

How are you managing your innovation strategy?

The case for the Alger Russell Innovation Index in an age of disruption

April 2025

AUTHORS

Sebastian Lancetti, CFAHead of Research and Design, Americas
<u>Sebastian.Lancetti@Iseg.com</u>

Ryan Giannotto, CFA
Manager Equity Index Research
Ryan.Giannotto@Iseg,com



Executive summary: Leveraging R&D for market success with the Alger Russell Innovation Index

Innovation is transforming financial markets in ways investors are only beginning to recognize amidst the breakneck pace of technological disruption. A gold-standard in technical and commercial success can be eclipsed overnight; the only solution may be to invest for the future or be subsumed by it. The Alger Russell Innovation Index intelligently captures innovation pioneers with the potential to not only ride the next wave of innovation but be the propagating force behind it. This unique approach yields compelling results from performance, diversification and valuation standpoints and provides an ideal complement to broad US Equity allocations.

Key findings:

- The exponential growth in the intangible economy is upending capital markets, and traditional asset pricing models are struggling to keep pace.
- Starting from the Russell 1000 universe, the Alger Russell Innovation Index takes a two-pronged approach to isolating pioneers of the next wave of innovation in the US large cap ecosystem. R&D intensity (R&D/Enterprise Value) is combined with profitability, evaluating the success in translating investment into economic viability business and commercial opportunities.
- In simulated past performance, the Alger Russell Innovation Index outpaced the Russell 1000 Benchmark with 72% consistency since 2004. A hypothesized 10% as an innovation sleeve to a Russell 1000 portfolio would have increased overall returns by 69 bps annualized over the 20-year period, while volatility would only have risen by a statistically insignificant 2 basis points.
- The Alger Russell Innovation Index's ability to complement existing growth allocations stems from its approach of venturing outside the well-trodden path of cap-weighted indexes.
- In addition to its performance and diversification characteristics, the Alger Russell Innovation Index features lower Price to Earnings and Price to Cashflow multiples than the Russell 1000 Index. These identified innovationintensive companies trade inexpensively compared to large cap benchmarks, which are skewed upwards by high multiples on the top cohort of stocks.

Contents

Leveraging R&D for Market Success with the Alger Russell Innovation Index	4
Navigating the Accelerating Pace of Technological Disruption	4
The Dual Approach of the Alger Russell Innovation Index	6
Alger Russell Innovation Index Enhanced Returns	7
Innovation as a Vector for Portfolio Diversification	11
Alger Russell Innovation Index Enhanced Portfolio Valuations	12
Final thoughts: navigating market disruption with the Alger Russell Innovation Index	1/

Leveraging R&D for market success with the Alger Russell Innovation Index

You do not have to be an outright futurist to observe the ever-accelerating pace of technological disruption and its impacts on financial markets. What was once science fiction, but a few years ago now occupies prime real estate in any consultant's presentation on unlocking shareholder value.

Technological disruption is rapidly transforming financial markets

Yet the irony remains — despite this near omnipresence of digital disruption, the full economic implications may not be priced in by markets, or at least not efficiently captured by mainstream investment strategies. The Alger Russell Innovation Index targets this dilemma at its core, quantifying the effective use of Research and Development as a factor that has historically correlated to excess returns.

Here we explore the rationale underpinning Innovation as a factor in equity returns, how the Alger Russell Innovation Index captures this metric, and how the strategy may be additive from a risk/reward, diversification, and valuation perspective.

The Alger Russell Innovation Index leverages these changes

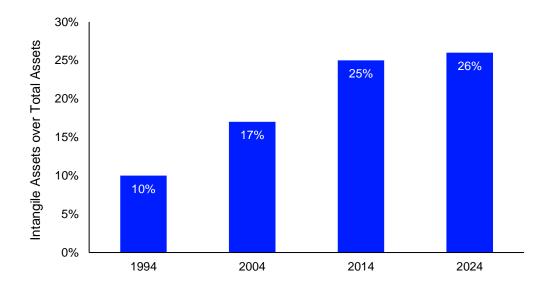
Navigating the accelerating pace of technological disruption

Perhaps more than any other feature, the rise of intangible assets as a share of total assets epitomizes the unprecedented economic transformation underway. Over the last 30 years, the proportional share of intangibles has scaled two and a half fold from 10% to 26%, reflecting the significance of human capital, intellectual property, and digital technologies. It is important to note that this remarkable expansion of intangible assets is indeed a conservative accounting, as it does not include capitalization of R&D or marketing investments, nor does it modify depreciation from physical asset standards. Both of these practices lend a more realistic assessment to the value capture by intangible assets, accelerating the trend already observed.

The rise of Intangibles

Figure 1: Intangible assets as a percentage of total assets

Last 30 years in the Russell 1000 Index



Source: FTSE Russell World Scope Data. December 2024.

Even this marked expansion understates the potential for digital disruption and the associated economic gains, as numerous aspects render digital innovation uniquely scalable. For instance, network effects as governed by Metcalfe's law enable platforms where connections increase exponentially with each additional user. Moreover, digital technologies are combinatorial, easily creating synthesis between varied innovations. This ability to "stack" advancements not only opens new opportunity sets, but also enables scalability at lower marginal costs.

Digital Technology can scale rapidly

With these digital characteristics undergirded by the 40% annual growth in processing power via Moore's Law, this fourth industrial revolution can achieve value capture in a way previous innovation cycles could not. Unlike the adoption of the steam engine in the 19th century or electrification in the early to mid-20th century, digital disruption undergoes geometric as opposed to arithmetic growth — categorically distinct paradigms.

Intangible economy grows exponentially, not linearly

One only needs to consider the changing composition of sector and industry weights in the US equity market to observe this physical versus intangible investment dichotomy. In the 1990's Materials and Utilities each accounted for 10% of overall market capitalization; now these traditional PP&E-laden industries are relegated to approximately 2% weight apiece.

Industry weight shifts demonstrate changing economy

And the pace of disruption is only accelerating — to ignore this unprecedented rate of innovation may consign not only companies but entire industries to long-term secular decline. Managing this potential for innovation and the risk of disruption may be one of the paramount concerns of the modern, forward-looking investor.

Managing Innovation

The dual approach of the Alger Russell Innovation Index

Research and development is the rocket fuel for transformative innovation — no surprise here — but the efficient monetization of these investments, and blending these characteristics into a comprehensive financial strategy, are an altogether separate matter. A key part of this challenge is that the gains from innovation may often be mispriced; not only are reliable proxies scarce, but these waves of disruption are reverberating through all industries as well.

A two-pronged approach

The Alger Russell Innovation Index takes a two-pronged approach to isolating pioneers of the next wave of innovation in the US large cap ecosystem. First is the metric of relative R&D intensity. The second component measures profitability, evaluating the success in translating investment into economic viability business and commercial opportunities.

This combination produces a unique synthesis, one which sidesteps many of the potential pitfalls of trying to pick winners in an ever-churning environment. Perhaps counterintuitively, investments are often an inefficient predictor of asset returns, especially in the short run. Stock prices frequently fall when companies announce higher than expected expenditures, being perceived as a drag on earnings. By melding R&D with profitability, however, the Alger Russell Innovation Index was able to escape this "R&D trap," achieving 35% higher risk efficiency in past performance since 2005.¹

By looking beyond investments alone, the Alger Russell Innovation Index effectively removes companies with high innovation but without a viable commercial strategy, companies that inefficiently deploy their research capital or have outstripped their funding. Moreover, better profitability can feed a healthy R&D spend sustainably, creating a virtuous cycle of yet further innovation and profits.

This dual approach fosters a Return on Innovation (ROI) mindset from which the top 50 companies are selected and weighted equally, managed with a quarterly rebalance. A further advantage to this framework is that the Index is theme agnostic — it seeks out monetized innovation wherever it exists in the US equity market, starting from the broader Russell 1000 Index.

The starting point is the Russell 1000 Index

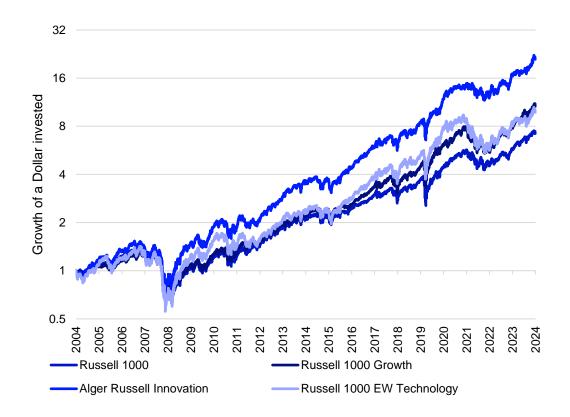
¹ Source: FTSE Russell Data, December 2004 to December 2024. Past performance is no guarantee of future returns. All data is simulated/back-tested. Please see the end for important legal disclosures.

Alger Russell Innovation Index Enhanced Returns

Compared to conventional growth-oriented strategies, the Alger Russell Innovation Index offers many potential advantages, particularly in terms of performance, diversification, and valuation. In simulated past performance, the methodology accrued significant returns whether considered independently or in conjunction with other mainline asset benchmarks. As depicted in Figure 2, the Alger Russell Innovation Index achieved 16.44% annualized returns since December 2004, outperforming the Russell 1000 Growth Index by 388 basis points per year.

The Alger Russell Innovation Index outperformed Growth Benchmark

Figure 2: Russell Alger Innovation Index Total Returns 2004 - 2024



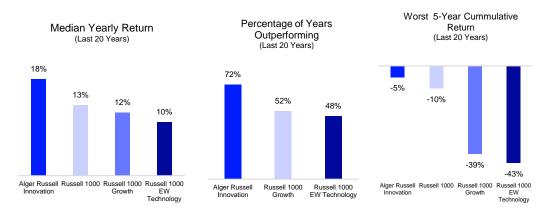
Source: FTSE Russell Data, December 2024. Past performance is no guarantee of future returns. Alger Russell Innovation data is simulated. One cannot invest directly in an index. Please see the end for important legal disclosures.

One of the most compelling aspects of the Index's return series is its risk efficiency. Despite its higher returns, the 50-name basket exhibits only an incrementally higher annualized volatility, with premiums of just 182 and 136 basis points over the Russell 1000 and Russell 1000 Growth Indexes, respectively. These returns are not achieved through the assumption of additional equity risk, as the strategy's beta has been slightly below 1.00 since the end of 2004. These results further

Higher returns, Controlled Volatility

corroborate the thesis that effective innovation is a non-duplicative risk factor in equity markets, one mainline strategies only inefficiently target.

Figure 3: Historical Consistency of Alger Russell Innovation Index Returns



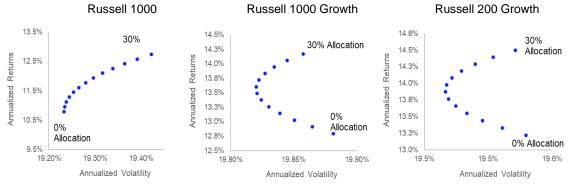
Source: FTSE Russell Data, December 2024. Past performance is no guarantee of future results. Alger Russell Innovation data is simulated. Please see the end for important legal disclosures.

Perhaps as important as the raw return is for the Alger Russell Innovation Index is the consistency of these returns. Over the last 20 years, the Alger Russell Innovation Index outperformed the Russell 1000 index in 72% of observed instances, compared with only 52% for the Russell 1000 Growth Index — this latter result indistinguishable from a coin toss.

Moreover, when assessing index strategies by their worst five-year cumulative return, this metric truly highlights the consistency of the Alger Russell Innovation Index. While the Russell 1000 Growth Index suffered a 39% five-year downdraw, the Alger Russell Innovation Index curtailed this loss to a mere 5%. Quite empirically, the methodology is accessing non-beta return factors to drive its performance history.

Demonstrates consistency in historical returns

Figure 4: Russell Alger Innovation Index Efficient Frontiers

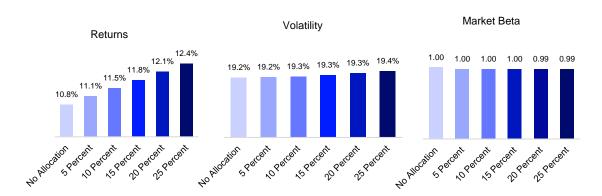


Notes: Efficient Frontier distributions of adding the Alger Russell Innovation Index to three benchmark indexes in 2.5 percent point increments, from 0% to 30% allocation. Performance from 12/31/2004 to 12/31/2024, rebalanced quarterly. FTSE Russell data. Past performance is no guarantee of future results. Alger Russell Innovation data is simulated. Please see the end for important legal disclosures.

Even small allocations to the Alger Russell Innovation Index could have had meaningful effects when incorporated into a broader equity index, as depicted in Figure 4. For instance, allocating 10% as an innovation sleeve to the Russell 1000 Index would have increased overall returns by 69 bps annualized over the 20-year period, while volatility would only have risen by a statistically insignificant 2 basis points.

Improved portfolio risk/return metrics

Figure 5: Strategic additions to the Russell 1000 Index Exposure



Source: FTSE Russell data. Past performance is no guarantee of future results. Alger Russell Innovation data is simulated. Please see the end for important legal disclosures.

The strategy would have been additive to growth exposures as well; a 10% allocation to the Alger Russell Innovation Index alongside the Russell 1000 growth Index would have bolstered annualized returns by 2.5% while reducing risk by 5 basis points. These case examples illustrate the potential of layering innovators into existing equity portfolios.

Table 1: Historical simulations - Allocating up to 25 percent to the Alger Russell Innovation Index

Russell 1000						
	No Allocation	5 Percent	10 Percent	15 Percent	20 Percent	25 Percent
Return (annualized)	10.79%	11.12%	11.45%	11.77%	12.10%	12.42%
Volatility (annualized)	19.23%	19.24%	19.25%	19.28%	19.32%	19.36%
Risk Adjusted Return	0.56	0.58	0.59	0.61	0.63	0.64
Excess Return (annualized)	n.a.	0.37%	0.69%	1.02%	1.34%	1.67%
Alpha (annualized)	n.a.	0.37%	0.67%	0.97%	1.27%	1.57%
Beta	n.a.	1.00	1.00	1.00	0.99	0.99
Tracking Error	n.a.	0.50%	0.94%	1.39%	1.84%	2.29%
Information Ratio	n.a.	0.73	0.74	0.73	0.73	0.73

The benefits of allocations to the Alger Russell Innovation Index

Russell 1000 Growth						
	No Allocation	5 Percent	10 Percent	15 Percent	20 Percent	25 Percent
Return (annualized)	12.79%	13.03%	13.26%	13.49%	13.72%	13.94%
Volatility (annualized)	19.88%	19.85%	19.83%	19.82%	19.82%	19.83%
Risk Adjusted Return	0.64	0.66	0.67	0.68	0.69	0.70
Excess Return (annualized)	n.a.	2.27%	2.50%	2.74%	2.96%	3.19%
Alpha (annualized)	n.a.	2.16%	2.37%	2.58%	2.79%	3.00%
Beta	n.a.	1.00	1.00	1.00	1.00	1.00
Tracking Error	n.a.	4.53%	4.47%	4.46%	4.49%	4.57%
Information Ratio	n.a.	0.50	0.56	0.61	0.66	0.70

Russell Top 200 Growth						
	No Allocation	5 Percent	10 Percent	15 Percent	20 Percent	25 Percent
Return (annualized)	13.22%	13.44%	13.66%	13.87%	14.08%	14.29%
Volatility (annualized)	19.53%	19.50%	19.47%	19.47%	19.47%	19.49%
Risk Adjusted Return	0.68	0.69	0.70	0.71	0.72	0.73
Excess Return (annualized)	n.a.	2.69%	2.90%	3.12%	3.33%	3.54%
Alpha (annualized)	n.a.	2.81%	2.98%	3.16%	3.34%	3.52%
Beta	n.a.	0.97	0.97	0.97	0.98	0.98
Tracking Error	n.a.	5.24%	5.07%	4.95%	4.88%	4.86%
Information Ratio	n.a.	0.51	0.57	0.63	0.68	0.73

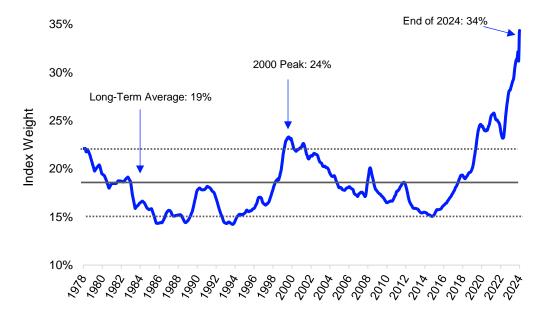
Notes: Data represents back-tested, hypothetical performance. Returns exclude transaction and other implementation related costs. Quarterly rebalancing. One cannot invest directly in an index. Performance from 12/31/2004 to 12/31/2024, rebalanced quarterly. FTSE Russell data. Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Innovation as a vector for portfolio diversification

The problem with market cap indexing as a conduit for innovation-driven investing, even in growth-oriented universes, is that the extreme market concentration can systematically underweight the most prolific innovators. This is a prime reason the Alger Russell Innovation Index can so readily complement existing growth allocations, as it ventures outside the well-trodden path of cap-weighted indexes.

Tackling Market Concentration

Figure 6: Weight of the largest 10 constituents in the Russell 1000 Index from 1978 to 2024

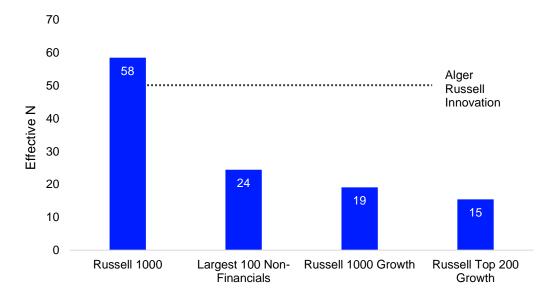


Source: FTSE Russell Data, December 2024.

By the close of December 2024, the top 10 weights of the Russell 1000 Index surpassed 34%, a full 10 percentage points beyond the previous crest at the height of the dot.com euphoria. Figure 6 illustrates this unprecedented extent of concentration. Despite its namesake number of constituents, the Russell 1000 provides the effective diversification of only 58 equally weighted holdings, and in the Russell 1000 Growth Index, this figure plummets to only 19 companies.

US equity market has reached unprecedented levels of concentration

Figure 7: Number of equivalent stocks - December 2024



An Allocation to the Alger Russell Innovation Index can broaden portfolio exposures

Source: FTSE Russell Data, December 2024.

Given that the 50 companies in the Alger Russell Innovation Index receive only a 3.32% weighting under a market cap schema, the strategy can meaningfully broaden an existing portfolio's breadth. Hence, targeting innovation as a risk factor may address one of the market's most vexing challenges.

Moreover, many of the stocks in the trillion plus valuation range may now owe their success as much to their ability to wield market power as to their capacity to innovate. To this effect, the Alger Russell Innovation Index reduces average portfolio market cap to \$35.9 billion from \$58.3 billion and \$98.2 billion as in the Russell 1000 and Russell 1000 Growth Indexes, respectively. It is a unique moment in financial history where both US market concentration and the pace of disruption have reached unprecedented levels — the case for diversifying to the next wave of innovators has never been more compelling.

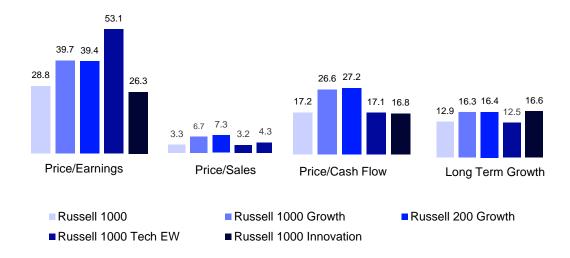
The case for diversifying to the next wave of innovators has never been more compelling

Alger Russell Innovation Index Enhanced Portfolio Valuations

In addition to its performance and diversification characteristics, from a fundamental perspective the Alger Russell Innovation Index features lower valuation multiples than those of market wide benchmarks. Indeed, these innovation-intensive companies trade inexpensively compared to large cap benchmarks, which are skewed upwards by high multiples on the top cohort of stocks; *concentration is expensive*.

The Alger Russell Innovation Index is priced lower than US benchmarks

Figure 8: Valuations and growth



Source: FTSE Russell Data, as of December 31st, 2024. Alger Russell Innovation data is simulated. Please see the end for important legal disclosures.

As depicted in Figure 8, the Alger Russell Innovation Index realized the lowest price to earnings and price to cash flow valuations, with multiples of 26.34 and 16.81 respectively. Moreover, the Index carries the highest IBES long term growth forecast of 16.62%. Perhaps the most striking juxtaposition is that, compared to the Russell 1000 Growth Index, the Alger Russell Innovation Index garners an additional 31 basis points of growth, yet operates with a 51% higher earnings yield.

The Alger Russell Innovation Index attains high growth rates despite lower valuation multiples

The implications from this analysis are two-fold. First, it dispels the traditional linkage between high growth rates and elevated valuations, as the Alger Russell Innovation Index is the best scoring by both metrics simultaneously. Second, it reinforces the core thesis of combining innovation and profitability, as this synthesis is a more efficient vehicle for capturing forecasted growth than focusing on growth alone. By targeting innovation leaders, Alger Russell Innovation Index eschews assumed trade-offs and truly expands the investment frontier beyond what traditional exposures can deliver.

Growth doesn't need to come at the expense of valuations

Final thoughts: Navigating market disruption with the Alger Russell Innovation Index

Disruptive technology is reshaping the basic reality of financial markets to an extent yet to be fully comprehended. The ability to innovate effectively is rapidly emerging as the key determinant as to whether a company may succeed in this transformative environment or be consigned to secular decline.

With clear focus, the Alger Russell Innovation Index identifies the foremost innovators in today's market by means of R&D intensity coupled with profit scoring. While many strategies struggle to value intangible assets, crowd into concentrated holdings, or overindulge in high beta, high duration stocks, the Alger Russell Innovation Index leverages the breadth of the Russell 1000 Index to capture a wide array of innovative companies. This ensures a robust foundation for identifying and monetizing innovation across the US equity market, focusing on this transcendent metric of our time.

Whether considered singly or in concert with existing equity allocations, this Index may enhance portfolio risk efficiency and diversify beyond the cohort of the largest stocks — all at a discount to benchmark valuations. The ubiquity of disruption may be unavoidable, but innovation unlocks new potentialities altogether.

FTSE Russell is a leading global provider of index and benchmark solutions, spanning diverse asset classes and investment objectives. As a trusted investment partner we help investors make better-informed investment decisions, manage risk, and seize opportunities.

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 40 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.

CONTACT US

To learn more, visit learn more, visit learn-more, visit <a h

EMEA +44 (0) 20 7866 1810

Asia-Pacific

North America +1 877 503 6437

Hong Kong +852 2164 3333

Tokyo +81 3 6441 1430

Sydney +61 (0) 2 7228 5659

Disclaimer

© 2025 London Stock Exchange Group plc and its applicable group undertakings ("LSEG"). LSEG includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, "FTSE Canada"), (4) FTSE Fixed Income Europe Limited ("FTSE FI Europe"), (5) FTSE Fixed Income LLC ("FTSE FI"), (6) FTSE (Beijing) Consulting Limited ("WOFE") (7) Refinitiv Benchmark Services (UK) Limited ("RBSL"), (8) Refinitiv Limited ("RL") and (9) Beyond Ratings S.A.S. ("BR"). All rights reserved.

FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, WOFE, RBSL, RL, and BR. "FTSE®" "Russell®", "FTSE Russell®", "FTSE4Good®", "ICB®", "Refinitiv", "Beyond Ratings®", "WMRTM", "FRTM" and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of LSEG or their respective licensors and are owned, or used under licence, by FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, WOFE, RBSL, RL or BR. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator. Refinitiv Benchmark Services (UK) Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

All information is provided for information purposes only. All information and data contained in this publication is obtained by LSEG, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical inaccuracy as well as other factors, however, such information and data is provided "as is" without warranty of any kind. No member of LSEG nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the accuracy, timeliness, completeness, merchantability of any information or LSEG Products, or of results to be obtained from the use of LSEG products, including but not limited to indices, rates, data and analytics, or the fitness or suitability of the LSEG products for any particular purpose to which they might be put. The user of the information assumes the entire risk of any use it may make or permit to be made of the information.

No responsibility or liability can be accepted by any member of LSEG nor their respective directors, officers, employees, partners or licensors for (a) any loss or damage in whole or in part caused by, resulting from, or relating to any inaccuracy (negligent or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering any such information or data or from use of this document or links to this document or (b) any direct, indirect, special, consequential or incidental damages whatsoever, even if any member of LSEG is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of LSEG nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing in this document should be taken as constituting financial or investment advice. No member of LSEG nor their respective directors, officers, employees, partners or licensors make any representation regarding the advisability of investing in any asset or whether such investment creates any legal or compliance risks for the investor. A decision to invest in any such asset should not be made in reliance on any information herein. Indices and rates cannot be invested in directly. Inclusion of an asset in an index or rate is not a recommendation to buy, sell or hold that asset nor confirmation that any particular investor may lawfully buy, sell or hold the asset or an index or rate containing the asset. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index and/or rate returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index or rate inception date is back-tested performance. 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 or rate was officially launched. However, back-tested data may reflect the application of the index or rate methodology with the benefit of hindsight, and the historic calculations of an index or rate may change from month to month based on revisions to the underlying economic data used in the calculation of the index or rate.

This document may contain forward-looking assessments. These are based upon a number of assumptions concerning future conditions that ultimately may prove to be inaccurate. Such forward-looking assessments are subject to risks and uncertainties and may be affected by various factors that may cause actual results to differ materially. No member of LSEG nor their licensors assume any duty to and do not undertake to update forward-looking assessments.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of LSEG. Use and distribution of LSEG data requires a licence from LSEG and/or its licensors.

