

QUARTER ENDING SEPTEMBER 30, 2021
INVESTMENT PERFORMANCE ANALYSIS

**EASTERN MICHIGAN BOARD OF
REGENTS**



Gary A. Wyniemko, CFA, Partner
Varun Raman, Senior Analyst

NOVEMBER 12, 2021



2021 THIRD QUARTER INSIGHTS FROM NEPC

General Research

- [NEPC's June 2021 Market Commentary](#)
- [Quarterly Asset Class Review: Q2 2021](#)
- [Reframing Inflation Expectations: Q2 Quarterly Market Webinar](#)
- [NEPC's July 2021 Market Commentary](#)
- [NEPC Market Outlook: Taking Profits in a Period of Market Strength](#)
- [NEPC's August 2021 Market Commentary](#)

Practice Teams

- [Taxes and After-Tax Alpha: Are You Missing Out?](#)
- [Inflation: The Real Effect on Returns and Tax Rates](#)
- [Investment Vehicles: A Critical Choice for Private Clients and Family Offices](#)
- [Taking Stock: NEPC Q2 2021 Pension Monitor](#)
- [Taking Stock: NEPC July 2021 Pension Monitor](#)
- [Taking Stock: NEPC August 2021 Pension Monitor](#)
- [Taking Stock: One Corporate Plan's Journey of Terminating Its Pension \(Part 3\)](#)

DIVERSITY, EQUITY AND INCLUSION AT NEPC

- This quarter, during the annual Equitable Manager Participation Workshop, NEPC [announced the Explorer Program](#), a platform to identify, meaningfully explore and engage with diverse-owned and -led investment management firms who are not currently 1- or 2-rated by NEPC. The Explorer Program eases the path for diverse managers to be evaluated by NEPC's Research team for potential inclusion in client portfolios and for future inclusion on the firm's Focused Placement Lists (FPL).
- You can read more in [FundFire](#), [Alternatives Watch](#), and [PLANSPONSOR](#), and learn more at [NEPC.com](#).



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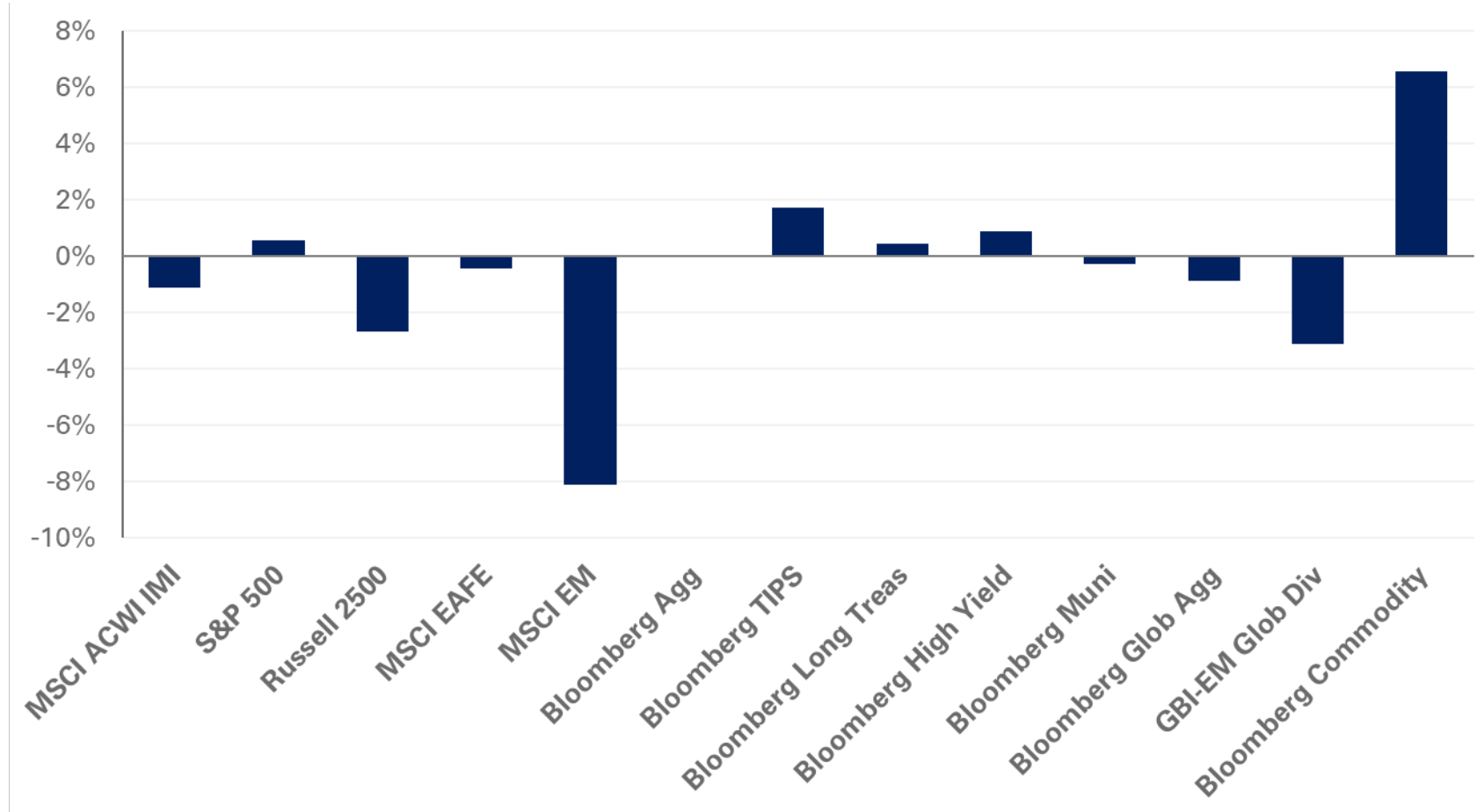


MARKETS IN REVIEW



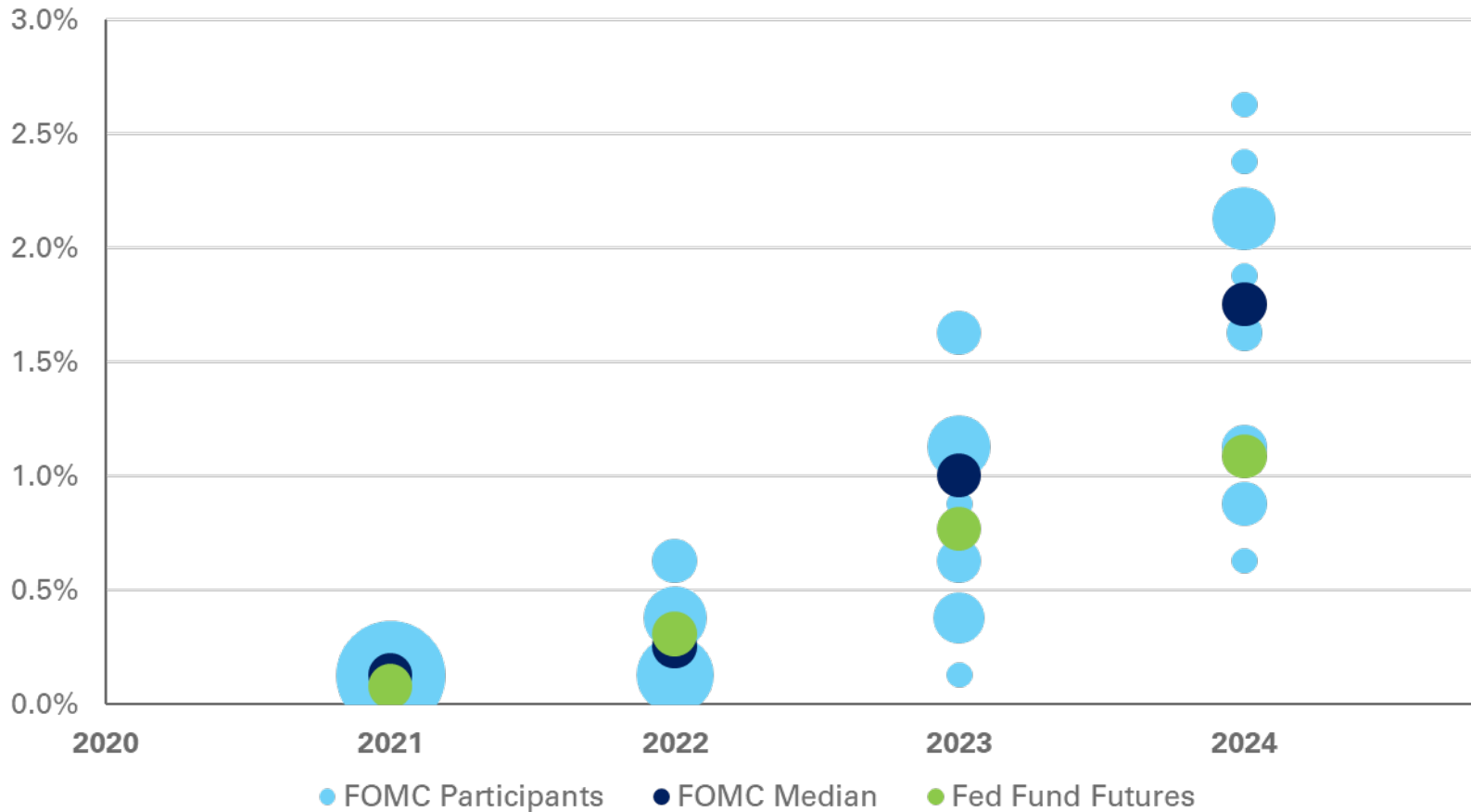
EMERGING MARKETS UNDERPERFORMED

Q3 2021 QUARTERLY TOTAL RETURNS



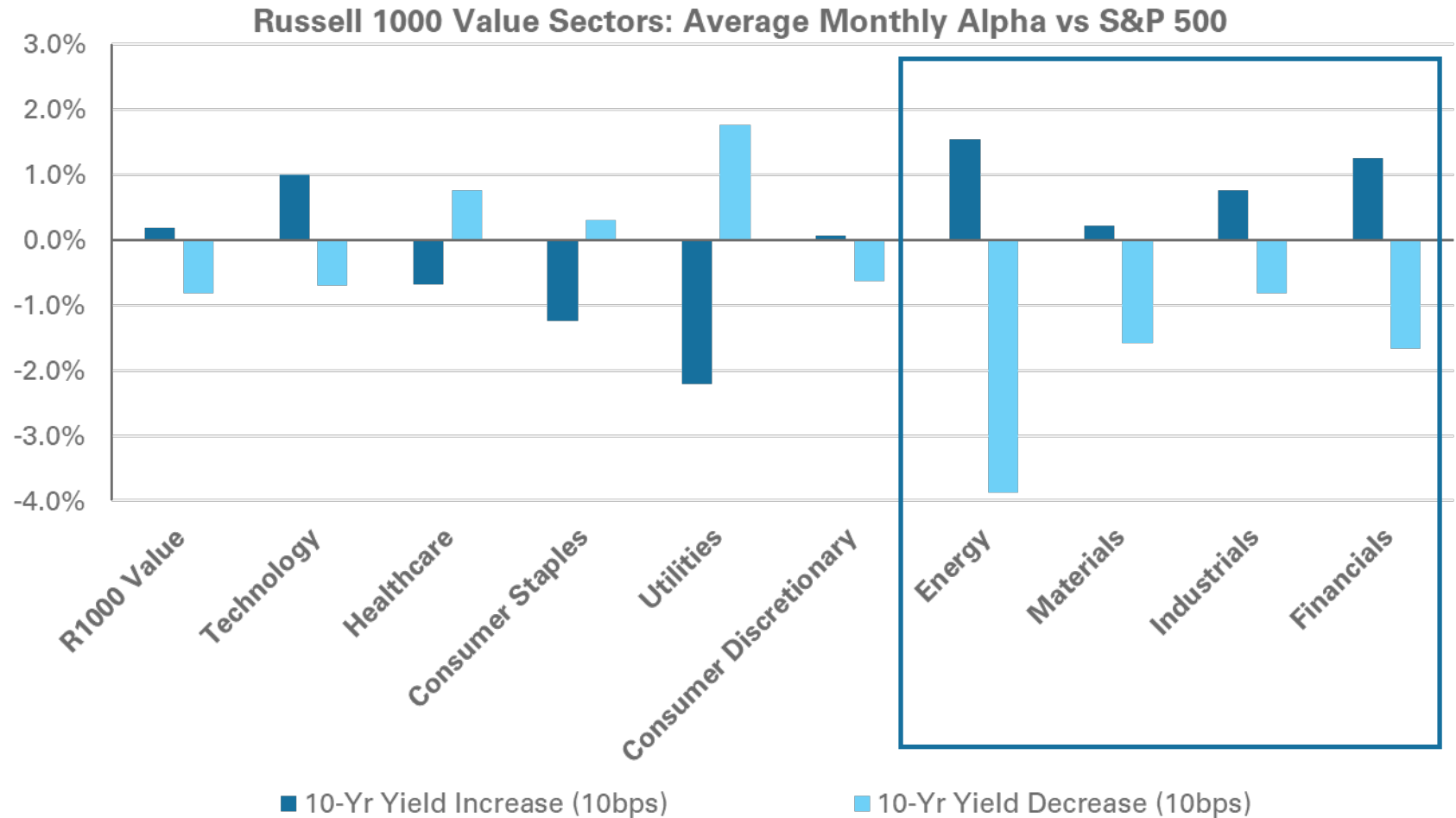
FED PROJECTING THREE RATE HIKES IN 2023

FED DOT PLOT VERSUS FED FUND FUTURES



INTEREST RATES INFLUENCE STOCKS UNEQUALLY

SECTOR MAKEUP OF VALUE EXPOSURE MAY OFFER BENEFITS

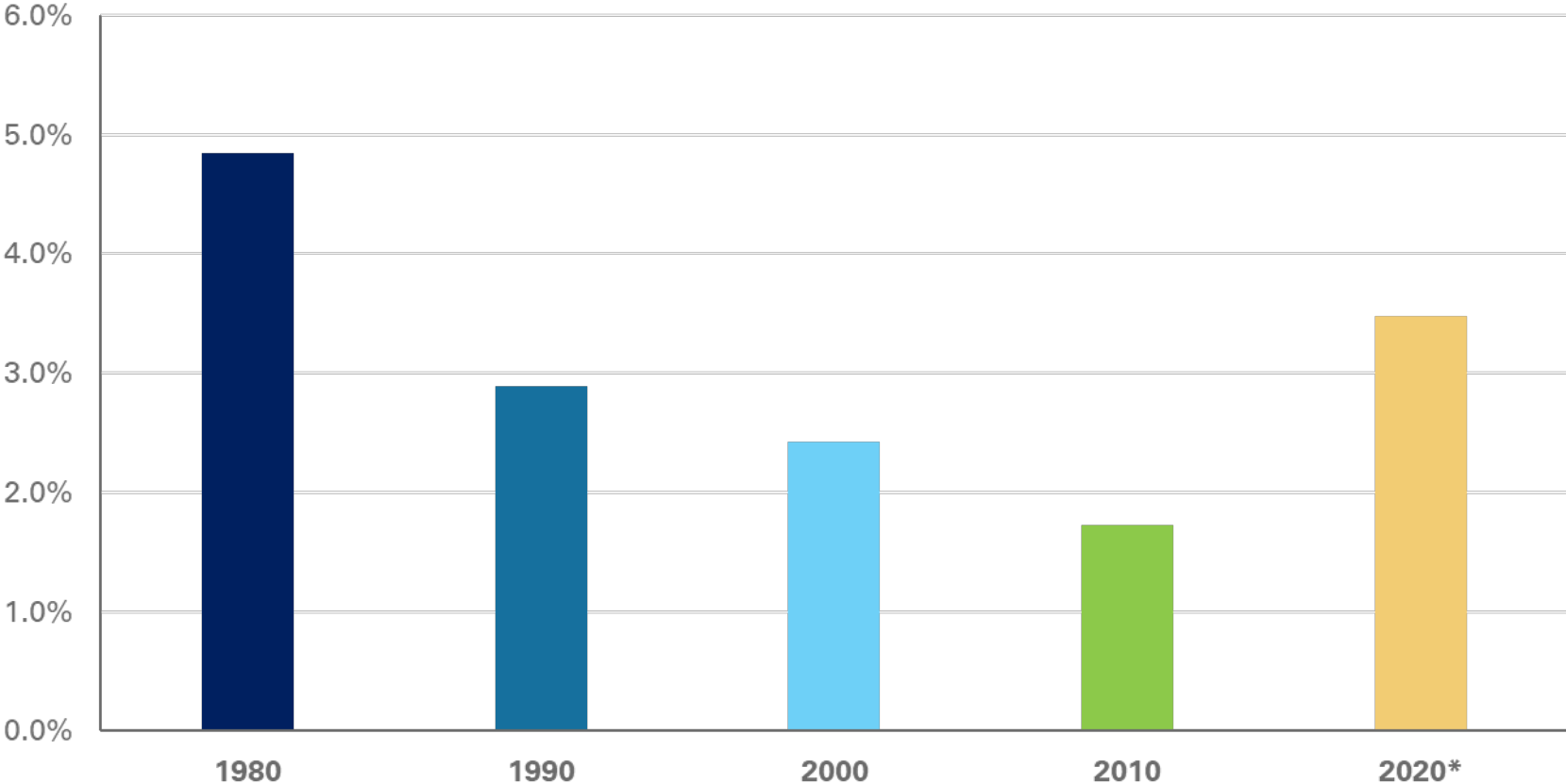


INFLATION OVERVIEW

- **Several factors are contributing to “stickier” inflation levels including continued supply shocks and the potential for elevated shelter costs**
- **NEPC’s expectation for inflation has increased over the near-term (1-5 years), but the long-term inflation view (year 10 inflation) is unchanged**
- **We believe that deflationary pressures, such as demographics and technology, will overwhelm inflationary pressures in the long-run**
- **We expect the 5%+ inflation prints are transitory, but have an increased conviction that ~3% inflation could persist over the next 3 years**
 - Current market pricing and break-even inflation expectations do not reflect the potential for ~3% inflation and this can be a source of disruption for equities and real interest rates

REFRAMING INFLATION EXPECTATIONS

ANNUALIZED INFLATION BY DECADE

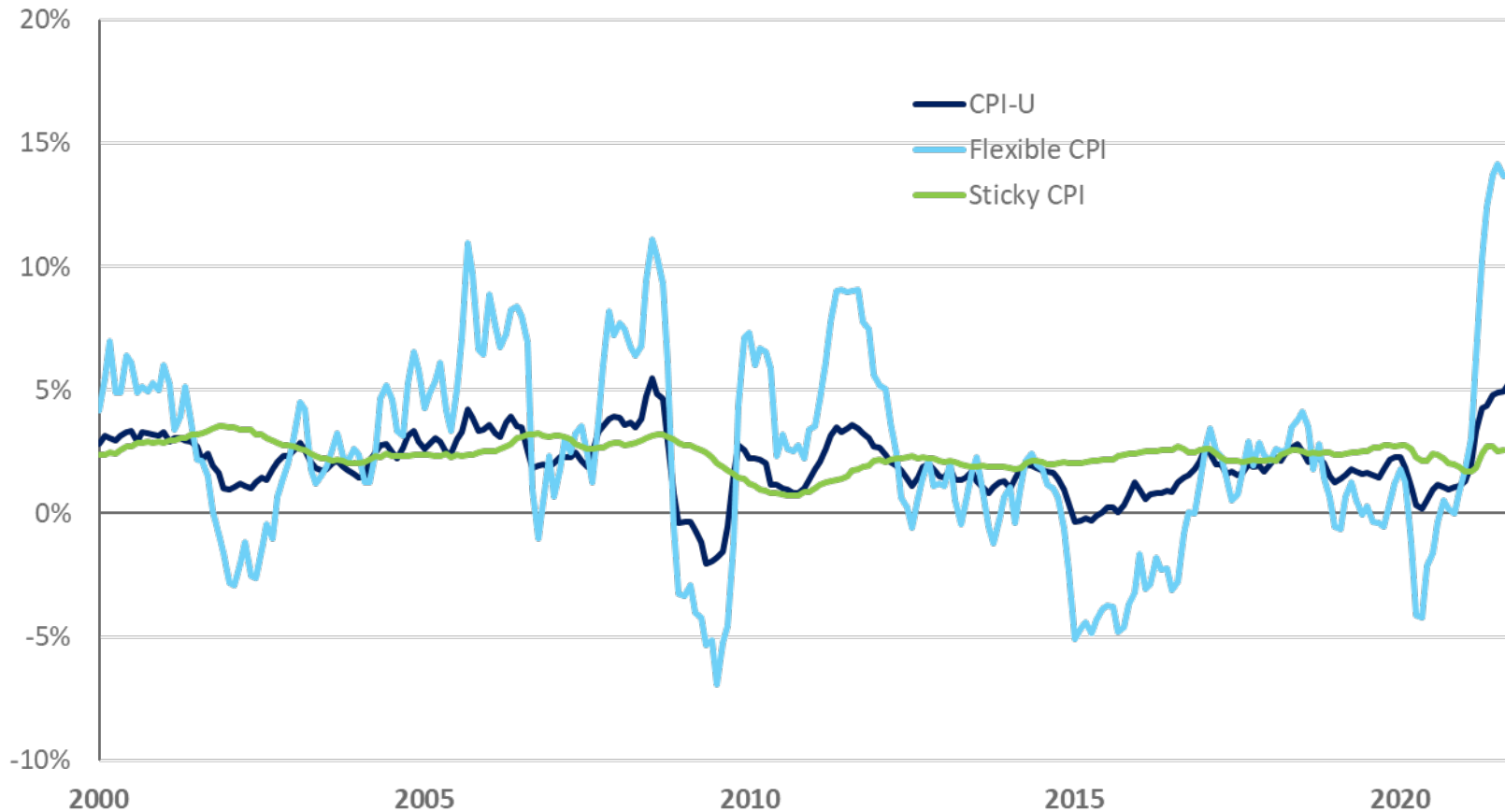


Notes: *2020 reflects returns through September 30, 2021
Source: Bureau of Labor Statistics, FactSet, NEPC



U.S. CPI IS ELEVATED FROM FLEXIBLE FACTORS

TRAILING 12-MONTH CPI METRICS



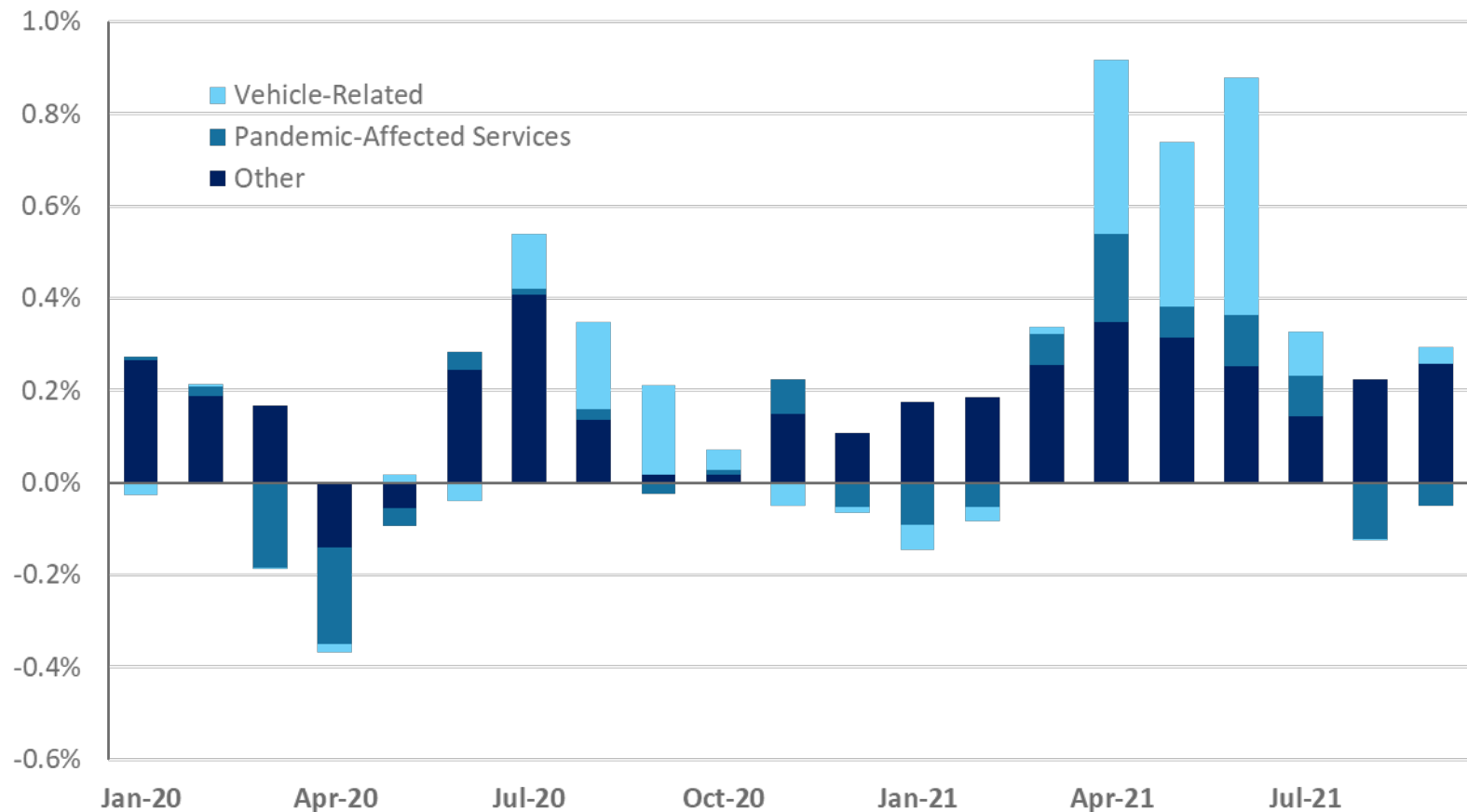
Notes: Flexible CPI represents a weighted basket of items that change price relatively frequently. Sticky CPI represents a weighted basket of items that change price relatively slowly. Data as of 09/30/2021.

Sources: Atlanta Fed, Bureau of Labor Statistics, FactSet



TRANSITORY FACTORS HAVE WANED...

CONTRIBUTION TO MONTHLY CORE CPI-U



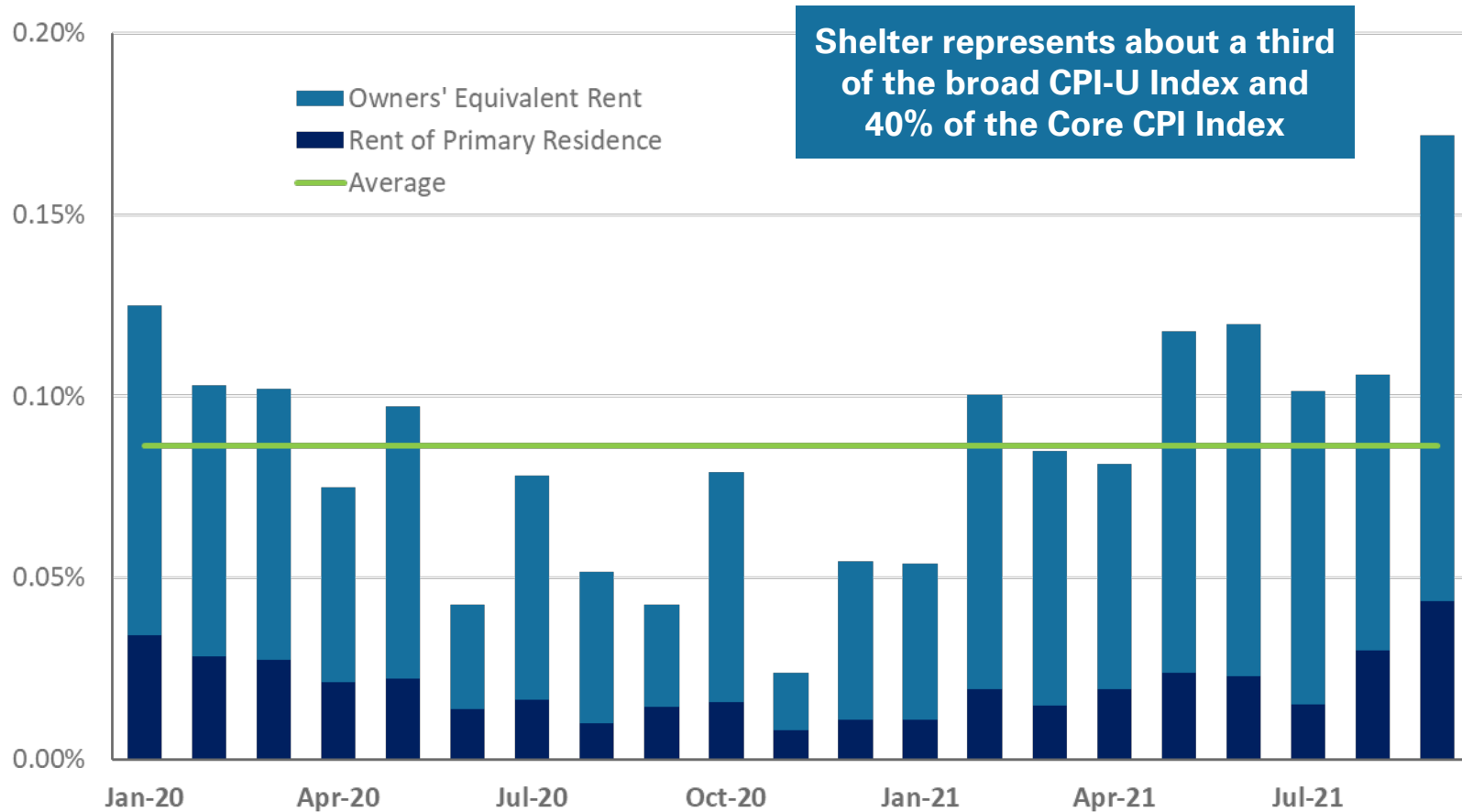
Notes: Vehicle-Related includes New Vehicles, Used Cars & Trucks, and Motor Vehicle Parts. Pandemic-Affected Services includes Airfare, Hotels, and Admissions to Events.

Source: Bureau of Labor Statistics, FactSet, NEPC



...STICKIER FACTORS MAY BE ON THE RISE

CONTRIBUTION OF SHELTER TO MONTHLY CORE CPI-U

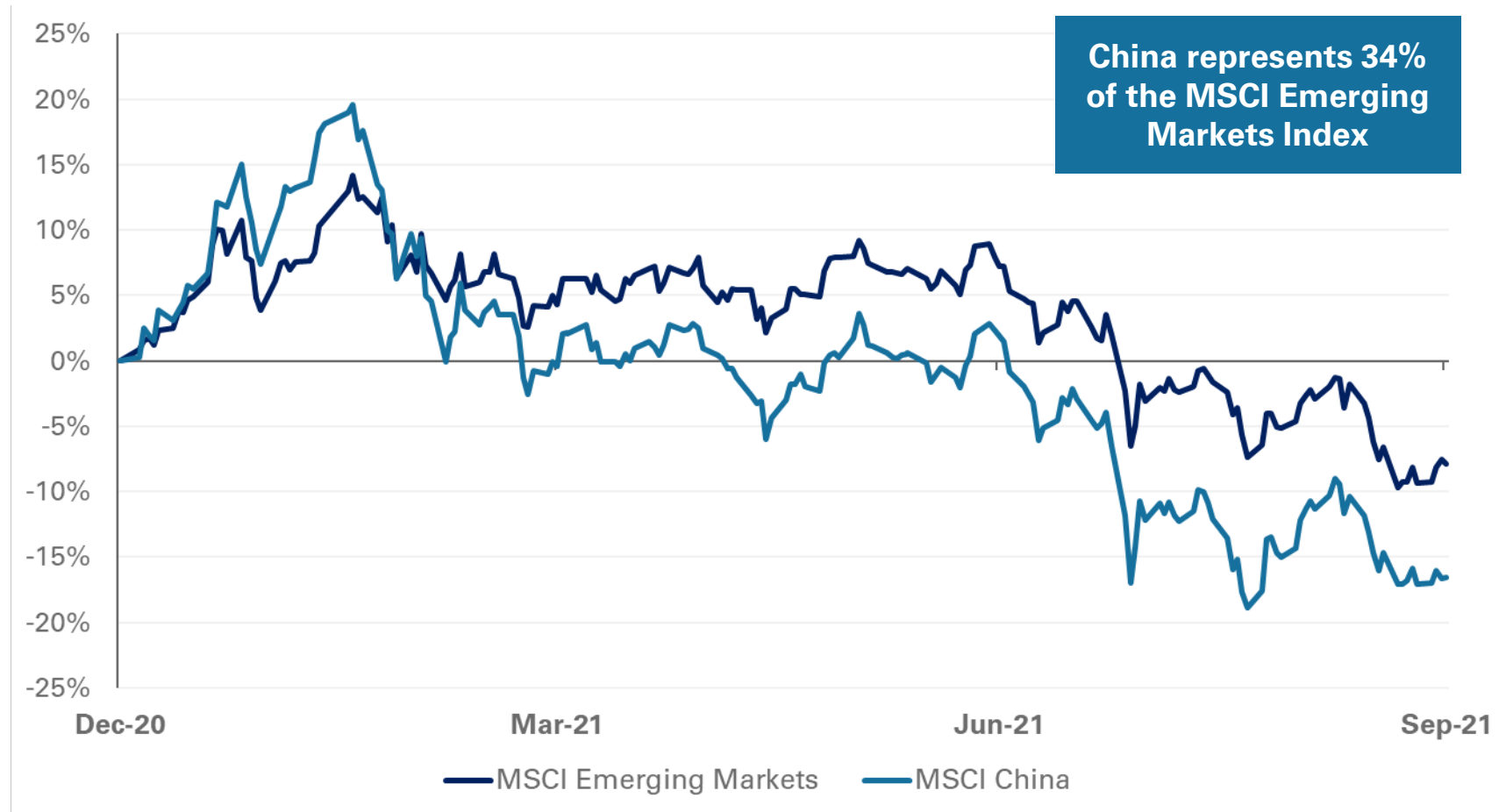


Notes: Average calculated 01/31/2019-09/30/2021
Sources: Bureau of Labor Statistics, FactSet, NEPC



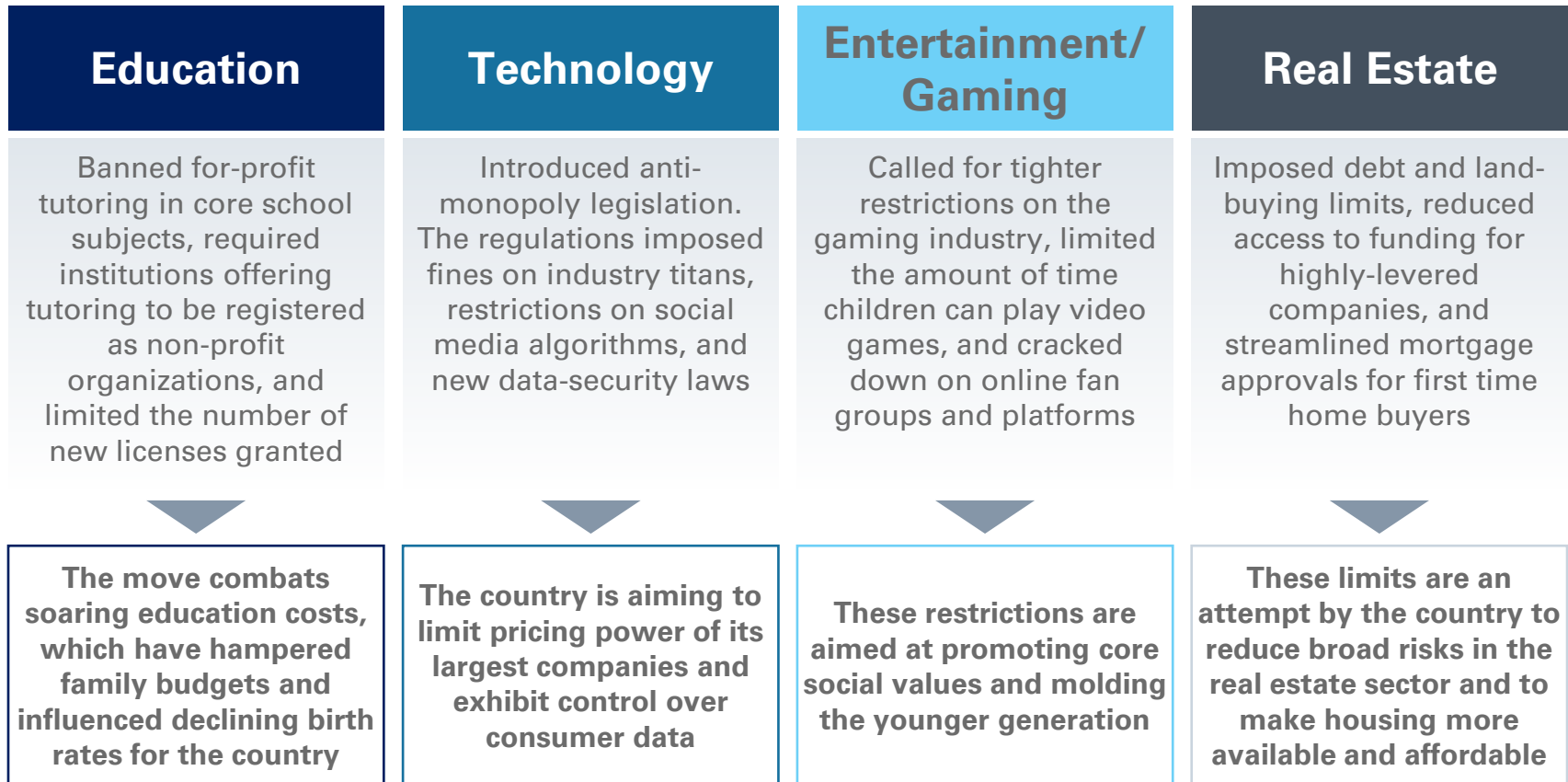
CHINESE EQUITIES HAVE WEIGHED ON MARKETS

YEAR-TO-DATE CUMULATIVE INDEX RETURNS



CHINA'S REGULATORY RESET

- China introduced a wave of new regulations, implementing anti-monopoly, industry-specific, and consumer protection regulations



STRATEGIC ASSET ALLOCATION OUTLOOK

NEPC's Key Market Theme of Permanent Interventions **sustains positive risk asset sentiment** and elevated valuation levels for equity

Consider **higher strategic equity targets** as the long-term forward return differential relative to fixed income remains elevated

We continue to support a **strategic overweight to emerging market equities** relative to MSCI ACWI IMI, but expect a volatile path

Be mindful of adding public real assets, as inflation-sensitivity and portfolio objectives inform an investor's strategic allocation

Maintain adequate portfolio liquidity levels as market stress can inject bouts of illiquidity across public assets

Q3 2021 PERFORMANCE SUMMARY



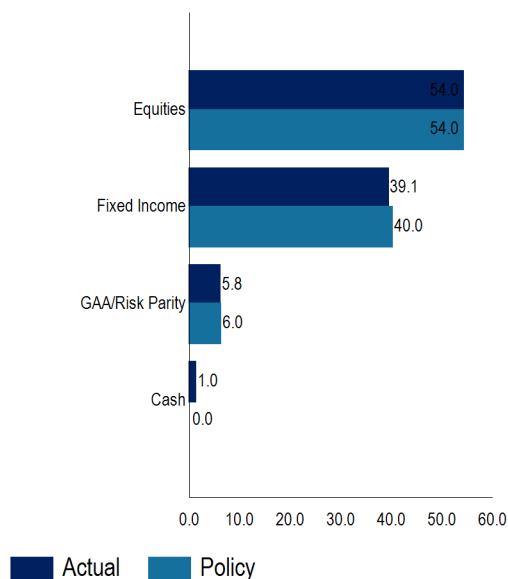
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TOTAL FUND PERFORMANCE SUMMARY

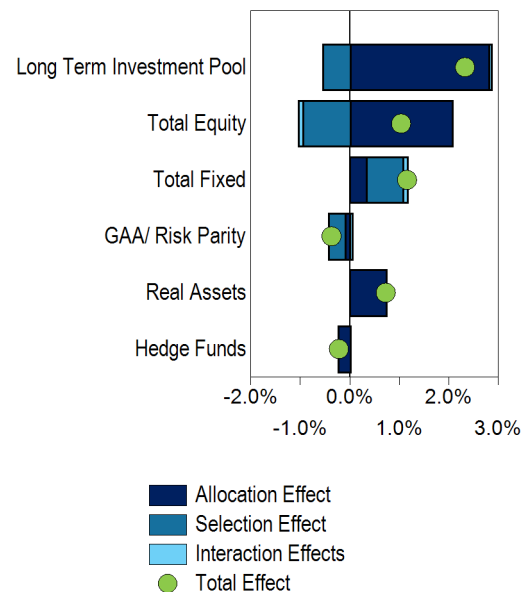
	Market Value	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs
Board of Regents Total Composite	\$20,985,349	-0.4%	2.2%	6.2%	3.2%	3.8%
<i>Allocation Index</i>		-0.6%	2.3%	6.6%	5.7%	5.4%

	Market Value	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs
Long Term Investment Pool	\$9,762,042	-0.9%	6.1%	16.6%	7.5%	7.1%
<i>Long Term Allocation Index</i>		-1.2%	5.9%	17.0%	10.9%	9.4%
<i>Long Term Balanced Index</i>		-0.4%	5.6%	14.2%	9.1%	8.3%

Long Term Investment Pool Actual vs. Target Allocation



Long Term Investment Pool Attribution Effects 1 Year Ending September 30, 2021



Year to Date

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Board of Regents Total Composite	2.16%	2.41%	0.89
Allocation Index	2.27%	2.27%	0.99

Composite Performance

- The Total Composite earned -0.4% through a volatile quarter, finishing ahead of its corresponding benchmark index
- The Long Term Investment Pool continues to outperform for the year - relative to its benchmarks

Allocation Index

- On a trailing 12 months basis as of 9/30, the Long Term Investment Pool benefited from leaning more into Equities, while active Fixed Income strategies continued to be supportive

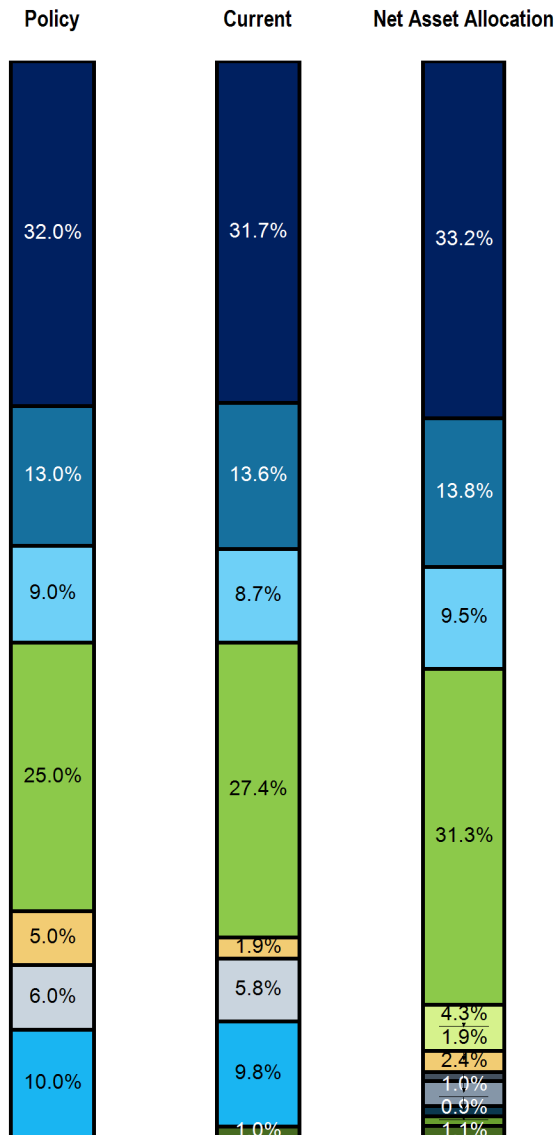
Active Management

- Acadian Emerging Markets Equity, although down for the quarter, outperformed its benchmark by more than 2%
- Baird Core Bonds, an active fixed income manager, continues to earn strong returns, both on an absolute basis and relative to the US bond market



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ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target				
	Current	Policy	Current	Net Asset Allocation
Domestic Equity	\$3,098,881	32.0%	31.7%	33.2%
International Equity	\$1,324,310	13.0%	13.6%	13.8%
Emerging Markets Equity	\$847,093	9.0%	8.7%	9.5%
Core Fixed Income	\$2,678,900	25.0%	27.4%	31.3%
High Yield	--	--	--	4.3%
TIPS	\$189,073	5.0%	1.9%	1.9%
Non-US Developed Bonds	--	--	--	0.8%
Emerging Market Debt	--	--	--	2.4%
GAA/Risk Parity	\$570,848	6.0%	5.8%	--
Hedge Funds	--	--	--	1.0%
Absolute Return	\$953,139	10.0%	9.8%	--
Real Assets	--	--	--	0.9%
Cash	\$99,797	--	1.0%	1.1%
Total	\$9,762,042	100.0%	100.0%	100.0%

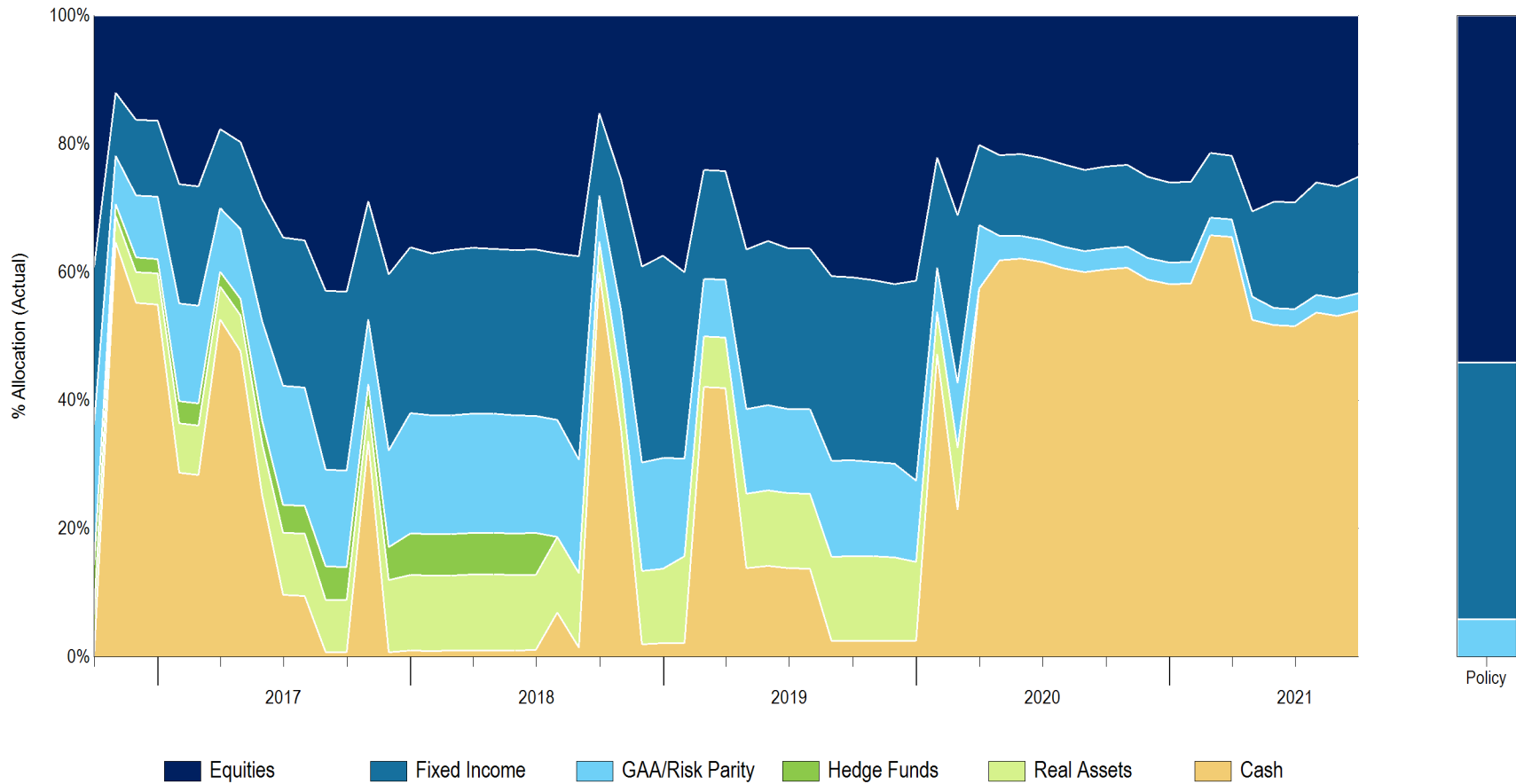
-Asset Allocation vs. Policy Targets analytics are based on the Long Term Investment Pool.



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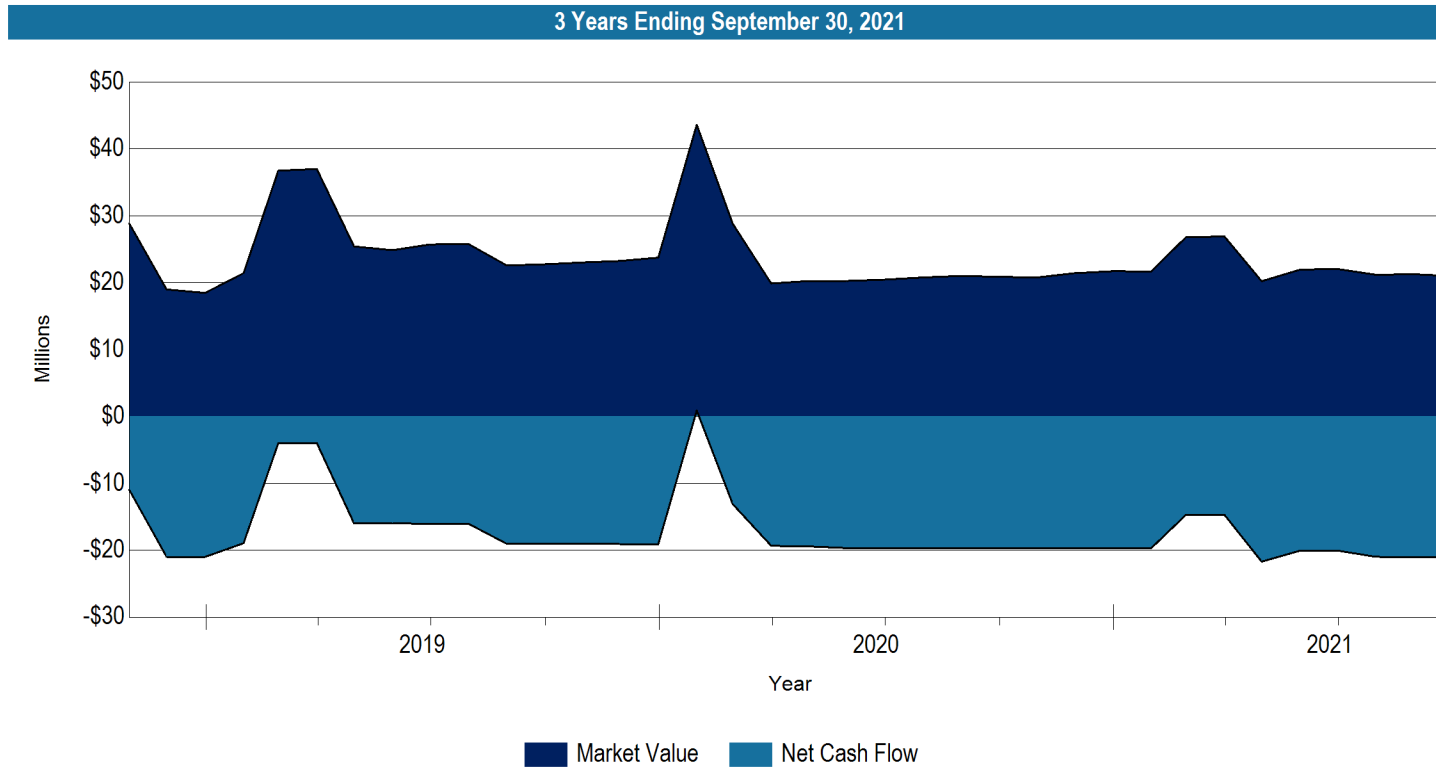
TOTAL FUND ASSET ALLOCATION HISTORY

Asset Allocation History



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TOTAL FUND ASSET GROWTH SUMMARY



	Last Three Months	Year-To-Date	One Year	Three Years
Beginning Market Value	\$22,049,152	\$21,717,375	\$20,879,020	\$40,422,995
Contributions	\$728,782	\$20,090,708	\$20,101,627	\$87,603,431
Withdrawals	-\$1,718,555	-\$21,442,317	-\$21,458,917	-\$108,650,557
Net Cash Flow	-\$989,773	-\$1,351,609	-\$1,357,290	-\$21,047,126
Net Investment Change	-\$74,029	\$619,583	\$1,463,620	\$1,609,481
Ending Market Value	\$20,985,349	\$20,985,349	\$20,985,349	\$20,985,349



INVESTMENT MANAGER - DUE DILIGENCE STATUS

Investment Options	Manager Changes/ Announcements	NEPC Due Diligence Committee Recommendations
Baird Core Bond (Aggregate)	Other: PersonnelChanges 10/2021	FYI



INVESTMENT MANAGER - DUE DILIGENCE STATUS

Investment Options	Commentary	DD Status
Baird Core Bond (Aggregate)	<p>Baird Advisors announced the promotion of Warren Pierson to co-CIO alongside Mary Ellen Stanek, from his previous role as Deputy CIO. Warren is a 28 year veteran of Baird Advisors and is a member of strategic leadership at the firm. Baird has indicated that this is not an imminent signal of Mary Ellen's retirement but a continuation of the firm's long term succession planning.</p> <p>NEPC Research views this as a natural evolution of the leadership at Baird Advisors.</p>	FYI



TOTAL FUND SUMMARY



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TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Board of Regents Total Composite	20,985,349	100.0	-0.4		2.2		6.2		3.2		3.8		4.2		4.6	Apr-09
<i>Allocation Index</i>			-0.6	--	2.3	--	6.6	--	5.7	--	5.4	--	--	--	--	Apr-09
Short Term Investment Pool	11,223,307	53.5	0.0		0.0		0.0		0.8		0.7		0.4		0.3	Apr-09
<i>91 Day T-Bills</i>			0.0	--	0.0	--	0.0	--	1.0	--	1.1	--	0.6	--	0.5	Apr-09
Northern Inst Govt Select MMKT	11,223,307	53.5	0.0		0.0		0.0		0.5		0.4		0.2		0.2	Nov-09
<i>91 Day T-Bills</i>			0.0	--	0.0	--	0.0	--	1.0	--	1.1	--	0.6	--	0.5	Nov-09
Bank of Ann Arbor Trust Cash	0	0.0	0.0		0.0		0.0		0.9		0.7		0.3		0.3	Nov-09
<i>91 Day T-Bills</i>			0.0	--	0.0	--	0.0	--	1.0	--	1.1	--	0.6	--	0.5	Nov-09
Long Term Investment Pool	9,762,042	46.5	-0.9		6.1		16.6		7.5		7.1		6.8		6.0	Apr-09
<i>Long Term Allocation Index</i>			-1.2	--	5.9	--	17.0	--	10.9	--	9.4	--	--	--	--	Apr-09
<i>Long Term Balanced Index</i>			-0.4	--	5.6	--	14.2	--	9.1	--	8.3	--	7.2	--	6.4	Apr-09
Total Equity	5,270,284	25.1	-1.7	74	9.5	73	25.6	69	11.1	60	11.6	60	--	--	9.5	Jan-14
<i>MSCI ACWI</i>			-1.1	62	11.1	57	27.4	57	12.6	50	13.2	48	11.9	52	9.5	Jan-14
<i>eV All Global Equity Net Median</i>			-0.6		11.9		28.3		12.5		13.0		12.0		9.4	Jan-14
SEG Baxter	1,324,310	6.3	-2.0	59	4.1	84	18.2	88	12.1	40	--	--	--	--	10.7	Jul-17
<i>MSCI ACWI ex USA</i>			-3.0	78	5.9	72	23.9	64	8.0	70	8.9	72	7.5	85	7.5	Jul-17
<i>eV All ACWI ex-US Equity Net Median</i>			-1.7		8.1		26.3		10.7		11.1		9.9		10.1	Jul-17
Acadian Emerging Markets Equity	847,093	4.0	-5.9	37	7.4	27	28.4	30	9.5	51	9.9	43	--	--	5.9	Oct-14
<i>MSCI Emerging Markets</i>			-8.1	65	-1.2	67	18.2	67	8.6	63	9.2	54	6.1	70	5.6	Oct-14
<i>eV Emg Mkts Equity Net Median</i>			-6.8		1.5		21.4		9.6		9.5		6.6		6.1	Oct-14
Vanguard Total Stock Market VIPERs - VTI	3,098,881	14.8	-0.3	48	14.1	62	30.4	67	15.0	39	--	--	--	--	16.3	Nov-16
<i>Russell 3000</i>			-0.1	42	15.0	55	31.9	61	16.0	34	16.9	33	16.6	29	16.9	Nov-16
<i>eV All US Equity Net Median</i>			-0.5		15.5		35.3		13.1		14.5		15.0		14.2	Nov-16

-Allocation Index: Used to measure the value add from active management. Calculated as the asset weight from the prior month end multiplied by the specified market index.

-Long-Term Balanced Index: (54% - MSCI ACWI)(30% - Bloomberg Aggregate)(5% - Bloomberg US TIPS TR)(5% - Bloomberg US Treasury TR)(6% - PIMCO All Asset Index) as of 3/1/2021.

-PIMCO All Asset Index: (40% - Bloomberg Aggregate)(30% - Bloomberg US TIPS 1-10 Yr)(10% - S&P 500)(10% - Bloomberg High Yield)(10% - JP Morgan EMBI+).



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TOTAL FUND PERFORMANCE DETAIL

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fixed	3,920,910	18.7	0.2	35	-0.2	48	2.0	65	4.2	76	3.7	56	--	--	3.3	Jan-14
<i>Bloomberg US Aggregate TR</i>			0.1	43	-1.6	62	-0.9	86	5.4	54	2.9	71	3.0	67	3.5	Jan-14
<i>eV All Global Fixed Inc Net Median</i>			-0.1		-0.5		3.6		5.5		4.1		3.9		3.8	Jan-14
BlackRock Strategic Income Opportunities Fund - BSIX	953,139	4.5	-0.1	87	1.2	5	5.3	2	5.4	90	4.4	15	--	--	3.5	Oct-14
<i>Bloomberg US Aggregate TR</i>			0.1	78	-1.6	95	-0.9	99	5.4	91	2.9	98	3.0	99	3.3	Oct-14
<i>eV US Core Plus Fixed Inc Net Median</i>			0.1		-0.4		1.5		6.1		3.9		4.2		3.9	Oct-14
Baird Core Bond - BAGIX	1,923,292	9.2	0.1	28	-1.4	53	-0.3	50	6.0	28	3.5	31	--	--	3.6	Dec-14
<i>Bloomberg US Aggregate TR</i>			0.1	42	-1.6	67	-0.9	71	5.4	78	2.9	80	3.0	83	3.1	Dec-14
<i>eV US Core Fixed Inc Net Median</i>			0.0		-1.3		-0.3		5.7		3.2		3.4		3.3	Dec-14
Vanguard Intermediate-Term Treasury ETF - VGIT	755,608	3.6	-0.4	99	--	--	--	--	--	--	--	--	--	--	-0.3	Jun-21
<i>Bloomberg US Treasury TR</i>			0.1	23	-2.5	99	-3.3	99	4.9	31	2.2	90	2.2	89	0.7	Jun-21
<i>eV US Interm Duration Fixed Inc Net Median</i>			0.0		-0.7		0.0		4.6		2.7		2.7		0.2	Jun-21
Fidelity Inflation-Protected Bond Index Fund - FIPDX	189,073	0.9	1.8	32	--	--	--	--	--	--	--	--	--	--	2.5	Jun-21
<i>Bloomberg US TIPS TR</i>			1.8	33	3.5	50	5.2	67	7.4	36	4.3	64	3.1	50	2.4	Jun-21
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>			1.6		3.5		5.3		7.2		4.6		3.1		2.2	Jun-21
US Treasury	99,797	0.5														
GAA/ Risk Parity	570,848	2.7	-0.6	43	2.6	77	9.2	80	-0.5	99	0.1	97	--	--	-0.1	Dec-14
<i>60% MSCI World (Net) / 40% FTSE WGBI</i>			-0.5	38	5.1	57	15.1	49	9.7	17	8.9	21	8.1	32	7.2	Dec-14
<i>eV Global TAA Net Median</i>			-0.8		5.6		14.8		7.2		6.9		6.8		5.3	Dec-14
PIMCO All Asset - PAAIX	570,848	2.7	-0.6	43	--	--	--	--	--	--	--	--	--	--	0.1	Jun-21
<i>PIMCO All Asset Index</i>			0.6	10	2.1	77	5.4	89	7.0	55	5.0	67	4.9	78	1.3	Jun-21
<i>eV Global TAA Net Median</i>			-0.8		5.6		14.8		7.2		6.9		6.8		-0.7	Jun-21



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TOTAL FUND ASSET GROWTH SUMMARY

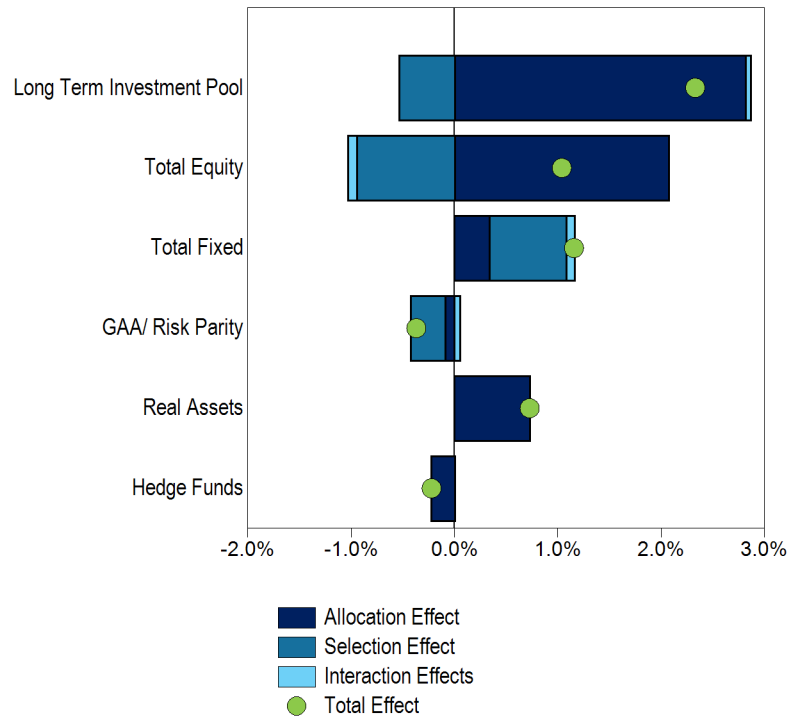
	Quarter Ending September 30, 2021					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$900,405	\$0	-\$1,643	-\$1,643	-\$51,669	\$847,093
Baird Core Bond - BAGIX	\$1,921,241	\$0	\$0	\$0	\$2,052	\$1,923,292
Bank of Ann Arbor Trust Cash	\$0	\$0	\$0	\$0	\$0	\$0
BlackRock Strategic Income Opportunities Fund - BSIX	\$953,838	\$0	\$0	\$0	-\$699	\$953,139
Fidelity Inflation-Protected Bond Index Fund - FIPDX	\$400,138	\$0	-\$218,000	-\$218,000	\$6,935	\$189,073
Northern Inst Govt Select MMKT	\$11,212,389	\$370,233	-\$360,163	\$10,070	\$849	\$11,223,307
PIMCO All Asset - PAAIX	\$574,250	\$0	\$0	\$0	-\$3,402	\$570,848
SEG Baxter	\$2,276,797	\$0	-\$925,000	-\$925,000	-\$27,488	\$1,324,310
US Treasury	\$99,668	\$0	\$0	\$0	\$130	\$99,797
Vanguard Intermediate-Term Treasury ETF - VGIT	\$398,587	\$358,549	\$0	\$358,549	-\$1,528	\$755,608
Vanguard Total Stock Market VIPERs - VTI	\$3,250,498	\$0	-\$140,530	-\$140,530	-\$11,087	\$3,098,881
Z Terminated - AQR Global Market and Alternative Premia Offshore Fund	\$61,341	\$0	-\$61,341	-\$61,341	\$0	--
Total	\$22,049,152	\$728,782	-\$1,706,678	-\$977,896	-\$85,907	\$20,985,349



Eastern Michigan University - Board of Regents

LONG TERM INVESTMENT POOL

Attribution Effects 1 Year Ending September 30, 2021



Attribution Summary 1 Year Ending September 30, 2021							
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Equity	25.6%	27.4%	-1.8%	-1.0%	2.1%	-0.1%	1.0%
Total Fixed	2.0%	-0.4%	2.4%	0.7%	0.3%	0.1%	1.2%
GAA/ Risk Parity	9.2%	12.6%	-3.4%	-0.3%	-0.1%	0.0%	-0.4%
Real Assets	--	--	--	--	0.7%	--	--
Hedge Funds	--	--	--	--	-0.2%	--	--
Total	16.5%	14.2%	2.3%	-0.5%	2.8%	0.0%	2.3%



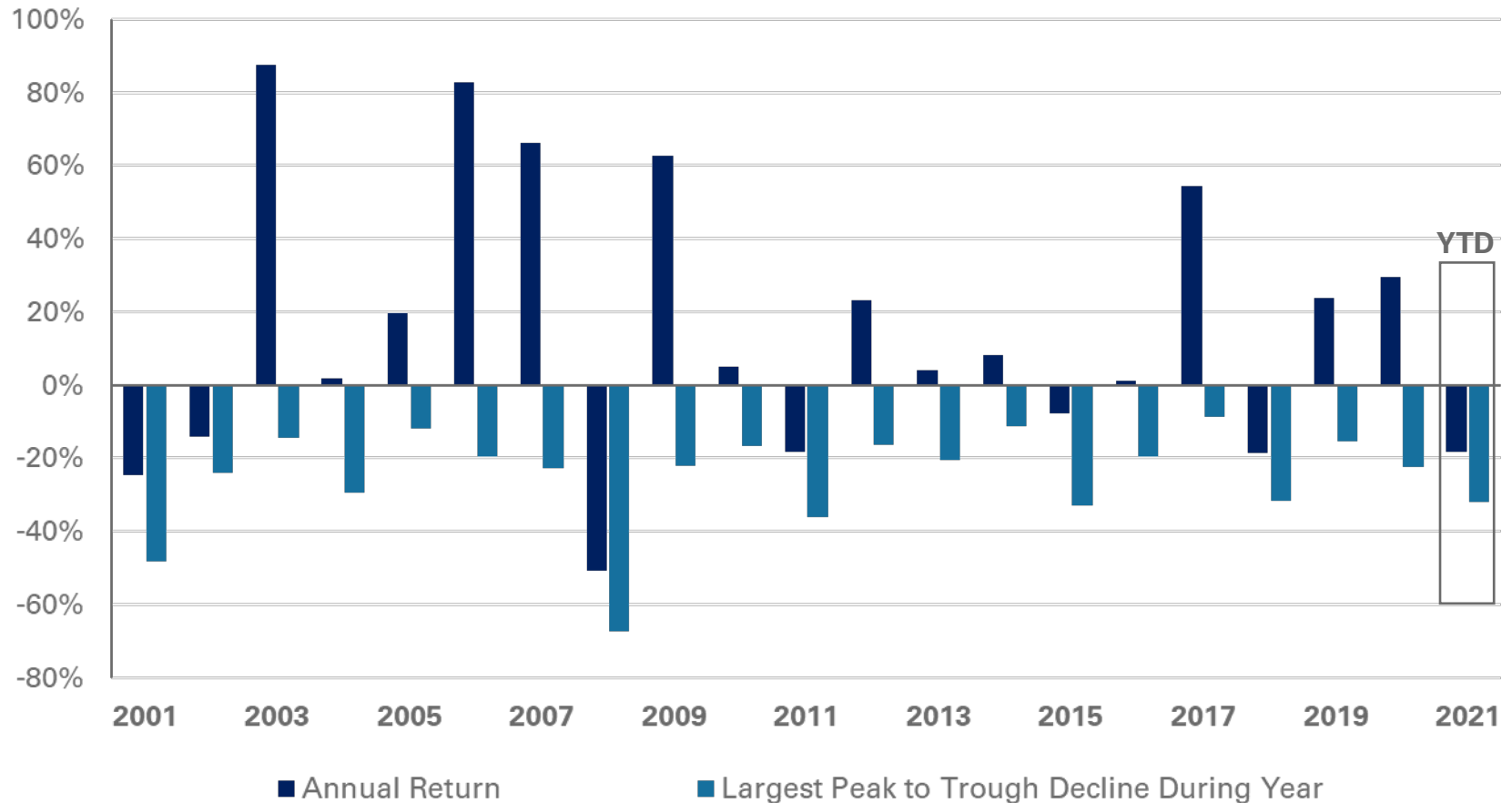


APPENDIX



CHINESE EQUITIES HAVE BEEN VOLATILE

HISTORICALLY HAVE BEEN COMPENSATED FOR THE VOLATILITY



Notes: Represents annual percentage returns of the MSCI China Index; 2021 reflects pricing through 09/30/2021
Source: MSCI, FactSet, NEPC



DUE DILIGENCE MONITOR

NEPC Due Diligence Status Key

No Action	Informational items have surfaced; no action is recommended.
Watch	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
Hold	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.

NEPC Due Diligence Rating Key

1	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
2	NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating.
3	A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager's viability.
4	The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths.
5	A strategy that lacks an investment thesis or NEPC has no confidence in the manager's ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products.
NR	Due diligence has not been sufficiently completed on the product or manager.

DISCLAIMERS

Past performance is no guarantee of future results.

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