

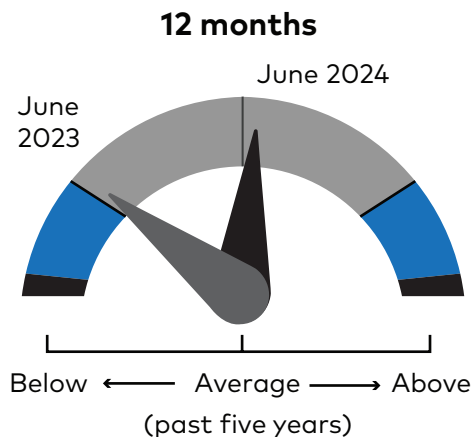
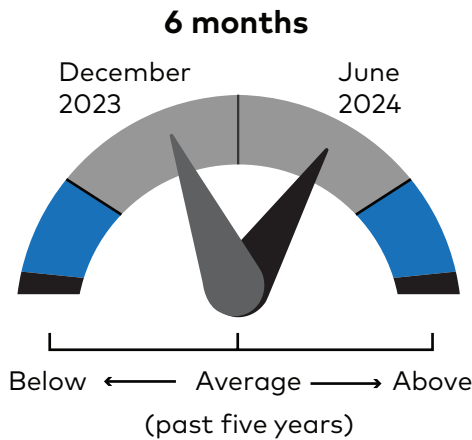
2024 MID-YEAR

Risk Speedometers: What are allocators buying and selling?

Key trends

1. Cash flow Risk Appetite Speedometer rises

FIGURE 1A: Vanguard Investment Advisory Research Center Risk Speedometers, as of June 30, 2024

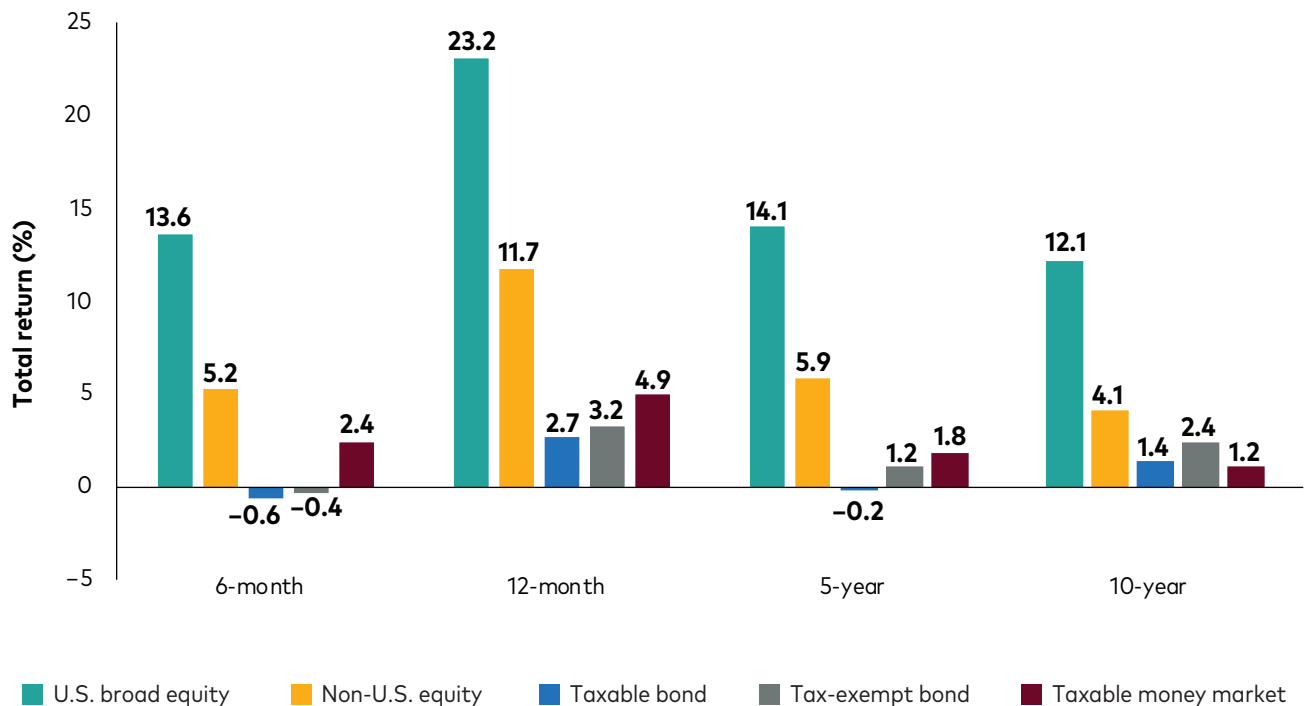


Our June 2024 Risk Appetite Speedometer, **Figure 1A**, shows that both the 6-month and 12-month risk appetites rose significantly from their prior readings and are now both above their long-term means. When analyzing relative risk appetite, it is critical to also analyze relative market performance, as shown in **Figure 1B**. Commenting on cash flows and the risk positioning of such cash flows without the context of relative market performance during the period—which is extremely common within the industry—often leads to incorrect conclusions.

Source: Vanguard Investment Advisory Research Center calculations using data provided by Morningstar, Inc., as of June 30, 2024.

Notes: Vanguard's risk speedometer measures the difference between net cash flows into higher risk asset classes (U.S. equity, international equity, emerging markets equity, sector equity, alternative, and other taxable bond) and lower risk asset classes (U.S. taxable bond, tax-exempt bond, and money market). The gray area represents one standard deviation, blue represents one to two standard deviations from the mean, and the black represents more than two standard deviations from the mean. It is worth pointing out that '40 Act mutual funds and ETFs are not a closed system. Cash flows can come from other structures, platforms, and sources such as bank deposits, SMAs, direct pension and sovereign wealth funds, among others.

FIGURE 1B: Market performance as of June 30, 2024



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 Investment Advisory Research Center using data from CRSP, FTSE, Bloomberg, and Lipper. Five-year and 10-year returns are annualized. Data as of June 30, 2024.

Benchmarks used: U.S. broad equity: CRSP US Total Market Index; Non-U.S. equity: FTSE Global All Cap ex US Index; Taxable bond: Bloomberg U.S. Aggregate Float Adjusted Bond Index; Tax-exempt bond: Bloomberg Municipal Bond Index; Taxable money market: U.S. Government Money Market Funds Average.

2. What are allocators buying and selling?¹

Allocators' buy/sell decisions are determined by examining cash flows at a more granular level across more than 100 sub-asset classes, durations, styles, sectors, and thematic investment categories. This level of detail provides insights into allocators' narrower buy/sell decisions beyond the core building blocks. The decisions are presented in two views: absolute dollar flows, which shows the largest positive and negative cash flows; and cash flows as a percentage of base assets, which highlights the winning flow categories relative to their market share.²

The leader/laggard categories are likely what your clients will be hearing and reading about as well as where your peers will be most active in changing their allocations. Being aware of the categories that are in or out of favor is helpful in preparing for client conversations and in providing insights into what is selling well versus what is being sold in the marketplace.

¹ Figures show long-term assets and omit balanced funds.

² For the percentage of base asset charts, we've removed the smallest asset categories in order to provide more relevant results while still capturing over 90% of total industry AUM.

Cash flow leaders: "What's hot"

FIGURE 2: Cash flow leaders and corresponding return rank

2A. Absolute dollar flows

RANK	SHORT-TERM		LONG-TERM	
	6 MONTHS	1 YEAR	5 YEARS	10 YEARS
1.	Large Blend \$73.1B (8/105)	Money Market Taxable \$228.0B (63/105)	Money Market Taxable \$2,035.9B (57/105)	Money Market Taxable \$3,124.9B (60/104)
2.	Intermediate Core Bond \$69.1B (89/105)	Prime Money Market \$187.7B (60/105)	Intermediate Core Bond \$529.5B (85/105)	Intermediate Core Bond \$863.0B (65/104)
3.	Prime Money Market \$67.7B (50/105)	Large Blend \$178.5B (8/105)	Prime Money Market \$447.0B (55/105)	Large Blend \$804.1B (5/104)
4.	Intermediate Core-Plus Bond \$30.5B (87/105)	Intermediate Core Bond \$120.0B (87/105)	Large Blend \$384.6B (5/105)	Foreign Large Blend \$721.2B (40/104)
5.	Foreign Large Blend \$25.6B (38/105)	Foreign Large Blend \$47.9B (34/105)	Foreign Large Blend \$253.2B (43/105)	Ultrashort Bond \$249.8B (74/104)
6.	Multisector Bond \$25.1B (56/105)	Intermediate Core-Plus Bond \$42.2B (77/105)	Intermediate Core-Plus Bond \$155.8B (83/105)	Global Bond-USD Hedged \$232.1B (72/104)
7.	Intermediate Government \$21.8B (92/105)	Long Government \$37.0B (99/105)	Long Government \$128.8B (99/105)	Intermediate Core-Plus Bond \$221.4B (64/104)
8.	Ultrashort Bond \$17.8B (62/105)	Ultrashort Bond \$33.4B (84/105)	Intermediate Government \$116.2B (90/105)	Muni National Interm \$178.3B (59/104)
9.	Technology \$17.1B (3/105)	Multisector Bond \$32.8B (44/105)	Global Bond-USD Hedged \$112.9B (87/105)	Long Government \$170.2B (89/104)
10.	Global Bond-USD Hedged \$16.6B (88/105)	Intermediate Government \$28.3B (93/105)	Muni National Interm \$93.5B (67/105)	Diversified EM \$167.7B (43/104)

■ Equity
 ■ Bond
 ■ Other taxable bond
 ■ Alternative
 ■ Money market

Source: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc., as of June 30, 2024.

Notes: Fund flow information excludes fund-of-fund structures. Numbers in parentheses indicate category total return rank out of total number of categories.

2B. Percentage of base assets

RANK	SHORT-TERM		LONG-TERM	
	6 MONTHS	1 YEAR	5 YEARS	10 YEARS
1.	Multisector Bond 8.9% (19/34)	Long Government 26.7% (34/34)	Long Government 194.4% (34/34)	Long Government 962.2% (34/34)
2.	Intermediate Government 8.9% (32/34)	Prime Money Market 21.7% (21/34)	Money Market Taxable 82.8% (21/34)	Global Bond-USD Hedged 422.1% (29/34)
3.	Long Government 7.2% (34/34)	Multisector Bond 12.6% (19/34)	Prime Money Market 76.9% (19/34)	Ultrashort Bond 302.6% (31/34)
4.	Prime Money Market 6.7% (16/34)	Intermediate Government 12.1% (33/34)	Intermediate Government 72.3% (33/34)	Money Market Taxable 239.3% (23/34)
5.	Global Bond-USD Hedged 6.1% (29/34)	Ultrashort Bond 10.7% (30/34)	Intermediate Core Bond 60.1% (30/34)	Corporate Bond 189.4% (32/34)
6.	Ultrashort Bond 5.4% (22/34)	Money Market Tax-Free 10.6% (26/34)	Global Bond-USD Hedged 58.3% (31/34)	Intermediate Core Bond 181.8% (26/34)
7.	Intermediate Core Bond 5.3% (30/34)	Intermediate Core Bond 9.9% (31/34)	Corporate Bond 46.8% (32/34)	Intermediate Government 158.6% (33/34)
8.	Corporate Bond 5.2% (31/34)	Global Bond-USD Hedged 9.6% (24/34)	Muni National Interm 40.6% (27/34)	Muni National Interm 141.3% (22/34)
9.	Technology 4.9% (1/34)	Technology 7.5% (1/34)	Ultrashort Bond 32.0% (24/34)	Foreign Large Blend 121.3% (18/34)
10.	Intermediate Core-Plus Bond 4.0% (28/34)	High-Yield Bond 6.5% (18/34)	Intermediate Core-Plus Bond 23.6% (29/34)	Technology 67.7% (1/34)

Equity
 Bond
 Other taxable bond
 Alternative
 Money market

Source: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc., as of June 30, 2024.

Notes: Fund flow information excludes fund-of-fund structures. Numbers in parentheses indicate category total return rank out of total number of categories.

Cash flow laggards: "What's not hot"

FIGURE 3: Cash flow laggards and corresponding return rank

3A. Absolute dollar flows

RANK	SHORT-TERM		LONG-TERM	
	6 MONTHS	1 YEAR	5 YEARS	10 YEARS
1.	Large Value -\$18.1B (22/105)	Large Value -\$53.6B (15/105)	Large Growth -\$266.4B (4/105)	Large Growth -\$476.1B (4/104)
2.	Mid-Cap Growth -\$17.0B (28/105)	Short-Term Bond -\$36.2B (59/105)	Mid-Cap Growth -\$95.5B (18/105)	Large Value -\$149.5B (12/104)
3.	Mid-Cap Value -\$10.6B (39/105)	Mid-Cap Growth -\$27.2B (21/105)	Mid-Cap Value -\$70.4B (13/105)	Mid-Cap Growth -\$145.3B (9/104)
4.	Health -\$9.9B (23/105)	Large Growth -\$27.1B (4/105)	Foreign Large Growth -\$56.0B (25/105)	Mid-Cap Value -\$109.1B (15/104)
5.	Money Market Taxable -\$8.0B (54/105)	Health -\$25.5B (37/105)	Large Value -\$49.4B (11/105)	Money Market Tax-Free -\$105.2B (61/104)
6.	Short Government -\$7.5B (80/105)	Mid-Cap Value -\$19.2B (25/105)	Small Growth -\$49.3B (26/105)	Global Bond -\$79.9B (93/104)
7.	Trading-Leveraged Equities -\$7.4B (2/105)	Short Government -\$15.7B (89/105)	Foreign Large Value -\$36.6B (30/105)	Small Growth -\$73.3B (14/104)
8.	Small Growth -\$6.6B (40/105)	Muni National Short -\$15.5B (82/105)	Health -\$31.3B (17/105)	Bank Loan -\$58.2B (51/104)
9.	Commodities Focused -\$5.7B (9/105)	Foreign Large Growth -\$15.0B (29/105)	Global Large Value -\$27.0B (20/105)	Global Large Value -\$49.4B (23/104)
10.	Large Growth -\$5.6B (4/105)	Commodities Focused -\$12.4B (10/105)	Global Bond -\$23.0B (95/105)	Foreign Large Growth -\$45.4B (24/104)

Equity Bond Other taxable bond Alternative Money market

Source: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc., as of June 30, 2024.

Notes: Fund flow information excludes fund-of-fund structures. Numbers in parentheses indicate category total return rank out of total number of categories.

3B. Percentage of base assets

RANK	SHORT-TERM		LONG-TERM	
	6 MONTHS	1 YEAR	5 YEARS	10 YEARS
1.	Health -4.6% (9/34)	Health -11.3% (16/34)	Mid-Cap Growth -27.2% (11/34)	Mid-Cap Growth -54.6% (5/34)
2.	Mid-Cap Growth -4.4% (10/34)	Muni National Short -10.9% (28/34)	Mid-Cap Value -24.4% (7/34)	Small Growth -41.3% (9/34)
3.	Inflation-Protected Bond -3.7% (25/34)	Inflation-Protected Bond -8.5% (32/34)	Small Growth -21.3% (14/34)	Mid-Cap Value -41.3% (10/34)
4.	Muni National Short -3.3% (24/34)	Mid-Cap Growth -7.3% (8/34)	Health -17.8% (10/34)	Money Market Tax-Free -40.8% (24/34)
5.	Mid-Cap Value -3.2% (13/34)	Short-Term Bond -7.1% (20/34)	Large Growth -15.9% (2/34)	Large Growth -40.3% (2/34)
6.	Small Growth -2.7% (14/34)	Mid-Cap Value -6.0% (9/34)	Foreign Large Value -15.0% (15/34)	Health -29.8% (7/34)
7.	Foreign Large Value -1.9% (15/34)	Small Growth -4.7% (15/34)	Foreign Large Growth -12.5% (13/34)	Foreign Large Value -17.2% (16/34)
8.	Global Large Growth -1.8% (4/34)	Global Large Growth -3.6% (4/34)	Global Large Growth -11.1% (4/34)	Large Value -15.2% (8/34)
9.	Real Estate -1.1% (33/34)	Large Value -3.3% (6/34)	Real Estate -6.4% (23/34)	Global Large Growth -14.3% (4/34)
10.	Large Value -1.1% (8/34)	Foreign Large Value -3.2% (17/34)	Muni National Short -4.1% (25/34)	Foreign Large Growth -12.8% (14/34)

Equity
 Bond
 Other taxable bond
 Alternative
 Money market

Source: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc., as of June 30, 2024.

Notes: Fund flow information excludes fund-of-fund structures. Numbers in parentheses indicate category total return rank out of total number of categories.

How to read the tables

In the four preceding tables, each quilt has a multitude of information: the ranking on the left-hand side indicates where money is flowing—ordered from most to least—the absolute dollar amounts (**Figure 2A**) or percentage of base assets (**Figure 2B**), and the relative stack order performance rankings. For example, in the Absolute Dollar Flows chart, the top left square tells you that Morningstar's Large Blend category ranked first in absolute inflow over the last 6-month period, with \$73.1B of inflows, while its returns placed it 8th out of 105 fund categories. In the Percentage of Base Assets Flows, the top left square tells you that Morningstar's Multisector Bond category ranked first in percentage of base inflows over the last 6-month period with an 8.9% increase in base assets for the category, while its returns placed it 19th out of 34 fund categories.

Takeaways

For the cash flow leaders, from an absolute dollar perspective, money markets have dominated all periods longer than six months as seen in **Figure 2A**. The remaining leaders are mainly a mix of large equity and core bond categories. While this information is helpful, it is important to also look at cash flows within the context of asset base size, as seen in **Figure 2B**.

By measuring cash flows as a percentage of base assets, the relative size differences between the categories are accounted for and provide a more insightful view of cash flow preferences. From a percentage of base assets perspective, money markets and fixed income have dominated the cash flows. This shows rebalancing behaviors as the cash flows relative to base assets are dominated in the lower performing investment categories.

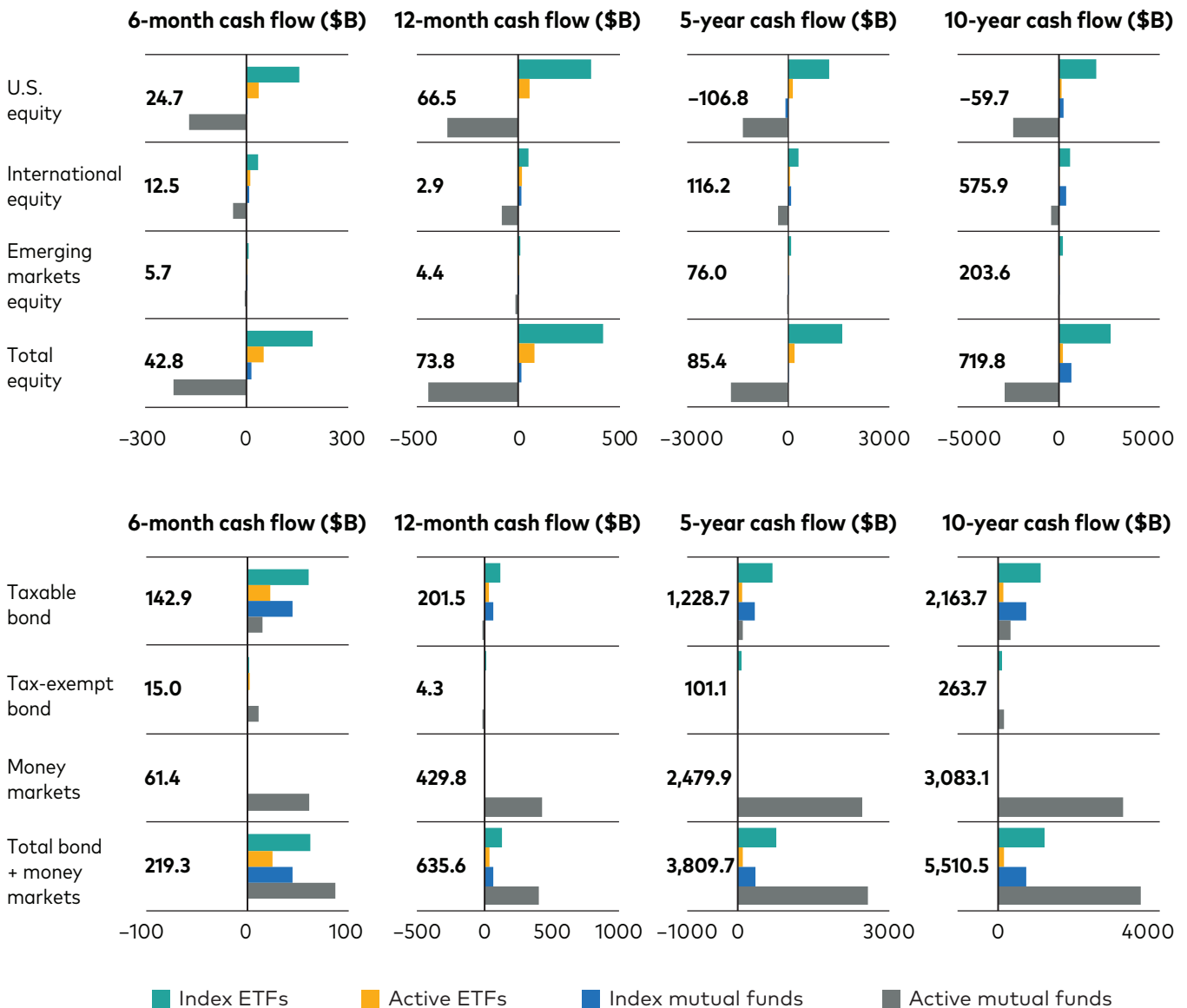
Turning to the laggards, from an absolute dollar perspective (**Figure 3A**), nearer-term cash flow laggards include a mix of stronger performing categories (Large Growth, Mid-Cap Growth, and Mid-Cap Value) and weaker performing categories (Short Government, Short-Term Bond, and Muni National Short). Over longer periods, the cash flow laggards include many stronger performing categories (Large Growth, Mid-Cap Growth, Small Growth, Mid-Cap Value, and Large Value). From a percentage of base assets perspective (**Figure 3B**), the trends are similar.

3. Other key cash flow observations³

Figure 4 highlights several strong trends. First, fund allocators have continued to heavily favor index ETFs over traditional mutual funds, both active and indexed. Second, fund flows have been positive across all

asset classes over the prior 12-months. When going a layer deeper, we are also seeing positive flows for active ETFs.

FIGURE 4: Equity and fixed income cash flows as of June 30, 2024



Source: Vanguard Investment Advisory Research Center calculations using data provided by Morningstar, Inc., as of June 30, 2024.

Note: Figures may not add up to totals because of rounding.

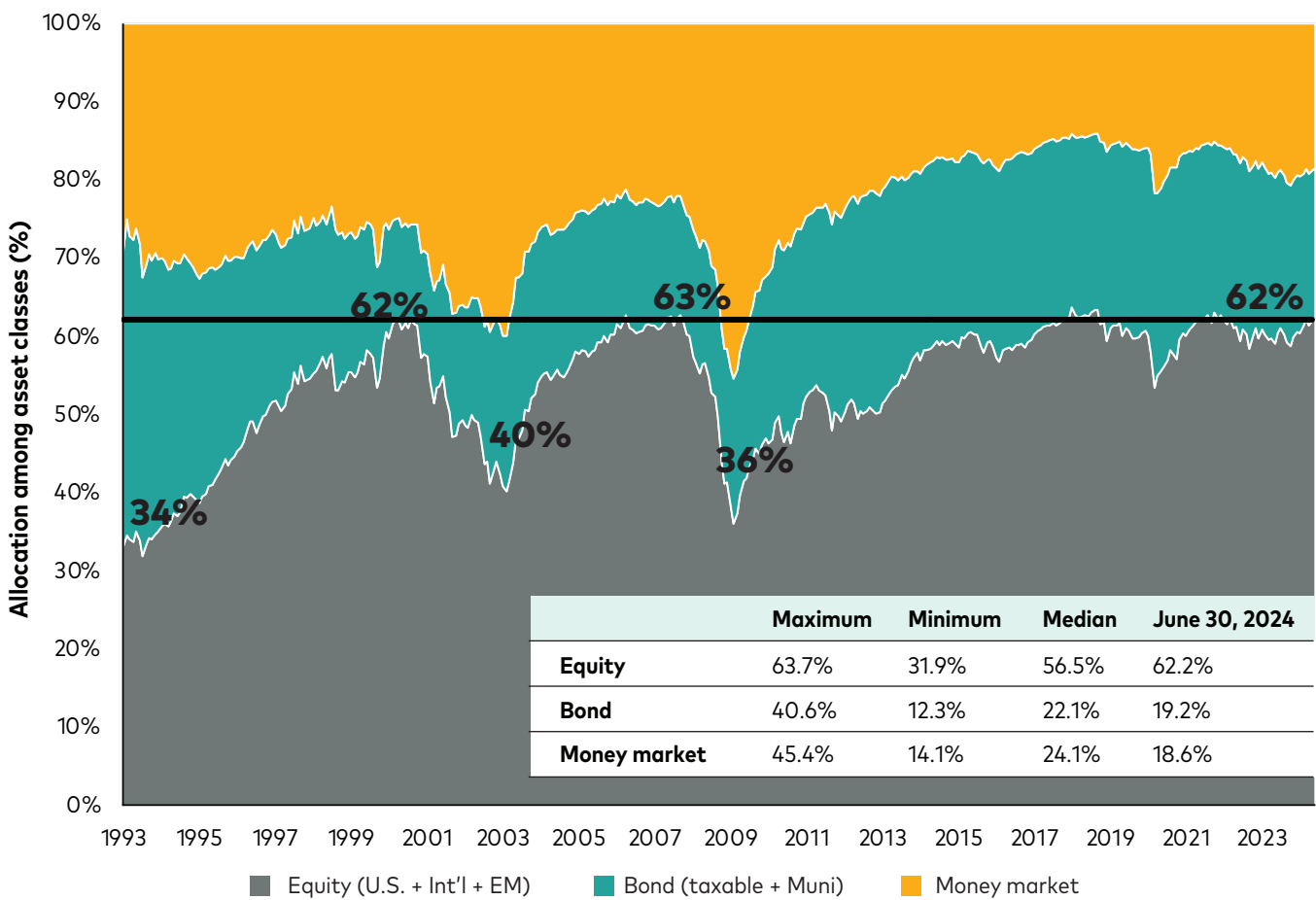
³ Note that '40 Act mutual funds and ETFs are not a closed system. Cash flows can come from other structures, platforms, and sources such as bank deposits, SMAs, direct pension and sovereign wealth funds, among others.

4. Asset allocation within the context of market performance and cash flows

While current risk appetite, as measured by cash flows, is one key measure of investment risk behavior, it is equally—if not more—important to examine these cash flows within the context of the relative investment performance, and then, taken together, their influence on the total aggregate asset allocation mixes for the industry. Evaluating where cash flows are going without considering relative asset class performance and how the assets are currently invested will often lead to incorrect conclusions.

Figure 5 charts the overall asset allocation for fund industry assets broken down between equities, bonds, and money markets from 1993 through June 30, 2024. For the first twenty plus years, asset allocations appear to be trend-following, thus implying allocators may not have been as prudent in rebalancing or were chasing performance. However, in the last seven-to-ten years, asset allocations appear very different; they have remained remarkably stable—outside of the very brief Covid “blip”—despite the fact that this period was characterized by very strong equity risk premiums (**Figure 1B**) with two equity bear markets sandwiched in between. **Figures 6** and **7** go a level deeper into broad asset allocation and show AUM, cash flows, and allocations.

FIGURE 5: Aggregate industry asset allocations 1993 to June 30, 2024



Sources: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc.

Note: Black line illustrates current equity allocation (62.2% June 30, 2024) to visualize the variance of equity allocations (grey area) through time.

FIGURE 6: Industry mutual fund and ETF assets under management and cashflow (\$ billions) as of June 30, 2024

	JUNE 30, 2024 AUM (\$B)	6-MONTH CASHFLOW (\$B)	CASHFLOW AS A PERCENTAGE (%) OF BASE ASSETS⁴
U.S. equity	\$14,862	\$24.7	0.2%
Non-U.S. equity	\$4,111	\$18.2	0.5%
Total equity	\$18,973	\$42.9	0.3%
Bond (taxable + muni)	\$6,289	\$157.9	2.6%
Money markets	\$6,086	\$61.4	1.0%
Total	\$31,348	\$262.2	0.9%

Sources: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc.

FIGURE 7: Industry mutual fund and ETF assets under management (percentage of AUM) as of June 30, 2024

	MAXIMUM	MINIMUM	MEDIAN	JUNE 30, 2024
U.S. equity	52.2%	26.5%	43.8%	49.6%
Non-U.S. equity	18.4%	3.4%	13.2%	12.7%
Total equity	63.7%	31.9%	56.5%	62.2%
Bond	40.6%	12.3%	22.1%	19.2%
Money markets	45.4%	14.1%	24.1%	18.6%

Sources: Vanguard Investment Advisory Research Center calculations using data from Morningstar, Inc.

⁴ The cash flows as a percentage of base assets calculation uses beginning-of-period assets (December 31, 2023) rather than the June 30, 2024 date shown in the table.

Conclusion

Vanguard's Risk Appetite Speedometers indicate that investors and their advisors have continued to "stay the course." Our research, which analyzes mutual fund and ETF cash flows within the context of relative investment performance and aggregate industry asset allocations, reveals that fund allocators remained disciplined and rebalanced their portfolios. As a result, investors have benefited from 2024 market performance, leading to improved outcomes for both investors and advisors. This behavior is notably different from previous bear market recoveries and aligns with our Advisor's Alpha research.

We hypothesize several potential catalysts for these positive developments:

1. The movement towards a top-down versus bottom-up investing process.
2. The rapid diffusion of ETFs and a more institutional client base that may use them.
3. The adoption of Vanguard's Advisor's Alpha framework by the advisory community.
4. The penetration of investment solutions and allocators that rebalance.

While the jury is still out on whether these trends are cyclical or secular, our hypothesis—that advisors have successfully helped their clients tune out the noise and stay the course—has held strong.

Context and notes

Vanguard's Investment Advisory Research Center Risk Speedometers, which were developed by the creators of Advisor's Alpha® in 2016,⁵ are intended to inform advisors of industry trends. The Risk Appetite Speedometer measures the difference in net cash flow between higher-risk asset classes and lower-risk asset classes to gauge the level of risk fund allocators are taking relative to their prior levels and their longer-term averages.

Understanding industry cash flow data is crucial for advisors. However, its true value lies in analyzing it alongside relative market performance. This is because changes in relative performance affect asset allocations and risk positioning. Therefore, cash flows must be interpreted within this context. Additionally, we also examine the current risk appetite in relation to total aggregate fund industry asset allocations, both present and historical. By considering fund flows, relative market performance, and aggregate asset allocation, advisors can gain valuable insights into how their peers are allocating current flows. This information helps advisors understand the direction and correlation of their own cash flows and asset allocations compared to their peers.

Finally, and perhaps most importantly, this information can help advisors have effective client conversations on what they may be hearing or reading about. For example, a large drop in the risk speedometers may suggest uncertainty or fear among investors as equities are selling off; however, if equities are rallying, this could be indicative of rebalancing behaviors. Likewise, a deeper dive into sub-asset class allocations provides insight into allocators' narrower buy/sell decisions, thus enabling advisors to understand what allocators are doing with their capital. Knowing broader trends such as these enables advisors to strengthen client relationships by reaching out to clients with information, guidance, and behavioral coaching moments.

⁵ In 2022, this team was renamed the Investment Advisory Research Center, and their sole focus is to support advisors in their efforts to maximize after-tax advised-client outcomes.

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All investing is subject to risk, including possible loss of principal. Diversification does not ensure a profit or protect against a loss.

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