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Monthly Market Review

June 2026

Did You Know?

The Evolution of Global Markets

Financial markets around the world have grown over the last 15 years. However, the rate and nature of that growth has varied across regions. We look beyond headline returns to explore how these differences show up in key fundamentals and valuations.

Academic Perspective

Mortgages: Beyond the Math By Hal Hershfield, Ph.D.

Mortgage decisions are shaped by more than rates and payments. We explore how advisors can help clients simplify choices, weigh future trade-offs and make mortgage decisions that reflect both the math and the person behind it.

Market Review

- A second-quarter rally left broad global stock indices with double-digit gains.
- Robust corporate earnings and a ceasefire in Iran helped bolster market sentiment.
- Inflation increased and Treasury yields rose, but the broad U.S. bond market index advanced, led by corporate bonds.

Appendix

- Glossary

Did You Know?

The Evolution of Global Markets

A lot has changed over the past 15 years. In 2010, the iPad had just been introduced, Facebook was the dominant social media platform (TikTok, who?), and hailing a ride meant standing on a street corner rather than opening the Uber app.

Just as our daily lives have evolved since then, so too have financial markets. And while a great deal of investor attention focuses on returns, a closer look beneath the surface reveals a more nuanced story about how markets around the world have grown and how these changes have been reflected in fundamentals.

A Closer Look at Global Market Growth

Over the past 15 years, companies in the U.S., non-U.S. developed, and emerging markets (EM) have invested in their businesses, driving substantial growth in book equity (assets minus liabilities), earnings and market capitalization. However, the rate and nature of that growth have varied across regions.

Figure 1 highlights these differences by comparing the growth rates of key fundamentals by region from 2010 to 2025.



The Evolution of Global Markets

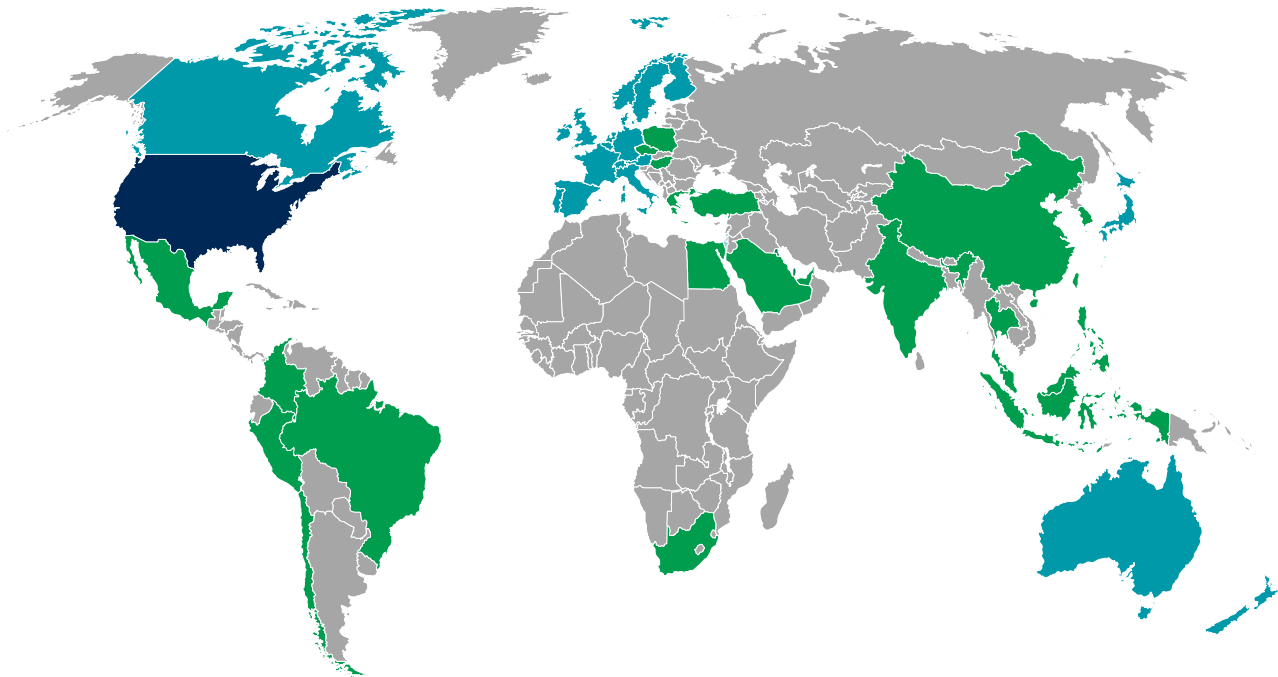
Figure 1 | The U.S. Isn't the Only Market That's Growing

Change in Fundamentals by Region Over the Last 15 Years (2010-2025)

United States					
Market Cap	Book Equity	Earnings			
361%	110%	192%			
Assets		Liabilities			
108%		107%			

Developed Non-U.S. Markets					
Market Cap	Book Equity	Earnings			
86%	40%	65%			
Assets		Liabilities			
29%		30%			

Emerging Markets					
Market Cap	Book Equity	Earnings			
224%	242%	175%			
Assets		Liabilities			
303%		322%			



Data from 12/31/2010 – 12/31/2025. Sources: Avantis Investors, FactSet. The U.S. market is represented by the Russell 3000® Index. Non-U.S. developed markets are represented by the MSCI World ex-USA IMI. Emerging markets are represented by the MSCI Emerging Markets IMI.

The Evolution of Global Markets

The U.S. stands out for its exceptional market capitalization growth, rising 361% over the period and topping emerging markets at 224% and developed non-U.S. markets at 86%. Importantly, this growth captures more than market performance.

Market capitalization can also increase when new companies go public. Think back to Meta in the U.S., Shopify in Canada, and Saudi Aramco in Saudi Arabia — all examples from the past 15 years. Existing companies may also raise additional capital, while other corporate actions can cause companies to be delisted or merge across jurisdictions, as seen in the 2025 acquisition of U.S. Steel by Nippon Steel. These factors combine to affect the size of each market.

And while all markets have grown in size, increases in fundamental metrics, including book equity and earnings, haven't been constant across regions. What stands out in this data is the strong growth rates in emerging markets compared to their developed counterparts.

Growth in book equity was by far the highest in emerging markets at 242% — more than double the U.S. at 110% and many multiples higher than developed non-U.S. markets at 40%. Underlying the considerable book equity growth (also viewed as net positive investment) in emerging markets are meaningful increases in both assets and liabilities — each at more than 300%. However, despite the increase in liabilities, leverage (measured as liabilities over assets) changed little over the period. Further, the leverage ratio for emerging markets is similar to that of the U.S. market, with both regions in the range of 0.75 to 0.80 at the end of the period.

Earnings growth in emerging markets at 175% was also nearly as high as the U.S. market's 192% growth rate. Developed non-U.S. markets again lagged the other regions, with earnings growth of 65%.

Taking price (market capitalization) and fundamental changes together, a key takeaway is that the U.S. market has realized clear multiple expansion, as its market capitalization has risen at a much higher rate than book equity and earnings. Emerging markets stand in contrast, as market cap rose at a lower rate than book equity and more similar to its earnings growth than in the U.S.

Leverage ratio is defined as total liabilities divided by total assets and represents the proportion of aggregate assets financed through liabilities across companies within a region.

Earnings growth is defined as the percentage change in aggregate earnings for companies within a region over the period analyzed.

Figure 2 | Emerging Markets Growth Isn't Limited to Outliers

The figure consists of two scatter plots. The top plot shows the relationship between the percentage change in earnings (Y-axis, ranging from -200% to 800%) and the percentage change in book equity (X-axis, ranging from -200% to 1200%). A dashed box highlights a region of interest around the origin. The bottom plot is a zoomed-in view of the data points within the dashed box, showing the percentage change in earnings (Y-axis, ranging from -100% to 400%) and the percentage change in book equity (X-axis, ranging from -100% to 400%). The bottom plot includes labels for several countries: China, India, Indonesia, Peru, Philippines, Taiwan, Hungary, South Africa, Mexico, Poland, South Korea, Malaysia, Brazil, Egypt, and Czech Republic.

Country	% Change in Book Equity (X)	% Change in Earnings (Y)
China	1150	750
India	290	300
Indonesia	270	220
Peru	310	210
Philippines	260	150
Taiwan	100	140
Hungary	60	160
South Africa	40	30
Mexico	80	70
Poland	70	50
South Korea	150	50
Malaysia	60	20
Brazil	-20	-10
Egypt	-80	10
Czech Republic	-10	-20

COUNTRY	MARKET CAP	BOOK EQUITY	EARNINGS
China	675%	1143%	766%
India	300%	290%	295%
Taiwan	260%	97%	143%
South Korea	138%	155%	57%
Peru	131%	308%	207%
Indonesia	118%	288%	207%
Hungary	99%	66%	158%
Philippines	86%	256%	153%
Poland	64%	74%	49%
Mexico	29%	78%	74%
Czech Republic	25%	-11%	-15%
Malaysia	17%	60%	20%
South Africa	3%	33%	27%
Brazil	-31%	-17%	-7%
Egypt	-58%	-58%	11%

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The Evolution of Global Markets

Many individual emerging markets saw higher growth in book equity than in market capitalization over the period. Further, countries with the largest increases in book equity also tended to experience some of the strongest earnings growth rates.

China stands out, with book equity rising 1,143% and earnings rising 766% between 2010 and 2025. Other markets, including India, Taiwan and South Korea, also saw significant growth in both measures over the period. Notably, these countries each play a meaningful role in producing and manufacturing goods and services for markets worldwide.

While the magnitude of the results varies across countries, the strong growth in EM fundamentals has generally been broad-based rather than concentrated in only a few markets.

Digging into Valuations

The data in **Figure 1** suggests that we've seen sizable changes in valuation metrics, such as price-to-book and price-to-earnings, within some regions and relative to one another over the last 15 years. **Figure 3** on the next page provides full details on regional valuations.

In **Panel A**, we show price-to-book and price-to-earnings at the end of 2010 and 2025, along with the percentage change over that period for each of the U.S., non-U.S. developed and EM indexes. The aforementioned multiple expansion in the U.S. market is clear in the data, with price-to-book rising by 120% and price-to-earnings increasing by 63%. We observe much more modest changes in valuation ratios for non-U.S. markets. Price-to-book in emerging markets even declined slightly over the period, as investment drove higher book equity growth than market cap growth.

Panel B offers another view of relative valuations over the full 15-year period, highlighting how valuation metrics have differed between the U.S. and non-U.S. markets. This is referred to as a valuation spread. The data shows that valuation metrics for non-U.S. markets were lower than those for the U.S. market at the start of the period (as reflected in the negative values in the chart). Historically, this has generally been the case. However, the relative difference has grown considerably over the last 15 years due to greater multiple expansion in the U.S. market, resulting in wider valuation spreads.

Price-to-book ratio is defined as aggregate market capitalization divided by aggregate book equity and represents the amount investors are willing to pay for each dollar of book equity across companies within a region.

Price-to-earnings ratio is defined as aggregate market capitalization divided by aggregate earnings and represents the amount investors are willing to pay for each dollar of earnings across companies within a region.

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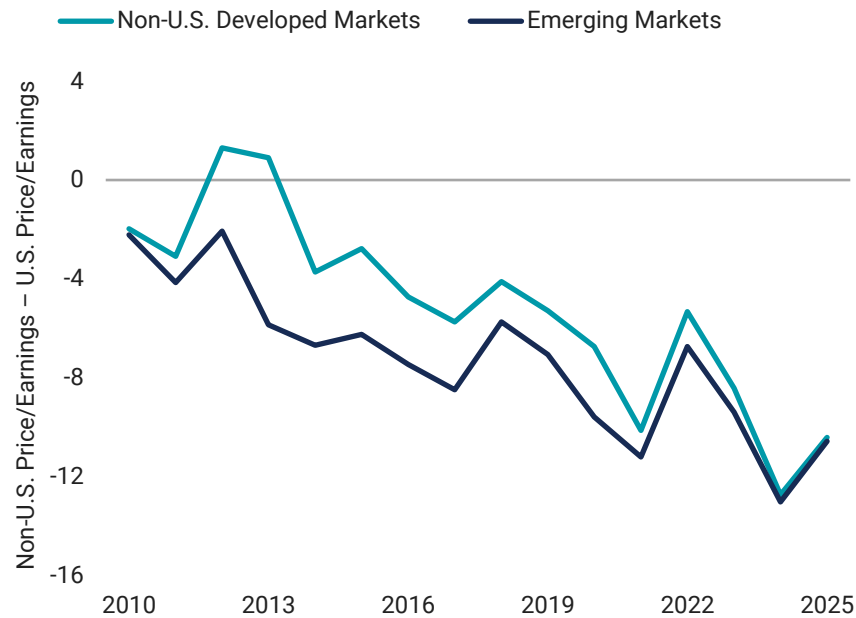
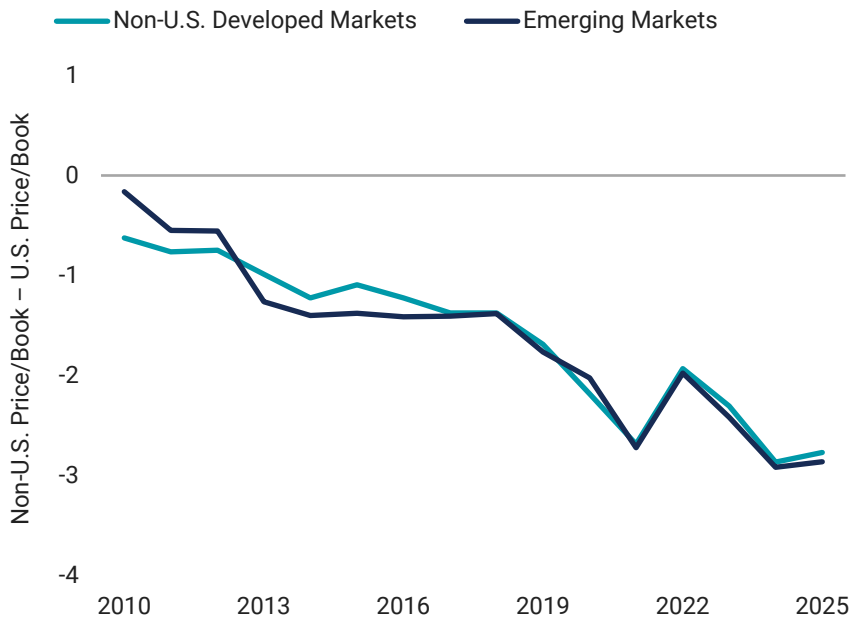
Figure 3 | U.S. Market Valuation Multiples Have Expanded at a Far Higher Rate than Non-U.S. Markets

Panel A | Change in Valuation Ratios Over the Last 15 Years (2010-2025)

	Price/Book Ratio		
	2010	2025	% CHANGE
Russell 3000	2.23	4.89	120%
MSCI World ex-USA IMI	1.60	2.12	32%
MSCI Emerging Markets IMI	2.06	2.03	-2%

	Price/Earnings Ratio		
	2010	2025	% CHANGE
Russell 3000	17.19	28.09	63%
MSCI World ex-USA IMI	15.22	17.66	16%
MSCI Emerging Markets IMI	14.97	17.51	17%

Panel B | Valuation Spreads Between Non-U.S. and U.S. Markets



Data from 12/31/2010 – 12/31/2025. Sources: Avantis Investors, FactSet. The U.S. market is represented by the Russell 3000® Index. Non-U.S. developed markets are represented by the MSCI World ex-USA IMI. Emerging markets are represented by the MSCI Emerging Markets IMI.

The Evolution of Global Markets

Takeaways for Investors

Markets are constantly evolving as new companies list, existing companies invest in their businesses, merge or change jurisdictions, and investors allocate capital in search of growth over time. What we have observed in global markets over the last 15 years offers a few important reminders for investors.

Strong fundamental growth may come from companies and markets far from where we live, or from places we might not expect based on what we read in the news. Investors who maintain broad diversification across global markets can be confident they are positioned to participate in growth wherever it occurs.

Valuations matter. Sometimes market prices rise faster than their underlying fundamentals support. In other markets, fundamentals may rise without commensurate increases in prices. By diversifying across global markets, we can be assured of always having some exposure to those areas of the world that offer the most attractive relative valuations.

Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost.

Diversification does not assure a profit, nor does it protect against loss of principal.

Past performance is no guarantee of future results.

Academic Perspective

Mortgages: Beyond the Math

The first time I bought a mortgage, I went into the process with confidence. I study financial decision-making, so I figured I'd be able to easily determine the best option for my family, sign the paperwork and go about my day.

Alas, that confidence should have been labeled “misplaced”: I quickly realized I was in over my head and had a difficult time deciding among the many options presented to my wife and me.

As Part 2 of our [Behavioral Divide “Beyond the Math”](#) podcast mini-series, I dug into the psychology of mortgage decision-making alongside Columbia Professor Eric Johnson, author of *The Elements of Choice*, who has studied mortgage decisions extensively, and Debbie Grose, CFP, senior vice president at Wealth Enhancement. Suffice it to say, I wish my past self had had this conversation with them.

From my perspective, three themes emerged, each with practical implications for advisors when discussing mortgage decisions with clients.



Hal Hershfield, Ph.D.

Consultant to Avantis Investors

Hal is a professor of Marketing and Behavioral Decision Making in the Anderson School of Management at the University of California, Los Angeles.

His research asks, “How can we help move people from who they are now to who they’ll be in the future in a way that maximizes well-being?”

Mortgages: Beyond the Math

1. Mortgages are among the most complex financial products we buy – and we almost never buy them.

A mortgage is one of the largest financial decisions most people will ever make, yet it's one we make only a handful of times in our lives, if at all. Prof. Johnson pointed out that you never get to learn from experience the way you do with something like shopping for milk, where you see the price move week over week and develop a feel for it.

They're also not "fun" to buy – it's just something you have to purchase if you don't have enough money to buy a house outright. As Grose noted, the complexity often leads clients to approach the process with trepidation, either avoiding the decision for a time or rushing through it.

There's a deeper point here: Economists often assume people weigh the pros and cons like a spreadsheet – quantifying every cost, discounting future dollars at the going rate and acting on the number. That type of thinking rarely holds in real-world settings.

Take the immediate aftermath of the 2008-2009 financial crisis. Prof. Johnson noted that many economists expected people whose mortgages were underwater (that is, the value of their houses was less than the amount they owed on their mortgages) to simply walk away and leave the keys in the mailbox. But they didn't, in part because the "spreadsheet approach" left out enormous costs that never appear as line items: the pain of moving, finding a new neighborhood, making new friends, changing school districts and so on. When you take those costs into account, it becomes easier to see why people wouldn't just leave and why they wouldn't act in a purely "rational" way.

What to do: If mortgages are unpleasant, rarely considered and complex, anything an advisor can do to simplify the decision for a client is likely a win. Prof. Johnson's perspective was that offering people one clean option instead of two, and making it the simplest, yields far higher uptake. The job, then, isn't to show clients everything; it's to narrow the field to a small number of clear choices and guide them through it (a point that resonates far beyond mortgage decisions, of course).

Mortgages: Beyond the Math

2. Mortgages tap directly into discounting behavior.

As I'm fond of studying and writing about, we tend to overweight what's right in front of us and underweight what's down the road. We value up-front gains and downplay losses that may occur in the future. This tendency to discount future outcomes is at the heart of why certain mortgages get us into trouble.

Adjustable-rate mortgages (ARMs) are attractive precisely because the up-front cost is lower – the payment today feels manageable. The catch is that the increase comes later, and “later” gets less attention and less weight. That's a big part of what fueled the 2008 crash: People loved ARMs more than they should have because the pain was deferred.

The same instinct often shows up in clients today, according to Grose: If a variable rate means a lower payment now, that immediate affordability carries outsized weight in the decision, and the future risk gets waved off with some version of “I'll deal with that when it comes,” or “I'll be making more by then.”

The same tendency cuts the other way, too. When a client could genuinely save money over time by refinancing, they may still fail to do so because the up-front costs of going through the process, including paying for the refinancing, get overweighted relative to the gains that accrue over the years.

Prof. Johnson pointed to exactly this situation with the Home Affordable Refinancing Program (HARP), which, starting in 2009, allowed eligible homeowners to refinance at no cost. But only about a quarter of eligible consumers took advantage of it, and those who didn't left real money on the table (on the order of several thousand dollars each). One reason for the failure to do so could be discounting; another, as Prof. Johnson found, is a lack of trust in financial institutions.

What to do: Practically speaking, it may help to bring future costs into the present, so clients actually feel them. For instance, have the client consider the decision as if the costs were occurring now, not years from now.

On the ARM side, that means having the client consider the decision as if the higher payments were hitting now, not years out. On the refinancing side, flip it around and pull the gains forward: If refinancing would save someone \$4,000 over time, ask whether they'd really say no to \$4,000 handed to them today. Almost nobody would. The gist is to turn deferred numbers into present-day ones, so they get the weight they deserve.

Mortgages: Beyond the Math

3. Mortgages have a correct mathematical answer, and an answer that has to do with feelings.

Like the other topics in our “Beyond the Math” series, mortgages come with a correct mathematical answer and an answer that has to do with feelings. Grose mentioned that this tension often shows up when her clients start thinking more seriously about retirement. There’s an almost overwhelming sense among many of them that “I want to go into retirement debt-free – I want this mortgage paid off.” As a result, they want to make extra payments and pay the mortgage down early. But does it actually make sense to do so?

Grose’s framing is that a client with extra dollars has three choices: put them toward extra mortgage payments, invest them to build a portfolio or spend them to increase their lifestyle. Even though, from an “I want no debt” standpoint, paying off the mortgage is the right choice, it’s also possible that there are better uses for those dollars.

The point? An advisor shouldn’t just look at the dollars and cents but should also surface how the client feels about the mortgage and then push on that feeling to figure out what actually makes sense in the client’s particular case.

What to do: One way to address these complicated feelings is to clarify the concept of “cost of capital” for a client. The core idea is simple: A mortgage requires a payment, so the real question is always, where does that payment come from? Every dollar used to service or pay down a mortgage has a source, and that source carries a cost that varies widely depending on a client’s situation.

Here’s an example: During a client’s working years, if they are paying a mortgage with earned income, they’re paying with after-tax dollars, meaning they had to earn more than a dollar to make each dollar of payment.

In retirement, the picture gets more nuanced. Clearly, a dollar withdrawn from a brokerage (after-tax) account carries a different cost than a dollar withdrawn from qualified retirement funds, and that difference depends on the client’s tax bracket. So, the question of “should I pay down the mortgage early?” can’t be answered by looking at the mortgage rate alone.

You have to weigh it against what those same dollars would cost a client to deploy and what they could earn if invested instead. The “cost of capital” concept seems invisible to many clients and making it understandable and discussable could lead to better, or at least more clearly thought-out, decisions.

Market Review



Snapshot

Global stocks overcame a turbulent June to deliver strong second-quarter returns. Bonds also advanced for the quarter, but at a much more subdued pace.

- The S&P 500® Index logged its best quarterly performance in six years, advancing more than 15% as the ceasefire with Iran helped curb geopolitical fears. The second-quarter stock surge left the index with a year-to-date return of 10%.
- Even after declining more than 3% in June, the information technology sector was the quarter's leader, up nearly 32%. With oil prices dropping, the energy sector was the quarter's weakest, down more than 13%.
- Non-U.S. developed markets stocks advanced more than 10% in the second quarter but lagged U.S. stocks. They fared slightly better than U.S. stocks in June. Meanwhile, emerging markets (EM) stocks returned 24% for the second quarter.
- U.S. headline and core inflation increased in the quarter, largely due to rising energy costs associated with the conflict in Iran.
- Despite higher inflation, the Fed held interest rates steady. Meanwhile, inflation pressures prompted the European Central Bank to raise rates in June, the first increase since 2023. U.K. inflation slowed, and the Bank of England left rates unchanged.
- Most U.S. size and style indices rose in June, and all delivered strong second-quarter gains. Small-cap growth stocks were the top second-quarter performers. Outside the U.S., most major size and style indices in developed and emerging markets declined for the month but rallied for the quarter.
- U.S. Treasury yields rose for the quarter, but the broad U.S. bond market index advanced. It also logged a modest gain in June.

Returns (%)

INDEX	1 MO	3 MO	YTD	1 YR	3 YR	5 YR	10 YR
U.S. Large-Cap Equity							
S&P 500	-0.95	15.20	10.21	22.32	20.61	13.41	15.51
U.S. Small-Cap Equity							
Russell 2000	3.74	21.49	22.57	40.78	18.60	6.98	11.62
Intl. Developed Markets Equity							
MSCI World ex USA	-0.17	10.22	9.19	20.99	16.90	9.32	9.84
Emerging Markets Equity							
MSCI Emerging Markets	-1.41	24.05	23.85	43.51	23.03	7.20	10.07
Global Real Estate Equity							
S&P Global REIT	1.92	10.76	11.62	15.39	10.07	2.94	3.78
U.S. Fixed Income							
Bloomberg U.S. Aggregate Bond	0.24	0.67	0.62	3.79	4.16	0.08	1.54
Global Fixed Income							
Bloomberg Global Aggregate Bond	-0.71	0.87	-0.21	0.62	3.41	-1.55	0.38
U.S. Cash							
Bloomberg U.S. 1-3 Month Treasury Bill	0.30	0.92	1.81	3.96	4.74	3.61	2.35

Data as of 6/30/2026. Performance in USD. Periods greater than one year have been annualized. Past performance is no guarantee of future results. Source: FactSet.

Inflation, sometimes referred to as headline inflation, reflects rising prices for consumer goods and services, or equivalently, a declining value of money. Core inflation excludes food and energy prices, which tend to be volatile.

Equity Returns | Size and Style

		U.S.			
		QTD (%)		YTD (%)	
		Value	Growth	Value	Growth
Size	Large	13.87	16.74	16.26	5.33
	Small	17.19	25.71	22.99	22.18

- The broad U.S. stock market surged in the second quarter, boosting year-to-date performance. Size and style indices also rallied in the quarter and delivered solid six-month gains.
- Small-cap stocks were top second-quarter and year-to-date performers. For the quarter, small-cap stocks rose more than 21%, compared with 15% for large-caps and nearly 14% for mid-caps.
- Across the board, growth stocks outpaced their value-style peers in the quarter. Year to date, the value style outperformed, led by small-cap value, up 23%.

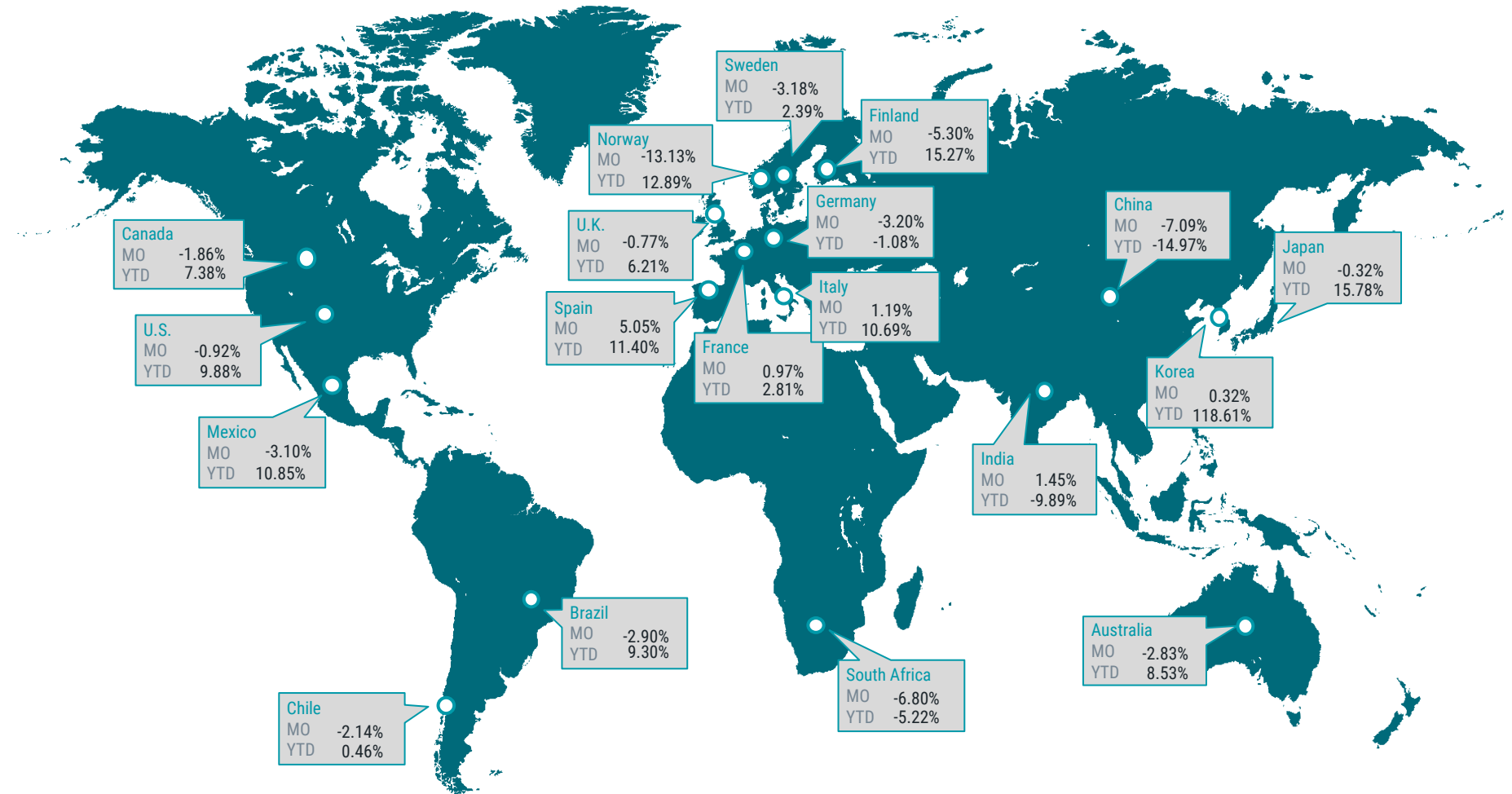
		Non-U.S. Developed Markets			
		QTD (%)		YTD (%)	
		Value	Growth	Value	Growth
Size	Large	9.18	13.70	12.07	7.18
	Small	5.46	10.52	5.32	9.84

- Non-U.S. developed markets stocks advanced but lagged U.S. stocks in the second quarter and year to date.
- Large-cap stocks gained more than 11% in the quarter, outpacing small caps, which returned nearly 8%. Year to date, large-cap stocks rose nearly 10% and outperformed small-caps by more than 2 percentage points.
- Growth stocks outpaced their value-style peers in the quarter. Large-cap value stocks were top performers year to date, advancing 12%. Among small-caps, growth outperformed value for the year-to-date period.

		Emerging Markets			
		QTD (%)		YTD (%)	
		Value	Growth	Value	Growth
Size	Large	21.39	29.51	22.81	26.54
	Small	13.73	13.72	13.84	11.92

- The broad emerging markets (EM) stock index sharply outperformed developed markets indices for the quarter and year to date.
- For the quarter, large-caps gained more than 25%, outpacing small-caps by more than 11 percentage points. Large-caps showed a similar performance advantage for the year-to-date period.
- Growth stocks outperformed value stocks in the large-cap space for the quarter and year to date. Among small-caps, the styles performed similarly for the quarter, while value outperformed year to date.

Equity Returns | Country



Data as of 6/30/2026. Performance in USD. Past performance is no guarantee of future results. Source: FactSet. Countries are represented by MSCI country indices.

Fixed-Income Returns

After declining slightly in the first quarter, the broad U.S. bond index rebounded in the second quarter.

- The Bloomberg U.S. Aggregate Bond Index logged a second-quarter gain of nearly 1%.
- The yield on the 10-year Treasury note ended the second quarter at 4.47%, up from 4.32% at the end of March. The two-year Treasury yield climbed 39 bps in the quarter to 4.2%.
- All index sectors advanced in June and in the second quarter. Investment-grade corporates drove the quarterly results, while Treasuries led in June. Credit spreads widened slightly in June but tightened for the quarter. High-yield corporates outperformed investment-grade corporates in both periods.
- The labor market remained resilient, inflation rose, and the Fed held interest rates steady throughout the quarter.
- In June, new Fed Chair Kevin Warsh presided over his first FOMC meeting and proposed curtailing forward guidance. Market expectations for future Fed rate hikes increased in June, from one to nearly two hikes for the next 12 months.
- Alongside rising energy prices, annual headline and core CPI edged higher, to 4.2% and 2.9%, respectively, in May. Meanwhile, the annualized core PCE inflation rate, the Fed's preferred inflation gauge, rose from 3.3% in March to 3.4% in May.
- Municipal bonds rebounded in the quarter to significantly outperform Treasuries. Munis also outperformed in June.
- Although inflation expectations declined, TIPS advanced and outperformed nominal Treasuries for the quarter. TIPS declined and lagged nominal Treasuries in June.

Returns (%)

INDEX	1 MO	3 MO	YTD	1 YR	3 YR	5 YR	10 YR
Global Fixed Income							
Bloomberg Global Aggregate Bond	-0.71	0.87	-0.21	0.62	3.41	-1.55	0.38
U.S. Fixed Income							
Bloomberg U.S. Aggregate Bond	0.24	0.67	0.62	3.79	4.16	0.08	1.54
U.S. High-Yield Corporate							
Bloomberg U.S. Corporate High Yield Bond	0.27	2.47	1.96	5.91	8.86	4.17	5.81
U.S. Investment Grade							
Bloomberg U.S. Corporate Bond	0.19	1.40	0.86	4.34	5.29	0.34	2.60
Municipals							
Bloomberg Municipal Bond	0.96	2.50	2.32	7.03	3.76	1.05	2.15
U.S. TIPS							
Bloomberg U.S. Treasury Inflation Protected Securities (TIPS)	-0.47	0.89	1.15	3.42	3.98	1.01	2.58
U.S. Treasuries							
Bloomberg U.S. Treasury Bond	0.28	0.32	0.28	2.71	3.17	-0.42	0.86
U.S. Cash							
Bloomberg U.S. 1-3 Month Treasury Bill	0.30	0.92	1.81	3.96	4.74	3.61	2.35

Data as of 6/30/2026. Performance in USD. Periods greater than one year have been annualized. Past performance is no guarantee of future results. Source: FactSet.

Global Yield Curves



Data as of 6/30/2026. Source: Bloomberg.

Yield is a rate of return for bonds and other fixed-income securities. A yield curve is a line graph that shows yields of fixed-income securities from a single sector (e.g., Treasuries) over various maturities (e.g., five and 10 years) at a single point in time (e.g., 12/31/2020).

Appendix

Glossary

Agencies: Agency securities are debt securities issued by U.S. government agencies such as the Federal Home Loan Bank and the Federal Farm Credit Bank. Some agency securities are backed by the full faith and credit of the U.S. government, while others are guaranteed only by the issuing agency.

Basis points (BPS): Basis points are used in financial literature to express values that are carried out to two decimal places (hundredths of a percentage point), particularly ratios, such as yields, fees, and returns. Basis points describe values that are typically on the right side of the decimal point—one basis point equals one one-hundredth of a percentage point (0.01%).

Bloomberg Global Aggregate Bond Index: A flagship measure of global investment-grade debt from 24 local currency markets. This multicurrency benchmark includes Treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Bloomberg Global U.S. Treasury - U.S. TIPS Index: Consists of Treasury inflation-protected securities issued by the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg Municipal Bond Index: A market value-weighted index designed for the long-term tax-exempt bond market.

Bloomberg U.S. 1-3 Month Treasury Bill Index: A subindex of the Bloomberg Barclays U.S. Short Treasury Index, the Bloomberg Barclays U.S. 1-3 Month Treasury Bill Index is composed of zero-coupon Treasury bills with a maturity between one and three months.

Bloomberg 1-5 Year U.S. Government/Credit Index: Tracks the market for investment grade, US dollar-denominated, fixed-rate treasuries, government-related and corporate securities.

Bloomberg U.S. Aggregate Bond Index: Represents securities that are taxable, registered with the Securities and Exchange Commission, and U.S. dollar-denominated. The index covers the U.S. investment-grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities.

Bloomberg U.S. Corporate Bond Index: Measures the investment-grade, fixed-rate, taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg U.S. Corporate High Yield Bond Index: Measures the U.S. dollar-denominated, high-yield (non-investment grade), fixed-rate corporate bond market.

Bloomberg U.S. Corporate High Yield Bond Index: Measures the U.S. dollar-denominated, high-yield (non-investment grade), fixed-rate corporate bond market.

Bloomberg U.S. Treasury Index: Measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Book-to-Market Ratio: Compares a company's book value relative to its market capitalization. Book value is generally a firm's reported assets minus its liabilities on its balance sheet. A firm's market capitalization is calculated by taking its share price and multiplying it by the number of shares it has outstanding.

Carbon Emissions Intensity: A measure of emissions efficiency calculated as company emissions normalized by company revenue (metric tons CO2 per USD million sales) and presented as a weighted average of fund or index holdings. Company emissions data includes reported or estimated scope 1 and scope 2 greenhouse gas emissions in carbon dioxide equivalents. If neither reported nor estimated emissions data is available for a company held by the fund or index, emissions data for that company is excluded from the carbon emissions intensity calculation. The calculation of this measure is completed by American Century Investment Management Inc, the investment advisor to the ETFs reporting the measure, based on data sources from MSCI. The Carbon Emissions Intensity figure is solely a result of a mathematical calculation based on the MSCI data, with no additional inputs. Scores and ratings across third-party providers may be inconsistent or incomparable and, in certain cases, incorrect. In addition, data is not currently available for many issuers and, when available, frequently only includes some but not all of the characteristics considered.

CBOE Volatility Index (VIX): Tracks the expected 30-day future volatility of the S&P 500 Index.

U.S. Consumer Confidence Index: A survey administered by The Conference Board that measures how optimistic or pessimistic consumers are about their expected financial situation.

Consumer Price Index (CPI): CPI is a U.S. government (Bureau of Labor Statistics) index derived from detailed consumer spending information. Headline CPI measures price changes in a market basket of consumer goods and services such as gas, food, clothing, and cars. Core CPI excludes food and energy prices, which tend to be volatile.

CRSP U.S. Total Market Index: Consists of nearly 4,000 constituents across mega, large, small and micro capitalizations, representing nearly 100% of the U.S. investable equity market.

Glossary

Credit Quality: Refers to the creditworthiness or financial health of the issuer of the bond. It reflects the likelihood that the issuer will meet its debt obligations, including interest payments and the return of principal, in a timely manner. Credit rating agencies assess and assign credit ratings to bonds based on the issuer's financial strength, stability, and ability to honor its debt commitments.

Credit Rating: Standard & Poor's credit ratings range from AAA (highest quality; perceived as least likely to default) to D (in default). Securities and issuers rated AAA to BBB are considered/perceived to be "investment-grade"; those below BBB are considered/perceived to be non-investment-grade (high yield).

Dow Jones Industrial Average: An average made up of 30 blue-chip stocks that trade daily on the New York Stock Exchange.

Duration: Measures how long it takes, in years, for an investor to be repaid a bond's price by the bond's total cash flows. It is also a measure of a bond's interest rate sensitivity. The longer the duration, the more sensitive a bond is to interest rate shifts.

Effective Duration: The average duration of all the bonds in a fund. It provides an indication of how a fund's net asset value (NAV) will change as interest rates change.

Emerging Markets Debt: Debt issued by countries whose economies are considered to be developing or emerging from underdevelopment.

Environmental, Social and Governance (ESG): Standards used to evaluate a company's operations in terms of sustainability and ethical impact. Environmental criteria consider how a company performs as a steward of nature. Social criteria examine how it manages relationships with employees, suppliers, customers, and communities. Governance criteria assess the company's leadership, executive pay, audits, internal controls, and shareholder rights.

Exchange-Traded Fund (ETF): An ETF represents a basket of securities that trades on an exchange, similar to a stock. An ETF differs from a mutual fund in that its share price fluctuates all day as investors buy and sell the ETF. A mutual fund's net asset value (NAV) is calculated once per day after the market closes.

Expected Returns: Valuation theory shows that the expected return of a stock is a function of its current price, its book equity (assets minus liabilities) and expected future profits, and that the expected return of a bond is a function of its current yield and its expected capital appreciation (depreciation). We use information in current market prices and company financials to identify differences in expected returns among securities, seeking to overweight securities with higher expected returns based on this current market information.

Actual returns may be different than expected returns, and there is no guarantee that the strategy will be successful.

Inverted Yield Curve: An interest rate environment in which long-term debt instruments have a lower yield than short-term debt instruments of the same credit quality.

Market Capitalization: The market value of all the equity of a company's common and preferred shares. It is usually estimated by multiplying the stock price by the number of shares for each share class and summing the results.

Money Market Mutual Funds: These funds invest in short-term debt instruments (e.g., commercial paper, U.S. Treasury bills, repurchase agreements) and are valued for their relative safety and liquidity.

MSCI ACWI Index: A capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets.

MSCI ACWI ex-USA Index: A market capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets, excluding the United States.

MSCI Emerging Markets IMI Index: Captures large-, mid- and small-cap securities across 27 emerging markets countries.

MSCI Emerging Markets IMI Value Index: Captures large-, mid- and small-cap securities exhibiting overall value style characteristics across 27 emerging markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI Emerging Markets Asia IMI Index: Captures large-, mid- and small-cap securities in China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

MSCI Emerging Markets EMEA IMI Index: Captures large-, mid- and small-cap securities across 11 emerging markets countries in Europe, the Middle East and Africa (EMEA).

MSCI Emerging Markets Latin America IMI Index: Captures large-, mid- and small-cap securities in Brazil, Chile, Colombia, Mexico and Peru.

MSCI Europe IMI Index: Captures large-, mid- and small-cap securities across 15 developed markets countries in Europe.

MSCI Pacific IMI Index: Captures large-, mid- and small-cap securities in five developed markets countries: Australia, Hong Kong, Japan, New Zealand and Singapore.

Glossary

MSCI USA Index: A market capitalization-weighted index designed to measure the performance of the large and mid-cap segments of the U.S. market.

MSCI World ex USA IMI Index: Captures large-, mid- and small-cap representation across 22 of 23 developed markets countries, excluding the U.S.

MSCI World ex USA Small Cap Index: Captures small-cap representation across 22 of 23 developed markets countries, excluding the U.S.

MSCI World ex USA Value Index: Captures large- and mid-cap securities exhibiting overall value style characteristics across 22 of 23 developed markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

Mortgage-Backed Securities (MBS): A type of securitized debt that represents ownership in pools of mortgage loans and their payments.

Net Asset Value (NAV): The total value per share of all the underlying securities in a portfolio.

Oil and Gas Revenue Percentage: Represents the proportion of total revenue of fund or index holdings that is derived from reported or estimated oil and gas-related activities. If neither reported nor estimated oil and gas-related data is available for held by either the fund or the index, such data for that company is excluded from the calculation.

The calculation of this measure is completed by American Century Investment Management Inc, the investment advisor to the ETFs reporting the measure, based on data sourced from MSCI. The Oil and Gas Revenue Percentage figure is solely a result of a mathematical calculation based the MSCI data, with no additional inputs.

Scores and ratings across third party providers may be inconsistent or incomparable, and, in certain cases, incorrect. In addition, data is not currently available for many issuers and, when available, frequently only includes some but not all of the characteristics considered.

Option-Adjusted Spread (OAS): Measures the difference between the yield of a bond with an embedded option and the yield on Treasuries. Call options give the issuer the right to redeem the bond prior to maturity at a preset price, and put options allow the holder to sell the bond back to the company on certain dates. The OAS adjusts the spread to account for these potential changing cash flows.

Personal Consumption Expenditures (PCE): The PCE price deflator – which comes from the Bureau of Economic Analysis' quarterly report on U.S. gross domestic product – is based on a survey of businesses and is intended to capture the price changes in all final goods, no matter the purchaser. Because of its broader scope and certain differences in the methodology used to calculate the PCE price index, the Federal Reserve holds the PCE deflator as its preferred, consistent measure of inflation over time.

Price-to-Earnings Ratio (P/E): The price of a stock divided by its annual earnings per share. These earnings can be historical (the most recent 12 months) or forward-looking (an estimate of the next 12 months). A P/E ratio allows analysts to compare stocks on the basis of how much an investor is paying (in terms of price) for a dollar of recent or expected earnings. Higher P/E ratios imply that a stock's earnings are valued more highly, usually on the basis of higher expected earnings growth in the future or higher quality of earnings.

Producer Price Index (PPI): Measures the average change over time in the prices that domestic producers receive for their goods and services. It is a key indicator of inflation at the wholesale level, reflecting the prices producers charge for their output before it reaches consumers.

Profits-to-Book Ratio: Measures a company's profits relative to its book value. A company's profits are generally calculated by subtracting operating expenses from its gross profit. Book value is generally a firm's reported assets minus its liabilities on its balance sheet.

Responsible Equity ETFs: Because the portfolio managers screen securities based on environmental, social and governance (ESG) characteristics, the fund may exclude the securities of certain issuers or industry sectors for other than financial reasons and, as a result, the fund may perform differently or maintain a different risk profile than the market generally or compared to funds that do not use similar ESG-based screens.

Investing based on ESG considerations may also prioritize long-term rather than short-term returns. Furthermore, when analyzing ESG criteria for issuers, the portfolio management team relies on proprietary evaluations and information, ratings and scoring models published by third-party sources (collectively, "ESG Data").

Due to the lack of regulation and uniform reporting standards with respect to ESG characteristics of issuers, ESG Data may be inconsistent across sources and, in certain cases, incorrect. In addition, ESG Data is not currently available for many issuers and, when available, frequently only includes some but not all of the ESG characteristics considered by the team when applying their ESG screens.

See Environmental, Social and Governance (ESG) in the Glossary for more information.

Glossary

Russell 1000® Growth Index: Measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 1000® Value Index: Measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 2000® Index: Measures the performance of the 2,000 smallest companies among the 3,000 largest publicly traded U.S. companies, based on total market capitalization.

Russell 2000® Growth Index: Measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 2000® Value Index: Measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 3000® Index: Measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market.

S&P 500® Index: A market-capitalization-weighted index of the 500 largest U.S. publicly traded companies. The index is widely regarded as the best gauge of large-cap U.S. equities.

S&P Global REIT Index: A comprehensive benchmark of publicly traded equity REITs listed in both developed and emerging markets.

S&P National AMT-Free Municipal Bond Index: A broad, comprehensive, market value-weighted index designed to measure the performance of the investment-grade tax-exempt U.S. municipal bond market. Bonds issued by U.S. territories, including Puerto Rico, are excluded from this index. It is not possible to invest directly in an index.

SEC Yield: A calculation based on a 30-day period ending on the last day of the previous month. It is computed by dividing the net investment income per share earned during the period by the maximum offering price per share on the last day of the period.

Securitized Debt: Debt resulting from the process of aggregating debt instruments into a pool of similar debts, then issuing new securities backed by the pool (securitizing the debt). Examples include asset-backed and mortgage-backed securities.

Standard deviation: Standard deviation is a statistical measurement of variations from the average. In financial literature, it's often used to measure risk when risk is measured or defined in terms of volatility. In general, more risk means more volatility and more volatility means a higher standard deviation — there's more variation from the average of the data being measured.

Treasury Inflation-Protected Securities (TIPS): A special type of U.S. Treasury security that is indexed to inflation as measured by the Consumer Price Index, or CPI. At maturity, TIPS are guaranteed by the U.S. government to return at least their initial \$1,000 principal value, or that principal value adjusted for inflation, whichever amount is greater. In addition, as their principal values are adjusted for inflation, their interest payments also adjust.

Treasury Yield: The yield of a Treasury security (most often refers to U.S. Treasury securities issued by the U.S. government).

U.S. Treasury securities: Debt securities issued by the U.S. Treasury and backed by the direct "full faith and credit" of the U.S. government. Treasury securities include bills (maturing in one year or less), notes (maturing in two to 10 years) and bonds (maturing in more than 10 years).

Weighted Average Book-to-Market: An average book-to-market ratio resulting from the multiplication of each security's book-to-market by its weight in the portfolio.

Weighted Average Market Capitalization: An average market capitalization resulting from the multiplication of each security's market capitalization by its weight in the portfolio.

Weighted Average Profitability-to-Book: An average profitability-to-book ratio resulting from the multiplication of each security's profitability-to-book by its weight in the portfolio.

Yield to Maturity: The rate of return an investor will receive if an interest-bearing security, such as a bond, is held to its maturity date. It considers total annual interest payments, the purchase price, the redemption value, and the amount of time remaining until maturity.