

Russell 1000 High Efficiency Defensive – Moderate Index

Information session



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FTSE Russell

Your global index partner for a changing world

For nearly half a century, market participants have chosen our category-defining indices to implement their investment objectives.

We provide deep domestic frameworks and a global view across the entire investment spectrum.

We have the vision, ideas, expertise and toolkit to help clients navigate and excel in a changing world.



Russell US Indexes

Pinpoint change with precision

The leading US equity benchmarks for institutional investors

Based on the broad-market Russell 3000® Index

Includes well-known subsets:

- Large cap Russell 1000[®] Index
- Small cap Russell 2000[®] Index

Deep, comprehensive market coverage

~98% of the US investable universe represented

Completely objective, no sampling

Rules-based, transparent methodology for creating ideal benchmarks and trading vehicles

Modular and accurate, in market-size segments

Basis for a broad range of financial products (indextracking funds, derivatives, ETFs)

Performance benchmarks for large, mid, small and all cap

Rigorously maintained

Daily corporate actions

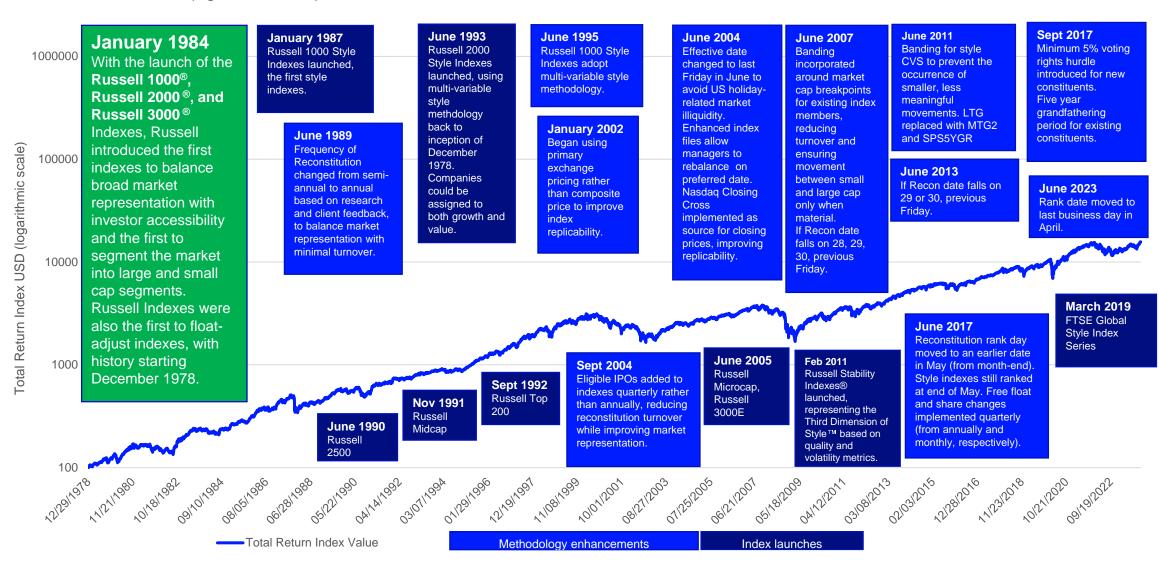
Quarterly IPO inclusions and share adjustments

Annual total reconstitution

FTSE Russell

Russell US Indexes – a timeline of enhancements over four decades

Total Return Index USD (logarithmic scale)

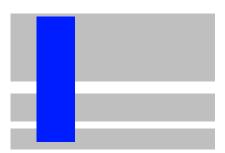


Index construction basics

Identify eligible securities



Determine Russell US Index membership



2 Rank eligible universe by market capitalization



Adjust for float - Remove shares unavailable to investors



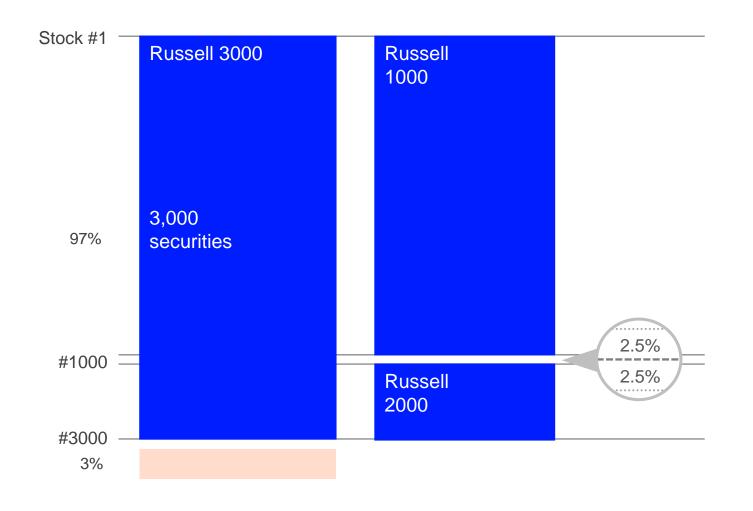
3 Apply cap breaks and banding



6 Determine style and stability weights



Russell US Indexes Size allocation



The largest 3,000 securities become the Russell 3000 Index, which represents 97% of the investible US equity market

The largest 1,000 become the Russell 1000 Index (large cap), next 2,000 become the Russell 2000 Index (small cap)

For existing index members, a 5% band is placed around the break between large and small cap to determine index assignment

Russell US Indexes

A complete US market view

Comprehensive representation of the US equity market, from mega cap to micro cap.

The leading US benchmarks for institutional investors, with approximately \$9 trillion benchmarked to the Russell US Indexes*.

Modular index construction covering market segments (large/ mid/ small cap) and investment styles (growth/ value/ defensive/ dynamic).

1,000 + 2,000 = 3,000

It's really that simple

The Russell 1000 Index—The largest 1,000 stocks by market cap, the index comprehensively covers the large cap opportunity set.

The Russell 2000 Index—The next 2,000 largest stocks by market cap, the index comprehensively covers the small cap opportunity set.

The Russell 3000 Index—This broad cap index of the top 3,000 US stocks by market cap covers 97% of the US equity investable universe.

^{*}Data as of December 31, 2022 as reported on April 1, 2023 by eVestment for active institutional funds, Morningstar for active retail mutual funds, insurance products, and ETFs, and passive assets directly collected by FTSE Russell. AUM includes blended benchmarks and excludes futures and options. AUM data does not include active and passive assets not reported to a 3rd party source or FTSE Russell. For funds where the AUM was not reported as of December 31, 2022, the previous period AUM was used as an estimate. No assurances are given by FTSE Russell as to the accuracy of the data.

Additions of new opportunities

- Companies are regularly added to the Russell indexes as they become eligible.
- Different timing of index additions may contribute to performance differences.

Company	IPO month	Added to Russell 3000 (A)	Added to S&P 500 (B*)	% Cumulative Total Return of the Stock from A to B*	Russell 1000 Cumulative Excess Return over S&P 500 from A to B*	Russell 3000 Cumulative Excess Return over S&P 1500 from A to B*
Apple	Dec 1980	Mar 1981	Nov 1982	30%	-0.7%	N/A*
Microsoft	Mar 1986	Mar 1986	Jun 1994	3,270%	-6.1%	N/A*
Starbucks	Jun 1992	Jun 1993	Jun 2000	523%	-6.0%	N/A*
Amazon.com	May 1997	Jul 1997 (R2); Jul 1998 (R1)	Nov 2005	3,043%	6.4%	-1.3%
Nvidia	Jan 1999	Jun 1999 (R2); Jun 2000 (R1)	Nov 2001	1,043%	1.1%	-0.6%
Netflix	May 2002	Jun 2002 (R2); Jun 2009 (R1)	Dec 2010	2,412%	6.7%	3.3%
Alphabet (Google)	Aug 2004	Sep 2004	Mar 2006	201%	2.5%	1.7%
Tesla	Jun 2010	Sep 2010	Dec 2020	17,192%	6.1%	5.8%
Meta Platforms Inc (Facebook)	May 2012	Jun 2012	Dec 2013	46%	0.8%	0.6%
Lululemon Athletica	Jul 2007	Jun 2015	Oct 2023	503%	-6.3%	-6.8%
Block Inc (Square)	Nov 2015	Dec 2015	TBD*	491%	-3.2%	-4.0%
Moderna	Dec 2018	Mar 2019	Jul 2021	1,638%	2.0%	2.2%
Blackstone Inc	Jun 2007	Jun 2021	Sep 2023	20%	-2.9%	-3.4%
Airbnb	Dec 2020	Jun 2022	Sep 2023	54%	-0.1%	-0.1%

Source: FTSE Russell, data as of December 29, 2023. Russell 3000 additions are to the Russell 1000 (R1) unless a date is noted for the Russell 2000 (R2). The inception date of the Russell 3000 Index is January 1, 1984. All performance presented prior to the index inception FTSE Russell date is back-tested performance. Past performance is no guarantee of future returns. See the end for important disclosures.

Index characteristics

	Russell 1000	Russell 2000
Avg Market Capitalization \$-WTD (\$billion)	666.04	3.27
Dividend Yield	1.44	1.48
Price/Earnings	25.45	34.38
Price/Earnings excluding negative EPS	22.95	15.75
P/E using FY1 Est	20.13	15.24
Price/Book	4.28	2.11
Price/Sales	2.83	1.57
Non-US Revenue %*	39.62	19.00

Source: FTSE Russell, as of December 29, 2023. *As of December 29, 2023.



Russell High Efficiency Defensive Index (HEDI) Series

2023 Update

Russell High Efficiency Defensive Index Series

The Russell High Efficiency Defensive Index® (HEDI) Series is designed to deliver an efficient, transparent, and turnover-controlled capture of the Low Volatility and Quality variables from the Russell Stability Indexes at various levels of tracking error.

The indexes are the first and only index series to offer target tracking error to the industry leading Russell US Indexes.

Index Offering

Russell 1000 High Efficiency Defensive Index – Low Target Tracking Error (R1 HEDI Low)	Russell 2000 High Efficiency Defensive Index – Low Target Tracking Error (R2 HEDI Low)	Russell 3000 High Efficiency Defensive Index – Low Target Tracking Error (R3 HEDI Low)
Russell 1000 High Efficiency Defensive	Russell 2000 High Efficiency Defensive	Russell 3000 High Efficiency Defensive
Index – Moderate Tracking Error	Index – Moderate Tracking Error	Index – Moderate Tracking Error
(R1 HEDI Mod)	(R2 HEDI Mod)	(R3 HEDI Mod)

The Russell High Efficiency Defensive Index Series uses the Westpeak Global Advisors, LLC, and Goldman Sachs Active Management, L.P. patented ActiveBeta portfolio construction techniques to determine tracking error

Russell High Efficiency Defensive Index (HEDI) Series Methodology Overview VOLATILITY QUALITY

Step 1

Rank and score all stocks in the index on each variable independently, starting with the Russell 1000 or Russell 2000 Index

Step 2

Calculate a volatility score and quality score for each stock

Step 3

Equally weight volatility and quality scores to create rescaled stability score

Step 4

Calculate benchmark-relative weights for each stock accounting for investment capacity

50%

60-mo total return volatility

50%

52-wk total return volatility

33%

Earnings variability

33%

Leverage

33%

Return on assets

50%

volatility score

50%

quality score

Final stability score

-1.0 = Dynamic, +1.0 = Defensive

Final Russell HEDI weights

Russell-high-efficiency-defensive-indexes.pdf (ftserussell.com)

Largest 10 holdings in the index

Russell 1000 HEDI Mod 227 total holdings

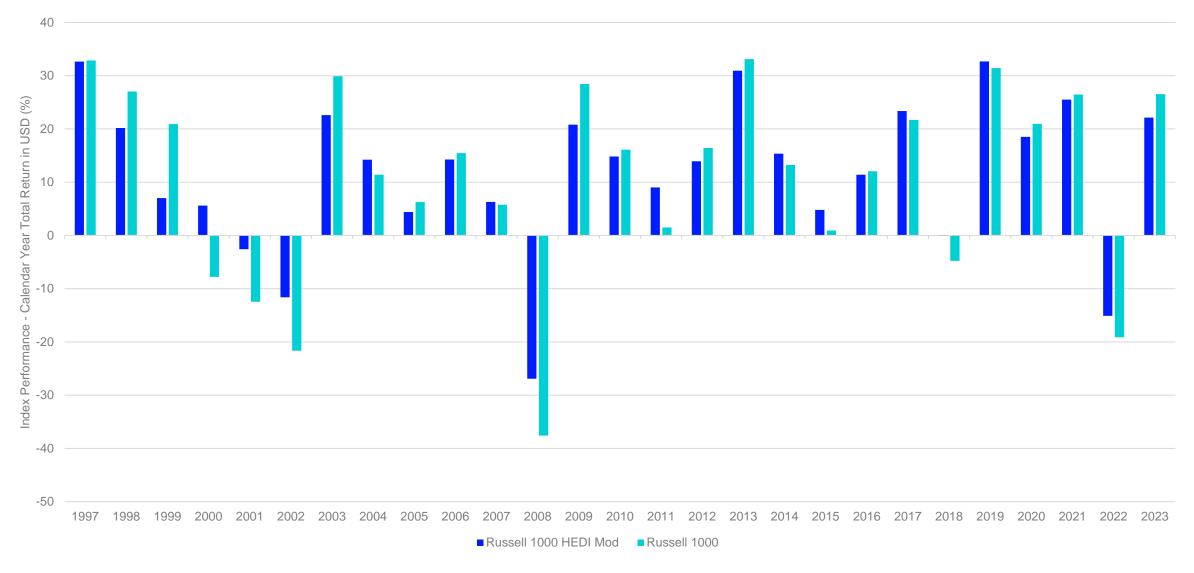
Name	Industry	Weight (%)
MICROSOFT CORP	TECHNOLOGY	6.8
APPLE INC	TECHNOLOGY	6.5
ALPHABET INC CL C	TECHNOLOGY	2.1
ALPHABET INC CL A	TECHNOLOGY	2.0
AMAZON COM INC	CONSUMER DISCRETIONARY	1.9
NVIDIA CORP	TECHNOLOGY	1.6
UNITEDHEALTH GROUP	HEALTH CARE	1.5
VISA	INDUSTRIALS	1.3
MASTERCARD CL A	INDUSTRIALS	1.2
META PLATFORMS INC	TECHNOLOGY	1.2

Russell 1000 1,010 total holdings

Name	Industry	Weight (%)
APPLE INC	TECHNOLOGY	6.5
MICROSOFT CORP	TECHNOLOGY	6.4
AMAZON COM INC	CONSUMER DISCRETIONARY	3.1
NVIDIA CORP	TECHNOLOGY	2.7
ALPHABET INC CL A	TECHNOLOGY	1.9
META PLATFORMS INC	TECHNOLOGY	1.8
ALPHABET INC CL C	TECHNOLOGY	1.6
TESLA INC	CONSUMER DISCRETIONARY	1.6
BERKSHIRE HATHAWAY INC	CFINANCIALS	1.5
LILLY ELI & CO	HEALTH CARE	1.1

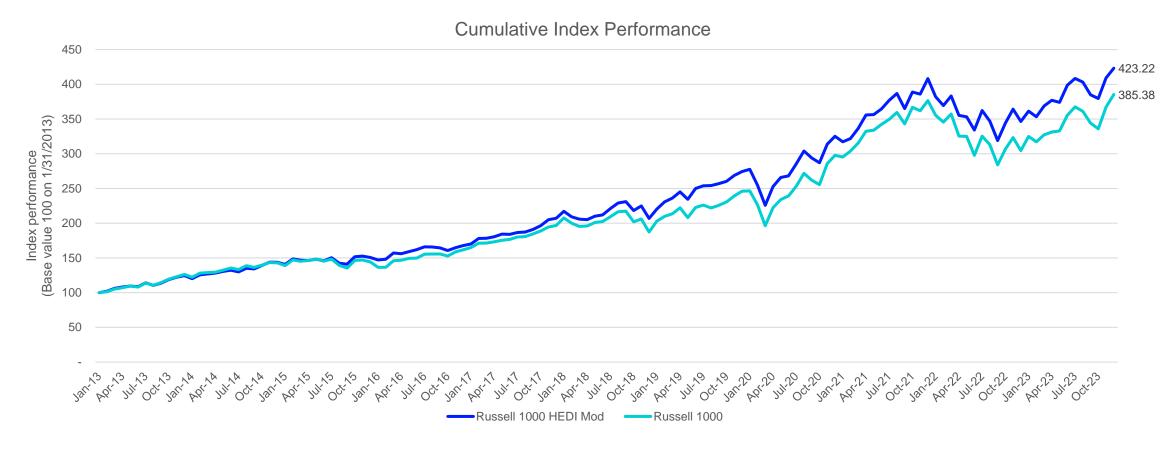
Source: FTSE Russell, as of December 29, 2023.

Calendar Year Index Performance



Source: FTSE Russell, data as of 12/29/2023. The launch date of the Russell 1000 HEDI Mod is January 29, 2013. All performance presented prior to the index launch date is back-tested performance. Past performance is no guarantee of future results. Please see the end of this presentation for important legal disclosures.

Historical Index Performance



Ann. Return (%)	1Y	3Y	5Y	10Y
R1 HEDI Mod	22.1	9.2	15.4	13.0
Russell 1000 Index	26.5	9.0	15.5	11.8

Ann. Vol (%)	1Y	3Y	5Y	10Y
R1 HEDI Mod	13.1	16.4	17.1	14.0
Russell 1000 Index	15.2	17.7	18.9	15.5

Source: FTSE Russell, data as of 12/29/2023. Past performance is no guarantee of future results. Please see the end of this presentation for important legal disclosures.

Russell US Indexes

Transparent

Constructed using an open, published, rules-based, methodology that's designed to be easy to understand for any financial professional.

Representative

Modular in design and constructed to be objective and comprehensive with full coverage of the underlying market segment. There is no sampling.

Leading methodology

Fully float-adjusted since their inception in 1984. The Russell 2000 Index was the first US small cap index launched in 1984, and the Russell Style Indexes launched in 1987 were also the first of their kind. The style index methodology was updated in 1994 as the first multi-factor style indexes.

Accurate and practical

To ensure that markets are accurately represented, our indexes are rigorously maintained via daily corporate actions, quarterly share adjustments and IPO inclusions and annual total reconstitution.

Accessible

Our data products are available through more than 80 leading analytic platforms. A tailored client service approach available for special data pulls or even a custom index.

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Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back-tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.

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Market participants look to us for our expertise in developing and managing global index solutions across asset classes. Asset owners, asset managers, ETF providers and investment banks choose FTSE Russell solutions to benchmark their investment performance and create investment funds, ETFs, structured products, and index-based derivatives. Our clients use our solutions for asset allocation, investment strategy analysis and risk management, and value us for our robust governance process and operational integrity.

For over 35 years we have been at the forefront of driving change for the investor, always innovating to shape the next generation of benchmarks and investment solutions that open up new opportunities for the global investment community.

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