

EQM Rare Earths & Critical Materials Index (CRITPR)

Table of Contents

Introduction
Index Objective
Highlights3
Dates
Supporting Documents
Eligibility Criteria and Index Construction
Universe3
Index Construction
Constituent Selection4
Constituent Weightings & Constraints4
Multiple Listing and Share Classes4
Index Maintenance
Rebalancing and Reconstitution4
Corporate Actions4
Index Information4
Index Calculation5
Index Governance
Index Policies
Contact Information5
Disclaimer5
Appendix6

Introduction

Index Objective

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

Highlights

The Index focuses on the largest 50 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 <u>Index Resources</u> 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-headquartered companies

will be included only as exchange traded ADR versions or Hong Kong exchange traded versions if available.

Companies must also meet the following criteria:

- 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

Index Construction

Constituent Selection

The index maintains and adds universe members by ranked company market cap. Current constituents that are in the top 60 are maintained and new constituents must be ranked in the top 50.

Constituent Weightings & Constraints

Constituents are market cap weighted with a maximum weight of 10%. Excess weight is distributed equally to the uncapped constituents. Constituents with weights less than 0.20% are excluded with their weights distributed equally to the uncapped constituents.

Multiple Listing and Share Classes

When a new constituent is added the most liquid issue will be chosen. The chosen listing or share class is not changed for current 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	Base	Base	Total	Base	Base	Net Total	Base	Base
	Index	Date	Value	Return	Date	Value	Return	Date	Value
				Index			Index		
EQM Rare Earths &	CRITPR	2/14/2022	100	CRITGR	2/14/2022	100	CRITNTR	2/14/2022	100
Critical Materials Index									

Methodology Updates and Changes

Date	Version	Previous	New
Dec	1.0.0	Previous Methodology 23 March	VettaFi assumes Governance of Index and
2024		2022 Version 1.33	publishes methodology in VettaFi standard.

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