



VettaFi Rare Earths & Critical Materials Index (CRITB)

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Introduction

Index Objective

The VettaFi Rare Earths & Critical Materials Index is an index of global companies that tracks the price movements of a portfolio of companies with exposure to rare earths and critical metals.

Highlights

The Index focuses on companies involved in the production of critical minerals.

Dates

Reference Dates: Last Business Date of month prior to Rebalance/Reconstitution Month.

Reconstitution Dates: Indexes reconstituted semi-annually on the last business day of February and August.

Weight Date: Third business date prior to the Rebalance/Reconstitution Date.

Rebalance Dates: Indexes rebalanced semi-annually on the last business day of February and August.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein.

The list of the main supplemental documents for this methodology can be found in the Methodologies and Governance tabs on the [Index Resources](#) page as follows:

Supporting Documents
Index Maintenance Policy
Index Governance
Index Policies
Methodology Policies
Glossary
Index Change and Consultation Policy

Eligibility Criteria and Index Construction

Universe

Global equities listed on a regulated stock exchange in the form of shares tradeable for foreign investors without restrictions, excluding U.S. over the counter listed companies. China and Hong Kong companies are excluded.

Index Construction

Constituent Selection

Companies that meet the following criteria are included:

- Revenue: Companies currently generating at least 50% of their revenue from rare earths or critical metal mining, production, recycling, processing and/or refining of rare earths or critical metals listed in the Appendix , or engaged in projects that have the potential, when developed, to generate 50% of revenue from rare earth or critical metal mining, production, recycling, processing and/or refining.
- Positive Revenue: Latest reported revenue must be positive.
- Market Cap: 250 million USD
- Liquidity: 6-month ADTV (Average Daily Trading Volume) of 500 thousand USD

Constituent Weightings & Constraints

Constituents are market cap weighted with a maximum weight of 7.5% . Excess weight is distributed proportionally to the uncapped constituents. Constituents with weights less than 0.20% are excluded with their weights distributed proportionally to the uncapped constituents.

Index Maintenance

Rebalancing and Reconstitution

The Indexes are rebalanced on the “Rebalance Date” and additionally reconstituted on the “Reconstitution Date”. Pricing used in share weights used for reconstitutions are as of the “Weight Date”. Share weights for the rebalanced Indexes are computed as of the “Weight Date”. Changes to the Indexes related to the rebalances are as of the “Rebalance Date”. Additions are only made on reconstitution dates.

Corporate Actions

Please refer to the Index Maintenance Policy document for information on Corporate Action processing.

Index Information

Index history availability, base dates and base values are shown in the table below.

Index	Price Index	Base Date	Base Value	Total Return Index	Base Date	Base Value
VettaFi Rare Earths & Critical Materials Index	CRITB	02/28/2006	1000	CRITBT	02/28/2006	1000

Methodology Updates and Changes

Date	Version	Previous	New

Index Calculation

Please refer to the Index Maintenance Policy document for information on index calculations.

Index Governance

The index is governed and managed by a VettaFi Index Committee for the purpose of meeting the goals of the index. For more information, please refer to the Index Governance document.

Index Policies

Please refer to the Index Policies document for information regarding Announcements, Holiday Schedules, Unexpected Exchange Closures, and Recalculation Policy.

Contact Information

For any questions regarding an index, please contact: index.production@vettafi.com

Disclaimer

The Indices are proprietary to VettaFi. No use or publication may be made of an Index, or any of its provisions or values, without the prior written consent of VettaFi. VettaFi is not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. In no event shall VettaFi be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content.

Appendix

RARE EARTHS & CRITICAL METALS LIST

As per the Energy Act of 2020, Section 7002, subsection 2, the critical minerals list is revised every three years by the US Geological Survey. The most recent final list is that of 2022.

These minerals are deemed critical minerals by the US government in light of their role in national security or economic development. There must be a clear supply chain strategy as they are mostly imported and are, under the US definition, prone to supply chain disruption. Additionally, fuel minerals are excluded from the list of critical minerals.

Under the 2022 list, there are 50 minerals which are deemed critical:

1. Aluminum, used in almost all sectors of the economy
2. Antimony, used in lead-acid batteries and flame retardants
3. Arsenic, used in semi-conductors
4. Barite, used in hydrocarbon production.
5. Beryllium, used as an alloying agent in aerospace and defense industries
6. Bismuth, used in medical and atomic research
7. Cerium, used in catalytic converters, ceramics, glass, metallurgy, and polishing compounds
8. Cesium, used in research and development
9. Chromium, used primarily in stainless steel and other alloys
10. Cobalt, used in rechargeable batteries and superalloys
11. Dysprosium, used in permanent magnets, data storage devices, and lasers
12. Erbium, used in fiber optics, optical amplifiers, lasers, and glass colorants
13. Europium, used in phosphors and nuclear control rods
14. Fluorspar, used in the manufacture of aluminum, cement, steel, gasoline, and fluorine chemicals
15. Gadolinium, used in medical imaging, permanent magnets, and steelmaking
16. Gallium, used for integrated circuits and optical devices like LEDs
17. Germanium, used for fiber optics and night vision applications
18. Graphite , used for lubricants, batteries, and fuel cells
19. Hafnium, used for nuclear control rods, alloys, and high-temperature ceramics
20. Holmium, used in permanent magnets, nuclear control rods, and lasers
21. Indium, used in liquid crystal display screens
22. Iridium, used as coating of anodes for electrochemical processes and as a chemical catalyst
23. Lanthanum, used to produce catalysts, ceramics, glass, polishing compounds, metallurgy,

and batteries

24. Lithium, used for rechargeable batteries
25. Lutetium, used in scintillators for medical imaging, electronics, and some cancer therapies
26. Magnesium, used as an alloy and for reducing metals
27. Manganese, used in steelmaking and batteries
28. Neodymium, used in permanent magnets, rubber catalysts, and in medical and industrial lasers
29. Nickel, used to make stainless steel, superalloys, and rechargeable batteries
30. Niobium, used mostly in steel and superalloys
31. Palladium, used in catalytic converters and as a catalyst agent
32. Platinum, used in catalytic converters
33. Praseodymium, used in permanent magnets, batteries, aerospace alloys, ceramics, and colorants
34. Rhodium, used in catalytic converters, electrical components, and as a catalyst
35. Rubidium, used for research and development in electronics
36. Ruthenium, used as catalysts, as well as electrical contacts and chip resistors in computers
37. Samarium, used in permanent magnets, as an absorber in nuclear reactors, and in cancer treatments
38. Scandium, used for alloys, ceramics, and fuel cells
39. Tantalum, used in electronic components, mostly capacitors and in superalloys
40. Tellurium, used in solar cells, thermoelectric devices, and as alloying additive
41. Terbium, used in permanent magnets, fiber optics, lasers, and solid-state devices
42. Thulium, used in various metal alloys and in lasers
43. Tin, used as protective coatings and alloys for steel
44. Titanium, used as a white pigment or metal alloys
45. Tungsten, primarily used to make wear-resistant metals
46. Vanadium, primarily used as alloying agent for iron and steel
47. Ytterbium, used for catalysts, scintillometers, lasers, and metallurgy
48. Yttrium, used for ceramic, catalysts, lasers, metallurgy, and phosphors
49. Zinc, primarily used in metallurgy to produce galvanized steel
50. Zirconium, used in high-temperature ceramics and corrosion-resistant alloys.

In addition to the list deemed critical by Executive Order, the index also includes the following critical industrial metals:

Copper, used in electrical applications critical to the clean energy future

Molybdenum, used to make steel alloys to increase strength, electrical conductivity, and resistance to wear