a Self-Assessment of Fiduciary Excellence (“SAFE”). An AIF or AIFA designation holder performs a higher level (Level II) called a Consultant’s Review of Fiduciary Practices (“CRFP”). CEFEX offers a formal independent Level III assessment performed called a CEFEX Assessment of Fiduciary Excellence (“CAFÉ”).

**SAFE**

Annually, we ask Northern Trust, PNC, and SIG to perform a SAFE. In FY 2020, the Director of Investments (“DoI”) – who holds the both the AIF and AIFA designations, performed an informal review of fiduciary practices on SIG and followed up on the opportunities for improvement in FY 2021. Northern Trust, PNC, and SIG all re-affirmed their SAFEs for FY 2023.

<sup>1</sup> Acquired by Broadridge Financial Solutions, Inc. (NYSE: BR) in 2019.

## **Review of SOC 1 Reports**

The DoI reviewed the SOC 1 reports for five TPSPs: JP Morgan, Northern Trust, PNC, SS&C, and SIG. JP Morgan provides banking services to Miami and SS&C is SIG's Administrator. SOC (Service Organization Control) 1 Reports are based upon the SSAE 18 standard<sup>2</sup> prescribes two levels of reports: Type 1, which includes an assessment of internal control design, and a Type 2 which additionally includes an assessment of the operating effectiveness of controls over a period of time. All five TPSPs provided SOC 1 Type 2 reports. JP Morgan also provided a SOC 2 Type 1 report. The table below summarizes the results of the external auditors' tests of controls. This year we are reporting the number of tests to give a better perspective of the number of exceptions. The number of exceptions rose but represent only a 2.4% rate overall.

Organization	Role	Control Objectives	Total Controls Tested	Exceptions	Cyber Objectives	Cyber Controls Tested	Cyber Exceptions
SIG	OCIO	14	58	2	5	27	1
SS&C	Administrator	19	97	0	3	18	0
Northern Trust	Custodian	56	183	2	6	30	0
JP Morgan	Bank	13	84	1	8	33	0
PNC	T&GA Advisor	9	68	1	4	20	1

The external auditors concluded for each of the five TPSPs that in all material respects for the year:

- Managements' descriptions fairly presented the system that was designed and implemented,
- The controls related to the control objectives were suitably designed to provide reasonable assurance that the controls objectives would have been achieved if the controls operated effectively throughout the year, and
- The controls operated effectively to provide reasonable assurance that the control objectives were achieved for the one-year period.

This year we asked four of the five TPSPs (SS&C is SIG's administrator): (1) questions from the Department of Labor's Employee Benefits Security Administration ("Tips for Hiring a Service Provider with Strong Cybersecurity Practices" and (2) questions related to staff and client turnover. In brief, responses from Northern Trust, PNC, and SIG indicated that they have:

- No identified cyber breaches in the recent past.
- No litigation that could have material adverse effect on financial position or service ability.
- Cyber insurance.
- Staff turnover below finance and insurance industry average (PNC did not report but doubled staff).
- An increase in clients but assets/deposits are down from recent peaks.

## **Investment Policy Statement Compliance**

The DoI reviewed each responsibility listed in the IPS for the OCIO and ensured that each responsibility was fulfilled. Additionally, the DoI reviews twice a month (based upon "flash" and "revised" reports) the asset allocation to ensure it remains with compliance with the IPS.

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<sup>2</sup> The Statement on Standards for Attestation Engagements ("SSAE") was developed by the American Institute of Certified Public Accountants (AICPA). The SSAE 18 became effective on May 1, 2017.

**To:** Miami University Foundation Investment Committee  
**From:** Bruce Guiot and Tim Viezer  
**Subject:** Five-Year Review of Strategic Investment Group  
**Date:** April 30, 2023

**Summary**

Staff recommends the retention of Strategic Investment Group (“SIG”) as Miami University Foundation’s (“MUF”) Outsourced Chief Investment Officer (“OCIO”). The MUF Investment Policy Statement (“IPS”) states that such recommendations be based upon five criteria:

- **Quantitative Performance** – since inception value added is +60 bps. and produced primarily by bottom-up manager selection (as expected). Recent performance has improved and outperformed benchmarks and peers (see table below).
- **Qualitative Issues** – excess returns are driven as expected by an experienced team following a risk-aware, price-sensitive philosophy. The collegial culture reinforces the team processes. OCIO is the core business. Miami is SIG’s fourth largest relationship. There have been some notable investment process enhancements.
- **Trading Practices** – a focus on commingled funds may miss opportunities to reduce trading costs.
- **Fees** – PIF’s fees (22 bps) are in line with NACUBO total average (21-26 bps), but slightly higher than the peer size group (19 bps). Our marginal fee is 15 bps.
- **Fiduciary Obligations** – SIG performs its work with a fiduciary standard of care.

1-Year	PIF	Alpha-NASDAQ	NASDAQ-OMX	Callan	Northern Trust	PIF Bench	70/30	NACUBO	Average
6/30/2019	3.40%	N/A	3.38%	N/A	N/A	4.30%	5.30%	5.30%	4.57%
6/30/2020	0.90%	1.81%	-1.96%	2.67%	N/A	2.80%	4.56%	1.80%	1.95%
6/30/2021	31.20%	27.28%	32.68%	28.05%	30.50%	28.60%	26.29%	30.60%	29.14%
6/30/2022	-5.90%	-10.28%	-16.50%	-10.60%	-6.70%	-8.50%	-13.85%	-7.96%	-10.63%
12/31/2022	-7.60%	-12.77%	-19.16%	-13.14%	-10.70%	-11.70%	-16.59%		-14.01%

SIG has generally delivered on MUF’s original objectives. Using a condensed list of ten items from MUF’s 2017 OCIO search, Staff has found that:

- SIG has demonstrated expertise in asset allocation, traditional and alternative investments, risk analytics and management, higher education endowments, and governance. OCIO is its core business and Miami has been a top 5 client. SIG has an experienced team and although SIG’s ownership has changed, it appears to be a mutually beneficial and stable long-term situation.
- Inception-to-date performance is positive and improving, but below SIG’s expectations of an annualized, net-of-fee +1.0%. Nine managing directors and above have left in the past 5 years including CEO, CFO, co-CIO, and our original client manager. The vacancies were filled with a combination of internal promotions and external hires, and while average tenure has fallen, the level of industry experience is almost the same. Staff’s relationship with SIG is collaborative, but SIG acknowledges that it can improve and streamline its reporting (Staff considers the system brittle) and provide greater opportunities for Committee engagement.

## **Evaluation Process**

The IPS charges the IC to “review Foundation Officers’ and Staff oversight and evaluation of third-party vendors and make recommendations to the BoD [Board of Directors] with respect thereto,” and assigns to Foundation Officers and Staff the tasks of monitoring, evaluating, and recommending for hiring, retention, or termination third-party service providers (e.g., custodian, OCIO, and consultants). The IPS also specifies the criteria upon which the Foundation Officers and Staff base their recommendations and evaluations [listed in this memo’s Summary]. Staff used these criteria, the original 2017 OCIO criteria, and the processes listed above to evaluate SIG.

Staff has significant interaction with SIG. Both the CFO and Director of Investments (“DoI”) are former chief investment officers with over 30 years of industry experience. The CFO joined Miami in 2006 and participated in the 2017 OCIO search. The DoI joined Miami in 2019. In addition to attending the MUF Investment Committee (“IC”) and Miami University (“MU”) Investment Subcommittee (“IsC”) meetings, they participate in monthly calls, and have frequent interaction, sometimes on a daily basis. Both the CFO and DoI have attended SIG’s quarterly investment committee meetings and the DoI has visited SIG’s office in Arlington at least six times for due diligence. The most recent visit on December 9, 2022 was to evaluate SIG’s integration of ESG in their investment processes. The DoI had prepared for that visit by earning the CFA Institute’s Certificate in ESG Investing. Staff has found SIG’s client service responsive and eager to please, but SIG’s performance reporting system is rather brittle and special requests are handled via spreadsheets. SIG has worked collaboratively with Staff on projects and presentations.

Staff regularly monitors SIG. Annually, the DoI reviews each responsibility listed in the IPS for the OCIO and ensures that each responsibility is fulfilled. The DoI reviews the asset allocation twice a month (based upon “flash” and “revised” reports) to ensure it remains compliant with the IPS, and the performance attribution to ensure it is reasonable. On a quarterly basis, the DoI verifies the accuracy of fee invoices and compares SIG’s performance to a number of OCIO indices.

The DoI earned the Accredited Investment Fiduciary® (“AIF”) and Accredited Investment Fiduciary Analyst® (“AIFA”) designations. The DoI performed an informal Level II review called a Consultant’s Review of Fiduciary Practices (“CRFP”) and issued a report to the IC on June 9, 2020. The review found support for 91.5% of the 71 relevant criteria that demonstrate that SIG is meeting a fiduciary standard of care. The report proposed four areas for improvement which were all met in FY 2021.

In FY 2022 Staff began reviewing MUF’s third party financial service providers’ SOC1 (Service Organization Control) reports which are based upon the SSAE 18 standard<sup>1</sup>. The auditors found SIG’s descriptions fairly represented its systems and there was reasonable assurance that those systems’ controls were suitably designed and operated effectively. Staff again reviewed SIG’s SOC1 report in FY 2023. The report identified only two exceptions out of the 58 control tests and the auditors’ conclusions were unchanged. Staff also followed up with cyber security questions derived from U.S. Department of Labor guidance and found that SIG had not experienced any cyber security breaches in the past year, carried cyber security insurance, and had no litigation that could have material adverse effect on financial position or service ability. Staff and the IC Chair also posed a series of questions to SIG concerning changes over the past five years and changes going forward. The responses are included as a separate Appendix.

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<sup>1</sup> The Statement on Standards for Attestation Engagements (“SSAE”) was developed by the American Institute of Certified Public Accountants (AICPA). The SSAE 18 became effective on May 1, 2017.

# Accomplishments / Goals



# MU BOT Investment Subcommittee

## FY 2023 Annual Goals and Objectives – Accomplishments



### OVERARCHING GOAL: ENSURE ADEQUATE OPERATING LIQUIDITY OF THE UNIVERSITY.

#### 1. ENSURE FIDUCIARY BEST PRACTICES USING FI360'S SELF ASSESSMENT

- Conduct a review of Staff and the Investment Subcommittee using Fi360's "Prudent Practices for Investment Stewards".

*Goal moved to FY 2024*

#### 2. ENSURE INVESTMENT SUBCOMMITTEE MEETINGS PROVIDE MEANINGFUL INFORMATION AND OPPORTUNITIES FOR COMMITTEE DISCUSSION

- Conduct an annual deep-dive on fiscal-year-to-date performance attribution.
- Conduct deep-dive asset class reviews at least twice a fiscal year.

##### *Accomplishments*

- *SIG plans to conduct the annual deep-dive on performance attribution at the 6/21/2023 meeting.*
- *SIG reviewed public equity on 9/21/2022.*

#### 3. ACCOMPLISHMENTS NOT ORIGINALLY PLANNED FOR FY 2023

- *SIG reviewed its revised long-term capital market assumptions on 9/21/2022, 12/7/2022, and 3/1/2023 and refreshed its strategic asset allocation on 3/1/2023. Based upon these results, SIG did not recommend any change to the Tier III strategic asset allocation.*
- *SIG provided an update on its DEI efforts and Staff provided an educational update on the University's climate commitment, STARS, and Moody's ESG report.*
- *Staff and SIG conducted a thorough 5-year review of the OCIO relationship.*
- *Staff is recommending updates to the University's Debt Policy on 6/21/2023.*



### **OVERARCHING GOAL: ENSURE ADEQUATE OPERATING LIQUIDITY OF THE UNIVERSITY.**

#### **1. ENSURE FIDUCIARY BEST PRACTICES USING FI360'S SELF ASSESSMENT**

- Conduct a review of Staff and the Investment Subcommittee using Fi360's "Prudent Practices for Investment Stewards".

#### **2. QUESTIONS FOR SUBCOMMITTEE**

- What feedback can the Subcommittee provide to SIG and Staff?
- What topics would the Subcommittee like to learn more about?
- What would be the best balance of asset class reviews and submanager reviews given the Subcommittee's existing calendar of agendas?

# MU Investment Subcommittee – FY2023 Calendar



## FY 2023 MU Investment Subcommittee Calendar

Topic	MU IsC Meeting Oxford, Ohio September 21, 2022	MU IsC Meeting Oxford, Ohio December 7, 2022	MU IsC Meeting Oxford, Ohio March 1, 2023	MU IsC Meeting Oxford, Ohio May 10, 2023	MU IsC Meeting Oxford, Ohio June 21, 2023
OCIO Nonendowment Performance and Capital Markets Review	<ol style="list-style-type: none"> <li>1. Performance Review (Nonendowment &amp; PIF)</li> <li>2. Asset Allocation vs. Policy (Nonendowment &amp; PIF)</li> <li>3. Capital Markets Update</li> </ol>	<ol style="list-style-type: none"> <li>1. Performance Review (Nonendowment &amp; PIF)</li> <li>2. Asset Allocation vs. Policy (Nonendowment &amp; PIF)</li> <li>3. Capital Markets Update</li> </ol>	<ol style="list-style-type: none"> <li>1. Performance Review (Nonendowment &amp; PIF)</li> <li>2. Asset Allocation vs. Policy (Nonendowment &amp; PIF)</li> <li>3. Capital Markets Update</li> </ol>	<ol style="list-style-type: none"> <li>1. Performance Review (Nonendowment &amp; PIF)</li> <li>2. Asset Allocation vs. Policy (Nonendowment &amp; PIF)</li> <li>3. Capital Markets Update</li> </ol>	<ol style="list-style-type: none"> <li>1. Performance Review (Nonendowment &amp; PIF)</li> <li>2. Asset Allocation vs. Policy (Nonendowment &amp; PIF)</li> <li>3. Capital Markets Update</li> </ol>
OCIO Updates /Portfolio Strategies and Asset Class Reviews	<ol style="list-style-type: none"> <li>1. Asset Class Review: Public Equity</li> </ol>	<ol style="list-style-type: none"> <li>1. Invest. Mgmt. Fees, Expenses Review</li> <li>2. Strategic Real Estate Series Introduction</li> </ol>	<ol style="list-style-type: none"> <li>1. Review LT Capital Markets Assumptions</li> <li>2. Review LT Policy Portfolio Construction</li> <li>3. Nonendowment and PIF Stress Test / Scenario Analysis Risk Review</li> </ol>	<ol style="list-style-type: none"> <li>1. Asset Class Review: Real Assets</li> </ol>	<ol style="list-style-type: none"> <li>1. FYTD Performance Attribution (Nonendowment &amp; PIF)</li> </ol>
Treasury Updates	<ol style="list-style-type: none"> <li>1. Capital Stack and Tier Allocation</li> <li>2. Compliance Report</li> <li>3. FYE Updates – Endowment (a) Annual Spending Distribution and (b) Administrative Fee</li> </ol>	<ol style="list-style-type: none"> <li>1. Capital Stack and Tier Allocation</li> <li>2. Educational Updates: MU Climate Commitment, STARS, ESG report from Moody's</li> </ol>	<ol style="list-style-type: none"> <li>1. Capital Stack and Tier Allocation</li> <li>2. Stress Testing Distributions</li> </ol>	<ol style="list-style-type: none"> <li>1. Capital Stack and Tier Allocation</li> </ol>	<ol style="list-style-type: none"> <li>1. Capital Stack and Tier Allocation</li> <li>2. FY Cash Flow</li> <li>3. Investment Earnings Budget</li> <li>4. Annual Evaluation of Service Providers</li> </ol>
Governance Items	<ol style="list-style-type: none"> <li>1. Key Takeaways from Annual Evaluation Process</li> <li>2. Approve new FY IsC Goals</li> <li>3. ESG / DEI Reporting</li> </ol>	<ol style="list-style-type: none"> <li>1. Alternative Retirement Plan Update</li> </ol>	<ol style="list-style-type: none"> <li>1. Governance and regulatory updates</li> <li>2. Annual Review of Nonendowment IPS</li> </ol>	<ol style="list-style-type: none"> <li>1. Annual Review of Endowment Distribution Policy and Endowment Administrative Fee Policy</li> </ol>	<ol style="list-style-type: none"> <li>1. Review Progress on last FY Goals</li> <li>2. Discuss new FY Goals</li> <li>3. Review FY IsC Calendar</li> </ol>

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Miami University

# Board of Trustees Investment Subcommittee Appendices

June 21, 2023

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# Appendices

Performance Update Supplemental Slides  
Capital Markets Outlook  
April 2023 Performance Detail  
Additional Footnotes

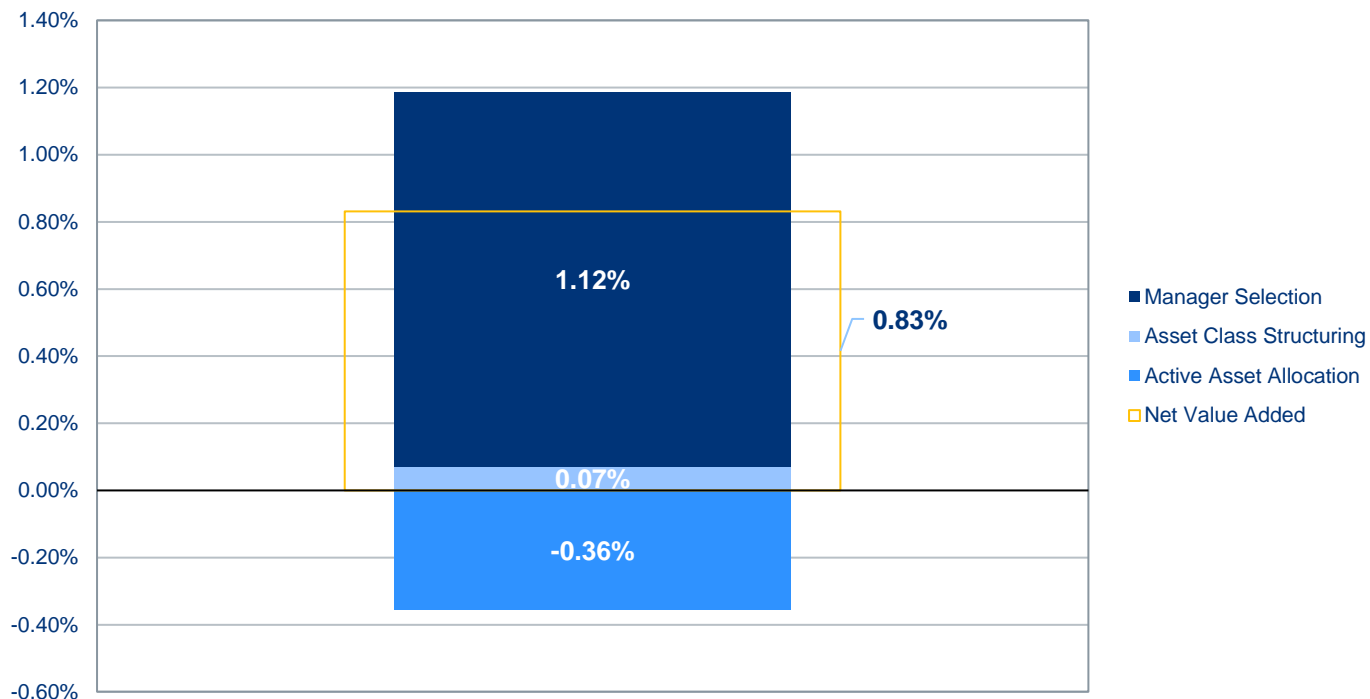
# Performance Update Supplemental Slides



# Value Added Attribution

## Miami University Non-Endowment (LTC) – Since Policy Inception\*

Value-Added Attribution: Total Portfolio



Portfolio Attribution vs Policy Benchmark

### Largest Contributors:

Manager Selection - Non-U.S. Equity: +0.50%

Manager Selection - Hedge Funds: +0.42%

Portable Alpha (HF Selection)\*\*: +0.35%

### Largest Detractors:

Asset Allocation – EAFE/EM over U.S.: -0.11%

Asset Allocation – EM over U.S.: -0.11%

Manager Selection – Global Equity: -0.11%

The impact of net fees is allocated across the Active Asset Allocation, Asset Class Structuring, and Manager Selection categories in the following proportions: 10% Active Asset Allocation, 20% Asset Class Structuring, 70% Manager Selection.

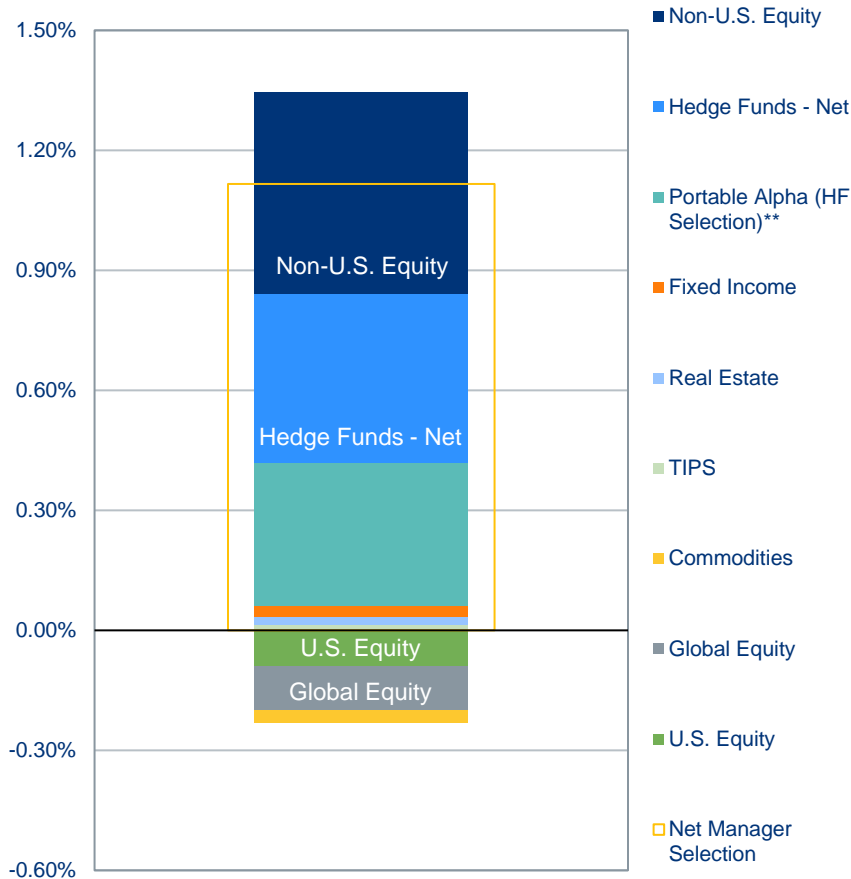
\*December 31, 2018 to April 30, 2023.

\*\*The decision to implement portable alpha is tracked and evaluated in two parts: 1. A structuring decision to invest in HF style weights as opposed to cash and 2. the actual performance of HF managers invested in as part of the portable alpha strategy relative to their style benchmarks.

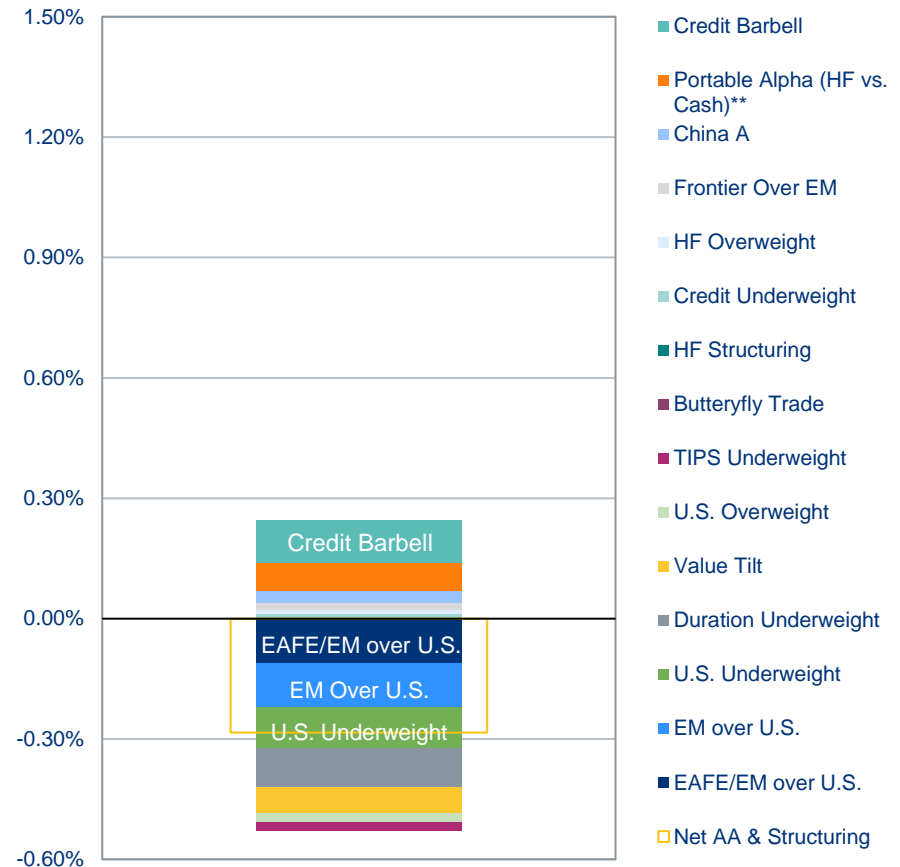
# Value Added Attribution

## Miami University Non-Endowment (LTC) – Since Policy Inception\*

**Value-Added Attribution:  
Manager Selection**



**Value-Added Attribution:  
Active Asset Allocation & Structuring**



The impact of net fees is allocated across the Active Asset Allocation, Asset Class Structuring, and Manager Selection categories in the following proportions: 10% Active Asset Allocation, 20% Asset Class Structuring, 70% Manager Selection.

\*December 31, 2018 to April 30, 2023.

\*\*The decision to implement portable alpha is tracked and evaluated in two parts: 1. A structuring decision to invest in HF style weights as opposed to cash and 2. the actual performance of HF managers invested in as part of the portable alpha strategy relative to their style benchmarks.

# Portfolio Review – Miami University Non-Endowment (LTC)

## Portfolio and Manager Structure – as of April 30, 2023

U.S. EQUITY	NON-U.S. EQUITY	HEDGE FUNDS	FIXED INCOME
<p><b>Strategic U.S. Equity Trust</b></p> <p><b>Portable Alpha</b></p> <ul style="list-style-type: none"> <li>Strategic U.S. Equity Portable Alpha</li> </ul>	<p><b>Strategic Developed Markets Ex-U.S. Equity Trust</b></p> <p><b>Strategic Emerging Markets Equity Trust</b></p> <p><b>Portable Alpha</b></p> <ul style="list-style-type: none"> <li>Strategic Developed Non-U.S. Equity Portable Alpha</li> <li>Strategic Emerging Markets Portable Alpha</li> </ul> <p><b>Liquidity</b></p> <ul style="list-style-type: none"> <li>MSCI EAFE ETF (iShares Core)</li> <li>MSCI EM ETF (iShares Core)</li> </ul>	<p><b>Strategic Funds SPC Alpha Segregated Portfolio</b></p> <p><b>Pending Liquidations</b></p> <ul style="list-style-type: none"> <li>Waterfall Eden</li> </ul>	<p><b>Active Credit</b></p> <ul style="list-style-type: none"> <li>Ellington Strategic Mortgage Fund, L.P.</li> <li>GoldenTree HY Value Offshore Strategic</li> <li>KKR Global Credit Opportunities Fund (Overseas) L.P.</li> </ul> <p><b>Treasuries</b></p> <ul style="list-style-type: none"> <li>Strategic Treasury Holdings</li> </ul> <p><b>Portable Alpha</b></p> <ul style="list-style-type: none"> <li>Strategic U.S. Fixed Income Portable Alpha</li> </ul>
<p><b>GLOBAL EQUITY</b></p>		<p><b>REAL ASSETS</b></p>	
<p><b>Strategic Global Equity Trust</b></p>		<p><b>Real Estate</b></p> <ul style="list-style-type: none"> <li>Harrison Street Core Property</li> <li>Prime Property</li> <li>PRISA</li> </ul> <p><b>Commodities</b></p> <ul style="list-style-type: none"> <li>iShares GSCI Commodity Index</li> </ul> <p><b>TIPS</b></p> <ul style="list-style-type: none"> <li>Strategic TIPS</li> </ul>	

Newly Added Managers since Q4

# Capital Markets Outlook

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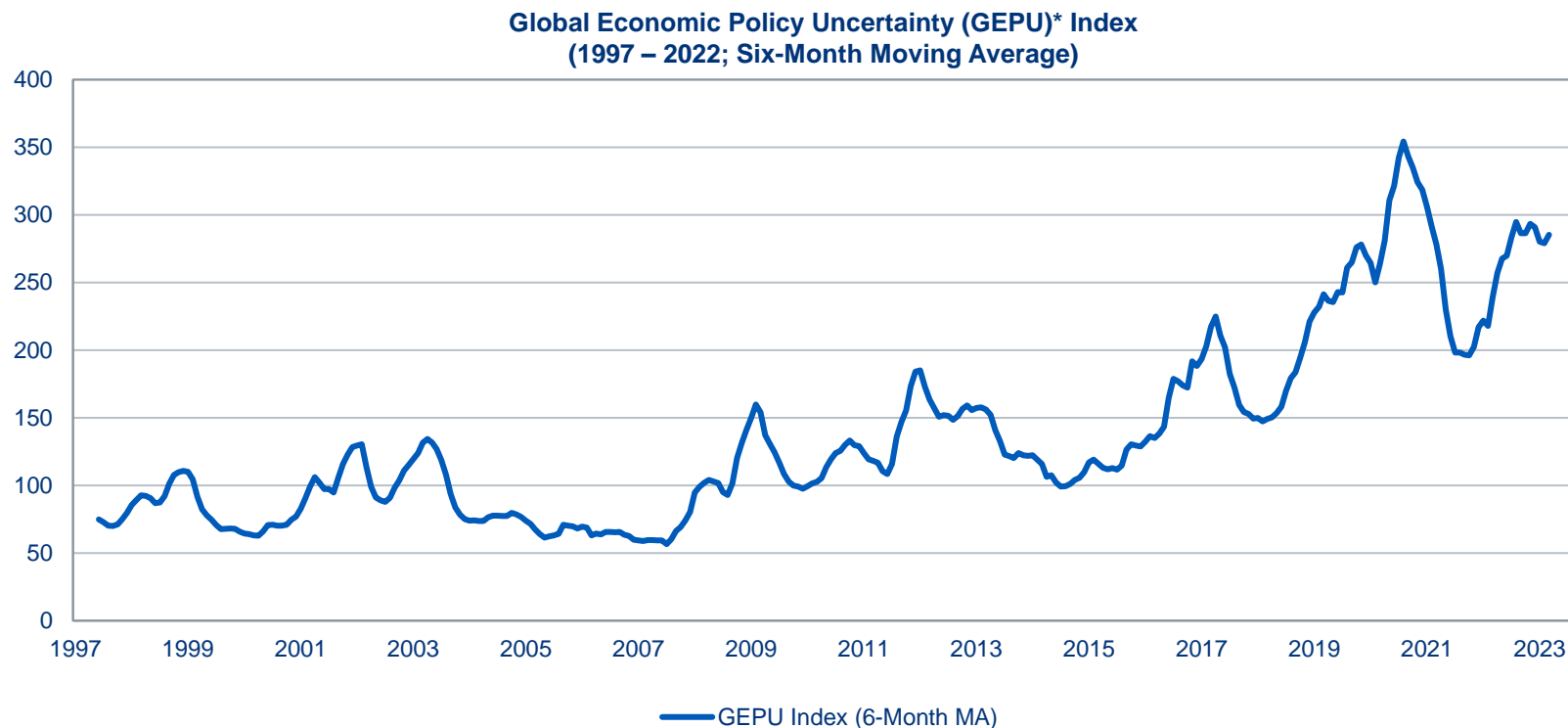
# Key Themes

## Uncertainty Prevails Across the Landscape

- **The Economy:** The pace of disinflation Fed policy likely to surprise market participants. Recession scenarios likely to gain attention in the quarters to come.
- **Financial Conditions:** Shrinking credit supply and shrinking liquidity likely to weigh on financial conditions going forward.
- **Markets:** Business cycle headwinds likely to challenge current valuations.

# Uncertainty About Global Economy Close To All-Time Highs

## Inflation, Recession Risk, and Geopolitics Have Fueled Uncertainty



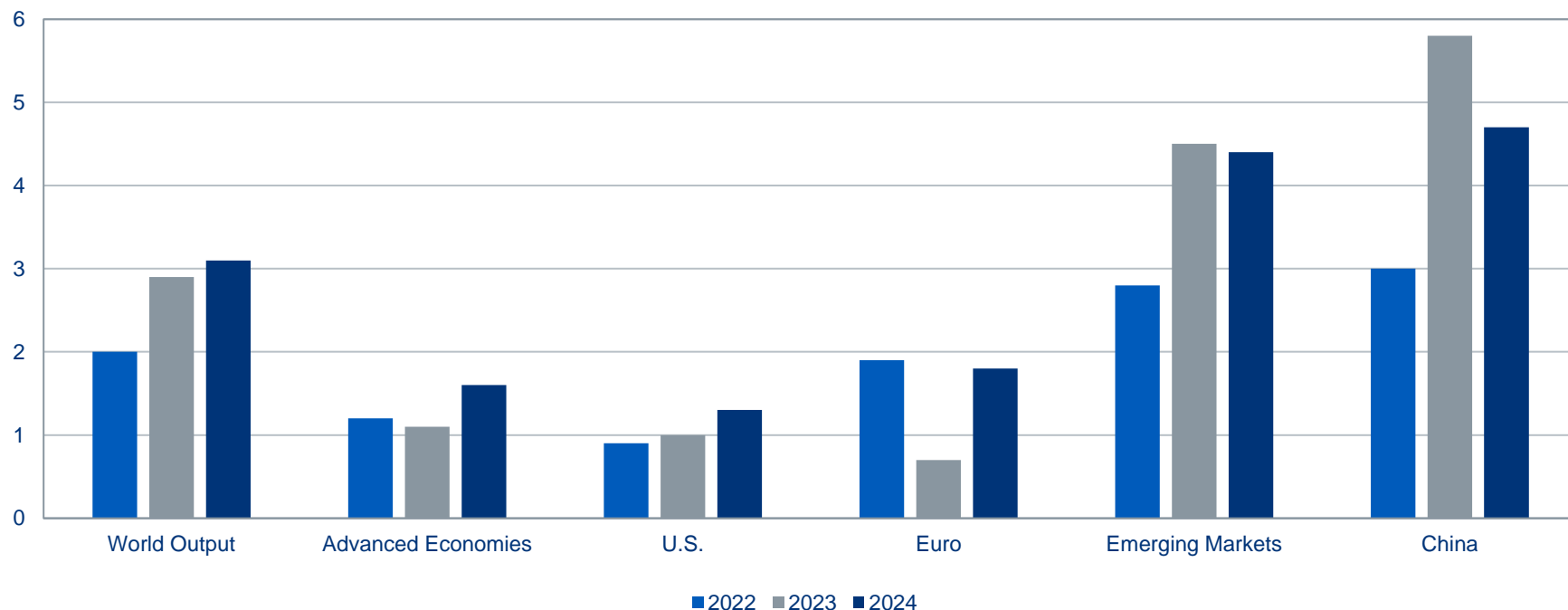
**The global inflation surge has alarmed policymakers and investors. While price pressures are beginning to fade, the aggressive rate-hike cycle by central banks will likely trigger a recession. Economic uncertainty has only been higher in the early days of the pandemic.**

Source: Bloomberg, data as of March 31, 2023. \* The Global Economic Policy Uncertainty Index is a GDP-weighted average of national EPU indices for 21 countries. Each national EPU index reflects the relative frequency of own-country newspaper articles that contain a trio of terms pertaining to the economy (E), policy (P) and uncertainty (U). In other words, each monthly national EPU index value is proportional to the share of own-country newspaper articles that discuss economic policy uncertainty in that month.

# The Global Economy

## GDP Growth Projections (IMF)

IMF Growth Projections (real annual GDP growth in percent)



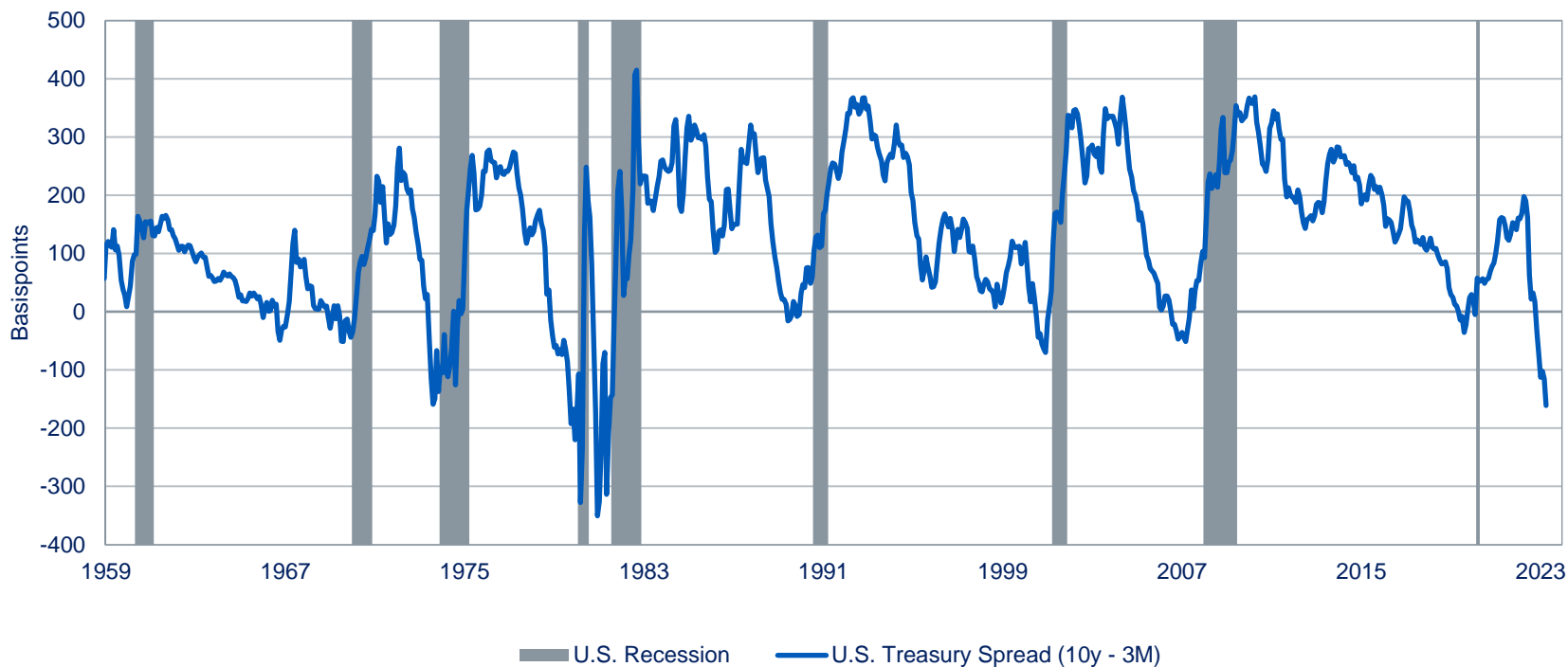
**Low expected real growth in 2023 accompanied by substantial downside risks has lifted recession risks in the near-term. Emerging market business cycles leading advanced economies with many economies facing solid growth.**

Source: IMF, World Economic Outlook, April 2023.

# Key Indicator Signals Record-High U.S. Recession Risk

## U.S. Yield Curve Inversion Preceded Recession In Most Cycles since WW II

Spread: 10y U.S. Treasury Yield - 3m U.S. Treasury Bill Yield



**A yield curve inversion has been a reliable recession signal with very few misses. The current inversion is more profound than in most previous cycles.**

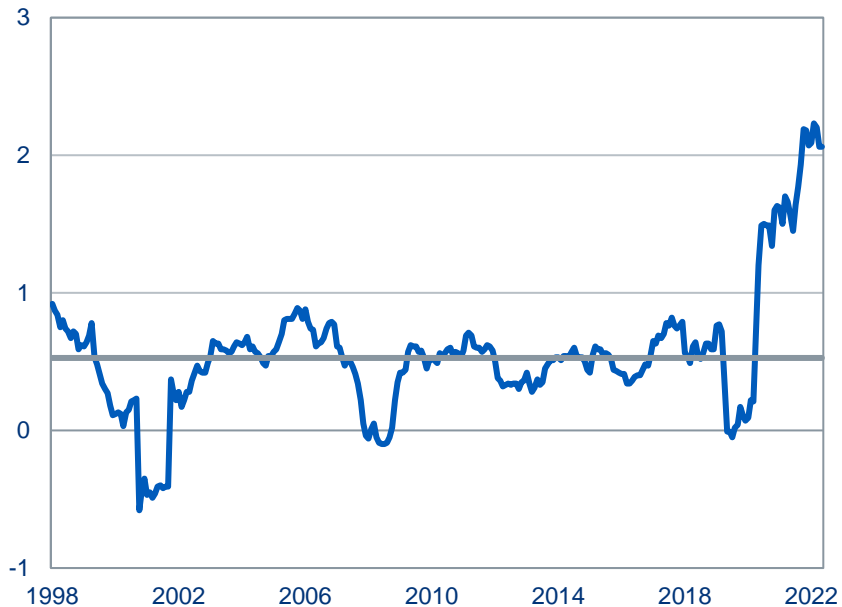
Source: Fed NY and Fed St. Louis. Data as of April 28, 2023.



# U.S. Inflation – The Product of Demand and Supply Shocks

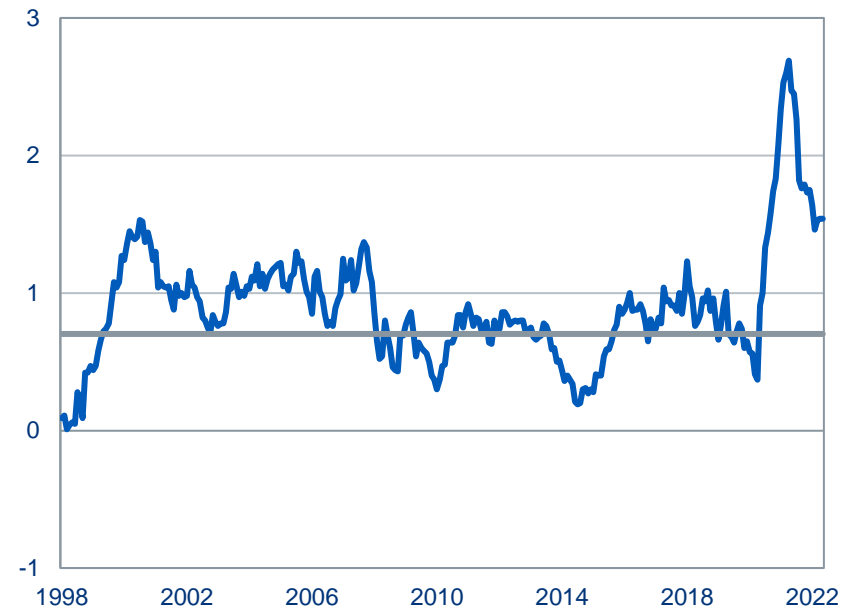
## Supply Shocks Are Fading Quickly While Demand Factors Are Sticky

Contribution of Demand-Driven Factors to Core PCE Inflation



— Demand-Driven Contribution To Core-PCE (%.yoy)  
— Pre-Pandemic Average (2010 - 2019)

Contribution of Supply-Driven Factors to Core PCE Inflation



— Supply Driven Contribution To Core-PCE (%.yoy)  
— Pre-Pandemic Average (2010 - 2019)

**According to the SF Fed, the contribution of supply factors to inflation has eased substantially. Demand pressures remain stubbornly high, however.**

Sources: Federal Reserve Bank of SF, How Much Do Supply and Demand Drive Inflation, July 15, 2022. Demand and supply driven data series end in March 2023.

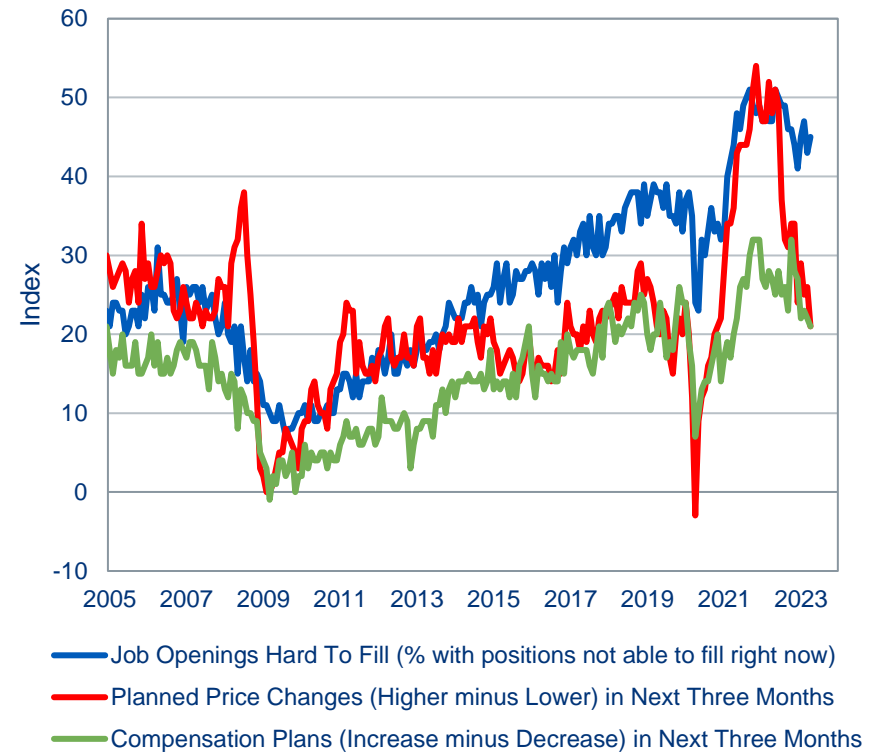
# U.S. Inflation Drivers

## Inflation Expectations and the Labor Market Likely To Be Disinflationary

U.S. Consumer Inflation Expectations (%)



U.S. Small Company Sentiment (NFIB)

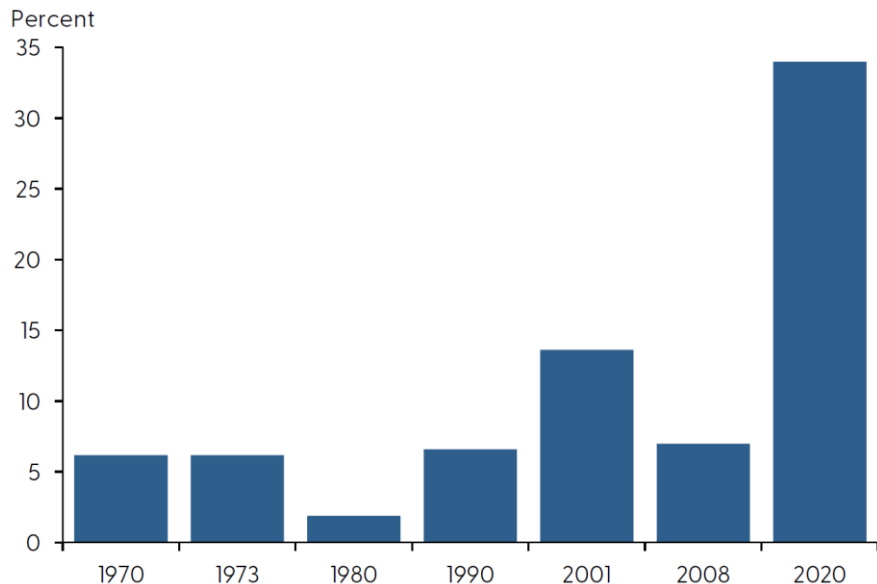


**Inflation expectations are slowly normalizing which is crucial to avoid a self-reinforcing inflation spiral. Small-company data confirms disinflationary trend.**

# The U.S. Consumer Like We Haven't Seen Him Before

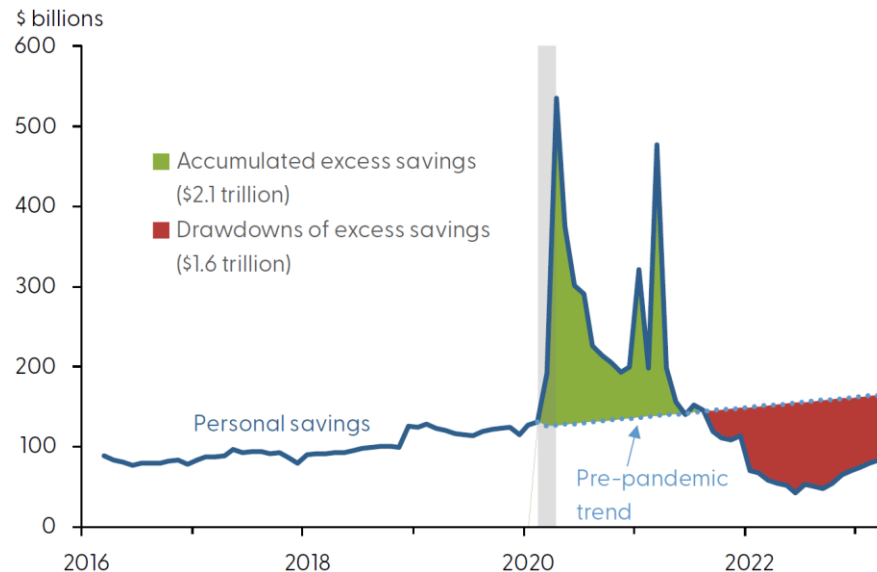
## Excess Savings Have Cushioned the Economic Slowdown

**Fiscal Spending Growth Following Onset of Recessions**



Note: Growth in inflation-adjusted nondefense discretionary government spending over the first two years following the onset of a recession as defined by the NBER, relative to the two fiscal years preceding it. For simplicity, the two recessions in the early 1980s are combined.

**Aggregate Personal Savings Versus the Pre-Pandemic Trend**



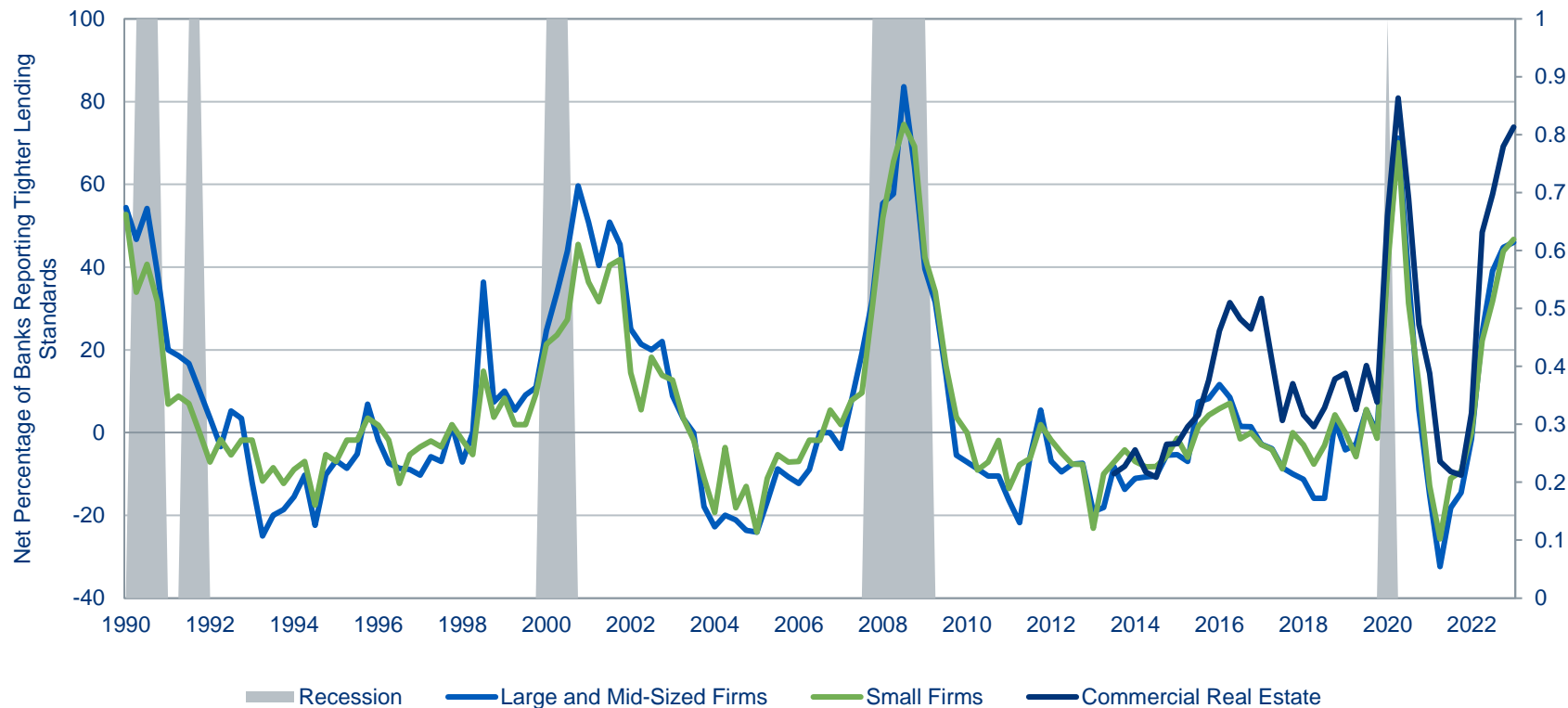
Note: Excess savings calculated as the accumulated difference in actual de-annualized personal savings and the trend implied by data for the 48 months leading up to the first month of the 2020 recession as defined by the NBER.

**Households accumulated excess savings totaling \$2.1 trillion during the pandemic. The Fed forecasts that the remaining balance of \$500 billion will be spent by Q4 2023.**

Source: FRBSF Economic Letter, *The Rise and Fall of Pandemic Excess Savings*, May 8, 2023.

# Banks Tighten Credit Standards

## Banking Crisis Contributes to Tighter Lending Conditions



**Tighter lending conditions by banks typically accompany recessions.  
Banks report tighter conditions for loans to large and small firms and for CRE.**

Source: Federal Res. Data through April 2023..

# Fixed Income Valuation

## Real Yields Have Normalized, Corporate Spreads Remain Average

Real Yields



— 10y Treasury Real Yield

Index Spreads vs. Treasuries



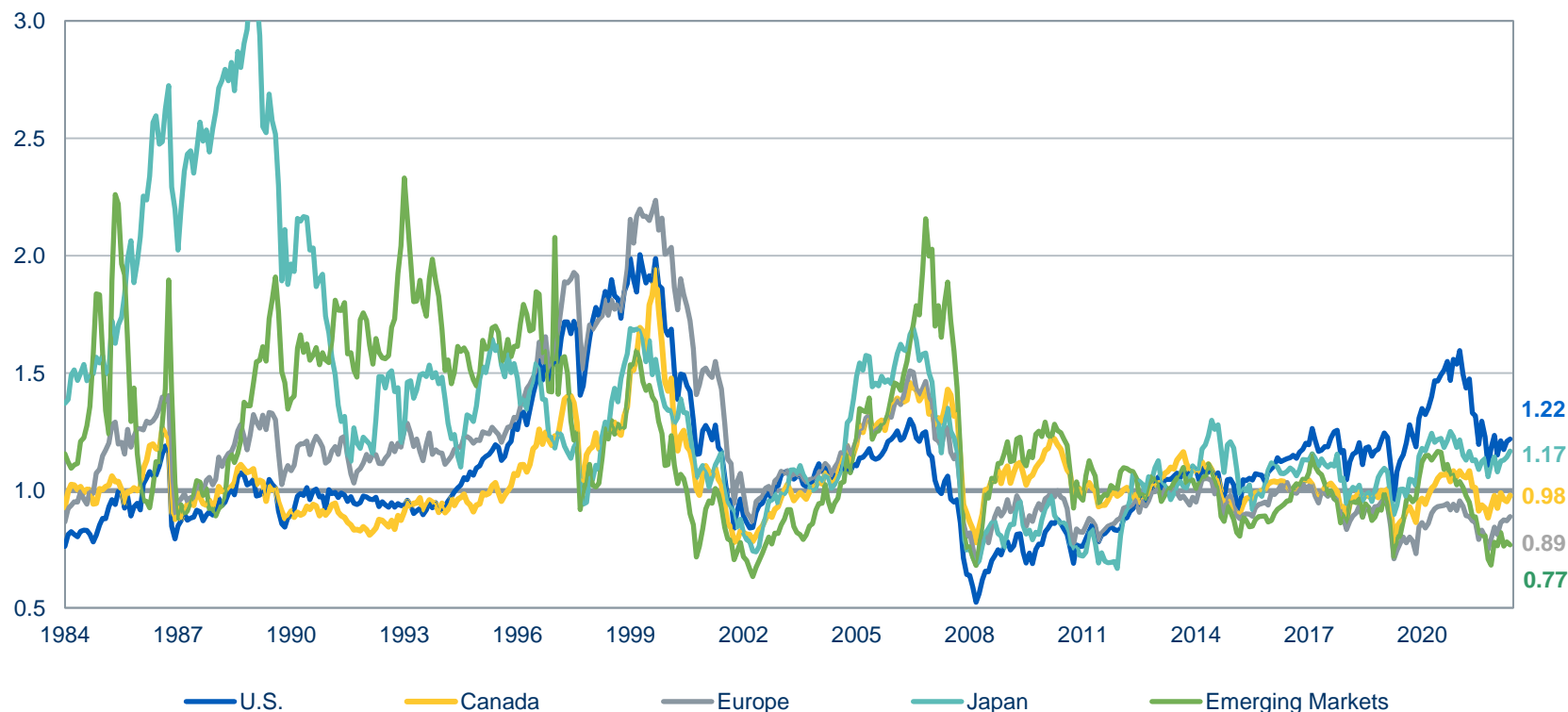
— IG Corp OAS — HY Corp OAS

**Real yields have normalized as the Fed embarked on an aggressive tightening path. Corporate debt reaction to recent banking difficulties was moderate.**

Source: Bloomberg. Data as of April 24, 2023.

# Equity Valuations

## Global Equity Valuations Reflect Recent Price Reversals

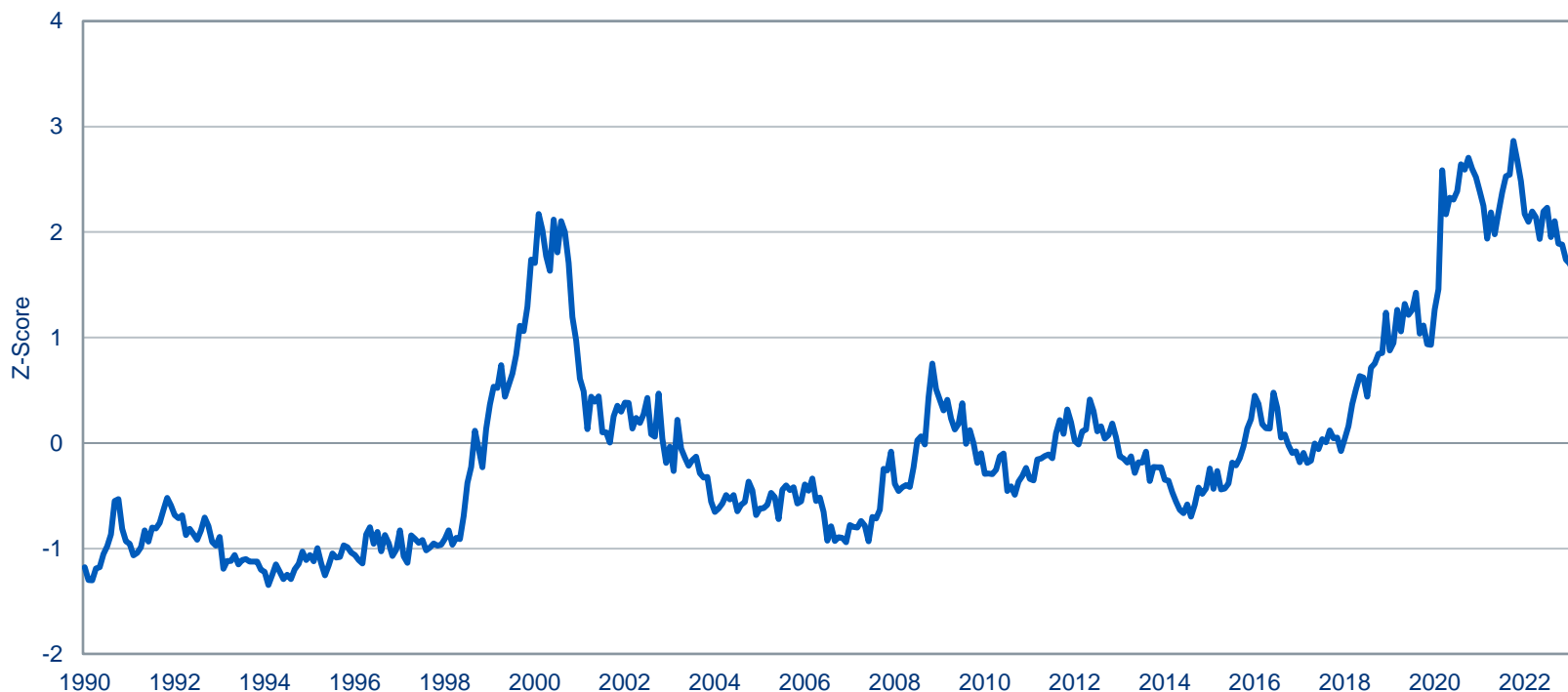


**The price reversal in July pushed the U.S. P:FV ratio well off recent lows. Japan and Canada are much closer to fair value and EM and Europe remain cheap.**

# Public Equity Valuation Spreads

Current Levels Exceeded Only by the TMT Bubble

Industry Neutral Valuation Dispersion, U.S. Forward P/E



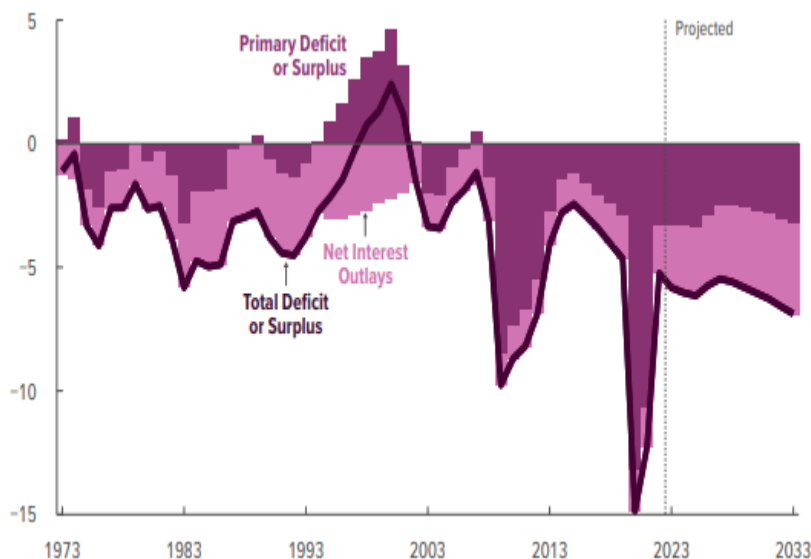
Even with the recent narrowing in valuation dispersion, spreads between rich and cheap securities remain very wide relative to history.

Source: Compustat. Data as of March 31, 2023.

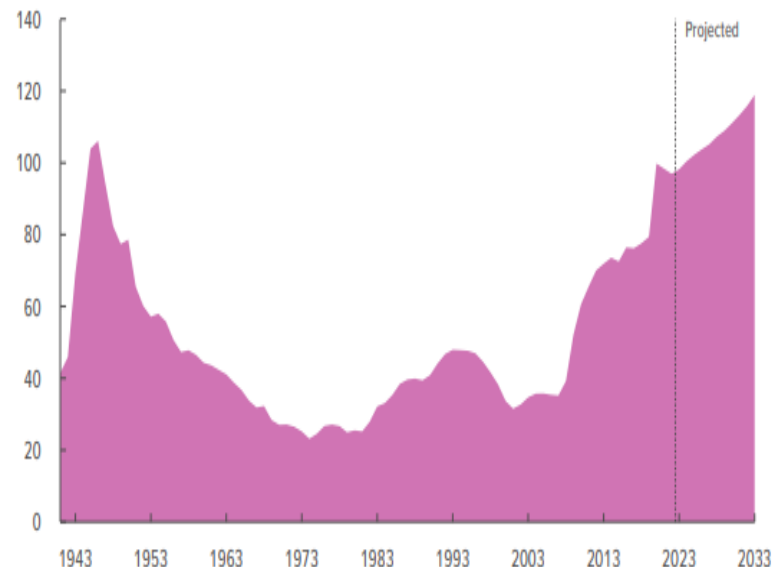
# Structural Risks – The Long-Term Fiscal Outlook

## From Debt Limit to Unlimited Debt?

Fiscal Future: U.S. Budget Deficits (% of GDP)



Fiscal Future: U.S. Federal Debt (% of GDP)



**CBO projections paint an alarming picture of an ever-deteriorating fiscal picture. Unfortunately, CBO assumptions might underestimate the fiscal deterioration: Interest rate assumptions, defense expenditure projections and the assumption that the “Trump tax cuts” will be allowed to expire will likely prove too optimistic. In a recent speech, Larry Summers suggested that an 11% of GDP deficit by 2033 is more likely than the CBO’s current projection of 6.9%**

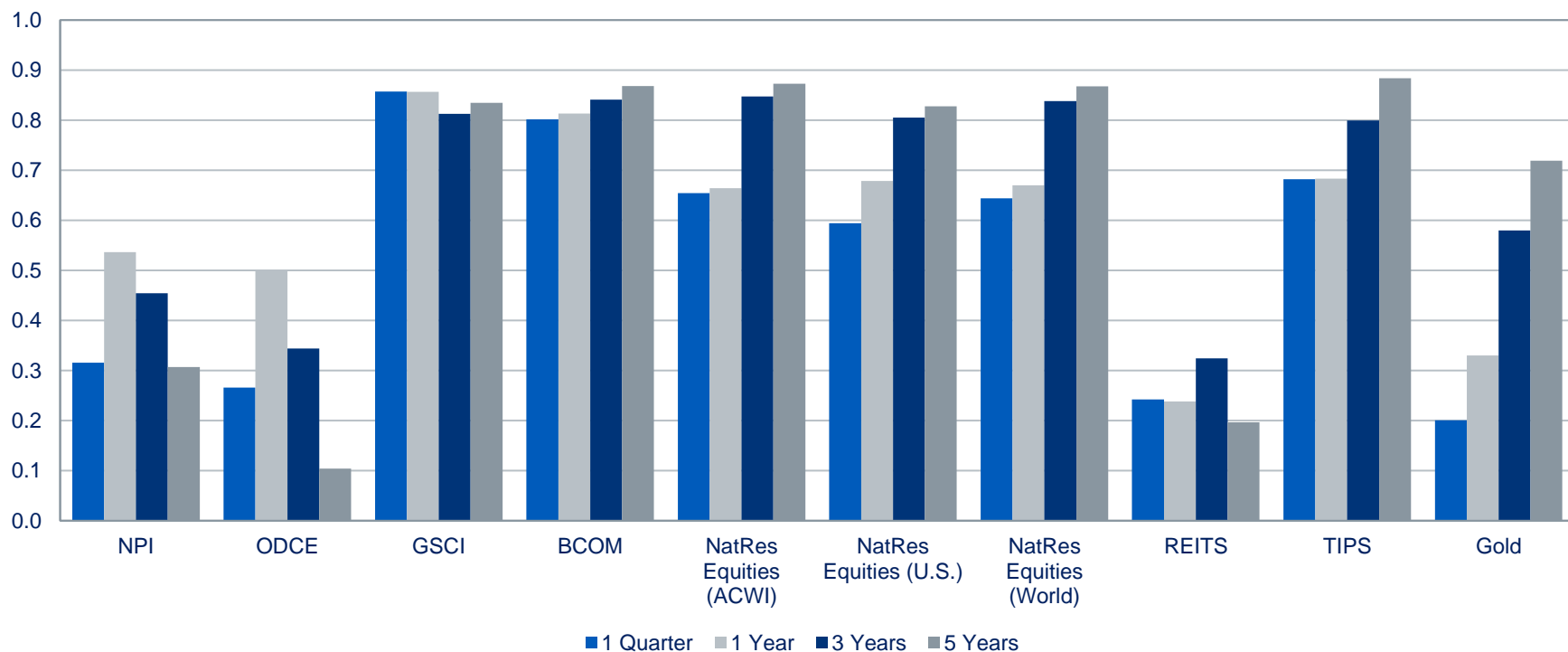
Source: Congressional Budget Office, An Update to the Budget Outlook: 2023 to 2033, May 2023.



# Inflation Protection

## The Role Of Real Assets In A Multi-Asset Portfolio

Correlation to CPI over Different Sampling Frequencies, 1998 - 2020



**Commodity futures, TIPS, and the equities of commodity producers have been the most effective inflation hedges.**

Source: Bloomberg. Period longer than one quarter use overlapping observations, which inflates correlations.

Data sources: NCREIF Property Index; ODCE - NCREIF Open End Diversified Core Index; S&P GSCI Commodity Total return Index; Bloomberg Commodity Total Return Index; MSCI Natural Resource Equities (ACWI, U.S., World); FTSE NAREIT All Equity REIT Index; Bloomberg TIPS 1-10yr TR Index - Bloomberg Treasury 1-10yr TR Index; Spot Gold (USD per Troy Ounce).

# Performance Report Detail

# PERFORMANCE SUMMARY

Miami University

April 30, 2023



Asset Class <i>Benchmark</i>	Market Value (\$ mill)	Strategic Portfolio (%)	Rates of Return (%)								Since Inception	Since Inception	Inception Date
			1 Month	3 Month	Fiscal Year To Date	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year			
Miami University Long-Term Capital Tier III (Net of Sub-Mgr Fees)	576.155	100.0%	0.9	0.3	6.4	5.2	1.8	10.2	5.7	4.6	8.0	4.8	30-Jun-02
Miami University Long-Term Capital Tier III (Net of Sub-Mgr and Strategic Fees)	576.155	100.0%	0.9	0.2	6.2	5.1	1.6	10.0	-	-	7.7	-	31-Dec-18
<i>Total Portfolio Policy Benchmark</i>			0.8	0.2	5.9	5.2	0.2	7.6	4.8	4.1	7.1	4.6	
<i>Total Portfolio Policy Benchmark (Net of Fees)</i>			0.8	0.2	5.7	5.1	0.1	7.4	-	-	6.9	-	
Miami University - Baseline Tier II (Net of Sub-Mgr Fees)	190.199	100.0%	0.3	1.0	2.0	1.4	1.9	0.5	1.3	1.1	1.2	2.4	30-Jun-02
Miami University - Baseline Tier II (Net of Sub-Mgr and Strategic Fees)	190.199	100.0%	0.3	1.0	2.0	1.4	1.8	0.4	-	-	1.2	-	31-Dec-18
<i>Total Portfolio Policy Benchmark</i>			0.2	1.1	1.7	1.5	1.6	0.1	1.2	0.9	1.2	1.9	
<i>Total Portfolio Policy Benchmark (Net of Fees)</i>			0.2	1.1	1.7	1.5	1.6	0.0	-	-	1.0	-	
Miami University Special Initiatives Fund (Net of Sub-Mgr Fees)	30.518	100.0%	0.2	0.8	1.0	1.5	1.0	(0.9)	-	-	2.0	2.0	19-Sep-18
Miami University Special Initiatives Fund (Net of Sub-Mgr and Strategic Fees)	30.518	100.0%	0.2	0.8	1.0	1.4	0.9	(1.0)	-	-	1.9	1.9	19-Sep-18
<i>Total Portfolio Policy Benchmark</i>			0.2	0.8	1.0	1.4	0.9	(1.0)	-	-	1.9	1.9	
Miami University Core Cash (Net of Sub-Mgr Fees)	220.717		0.3	1.0	1.9	1.4	1.7	0.3	1.8	1.3	1.7	2.5	30-Jun-02
Miami University Core Cash (Net of Sub-Mgr and Strategic Fees)	220.717		0.3	1.0	1.8	1.4	1.7	0.2	-	-	1.7	-	31-May-18
Total Miami University Client Group (Net of Sub-Mgr and Strategic Fees)	796.872		0.7	0.4	4.9	4.0	1.7	7.0	4.2	3.3	3.5	3.5	30-Jun-02

# PERFORMANCE SUMMARY

## Miami University Long-Term Capital Tier III

April 30, 2023



Asset Class <i>Benchmark</i>	Market Value (\$ mill)	Portfolio (%)	Rates of Return (%)										
			1 Month	3 Month	Fiscal Year To Date	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year	Since Policy Inception	Since Inception	Inception Date
<b>U.S. Equity</b> <i>U.S. Equity Policy Benchmark</i>	<b>112.349</b>	<b>19.5%</b>	<b>0.6</b>	<b>0.6</b>	<b>11.4</b>	<b>7.1</b>	<b>2.1</b>	<b>16.3</b>	-	-	<b>14.2</b>	<b>9.2</b>	<b>31-Aug-18</b>
			<i>1.1</i>	<i>1.3</i>	<i>10.9</i>	<i>8.3</i>	<i>1.5</i>	<i>14.1</i>	-	-	<i>13.7</i>	<i>8.7</i>	
<b>Non-U.S. Equity</b> <i>Non-U.S. Equity Policy Benchmark</i>	<b>147.711</b>	<b>25.6%</b>	<b>1.7</b>	<b>0.0</b>	<b>11.4</b>	<b>8.4</b>	<b>4.0</b>	<b>13.4</b>	-	-	<b>8.6</b>	<b>4.9</b>	<b>31-Aug-18</b>
			<i>1.4</i>	<i>(0.2)</i>	<i>10.6</i>	<i>7.9</i>	<i>1.6</i>	<i>9.3</i>	-	-	<i>6.3</i>	<i>2.8</i>	
<b>Global Equity</b> <i>Global Equity Benchmark</i>	<b>45.578</b>	<b>7.9%</b>	<b>1.5</b>	<b>0.2</b>	<b>11.6</b>	<b>7.5</b>	<b>2.0</b>	<b>11.8</b>	-	-	-	<b>6.4</b>	<b>30-Apr-19</b>
			<i>1.5</i>	<i>1.7</i>	<i>12.2</i>	<i>9.0</i>	<i>2.6</i>	<i>12.7</i>	-	-	-	<i>8.1</i>	
<b>Total Equity</b>	<b>305.639</b>	<b>53.0%</b>	<b>1.3</b>	<b>0.2</b>	<b>11.4</b>	<b>7.8</b>	<b>3.1</b>	<b>14.2</b>	-	-	<b>10.8</b>	<b>6.6</b>	<b>31-Aug-18</b>
<b>Hedge Funds (Net Exposure)</b> <i>Hedge Funds Policy Benchmark</i>	<b>67.047</b>	<b>11.6%</b>	<b>0.9</b>	<b>0.3</b>	<b>3.3</b>	<b>1.0</b>	<b>2.8</b>	<b>7.3</b>	<b>4.6</b>	<b>4.6</b>	<b>5.4</b>	<b>4.0</b>	<b>30-Jun-02</b>
			<i>0.2</i>	<i>(1.0)</i>	<i>1.8</i>	<i>0.4</i>	<i>(1.7)</i>	<i>3.0</i>	<i>1.7</i>	<i>5.2</i>	<i>2.3</i>	<i>6.2</i>	
<b>Total Alternatives</b>	<b>67.047</b>	<b>11.6%</b>	-	-	-	-	-	-	-	-	-	-	<b>30-Jun-02</b>
<b>Real Estate - IRR</b> <i>Real Estate Policy Benchmark - IRR</i>	<b>12.421</b>	<b>2.2%</b>	-	<b>(1.5)</b>	<b>(5.1)</b>	<b>(1.4)</b>	<b>(1.5)</b>	<b>7.5</b>	-	-	-	<b>7.0</b>	<b>28-Jun-19</b>
			-	<i>(2.3)</i>	<i>(8.3)</i>	<i>(3.4)</i>	<i>(5.9)</i>	<i>7.2</i>	-	-	-	<i>6.4</i>	
<b>Commodities</b> <i>Commodities Policy Benchmark</i>	<b>17.346</b>	<b>3.0%</b>	<b>(1.0)</b>	<b>(6.1)</b>	<b>(13.9)</b>	<b>(6.2)</b>	<b>(15.9)</b>	<b>33.1</b>	-	-	-	<b>6.1</b>	<b>31-Jan-19</b>
			<i>(0.8)</i>	<i>(5.6)</i>	<i>(12.5)</i>	<i>(5.7)</i>	<i>(15.1)</i>	<i>34.7</i>	-	-	-	<i>7.8</i>	
<b>TIPS</b> <i>TIPS Policy Benchmark</i>	<b>25.552</b>	<b>4.4%</b>	<b>0.2</b>	<b>2.3</b>	<b>2.2</b>	<b>3.8</b>	<b>0.5</b>	<b>2.8</b>	-	-	-	<b>3.7</b>	<b>30-Jan-19</b>
			<i>0.2</i>	<i>1.8</i>	<i>0.7</i>	<i>3.1</i>	<i>(1.8)</i>	<i>2.3</i>	-	-	-	<i>3.6</i>	
<b>Total Real Assets</b>	<b>55.318</b>	<b>9.6%</b>	<b>(0.2)</b>	<b>(1.2)</b>	<b>(4.5)</b>	<b>(0.6)</b>	<b>(5.1)</b>	<b>12.4</b>	-	-	-	<b>5.8</b>	<b>30-Jan-19</b>
<b>U.S. Fixed Income</b> <i>U.S. Fixed Income Policy Benchmark</i>	<b>132.199</b>	<b>22.9%</b>	<b>0.6</b>	<b>1.0</b>	<b>1.8</b>	<b>4.3</b>	<b>0.1</b>	<b>0.9</b>	-	-	<b>2.3</b>	<b>2.4</b>	<b>30-Jun-18</b>
			<i>0.6</i>	<i>0.5</i>	<i>1.3</i>	<i>3.7</i>	<i>(0.2)</i>	<i>(2.3)</i>	-	-	<i>1.2</i>	<i>1.5</i>	
<b>Total Fixed Income</b>	<b>132.199</b>	<b>22.9%</b>	<b>0.6</b>	<b>1.0</b>	<b>1.8</b>	<b>4.3</b>	<b>0.1</b>	<b>0.9</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>4.3</b>	<b>30-Jun-02</b>
<b>Total Cash, Accruals, and Pending Trades</b>	<b>15.952</b>	<b>2.8%</b>	<b>0.3</b>	<b>1.0</b>	<b>2.5</b>	<b>1.3</b>	<b>2.7</b>	<b>0.9</b>	-	-	<b>1.2</b>	<b>1.2</b>	<b>27-Aug-18</b>
<b>Miami University Long-Term Capital Tier III (Net of Sub-Mgr Fees)</b>	<b>576.155</b>	<b>100.0%</b>	<b>0.9</b>	<b>0.3</b>	<b>6.4</b>	<b>5.2</b>	<b>1.8</b>	<b>10.2</b>	<b>5.7</b>	<b>4.6</b>	<b>8.0</b>	<b>4.8</b>	<b>30-Jun-02</b>
<b>Miami University Long-Term Capital Tier III (Net of Sub-Mgr and Strategic Fees)</b>	<b>576.155</b>	<b>100.0%</b>	<b>0.9</b>	<b>0.2</b>	<b>6.2</b>	<b>5.1</b>	<b>1.6</b>	<b>10.0</b>	-	-	<b>7.7</b>	-	<b>31-Dec-18</b>
			<i>0.8</i>	<i>0.2</i>	<i>5.9</i>	<i>5.2</i>	<i>0.2</i>	<i>7.6</i>	<i>4.8</i>	<i>4.1</i>	<i>7.1</i>	<i>4.6</i>	
			<i>0.8</i>	<i>0.2</i>	<i>5.7</i>	<i>5.1</i>	<i>0.1</i>	<i>7.4</i>	-	-	<i>6.9</i>	-	
<b>Cintrifuse Syndicate Fund II, LLC</b>	<b>1.191</b>												
<b>TOTAL</b>	<b>577.346</b>												<b>30-Jun-02</b>

# PERFORMANCE DETAIL

## Miami University Long-Term Capital Tier III

April 30, 2023



ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Policy Inception	Since Inception	Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(12)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year			
<b>U.S. Equity</b>															
	<b>Strategic U.S. Equity Trust<sup>15,16</sup></b>	<b>87.008</b>	<b>15.1%</b>	<b>77.4%</b>	<b>0.2</b>	<b>0.2</b>	<b>11.3</b>	<b>6.7</b>	<b>2.1</b>	<b>15.1</b>	-	-	<b>12.9</b>	<b>7.8</b>	<b>31-Aug-18</b>
	<i>Strategic U.S. Equity Trust Benchmark</i>				<i>1.1</i>	<i>1.3</i>	<i>10.9</i>	<i>8.3</i>	<i>1.5</i>	<i>14.1</i>	-	-	<i>13.7</i>	<i>9.0</i>	
	<b>Active Core</b>														
	<b>Manager 1</b>		<b>1.0%</b>	<b>5.3%</b>	<b>4.7</b>	<b>5.8</b>	<b>29.3</b>	<b>15.6</b>	<b>17.8</b>	-	-	-	-	<b>19.6</b>	<b>31-Mar-21</b>
	<i>S&amp;P 500 Total Return Index</i>				<i>1.6</i>	<i>2.7</i>	<i>11.7</i>	<i>9.2</i>	<i>2.7</i>	-	-	-	-	<i>3.9</i>	
	<b>Manager 2</b>		<b>1.8%</b>	<b>9.1%</b>	<b>(0.6)</b>	<b>(1.6)</b>	<b>9.3</b>	<b>5.5</b>	<b>(1.1)</b>	<b>13.0</b>	-	-	-	<b>8.9</b>	<b>30-Apr-19</b>
	<i>Russell 1000 Total Return Index</i>				<i>1.2</i>	<i>2.0</i>	<i>11.3</i>	<i>8.8</i>	<i>1.8</i>	<i>14.2</i>	-	-	-	<i>10.5</i>	
	<b>Manager 3</b>		<b>2.8%</b>	<b>14.5%</b>	<b>(0.8)</b>	<b>0.6</b>	<b>10.1</b>	<b>4.8</b>	<b>3.4</b>	<b>16.6</b>	-	-	<b>13.0</b>	<b>8.2</b>	<b>28-Sep-18</b>
	<i>S&amp;P 500 Total Return Index</i>				<i>1.6</i>	<i>2.7</i>	<i>11.7</i>	<i>9.2</i>	<i>2.7</i>	<i>14.5</i>	-	-	<i>14.4</i>	<i>10.0</i>	
	<b>Manager 4</b>		<b>0.6%</b>	<b>3.3%</b>	<b>(4.0)</b>	<b>(9.5)</b>	<b>6.6</b>	<b>(1.4)</b>	<b>(1.4)</b>	-	-	-	-	<b>(5.5)</b>	<b>08-Jul-21</b>
	<i>Russell 2000 Value Total Return Index</i>				<i>(2.5)</i>	<i>(11.6)</i>	<i>0.2</i>	<i>(3.1)</i>	<i>(8.0)</i>	-	-	-	-	<i>(7.3)</i>	
	<b>Manager 5</b>		<b>2.3%</b>	<b>11.8%</b>	<b>(1.1)</b>	<b>1.4</b>	<b>11.0</b>	<b>6.9</b>	<b>1.8</b>	<b>15.8</b>	-	-	<b>14.6</b>	<b>9.8</b>	<b>31-Aug-18</b>
	<i>Russell 3000 Total Return Index</i>				<i>1.1</i>	<i>1.3</i>	<i>10.9</i>	<i>8.3</i>	<i>1.5</i>	<i>14.1</i>	-	-	<i>13.7</i>	<i>9.0</i>	
	<b>Manager 6</b>		<b>3.4%</b>	<b>17.3%</b>	<b>2.1</b>	<b>4.1</b>	<b>13.8</b>	<b>10.2</b>	<b>4.7</b>	<b>15.1</b>	-	-	-	<b>13.1</b>	<b>29-Mar-19</b>
	<i>S&amp;P 500 Total Return Index</i>				<i>1.6</i>	<i>2.7</i>	<i>11.7</i>	<i>9.2</i>	<i>2.7</i>	<i>14.5</i>	-	-	-	<i>11.8</i>	
	<b>Style</b>														
	<b>Manager 7</b>		<b>1.4%</b>	<b>7.0%</b>	<b>0.2</b>	<b>(5.6)</b>	<b>8.1</b>	<b>1.3</b>	<b>1.2</b>	<b>17.6</b>	-	-	<b>10.7</b>	<b>5.7</b>	<b>31-Aug-18</b>
	<i>Russell 1000 Value Total Return Index</i>				<i>1.5</i>	<i>(2.5)</i>	<i>8.8</i>	<i>2.5</i>	<i>1.2</i>	<i>14.4</i>	-	-	<i>10.5</i>	<i>6.9</i>	
	<b>Manager 8</b>		<b>0.9%</b>	<b>4.6%</b>	<b>(0.2)</b>	<b>(3.9)</b>	<b>6.0</b>	<b>2.2</b>	<b>(0.7)</b>	-	-	-	-	<b>14.2</b>	<b>24-Jun-20</b>
	<i>Rhumbline_BTA Total Return Index</i>				<i>(0.2)</i>	<i>(3.9)</i>	<i>6.0</i>	<i>2.2</i>	<i>(0.7)</i>	-	-	-	-	<i>14.3</i>	
	<b>Manager 9</b>		<b>0.5%</b>	<b>2.8%</b>	<b>(2.1)</b>	<b>0.1</b>	<b>14.0</b>	<b>15.4</b>	<b>(5.9)</b>	<b>0.3</b>	-	-	<b>8.3</b>	<b>3.5</b>	<b>31-Aug-18</b>
	<i>Russell 1000 Growth Total Return Index</i>				<i>1.0</i>	<i>6.6</i>	<i>13.8</i>	<i>15.5</i>	<i>2.3</i>	<i>13.6</i>	-	-	<i>17.0</i>	<i>11.6</i>	
	<b>Liquidity</b>														
	<b>Manager 10</b>		<b>0.4%</b>	<b>1.8%</b>	<b>1.2</b>	<b>1.5</b>	<b>8.1</b>	<b>7.5</b>	<b>(0.8)</b>	-	-	-	-	<b>(8.7)</b>	<b>19-Nov-21</b>
	<i>S&amp;P 500 Total Return Index</i>				<i>1.6</i>	<i>2.7</i>	<i>11.7</i>	<i>9.2</i>	<i>2.7</i>	-	-	-	-	<i>(6.4)</i>	
	<b>Cash and Other</b>														
	<b>Cash, Accruals, and Pending Trades</b>		<b>0.0%</b>		-	-	-	-	-	-	-	-	-	-	
	<b>Portable Alpha</b>														
	<b>Strategic U.S. Equity Portable Alpha</b>	<b>25.340</b>	<b>4.4%</b>	<b>22.6%</b>	<b>2.2</b>	<b>1.9</b>	<b>12.1</b>	<b>8.6</b>	<b>2.3</b>	<b>20.9</b>	-	-	<b>18.1</b>	<b>14.9</b>	<b>31-Oct-18</b>
	<i>MO3 U.S. Equity Portable Alpha Benchmark Total Return Index</i>				<i>1.6</i>	<i>2.7</i>	<i>11.7</i>	<i>9.2</i>	<i>2.7</i>	<i>14.5</i>	-	-	<i>14.4</i>	<i>12.0</i>	
	<b>Total U.S. Equity</b>	<b>112.349</b>	<b>19.5%</b>	<b>100.0%</b>	<b>0.6</b>	<b>0.6</b>	<b>11.4</b>	<b>7.1</b>	<b>2.1</b>	<b>16.3</b>	-	-	<b>14.2</b>	<b>9.2</b>	<b>31-Aug-18</b>
	<i>U.S. Equity Policy Benchmark<sup>3</sup></i>				<i>1.1</i>	<i>1.3</i>	<i>10.9</i>	<i>8.3</i>	<i>1.5</i>	<i>14.1</i>	-	-	<i>13.7</i>	<i>8.7</i>	
<b>Non-U.S. Equity</b>															
	<b>Strategic Developed Markets Ex-U.S. Equity Trust<sup>15,17</sup></b>	<b>89.369</b>	<b>15.5%</b>	<b>60.5%</b>	<b>3.0</b>	<b>2.8</b>	<b>15.9</b>	<b>10.7</b>	<b>7.9</b>	<b>16.5</b>	-	-	<b>10.6</b>	<b>6.8</b>	<b>31-Aug-18</b>
	<i>Strategic Developed Markets Ex-U.S. Equity Trust Benchmark</i>				<i>2.7</i>	<i>2.2</i>	<i>16.4</i>	<i>10.5</i>	<i>5.7</i>	<i>11.7</i>	-	-	<i>8.1</i>	<i>4.4</i>	
	<b>Core</b>														
	<b>Manager 11</b>		<b>6.6%</b>	<b>25.6%</b>	<b>2.9</b>	<b>3.3</b>	<b>13.3</b>	<b>10.0</b>	<b>7.0</b>	<b>19.7</b>	-	-	<b>13.4</b>	<b>9.5</b>	<b>31-Aug-18</b>
	<i>MSCI All Country World Ex-U.S. IMI Total Return (Net) Index (USD)</i>				<i>1.7</i>	<i>0.4</i>	<i>11.7</i>	<i>8.4</i>	<i>2.2</i>	<i>9.9</i>	-	-	<i>6.7</i>	<i>3.4</i>	

# PERFORMANCE DETAIL

## Miami University Long-Term Capital Tier III

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ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)										Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(12)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year	Since Policy Inception	Since Inception	
<b>Developed Markets</b>															
<b>Manager 12</b>			1.4%	5.4%	0.3	(0.9)	11.7	6.1	(1.3)	12.7	-	-	8.8	3.7	31-Aug-18
<i>MSCI EAFE Small Cap Total Return (Net) Index (USD)</i>					2.0	(0.4)	11.7	7.0	(1.2)	9.2	-	-	6.3	1.7	
<b>Manager 13</b>			3.9%	15.3%	4.4	7.4	29.1	19.0	21.6	19.3	-	-	10.5	6.3	31-Aug-18
<i>MSCI EAFE Total Return (Net) Index (USD)</i>					2.8	3.2	18.6	11.5	8.4	11.7	-	-	8.0	4.6	
<b>Manager 14</b>			1.1%	4.2%	2.8	(1.3)	7.8	7.3	(1.7)	16.7	-	-	12.0	6.7	31-Aug-18
<i>S&amp;P TSX Capped Composite Index (USD)</i>					2.6	(1.7)	6.8	7.6	(2.7)	16.3	-	-	12.3	7.6	
<b>Manager 15</b>			0.7%	2.9%	0.5	0.7	-	8.1	-	-	-	-	-	8.2	06-Dec-22
<i>FTSE Japan Index (USD) Total Return Index (USD)</i>					0.4	(0.4)	-	5.4	-	-	-	-	-	5.4	
<b>Manager 16</b>			1.8%	7.2%	3.2	2.8	18.5	10.8	8.1	12.3	-	-	8.1	4.2	31-Aug-18
<i>MSCI EAFE Total Return (Net) Index (USD)</i>					2.8	3.2	18.6	11.5	8.4	11.7	-	-	8.0	4.6	
<b>Liquidity</b>															
<b>Manager 17</b>			0.0%	0.1%	2.5	1.6	14.8	10.4	6.9	-	-	-	-	(4.5)	31-Aug-21
<i>MSCI EAFE Total Return (Net) Index (USD)</i>					2.8	3.2	18.6	11.5	8.4	-	-	-	-	(3.0)	
<b>Manager 18</b>			0.0%	0.0%	2.9	2.5	17.5	11.6	8.9	12.1	-	-	8.1	4.5	31-Aug-18
<i>MSCI EAFE IMI Total Return (Net) Index (USD)</i>					2.7	2.7	17.6	10.9	7.0	11.3	-	-	7.8	4.1	
<b>Cash and Other</b>															
<b>Cash, Accruals, and Pending Trades</b>			0.0%		-	-	-	-	-	-	-	-	-	-	
<b>Emerging Markets - Core</b>															
<b>Strategic Emerging Markets Equity Trust<sup>15,18</sup></b>		29.463	5.1%	19.9%	(1.4)	(5.1)	1.9	3.2	(4.7)	5.8	-	-	4.0	0.4	31-Aug-18
<i>Strategic Emerging Markets Equity Trust Benchmark</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	4.3	-	-	2.7	0.7	
<b>Emerging Markets - Core</b>															
<b>Manager 19</b>			1.3%	4.9%	(2.5)	(5.9)	(2.3)	2.5	(7.1)	5.7	-	-	2.8	0.8	31-Aug-18
<i>MSCI Emerging Markets Total Return (Net) Index (USD)</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	4.3	-	-	2.7	0.7	
<b>Manager 20</b>			0.9%	3.6%	(1.5)	(6.7)	12.1	4.1	5.4	(1.1)	-	-	2.7	(0.6)	31-Aug-18
<i>MSCI Emerging Markets Total Return (Net) Index (USD)</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	4.3	-	-	2.7	0.7	
<b>Manager 21</b>			0.1%	0.4%	(5.6)	(14.8)	-	(6.5)	-	-	-	-	-	9.7	31-Oct-22
<i>MSCI China A Onshore Total Return Index (USD)</i>					(2.1)	(5.9)	-	3.9	-	-	-	-	-	17.3	
<b>Manager 22</b>			1.3%	4.9%	(1.2)	(4.0)	1.4	4.2	(7.3)	7.8	-	-	4.8	1.4	31-Aug-18
<i>MSCI Emerging Markets Total Return (Net) Index (USD)</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	4.3	-	-	2.7	0.7	
<b>Manager 23</b>			0.8%	3.2%	(2.3)	(8.0)	(1.7)	0.3	(7.2)	2.5	-	-	-	(2.6)	17-Dec-19
<i>MSCI Emerging Markets Total Return (Net) Index (USD)</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	4.3	-	-	-	(1.2)	
<b>Emerging Markets - Non-Core</b>															
<b>Manager 24</b>			0.6%	2.5%	3.0	4.3	7.6	7.5	(2.5)	19.6	-	-	7.7	4.7	31-Aug-18
<i>Strategic Non-Core EM Equity Trust Benchmark</i>					0.5	(0.9)	(1.5)	3.8	(12.8)	7.8	-	-	3.3	1.8	

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ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)										Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(12)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year	Since Policy Inception	Since Inception	
<b>Emerging Markets - Non-Core</b>															
<b>Manager 25</b>			0.2%	0.7%	2.4	2.8	4.5	5.9	(3.9)	20.8	-	-	7.4	5.2	31-Aug-18
<i>Acadian Frontier Custom Benchmark MGR Total Return Index (USD)</i>					1.4	(0.5)	(0.3)	3.3	(12.0)	7.4	-	-	2.3	1.0	
<b>Manager 26</b>			0.1%	0.4%	3.0	5.5	5.2	4.1	(1.3)	6.8	-	-	(1.5)	(4.3)	31-Aug-18
<i>FTSE ASEA Pan Africa Index ex South Africa Total Return Index (USD)</i>					1.6	1.7	(3.3)	0.5	(22.7)	7.8	-	-	1.8	0.1	
<b>Manager 27</b>			0.2%	0.6%	6.2	10.2	12.3	13.5	0.7	27.3	-	-	12.2	9.9	31-Aug-18
<i>S&amp;P Pan Arab Composite Large Mid Cap Net Total Return Index (USD)</i>					4.8	2.0	(3.0)	3.4	(18.2)	16.8	-	-	9.6	8.6	
<b>Manager 28</b>			0.1%	0.5%	1.6	1.1	11.1	7.1	(3.0)	23.2	-	-	13.3	7.9	31-Aug-18
<i>MSCI Emerging Markets Small Cap Total Return (Net) Index (USD)</i>					0.7	(1.3)	7.2	4.6	(5.7)	15.8	-	-	7.3	4.3	
<b>Liquidity</b>															
<b>Manager 29</b>			0.1%	0.2%	(0.5)	(4.5)	0.3	4.0	(4.6)	-	-	-	(11.0)	04-May-21	
<i>MSCI Emerging Markets IMI Total Return (Net) Index (USD)</i>					(0.9)	(4.3)	0.6	3.0	(6.4)	-	-	-	(11.4)		
<b>Cash and Other</b>															
<b>Cash, Accruals, and Pending Trades</b>			0.0%		-	-	-	-	-	-	-	-	-	-	
<b>Liquidity</b>															
<b>Manager 30</b>			0.1%	0.5%	(1.2)	(6.3)	(3.7)	2.0	(7.8)	-	-	-	(15.2)	31-Aug-21	
<i>MSCI Emerging Markets Total Return (Net) Index (USD)</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	-	-	-	(14.0)		
<b>Manager 31</b>			0.0%	0.0%	(0.4)	(4.5)	0.4	4.0	(4.6)	6.3	-	-	3.2	1.1	31-Aug-18
<i>MSCI Emerging Markets IMI Total Return (Net) Index (USD)</i>					(0.9)	(4.3)	0.6	3.0	(6.4)	5.6	-	-	3.2	1.1	
<b>Cash and Other</b>															
<b>Cash, Accruals, and Pending Trades</b>			0.0%		-	-	-	-	-	-	-	-	-	-	
<b>Portable Alpha</b>															
<b>Strategic Developed Non-U.S. Equity Portable Alpha</b>	10.641	1.8%	7.2%	3.5	2.0	18.8	11.6	10.0	18.6	-	-	-	10.3	31-Jan-19	
<i>MO3 Developed Non-U.S. Equity Portable Alpha Benchmark Total Return Index (USD)</i>					2.8	3.2	18.6	11.5	8.4	11.7	-	-	6.6		
<b>Strategic Emerging Markets Portable Alpha</b>	16.633	2.9%	11.3%	(0.2)	(5.9)	(0.1)	3.1	(4.9)	11.2	-	-	-	9.0	10-Mar-20	
<i>MO3 Emerging Markets Portable Alpha Benchmark Total Return Index (USD)</i>					(1.1)	(4.7)	(0.3)	2.8	(6.5)	4.3	-	-	7.1		
<b>Liquidity</b>															
<b>MSCI EAFE ETF (iShares Core)</b>	1.165	0.2%	0.8%	2.9	2.5	17.5	11.6	8.9	12.0	-	-	-	5.1	31-Jan-20	
<i>MSCI EAFE IMI Total Return (Net) Index (USD)</i>					2.7	2.7	17.6	10.9	7.0	11.3	-	-	4.5		
<b>MSCI Emerging Markets ETF</b>	0.441	0.1%	0.3%	(0.4)	(4.5)	0.4	4.0	(4.6)	6.3	-	-	3.3	2.5	30-Nov-18	
<i>MSCI Emerging Markets IMI Total Return (Net) Index (USD)</i>					(0.9)	(4.3)	0.6	3.0	(6.4)	5.6	-	-	3.2	2.6	
<b>Total Non-U.S. Equity</b>	147.711	25.6%	100.0%	1.7	0.0	11.4	8.4	4.0	13.4	-	-	8.6	4.9	31-Aug-18	
<i>Non-U.S. Equity Policy Benchmark <sup>4</sup></i>					1.4	(0.2)	10.6	7.9	1.6	9.3	-	-	6.3	2.8	
<b>Global Equity</b>															
<b>Strategic Global Equity Trust<sup>15,19</sup></b>	45.578	7.9%	100.0%	1.5	0.2	11.6	7.5	2.0	11.8	-	-	-	6.4	30-Apr-19	
<i>Strategic Global Equity Trust Benchmark</i>					1.5	1.7	12.2	9.0	2.6	12.7	-	-	8.1		

# PERFORMANCE DETAIL

## Miami University Long-Term Capital Tier III

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ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Policy Inception	Since Inception	Inception Date	
					1 Month	3 Month	Fiscal Year To Date <sup>(12)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year				
<b>Developed Markets</b>																
<b>Manager 32</b>			0.2%	3.1%	0.5	0.7	-	8.1	-	-	-	-	-	8.2	06-Dec-22	
<i>FTSE Japan Index (USD) Total Return Index (USD)</i>					0.4	(0.4)	-	5.4	-	-	-	-	-	5.4		
<b>Global</b>																
<b>Manager 33</b>			2.4%	29.8%	0.9	0.8	10.1	10.2	1.2	9.2	-	-	-	7.3	30-Apr-19	
<i>MSCI World Total Return (Net) Index (USD)</i>					1.8	2.4	12.9	9.6	3.2	13.1	-	-	-	8.6		
<b>Manager 34</b>			2.3%	28.9%	3.6	3.2	15.5	9.7	3.3	11.1	-	-	-	6.4	30-Apr-19	
<i>MSCI World Total Return (Net) Index (USD)</i>					1.8	2.4	12.9	9.6	3.2	13.1	-	-	-	8.6		
<b>Manager 35</b>			2.9%	36.2%	0.5	(2.3)	10.3	4.1	1.8	15.7	-	-	-	6.7	31-Jul-19	
<i>MSCI All Country World IMI Total Return (Net) Index (USD)</i>					1.3	0.9	11.1	8.3	1.6	12.2	-	-	-	7.6		
<b>Liquidity</b>																
<b>Manager 36</b>			0.1%	0.8%	2.6	1.8	15.2	10.6	7.2	-	-	-	-	(5.3)	31-Dec-21	
<i>MSCI EAFE Total Return (Net) Index (USD)</i>					2.8	3.2	18.6	11.5	8.4	-	-	-	-	(3.5)		
<b>Manager 37</b>			0.0%	0.0%	2.9	2.5	17.5	11.6	8.9	-	-	-	-	(3.8)	31-Aug-21	
<i>MSCI EAFE IMI Total Return (Net) Index (USD)</i>					2.7	2.7	17.6	10.9	7.0	-	-	-	-	(4.3)		
<b>Manager 38</b>			0.0%	0.0%	1.6	2.7	11.7	9.2	2.7	-	-	-	-	(3.3)	31-Aug-21	
<i>S&amp;P 500 Total Return Index (USD)</i>					1.6	2.7	11.7	9.2	2.7	-	-	-	-	(3.3)		
<b>Manager 39</b>			0.1%	1.2%	1.2	1.5	8.3	7.5	(0.6)	-	-	-	-	(10.4)	31-Dec-21	
<i>S&amp;P 500 Total Return Index (USD)</i>					1.6	2.7	11.7	9.2	2.7	-	-	-	-	(8.1)		
<b>Cash and Other</b>																
<b>Cash, Accruals, and Pending Trades</b>			0.0%		-	-	-	-	-	-	-	-	-	-	-	
<b>Total Global Equity</b>			45.578	7.9%	100.0%	1.5	0.2	11.6	7.5	2.0	11.8	-	-	6.4	30-Apr-19	
<i>Global Equity Benchmark <sup>5</sup></i>					1.5	1.7	12.2	9.0	2.6	12.7	-	-	-	8.1		
<b>Total - Equity</b>			305.639	53.0%	100.0%	1.3	0.2	11.4	7.8	3.1	14.2	-	-	10.8	6.6	31-Aug-18
<i>Equity Policy Benchmark</i>					1.2	0.6	10.9	8.1	1.6	11.7	-	-	10.0	5.9		
<b>Hedge Funds</b>																
<b>Strategic Funds SPC Alpha Segregated Portfolio<sup>15,20</sup></b>			132.076	22.9%	197.0%	0.9	0.3	3.4	1.0	2.8	7.2	-	-	5.6	4.9	31-Oct-18
<i>Strategic Funds SPC Alpha Segregated Portfolio Benchmark</i>					0.2	(1.0)	1.8	0.4	(1.7)	3.0	-	-	2.3	1.8		
<b>Equity Market-Neutral</b>																
<b>Manager 40</b>			1.5%	13.3%	3.6	4.3	19.5	7.9	17.8	25.1	-	-	18.6	17.4	31-Oct-18	
<i>HFRX Equity Market Neutral Index</i>					(0.1)	(0.3)	2.1	(0.4)	(1.0)	1.9	-	-	(1.2)	(1.6)		
<b>Manager 41</b>			1.0%	8.2%	(0.1)	(0.4)	8.5	2.4	7.0	5.7	-	-	8.5	7.0	31-Oct-18	
<i>HFRX Equity Market Neutral Index</i>					(0.1)	(0.3)	2.1	(0.4)	(1.0)	1.9	-	-	(1.2)	(1.6)		
<b>Manager 42</b>			0.4%	3.7%	1.3	4.8	18.1	5.8	18.6	12.3	-	-	9.3	8.5	31-Oct-18	
<i>HFRX Equity Market Neutral Index</i>					(0.1)	(0.3)	2.1	(0.4)	(1.0)	1.9	-	-	(1.2)	(1.6)		
<b>Manager 43</b>			1.3%	10.9%	2.5	3.5	7.2	3.9	9.6	8.9	-	-	10.6	10.3	31-Oct-18	
<i>HFRX Equity Market Neutral Index</i>					(0.1)	(0.3)	2.1	(0.4)	(1.0)	1.9	-	-	(1.2)	(1.6)		
<b>Manager 44</b>			0.8%	6.9%	(1.8)	(4.8)	(2.4)	(4.0)	(1.7)	-	-	-	(7.8)	(0.7)	31-Jan-22	
<i>HFRX Equity Market Neutral Index</i>					(0.1)	(0.3)	2.1	(0.4)	(1.0)	-	-	-	-	(0.7)		



# PERFORMANCE DETAIL

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ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Policy Inception	Since Inception	Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(1)(2)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year			
<b>Fixed Income Relative Value</b>															
<b>Manager 45</b>			1.2%	10.0%	2.1	3.2	10.8	3.4	10.6	-	-	-	-	2.3	31-Aug-20
<i>HFRX Relative Value Arbitrage Index</i>					0.2	(0.9)	3.0	1.4	(1.3)	-	-	-	-	(1.0)	
<b>Manager 46</b>			1.2%	10.6%	0.8	(0.1)	2.9	2.0	0.4	6.1	-	-	3.2	3.0	31-Oct-18
<i>HFRX Relative Value Arbitrage Index</i>					0.2	(0.9)	3.0	1.4	(1.3)	1.4	-	-	1.9	1.2	
<b>Manager 47</b>			1.4%	11.7%	0.4	(0.1)	2.4	2.3	1.0	14.2	-	-	8.6	7.9	31-Oct-18
<i>HFRX Relative Value Arbitrage Index</i>					0.2	(0.9)	3.0	1.4	(1.3)	1.4	-	-	1.9	1.2	
<b>Equity Long/Short</b>															
<b>Manager 48</b>			0.9%	7.9%	1.3	(1.1)	-	0.2	-	-	-	-	-	11.6	29-Jul-22
<i>HFRX Equity Hedge Index</i>					0.6	(0.1)	-	1.4	-	-	-	-	-	1.8	
<b>Manager 49</b>			0.7%	6.3%	(2.9)	(5.3)	(6.1)	0.1	(14.5)	(5.0)	-	-	1.4	1.3	31-Oct-18
<i>HFRX Equity Hedge Index</i>					0.6	(0.1)	3.0	1.4	0.2	8.3	-	-	5.8	4.4	
<b>Manager 50</b>			1.1%	9.6%	4.3	(9.1)	2.1	(9.9)	10.8	-	-	-	-	28.4	30-Jun-20
<i>HFRX Equity Hedge Index</i>					0.6	(0.1)	3.0	1.4	0.2	-	-	-	-	7.6	
<b>Manager 51</b>			1.2%	10.3%	(0.1)	(1.0)	11.6	1.3	13.3	10.1	-	-	7.7	5.7	31-Oct-18
<i>HFRX Equity Hedge Index</i>					0.6	(0.1)	3.0	1.4	0.2	8.3	-	-	5.8	4.4	
<b>Manager 52</b>			1.3%	11.5%	2.7	5.4	12.1	6.4	14.1	5.9	-	-	9.9	8.7	31-Oct-18
<i>HFRX Equity Hedge Index</i>					0.6	(0.1)	3.0	1.4	0.2	8.3	-	-	5.8	4.4	
<b>Credit Long/Short</b>															
<b>Manager 53</b>			0.6%	5.1%	(0.4)	(0.6)	4.6	(0.2)	2.3	11.5	-	-	6.4	5.6	31-Oct-18
<i>HFRX Event Driven Index</i>					(0.5)	(3.0)	(1.8)	(0.7)	(5.5)	1.2	-	-	2.4	1.8	
<b>Manager 54</b>			0.7%	6.4%	0.5	1.6	3.1	3.2	(0.9)	9.1	-	-	4.9	4.2	31-Oct-18
<i>HFRX Event Driven Index</i>					(0.5)	(3.0)	(1.8)	(0.7)	(5.5)	1.2	-	-	2.4	1.8	
<b>Global Macro</b>															
<b>Manager 55</b>			1.3%	11.2%	2.9	6.2	(18.7)	(1.7)	(15.0)	8.6	-	-	0.3	1.6	31-Oct-18
<i>HFRX Macro/CTA Index</i>					1.4	(1.2)	(0.7)	(1.2)	(0.3)	2.2	-	-	2.5	2.5	
<b>Manager 56</b>			0.9%	7.7%	0.4	0.8	(6.5)	(8.9)	(8.6)	(3.7)	-	-	0.8	(0.9)	31-Oct-18
<i>HFRX Macro/CTA Index</i>					1.4	(1.2)	(0.7)	(1.2)	(0.3)	2.2	-	-	2.5	2.5	
<b>Multi-Strategy</b>															
<b>Manager 57</b>			1.0%	8.9%	0.6	2.0	4.6	3.3	3.5	11.0	-	-	8.8	8.4	31-Oct-18
<i>HFRX Equal Weighted Strategies Index</i>					0.2	(1.0)	1.8	0.4	(1.7)	3.0	-	-	2.3	1.8	
<b>Manager 58</b>			1.1%	9.1%	0.3	(0.2)	3.8	2.1	1.9	4.3	-	-	5.8	5.5	31-Oct-18
<i>HFRX Equal Weighted Strategies Index</i>					0.2	(1.0)	1.8	0.4	(1.7)	3.0	-	-	2.3	1.8	
<b>Manager 59</b>			1.1%	9.3%	(1.0)	(1.9)	2.2	2.6	5.4	8.0	-	-	11.2	10.9	31-Oct-18
<i>HFRX Equal Weighted Strategies Index</i>					0.2	(1.0)	1.8	0.4	(1.7)	3.0	-	-	2.3	1.8	
<b>Manager 60</b>			1.0%	8.6%	(1.3)	(1.7)	(0.7)	(2.5)	(0.1)	4.1	-	-	-	5.5	31-Oct-19
<i>HFRX Equal Weighted Strategies Index</i>					0.2	(1.0)	1.8	0.4	(1.7)	3.0	-	-	-	1.8	
<b>Manager 61</b>			0.9%	7.8%	(0.2)	(2.5)	(0.8)	(0.5)	(5.1)	4.7	-	-	2.6	2.6	31-Oct-18
<i>HFRX Event Driven Index</i>					(0.5)	(3.0)	(1.8)	(0.7)	(5.5)	1.2	-	-	2.4	1.8	
<b>Cash and Other</b>															
<b>Liquidating Funds</b>			0.0%	0.1%	-	-	-	-	-	-	-	-	-	-	
<b>Cash and Other</b>			0.0%		-	-	-	-	-	-	-	-	-	-	
<b>Cash, Accruals, and Pending Trades</b>			0.0%		-	-	-	-	-	-	-	-	-	-	
<b>Liquidity</b>															
<b>Asset Allocation Overlay</b>			(65.476)	(11.4%)	(97.7%)	0.0	0.0	0.0	0.0	0.0	-	-	-	0.0	31-Dec-21

# PERFORMANCE DETAIL

## Miami University Long-Term Capital Tier III

April 30, 2023



ASSET CLASS Style	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Inception	Since Inception	Inception Date	
				1 Month	3 Month	Fiscal Year To Date <sup>(12)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year				
<b>Cash and Other</b>															
Liquidating Funds	0.446	0.1%	0.7%	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Hedge Funds</b>	<b>67.047</b>	<b>11.6%</b>	<b>100.0%</b>	<b>0.9</b>	<b>0.3</b>	<b>3.3</b>	<b>1.0</b>	<b>2.8</b>	<b>7.3</b>	<b>4.6</b>	<b>4.6</b>	<b>5.4</b>	<b>4.0</b>	<b>30-Jun-02</b>	
<i>Hedge Funds Policy Benchmark<sup>6</sup></i>				0.2	(1.0)	1.8	0.4	(1.7)	3.0	1.7	5.2	2.3	6.2		
<b>Total - Alternatives</b>	<b>67.047</b>	<b>11.6%</b>	<b>100.0%</b>	<b>1.0</b>	<b>0.4</b>	<b>3.5</b>	<b>1.1</b>	<b>2.9</b>	<b>7.4</b>	<b>4.7</b>	<b>4.6</b>	<b>5.4</b>	<b>4.0</b>	<b>30-Jun-02</b>	
<b>Real Estate</b>															
<b>Core Open-End</b>															
Harrison Street Core Property Fund, L.P. <i>NCREIF Open End Diversified Core Index</i>	2.238	0.4%	18.0%	-	(1.4)	0.1	(1.4)	6.3	6.9	-	-	-	7.0	05-Jul-19	
Prime Property Fund, LLC <i>NCREIF Open End Diversified Core Index</i>	5.720	1.0%	46.1%	-	(1.3)	(4.9)	(1.2)	(1.8)	8.9	-	-	-	8.1	27-Sep-19	
PRISA Fund <i>NCREIF Open End Diversified Core Index</i>	4.463	0.8%	35.9%	-	(1.7)	(7.6)	(1.7)	(2.6)	8.0	-	-	-	7.2	28-Jun-19	
<b>Total Real Estate - IRR<sup>8</sup></b>	<b>12.421</b>	<b>2.2%</b>	<b>100.0%</b>	-	(1.5)	(5.1)	(1.4)	(1.5)	7.5	-	-	-	7.0	28-Jun-19	
<i>Real Estate Policy Benchmark - IRR<sup>7</sup></i>				-	(2.3)	(8.3)	(3.4)	(5.9)	7.2	-	-	-	6.4		
<b>Total Real Estate - Time Weighted<sup>8</sup></b>	<b>12.421</b>	<b>2.2%</b>	<b>100.0%</b>	-	(1.4)	(4.9)	(1.4)	(0.9)	7.9	-	-	-	7.3	28-Jun-19	
<i>Real Estate Policy Benchmark<sup>7</sup></i>				-	(2.3)	(8.1)	(3.4)	(5.3)	7.7	-	-	-	6.6		
<b>Commodities</b>															
<b>Liquidity</b>															
iShares GSCI Commodity Index <i>S&amp;P GSCI Total Return Index</i>	17.346	3.0%	100.0%	(1.0)	(6.2)	(13.8)	(6.3)	(15.9)	32.8	-	-	-	6.4	31-Jan-19	
<b>Total Commodities</b>	<b>17.346</b>	<b>3.0%</b>	<b>100.0%</b>	<b>(1.0)</b>	<b>(6.1)</b>	<b>(13.9)</b>	<b>(6.2)</b>	<b>(15.9)</b>	<b>33.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.1</b>	<b>31-Jan-19</b>	
<i>Commodities Policy Benchmark<sup>9</sup></i>				(0.8)	(5.6)	(12.5)	(5.7)	(15.1)	34.7	-	-	-	7.8		
<b>TIPS</b>															
Strategic TIPS <i>Bloomberg 1 to 10 Year TIPS Index</i>	25.552	4.4%	100.0%	0.2	2.3	2.2	3.8	0.5	2.8	-	-	-	3.7	30-Jan-19	
<b>Total TIPS</b>	<b>25.552</b>	<b>4.4%</b>	<b>100.0%</b>	<b>0.2</b>	<b>2.3</b>	<b>2.2</b>	<b>3.8</b>	<b>0.5</b>	<b>2.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.7</b>	<b>30-Jan-19</b>	
<i>TIPS Policy Benchmark<sup>10</sup></i>				0.2	1.8	0.7	3.1	(1.8)	2.3	-	-	-	3.6		
<b>Total - Real Assets</b>	<b>55.318</b>	<b>9.6%</b>	<b>100.0%</b>	<b>(0.2)</b>	<b>(1.2)</b>	<b>(4.5)</b>	<b>(0.6)</b>	<b>(5.1)</b>	<b>12.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.8</b>	<b>30-Jan-19</b>	
<b>U.S. Fixed Income</b>															
<b>Treasuries</b>															
Strategic Treasury Holdings <i>Duration Adjusted Bloomberg U.S. Treasury Index (Tier III)</i>	79.887	13.9%	60.4%	0.4	1.1	0.4	4.8	0.4	(2.9)	-	-	(0.1)	0.3	07-Sep-18	
<b>Active Credit</b>															
Ellington Strategic Mortgage Fund, L.P. <i>Citigroup Mortgage Index</i>	16.800	2.9%	12.7%	0.9	1.2	-	2.4	-	-	-	-	-	1.1	31-Aug-22	
GoldenTree HY Value Offshore Strategic <i>Citigroup High Yield Market Index</i>	16.413	2.8%	12.4%	0.8	0.1	7.4	3.3	-	-	-	-	-	7.4	30-Jun-22	
KKR Global Credit Opportunities Fund (Overseas) L.P. <i>BofA Merrill Lynch High Yield Cash Pay Index</i>	6.238	1.1%	4.7%	1.8	3.1	10.0	8.2	3.3	-	-	-	-	0.6	31-Mar-22	
				1.0	0.8	8.2	4.7	1.1	-	-	-	-	(2.4)		

# PERFORMANCE DETAIL

## Miami University Long-Term Capital Tier III

April 30, 2023



ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Policy Inception	Since Inception	Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(12)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year			
<b>Portable Alpha</b>															
	<b>Strategic U.S. Fixed Income Portable Alpha</b>	<b>12.862</b>	<b>2.2%</b>	<b>9.7%</b>	<b>1.1</b>	<b>0.3</b>	<b>(0.7)</b>	<b>2.9</b>	<b>(2.0)</b>	<b>1.0</b>	-	-	<b>3.9</b>	<b>4.1</b>	<b>07-Dec-18</b>
	<i>MO3 U.S. Fixed Income Portable Alpha Benchmark Index</i>				<i>0.5</i>	<i>1.0</i>	<i>(0.2)</i>	<i>3.6</i>	<i>(0.9)</i>	<i>(4.2)</i>	-	-	<i>0.5</i>	<i>0.5</i>	
	<b>Total U.S. Fixed Income</b>	<b>132.199</b>	<b>22.9%</b>	<b>100.0%</b>	<b>0.6</b>	<b>1.0</b>	<b>1.8</b>	<b>4.3</b>	<b>0.1</b>	<b>0.9</b>	-	-	<b>2.3</b>	<b>2.4</b>	<b>30-Jun-18</b>
	<i>U.S. Fixed Income Policy Benchmark</i>				<i>0.6</i>	<i>0.5</i>	<i>1.3</i>	<i>3.7</i>	<i>(0.2)</i>	<i>(2.3)</i>	-	-	<i>1.2</i>	<i>1.5</i>	
	<b>Total - Fixed Income</b>	<b>132.199</b>	<b>22.9%</b>	<b>100.0%</b>	<b>0.6</b>	<b>1.0</b>	<b>1.8</b>	<b>4.3</b>	<b>0.1</b>	<b>0.9</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>4.3</b>	<b>30-Jun-02</b>
	<b>Total - Fixed Income Segment</b>				<b>0.6</b>	<b>0.6</b>	<b>1.2</b>	<b>3.8</b>	<b>(0.3)</b>	<b>(1.6)</b>	-	-	<b>1.4</b>	<b>0.3</b>	
	<i>Fixed Income Policy Benchmark<sup>11</sup></i>				<i>0.6</i>	<i>0.5</i>	<i>1.3</i>	<i>3.7</i>	<i>(0.2)</i>	<i>(2.3)</i>	<i>1.5</i>	<i>1.5</i>	<i>1.2</i>	<i>3.5</i>	
	<b>Total - Cash, Accruals, and Pending Trades<sup>14</sup></b>	<b>15.952</b>	<b>2.8%</b>	<b>100.0%</b>	<b>0.3</b>	<b>1.0</b>	<b>2.5</b>	<b>1.3</b>	<b>2.7</b>	<b>0.9</b>	-	-	<b>1.2</b>	<b>1.2</b>	<b>27-Aug-18</b>
	<b>Miami University Long-Term Capital Tier III (Net of Sub-Mgr Fees)<sup>1</sup></b>	<b>576.155</b>	<b>100.0%</b>		<b>0.9</b>	<b>0.3</b>	<b>6.4</b>	<b>5.2</b>	<b>1.8</b>	<b>10.2</b>	<b>5.7</b>	<b>4.6</b>	<b>8.0</b>	<b>4.8</b>	<b>30-Jun-02</b>
	<b>Miami University Long-Term Capital Tier III (Net of Sub-Mgr and Strategic Fees)<sup>1</sup></b>	<b>576.155</b>	<b>100.0%</b>		<b>0.9</b>	<b>0.2</b>	<b>6.2</b>	<b>5.1</b>	<b>1.6</b>	<b>10.0</b>	-	-	<b>7.7</b>	<b>-</b>	<b>31-Dec-18</b>
	<i>Total Portfolio Policy Benchmark<sup>1,2</sup></i>				<i>0.8</i>	<i>0.2</i>	<i>5.9</i>	<i>5.2</i>	<i>0.2</i>	<i>7.6</i>	<i>4.8</i>	<i>4.1</i>	<i>7.1</i>	<i>4.6</i>	
	<i>Total Portfolio Policy Benchmark (Net of Fees)<sup>1,2</sup></i>				<i>0.8</i>	<i>0.2</i>	<i>5.7</i>	<i>5.1</i>	<i>0.1</i>	<i>7.4</i>	-	-	<i>6.9</i>	<i>-</i>	
	<b>Cintrifuse Syndicate Fund II, LLC</b>	<b>1.191</b>													
	<b>TOTAL</b>	<b>577.346</b>													<b>30-Jun-02</b>

Note:

- Rates of return are annualized except for periods of less than one year.
- Rates of return for terminated managers are included in each asset category.
- Returns for individual sub-managers are reported net of sub-manager fees.
- Monthly performance is calculated using actual and estimated intra-month asset valuations on the date of all cash flows (flow-bound performance).
- Strategic reports performance of commingled vehicles as of the date when the net asset value is determined in order to reflect intended market exposures. All other performance is reported on a "trade date" basis. Market values and returns are (1) subject to revisions due to updated valuations of the underlying investments and (2) based on the latest information available at the time of this report.
- We urge you to compare the information in these reports with the account statements and reports that you receive directly from your custodian and administrators. Please be advised that Strategic statements will likely vary from custodial and administrator statements for reasons that often include: differences in accounting procedures, reporting dates, performance calculation methodologies, and valuation methodologies.

- 1) Total Portfolio and Benchmark Returns
  - Total Portfolio (Net of Sub-Manager Fees) - Multi-period returns are net of all sub-manager fees.
  - Portfolio Benchmark: Multi-period returns are calculated assuming benchmark is rebalanced monthly to policy weights.
  - Total Portfolio (Net of Sub-Manager and Strategic Fees) – Multi-period returns are net of both Strategic and sub-manager fees.
  - Portfolio Benchmark (Net of Fees): A management fee is deducted for each asset class that is not already net of a management fee as defined by the investment guidelines. Transaction costs are deducted related to monthly rebalancing, changes to policy allocations and cash flows into or out of the portfolio. The multi-period returns represent Strategic's estimate of realistic performance of an investable, passively-managed benchmark. Additional information regarding management fees and transaction costs is available upon request.
- 2) Total Portfolio Benchmark
  - The long term Total Portfolio Benchmark is 54% Equity (27% U.S., 18% Developed Non-U.S., 9% Emerging Markets), 12% Alternatives (12% Hedge Funds), 10% Real Assets (3% Real Estate, 3% Commodities, 4% TIPS), and 24% Fixed Income (21.5% U.S. Investment Grade, 2.5% U.S. High Yield). The benchmark is adjusted to float Real Estate weight based on its actual weight in the portfolio at the end of each quarter, rounded to the nearest 0.5 percentage point. The portion of the long-term policy benchmark earmarked but not used for Real Estate is allocated to TIPS.
  - During the "Transition Period", which began on 07/01/2018 and ended on 12/31/2018, the benchmark was set to be the actual performance of the account and each asset class benchmark was set to be the performance of the asset class.
- 3) U.S. Equity Policy Benchmark
  - Russell 3000 Index
- 4) Non-U.S. Equity Policy Benchmark
  - 66.7% MSCI World Ex-U.S. IMI (Net) and 33.3% MSCI Emerging Markets Index (Net)
- 5) Global Equity Benchmark
  - A custom benchmark that is the weighted average of the underlying manager benchmarks. Weights are based on the market values of the underlying global equity managers in the portfolio and are rebalanced monthly.
- 6) Hedge Fund Policy Benchmark
  - HFRX Equal Weighted Strategies Index
  - Inception – 6/30/2018: MSCI All Country World Index (Net)
- 7) Real Estate Policy Benchmark
  - NCREIF Open End Diversified Core Index
- 8) Real Estate Returns: Manager returns are shown as internal rates of return (IRR). Returns are only displayed when one of the following three criteria is satisfied 1) three years have passed since manager inception, 2) the manager's investment period has ended, 3) a significant pricing event (sale, downgrade, etc.) has occurred. Total asset class returns will be displayed when a manager within the asset class is

displayed.

- 9) Commodities Policy Benchmark
  - S&P GSCI Total Return Index
- 10) TIPS Policy Benchmark
  - Bloomberg 1 to 10 Year TIPS Index
- 11) Fixed Income Policy Benchmark
  - 90% Bloomberg US Aggregate Index, and 10% Bank of America Merrill Lynch High Yield Cash Pay Index
  - Inception – 6/30/2018: Bloomberg US Aggregate Index
- 12) Fiscal Year-End for the Miami University is June 30th.
- 13)
  - Total Miami University Client Group performance accounts for the combined performance of the Miami University Long-Term Capital, Miami University Baseline Tier II, and Miami University Special Initiatives Fund portfolios. Prior to May 31, 2018, the Miami University Client Group includes the Miami University Operating Cash account.
- 14) Performance shown reflects the returns of an investment in the account's primary money market fund or other cash vehicle rather than actual calculated performance of the account. The value shown, in addition to settled cash, may include cash pending settlement, accruals for fees, and liquidating investments.
- 15) Returns for individual sub-managers are reported net of sub-manager fees. Returns at the total Trust level are reported net of sub-managers' fees, but gross of Strategic's advisory fee. Actual returns will be reduced by advisory fees and other expenses. For example, if \$100,000 were invested and experienced a 10% annual return compounded quarterly for ten years, its ending dollar value, without giving effect to the deduction of advisory fees, would be \$268,506 with an annualized compound return of 10.38%. If an advisory fee of 0.50% of average assets per year were deducted quarterly for the ten-year period, the annualized compounded return would be 9.84% and the ending dollar value would be \$255,715. Information about advisory fees is found in Part II of Strategic's Form ADV.
- 16) Strategic U.S. Equity Trust Footnotes
  - Strategic U.S. Equity Trust Benchmark
    - Russell 3000 Index
    - October 1, 1999 – June 30, 2007: Wilshire 5000 Index
    - Inception – September 30, 1999: S&P 500 Index
- 17) Strategic Developed Markets Ex-U.S. Equity Trust Footnotes
  - Strategic Developed Markets Ex-U.S. Equity Trust Benchmark
    - MSCI World ex-U.S. IMI Index (net)
    - October 1, 2012 - December 31, 2018: A blend of 50% MSCI World IMI ex-U.S. Index (net) and 50% MSCI EM Index (net).
    - September 1, 2010 - September 30, 2012: A blend of 72% MSCI World IMI ex-U.S. Index (net) and 28% MSCI EM Index (net).
    - December 1, 2001 – August 31, 2010: MSCI All Country World Index ex-U.S. (ACWI ex-U.S.) net of dividend withholdings.
    - October 1, 1996 - November 30, 2001: EAFE Lite (net).
    - Inception - September 30, 1996: EAFE Index (net).
    - Portfolio was invested in the Arrowstreet ACWI exUS IMI Alpha Ext. NHIT strategy from inception to 2/28/2023, and Arrowstreet ACWI exUS IMI Alpha Extension 130-30-20 NHIT strategy from 2/1/2023 onwards. Performance reflects the Arrowstreet ACWI exUS IMI Alpha Ext. NHIT strategy from inception to 1/31/2023, and Arrowstreet ACWI exUS IMI Alpha Extension 130-30-20 NHIT strategy from 2/1/2023 onwards.
    - The Strategic Developed Markets Ex-U.S. Equity Trust was renamed on January 1, 2019 from the "Strategic International Equity Trust". From December 1, 2001, the benchmark for the Strategic International Equity Trust included developed and emerging market exposure, and the return history includes performance of both the developed market and emerging market managers and securities used to execute this broader mandate.

- 18) Strategic Emerging Markets Equity Trust Footnotes
- The Strategic Emerging Markets Trust was created on January 1, 2019 using the emerging markets equity managers within the Strategic International Equity Trust. Performance history for the Strategic Emerging Markets Equity Trust for periods prior to January 1, 2019 has been calculated using the weighted average performance of the emerging markets equity managers held within the Strategic International Equity Trust until January 1, 2019.
  - Strategic Emerging Markets Equity Trust Benchmark  
-MSCI Emerging Markets Index (net)  
-November 1, 1994 - December 31, 1998: A custom benchmark that is the weighted average of the underlying manager benchmarks. Weights are based on the market values of the underlying emerging markets equity managers and are rebalanced monthly.
- 19) Strategic Global Equity Trust Benchmark
- A custom benchmark that is the weighted average of the underlying manager benchmarks. Weights are based on the market values of the underlying global equity managers in the portfolio and are rebalanced monthly.
- 20) Strategic Funds SPC Alpha Segregated Footnotes
- Macro Benchmark  
-HFRX Macro Index  
-Inception – March 31, 2003: 90 Day T-Bill +4%
  - Equal Weighted Strategies Benchmark  
-HFRX Equal Weighted Strategies Index  
-Inception – March 31, 2003: 90 Day T-bill +4%
  - Equity Hedge Benchmark  
- HFRX Equity Hedge Index  
- Inception – March 31, 2003: 90 Day T-bill +4%
  - Equity Market Neutral Benchmark  
- HFRX Equity Market Neutral Index  
- Inception – March 31, 2003: 90 Day T-bill +4%
  - Event Driven Benchmark  
- HFRX Event Driven Index  
- Inception – March 31, 2003: 90 Day T-bill +4%
  - Formerly, several managers were underlying investments in the Strategic Directional Hedge Fund Master Trust. Effective as of March 31, 2010, the Strategic Directional Hedge Fund Master Trust merged into the Strategic Hedge Fund Master Trust and the underlying assets of both Master Trusts were combined in the surviving Strategic Hedge Fund Master Trust. All performance from inception through March 31, 2010 occurred as part of the Strategic Directional Hedge Fund Master Trust.

# PERFORMANCE DETAIL

## Miami University Baseline Tier II

April 30, 2023



ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Policy Inception	Since Inception	Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(4)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year			
<b>U.S. Fixed Income</b>															
<i>Treasuries</i>															
<b>Strategic Treasury Holdings</b>		189.877	99.8%	100.0%	0.3	1.0	2.0	1.4	1.9	0.5	-	-	1.2	1.3	07-Sep-18
<i>BofA Merrill Lynch 0-2 Year Treasury Index</i>					0.2	1.1	1.7	1.5	1.6	0.1	-	-	1.2	1.3	
<b>Total U.S. Fixed Income</b>		189.877	99.8%	100.0%	0.3	1.0	2.0	1.4	1.9	0.5	1.3	1.0	1.2	2.4	30-Jun-02
<i>U.S. Fixed Income Policy Benchmark</i>					0.2	1.1	1.7	1.5	1.6	0.1	1.2	0.8	1.2	1.9	
<b>Total - Fixed Income</b>		189.877	99.8%	100.0%	0.3	1.0	2.0	1.4	1.9	0.5	1.3	1.0	1.2	2.4	30-Jun-02
<i>Fixed Income Policy Benchmark<sup>3</sup></i>					0.2	1.1	1.7	1.5	1.6	0.1	1.2	0.8	1.2	1.9	
<b>Total - Cash, Accruals, and Pending Trades<sup>5</sup></b>		0.322	0.2%	100.0%	0.3	1.0	2.5	1.3	2.7	0.9	-	-	1.2	1.2	02-Aug-18
<b>Miami University - Baseline Tier II (Net of Sub-Mgr Fees)<sup>1</sup></b>		190.199	100.0%		0.3	1.0	2.0	1.4	1.9	0.5	1.3	1.1	1.2	2.4	30-Jun-02
<b>Miami University - Baseline Tier II (Net of Sub-Mgr and Strategic Fees)<sup>1</sup></b>		190.199	100.0%		0.3	1.0	2.0	1.4	1.8	0.4	-	-	1.2	-	31-Dec-18
<i>Total Portfolio Policy Benchmark<sup>1,2</sup></i>					0.2	1.1	1.7	1.5	1.6	0.1	1.2	0.9	1.2	1.9	
<i>Total Portfolio Policy Benchmark (Net of Fees)<sup>1,2</sup></i>					0.2	1.1	1.7	1.5	1.6	0.0	-	-	1.0	-	

**Note:**

- Rates of return are annualized except for periods of less than one year.
- Rates of return for terminated managers are included in each asset category.
- Returns for individual sub-managers are reported net of sub-manager fees.
- Monthly performance is calculated using actual and estimated intra-month asset valuations on the date of all cash flows (flow-bound performance).
- Strategic reports performance of commingled vehicles as of the date when the net asset value is determined in order to reflect intended market exposures. All other performance is reported on a "trade date" basis. Market values and returns are (1) subject to revisions due to updated valuations of the underlying investments and (2) based on the latest information available at the time of this report.
- We urge you to compare the information in these reports with the account statements and reports that you receive directly from your custodian and administrators. Please be advised that Strategic statements will likely vary from custodial and administrator statements for reasons that often include: differences in accounting procedures, reporting dates, performance calculation methodologies, and valuation methodologies.

- 1) Total Portfolio and Benchmark Returns
  - Total Portfolio (Net of Sub-Manager Fees) - Multi-period returns are net of all sub-manager fees.
  - Portfolio Benchmark: Multi-period returns are calculated assuming benchmark is rebalanced monthly to policy weights.
  - Total Portfolio (Net of Sub-Manager and Strategic Fees) – Multi-period returns are net of both Strategic and sub-manager fees.
  - Portfolio Benchmark (Net of Fees): A management fee is deducted for each asset class that is not already net of a management fee as defined by the investment guidelines. Transaction costs are deducted related to monthly rebalancing, changes to policy allocations and cash flows into or out of the portfolio. The multi-period returns represent Strategic's estimate of realistic performance of an investable, passively-managed benchmark. Additional information regarding management fees and transaction costs is available upon request.
- 2) Total Portfolio Benchmark
  - The long term Total Portfolio Benchmark is the ICE BAML 0-2 Year Treasury Index
  - *Inception – 6/30/2018: Bloomberg 1-3 Year U.S. Government Index.*
  - *During the 'Transition Period', which began on 07/01/2018 and ended on 12/31/2018, the benchmark was set to be the actual performance of the account, and each asset class benchmark was set to be the performance of the asset class.*
- 3) Fixed Income Policy Benchmark
  - ICE BAML 0-2 Year Treasury Index
  - *Inception – 6/30/2018: Bloomberg 1-3 Year U.S. Government Index.*
- 4) Fiscal Year-End for the Miami University is June 30th.
- 5) Performance shown reflects the returns of an investment in the account's primary money market fund or other cash vehicle rather than actual calculated performance of the account. The value shown, in addition to settled cash, may include cash pending settlement, accruals for fees, and liquidating investments.

# PERFORMANCE DETAIL

## Miami University Special Initiatives Fund

April 30, 2023



ASSET CLASS Style	Investment Benchmark	Market Value (\$ mill)	Portfolio (%)	Asset Class (%)	Rates of Return (%)								Since Policy Inception	Since Inception	Inception Date
					1 Month	3 Month	Fiscal Year To Date <sup>(3)</sup>	Calendar Year To Date	1 Year	3 Year	5 Year	10 Year			
<b>U.S. Fixed Income</b>															
<i>Treasuries</i>															
Strategic Treasury Holdings		30.518	100.0%	100.0%	0.2	0.8	1.0	1.5	1.0	(0.9)	-	-	2.0	2.0	19-Sep-18
<b>Total U.S. Fixed Income</b>		<b>30.518</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.2</b>	<b>0.8</b>	<b>1.0</b>	<b>1.5</b>	<b>1.0</b>	<b>(0.9)</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>2.0</b>	<b>19-Sep-18</b>
<i>U.S. Fixed Income Policy Benchmark</i>					<i>0.2</i>	<i>0.8</i>	<i>1.0</i>	<i>1.5</i>	<i>1.0</i>	<i>(0.9)</i>	<i>-</i>	<i>-</i>	<i>1.9</i>	<i>1.9</i>	
<b>Total - Fixed Income</b>		<b>30.518</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.2</b>	<b>0.8</b>	<b>1.0</b>	<b>1.5</b>	<b>1.0</b>	<b>(0.9)</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>2.0</b>	<b>19-Sep-18</b>
<i>Fixed Income Policy Benchmark</i>					<i>0.2</i>	<i>0.8</i>	<i>1.0</i>	<i>1.5</i>	<i>1.0</i>	<i>(0.9)</i>	<i>-</i>	<i>-</i>	<i>1.9</i>	<i>1.9</i>	
Miami University Special Initiatives Fund (Net of Sub-Mgr Fees)		30.518	100.0%		0.2	0.8	1.0	1.5	1.0	(0.9)	-	-	2.0	2.0	19-Sep-18
Miami University Special Initiatives Fund (Net of Sub-Mgr and Strategic Fees)		30.518	100.0%		0.2	0.8	1.0	1.4	0.9	(1.0)	-	-	1.9	1.9	19-Sep-18
<i>Total Portfolio Policy Benchmark<sup>2</sup></i>					<i>0.2</i>	<i>0.8</i>	<i>1.0</i>	<i>1.4</i>	<i>0.9</i>	<i>(1.0)</i>	<i>-</i>	<i>-</i>	<i>1.9</i>	<i>1.9</i>	



**Note:**

- Rates of return are annualized except for periods of less than one year.
- Rates of return for terminated managers are included in each asset category.
- Returns for individual sub-managers are reported net of sub-manager fees.
- Monthly performance is calculated using actual and estimated intra-month asset valuations on the date of all cash flows (flow-bound performance).
- Strategic reports performance of commingled vehicles as of the date when the net asset value is determined in order to reflect intended market exposures. All other performance is reported on a "trade date" basis. Market values and returns are (1) subject to revisions due to updated valuations of the underlying investments and (2) based on the latest information available at the time of this report.
- We urge you to compare the information in these reports with the account statements and reports that you receive directly from your custodian and administrators. Please be advised that Strategic statements will likely vary from custodial and administrator statements for reasons that often include: differences in accounting procedures, reporting dates, performance calculation methodologies, and valuation methodologies.

- 1) Total Portfolio Returns
  - Total Portfolio (Net of Sub-Manager Fees) – Multi-period returns are net of all sub-manager fees.
  - Total Portfolio (Net of Sub-Manager and Strategic Fees) – Multi-period returns are net of both Strategic and sub-manager fees.
- 2) Total Portfolio Benchmark
  - This portion of the Core Cash (Tier II) Sub-Account is earmarked for special projects. The benchmark index used for this portion of the Core Cash (Tier II) Sub-Account is the actual performance of the account.
- 3) Fiscal Year-End for the Miami University is June 30th.

# Additional Footnotes

Investment Performance Review by Asset Class  
Asset Allocation & Risk Tables

# Investment Performance Review by Asset Class

## Policy Benchmark Details by Asset Class

### PORTFOLIO BENCHMARKS

U.S. Equity - Russell 3000 Total Return Index.

Non-U.S. Equity - A blend of 66.7% MSCI World Ex-U.S. IMI Total Return (Net) Index and 33.3% MSCI Emerging Markets Total Return (Net) Index.

Global Equity - MO3 Global Equity Benchmark Total Return Index.

Hedge Funds - HFRX Equal Weighted Strategies Total Return Index.

Real Estate - NCREIF Open End Diversified Core Total Return Index.

Commodities - S&P GSCI Total Return Index.

TIPS - Barclays Capital 1 to 10 Year TIPS Total Return Index.

U.S. Fixed Income - A blend of 89.6% Barclays Capital U.S. Aggregate Total Return Index and 10.4% BofA Merrill Lynch High Yield Cash Pay Total Return Index.

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# Asset Allocation and Risk Tables

## Definitions and Methodologies

Policy Benchmark Weights are adjusted to float the private equity and/or real estate weight based on the actual weight in the portfolio (see footnote #2 of the Performance Report).

Active Strategy is defined as the difference between Current Portfolio allocations and Policy Benchmark Weights.

Risk Analysis estimates future annualized standard deviation of returns.

- Policy Benchmark Risk analyzes current policy benchmark asset mix, assuming passive security selection.
- Portfolio Risk considers current asset mix and active security selection strategies.
- Tracking error refers to the standard deviation of the difference between portfolio and benchmark returns.

Foreign Currency Exposure summarizes the percentage of the total portfolio that is not denominated in U.S. Dollars and the corresponding contribution to risk.

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