US core equity benchmark considerations

Federated Hermes

Portfolio Construction Solutions

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Key takeaways

- **The most commonly used domestic large-cap equity benchmark indexes — the S&P 500®, Russell 1000® and Russell 3000® — are not interchangeable and therefore benchmark selection can have implications for portfolio construction.**
- **S&P 500®: Focuses on the 500 largest US companies and has a heavier exposure to technology companies.**
- **Russell 1000®: Encompasses the top 1,000 companies by market capitalization, providing a broader view of the large-cap market, including some mid-cap stocks. This results in more exposure to Industrials.**
- **Russell 3000®: Includes the Russell 1000® and the small-cap Russell 2000®, capturing the broadest exposure to the US equity market. It has higher potential volatility due to its small-cap component and Industrials exposure.**
- **These differences highlight the importance of selecting an index that aligns with an investor's risk tolerance, investment goals and market outlook.**

Introduction

Choosing a benchmark for an equity portfolio may be one of the most important decisions an investor makes, as it will guide exposures to equity style, sectors and capitalization. Ultimately, it will be a key determinant of return.

Additionally, as investment portfolios drift from initial allocations and the need to rebalance portfolios arises, investors will typically look to a benchmark with sector and style box exposures that represent a "neutral" position that seeks to minimize unintended exposures.

The most commonly used domestic large-cap equity benchmark indexes — the S&P 500®, Russell 1000® and Russell 3000® — are not interchangeable and have important differences in how membership is determined, which can affect portfolio construction. For instance, sector exposure can vary across these seemingly similar core indexes. The S&P 500® has a larger allocation to Information Technology than the Russell 1000® and 3000®. The FTSE Russell (Russell) Indexes have greater allocations to Industrials than the S&P 500®. The Russell 3000® has more small-cap exposure than the S&P 500® and the Russell 1000®. These exposures can drive meaningful differences in returns.

Understanding the differences between the S&P 500®, Russell 1000® and Russell 3000® is crucial for investors, and the distinctions can have significant implications. The S&P 500® represents 500 of the largest publicly traded companies in the US, providing a snapshot of the domestic large-cap market. In contrast, the Russell 1000® comprises the largest 1,000 companies by market capitalization, offering a broader view of large-cap stocks and includes a modestly greater percentage allocation to mid-cap stocks than the S&P 500®.

The Russell 3000® comprises the large-cap Russell 1000® and the small-cap Russell 2000® Index. This modular index construction lends itself to analyzing the contribution of the small-cap and large-cap portions of the index. A nuanced understanding of these indexes is essential for making informed investment decisions.

Performance and volatility

These indexes cannot simply be substituted for each other under the assumption that they are interchangeable domestic large-cap blend indexes. In addition to the important sector, style and capitalization differences, the returns streams can be divergent in different market conditions.

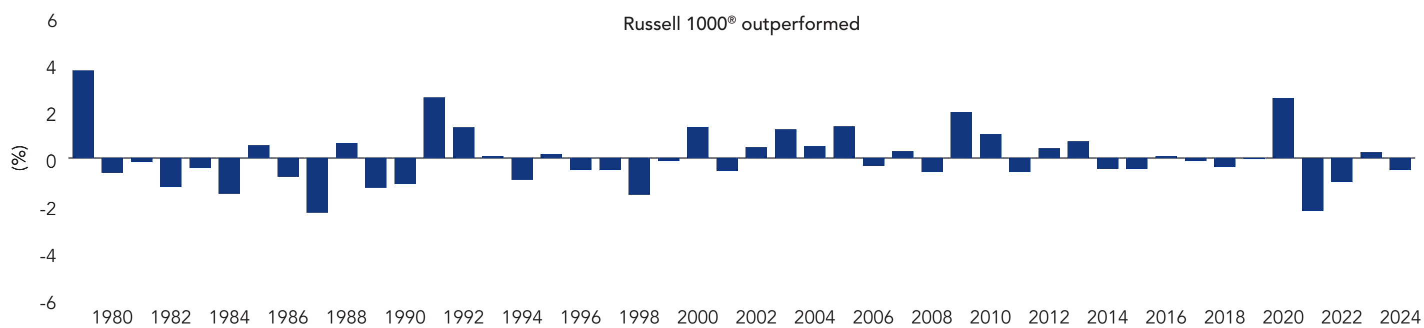
Consider the following:

- In 1998, the Russell 1000® outperformed the Russell 3000® by 289bps
- In 2003, the Russell 3000® outperformed the S&P 500® by 237bps
- In 2020, the Russell 1000® outperformed the S&P 500® by 256bps
- In 2021, the S&P 500® outperformed the Russell 3000® by 304bps

The greater weight of mid-cap stocks in the Russell 1000® has historically introduced a slightly higher volatility than the S&P 500®. Mid-capitalization companies may have limited financial and managerial resources than larger, more established companies, making them more susceptible to market volatility. We have found that decreasing the capitalization exposure in portfolios generally results in increased volatility.

The Russell 3000®, which includes small-cap stocks, has exhibited higher volatility than the other two indexes, producing a higher potential for both risk and return. This broader exposure means that while the Russell 3000® can capture more significant market gains, it also tends to experience more pronounced declines during market corrections, making it a more volatile index overall.

Exhibit 1: Annual total returns Russell 1000® minus S&P 500®

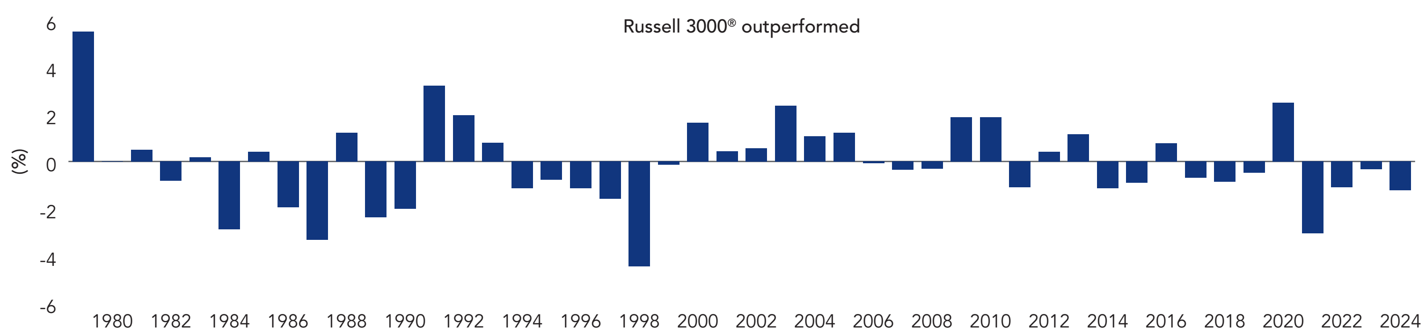


1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
3.72	-0.63	-0.18	-1.24	-0.43	-1.52	0.54	-0.80	-2.32	0.65	-1.26	-1.11	2.57	1.31	0.10	-0.93	0.19	-0.51	-0.51	-1.56	-0.13	1.32	-0.56

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
0.45	1.21	0.52	1.35	-0.33	0.28	-0.60	1.97	1.03	-0.61	0.42	0.72	-0.45	-0.47	0.09	-0.14	-0.40	-0.06	2.56	-2.25	-1.02	0.24	-0.51

As of 12/31/24. Sources: Morningstar, Inc., Federated Hermes.

Exhibit 2: Annual total returns Russell 3000® minus S&P 500®



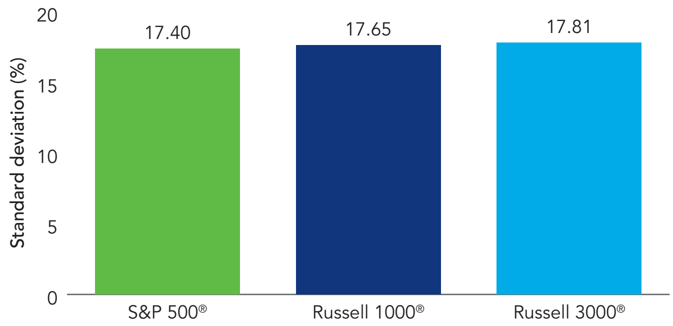
1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
5.51	0.00	0.50	-0.81	0.18	-2.88	0.42	-1.95	-3.33	1.22	-2.37	-2.00	3.21	1.97	0.80	-1.13	-0.77	-1.14	-1.58	-4.44	-0.14	1.64	0.43

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
0.56	2.37	1.07	1.21	-0.08	-0.35	-0.31	1.88	1.87	-1.09	0.41	1.16	-1.13	-0.91	0.78	-0.70	-0.86	-0.47	2.49	-3.04	-1.10	-0.33	-1.21

As of 12/31/24. Sources: Morningstar, Inc., Federated Hermes.

Past performance is no guarantee of future results. Exhibits are for illustrative purposes only and are not representative of any specific investment.

Exhibit 3: Three-year standard deviation of returns (ending 12/31/24)

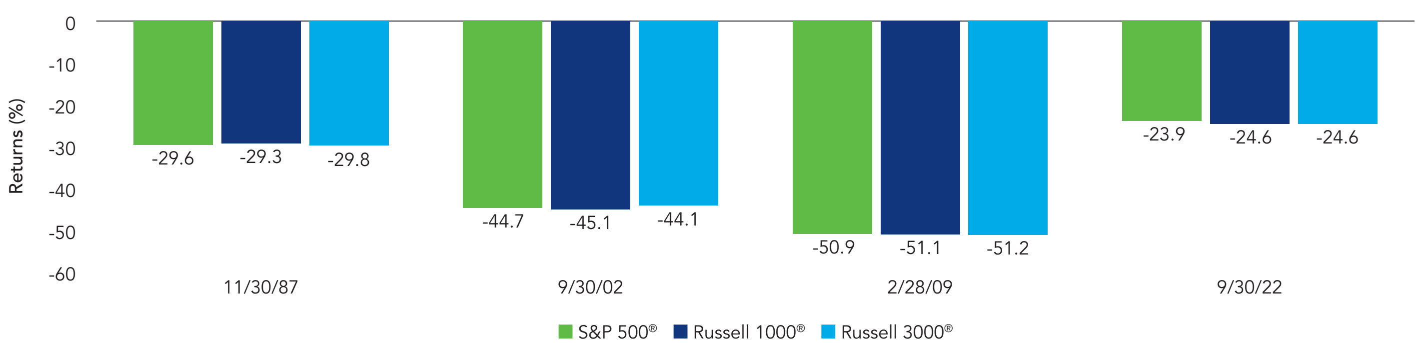


As of 12/31/24. Sources: Morningstar, Inc., Federated Hermes.

Performance quoted represents past performance which is no guarantee of future results.

While standard deviation of returns is the classic measurement of risk, other market observers rely on drawdown to better represent an investor's experience. Drawdown measures the index return from the peak to trough in a period of negative performance. While one may reasonably conclude that the comparatively greater volatility of the Russell 3000® might make for deeper drawdowns, the history is more complicated. Of the four meaningful drawdown periods in Exhibit 4, the Russell 3000® delivered better performance in one, worse performance in two, and tied with the Russell 1000® in the fourth. This observation complicates the risk picture but illustrates that one cannot make simple conclusions about returns in complex market environments.

Exhibit 4: Performance of indexes at date of maximum drawdown



As of 12/31/24. Drawdowns greater than 20% since 1/1/79. Sources: Morningstar, Inc., Federated Hermes.

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Index construction methodology

Index construction and maintenance may sound abstract, but the potential impact on outcomes for investors is real. The S&P 500® employs a committee-based approach to selecting its constituents, requiring companies to meet specific criteria. There is, therefore, an implicit quality factor built into the index. In contrast, the Russell 1000® and Russell 3000® indexes use a rules-based methodology based primarily on market capitalization.

Each index provider offers in-depth documentation detailing their index construction methodology. We provide a high-level overview below.

S&P 500® methodology

As indicated above, the S&P 500® has a committee-based approach. First, securities must meet specific eligibility criteria for inclusion in the S&P Composite 1500®. Next, the committee, at their discretion, may select stocks from the S&P Composite 1500® for inclusion in the S&P 500®. Eligibility criteria include:

- Earnings criterion
- Domicile
- IPO seasoning
- Security, organization and share types (i.e., corporations and common stock)
- Market capitalization
- Investability and liquidity

An important feature of the S&P 500® is the Earnings Criterion. The sum of the most recent four consecutive quarters' as-reported earnings should be positive, as should the most recent quarter. This rule is functionally a quality screen and one of the most meaningful differences between the S&P and Russell methodologies.

IPOs that meet the criteria can be added only after 12 months of trading and at the committee's discretion.

Sector balance is also considered by the committee, and the S&P 500®'s sector weights are considered relative to the S&P Composite 1500®.

Another commonly misunderstood item is the minimum market capitalization criterion. In practice, S&P Global frequently reviews and adjusts the minimum market capitalization for their indexes. The minimum market capitalization of the S&P 500® is targeted to represent the 85th percentile of the market.

The distinguishing feature of the S&P 500® is The Index Committee, composed of members of S&P Dow Jones Indices' staff. The committee meets monthly to review corporate actions, market statistics, potential index additions, significant market events and index policies. These discussions are confidential due to their market-moving potential. The committee can make exceptions to the methodology. Annually, they review the methodology to ensure it meets objectives and remains effective, sometimes inviting external comments.

Russell 1000® and 3000® methodology

Russell, by contrast, has a rules-based approach that considers the following factors for their annual index reconstitution.

- Requirements for inclusion in the Russell US Indexes
  - » Primary location is the US
- Trading and exchange requirements — Exchanges
- Minimum closing price
- Minimum total market capitalization
- Minimum available float
- Company structure
- UBTI (unrelated business taxable income) screen

Russell Indexes are completely rebuilt annually on the following schedule. April is "ranking" month, when the largest US companies are lined up to form the preliminary Russell US reconstitution portfolio. The preliminary reconstitution portfolio begins to be communicated to the marketplace in May. In June, Russell rebalances its indexes, called "reconstitution." Russell recognizes the potential disruption their rebalancing can have, from a benchmarking perspective and for those managing index funds. Over the years, they have worked with practitioners to help minimize the turnover that results from their index reconstitution. This process has evolved over the years from taking place almost overnight to spanning several months, during which Russell communicates its intentions.

Russell adds initial public offerings (IPOs) quarterly, systematically capturing these stocks.

Using the ranking from April, companies are assigned to an index. The top 1,000 companies by market capitalization are placed in the Russell 1000®. Companies 1,001 to 3,000 are in the Russell 2000®. These 3,000 companies comprise the Russell 3000®.

The most meaningful distinctions between the S&P 500® and the Russell methodologies are as follows:

1. The committee approach of S&P as compared to the rules-based approach of Russell.
2. The treatment of IPOs — Russell systematically adds them, while the S&P 500® includes them only at the committee's discretion.

While some investors appreciate the human touch in the committee approach to index construction, others view it as a potential source of bias, especially concerning recent IPOs. In contrast, the Russell Indexes are rules-based, systematically incorporating recent IPOs. This systematic approach to index construction and broad market exposure appeals to investors who value objectivity.

Top holdings

While much of this research highlights the differences between these indexes, analyzing top holdings emphasizes the similarities. Indeed, the top holdings of each index are the same as of December 31, 2024.

Exhibit 5: Ten largest holding in representative core indexes (12/31/24)

	Portfolio weightings (%)		
Name	S&P 500®	Russell 1000®	Russell 3000®
Apple Inc	7.58	6.65	6.33
NVIDIA Corp	6.59	5.83	5.55
Microsoft Corp	6.27	5.81	5.54
Amazon.com Inc	4.11	3.82	3.64
Meta Platforms Inc Class A	2.55	2.38	2.27
Tesla Inc	2.26	2.08	1.98
Alphabet Inc Class A	2.21	2.06	1.97
Broadcom Inc	2.17	1.95	1.86
Alphabet Inc Class C	1.81	1.71	1.63
Berkshire Hathaway Inc Class B	1.66	1.54	1.47
Total	**37.22**	**33.83**	**32.24**

Sources: Morningstar, Inc., Federated Hermes.

For illustrative purposes only. Not to be construed as a recommendation for a specific security or sector.

One crucial difference is the concentration of the holdings in each index. Unsurprisingly, the S&P 500® is more concentrated than the Russell 1000® due to its smaller constituency, while the Russell 3000® is the least concentrated of the three.

While these differences are minor, investors seeking broad diversification or, conversely, meaningful exposure to the largest US companies may use concentration statistics to guide their choice of a core equity benchmark.

Sector allocation

Exhibit 6: Sector allocation (%) of representative core equity indexes (12/31/24)

	S&P 500®	Russell 1000®	Russell 3000®
Energy	3.16	3.29	3.37
Materials	1.89	2.20	2.30
Industrials	8.16	9.00	9.42
Consumer Discretionary	11.26	11.48	11.40
Consumer Staples	5.53	5.38	5.26
Healthcare	10.09	10.06	10.35
Financials	13.62	14.03	14.25
Information Technology	32.49	30.72	29.93
Communication Services	9.37	9.22	8.92
Utilities	2.33	2.22	2.24
Real Estate	2.10	2.39	2.56

Sources: Morningstar, Inc, Federated Hermes.

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Furthermore, the sectors are divergent. One would expect the two US large-cap indexes, the S&P 500® and Russell 1000®, to have similar sector exposures, just as they have similar top holdings.

However, the sector composition of the S&P 500®, Russell 1000® and Russell 3000® indexes varies due to their different market coverage.

The S&P 500® has 1.8% more Information Technology exposure than the Russell 1000® and 2.6% more than the Russell 3000®.

The Russell 1000®, which includes both large-cap and mid-cap stocks, has a similar sector distribution but with slightly more exposure to mid-cap companies, leading to a broader representation in sectors such as Industrials and Consumer Discretionary.

The Industrials sector has greater representation in the Russell Indexes than the S&P 500®. The Russell 1000® has 0.8% more Industrials exposure than the S&P 500®, and the Russell 3000® has 1.3% more Industrials exposure than the S&P 500®.

The Russell 3000®, encompassing virtually the entire market, including small-cap stocks, provides the most diversified sector exposure. It includes a higher proportion of small-cap companies, which are often more prevalent in sectors like Consumer Staples, Real Estate, and Energy. This broader sector representation in the Russell 3000® captures a more comprehensive view of the US economy, highlighting the varied industry contributions across different market capitalizations.

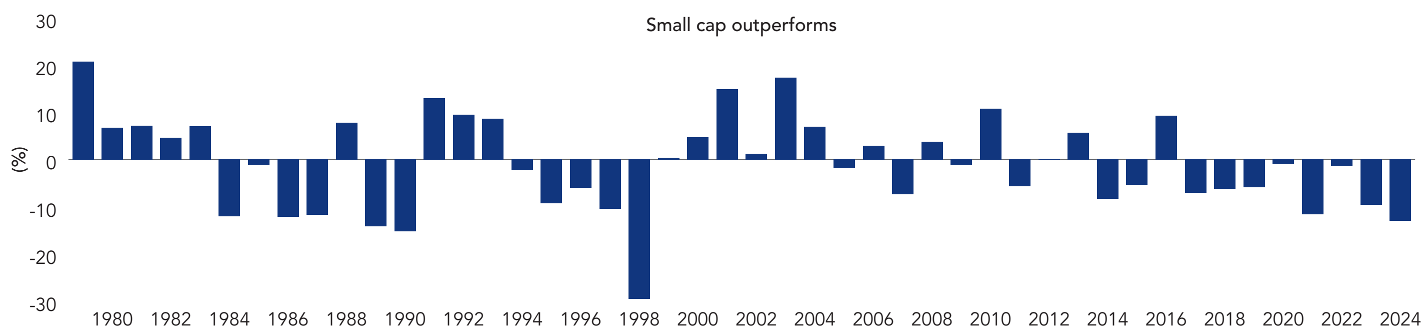
These differences in sector exposure are meaningful for investors seeking a core US equity index. For example, one could expect the Russell Indexes to be more sensitive to the economic cycle due to their great Industrials exposure. The S&P 500® has more exposure to Information Technology, which has been the top-performing sector in three of the past five calendar years, causing some investors to be concerned about its high concentration in portfolios.

Style and capitalization

We know that style and market capitalization differences can meaningfully impact portfolio composition and performance.

Regarding capitalization, in the past few years we have seen large-cap stocks outperform small cap stocks, which is inconsistent with a long history of small caps outperforming over time. This is significant from a core index perspective, as the S&P 500® has less than 1% small-cap exposure based on the Morningstar style parameters. In contrast, the Russell 1000® contains approximately 4% in small caps and the Russell 3000® approximately 8%.

Exhibit 7: Capitalization returns differential; Russell 2000® minus Russell 1000® (1/1/79 -12/31/24)



1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
20.74	6.72	7.13	4.64	7.01	-12.05	-1.22	-12.19	-11.73	7.76	-14.17	-15.27	13.01	9.48	8.70	-2.21	-9.32	-5.95	-10.49	-29.57	0.34	4.77	14.94

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.17	17.36	6.92	-1.71	2.91	-7.34	3.81	-1.26	10.76	-5.68	-0.07	5.71	-8.34	-5.33	9.25	-7.04	-6.23	-5.90	-1.00	-11.64	-1.31	-9.60	-12.97

Sources: Morningstar, Inc., Federated Hermes.

Performance quoted represents past performance which is no guarantee of future results.

Federated Hermes' Portfolio Construction Solutions (PCS) group found that, on average, our clients allocated 10% to small caps in their moderate-risk portfolios as of Q4 2024.

Style and capitalization rotation have underpinned many investment portfolio strategies over the years. For instance, the small-cap Russell 2000® outperformed the Russell 1000® in 20 of the last 45 years. However, in recent years the historical pattern has not held, and the Russell 1000® has beaten the Russell 2000® in nine of the previous 10 years.

Regarding equity style, Morningstar data shows consistent value exposure across all three core indexes, each with approximately 28% allocations to the value style, while growth and core styles exhibit more divergent exposures. The Russell 1000® has +1.7%, and the Russell 3000® has +1.9% more growth exposure than the S&P 500®. Regarding core exposure, the S&P 500® has 1.5% more than the Russell 1000® and 2.0% more than the Russell 3000®.

Large-cap growth allocations fell sharply in the Q3 2024 due to Morningstar's reclassification of four of the Magnificent 7 names. As of 8/31/24, Apple Inc., Microsoft Corp., Meta Platforms Inc., and Alphabet Inc. (Google's parent company) have been reclassified from large growth to large blend. These four companies alone accounted for about 20% of the S&P 500® as of 12/31/24.

As discussed in the top holdings section, the S&P 500® has more concentration in these large companies than the Russell Indexes. Of the four recategorized stocks mentioned above, the S&P 500® has 1.8% more than the Russell 1000® and 2.7% more than the Russell 3000®. We find that the Morningstar recategorization directly impacted the relative differences between the style exposures in the indexes we are examining.

Exhibit 8: Style breakdown of representative core indexes as of 12/31/24 (%)

Name	S&P 500®	Russell 1000®	Russell 3000®
Large Value	21.22	19.60	18.69
Large Core	43.00	39.39	37.56
Large Growth	17.24	16.20	15.45
Mid Value	5.77	5.91	5.64
Mid Core	8.67	9.00	8.63
Mid Growth	3.53	5.66	5.49
Small Value	0.33	1.50	2.96
Small Core	0.25	1.70	3.26
Small Growth	0.00	1.06	2.34

Sources: Morningstar, Inc., Federated Hermes.

Suitability

When considering the best core equity benchmark, the Russell 3000®'s inclusion of small-cap stocks can be suitable for investors with longer time horizons due to their potential for rapid growth. These stocks often represent emerging companies with significant upside potential, which can lead to substantial returns in a relatively short period.

As previously mentioned, Federated Hermes' PCS group finds that our clients have allocated 10% to small-cap stocks in moderate risk models in Q4 2024. These investment professionals have considered the risk and reward associated with small-cap stocks and allocated accordingly.

However, it's important to note that small-cap stocks also have higher volatility and risk than larger, more established companies. Investors with shorter time horizons should be prepared for price fluctuations and consider their risk tolerance when investing in small-cap stocks. Diversification and thorough research can help mitigate some of these risks, but some of the most conservative investors may be a better match with the larger cap Russell 1000® and S&P 500®.

Conclusion

The comparative analysis between the S&P 500®, Russell 1000® and Russell 3000® indexes reveals distinct differences in composition, market coverage and volatility, each with unique implications for investors.

The S&P 500®, focusing on the 500 largest US companies, can offer relatively lower volatility, making it suitable for investors seeking exposure to large-cap stocks. It also leads to slightly heavier exposure to technology companies as of 12/31/24. Furthermore, security inclusion is managed by a committee. The human touch in index construction is essential to some investors, while others see it as a source of bias. This bias may be particularly apparent regarding recent initial public offerings.

The Russell 1000®, encompassing the top 1,000 companies by market capitalization, provides a broader view of the large-cap market, including some mid-cap stocks, with more exposure to industrials and slightly higher volatility.

The Russell 3000®, which includes the Russell 1000® and the small-cap Russell 2000®, captures the broadest exposure to US equity market but with increased volatility due to its small-cap component and Industrials exposure.

The Russell Indexes are entirely rules-based and include recent initial public offerings systematically. Investors who prize a rigorous approach to index construction and broad exposures may tend to gravitate toward Russell.

For investors, these differences highlight the importance of selecting an index that aligns with their risk tolerance, investment goals and market outlook. Understanding each index's specific characteristics and performance metrics is essential for informed decision-making and effective portfolio management.

A word about risk

Past performance is no guarantee of future results.

Investing in equities is speculative and involves substantial risk.

Index composition is subject to change.

These views should not be construed as a recommendation for any specific security or sector. This document is for informational purposes only and should not be relied upon to make investment decisions.

Although the information provided in this document has been obtained from sources which Federated Hermes believes to be reliable, it does not guarantee accuracy of such information, and such information may be incomplete or condensed.

Growth stocks' price is expected to grow dramatically over time. Its return comes primarily from its rising price appreciation and not from dividends.

Diversification does not assure a profit nor protect against loss.

Investing in IPO's involves special risks such as limited liquidity and increased volatility.

Mid-capitalization companies often have narrower markets and limited managerial and financial resources compared to larger and more established companies.

Market capitalization is the number of publicly traded shares outstanding times a stock's price. Stocks are typically classified as small-, medium- and large-capitalization.

Small capitalization companies are typically defined by market capitalization. The largest stock in the small capitalization Russell 2000® has approximately $17B in market cap (as of 12/31/24). Due to their small size and growth potential, small cap companies may have higher risk but greater return potential than larger stocks.

Value stocks tend to be mature, slower growing companies, that pay out profits in the form of dividends (or stock buybacks) rather than reinvesting them to grow its business.

Definitions

FTSE stands for Financial Times Stock Exchange. It's a group of indexes that track the performance of companies listed on the London Stock Exchange. The FTSE indexes are managed by FTSE Russell, a subsidiary of the London Stock Exchange Group (LSEG).

Magnificent Seven is the moniker for seven mega-cap tech-related stocks Amazon, Apple, Google-parent Alphabet, Meta, Microsoft, Nvidia and Tesla.

Standard deviation: A measure of volatility of returns. It measures the dispersion about an average and depicts how widely an investment's returns varied over a certain period of time. A higher standard deviation implies a higher level of risk.

Russell 1000® Index: The Russell 1000® Index measures the performance of the large-cap segment of the US equity universe. It is a subset of the Russell 3000® Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000® Index represents approximately 92% of the US market. The Russell 1000® Index is constructed to provide a comprehensive and unbiased barometer for the large-cap segment and is completely reconstituted annually to ensure new and growing equities are reflected.

Russell 2000® Index measures the performance of the smallest 2,000 companies in the Russell 3000® Index.

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

S&P 500® is an unmanaged capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

S&P Composite 1500® Index is a broad market index comprising approximately 1500 stocks, representing the large-cap, mid-cap and small-cap segments of the U.S. equity market.

Indexes are unmanaged and cannot be invested in directly.

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