

---

NOVEMBER 2023

---

# FTSE VENTURE CAPITAL INDEX

METHODOLOGY



**FTSE  
RUSSELL**

An LSEG Business

## CONTENTS

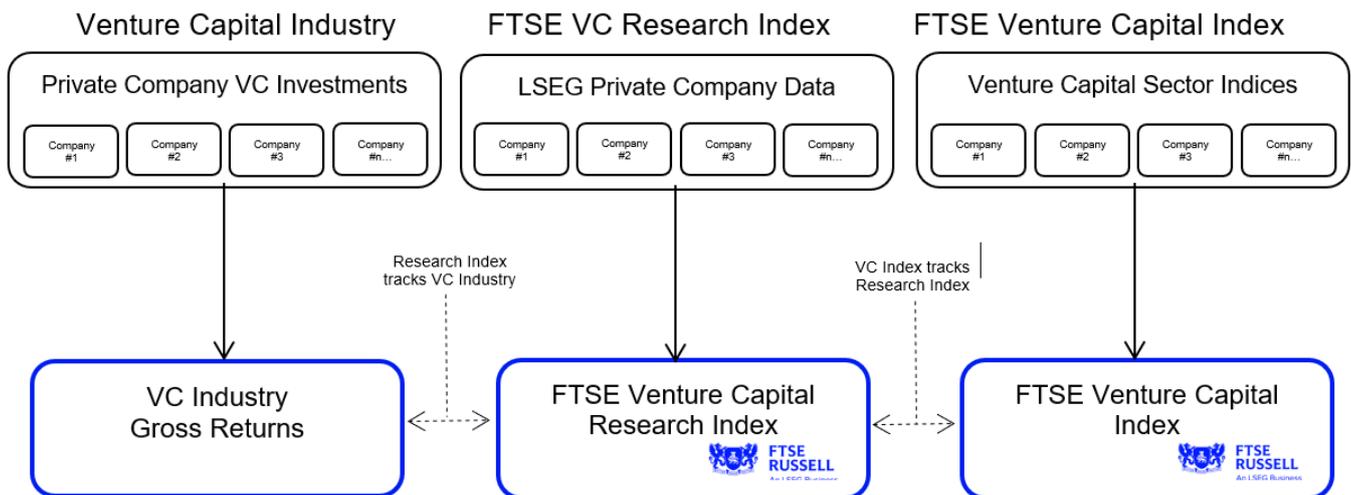
|                                      |   |
|--------------------------------------|---|
| Introduction .....                   | 3 |
| Weighting Methodology .....          | 5 |
| Venture Capital Sector Indices ..... | 5 |
| Weight Computation .....             | 6 |
| Index Computation.....               | 6 |
| Governance .....                     | 7 |
| About FR Equity Indices .....        | 7 |
| Contact Us .....                     | 8 |

## Introduction

The **FTSE Venture Capital Index** (“FTSE VC Index”) tracks the return of the venture capital universe by replicating movements in the FTSE Venture Capital Research Index (“FTSE VC Research Index”). The FTSE VC Research Index is constructed from observed valuations of venture-backed firms at discrete points in time, such as during funding rounds, acquisitions, and exits. These observed valuations fuel a sophisticated econometric methodology that estimates the value of each venture-backed firm in every month, not just the months in which the firm value is observable. Aggregating this time-series of firm values, the FTSE VC Research Index constructs a value-weighted index of the returns to a theoretical fully-diversified portfolio of venture-backed firms capturing a high percentage of all VC-backed companies.

The nature of the valuation events used in the FTSE VC Research Index is such that data are available only after some significant delay, and are subject to revision for some time after they become available. As a result, the FTSE VC Research Index returns are published on a quarterly basis, and are subject to revision for 8 quarters.

The FTSE Venture Capital Index seeks to replicate the return profile of the VC industry by constructing a theoretical dynamic portfolio in public, liquid assets that tracks the movements of the FTSE VC Research Index, which in turn tracks the VC industry. Since this portfolio is constructed using observable prices and indicators; its return can be computed in real-time, providing immediate information about movements in the VC universe. Further, since the VC Index portfolio is constructed using liquid securities and is not subject to revision, it is an appropriate benchmark for investable products seeking to achieve venture capital returns in real time.



The FTSE VC Index is constructed as the return to a theoretical portfolio containing a series of venture capital sector indices (“sector indices”), each seeking to replicate a sector of the VC universe, as well as universal characteristics of VC-backed firms. The sector indices are constructed using proprietary econometric models and seek to mimic the risks and return characteristics of venture-backed firms associated with each economic sector. These sector indices, in turn, contain liquid securities which may include equities, derivatives, and indices, among others. These securities can be priced in real time and, when weighted appropriately, seek to mimic the behavior of the FTSE Venture Capital FTSE VC Research Index.

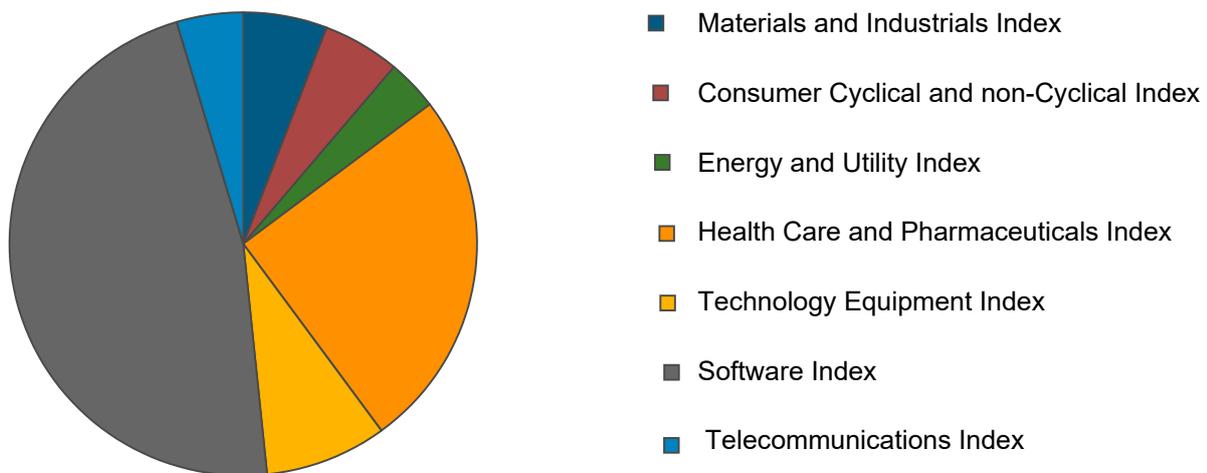
It should be noted that the FTSE Research and VC Indices seek to match the returns of the venture capital industry (asset class) before fund-level management and incentive fees.

| <b>Annualized Return</b>             | <b>January 1996 - September 2012</b> |
|--------------------------------------|--------------------------------------|
| FTSE Venture Capital Research Index: | 19.67%                               |
| FTSE Venture Capital Index:          | 19.38%                               |
| FR US Technology Index:              | 9.03%                                |

## Weighting Methodology

The FTSE VC Research Index tracks the performance of venture-backed private firms across a number of economic sectors. These firms, collectively, make up the venture universe. The approach of the FTSE VC Index is to construct portfolios that seek to mimic characteristics of the venture firms in each economic sector in the venture universe and, jointly, to capture the risks/reward characteristics of venture capital as an asset class.

### Research Sector Composition by Capitalization Sep 30, 2012



Within the computation of the FTSE VC Research Index, each VC-backed firm is mapped to a FR equity sector. The penultimate result of the FTSE VC Research Index computation is a list of the estimated values of each venture-backed firm in each month. Using these VC firm weights, we can compute the weight of each FR equity sector in the VC universe. These weights are used in determining the final weights of the specially constructed, venture-like sector indices corresponding to each FR equity sector.

### Venture Capital Sector Indices

The FTSE VC Index is computed as the weighted return of seven VC sector indices.

FTSE Venture Capital Sector Indices:

- Venture Capital Materials and Industrials Index
- Venture Capital Consumer Cyclical and non-Cyclical Index
- Venture Capital Energy and Utility Index
- Venture Capital Health Care and Pharmaceuticals Index
- Venture Capital Technology Equipment Index
- Venture Capital Software Index
- Venture Capital Telecommunications Index

## Weight Computation

The FTSE VC Research Index is computed quarterly. This means that live sector weights are not immediately available for use in weighting the FTSE VC Index. Instead, the latest available sector weights from the FTSE VC Research Index are used, along with an update accounting for relative performance of each sector in the public market (market-weighted sector returns).

Since the FTSE VC Research Index and FTSE VC Index are value weighted, no explicit rebalance is needed on a day-to-day or month-to-month basis. However, a new set of weights is received when the FTSE VC Research Index is updated once a quarter; therefore a quarterly rebalance is computed using the following:

Let the weights of each VC sector as of the last published FTSE VC Research Index month be denoted by  $W_{t-j}^i$ . Here  $i$  denotes the sector,  $t$  the current date,  $S$  is the performance of the matching FTSE VC index, and  $j$  the number of months that have passed since the last available FTSE VC Research Index weight. The current weights can be computed using:

$$W_{t-j}^i = \frac{(1 + S_{t-j,t}^i) \times W_{t-j}^i}{\sum_{k=1}^7 (1 + S_{t-j,t}^k) \times W_{t-j}^k}$$

Thus the required portfolio weights are last known weights of those sectors in the VC industry, updated using relative performance of corresponding FTSE VC Indices.

## Index Computation

Although the FTSE VC Index seeks to track the non-tradable FTSE VC Research Index, its sector indices are made up of liquid securities. The FTSE VC Index returns are computed in a similar fashion to other weighted total-return portfolios in public equities. Thus, the FTSE VC Index monthly return is computed:

$$R_t = \sum R_t^i \times W_t^i$$

These 7 sector indices include the 7 portfolios associated with related sectors. Notice that  $R_t^i$  in this equation denotes the return to sector index  $i$  in period  $t$  and  $W_t^i$  is the weight sector index  $i$  receives in period  $t$  (that is, the weight implemented at time  $t-1$  and affecting the return until time  $t$ ).

Once the returns are calculated, the FTSE VC Index levels are then computed:

$$L_t = L_{t-1} \times (1 + R_t)$$

The base value of the FTSE VC Index is 100 as of January 1, 1996.

## Governance

### Index Action Committee (IAC)

The Index Action Committees (IAC) for the FTSE Venture Capital Index is composed of representation from the FR equity Indices and independent outside members of the financial community (TBD).

The main activity of this Index Action Committee is to ensure that the attributes the FTSE Venture Capital Index claims to possess are indeed present. These reviews take place a week before the quarterly rebalance results are published (3rd Friday in April, July, October and January). The Index Action Committee deals with making sure algorithm that calculates the index is accurate. The committee will also review the results of the quarterly rebalance and reserves the right to make any necessary changes.

## About FR Equity Indices

LSEG is the world's leading source of intelligent information for businesses and professionals. We combine industry expertise with innovative technology to deliver critical information to leading decision makers in the financial, legal, tax and accounting, scientific, healthcare and media markets, powered by the world's most trusted news organization.

FTSE Russell an LSEG business provides trusted and innovative indices and index-related services to the investment community. Our index business leverages global footprint and unparalleled depth and breadth of the financial markets to provide our clients with:

- **Beta-generating Indices**
- **Alpha-creating Indices**
- **Custom Index Services**
- **Index Calculation Services**
- **Sector Classification with TRBC**

Whether you require indices for benchmarking or for the development of investment vehicles, FTSE Russell an LSEG business offers a range of index solutions to satisfy your requirements. Delivered via LSEG platforms and data feeds, FR equity indices leverage the latest technologies for ease of use and convenient delivery.

FR equity indices are used by investors such as plan consultants, investment managers, mutual fund providers, ETF providers, financial advisors, investment banks, stock exchanges and the media. LSEG does not provide financial advice to clients, which allows for the provision of truly objective market information.

Each index is constructed employing content sets with the highest data integrity. They are transparent and designed to provide unbiased and neutral measures of the markets. Our rigorous financial models, analytics and classifications provide insight needed to make better investment decisions.

---

## ABOUT FTSE RUSSELL

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 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.

## CONTACT US

To Learn more, visit [ftse-russell/indices](https://ftse-russell/indices); email [Index\\_Queries@lseg.com](mailto:Index_Queries@lseg.com)

## Disclaimer

© 2023 London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group 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) The Yield Book Inc ("YB") and (7) 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, YB and BR. "FTSE®", "Russell®", "FTSE Russell®", "FTSE4Good®", "ICB®", "The Yield Book®", "Beyond Ratings®" 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 the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB or BR. FTSE International 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 the LSE Group, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, however, such information and data is provided "as is" without warranty of any kind. No member of the LSE Group 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 of results to be obtained from the use of FTSE Russell products, including but not limited to indexes, data and analytics, or the fitness or suitability of the FTSE Russell products for any particular purpose to which they might be put. Any representation of historical data accessible through FTSE Russell products is provided for information purposes only and is not a reliable indicator of future performance.

No responsibility or liability can be accepted by any member of the LSE Group 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 error (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 the LSE Group is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of the LSE Group 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 the LSE Group 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. Indexes cannot be invested in directly. Inclusion of an asset in an index 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 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.

The information contained in this report should not be considered "research" as defined in recital 28 of the Commission Delegated Directive (EU) 2017/593 of 7 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council ("MiFID II") and is provided for no fee.

Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index 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 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 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.

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 the LSE Group 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 the LSE Group. Use and distribution of the LSE Group data requires a licence from FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB, BR and/or their respective licensors.



**FTSE  
RUSSELL**  
An LSEG Business