Vanguard

Prepared for

Episcopal Foundation of Dallas

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Agenda

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VIAS business update

Why change

Evolving and increasingly complex demands

The need for increasingly tailored and focused support

Advancement of investment and technology platforms

Why Mercer—Propelling success

What won't change

Client-centric focus

Investment approach

Access to Vanguard funds

Vanguard team's expertise

Building on success

More boots on the ground—depth and breadth of resources

Access to 200+ dedicated investment manager research professionals covering 6,700 managers and more than 36,000 investment strategies

Access to Mercer's robust alternatives platform with $30B in AUM

Performance review

Portfolio monthly snapshot

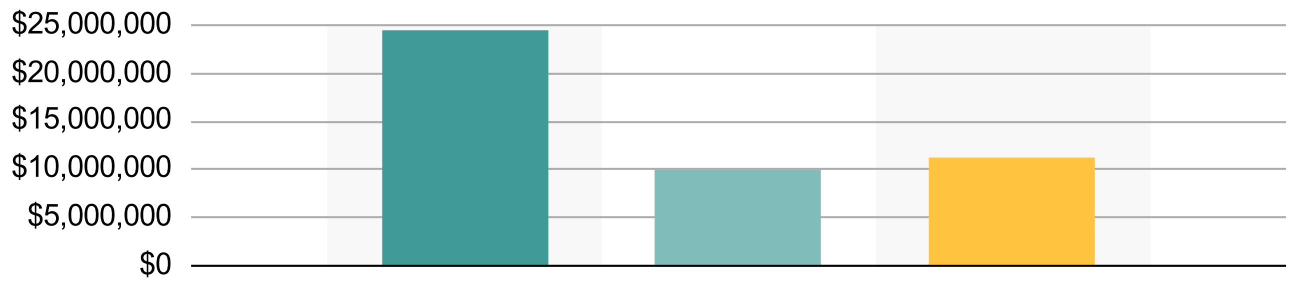
Episcopal Foundation of Dallas

As of December 31, 2023

Cash flow and market activity by portfolio

	One Month	Year-to-Date	One Year
Beginning Market Value	$43,624,773.23	$40,039,111.59	$40,039,111.59
Net Cash Flow	-$272,616.28	-$1,486,673.54	-$1,486,673.54
Net Capital Appreciation	$1,697,014.93	$5,915,965.78	$5,915,965.78
Investment Income	$385,419.39	$966,187.44	$966,187.44
Ending Market Value	**$45,434,591.27**	**$45,434,591.27**	**$45,434,591.27**

Current asset allocation by sub-asset class



	U.S. Equity	Non-U.S. Equity	U.S. Fixed Income
Current	$24,293,815	$9,902,439	$11,238,337
Current %	53.47%	21.79%	24.74%
Policy %	53.00%	22.00%	25.00%
Difference	0.47%	-0.21%	-0.26%

Performance summary

	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Client portfolio (gross)	4.77	9.91	17.66	17.66	4.06	9.91	-	7.66	06/30/15
Client portfolio (net)	4.77	9.85	17.51	17.51	3.94	9.79	-	7.54	06/30/15
Policy benchmark	4.90	10.27	18.47	18.47	3.85	9.39	-	7.30	06/30/15

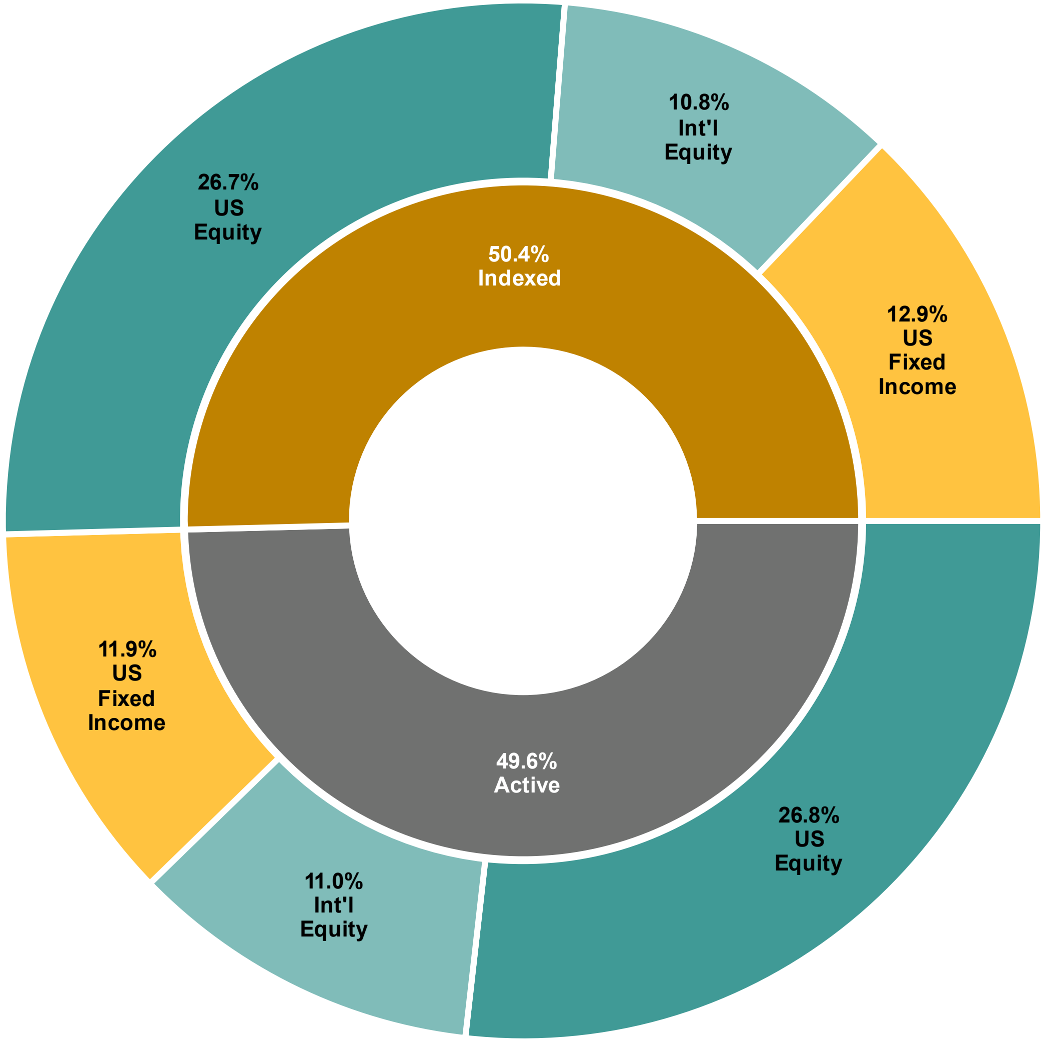
Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark represents. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. **Past performance is not a guarantee of future results.** Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Portfolio allocation snapshot–active and indexed

Episcopal Foundation of Dallas

As of December 31, 2023

Active/Index allocation



Sub-asset classes and manager styles

Active/Index	Sub-asset class	Manager style	
Active	US Equity	Large Growth	13.4%
Active	US Equity	Large Value	13.4%
Active	Int'l Equity	Foreign Large Growth	5.6%
Active	Int'l Equity	Foreign Large Value	5.4%
Active	US Fixed Income	Intermediate-Term Investment Grade	8.0%
Active	US Fixed Income	Short-Term Investment Grade	3.9%
Index	US Equity	Large Blend	26.7%
Index	Int'l Equity	Foreign Large Blend	10.8%
Index	US Fixed Income	Intermediate-Term Government	12.9%

The Active/Indexed allocation percentages represent the client's current allocations to the total portfolio. **Neither asset allocation or diversification can guarantee a profit or prevent loss.**

Performance summary

Episcopal Foundation of Dallas

For the periods ended December 31, 2023

	Mkt value ($)	% of portfolio	Policy benchmark	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Client portfolio (gross)	45,434,591	100.0	100.0	4.77	9.91	17.66	17.66	4.06	9.91	-	7.66	06/30/15
Client portfolio (net)				4.77	9.85	17.51	17.51	3.94	9.79	-	7.54	06/30/15
Policy benchmark				4.90	10.27	18.47	18.47	3.85	9.39	-	7.30	06/30/15
Equity	**34,196,254**	**75.3**	**75.0**	**5.19**	**11.00**	**21.46**	**21.46**	**6.16**	**12.61**	**-**	**9.42**	**06/30/15**
Equity - Policy benchmark				5.28	11.44	22.94	22.94	5.93	12.10	-	9.04	06/30/15
Domestic Equity	**24,293,815**	**53.5**	**53.0**	**5.25**	**11.33**	**23.78**	**23.78**	**9.86**	**15.02**	**-**	**11.68**	**06/30/15**
International Equity	**9,902,439**	**21.8**	**22.0**	**5.03**	**10.17**	**15.55**	**15.55**	**-0.04**	**8.49**	**-**	**5.73**	**06/30/15**
Fixed Income	**11,238,337**	**24.7**	**25.0**	**3.52**	**6.74**	**6.73**	**6.73**	**-2.53**	**1.51**	**-**	**1.86**	**06/30/15**
Fixed Income - Policy benchmark				3.75	6.72	5.60	5.60	-3.06	1.16	-	1.66	06/30/15
Domestic Fixed Income	**11,238,337**	**24.7**	**25.0**	**3.52**	**6.74**	**6.73**	**6.73**	**-2.56**	**1.70**	**-**	**1.84**	**06/30/15**

Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark and asset-class benchmarks represent. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. All Returns greater than one year are annualized. **Past performance is not a guarantee of future results**. Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Unless otherwise noted, index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Performance summary–by securities

Episcopal Foundation of Dallas

For the periods ended December 31, 2023

	Mkt value ($)	% of portfolio	Policy benchmark	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Client portfolio (gross)	45,434,591	100.0	100.0	4.77	9.91	17.66	17.66	4.06	9.91	-	7.66	06/30/15
Client portfolio (net)				4.77	9.85	17.51	17.51	3.94	9.79	-	7.54	06/30/15
Policy benchmark				4.90	10.27	18.47	18.47	3.85	9.39	-	7.30	06/30/15
Equity	**34,196,254**	**75.3**	**75.0**	**5.19**	**11.00**	**21.46**	**21.46**	**6.16**	**12.61**	**-**	**9.42**	**06/30/15**
Equity - Policy benchmark				5.28	11.44	22.94	22.94	5.93	12.10	-	9.04	06/30/15
Domestic Equity	**24,293,815**	**53.5**	**53.0**	**5.25**	**11.33**	**23.78**	**23.78**	**9.86**	**15.02**	**-**	**11.68**	**06/30/15**
Domestic Equity - Policy benchmark				5.32	12.14	25.98	25.98	8.44	15.08	-	11.77	06/30/15
- **Vanguard Total Stock Market Index Fund Institutional Shares**	**12,130,980**	**26.7**	**-**	**5.32**	**12.17**	**26.02**	**26.02**	**8.44**	**15.08**	**-**	**11.77**	**06/30/15**
Spliced Total Stock Market Index				5.32	12.14	25.98	25.98	8.44	15.08	-	11.77	06/30/15
Multi-Cap Core Funds Average				5.46	11.47	21.01	21.01	7.16	12.83	-	9.25	06/30/15
- **Vanguard PRIMECAP Fund Admiral Shares**	**6,085,760**	**13.4**	**-**	**4.77**	**9.98**	**28.18**	**28.18**	**9.88**	**14.76**	**-**	**13.13**	**06/30/15**
S&P 500 Index				4.54	11.69	26.29	26.29	10.00	15.69	-	12.43	06/30/15
Multi-Cap Growth Funds Average				6.14	14.05	32.73	32.73	0.93	13.65	-	10.59	06/30/15
Russell 1000 Growth Index				4.43	14.16	42.68	42.68	8.86	19.50	-	15.49	06/30/15

Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark and asset-class benchmarks represent. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. All Returns greater than one year are annualized. **Past performance is not a guarantee of future results**. Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Unless otherwise noted, index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Performance summary–by securities (continued)

Episcopal Foundation of Dallas

For the periods ended December 31, 2023

	Mkt value ($)	% of portfolio	Policy benchmark	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
- **Vanguard Windsor Fund Admiral Shares**	**6,077,074**	**13.4**	**-**	**5.61**	**10.99**	**15.03**	**15.03**	**12.67**	**14.95**	**-**	**9.86**	**06/30/15**
Russell 1000 Value Index				5.54	9.50	11.46	11.46	8.86	10.91	-	8.41	06/30/15
Multi-Cap Value Funds Average				5.56	9.73	12.52	12.52	9.73	10.95	-	7.75	06/30/15
• **International Equity**	**9,902,439**	**21.8**	**22.0**	**5.03**	**10.17**	**15.55**	**15.55**	**-0.04**	**8.49**	**-**	**5.73**	**06/30/15**
International Equity - Policy benchmark				5.18	9.77	15.79	15.79	1.88	7.46	-	4.80	06/30/15
- **Vanguard Total International Stock Index Fund Institutional Shares**	**4,921,161**	**10.8**	**-**	**5.08**	**9.97**	**15.52**	**15.52**	**1.79**	**7.37**	**-**	**4.73**	**06/30/15**
Spliced Total International Stock Index				5.18	9.77	15.79	15.79	1.88	7.46	-	4.80	06/30/15
International Funds Average				5.02	10.06	16.40	16.40	1.66	7.70	-	4.49	06/30/15
- **Vanguard International Growth Fund Admiral Shares**	**2,532,121**	**5.6**	**-**	**4.77**	**11.37**	**14.81**	**14.81**	**-7.61**	**10.62**	**-**	**8.29**	**06/30/15**
Spliced International Index				5.02	9.75	15.62	15.62	1.70	7.18	-	4.57	06/30/15
International Funds Average				5.02	10.06	16.40	16.40	1.66	7.70	-	4.49	06/30/15
- **Vanguard International Value Fund**	**2,449,157**	**5.4**	**-**	**5.20**	**9.27**	**16.15**	**16.15**	**3.47**	**7.77**	**-**	**4.67**	**06/30/15**
Spliced International Index				5.02	9.75	15.62	15.62	1.70	7.18	-	4.57	06/30/15
International Funds Average				5.02	10.06	16.40	16.40	1.66	7.70	-	4.49	06/30/15

Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark and asset-class benchmarks represent. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. All Returns greater than one year are annualized. **Past performance is not a guarantee of future results**. Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Unless otherwise noted, index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Performance summary–by securities (continued)

Episcopal Foundation of Dallas

For the periods ended December 31, 2023

	Mkt value ($)	% of portfolio	Policy benchmark	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Fixed Income	**11,238,337**	**24.7**	**25.0**	**3.52**	**6.74**	**6.73**	**6.73**	**-2.53**	**1.51**	**-**	**1.86**	**06/30/15**
Fixed Income - Policy benchmark				3.75	6.72	5.60	5.60	-3.06	1.16	-	1.66	06/30/15
Domestic Fixed Income	**11,238,337**	**24.7**	**25.0**	**3.52**	**6.74**	**6.73**	**6.73**	**-2.56**	**1.70**	**-**	**1.84**	**06/30/15**
Domestic Fixed Income - Policy benchmark				3.75	6.72	5.60	5.60	-3.33	1.17	-	1.49	06/30/15
Vanguard Total Bond Market Index Fund Institutional Shares	**5,852,513**	**12.9**	**-**	**3.70**	**6.69**	**5.72**	**5.72**	**-**	**-**	**-**	**-3.89**	**10/31/21**
Spliced Bloomberg U.S. Aggregate Float Adjusted Index				3.75	6.72	5.60	5.60	-	-	-	-3.85	10/31/21
Spliced Intermediate Investment-Grade Debt Funds Average				3.80	6.73	5.87	5.87	-	-	-	-4.04	10/31/21
Vanguard Intermediate-Term Investment-Grade Fund Admiral Shares	**3,618,186**	**8.0**	**-**	**4.07**	**8.20**	**8.61**	**8.61**	**-2.51**	**2.48**	**-**	**2.47**	**06/30/15**
Bloomberg U.S. 5-10 Year Credit Bond Index				4.16	8.20	8.47	8.47	-2.70	2.81	-	2.74	06/30/15
Spliced Core Bond Funds Average				3.80	6.73	5.87	5.87	-3.32	1.23	-	1.40	06/30/15
Vanguard Short-Term Investment-Grade Fund Admiral Shares	**1,767,638**	**3.9**	**-**	**1.79**	**3.95**	**6.17**	**6.17**	**-0.09**	**2.13**	**-**	**1.96**	**06/30/15**
Bloomberg U.S. 1-5 Year Credit Bond Index				1.81	3.96	5.94	5.94	-0.17	2.21	-	2.01	06/30/15
1-5 Year Investment-Grade Debt Funds Average				1.35	2.93	5.42	5.42	-0.69	1.31	-	1.27	06/30/15

Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark and asset-class benchmarks represent. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. All Returns greater than one year are annualized. **Past performance is not a guarantee of future results**. Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Unless otherwise noted, index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Investment expense summary

Episcopal Foundation of Dallas

As of December 31, 2023

	Market value	% of portfolio	Expense ratio	Estimated expense
Total Equity	**$34,196,254.21**	**75.3%**		**$60,614.26**
Domestic Equity	**$24,293,815.02**	**53.5%**		**$39,520.96**
Vanguard Total Stock Market Index Fund Institutional Shares	$12,130,980.21	26.7%	0.030%	$3,639.29
Vanguard PRIMECAP Fund Admiral Shares	$6,085,760.36	13.4%	0.310%	$18,865.86
Vanguard Windsor Fund Admiral Shares	$6,077,074.44	13.4%	0.280%	$17,015.81
International Equity	**$9,902,439.18**	**21.8%**		**$21,093.30**
Vanguard Total International Stock Index Fund Institutional Shares	$4,921,160.93	10.8%	0.080%	$3,936.93
Vanguard International Growth Fund Admiral Shares	$2,532,121.30	5.6%	0.310%	$7,849.58
Vanguard International Value Fund	$2,449,156.96	5.4%	0.380%	$9,306.80
Total Fixed Income	**$11,238,337.06**	**24.7%**		**$7,434.20**
Domestic Fixed Income	**$11,238,337.06**	**24.7%**		**$7,434.20**
Vanguard Total Bond Market Index Fund Institutional Shares	$5,852,513.38	12.9%	0.035%	$2,048.38
Vanguard Intermediate-Term Investment-Grade Fund Admiral Shares	$3,618,186.03	8.0%	0.100%	$3,618.19
Vanguard Short-Term Investment-Grade Fund Admiral Shares	$1,767,637.66	3.9%	0.100%	$1,767.64
Total	$45,434,591.27	100.0%	0.150%	$68,048.46

Estimated annual investment expenses are shown for public/liquid investments held in the portfolio. If any non-public/illiquid investments are held in the portfolio then they will be excluded due to the variability of fees inherent in that space. Estimated annual investment expenses are forward looking and can be subject to change. Advisory fees paid by the portfolio for all investments held are captured in the Cash flow and market value summary report.

Benchmark performance summary

Episcopal Foundation of Dallas

For the periods ended December 31, 2023

	Dec-23 (%)	3 mon (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)
Domestic Equity						
CRSP U.S. Total Market Index	5.32	12.14	25.98	8.44	15.08	11.44
Russell 1000 Growth Index	4.43	14.16	42.68	8.86	19.50	14.86
Russell 1000 Value Index	5.54	9.50	11.46	8.86	10.91	8.40
S&P 500 Index	4.54	11.69	26.29	10.00	15.69	12.03
S&P MidCap 400 Index	8.72	11.67	16.44	8.09	12.62	9.27
S&P SmallCap 600 Index	12.80	15.12	16.05	7.28	11.03	8.66
International Equity						
MSCI ACWI ex USA IMI Index Net	5.21	9.81	15.62	1.66	7.27	4.01
MSCI EAFE Index	5.31	10.42	18.24	4.22	8.29	4.34
Spliced Emerging Markets Index	3.56	6.77	9.55	-2.87	4.97	3.14
Global Equity						
Spliced Total World Stock Index	5.19	11.16	22.03	5.82	11.89	8.17
Domestic Fixed Income						
Bloomberg U.S. 0-5 Year Treasury Inflation Protected Securities Index	1.15	2.60	4.57	2.32	3.37	1.98
Bloomberg U.S. 5-10 Year Corporate Bond Index	4.24	8.44	8.84	-2.64	2.97	3.22
Bloomberg U.S. Aggregate Float Adjusted Index	3.75	6.72	5.60	-3.33	1.17	1.83
Bloomberg U.S. Corporate High Yield Bond Index	3.73	7.16	13.44	1.98	5.37	4.60
Bloomberg U.S. Long Government/Credit Float Adjusted Index	7.90	13.24	7.13	-8.69	1.12	3.22
Bloomberg U.S. Treasury Inflation Protected Securities Index	2.69	4.71	3.90	-1.00	3.15	2.42
Bloomberg U.S. Treasury Strips 20-30 Year Equal Par Bond Index	12.67	18.53	1.09	-16.70	-2.94	2.81
Spliced Bloomberg U.S. Long Treasury Index in USD	8.61	12.70	3.06	-11.41	-1.24	2.27

Source: Vanguard. **Past performance is no guarantee of future results**. Indexes are unmanaged; direct investment is not possible. Unless otherwise indicated, benchmark returns are shown do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains and interest. **Please read additional information in Benchmark and Disclosures sections.**

Benchmark performance summary (continued)

Episcopal Foundation of Dallas

For the periods ended December 31, 2023

	Dec-23 (%)	3 mon (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)
International Fixed Income						
Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index Hedged	3.21	6.38	8.75	-2.41	1.02	2.59
Bloomberg USD Emerging Markets Government RIC Capped Index	5.01	9.79	10.46	-3.47	1.65	3.03
Global Fixed Income						
Bloomberg Global Aggregate Bond Index	3.20	5.99	7.15	-5.63	-0.39	0.34
Bloomberg Global Aggregate Bond Index Hedged in USD	3.20	5.99	7.15	-2.11	1.40	2.41
Domestic Real Estate						
Real Estate Spliced Index	9.40	18.18	11.96	5.15	7.44	7.47

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Portfolio monthly snapshot

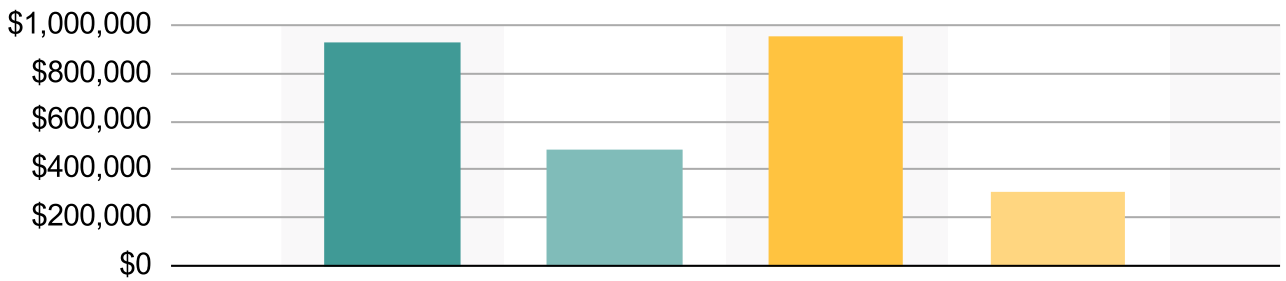
Episcopal Foundation of Dallas - SJES Operating Reserves

As of December 31, 2023

Cash flow and market activity by portfolio

	One Month	Year-to-Date	One Year
Beginning Market Value	$2,540,733.00	$2,340,292.58	$2,340,292.58
Net Cash Flow	$0.00	-$16,641.76	-$16,641.76
Net Capital Appreciation	$84,928.49	$257,491.99	$257,491.99
Investment Income	$25,680.29	$70,198.97	$70,198.97
Ending Market Value	**$2,651,341.78**	**$2,651,341.78**	**$2,651,341.78**

Current asset allocation by sub-asset class



	U.S. Equity	Non-U.S. Equity	U.S. Fixed Income	Non-U.S. Fixed Income
Current	$923,524	$479,338	$948,016	$300,464
Current %	34.83%	18.08%	35.76%	11.33%
Policy %	31.00%	19.00%	38.00%	12.00%
Difference	3.83%	-0.92%	-2.24%	-0.67%

Performance summary

	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Client portfolio (gross)	4.35	8.89	14.06	14.06	-	-	-	-0.51	07/31/21
Client portfolio (net)	4.35	8.84	13.91	13.91	-	-	-	-0.62	07/31/21
Policy benchmark	4.44	8.96	14.09	14.09	-	-	-	-0.68	07/31/21

Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark represents. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. **Past performance is not a guarantee of future results.** Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Portfolio monthly snapshot

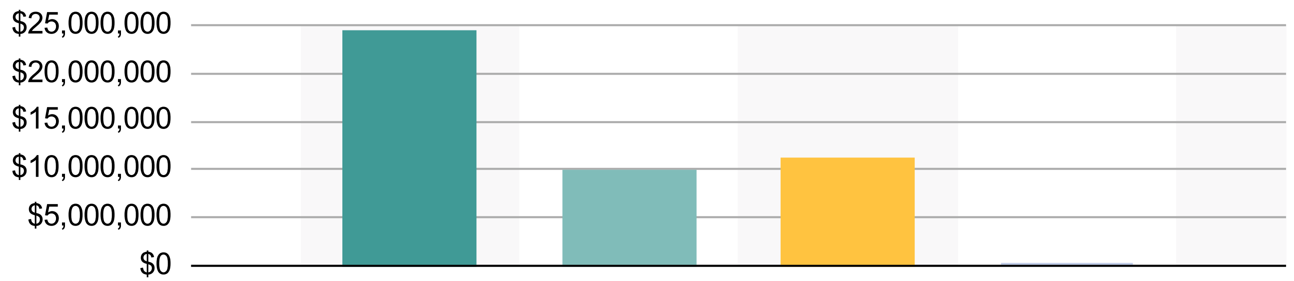
Episcopal Foundation of Dallas Consolidated

As of December 31, 2023

Cash flow and market activity by portfolio

	One Month	Year-to-Date	One Year
Beginning Market Value	$43,624,774.23	$40,039,111.59	$40,039,111.59
Net Cash Flow	-$272,616.28	-$1,486,673.54	-$1,486,673.54
Net Capital Appreciation	$1,697,014.93	$5,915,965.78	$5,915,965.78
Investment Income	$385,419.39	$966,187.44	$966,187.44
Ending Market Value	**$45,434,592.27**	**$45,434,592.27**	**$45,434,592.27**

Current asset allocation by sub-asset class



	U.S. Equity	Non-U.S. Equity	U.S. Fixed Income	
Current	$24,293,815	$9,902,439	$11,238,337	$0
Current %	53.47%	21.79%	24.74%	0.00%
Policy %	53.00%	22.00%	25.00%	0.00%
Difference	0.47%	-0.21%	-0.26%	0.00%

Performance summary

	1 mo (%)	3 mo (%)	YTD (%)	1 yr (%)	3 yrs (%)	5 yrs (%)	10 yrs (%)	Since inception	Inception date
Client portfolio (gross)	4.77	9.91	17.66	17.66	4.06	9.91	7.36	8.09	12/31/09
Client portfolio (net)	4.77	9.85	17.51	17.51	3.94	9.67	7.02	7.84	12/31/09
Policy benchmark	4.90	10.27	18.47	18.47	3.85	9.39	7.01	8.31	12/31/09

Source: Vanguard. See Benchmark allocation history for description of what the policy benchmark represents. Policy Benchmark is rebalanced monthly. Portfolio is generally rebalanced quarterly, but may vary. **Past performance is not a guarantee of future results.** Diversification and asset allocation can not ensure profit or prevent loss. All returns shown are time-weighted (TWR). Gross Portfolio returns include the deduction of all underlying fund expense ratios, but are gross of advisory, service fees, and purchase/redemption fees applied to the client portfolio. Net Portfolio returns are net of all advisory and security-level fees and expenses. Both Gross and Net returns do reflect the reinvestment of dividends, capital gains, and interest but do not reflect the deduction of taxes. Had those expenses been deducted then performance would have been lower. Indexes are unmanaged; therefore direct investment is not possible. Index returns do not reflect deduction of fees and expenses but do reflect reinvestment of dividends, capital gains, and interest. **Read additional information in Benchmark and Disclosures sections.**

Episcopal Foundation of Dallas - Aggregated Performance Summary *as-of December 31, 2023*								
	Market Value*	Portfolio Allocation	Three-Month	Year-to-Date	One-Year	Three-Year	Five-Year	Since Inception
Vanguard	$45,434,591	100.00%	9.85%	17.51%	17.51%	3.94%	9.79%	7.54%
Vanguard Composite Benchmark			10.27%	18.47%	18.47%	3.85%	9.39%	7.30%
Aggregate Portfolio (net of EFD fee)*	**$45,434,591**	**100.00%**	**9.70%**	**16.86%**	**16.86%**	**3.36%**	**9.34%**	**10.46%**
Aggregate Composite Benchmark*			**10.27%**	**18.47%**	**18.47%**	**3.85%**	**9.39%**	**8.31%**

Notes: Return data achieved before February 2016 provided by client. All returns are net of fund-level fees and the Vanguard advisory fee. Aggregate portfolio returns are net of the EFD administrative fee. Vanguard Composite provides a comparison for Vanguard portfolio return and constitutes 42% Spliced Total Stock Market Index/28% Spliced Total International Stock Index/18% Spliced Barclays U.S. Agg Flt-Adj. Index/6% Barclays GA ex-USD Flt-Adj. RIC Capped Index Hedged/6% REIT Spliced Index and has been calculated as-of September 30, 2023. Performance effective date for Vanguard Composite as-of December 31, 2015. Aggregate Composite provides a comparison for Episcopal Foundation of Dallas portfolio and constitutes a weighted average of the Vanguard Composite and HFRI Fund of Funds Composite. Since inception date is January 1, 2010.

**Aggregate portfolio performance and Aggregate composite performance include hedge fund and HFRI performance, respectively, through February 29, 2016 for the Five-Year and Since Inception time periods.*

VIAS advisory fee schedule

Fee schedule

Asset level

First $25m	0.25%
Next $25m	0.10%
Next $50M	0.09%

All-in fee review

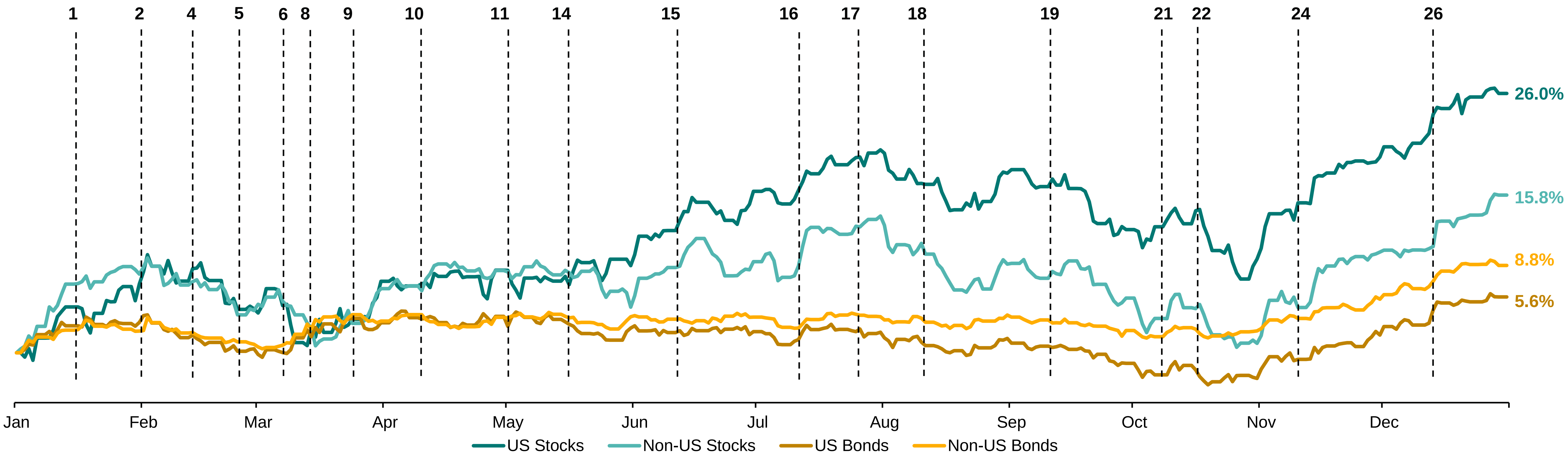
Advisory fee*	0.178%	$85,586
Fund expense ratio estimates	0.148%	$71,167
Approximate all-in fees	**0.326%**	**$156,753**

Notes:

*Estimated advisory fee and expense ratio based on assets as of 12/31/2023 of $48,085,933.

2023 year in review

2023 Performance and notable events



1) December inflation announced 6.4% (1/12)
2) Fed raises rate by 25 bps (2/1)
3) Spy Balloons Over the U.S. (2/3)
4) January inflation announced 6.0% (2/14)
5) 1-Year Anniversary of Russia-Ukraine War (2/24)
6) Silicon Valley Bank Failure (3/10)
7) Signature Bank Failure (3/12)
8) ChatGPT-4 is launched by OpenAI & February inflation announced 5.0% (3/14)
9) Fed raises rate by 25 bps (3/22)
10) March inflation announced 4.9% (4/12)
11) First Republic Bank Failure (5/1)
12) Writer's Strike Begins (5/2)
13) Fed raises rate by 25 bps (5/3)
14) April inflation announced 4.0% (5/10)
15) May inflation announced 3.0% (6/13)
16) July inflation announced 3.2% (7/12)
17) Fed raises rate by 25 bps (7/26)
18) July inflation announced 3.7% (8/10)
19) August inflation announced 3.7% (9/13)
20) UAW Strike Begins (9/15)
21) U.S. Federal Government averts shutdown (9/30)
22) Hamas attack on Israel (10/7)
23) September inflation announced 3.2% (10/12)
24) October inflation announced 3.2% (11/14)
25) U.S. Federal Government averts shutdown (11/16)
26) November inflation announced 3.1% (12/12)
27) Fed held rates steady and signaled cuts in 2024 (12/13)

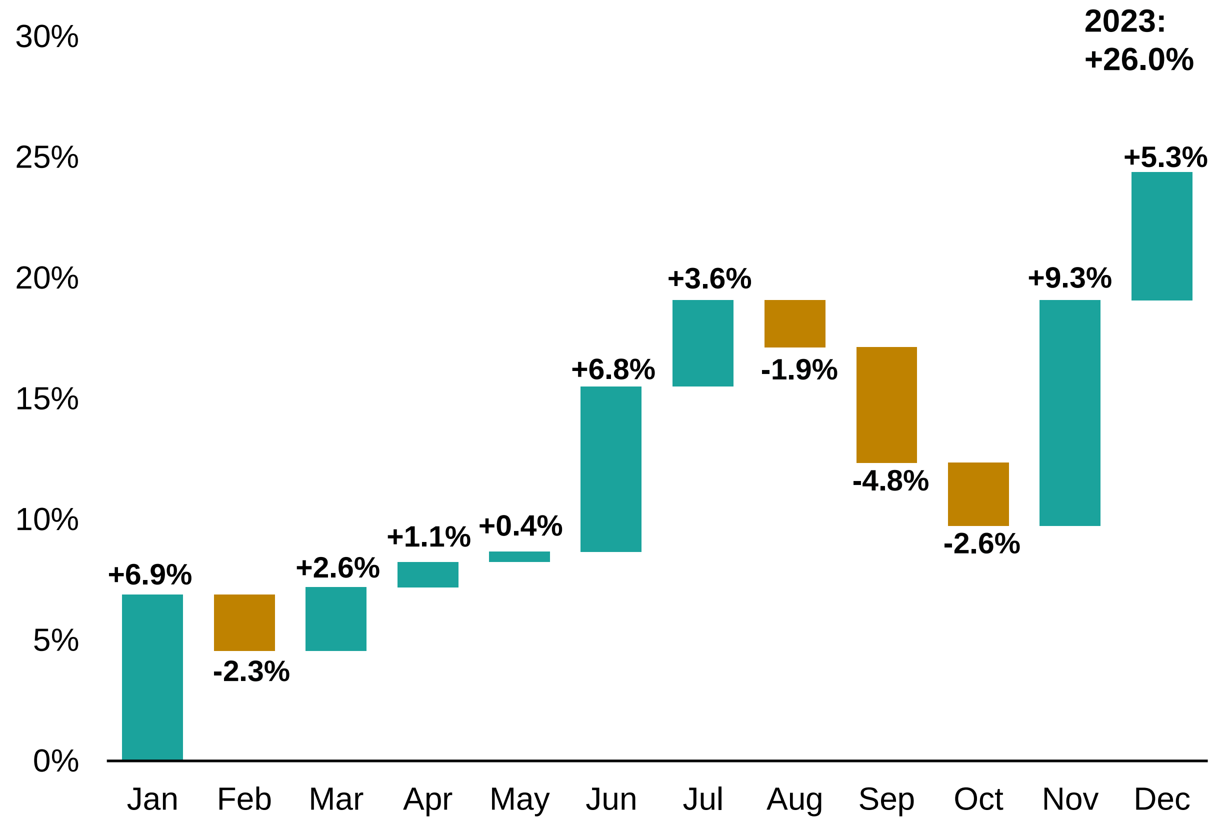
Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Vanguard. Data based on daily returns from 12/31/2022 - 12/31/2023. 2023 Total Returns in parentheses. Note: Inflation represent the 12-month percentage change to the Headline Consumer Price Index (CPI) as reported by the U.S. Bureau of Labor Statistics. US Stocks (CRSP US Total Market), Non-US Stocks (FTSE Global All-Cap ex-US), US Bonds (Barclays US Aggregate Float-adjusted Bond Index), Non-US Bonds (Bloomberg Global Aggregate ex-USD Float Adjusted RIC Cap Hedged).

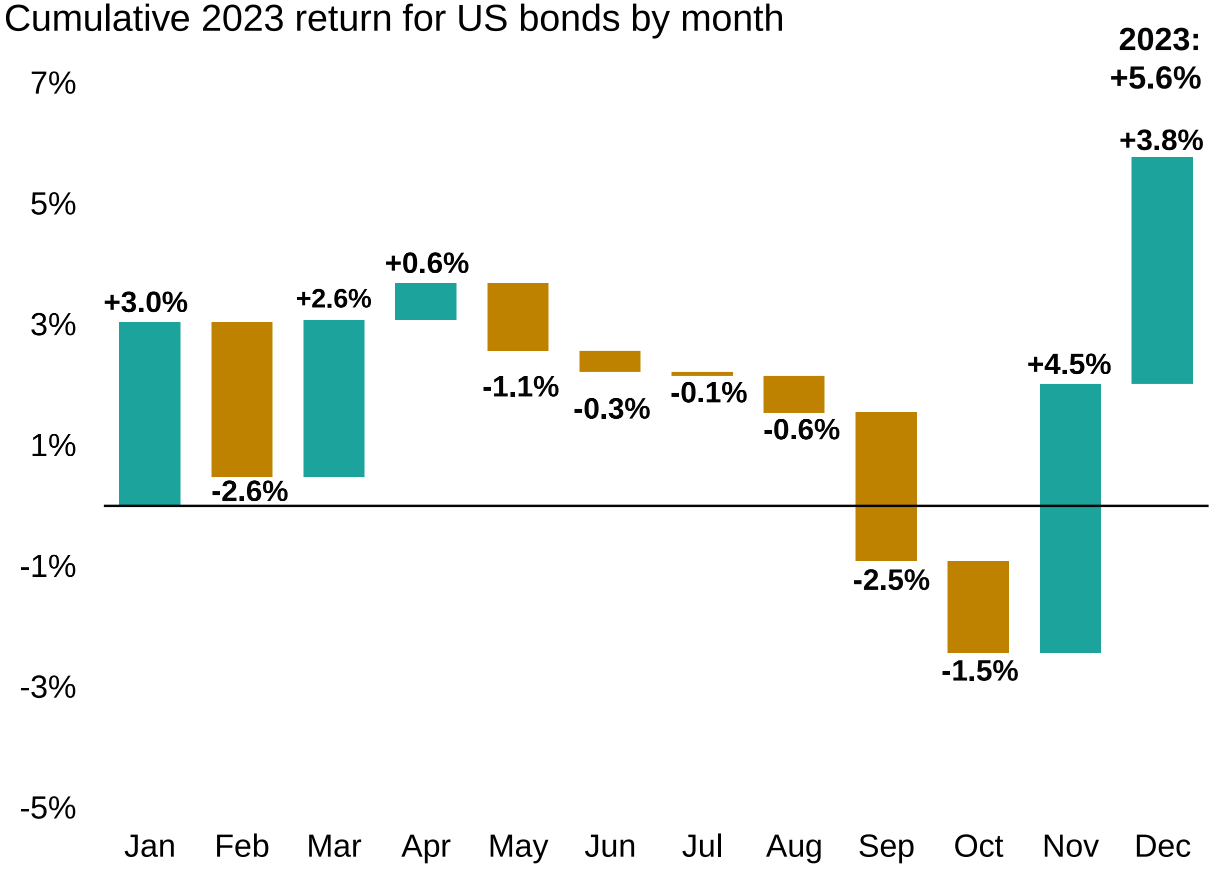
Slide ID #: S072658 Tracking #: 3322699 Expiration date: 7/11/2025

Roller coaster of a year ending with an incredible rally during the fourth quarter

Cumulative 2023 return for US stocks by month



Cumulative 2023 return for US bonds by month



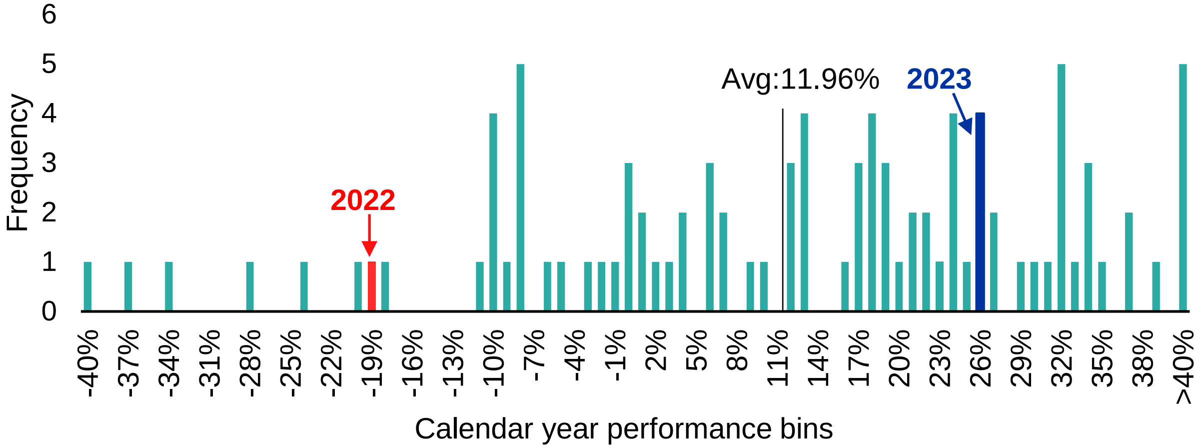
The performance data shown represent past performance, which is not a guarantee of future results. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Vanguard.

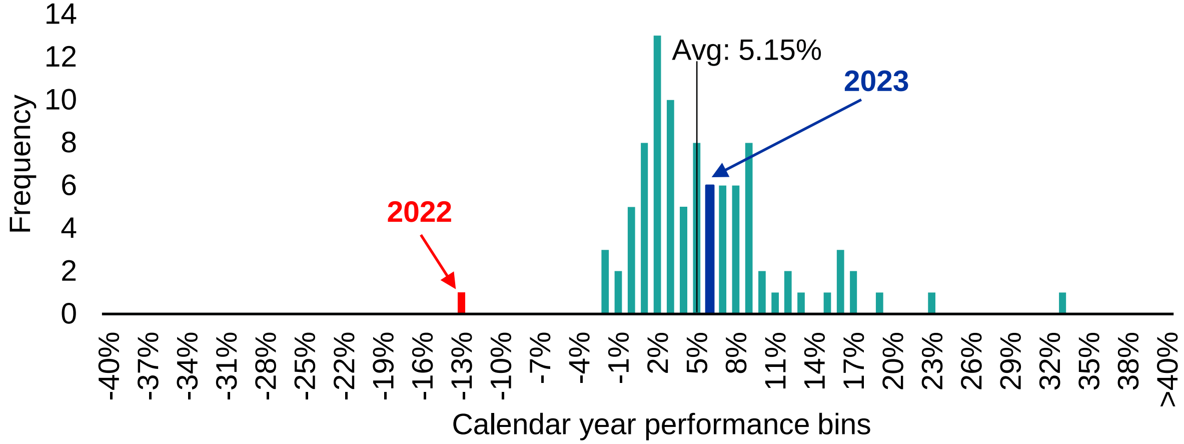
Note: Cumulative performance, by month, from January 1st through December 31, 2023 for stocks and bonds. Stocks: CRSP US Total Market Index, Bonds: Bloomberg U.S. Aggregate Bond Float Adjusted Index.

In 2023, the markets put 2022's challenges in the rear-view mirror

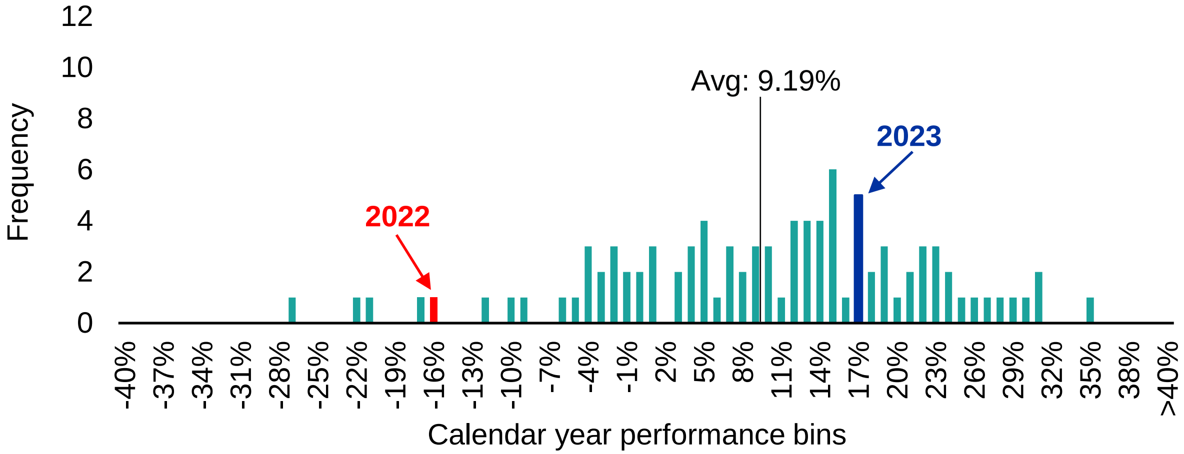
a.) Distribution of annual **stock** performance (1928-2023)



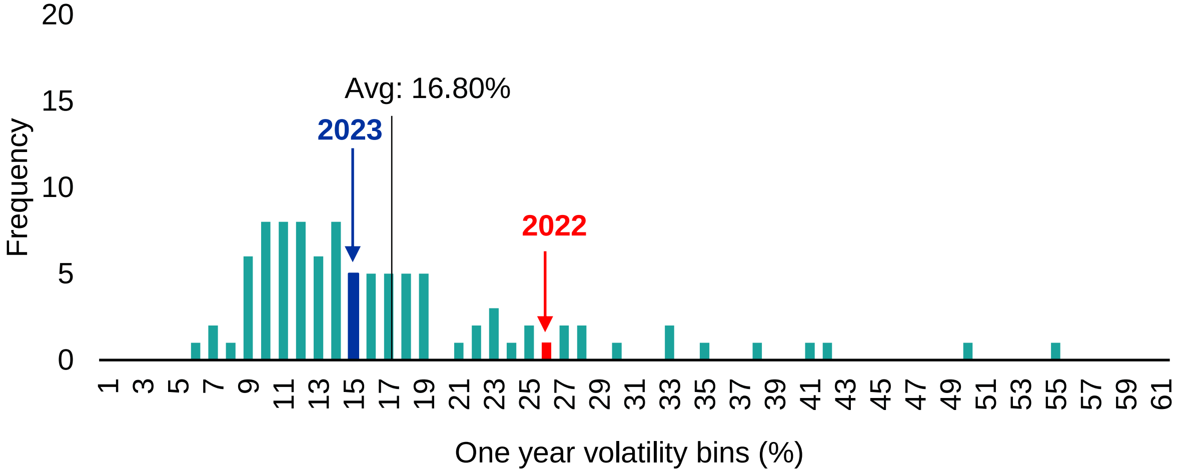
b.) Distribution of annual **bond** performance (1928-2023)



c.) Distribution of annual **60-40** performance (1928-2023)



d.) Distribution calendar year **stock volatility** (1928-2023)



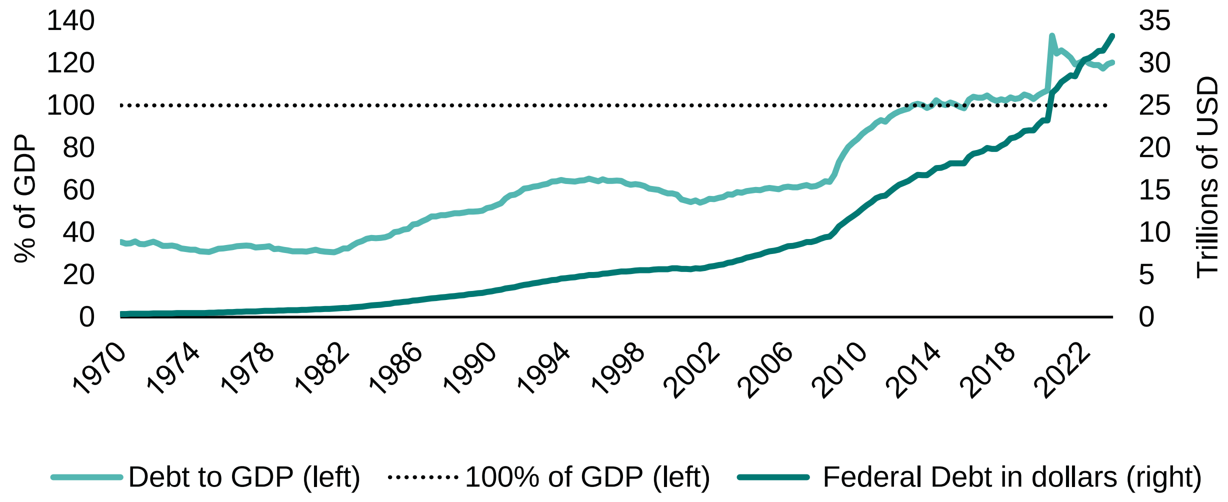
Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Notes: Figures a. through c. show the cumulative performance from January through December each calendar year going back to 1928. Figure d. shows the annualized volatility for the year.

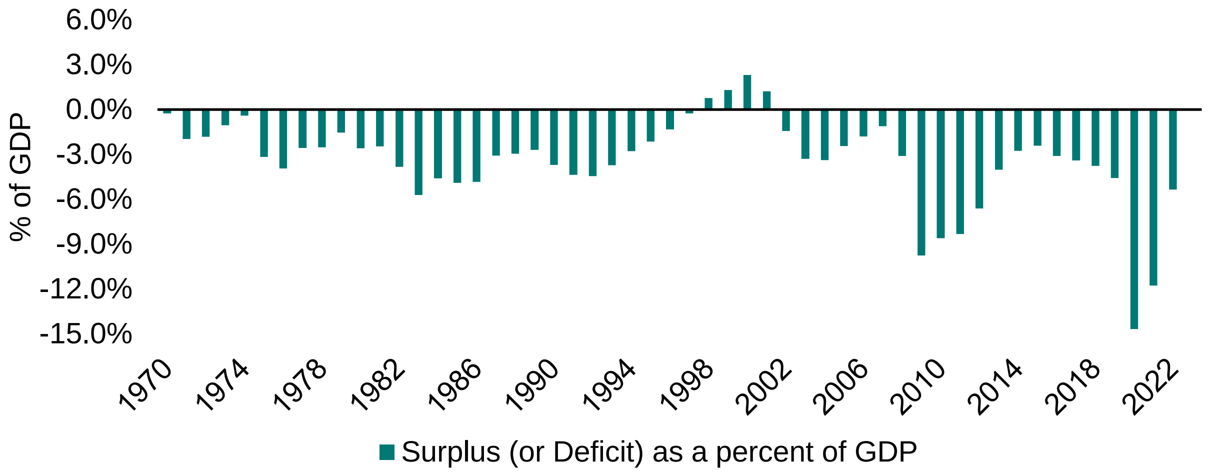
Sources: Figures a.-c.: Stocks: S&P 90 Index from 1928 through 3/3/1957; S&P 500 Index from 3/4/1957 through 1970; Wilshire 5000 from 1971 through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; CRSP US Total Market Index thereafter. Bonds: IA SBBI U.S. Intermediate-Term Government Bond Index through 1972; Bloomberg U.S. Government/Credit Intermediate-Term Index from 1973 through 1975; Bloomberg U.S. Aggregate Bond Index thereafter. 60-40: Simulated portfolio with 60% allocated to stocks and 40% allocated to bonds. Figure d.: S&P 500 from 1928 through December 31, 2023.

Interest Costs and the US National Debt

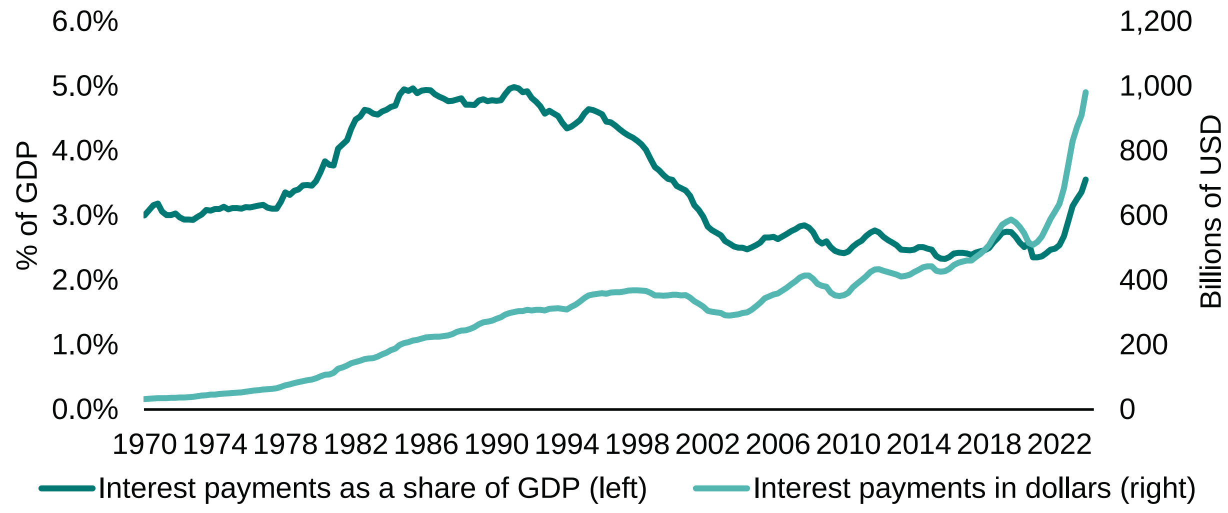
Federal debt continues to rise both in nominal terms and as a share of GDP



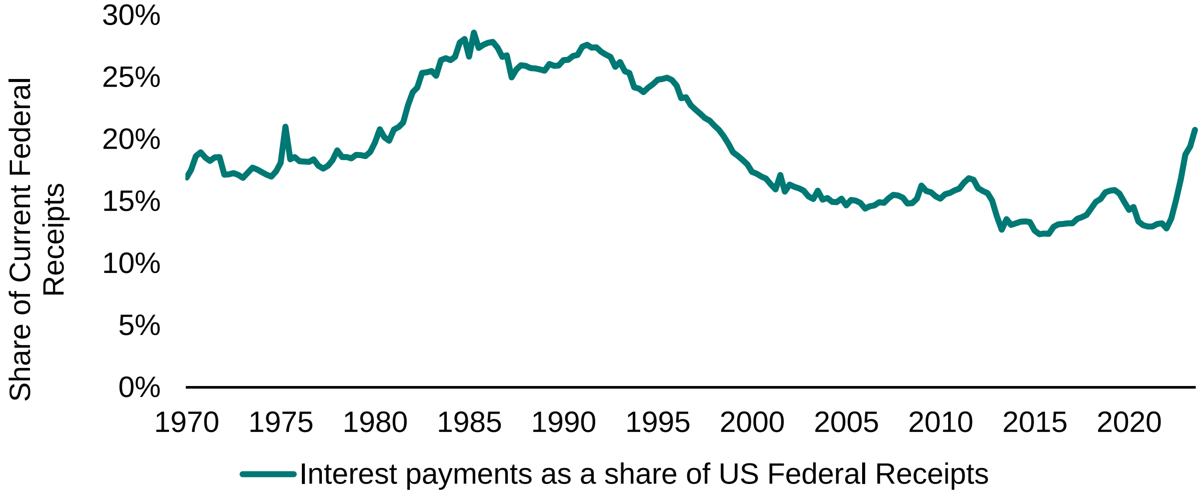
The federal government continues to rely on borrowing to finance government spending



Due to higher refinancing costs, interest payments on the debt are growing



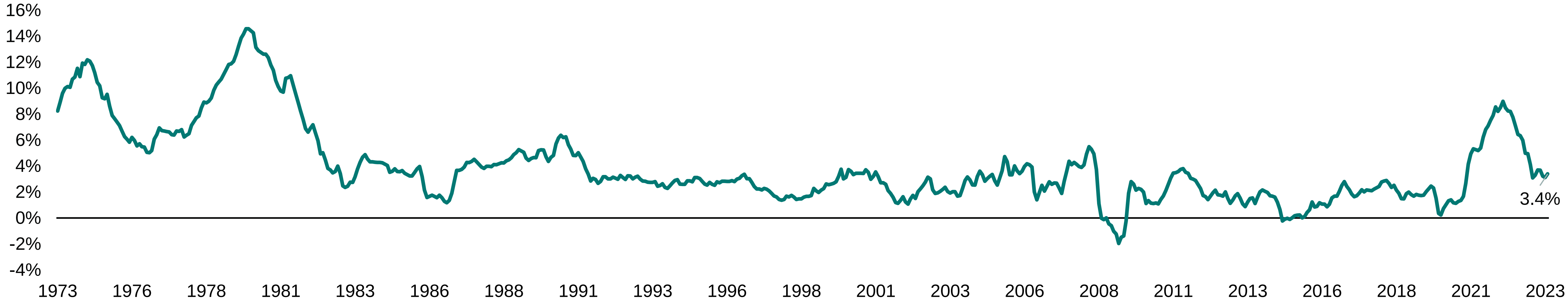
Recent interest payments represent a higher share of what the government is taking in



Sources: Vanguard calculations, based on data from the Federal Reserve Bank of St. Louis.
Notes: All charts use seasonally-adjusted quarterly data, with the exception of the surplus/deficit slide which depicts annual, not seasonally adjusted, data based on the Federal government's fiscal year-end of 9/30. Charts depict Q1 1970 through Q3 2023.

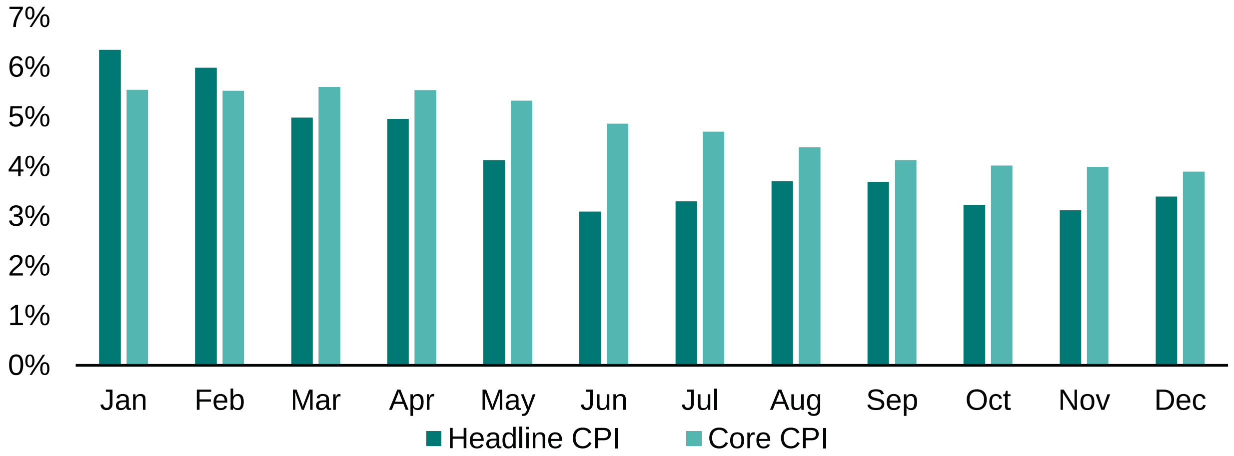
Inflation returned to more typical levels

Inflation continued to slow in 2023 as the Fed hiked rates



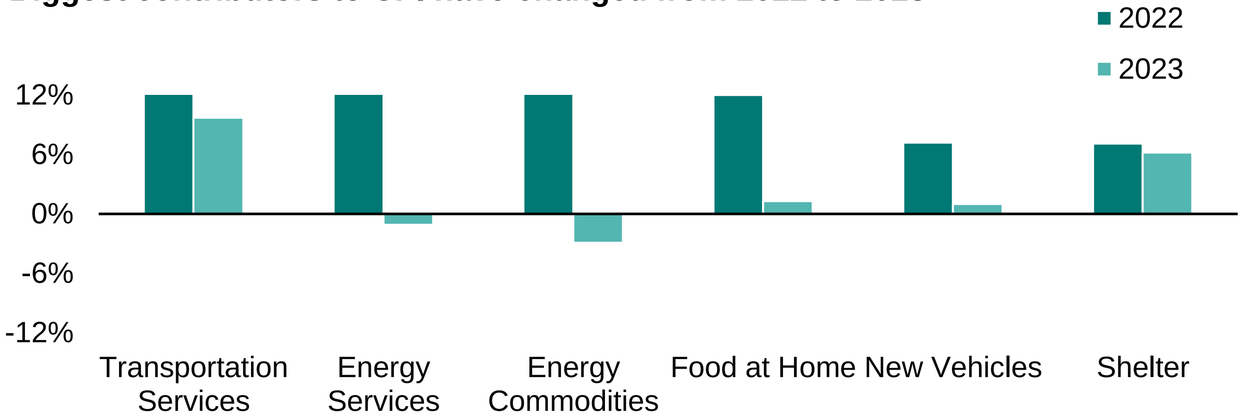
Source: FactSet. CPI data as of December 2023. Note: Inflation represents the 12-month percentage change to the Headline Consumer Price Index (CPI) as reported by the U.S. Bureau of Labor Statistics.

Both headline CPI and core CPI slowed but remain above target



Source: Federal Reserve Bank of St. Louis. Data as of December 2023.

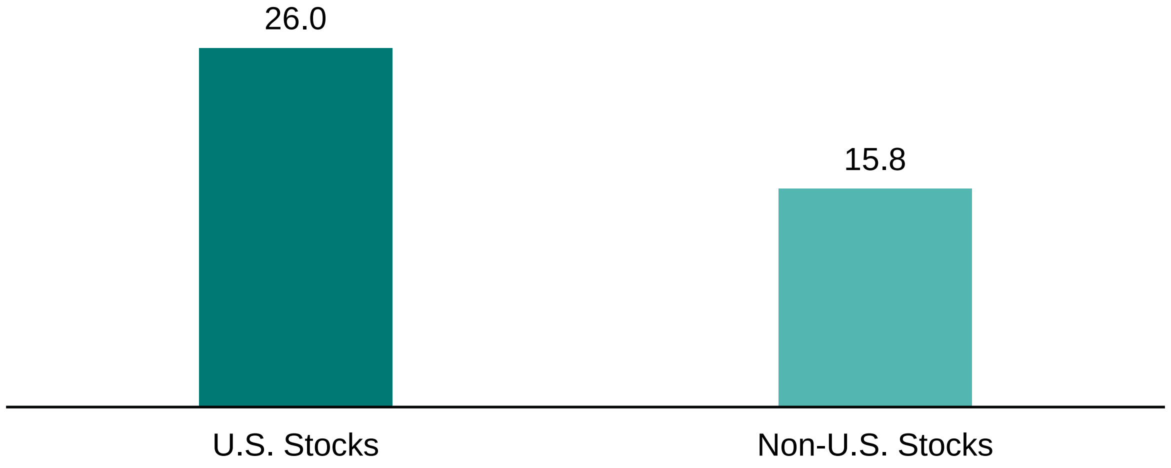
Biggest contributors to CPI have changed from 2022 to 2023



Source: Bureau of Labor Statistics as of 12/31/2023. 2022 represents December 2021 to December 2022 CPI; 2023 represents December 2022 through December 2023 CPI.
*CPI contributors are the 2nd level breakdown of CPI components, sorted from the highest of 2022 numbers.

AI boom benefits IT sector and large cap/growth

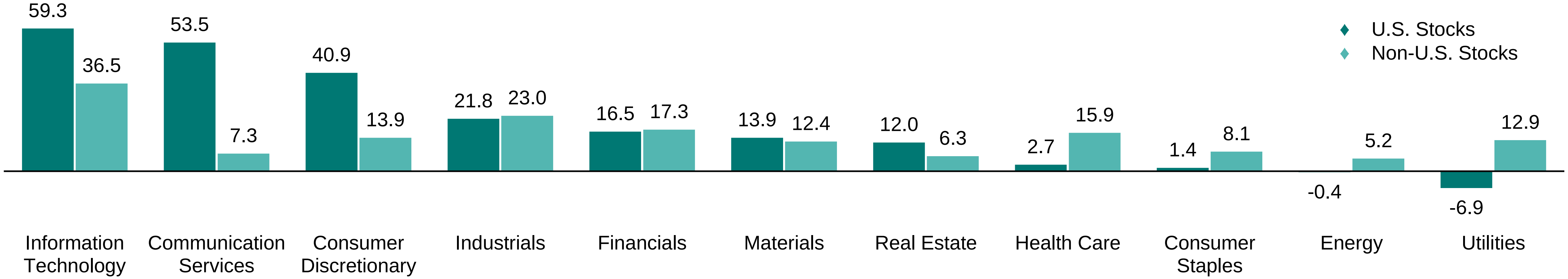
Broad market returns (%)



U.S. Size and style return (%)

	Value	Blend	Growth
Large Cap	9.2	27.3	46.9
Mid Cap	9.8	16.0	23.2
Small Cap	15.9	18.1	21.3

Sector returns (%)



Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

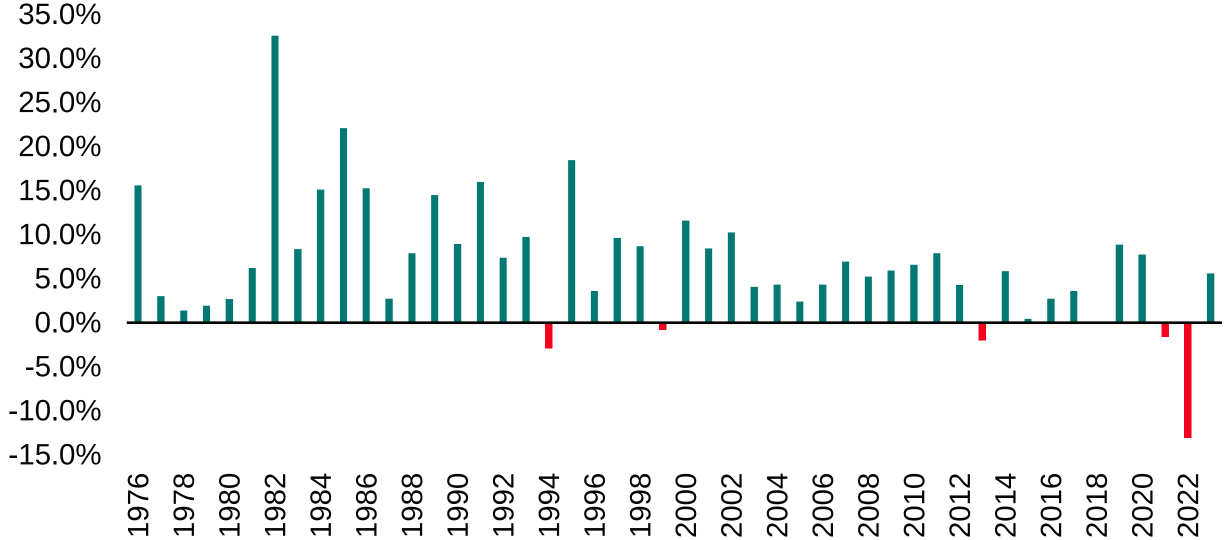
Sources: FactSet and Vanguard. Data as of December 31, 2023.

US Stocks represented by CRSP US Total Market, Non-US stocks represented by FTSE Global All-Cap ex-US Index. Large-cap stocks represented by CRSP US Large Cap Value Index, CRSP Large Cap Index, and CRSP Large Cap Growth Index. Mid-cap stocks represented by CRSP US Mid Cap Index, CRSP US Mid Cap Value Index, and CRSP Mid Cap Growth Index. Small-cap stocks represented by CRSP US Small Cap Index, CRSP US Small Cap Growth Index, and CRSP US Small Cap Value Index.

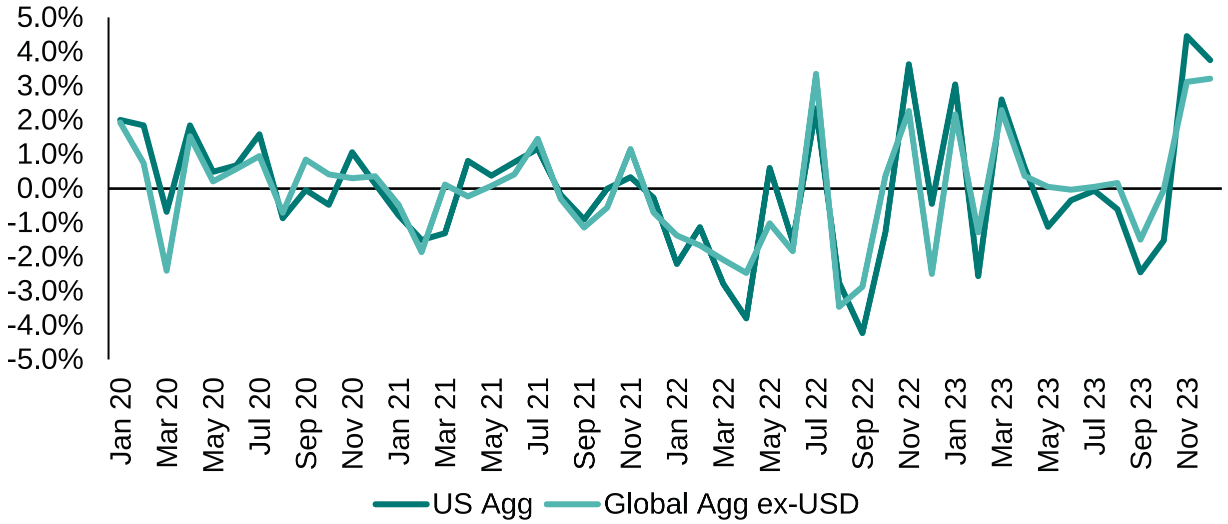
Slide ID #: S072664 Tracking #: 3322699 Expiration date: 7/11/2025

2023 Fixed income performance

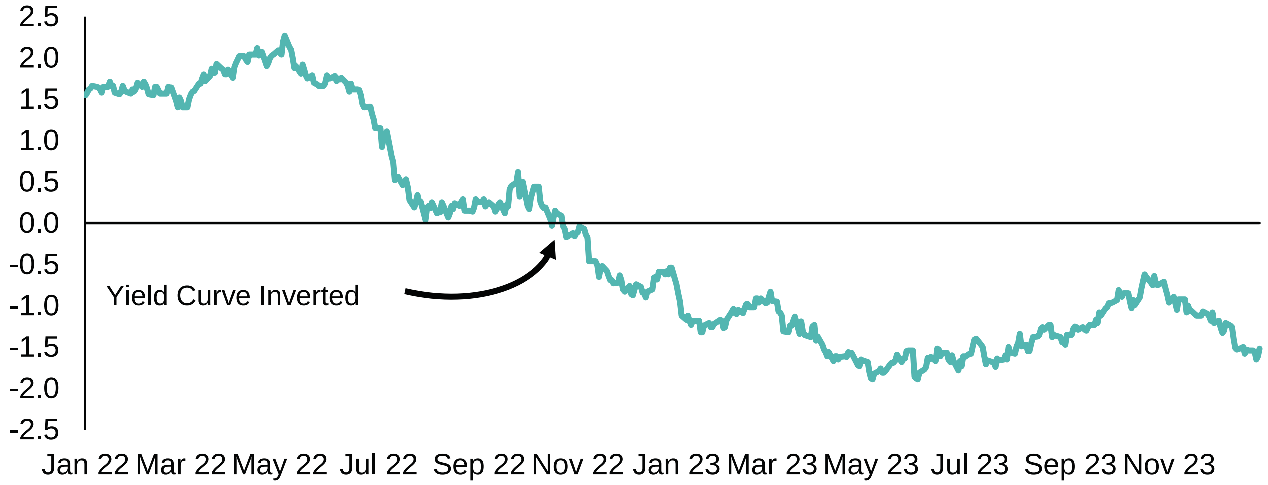
US fixed income returns drifted back well into positive territory in 2023



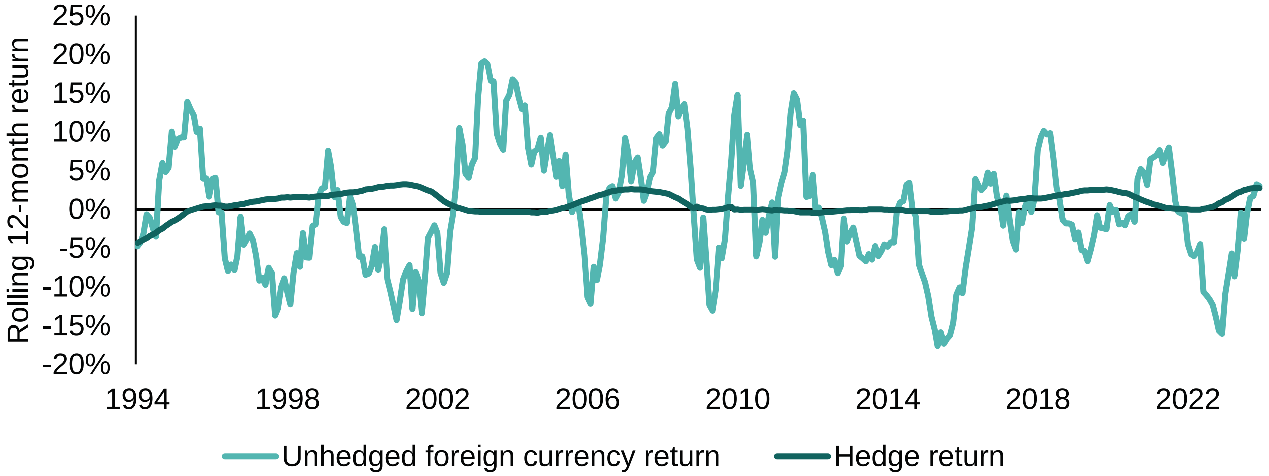
Broad fixed income monthly returns, 2020-2023



10-year/3-month Treasury spread negative since October 18th 2022



Currency return created significant downside volatility in unhedged portfolios 1994 - 2023



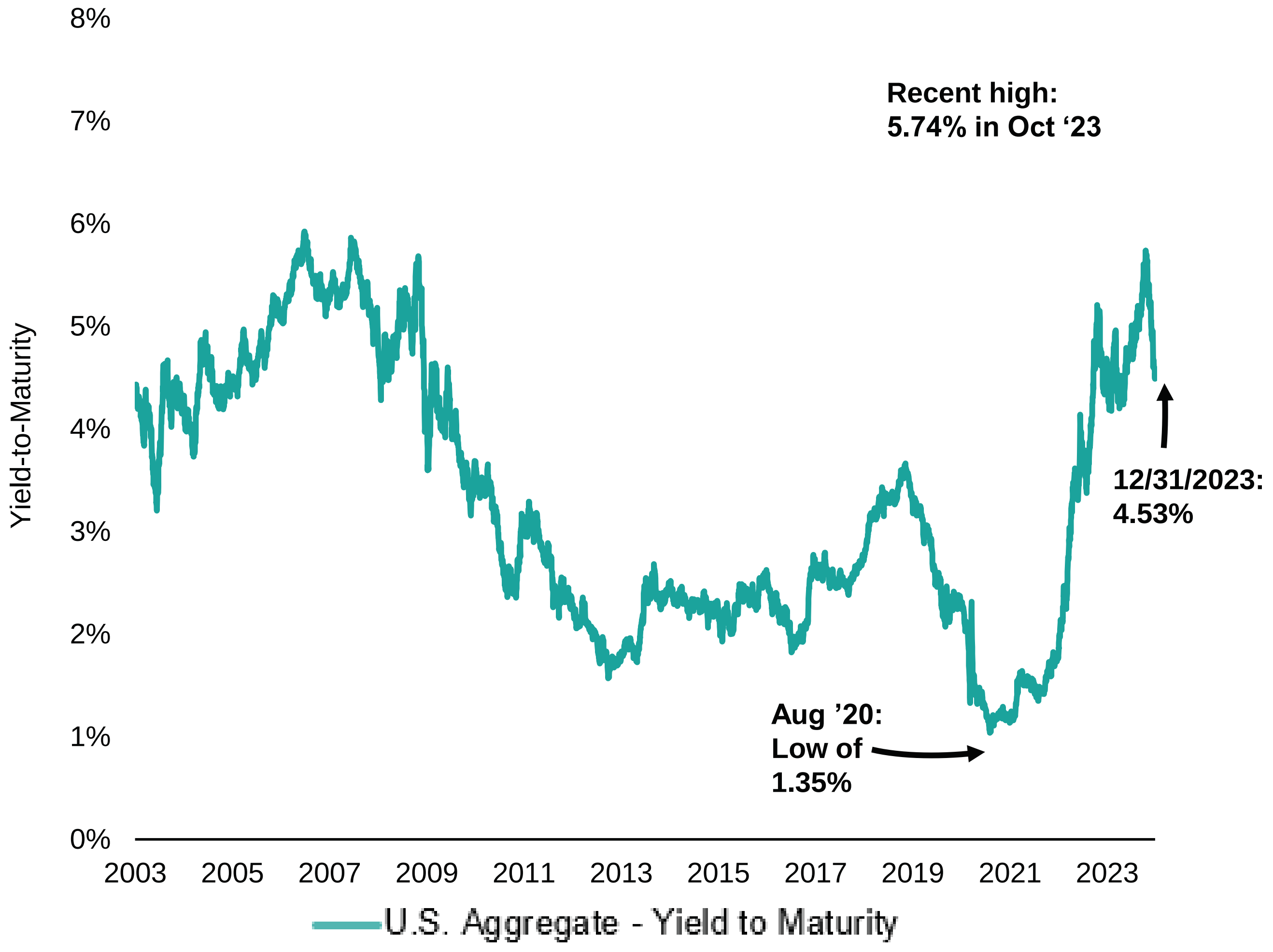
Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Sources: Vanguard calculations, based on data from Barclays and Federal Reserve Bank of St. Louis

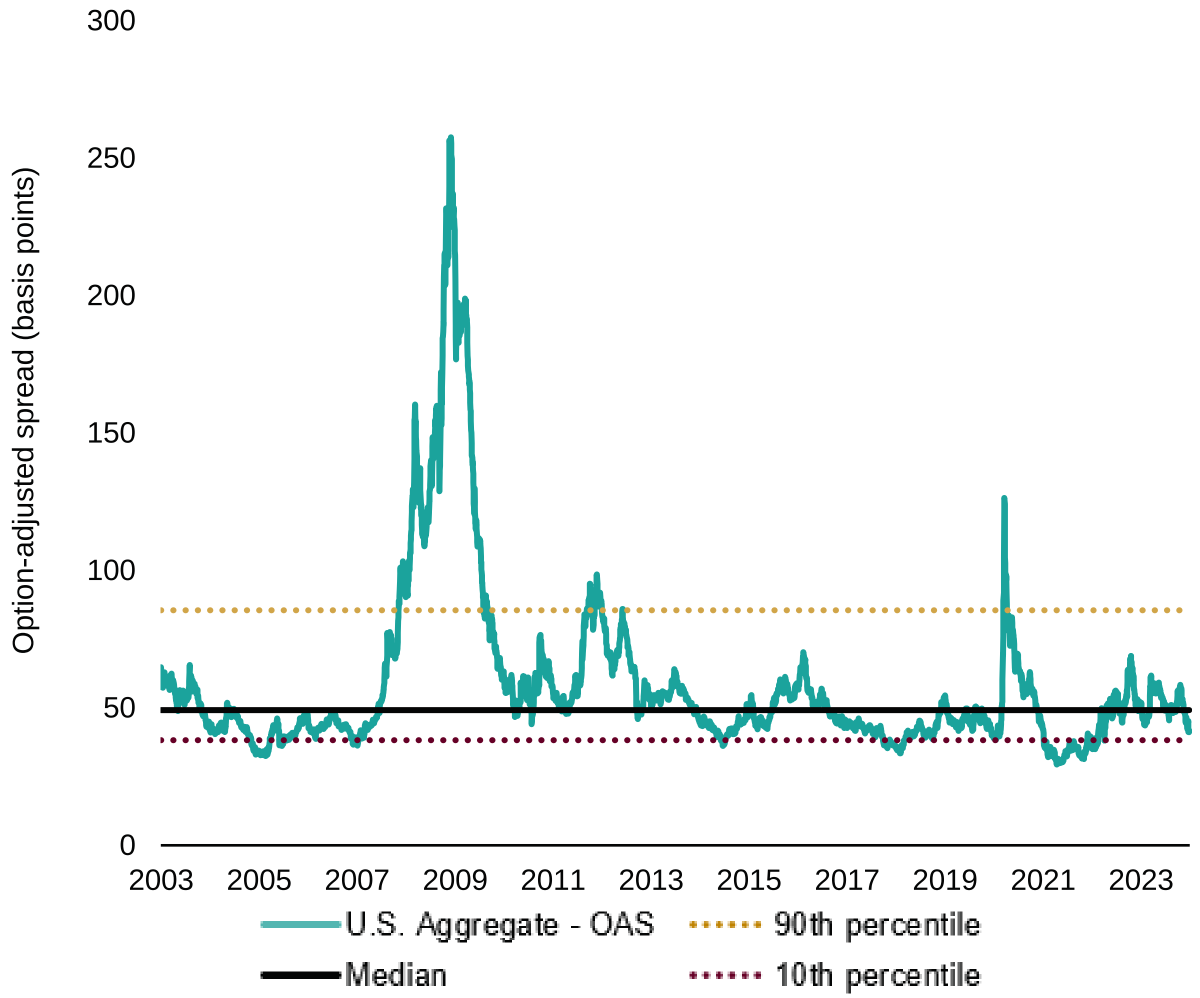
Notes: "Hedge return" is defined here as the currency return for the Barclays Global Aggregate ex-USD index, hedged to US dollars. "Unhedged foreign currency return" is defined here as the currency return for the Barclays Global Aggregate ex-USD index, unhedged, in US dollars.

Bond yields pull back in Q4, remain elevated from recent lows

Yield-to-maturity on U.S. Bloomberg Aggregate Index



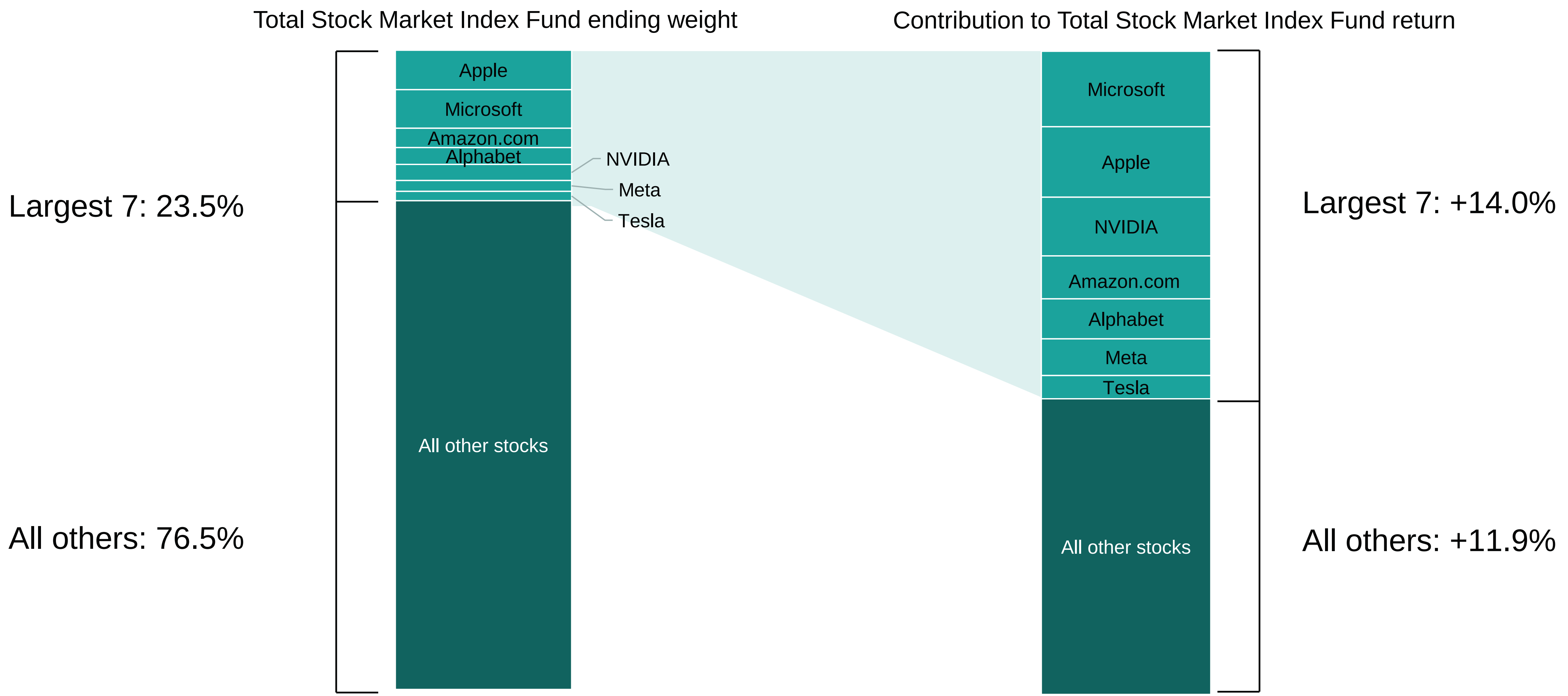
Credit spreads on U.S Bloomberg Aggregate Index



Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Source: Bloomberg. Charts show the Bloomberg U.S. Aggregate Bond Index from January 1, 2003, through December 31, 2023.

Magnificent seven contributes to 54% of the Total Stock Market Index Fund return in 2023



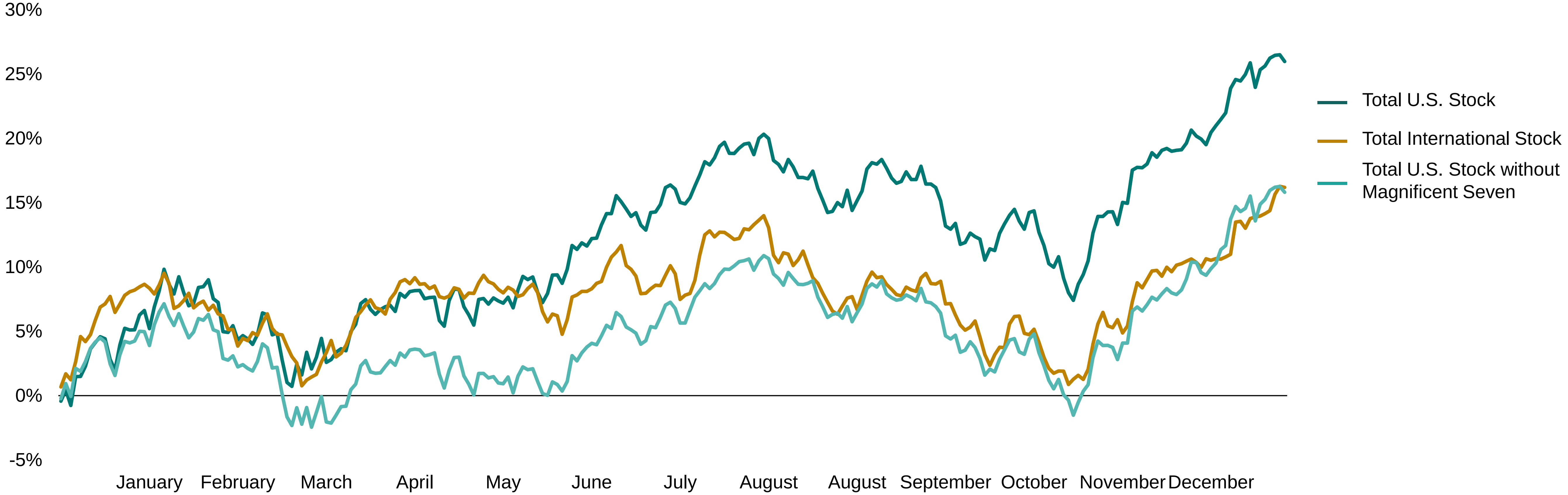
The performance data shown represent past performance, which is not a guarantee of future results.

Source: Factset as of 12/31/2023.

Note: Return data can be referenced in the appendix.

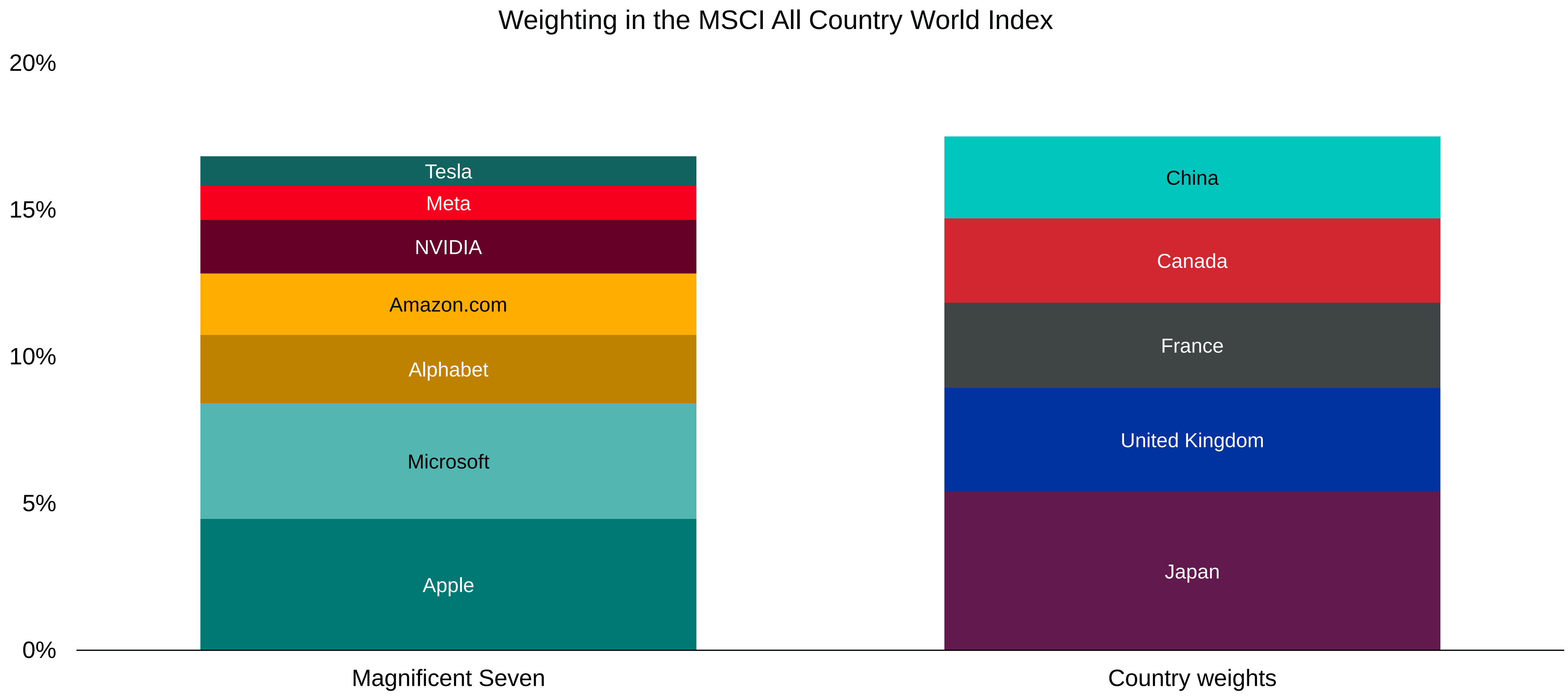
The Magnificent Seven accounted for the difference in return between the domestic and international equity markets

Cumulative return in 2023



Source: Factset as of 12/31/2023. Total U.S. Stock is represented by the CRSP US Total Market Index. Total International Stock is represented by the FTSE Global All Cap ex US Index.
Note: Magnificent seven includes Apple, Microsoft, Alphabet, Amazon, NVIDIA, Tesla, and Meta.
The performance data shown represent past performance, which is not a guarantee of future results.

Magnificent seven weighting in MSCI All Country World Index is greater than next 4 largest countries after the United States



Source: Factset as of 12/31/2023.

Markets and economy

Vanguard monthly market and economic update

The views below are those of the global economics and markets team of Vanguard Investment Strategy Group as of January 28, 2024.

Key Highlights

- The last mile journey back to 2% inflation will be difficult
- We foresee 2024 real U.S. GDP growth of 0.25%–0.75%.
- Stimulus will be needed for an economic revival in China.

Asset-class return outlooks

Our 10-year annualized nominal return and volatility forecasts are shown below. They are based on the September 30, 2023 running of the Vanguard Capital Markets Model® (VCMM). Equity returns reflect a 2-point range around the 50th percentile of the distribution of probable outcomes. Fixed income returns reflect a 1-point range around the 50th percentile. More extreme returns are possible.

Equities	Return projection	Median volatility
U.S. equities	**4.2%–6.2%**	17.1%
Global equities ex-U.S. (unhedged)	**7.1%–9.1%**	18.3%

Fixed income	Return projection	Median volatility
U.S. aggregate bonds	**4.8%–5.8%**	5.6%
U.S. Treasury bonds	**4.4%–5.4%**	5.9%
Global bonds ex-U.S. (hedged)	**4.7%–5.7%**	4.4%

These probabilistic return assumptions depend on current market conditions and, as such, may change over time.

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model® regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from the VCMM are derived from 10,000 simulations for each modeled asset class. Simulations are as of September 30, 2023. Results from the model may vary with each use and over time. For more information, see Important information page.

Source: Vanguard Investment Strategy Group.

Vanguard monthly market and economic update

Region-by-region outlook

United States

We expect the core Personal Consumption Expenditures index—the Fed's preferred inflation measure, which excludes food and energy prices—to fall to 2.3% on a year-over-year basis by the end of 2024. It was 3.2% in November. The last mile of the journey back to 2% inflation will be challenging, however, owing to the "sticky" nature of services inflation.

- We believe that market expectations for a Federal Reserve interest rate cut in March are overly optimistic. It likely will be midyear before policymakers are confident that they have reined in inflation sufficiently to start cutting their target for short-term interest rates.
- In its latest Summary of Economic Projections (SEP), the Fed suggested it would trim its target for short-term interest rates with three 25-basis-point cuts in 2024. (A basis point is one-hundredth of a percentage point.) Vanguard believes the Fed will go further. We foresee the equivalent of six to eight quarter-point cuts—a total of 150 to 200 basis points—driven not by a soft landing but by the onset of a mild recession late in the year.
- A higher unemployment rate than the Fed envisions would be commensurate with a contraction in GDP growth. We foresee a 2024 year-end unemployment rate of 4.8%, higher than the 4.1% envisioned in the SEP. For now, the labor market appears healthy.
- We foresee full-year 2024 real (inflation-adjusted) U.S. GDP growth of 0.25%–0.75%.
- What might shipping detours of more than 3,000 nautical miles mean for goods prices and broad inflation rates? Not a lot, for now. Shipping contracts are typically locked in for a year or more, and shipping costs account for only about 1% of core goods prices. That said, freight rates for ships to move immediately out of Chinese ports have doubled in recent weeks, and Middle East-related risks to the global inflation outlook remain elevated.

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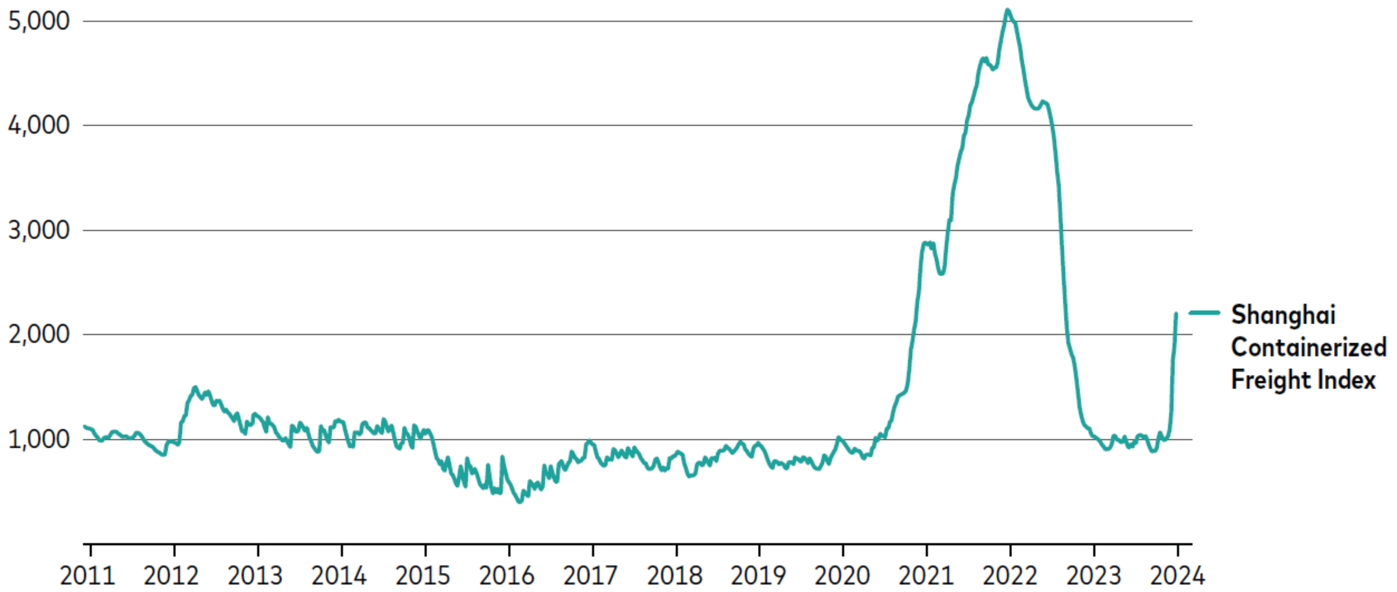
Vanguard monthly market and economic update

As shipping companies avoid the Red Sea, container ship costs spike



"The steady decrease in the pace of inflation around the world in recent months is encouraging for policymakers," said Shaan Raithatha, a Vanguard senior economist. "However, should the tensions in the Middle East escalate or continue for an extended period, the risk does increase for an upswing in inflation through higher goods prices, as well as through the potential for energy supply disruption."

Vanguard expects central banks in developed markets to cut policy interest rates in 2024, though only in the second half of the year. We believe that market expectations for earlier cuts don't acknowledge the challenges of bringing inflation down that last mile to many central banks' 2% targets, given stickier wage-related services inflation. The risk of a new advance in goods prices due to protracted geopolitical tensions could give central bankers something else to consider.

Notes: The Shanghai Containerized Freight Index is based on spot rates, or rates for immediate payment and delivery, in U.S. dollars per 40-foot- equivalent units for U.S. destination ports and 20-foot-equivalent units for other global destination ports.
Sources: Shanghai Shipping Exchange and Bloomberg as of January 12, 2024.

Vanguard monthly market and economic update

China

Amid weak domestic consumption and private investment, stimulus will need to play a role in the revival of China’s economy. An indication of the government’s approach came on January 2, when the People’s Bank of China (PBOC) announced it had issued CNY 350 billion (USD49 billion) in loans in December. The government chose to stimulate via its “pledged supplementary lending” facility, which provides support during property downturns. Vanguard expects the funds will be used toward supply- side projects, such as social housing construction and urban village renovation.

- We expect real (inflation-adjusted) economic growth of 4.5%–5.0% in 2024, near our expectation of a 5.0% government growth target.
- To mitigate deflationary pressure, we expect the PBOC to ease its policy interest rate from 2.5% to 2.2% in 2024, as well as to cut banks’ reserve requirement ratios. The PBOC left its one-year medium term lending facility (MLF) policy rate unchanged at 2.5% on January 15. Vanguard doesn’t consider an unchanged policy rate surprising because a cut at this point would have weighed on banks’ profitability. However, the volume of MLF operations increased, suggesting an injection of liquidity into the market.
- We expect prices to climb out of deflationary territory over the course of 2024, with headline inflation in a range of 1.5%–2.0% and core inflation of 1.0%–1.5%, amid expectations of higher food prices. Both would be below the PBOC’s 3.0% inflation target.

Emerging markets

Some central banks in Latin America, including those in Chile and Brazil, have already begun to cut policy interest rates, and we expect further cuts in 2024. But the gaps between high rates of monetary policy and receding rates of inflation are wide, particularly in Latin America, meaning that monetary policies are restrictive. We expect them to remain so even amid rate cuts.

- In emerging Europe, where the gap between policy and inflation rates isn’t as large and policy is consequently less restrictive, we foresee first-half policy rate cuts amid economic growth concerns that are greater than in Latin America.
- In emerging Asia, where inflation didn’t run as high and growth prospects appear brighter, we don’t foresee rate cuts until the second half of 2024.
- We expect emerging markets GDP to grow mostly in line with consensus in 2024 and to a greater degree than that of developed markets. We anticipate real (inflation- adjusted) growth of around 4.0% for emerging markets broadly—around 5.0% for emerging Asia and 2.0%–2.5% for emerging Europe and Latin America.

Vanguard monthly market and economic update

Euro area

High-frequency data suggest that a further mild contraction occurred in the euro area economy in the fourth quarter. A preliminary estimate of fourth-quarter GDP, scheduled to be released January 30, could confirm that the economy fell into recession in the period after GDP contracted by 0.1% on a seasonally adjusted basis in the third quarter.

- The economy is slowing broadly in line with our expectations at this stage of policy tightening by the European Central Bank, and we continue to expect that a recession will be mild. We foresee full-year 2024 real (inflation-adjusted) GDP growth of 0.5%–1.0%.
- Markets are pricing in ECB rate cuts totaling 140 basis points, beginning in the second quarter. We believe that rate cuts will total only 75 basis points and won't begin until the middle of the year. Our outlook is predicated on the ECB's own forecasting model. A risk to our view is that the ECB's reaction to GDP and inflation data could deviate from the past as the central bank navigates a narrow path between inflation and recession risk.
- Vanguard cautions that only about 60% of the disinflationary process in core inflation is complete. Most of the progress still to be achieved is concentrated in stickier services inflation, as two-thirds of the services basket continues to show inflation rates above 3%.
- We anticipate a softening in the labor market as economic activity falls below its potential amid restrictive monetary and fiscal policy. We expect the unemployment rate to rise to an above-consensus range of 7.0%–7.5% in 2024, illustrating our skepticism that a "painless disinflation" is attainable.

United Kingdom

As in the euro area, economic growth in the U.K. continues to hover near zero. After modest growth in the first half of 2023, the U.K. economy contracted by 0.1% in the third quarter, a second GDP estimate showed. That was a revision from a preliminary estimate of 0% growth.
High-frequency data suggest the economy stagnated or contracted minimally in the fourth quarter, in line with our outlook for a mild recession.

- For all of 2024, we foresee below-trend GDP growth in a range of 0.5%–1.0% as the effects of contractionary monetary and fiscal policy are fully felt. As inflation falls, however, we expect economic activity to receive a modest boost from gains in real wage growth.
- We continue to foresee fewer and later Bank of England (BOE) rate cuts than the markets do. We expect 100 basis points of policy rate cuts in 2024 beginning in the middle of the year at the earliest, compared with market expectations for 120 basis points of cuts beginning in May or June.

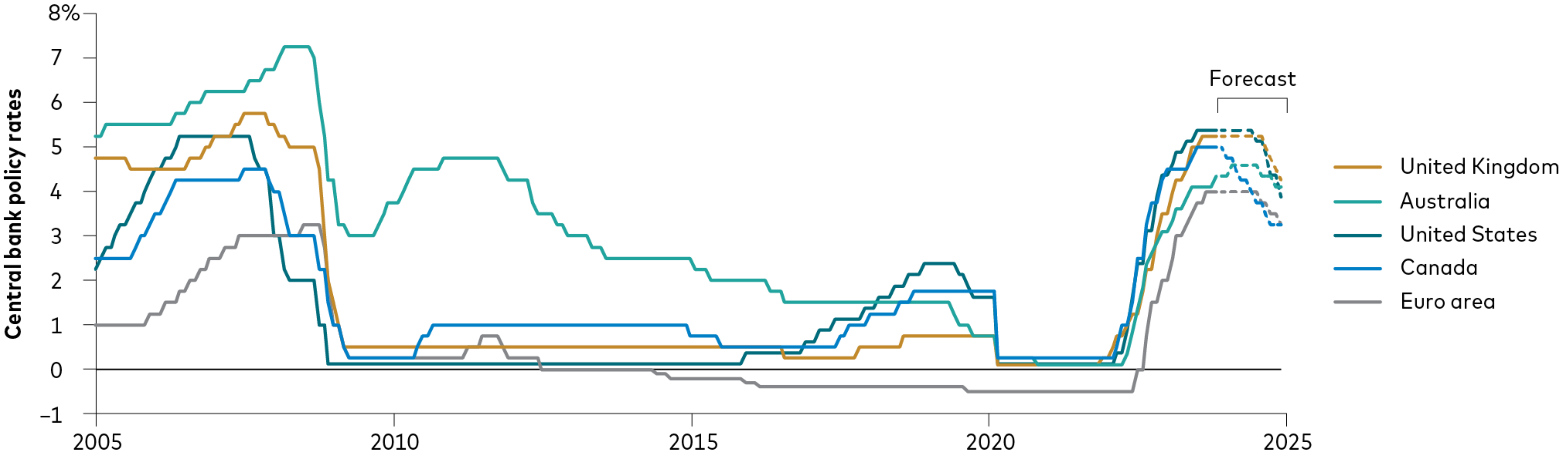
Appendix

Vanguard's 2024 economic forecasts

	GDP growth		Unemployment rate		Core inflation	Monetary policy		
	2024		2024		2024			
Country/region	Vanguard	Trend	Vanguard	NAIRU	Vanguard	Year-end 2023	Year-end 2024	Neutral rate
U.S.	0.25%–0.75%	1.8%	4.5%–5%	3.5%–4%	2.3%	5.5%	3.5%–4%	3%–3.5%
Euro area	0.5%–1%	1.2%	7%–7.5%	6.5%–7%	2.1%	4%	3.25%	2%–2.5%
U.K.	0.5%–1%	1%	4.5%–5%	3.5%–4%	2.8%	5.25%	4.25%	3%–3.5%
China	4.5%–5%	4.1%	4.5%–5%	4.5%–5%	1.2%	2.5%	2.2%	4.5%–5%

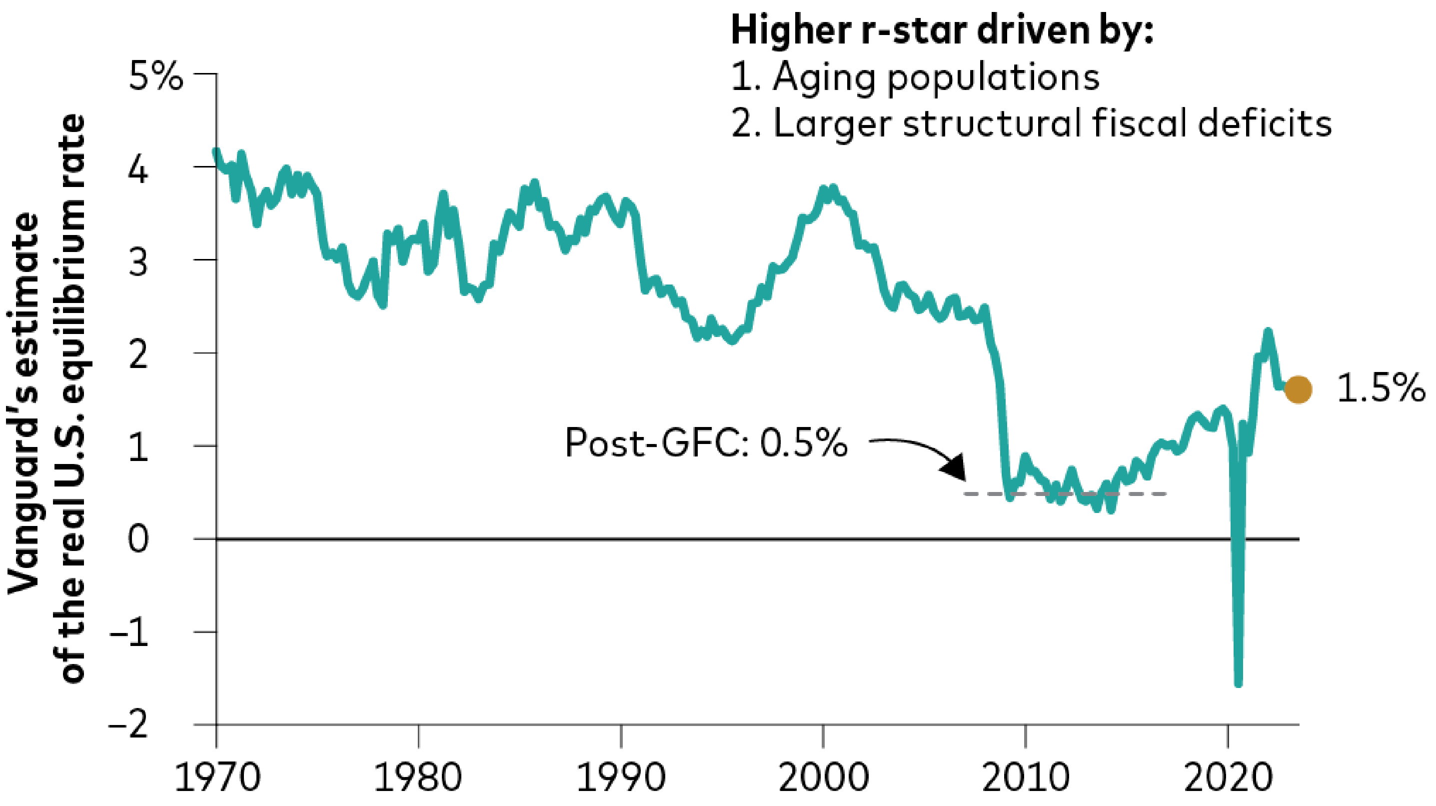
Notes: Forecasts are as of December 4, 2023. For the U.S., GDP growth is defined as the year-over-year change in fourth-quarter GDP. For all other countries/regions, GDP growth is defined as the annual change in GDP in the forecast year compared with the previous year. Unemployment forecasts are the average for the fourth quarter of 2024. NAIRU is the nonaccelerating inflation rate of unemployment, a measure of labor market equilibrium. Core inflation excludes volatile food and energy prices. For the U.S., euro area, and U.K., core inflation is defined as the year-over-year change in the fourth quarter compared with the previous year. For China, core inflation is defined as the average annual change compared with the previous year. For the U.S., core inflation is based on the core Personal Consumption Expenditures Index. For all other countries/regions, core inflation is based on the core Consumer Price Index. For U.S. monetary policy, Vanguard's forecast refers to the top end of the Federal Open Market Committee's target range. The neutral rate is the equilibrium policy rate at which no easing or tightening pressures are being placed on an economy or its financial markets.
Source: Vanguard.

Rate cuts in 2024, but zero rates are behind us



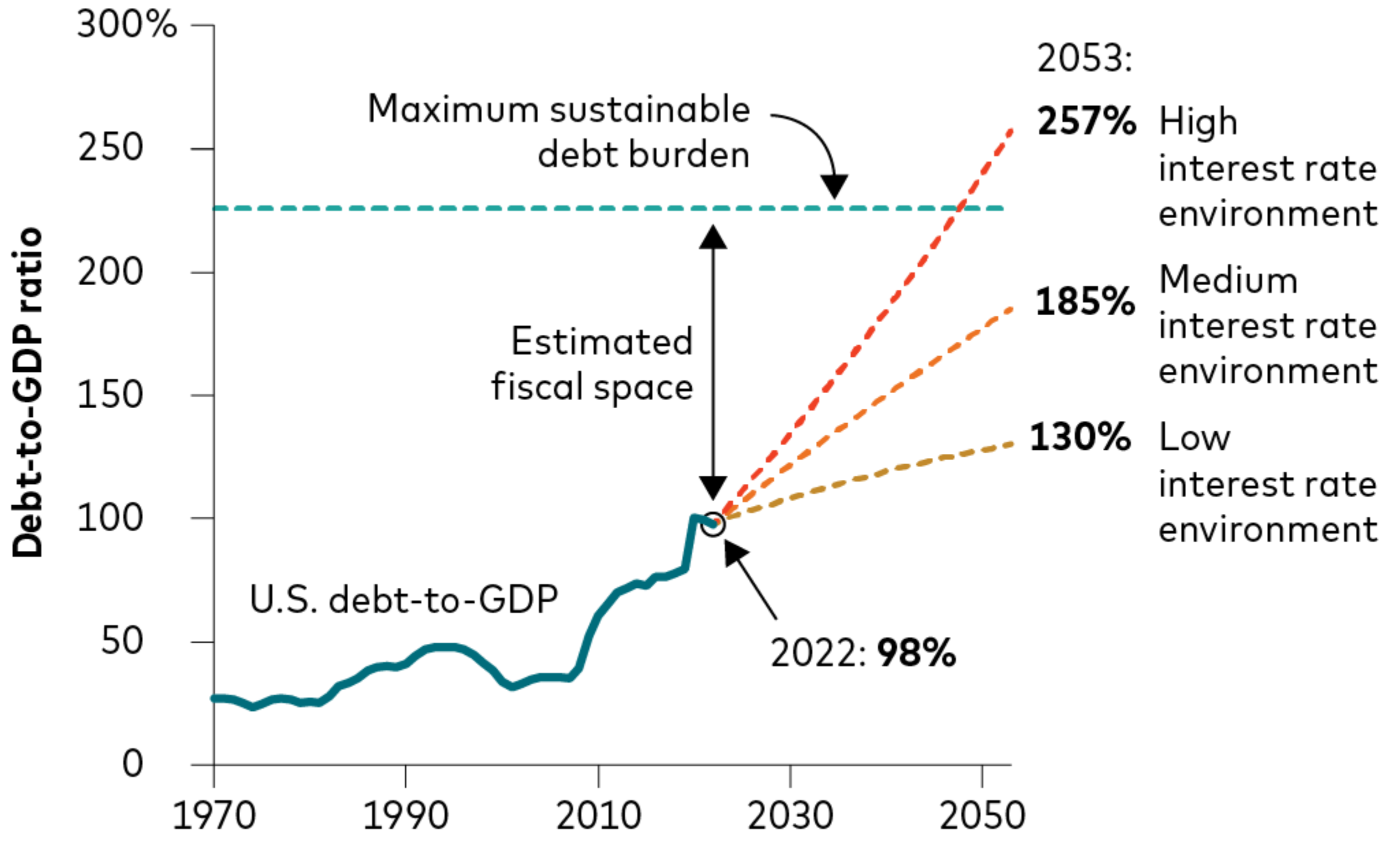
Notes: Monthly data are from January 2005 through November 2023. Forecasts thereafter run through year-end 2024.
Sources: Vanguard calculations, based on data from Bloomberg, as of November 30, 2023.

The U.S. neutral rate is likely to settle at a higher level



Notes: The chart depicts our estimate for the real U.S. neutral rate using our proprietary extended Laubach-Williams model; a similar pattern exists for other developed markets. If inflation were at the Federal Reserve's 2% target and real r-star were 1.5%, then nominal r-star would be 3.5%.
Sources: Vanguard calculations, based on data from the Federal Reserve Bank of New York, as of June 30, 2023. More information can be found at www.newyorkfed.org/research/policy/rstar.

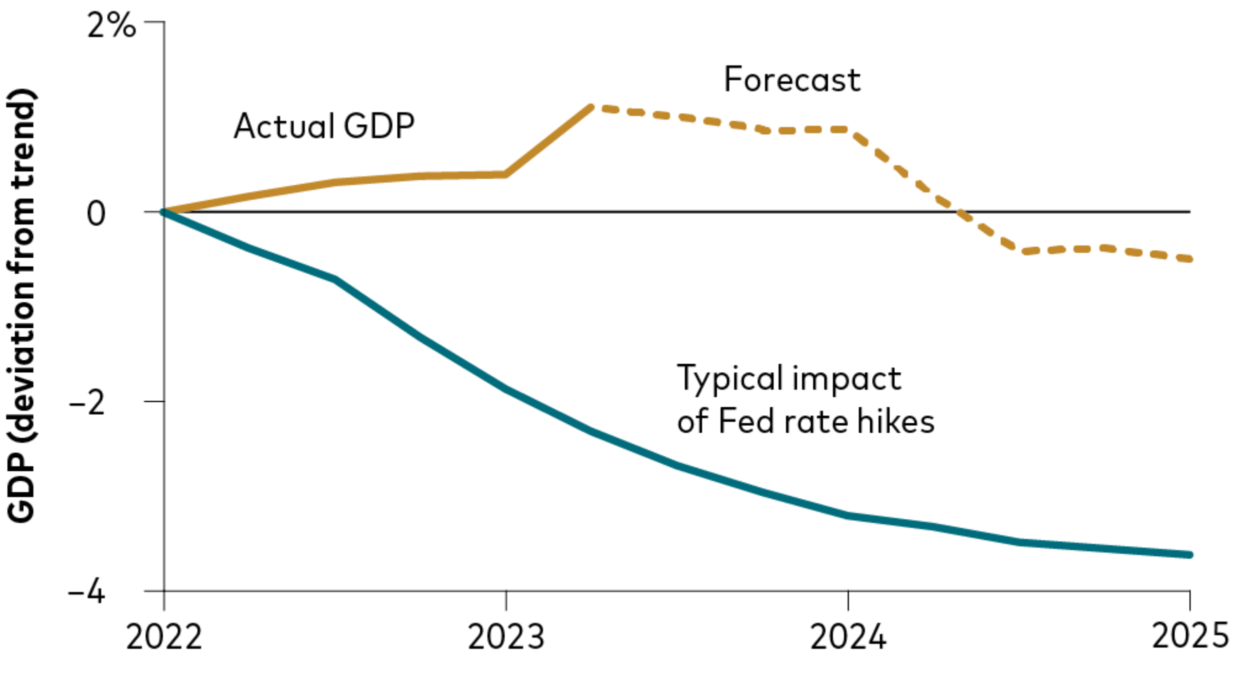
Higher interest rates will exert pressure on debt sustainability



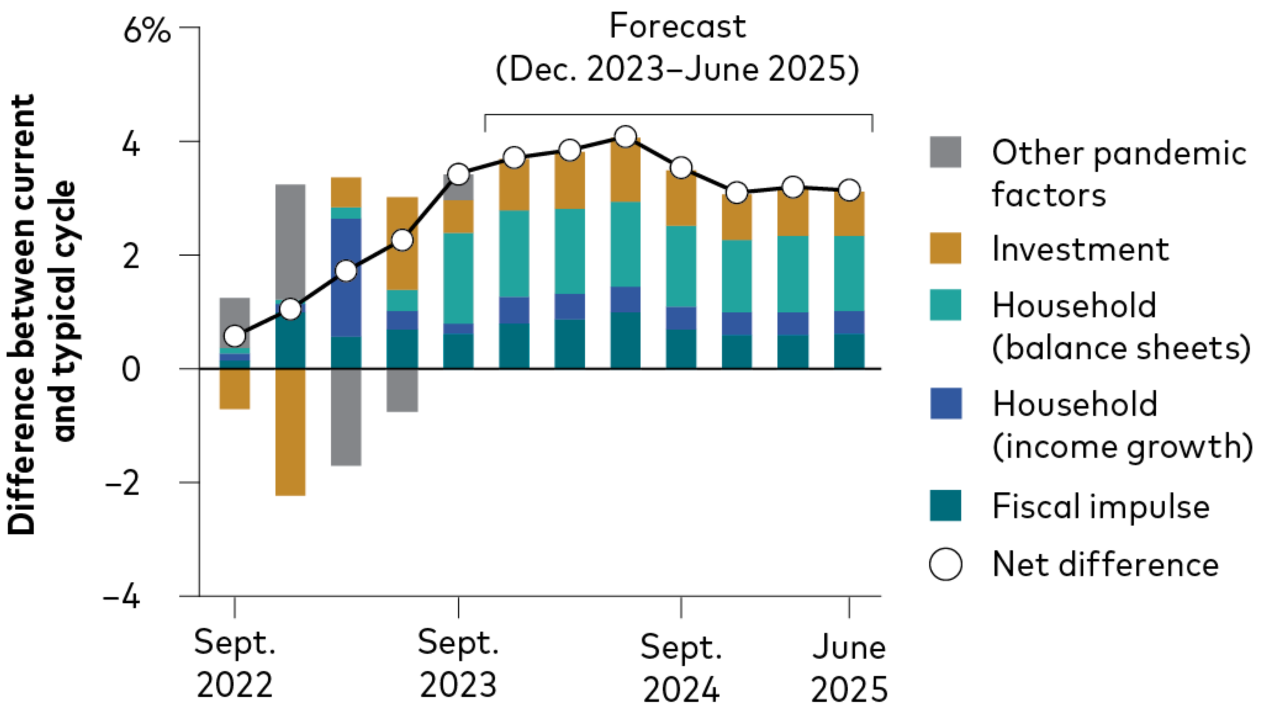
Notes: All debt-to-GDP projections are based on real economic growth of 2%, average inflation of 2%, and a primary deficit of 3.5%. “Low interest rate environment” assumes an average interest rate of 1.8%, consistent with the average 5-year Treasury yield over the 2008–2019 period, “Medium interest rate environment” assumes an average interest rate of 3.5%, and “High interest rate environment” assumes an average interest rate of 5%. Maximum sustainable debt burden and estimated fiscal space are calculated using Vanguard’s proprietary fiscal space methodology, detailed in *Assessing U.S. Fiscal Space* (Aliaga-Díaz, Patterson, and Raithatha, 2023).
Sources: Vanguard calculations, based on data from the Congressional Budget Office, as of June 30, 2023.

Factors offsetting the impact of U.S. monetary policy

a. Growth has offset monetary policy impact ...

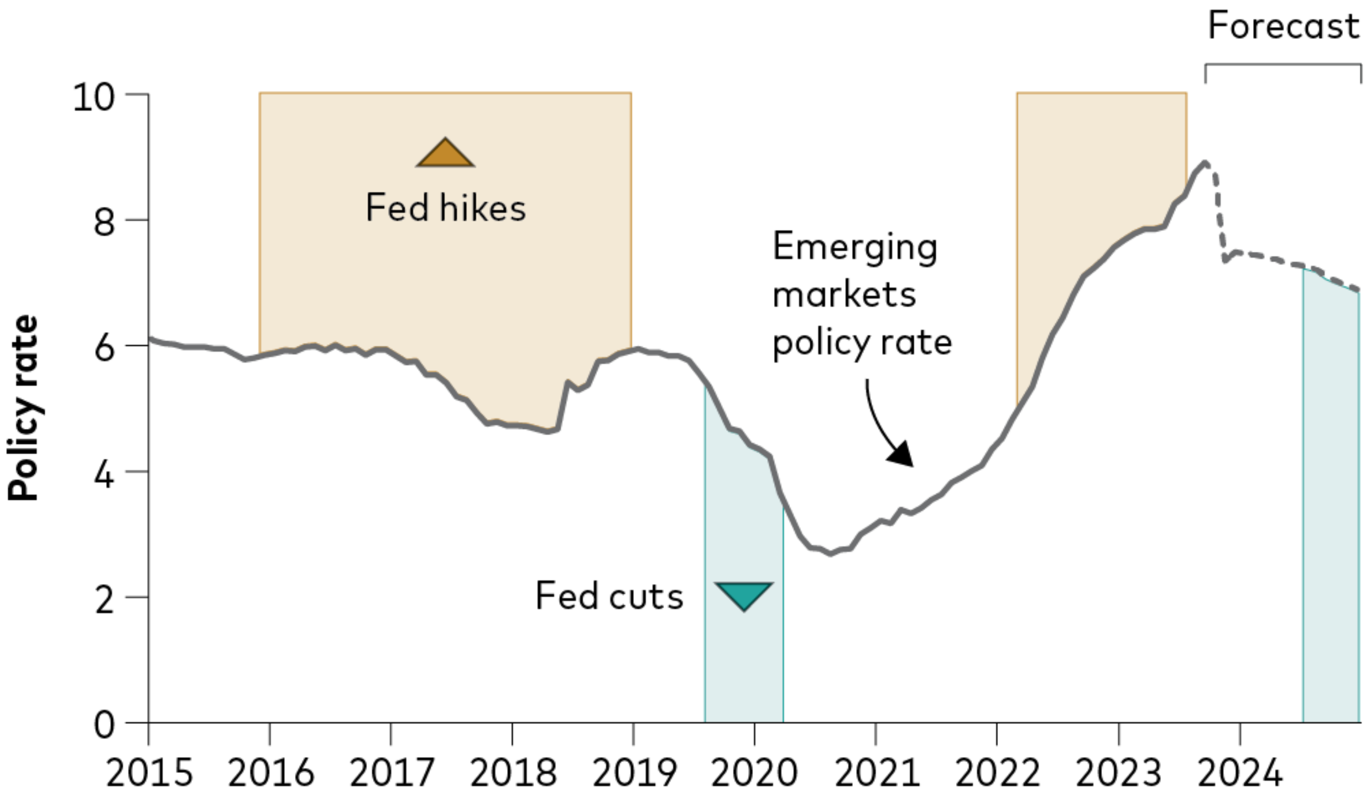


b. … driven by consumer strength and fiscal policy



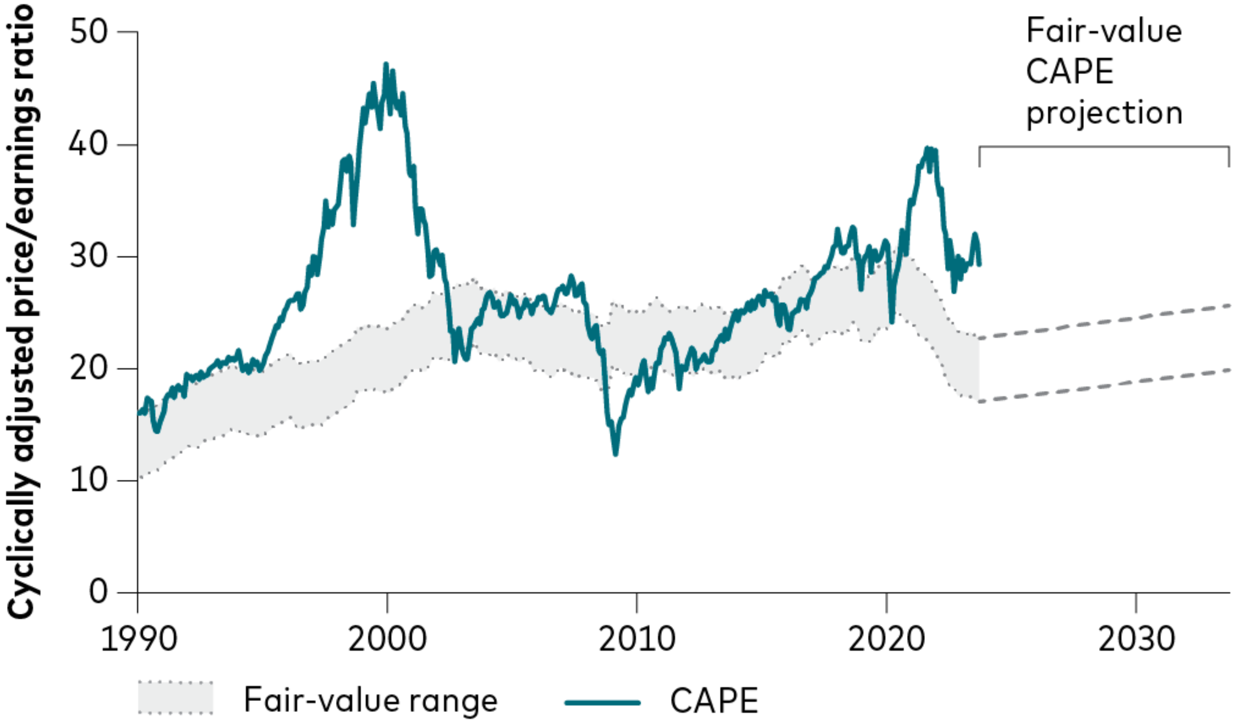
Notes: This simulation of the impact of the current U.S. rate hiking cycle on U.S. GDP was performed using a proprietary vector autoregression model with a combination of short- and long-run drivers including inflation, short-term and long-term interest rates, potential GDP, real disposable income, and commodity prices. The offset factors were measured using a growth decomposition model to assess the impacts of labor income, liquid asset balances, residential and business investment, and the fiscal impulse estimate using Congressional Budget Office (CBO) budgetary projections. The bars in Chart B reflect differences between actual and trend, or expected, growth for various growth drivers. We project the drivers' effects to wane in 2024 and 2025, when we foresee growth falling below trend.
Sources: Vanguard calculations, based on data from the CBO, as of September 30, 2023.

Emerging markets are leading the monetary policy cycle



Notes: The emerging markets policy rate is a GDP-weighted average of the following countries, listed in order of GDP: India, Brazil, Mexico, South Korea, Indonesia, Turkey, Poland, Israel, Thailand, Philippines, South Africa, Colombia, Romania, Chile, Czech Republic, Peru, and Hungary.
Sources: Vanguard calculations, based on data from Refinitiv, as of October 31, 2023.

U.S. equity valuations need to fall to return to fair value



The components of our forecasts of equities' total returns

	Valuation change	+	Earnings growth	+	Dividend yield	+	Currency effect	=	Total return
U.S. equities	–1.2%		4.4%		2.0%		—		**5.2%**
Global ex-U.S. equities	–0.1%		3.4%		3.7%		1.1%		**8.1%**

Notes: The chart shows the cyclically adjusted price/earnings (CAPE) ratio for U.S. equities, measured by the MSCI US Broad Market Index. CAPE reflects contemporaneous real equity prices and 10-year average historical real earnings. The chart also shows our estimates of fair value, considering inflation and interest rates. Our historical fair-value estimates are based on actual levels of inflation and interest rates and reflect underlying data since January 31, 1940, while our 10-year fair-value forecast considers our expectations for inflation and rates.

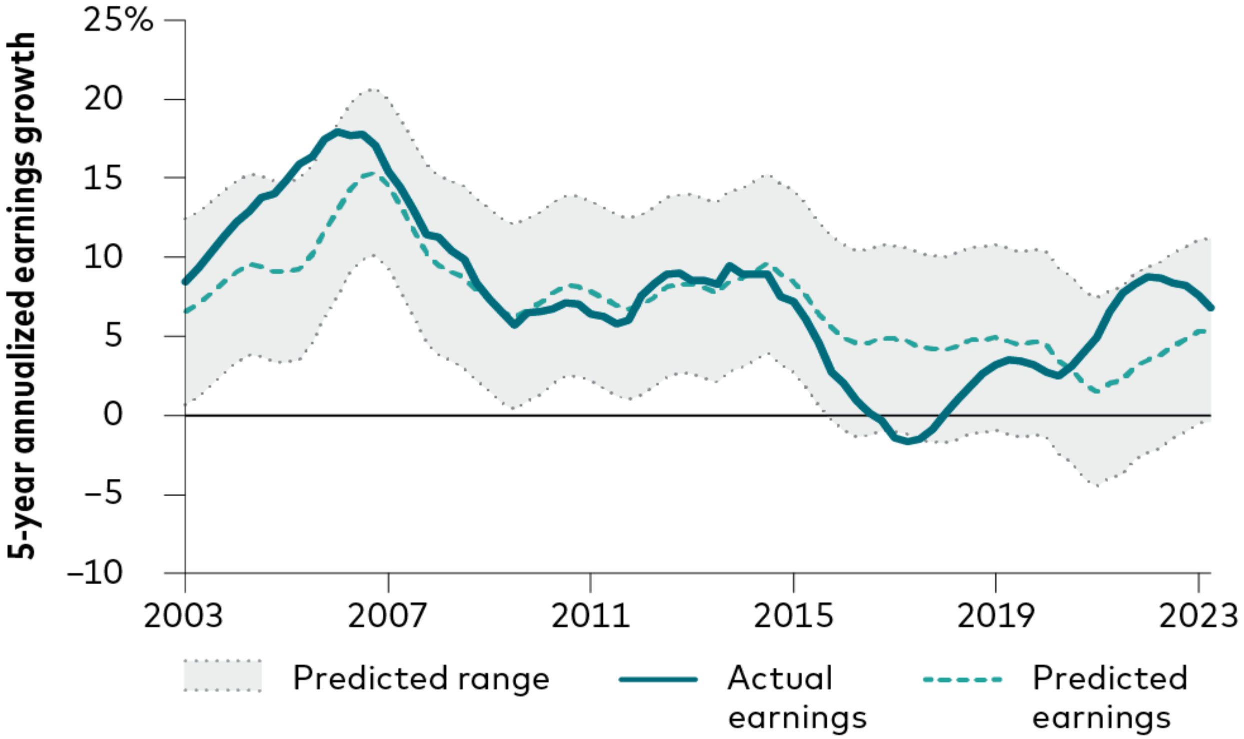
The table reflects the distribution of 10,000 Vanguard Capital Markets Model (VCMM) simulations of annualized nominal equity returns, in U.S. dollars, over the 10-year period ending September 30, 2033. Nominal returns do not reflect investment expenses, taxes, or inflation.

Sources: Vanguard calculations, based on data from Refinitiv and Global Financial Data, as of September 30, 2023.

IMPORTANT: The projections and other information generated by the VCMM regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from the VCMM are derived from 10,000 simulations for each modeled asset class. Simulations as of September 30, 2023. Results from the model may vary with each use and over time.

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Profit-margin-driven earnings growth has started to reverse



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Global ex-U.S. equities	–0.1%		3.4%		3.7%		1.1%		**8.1%**

Notes: In the chart, five-year annualized earnings growth figures, actual and predicted, reflect the aggregate results of Standard & Poor's 500 Index constituents, including loss-making companies, as of June 30, 2023. Predicted earnings reflect the median forecast of a proprietary Vanguard model of corporate earnings, which is detailed in "From Economics to Earnings: A Macro-Based Equity Earnings Growth Forecasting Model," an article published in the February 2023 issue of *The Journal of Investing*.

The table reflects the distribution of 10,000 Vanguard Capital Markets Model (VCMM) simulations of annualized nominal equity returns, in U.S. dollars, for the 10 years ending September 30, 2033. Nominal returns do not reflect investment expenses, taxes, or inflation.

Sources: Vanguard calculations, based on data from Bloomberg, Refinitiv, and the Federal Reserve Bank of St. Louis FRED database.

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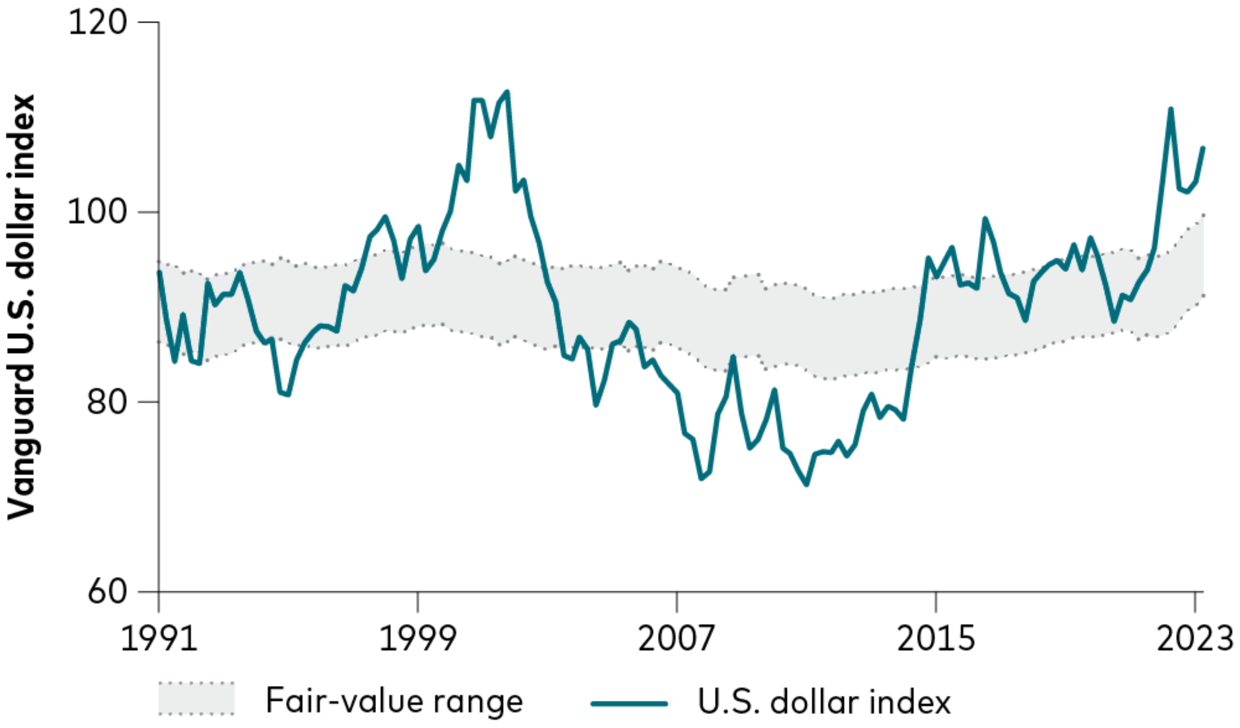
The U.S. dollar: Stronger than fundamentals warrant



The components of our forecasts of equities' total returns

	Valuation change	+	Earnings growth	+	Dividend yield	+	Currency effect	=	Total return
U.S. equities	–1.2%		4.4%		2.0%		—		**5.2%**
Global ex-U.S. equities	–0.1%		3.4%		3.7%		1.1%		**8.1%**

Notes: Our U.S. dollar index and fair-value estimates are proprietary measures that compare the U.S. dollar with an equity market-capitalization-weighted basket of the euro, the Japanese yen, the British pound, the Canadian dollar, and the Australian dollar. The non-U.S. dollar currencies' index weights reflect the relative weights of MSCI World Index constituent regions and countries that typically trade goods, services, and securities in those currencies. The fair-value estimates are based on the portion of exchange rate movements that can be explained through differentials in relative economic strength, measured by productivity (GDP per capita at purchasing power parity) and long-term real rates.

The table reflects the distribution of 10,000 Vanguard Capital Markets Model (VCMM) simulations of annualized nominal equity returns, in U.S. dollars, during the 10 years ending September 30, 2033. Nominal returns do not reflect investment expenses, taxes, or inflation.

Sources: Vanguard calculations, based on data from Refinitiv and the International Monetary Fund, as of September 30, 2023.

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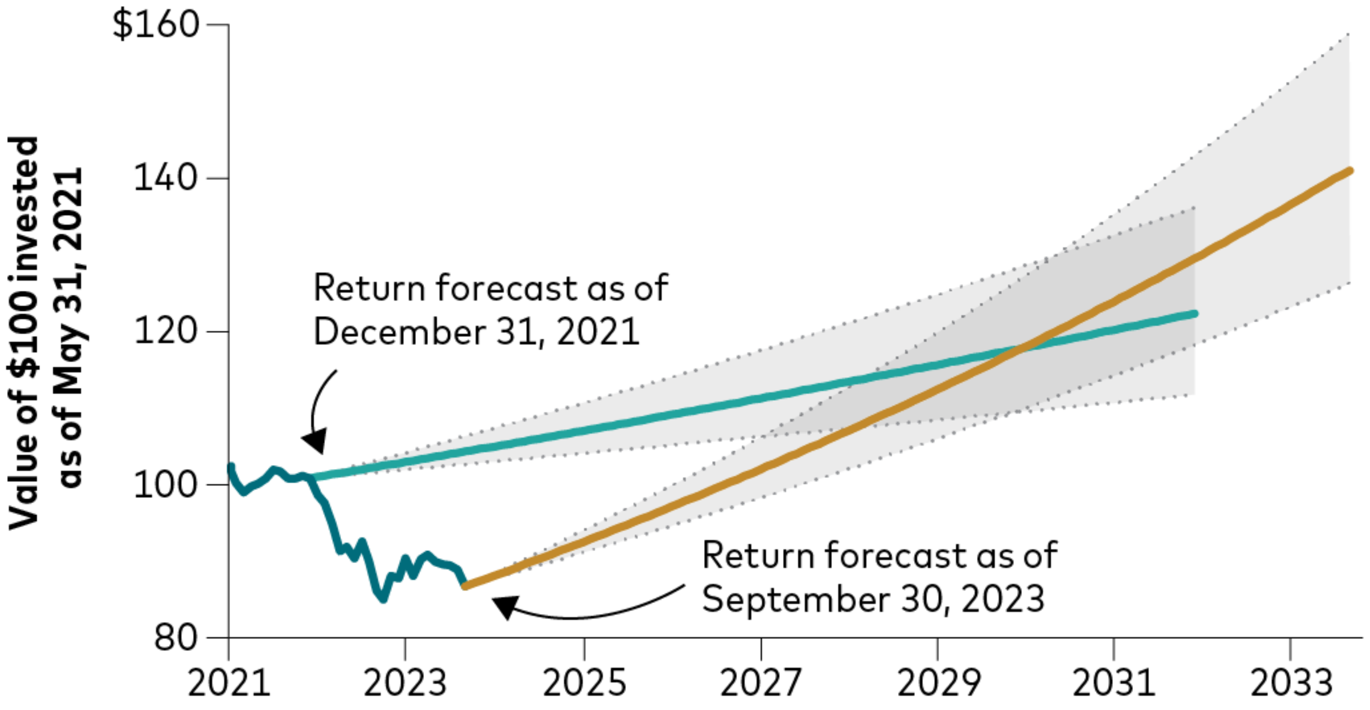
Rising rates mean higher returns for long-term investors



Notes: The chart shows actual returns for the Bloomberg U.S. Aggregate Bond Index along with Vanguard's forecast for cumulative returns over the subsequent 10 years as of December 31, 2021, and September 30, 2023. The dotted lines represent the 10th and 90th percentiles of the forecasted distribution. A hypothetical investor who had a lump sum invested in a bond portfolio similar to the Bloomberg U.S. Aggregate Bond Index at the end of 2021 would have had steep declines in 2022. But according to our model, that portfolio would "break even" in early 2030 (where the solid lines intersect) with a hypothetical portfolio in a world where interest rates remained low and bond prices didn't suffer steep declines. Investing new money would mean arriving at that breakeven point earlier.

Sources: Vanguard calculations, based on data from Bloomberg, as of September 30, 2023.

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Opportunities and cautionary signals for long-term investors

Notes: The U.S. equity valuation measure is the current cyclically adjusted price/earnings ratio (CAPE) percentile relative to our fair-value CAPE estimate for the MSCI US Broad Market Index. Factor valuations are relative to U.S. equities as the base at the 50th percentile. Growth, value, and small-cap valuation measures are all based on the percentile rank based on our fair-value model relative to the market. The large-cap valuation measure is a composite valuation measure of the style factor to U.S. relative valuations and the current U.S. CAPE percentile relative to its fair-value CAPE. The emerging markets valuation measure is based on the percentile rank based on our fair-value model relative to the market. The ex-U.S. developed markets and global ex-U.S. equity valuation measures are the market-capitalization-weighted CAPE percentiles relative to our fair-value CAPE estimate for the MSCI EMU Index, MSCI UK Index, MSCI Japan Index, MSCI Canada Index, MSCI Australia Index, and MSCI Emerging Markets Index; the MSCI Emerging Markets Index is used only for global ex-U.S. equities.

Aggregate bond valuation measures are market-capitalization-weighted averages of intermediate-term credit and Treasury valuation percentiles for the U.S. and global ex-U.S. (market-capitalization-weighted averages of the euro area, the U.K., Japan, Canada, and Australia). Treasury valuation measures are the key rate duration-weighted average of our fair-value model. Intermediate credit, high-yield credit, mortgage-backed securities (MBS), and emerging markets sovereign debt valuation measures are based on current spreads relative to the VCMM simulation of spreads in year 30 of our forecast. The Treasury Inflation-Protected Securities (TIPS) valuation measure is based on the 10-year annualized inflation forecast relative to our equilibrium forecast for inflation. The valuation percentiles are as of September 30, 2023, and September 30, 2022 (in parentheses).

Sources: Vanguard calculations, based on data from Robert Shiller's website at aida.wss.yale.edu/~shiller/data.htm, the U.S. Bureau of Labor Statistics, the Federal Reserve Board, and Refinitiv, as of September 30, 2023.

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About the Vanguard Capital Markets Model

IMPORTANT: The projections and other information generated by the Vanguard Capital Markets Model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time.

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The VCMM is a proprietary financial simulation tool developed and maintained by Vanguard's Investment Strategy Group. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

The primary value of the VCMM is in its application to analyzing potential client portfolios. VCMM asset-class forecasts—comprising distributions of expected returns, volatilities, and correlations—are key to the evaluation of potential downside risks, various risk–return trade-offs, and the diversification benefits of various asset classes. Although central tendencies are generated in any return distribution, Vanguard stresses that focusing on the full range of potential outcomes for the assets considered, such as the data presented in this paper, is the most effective way to use VCMM output.

The VCMM seeks to represent the uncertainty in the forecast by generating a wide range of potential outcomes. It is important to recognize that the VCMM does not impose "normality" on the return distributions, but rather is influenced by the so-called fat tails and skewness in the empirical distribution of modeled asset-class returns. Within the range of outcomes, individual experiences can be quite different, underscoring the varied nature of potential future paths. Indeed, this is a key reason why we approach asset-return outlooks in a distributional framework.

Indexes for VCMM simulations

The long-term returns of our hypothetical portfolios are based on data for the appropriate market indexes through September 30, 2023. We chose these benchmarks to provide the most complete history possible, and we apportioned the global allocations to align with Vanguard's guidance in constructing diversified portfolios. Asset classes and their representative forecast indexes are as follows:

U.S. equities: MSCI US Broad Market Index.
Global ex-U.S. equities: MSCI All Country World ex USA Index.
Global ex-U.S. developed market equities: MSCI World ex USA Index.
Emerging markets equities: MSCI Emerging Markets Index.
U.S. REITs: FTSE/NAREIT US Real Estate Index.
U.S. Treasury bonds: Bloomberg U.S. Treasury Index.
U.S. short-term Treasury bonds: Bloomberg U.S. 1–5 Year Treasury Bond Index.
U.S. intermediate-term Treasury bonds: Bloomberg U.S. 5–10 Year Treasury Bond Index.
U.S. long-term Treasury bonds: Bloomberg U.S. Long Treasury Bond Index.
U.S. intermediate credit bonds: Bloomberg U.S. Credit Bond Index.
U.S. high-yield corporate bonds: Bloomberg U.S. High Yield Corporate Bond Index.
U.S. bonds: Bloomberg U.S. Aggregate Bond Index.
Global ex-U.S. bonds: Bloomberg Global Aggregate ex-USD Index USD Hedged.
U.S. TIPS: Bloomberg U.S. Treasury Inflation Protected Securities Index.
Emerging-market sovereign bonds: Bloomberg Emerging Markets USD Sovereign Bond Index—10% Country Capped.
Mortgage-backed securities (MBS): Bloomberg U.S. Mortgage Backed Securities Index.

All equity indexes below are weighted by market capitalization:
Small-cap equities: Stocks with a market cap in the lowest two-thirds of the Russell 3000 Index.
Large-cap equities: Stocks with a market cap in the highest one-third of the Russell 1000 Index.
Growth equities: Stocks with a price/book ratio in the highest one-third of the Russell 1000 Index.
Value equities: Stocks with a price/book ratio in the lowest one-third of the Russell 1000 Index.

Notes on risk

All investing is subject to risk, including the possible loss of the money you invest. Past performance is no guarantee of future returns. Diversification does not ensure a profit or protect against a loss. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

U.S. government backing of Treasury or agency securities applies only to the underlying securities and does not prevent price fluctuations. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest. Investments that concentrate on a relatively narrow market sector face the risk of higher price volatility. Investments in stocks and bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets.

Bond funds are subject to the risk that an issuer will fail to make payments on time, and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings. Although the income from U.S. Treasury obligations held in the fund is subject to federal income tax, some or all of that income may be exempt from state and local taxes.

Important information

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model® (VCMM) regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time.

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More importantly, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

Important information

For more information about any fund, visit institutional.vanguard.com or call 866-499-8473 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF® Shares are not redeemable with the issuing fund other than in very large aggregations worth millions of dollars. Instead, investors must buy or sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

Mutual funds and all investments are subject to risk, including the possible loss of the money you invest. Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks. Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets. Funds that concentrate on a relatively narrow sector face the risk of higher share-price volatility. It is possible that tax-managed funds will not meet their objective of being tax-efficient. Because company stock funds concentrate on a single stock, they are considered riskier than diversified stock funds.

Investments in bond funds are subject to the risk that an issuer will fail to make payments on time and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings. Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax. Diversification does not ensure a profit or protect against a loss. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

While U.S. Treasury or government agency securities provide substantial protection against credit risk, they do not protect investors against price changes due to changing interest rates. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

Investments in Target Retirement Funds and Trusts are subject to the risks of their underlying funds. The year in the fund or trust name refers to the approximate year (the target date) when an investor in the fund or trust would retire and leave the workforce. The fund/trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. The Income Trust/Fund and Income and Growth Trust have fixed investment allocations and are designed for investors who are already retired. An investment in a Target Retirement Fund or Trust is not guaranteed at any time, including on or after the target date.

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