

Rio Tinto Plc engages in the exploration, mining, and processing of mineral resources. It operates in 35 countries throughout the world. The company has four product groups: Iron Ore, Aluminum, Copper, and Minerals. Rio Tinto was founded in 1873 and is headquartered in London, the United Kingdom.

Iron Ore

Rio is one of the world's leading producers of iron ore. It operates an integrated portfolio of iron ore assets: a network of 16 iron ore mines, four port terminals, a 1,700 km rail network and related infrastructure in the Pilbara region of Western Australia. The company is focused on exploring and extracting iron ore efficiently. Its Operations Center in Perth uses next-generation technologies including artificial intelligence, automation, and robotics to run operations in real-time and respond quickly to changes. This includes Rio's AutoHaul train system, the world's first fully autonomous, long-distance, heavy-haul rail network. The company has 5 iron ore products included its high-quality flagship brand "Pilbara Blend".

This product segment includes Rio's 68% ownership in Dampier Salt. Dampier Salt is comprised of three solar salt operations located in Western Australia and is the world's largest exporter of seaborne salt. It has the capacity to produce 10.3 million tons annually. Rio also mines and exports gypsum for customers in Australia and Southeast Asia.

Aluminum

Rio is a global leader in aluminum, with a large scale, vertically-integrated business: bauxite mines, alumina refineries as well as smelters that produce aluminum certified as responsible. Managing the process from start to finish allows Rio to bring high quality aluminum to its customers reliably and efficiently: from high-grade bauxite for the global seaborne trade to sustainably sourced aluminum for beverage packaging to new, lighter alloys for the automotive industry.

Rio's Canadian operations average in the first decile of the industry cost-curve and produce aluminum using clean, renewable hydropower. Since its upgrade in 2015, the company's Kitimat smelter in British Columbia has produced twice as much aluminum with half of the greenhouse gas emissions. The greenhouse gas emission of its other managed Atlantic Operations smelters represents less than one-fifth of the industry average.

Aluminum's operations include:

- 4 bauxite mines in Australia, Brazil, and Guinea
- 4 alumina refineries in Australia, Brazil, and Canada
- 14 aluminum smelters in Canada, Australia, New Zealand, Iceland, and Oman
- 22 cites certified by the Aluminum Stewardship Initiative (ASI)
- 7 hydropower plants in Canada supplying 100% of the electricity Rio uses in the country.
- 3 research & development centers in Canada, France, and Australia

Copper

Rio currently has copper operations in Mongolia, Chile and the U.S. that occupy various stages of the mining lifecycle from exploration to rehabilitation. The company's Kennecott mine in Utah and the Oyu Tolgoi mine in Mongolia were the world's first to be awarded the Copper Mark, verifying their copper is responsibly produced.

Copper operations include:

- 3 copper operations in the US, Mongolia, and Chile
- 3 copper growth projects in the US, Mongolia, and Australia

Minerals

Rio's Minerals product group provides materials essential to a wide variety of industries ranging from agriculture to renewable energy and electric vehicles. The group produces high-grade low impurity iron ore pellets and concentrate, titanium dioxide and borates in Africa, Canada, and the U.S. It produces its products from high-grade orebodies as well as by mining waste from other operations.

Minerals also includes Rio's fully integrated diamonds exploration, mining, and sales and marketing business. The group provides a reliable supply of white and colored diamonds, including the renowned Argyle pink diamonds, mined to the highest possible ethical and environmental standards. As a founding member of the Responsible Jewelry Council, Rio supports responsible and ethical social and environmental practices throughout the jewelry supply chain.

Investment Thesis

Rio is a major diversified mining company with a portfolio of world-class assets. The company's strength is its iron ore operations which generated approximately 62% of its revenues and 79% of its EBITDA in 2020. This business has been highly profitable, but it introduces a degree of concentration risk for the company in terms of product and country (China and Japan are the primary consumers of Rio's iron ore). While Rio will continue to add to and develop its iron ore capabilities, it is focusing on growth opportunities and projects that will bring materials to the market, particularly Copper and Lithium, that are critical for the global transition to a low-carbon economy. The combination of major investments that are in different stages of development and a focus on Copper and Lithium make Rio an interesting long-term investment. These primary projects include:

Oyu Tolgoi (Mongolia) Copper and Gold

- Major underground expansion that is estimated to require a total of \$6.75 billion in developmental capital with sustainable production expected to start at the end of 2022.
- The mine is expected to produce 480,000 tons of copper per year from 2028-2036.

Resolution Copper (Arizona, USA) Copper

- US Forest Service published final environmental impact statement after 7 years of public and 11 years of tribal consultation.
- The mine is expected to produce 40 billion pounds of copper over 40 years and has the potential to provide 25% of US copper demand.

Winu (Western Australia), Copper and Gold

- First ore expected in 2024 subject to regulatory approvals, Traditional owner and other consents and Covid 19 restrictions.
- Potential to develop multiple ore bodies in the district.

Jadar (Serbia) Lithium and Borates

- Approved investment of almost \$200 million to progress this project.
- Jadar deposit contains high grade mineralization of boron and lithium and has the potential to produce both battery grade lithium carbonate and boric acid.

Simandou (Guinea) Iron Ore

- Contains one of the world's largest and richest high grade iron ore deposits.
- In 2020 work continued on technical optimization of the product with the support of China based institutions and business partners.

Rio's commitment to have "impeccable ESG credentials" provides an additional positive component to the investment thesis. The company's goal of being good environmental stewards as well as a desire to include indigenous leaders in its decision process makes them a desirable partner in the development of new mines. The company divested the last of its fossil fuel properties in 2018. Rio's commitment to being a good steward is reflected in its response to the accidental destruction of two culturally significant aboriginal sites Australia. The company not only offered monetary remuneration and offers to restore the sites, but had its CEO, CEO of Iron Ore and the Group Executive, Corporate Relations leave the company by mutual agreement. They are serious about being a good steward of both local sites and the earth.

Positives

- The company has a strong balance sheet that allows it to invest throughout the commodity cycle. At the end of 2020 the company had net debt of \$700 million representing a debt to equity ratio of .29.
- The company's focus on developing Copper and Lithium assets will help to diversify its product portfolio that is currently heavily skewed towards iron ore.
- The company historically has generated significant cash flow which it has shared with shareholders through regular as well as special dividends.
- The company's exposure to basic commodities should help it to maintain pricing power in an inflationary environment.
- The company is continually reshaping its portfolio. Between 2015 and 2018, Rio disposed of \$12 bn in assets, creating a smaller but higher quality asset base. Many of the disposed assets reduced exposure to environmental, social and governance risk. Its current focus on finding and developing copper and lithium assets is based on creating the portfolio for the next decade with expected higher demand for materials used in electrification and battery technology.
- The company has maintained industry-leading profitability. It has generated a return on common equity in excess of 21% over the last five years.
- Rio actively incorporates technology into its projects, including autonomous trucks, trains and drills. The Gudai-Darri iron ore project in Australia will have an increased level of automation and digitization, including advanced data analytics. Significant innovations will include a digital replica of the processing plant that is accessible in real time by workers in the field, fully integrated mine automation and simulation systems, and an automated workshop.

Risks

- The company is heavily dependent on iron ore. Any significant decline in iron ore prices or demand will have a negative impact on Rio's revenues and profitability.
- China is Rio's largest client. A significant slow-down in China's economy and/or a slowing demand for iron ore will have a negative impact on Rio's revenues and profitability.
- Rio's major projects could be delayed or cancelled by government regulation or demands.
- Economic weakness either in major countries or globally would reduce the demand for basic materials and could negatively impact Rio's financial performance.
- Although Rio has consistently generated significant cash flows even in weaker economic environments, it is still a cyclical company. A significant downturn in demand or drop in pricing, particularly for iron ore, could result in a reduction in the company's core dividend.

Dividend Characteristics

- Rio Tinto, like many U.K. stocks pays a dividend twice a year instead of the traditional U.S. company that pays a dividend each quarter.
- Rio Tinto has at times paid a special dividend that is correlated with above trend profit results. Investors should not expect the receipt of a special dividend on an annual basis. Since 2006 Rio Tinto has paid a special dividend on four different occasions.
- The stated dividend yield in the below table does not include the \$.93 per share special dividend that was paid out in April 2021.

	Current	5 Year Average			Vs Ind
		High	Low	Avg	
P/E (Last 12 Months)	13.9	2,479.50	5.6	220	0.8
P/E (Expected Next 12 Months)	7.5	19.2	7.1	11	0.9
Price to Book Value	2.9	3.8	1.3	2.2	1.3
Price to Cash Flow	8.3	10.6	3.8	7.5	0.9
Price to Sales	3.1	3.6	1.3	2.3	2.9
Enterprise Value to EBITDA	6.6	9.5	5	6.6	0.9
Dividend Yield - Excluding Special Dividend	5.5	9.4	3.2	5.3	1.9

Note:

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