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Glencore's unsolicited merger proposal for Teck Resources -

Analyzing strategic alignment and organizational fit

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Abstract

This Field Lab report analyzes the unsolicited merger proposal by Glencore to merge with Teck Resources in April 2023. The report examines the central question of whether Teck should accept or decline the offer. Additionally, the report evaluates Teck's alternative strategic proposal to pursue an independent spin-off of its coal business. The case study provides insights into the companies' backgrounds, the mining industry as well as financial, strategic, and ESG considerations, allowing a thorough evaluation of the implications for Teck. From a strategic and organizational perspective, the report balances the possible gains and losses from accepting or rejecting the deal, to provide a final recommendation for Teck's Board.

Keywords: Corporate Finance, M&A, Strategy, Synergies, ESG

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Case Study

1. Case Introduction

Jonathan Price leaned back in his chair and gazed out the window of his Vancouver, Canada office on this crisp morning of April 11, 2023. The city skyline stretched out before him, but his mind was elsewhere, anchored by the weight of the document on his desk. Earlier, the Swiss-based company Glencore plc had submitted a revised unsolicited merger proposal of USD 22.5 billion - an offer that, if accepted, could redefine the future of Teck Resources and throw the entire mining industry into turmoil. For Price, who had taken over the role as CEO of Teck in September 2022, less than a year earlier, the proposal was a defining moment. It was more than a business decision; it was a move that would define Teck's legacy and its role in the global energy transition.

With decades of experience in mining and business transformation, Price was at the forefront of Teck's evolution. When he joined the company as CFO in 2020 and later rose to CEO, he placed strong emphasis on sustainability and community engagement - values that are deeply embedded in Teck's business. His leadership had been key in driving large-scale development projects that prioritized innovation and sustainability to achieve high ESG standards.

Price knew there was a lot at stake in this merger. Teck had positioned itself as a leader in critical minerals, a linchpin in the global shift towards electrification and decarbonization. The potential merger offered significant synergies, particularly given Glencore's diversified portfolio and expertise.

However, Price also recognized the potential risks: cultural mismatches, indigenous and local community concerns, and the potential dilution of Teck's focus on sustainability. Alternatively, Teck could pursue an independent spin-off of its coal and metals business. This route, which Price had been pursuing for months, promised autonomy and alignment with its ESG ambitions, but required significant shareholder support while testing management's ability to create long-

term value. As he discussed the proposal with his leadership team, Price considered the wider implications for Teck's workforce and stakeholders. Would the merger accelerate or hinder Teck's ESG ambitions? Could it really deliver on the promise of operational efficiencies and increased financial gains? And most importantly, how would the integration of two very different corporate cultures affect Teck's workforce, particularly in Canada, where the company is rooted? Price's decision-making in the coming weeks would not only impact Teck's future but also set a precedent for how mining companies navigate the complex interplay of growth, sustainability, and social responsibility in a rapidly changing world.

2. Teck Resources Overview

2.1. History

Founded in 1913 in Teck Township, Canada, Teck Resources initially focused on mining gold. Its first mine opened soon after the company's establishment, followed by a second mine in Lamaque in 1935. Both mines remained open for nearly 50 years, making Teck for this period mainly a gold mining business (Teck Annual Report, 2012).

In 1954, a high-grade copper deposit was discovered in Temagami, a municipality in Ontario, Canada. This discovery encouraged Teck to shift some investments away from gold to copper, as rising costs and fixed gold prices were limiting the company's profitability. During this time, Temagami Mining, a family-owned company involved in the development of copper mines, acquired control of Teck. Despite the merger, the newly consolidated company retained the Teck name, preserving its established identity in the mining industry. A few years later significant oil reserves were discovered in an oil field, under the control of Canadian Devonian Petroleum. This discovery prompted Teck to merge with Canadian Devonian Petroleum in 1962. The new entity, Teck Corporation, became a larger and more diversified business focused on both oil and metals (Teck Annual Report, 2012).

In the early 1970s, Teck Corporation further expanded its operations by merging with several

other companies, which operated in the oil and metals sector.

In the following years, Teck and the Keevil Group, a mining network of companies, joined forces to simplify their organizational structure. The newly established unified mining entity led by Teck focused on aggressive growth. The majority of Teck's metals revenue came from its association with the Keevil Group, which brought a wealth of mining knowledge, established operations, and valuable assets to the partnership (Teck Annual Report, 2012).

From 1975 to 1986, Teck ambitiously launched seven new mines across North America, further strengthening the company's portfolio in zinc, niobium, copper, and coal mining. This growth substantially expanded Teck's geographical footprint and transformed it into a multi-commodity producer ready for global competition (Teck Annual Report, 2012).

In 1986, Teck acquired an initial interest in Cominco from CP Ltd., setting the stage for a full merger in 2001, that further strengthened the company's presence in the mining sector. From 1989 to 1992, Teck expanded its operations by developing a zinc mine in Alaska, a copper-zinc mine in Quebec, Canada, and a copper mine in Chile. These strategic moves added to Teck's international presence and further diversified its asset portfolio (Teck Annual Report, 2012).

In 1998, the company acquired an interest in a major copper-zinc development project in Peru, while partnering with other companies in the industry to advance the initiative, reinforcing Teck's commitment to international growth (Teck Annual Report, 2012).

During the year of 2003, Teck and Fording Coal combined six of their coal mines to form the Elk Valley Coal Partnership, which was mainly operated by Teck. This partnership boosted Teck's influence in the steelmaking coal sector (Teck Annual Report, 2012).

In 2007, Teck acquired Aur Resources, gaining control of two copper mines in Chile. This acquisition emphasized Teck's strategic interest in South America and solidified its role as a global copper producer. In the following year, Teck acquired the remaining interest in the Elk

Valley Partnership from Fording Trust, taking full control of the assets (Teck Annual Report, 2012).

2.2. Recent Developments

In recent years, Teck continued to grow through numerous joint ventures and acquisitions. Teck significantly strengthened its position in the copper sector and identified copper as a key metal for the energy transition. The company invested significantly in the expansion of its copper production capacity, particularly through the development of the Quebrada Blanca Phase 2 (QB2) project in Chile, one of the largest copper development projects in the world. The project was expected to significantly increase Teck's annual copper production once fully operational with an estimated annual production of 285,000 to 315,000 tons at full capacity. Teck pursued further growth initiatives in the copper sector, including projects in Peru (e.g. Zafranal) and expansions in Canada and Mexico, with the goal of utilizing the existing resource base while maintaining competitive cost structures (Teck Annual Report, 2022).

Up until 2012, Teck expanded its energy business by continuously investing in the Fort Hills oil project in Alberta, Canada (Teck Annual Report, 2012). However, in the following years, the energy sector faced growing challenges due to volatile oil prices and an increasing focus on environmental sustainability. Over the years, Teck's energy division became less and less aligned with the company's broader strategic focus on sustainability. By 2022, Teck announced plans to divest its oil sands assets as part of its strategy to focus on core metals (Reuters, 2022).

2.3. Business Model

Teck, headquartered in Vancouver, Canada, employs 12,763 people, with over 9,315 based in Canada as of 2022 (Teck Sustainability Report, 2022). Teck's share structure comprises Class A ordinary shares with 100 votes per share and Class B subordinate voting shares with one vote per share (Teck Resources, 2024a).

The company is committed to providing vital resources and places great importance on preserving people, communities, and the environment. The business model is centered on investments in the extraction and processing of important resources in the mining sector. Teck has a diversified portfolio that includes copper, zinc, and steelmaking coal - materials that are essential for modern infrastructure and the transition to a sustainable economy (Teck Annual Report, 2022).

As a major copper producer in the Americas, Teck operates four mines in Canada, Chile, and Peru and is advancing eight major copper development projects throughout the Americas (Exhibit 1). With these assets, Teck is a major global supplier of copper, a key material for renewable energy technologies and electrification (Teck Annual Report, 2022).

In zinc, Teck operates major mines, including the Red Dog mine in Alaska and the Antamina copper mine in Peru, which provides significant production of zinc co-products. The company is in the process of further expanding its zinc capacity through a major development project in Alaska. In addition to its mining operations, Teck also owns one of the world's largest fully integrated zinc, lead smelting, and refining facilities in British Columbia (B.C.) strengthening its end-to-end role in the zinc supply chain (Teck Annual Report, 2022).

As one of the largest producers of steelmaking coal, Teck operates four plants in B.C. that are known for their low carbon intensity and extensive reserves of high-quality coal, which is essential for the production of sustainable steel (Teck Annual Report, 2022).

2.4. Historical Production and Future Outlook

Teck's copper production averaged 285 thousand tons per year between 2017 and 2022 but declined to 270 thousand tons in 2022 due to operational and global market challenges (Exhibit 2). However, Teck expects a significant recovery in 2023 with an estimated production volume of 418 thousand tons, underlining Teck's commitment to the transition to metals for the energy transition. Zinc concentrate production has remained stable, with a slight decline from 659

thousand tons in 2017 to 650 thousand tons in 2022. Refined zinc production declined over the years, projected to recover slightly to 280 thousand tons in 2023 after reaching a low of 249 thousand tons in 2022. Steelmaking coal production, which fluctuated due to pandemic disruptions, is projected to return closely to its pre-pandemic level of 25 million tons in 2023 (Teck Annual Reports, 2021 & 2022).

2.5. Strategy

Teck's strategic approach is anchored on four pillars: core competence, metals for the energy transition, value-driven growth, and resilience. Through its focus on core competence, Teck invests in developing industry-leading capabilities, skills, and processes, with a strong focus on attracting and retaining talent to build human capital. The metals for energy transition pillar is reflected in Teck's commitment to the exploration of key metals, particularly copper and zinc, to drive global change towards more sustainability. To support its climate goals, the company is actively working to minimize water consumption, dispose of waste responsibly, and rehabilitate operating sites to restore natural habitats after mining activities. The third pillar, value-driven growth, focuses on creating sustainable value by investing in high-quality projects and consistently delivering positive returns for shareholders. This approach includes investing in innovative technologies and promoting partnerships to improve long-term operational efficiency. In the last pillar, resilience, Teck focuses on adapting to industry trends and market cycles to maintain value creation and drive development regardless of economic fluctuations (Teck Resources, 2024b).

Vertical integration is a key element of Teck's business strategy, as the company controls activities from mine development to processing and distribution. Throughout the value chain, the company emphasizes high quality, environmental standards, and efficiency to build an industry-leading portfolio (Teck Annual Report, 2022).

Teck places stakeholders at the center of its decision-making process and promotes partnerships

that lead to positive social and economic outcomes. The company is committed to communicating transparency and upholding ethical standards as part of its business strategy (Teck Annual Report, 2022).

2.6. Financial Performance

During Teck's history, the company experienced significant fluctuations in revenue and profitability, influenced by market conditions, changes in commodity prices (Exhibits 3, 4 and 5), and operational shifts.

During 2010 and 2011, Teck's revenues were largely influenced by strong demand for metallurgical coal, zinc, and copper. In these two years, revenues increased considerably from previous years, amounting to CAD 11.5 billion in 2011. Profits peaked in 2011 with CAD 2.8 billion (24% profit margin). The largest share of revenue in 2011 came from coal at 49%, followed by copper at 27%, and zinc at 24% (Teck Annual Report, 2011).

In the subsequent years, the company saw a phase of downturn as revenues and profits declined steadily, mainly driven by weaker demand for copper and coal, and falling commodity prices, leading to a revenue of only CAD 8.3 billion and a loss of CAD 2.5 billion in 2015. Despite these challenges, Teck continued to invest in growth projects, including extending its copper portfolio (Teck Annual Report, 2015).

Over the next few years, the company entered a stage of flourishing business activities due to a recovery in international commodity prices. In 2018, Teck posted revenues of CAD 12.6 billion alongside profits of CAD 3.1 billion (Teck Annual Report, 2018).

In the coming years, Teck saw heavily fluctuating revenues and profits, until most recently, revenues jumped to CAD 17.3 billion from 2021 to 2022, an increase of CAD 4.5 billion (Teck Annual Reports).

Coal still accounted for the largest part of revenues with 60%, as zinc and copper both constituted 20% (Exhibit 6). Accordingly, profits rose to CAD 3.3 billion in 2022, driven by

higher commodity prices and growing efficiency in production at all major operation sites. Especially the Highland Valley and Elk Valley copper and coal operations contributed significantly to this revenue growth and increase in profitability. Global inflation negatively impacted the business and affected operating costs and logistics, particularly shipment costs of coal (Teck Annual Report, 2022). For financial statements refer to Exhibits 7, 8 and 9. In the future, Teck's financial performance remains intertwined with the dynamics of the global commodity market. Inflationary pressures, interest rate changes, and evolving environmental regulations will pose a challenge to costs and impact profit margins. As demand for green energy infrastructure continues to grow, Teck sees strong growth opportunities in its base metals' operations, supported by strategic investments in cost management and operational resilience.

2.7. Proposed Spin-Off and Simultaneously Merger Proposal

On 21 February 2023, Teck unveiled plans to spin-off its steelmaking coal business from the metals business, forming two new entities Elk Valley Resources (EVR) for coal and Teck Metals Corp. for metals (Teck Resources, 2023a).

This strategic move aimed to shift the company's focus more on its efforts in the copper and base metals sectors, thereby shielding the operations from negative impacts of the energy transition and aiming for growth in sustainable markets (Teck Resources, 2023a).

Just a few weeks later, on 26 March 2023, Glencore, one of the largest natural resources traders in the world, submitted a USD 22.5 billion proposal, representing a 20-22% premium to Teck's current share price (Exhibit 10), to merge with Teck and simultaneously demerge their combined coal and metal businesses into CoalCo and MetalsCo. After careful consideration, Teck publicly rejected the proposal on 3 April 2023 (Reuters, 2023).

On 11 April 2023, Glencore proposed a revised offer to the Teck Board, which introduced a cash element to the proposed Merger Demerger to effectively buy Teck shareholders out of their coal

exposure, such that Teck shareholders would receive 24% of MetalsCo and USD 8.2 billion in cash (Glencore, 2023a).

The decision to evaluate Glencore's revised merger proposal presented a complex challenge for Jonathan Price and Teck's board. Although the financial incentive in form of a premium of 20-22% above Teck's share price was very attractive, the decision went beyond immediate monetary considerations. An independent spin-off strategy offered a different path, in which parts of the cash flow from the coal business would be transferred to the metals business, allowing the metals division to focus on growth in key commodities.

At the same time, rejecting Glencore's offer carried risks, such as the possibility of a hostile takeover or deterring future bids that might be better aligned with strategic objectives. Several questions arose: Does Glencore's proposal offer a fair value for shareholders? Would the operational efficiencies and synergies of the combination outweigh the strategic autonomy and value promised by the independent spin-off?

3. Glencore Overview

3.1. History

Founded in 1974, the Swiss-based company initially focused on minerals, metals, non-ferrous metals, and crude oil. In 1981, the company entered the agricultural sector by acquiring Granaria, a Dutch grain trading company, which led later to the creation of Glencore Agriculture. This acquisition was the first in a series of M&A that helped build the global conglomerate known today as Glencore (Glencore, 2024a).

The company pursued vertical integration through major acquisitions, including smelters in the United States and Peruvian mining operations in 1987. This was followed in 1990 by an investment in the Swiss mining company Südelektra Holding AG, which strengthened the company's role in the metals supply chain. In the subsequent years, Glencore continued its expansion through acquisitions, including the purchase of the Colombian thermal coal mine

“Prodeco” (Glencore, 2024a).

In the 2000s, Glencore aggressively expanded its global footprint, notably acquiring a stake in the Mopani copper mines in Africa. During this time, the company published its first sustainability report, signaling a shift towards more responsible mining practices. In 2011, Glencore listed on the Hong Kong and London stock exchanges, marking a significant step in the company's journey (Glencore, 2024a).

The acquisition of Viterra in 2012 strengthened the agricultural activities in Canada and Australia. The following merger with Xstrata in 2013 and the opening of a USD 550 million loading port in Colombia marked further global expansion (Glencore, 2024a).

Glencore extended its oil and gas sector in 2014 with the acquisition of Caracal Energy, an international oil and gas exploration company with a focus on operations in Chad. Glencore completed the acquisition as part of an agreement worth around USD 1.3 billion. With this move, Glencore expanded into upstream oil production, complementing its established trading and marketing activities in the energy sector (Glencore, 2014).

From 2016 onwards, Glencore began to reduce its agricultural portfolio and sold 49.9% of this business. This shift was complemented by the establishment of a joint venture with G500 in Mexico to build 2,000 gas filling stations and the purchase of a 49% stake in Hunter Valley Operations, an Australian thermal coal company (Glencore, 2024a).

In 2017, Glencore strengthened its presence in the African energy sector by acquiring Chevron's midstream and downstream oil assets in Botswana and South Africa. In the same year, the company acquired a 36.9% stake in Volcan, a leading Peruvian producer of zinc, lead, and silver, thereby expanding its influence in the South American mining sector (Glencore, 2024a).

In 2017, Glencore formed a partnership with the Ontario Teachers’ Pension Plan, focusing on long-term investment in base metals and key commodities. The acquisition of the Hail Creek coal mine in Australia in 2018 was intended to create operational synergies and secure a cost-

effective resource base to increase the company's portfolio and value (Glencore, 2024a).

3.2. Recent Developments

In recent years, Glencore has strengthened its commitment to sustainability initiatives and global ESG standards. In 2019, the company pledged to limit coal production to 150 million tons annually, aligned with the Climate Action 100+ initiative. In the same year, Glencore started to publish reports on human rights and water management (Glencore, 2024a).

Despite this, Glencore remains still heavily involved in thermal coal, oil, and gas sectors. Over the last years, Glencore faced several legal and reputational challenges due to allegations of corruption and bribery. In 2022, the company admitted to bribery and market manipulation allegations involving businesses in several countries. These included offering millions of USD in bribes to officials in Africa and South America to achieve favorable business results (US Department of Justice, 2022).

3.3. Business Model

Glencore is one of the world's largest diversified natural resource companies, with around 140,000 employees, operating in more than 35 countries as of 2022 (Exhibit 11) (Glencore Sustainability Report, 2022). The company focuses on two business segments: industrial activities and trading activities. The industrial business spans the energy, metals, and minerals markets, in which Glencore produces more than 60 different commodities. Glencore focuses on mining, smelting, refining, and producing key commodities like copper, cobalt, zinc, thermal coal, metallurgical coal, and oil in countries around the world, e. g. Australia, Chile, Peru, Zambia, South Africa, Canada, etc. The company distributes its finished goods to customers from numerous industries, including construction, electronics, transportation, and renewable energy (Glencore Annual Report, 2022).

The trading business acts as an intermediary between producers and consumers by dealing with physical commodities such as metals, coal, oil, and gas worldwide. In addition, Glencore

manages the entire lifecycle of commodity trading from procurement to transportation, storage, and delivery. Under the brand name “Viterra” Glencore operates as a leading company in the processing and trading of agricultural products (Glencore Annual Report, 2022).

3.4. Historical Production

Glencore’s copper production saw steady declines from 2018: 1,454 thousand tons to 1,058 thousand tons in 2022 (Exhibit 12). The decline stemmed from reduced production at major assets like the closure of the copper mine in Mutanda in 2019, Democratic Republic of Congo, as well as operational challenges and maturing mines, especially in South America. Cobalt production fluctuated in recent years, but grew overall to 43.8 thousand tons in 2022, fueled by increasing global demand for cobalt in electric vehicles (Glencore Annual Reports). Glencore’s zinc production remained stable from 2017-2021 but dropped sharply to 939 thousand tons in 2022. This negative development was attributable to strategic production cuts aligned with weaker market conditions, as well as operational interruptions in Europe due to rising energy costs and geopolitical instabilities (Glencore Annual Reports).

Glencore’s coal production peaked at 139.5 million tons in 2019, followed by declines from 2020-2021, before slightly recovering to 110 million tons in 2022. Declines from 2020 to 2021 were mainly created by pandemic-driven demand drops and regulatory pressures. Oil operations fluctuated, with a dip to 3,944 thousand barrels of oil equivalent (mboe) in 2020 but increased significantly to 6,131 mboe in 2022. After a pandemic-related slump in demand, global energy markets recovered strongly in 2022 (Glencore Annual Reports).

3.5. Strategy

Glencore is committed to support global efforts to transition to low-carbon economies by expanding the production of key metals. Simultaneously, Glencore has pledged to responsibly managing and downsizing its fossil fuel assets in the future. The company puts great importance on enhancing its vertical integration, which plays a crucial role in cementing its leadership

position. Through cost efficiencies and seamless global distribution, the company gains a competitive advantage. Strategic M&A is a cornerstone of Glencore's strategy, enabling the company to scale its operations and diversify its commodity portfolio by entering new regions and sectors. Glencore pursues a flexible business strategy, that includes a risk-managed approach to navigate price fluctuations and geopolitical uncertainties, helping the company to operate in volatile commodity markets (Glencore Annual Report, 2022).

Should Teck merge with Glencore, significant challenges would arise. How could Teck align its sustainability-focused strategy with Glencore's significant exposure to carbon-intensive sectors such as thermal coal and oil?

Cultural integration could pose a challenge, as differences in organizational values and priorities could lead to conflicts. In addition, adapting to Glencore's global supply chain would expose Teck to greater market volatility and regulatory scrutiny. These factors raised a crucial question: Could Teck overcome these challenges while maintaining its long-term vision of sustainability and growth?

3.6. Financial Performance

Over the past decade, Glencore's financials fluctuated highly, mainly driven by international commodity prices, broader macroeconomic factors, and inorganic growth strategies. During the period from 2010-2013, Glencore's revenues grew significantly, primarily driven by sharply increasing commodity prices and the merger with Xstrata in 2013, leading to revenues of USD 233 billion in 2013. However, profits fluctuated, reflecting post-merger integration costs, reaching a loss of USD of 7.3 billion in 2013 (GlencoreXstrata, Annual Report, 2013). In the following three years, revenues declined due to falling commodity prices, particularly in 2015 and 2016, which especially negatively impacted the coal, copper, and oil business segments. Glencore reported revenues of USD 153 billion in 2016. In addition, high levels of debt burdened Glencore's profitability during these years. The company therefore initiated

significant debt reduction programs, leading to improved financial stability (Glencore, Annual Report 2016).

In the following years, Glencore's revenues rebounded on the back of a strong demand for cobalt and other metals fueled by the growing electric vehicle market (Glencore Annual Reports). The Covid-19 pandemic impacted Glencore's business activities highly negative, strong declines in energy products led to reduced earnings, although demand for metals remained relatively stable (Glencore, Annual Report 2020). With an economic recovery after the pandemic and the energy crisis sparked by the Russia-Ukraine conflict, Glencore recorded significant revenue growth. Profits reached a record level in 2022 of USD 16.5 billion, mainly due to rising coal and energy prices. Out of the USD 256 billion in revenue in 2022, USD 91 billion was generated by the metals and minerals business sector, which includes copper, cobalt, zinc, etc., while USD 168 billion was generated by energy products, which comprises coal, oil and gas, less adjusted revenues of USD 3 billion (Glencore, Annual Report 2022). For financial statements refer to Exhibits 13, 14 and 15.

Despite short-term strength in the energy segment, Glencore targets to reduce its coal and oil exposure and simultaneously expand its copper, nickel, and zinc operations, to align with climate targets. Looking ahead, Glencore's diversified operations and focus on high-demand metals such as copper and cobalt position the company for future growth, driven by sustainability trends.

4. Mining Industry Overview

4.1. Major Industry Trends and Recent ESG Pressures

The mining industry has long been a cornerstone of global industrialization, dating back to the Industrial Revolution, which was driven by the extraction of coal and iron ore (World History, 2023). Nowadays, the industry remains essential not only for technological advancements but also as a key area for global competition for resource control amidst shifting global power dynamics.

Geopolitical tensions are increasingly impacting the mining sector as nations vie for control of key resources for infrastructure and the energy transition. The US and Western allies have launched initiatives such as the Minerals Security Partnership (MSP) to secure supply chains and reduce dependence on resource-dominant countries like China (US Department of State, 2022).

Global pressures to move to a more sustainable future, particularly increased the need for critical minerals like copper, lithium, and cobalt. These minerals are vital for green technologies such as electric vehicles (EVs), renewable energy infrastructure, and battery storage (Deloitte, 2023). International agreements, such as the Paris Agreement, have prompted governments and corporations to reduce carbon emissions and adopt sustainable practices (United Nations, 2024). Economic volatility and inflationary pressures weigh heavily on the industry. While global mining revenues remain high, they are facing headwinds due to cost increases and fluctuating commodity prices (S&P Global, 2022). To maintain profitability, companies are pursuing various strategies, including investments in automation and M&A to streamline operations and increase efficiency (Fitch Ratings, 2023).

Regional demand patterns further emphasize the complexity of the sector. Asia-Pacific remains the dominant market, driven by industrialization and infrastructure development, while North America and Europe are increasingly focused on securing resources for strategic industries such as defense and advanced manufacturing (BBC, 2022).

Despite ongoing international challenges, the outlook for critical minerals remains positive due to supply constraints and strong demand tied to the global energy transition. These supply shortages are projected to intensify, particularly as demand is forecasted to accelerate from 2024 onward, which is expected to create medium to long-term growth opportunities in the sector (S&P Global, 2022).

Glencore's acquisition bid for Teck highlights a broader realignment within the mining industry,

as companies increasingly prioritize securing critical mineral assets to meet decarbonization targets and capture long-term value in a shifting energy landscape. This pivot is reflective of a strategic move among industry leaders to balance profitability with sustainability, ensuring they remain competitive.

4.2. Key Mining Sectors and Economic Significance

The mining industry consists of five sectors: coal, crude petroleum, metal ores, non-metallic ores, and natural gas, each playing a distinct role in industrial economies (Statista, 2024a).

Coal is classified into four main types: anthracite, bituminous, subbituminous, and lignite. Anthracite, containing 86% to 97% carbon, has the highest heating power and is primarily used in the metal industry. Bituminous coal with 45% to 86% carbon, is used for electricity generation and as a raw material for the production of coking coal in the steel industry (US EIA, 2024). Subbituminous coal, used for steam electricity generation, also serves as a source of light aromatic hydrocarbons in the chemical industry (ScienceDirect, 2024).

Lignite, with a carbon concentration of 60 to 70 %, represents together with subbituminous coal nearly half of the world's coal reserves but is less utilized due to its lower calorific value and handling/storage challenges (Britannica, 2024).

In addition, coal can be further classified into thermal coal and metallurgical coal. Thermal coal includes subbituminous and lower-grade bituminous coal and is mainly used for electricity production (Geoscience Australia, 2024).

Metallurgical coal, consisting of bituminous coal and some forms of anthracite, is mainly used for steel production and other industrial processes (Geoscience Australia, 2024). Between 2000 and 2014, global coal production nearly doubled close to 8 billion tons of production volume, driven by rising energy demands, particularly in emerging economies like China and India (Exhibit 16). After peaking in 2014, coal production stabilized and declined slightly in the following years. Following a pandemic-induced drop in coal production, coal volume grew to

over 8 billion tons in 2022 (IEA, 2022).

Once dominant, coal is projected to face declining demand in the future due to its negative environmental impact, particularly in power generation and steelmaking (PwC, 2022).

The **Crude Petroleum** market covers the production of crude oil, oil sands, and oil shales. These resources are extracted through drilling and similar processes and refined into a variety of products such as gasoline, diesel fuel, and other petroleum-based products. The sector faces increasing pressures as the world shifts toward decarbonization and renewable energy (Statista, 2024b).

Metal Ores include metals such as iron, copper, zinc, and cobalt that are essential across industries from construction to automotive. Copper is especially valued as a “green metal” for its role in electrification and renewable energy infrastructure. Since 2010, copper production steadily increased, from 15.99 million tons in 2010 to 21.92 million tons in 2022 (Exhibit 17). Particularly, the construction boom, the expansion of electrical grids, and manufacturing growth in mostly emerging countries fueled this increase. In addition, the push for renewable energy has spurred the demand for copper in wind turbines, solar panels, and energy storage systems (The World Copper Factbook, 2024). Zinc production is forecasted to grow at a significant level over the next years as it plays a crucial role in developing future transportation, energy storage, healthcare, and renewable energy projects (International Zinc Association, 2024). Since 2013, global production of zinc remained relatively constant, with a production volume of close to 12.4 million tons in 2022 (Exhibit 18) (Statista, 2024c).

Cobalt production, which is critical especially for battery technology in electric vehicles, rose from 107 thousand tons in 2010 to 197 thousand tons in 2022 globally (Statista, 2024d).

Non-Metallic Ores encompass resources like sulfur, graphite, quartz, and phosphates, which are vital for manufacturing, agriculture, and construction. Their low cost and availability make them preferable for large-scale applications (MEI Online, 2024).

Natural Gas, a fossil fuel composed primarily of methane along with smaller quantities of other hydrocarbons like ethane, propane, and butane is primarily used for heating, transportation, and electricity generation but is under scrutiny due to high carbon emissions (MET Group, 2022). Especially copper has emerged as a central component for the energy transition, driven by its multiple applications in renewable energy technologies (Mining Association of Canada, 2023). Teck's strategic focus on expanding copper assets reflects this trend, as it reduces reliance on coal amidst rising ESG challenges (PwC, 2023).

4.3. Top Global Mining Companies and Recent ESG-related M&A Activities

The global mining industry is dominated by large corporations such as Glencore, Rio Tinto, BHP, China Shenhua Energy, and Vale (Statista, 2024e). In recent years, these companies experienced a transformation as they increasingly prioritize resources that are important for the energy transition. This strategic shift has intensified competition, driving M&A and technological innovation.

Glencore, headquartered in Baar, Switzerland, was founded in 1974 and is engaged in the production, refining, processing, storage, transportation, and marketing of metals and minerals as well as energy products in America, Europe, Asia, Africa, and Oceania (Yahoo Finance, 2024a). The company is a leader in the mining industry, with around 140,000 employees, who generated sales of USD 256 billion in 2022 (Glencore Annual Report, 2022). Glencore transports commodities by sea, rail, and truck to key customers in sectors such as automotive, steel, semi-fabricators, power generation, and oil (Glencore, 2024b). Recently, Glencore bid to acquire Teck to strengthen its copper assets and reduce its dependence on coal, a move that mirrors the industry's transition to minerals vital for the green energy shift.

Rio Tinto was founded in 1873 and is headquartered in London, United Kingdom. The company is involved in the exploration, extraction, and processing of minerals like aluminum, copper, and iron ore worldwide (Yahoo Finance, 2024b). In 2022, the company generated USD 56 billion in

revenue with a net profit of USD 12 billion. The company operates in 35 countries with 54,000 employees (Rio Tinto Annual Report, 2022). Rio Tinto's USD 3.3 billion acquisition of Turquoise Hill Resources in 2022 has enhanced its copper and gold reserves, aligning with its strategy to secure metals needed for renewable energy and electric vehicle production, reinforcing its competitive position in green metals (Rio Tinto, 2022).

BHP Group, based in Melbourne, Australia, reported USD 65 billion in revenue in 2022. With around 80,000 employees, the company generated a net income of USD 21 billion in 2022 (BHP Group Annual Report, 2022). BHP operates as a resources company in Australia, Europe, China, Japan, India, South Korea, the rest of Asia, North America, South America etc. The company is engaged in the copper, iron ore, and coal segments. BHP mines copper, uranium, gold, zinc, lead, molybdenum, silver, iron ore, and cobalt as well as metallurgical and energy coal (Yahoo Finance, 2024c). In 2021, BHP announced that it would shift its oil and gas assets into a joint venture with Australian company Woodside. This signals a decisive shift away from fossil fuels, indicating a commitment to metals central to the energy transition and positioning the company as a significant contributor to renewable energy and electric vehicle infrastructure (University of Queensland, 2021).

China Shenhua Energy, based in Beijing, China, was incorporated in 2004 and employs 83,000 people (as of 2022). Together with its subsidiaries, the company is involved in the production and sale of coal and power as well as in the railroad, port, and shipping business in China and internationally (Yahoo Finance, 2024d). In 2022, the company reported USD 51 billion in revenue with a net income of USD 15 billion (Companies Market Cap, 2024). The company is diversifying its product portfolio into renewable energy sources by investing in clean energy projects, including wind and solar, as it adapts to increased demand for sustainable energy, especially in China's highly regulated market (CSEC, 2021).

Vale, a Brazil-based multinational, headquartered in Rio de Janeiro, was founded in 1942. The

company operates internationally in two segments: Iron Solutions, which produces iron ore, pellets, and other ferrous products, and Energy Transition Materials, which extracts nickel, copper, and their by-products for applications such as construction and electrical cables (Yahoo Finance, 2024e).

With about 64,000 employees, the company generated USD 44 billion in revenue and USD 17 billion in net income in 2022. Vale is among the world's largest iron ore producers and is further planning to expand its nickel and copper production to supply the electric vehicle market (Vale, 2023). For a detailed financial comparison of the companies see Exhibit: 19.

The future of the mining industry is increasingly shaped by ESG-driven M&A and consolidation. Companies are under pressure to acquire assets that align with sustainability goals, especially metals critical for the green energy transition. The ongoing shift away from coal and fossil fuels is forecasted to continue as governments and investors prioritize ESG compliance (PwC, 2023).

4.4. Mining in Canada: Importance to the Economy and Regulatory Framework

Mining is a cornerstone of Canada's economy, contributing CAD 148 billion to the country's GDP (6%) and accounts for 21% of total exports (Natural Resources Canada, 2023). Canada is one of the world's top producers of copper, nickel, and cobalt – minerals critical for green technologies. The industry supports nearly 700,000 jobs and is particularly important for Indigenous communities, who represent around 5% of their workforce, providing vital economic opportunities in remote regions (Mining Association of Canada, 2023).

The regulatory environment in Canada emphasizes sustainability, particularly through the Impact Assessment Act (2019), which integrates environmental, social, and economic considerations into decision-making for mining projects. This, combined with the country's 82% clean energy grid, makes Canadian mining operations among the least carbon-intensive globally (Mining Association of Canada, 2023).

Teck, a key player in Canada's mining sector, benefits from this regulatory framework. The

company's commitment to sustainability aligns with national efforts to lead in green technology and decarbonization, making Teck a vital contributor to Canada's broader economic and environmental goals.

5. Deal History and Timeline

5.1. Initial Talks between Teck and Glencore

Teck and Glencore engaged in initial discussions about a possible merger of their companies in 2020, which were not discussed further publicly (Glencore, 2023b).

The talks were driven by the growing demand for key minerals, such as copper, which both companies have in their product portfolios. However, several factors caused these talks to stall. Both companies followed contrasting strategic orientations, as Teck was focusing on its copper and zinc business and at the time was planning on reducing its reliance on coal, particularly steelmaking coal. In contrast, Glencore was heavily involved in thermal coal and oil trading - commodities that were not aligned with Teck's evolving ESG objectives. In addition, market conditions in 2020 were uncertain due to the Covid-19 pandemic, which led both companies to focus on stabilizing their existing businesses rather than pursuing a complex merger. Moreover, Glencore faced legal scrutiny during this time, including investigations related to corruption and market manipulation, which also deterred Teck's management board.

5.2. Renewed Merger Efforts by Glencore

Beginning in October 2022, Glencore made various efforts to re-open negotiations with Teck on a potential combination of both entities (Glencore, 2023b). Glencore proposed a merger followed by a spin-off of the combined coal activities into a separate company. However, Teck stuck to its strategy of splitting its own coal and metals businesses in the future. Therefore, no agreement was reached in 2022. Glencore's continued efforts to merge were ultimately hampered by Teck's desire to retain control of its activities.

5.3. Teck introduces Separation Proposal

On 16 February 2023, Teck officially responded to market rumors by confirming that the company is evaluating strategic alternatives for its steelmaking coal business, including the possible spin-out of an interest in that business to its shareholders. The company affirmed that any prospective transaction would generate value for Teck's shareholders and would promote continuous benefits for local communities and the Indigenous people living in the regions where Teck operates (Teck Resources, 2023b).

Only a couple of days later, Teck announced a separation proposal that would split the coal business from the metal business. The plan introduced the option to operationally split the company into two entirely new entities: Teck Metals Corp. and EVR. The spin-off would create two separate resource companies, offering investors the opportunity to allocate capital between two companies with different commodity fundamentals and value propositions.

Teck Metals intended to be a highly growth-focused entity with world-class and low-cost base metal production, including a premier copper development portfolio and a rigorous capital return agenda. EVR was expected to be a high-margin Canadian steelmaking coal producer specialized on long-term cash generation, with significant upside potential for equity value appreciation.

"This transformative transaction creates two strong, sustainable, world-class mining companies committed to responsibly providing essential resources....," said Jonathan Price, CEO of Teck.

"Both Teck Metals and EVR have high-quality operating assets and strong financial foundations... The transaction simplifies the portfolio of each company, allowing for strategic and financial focus and the ability to pursue tailored capital allocation strategies. It provides investors with choice in response to the evolving investment landscape and establishes a pathway to full financial separation of the two companies over time" (Teck Resources, 2023c).

The spin-off includes a carve-out of Teck's steelmaking coal business through the issuance of EVR common shares to Teck shareholders. Teck Metals will retain an 87.5% interest in the cash flow of the steelmaking coal business in the form of a gross revenue royalty and preferred shares

of EVR, the so-called “Transition Capital Structure” (TCS).

Under the TCS, Teck Metals would receive quarterly payments comprised of royalties and preferred share redemptions totaling 90% of EVR's free cash flow for a transition period of 5.5 years (Teck Resources, 2023c).

In addition, the company proposed a six-year phase-out period for the multiple voting rights associated with Teck’s Class A common shares. "The sunset on the multiple voting rights will modernize Teck’s governance and provide a simplified and competitive capital structure, following an appropriate continuity period, which we believe will benefit Teck and all of its shareholders," commented Sheila Murray, Chair of Teck’s Board (Teck Resources, 2023d).

5.4. Glencore submits Merger and Demerger Proposal

On the 26th of March Glencore privately presented an initial merger and simultaneously demerger offer to Teck, which Teck publicly declined in the following days, despite not having had any discussions with Glencore regarding the proposal (Glencore, 2023b).

Teck's Board of Directors confirmed on April 3rd that it had received and rejected an unsolicited takeover offer from Glencore. The proposal envisaged splitting Teck into two separate companies, leaving Teck shareholders exposed to Glencore's thermal coal and oil activities (Teck Resources, 2023e).

"The Glencore proposal would expose Teck shareholders to a large thermal coal business, an oil trading business, and significant jurisdictional risk, all of which would negatively impact the value potential of Teck’s business, is contrary to our ESG commitments and would transfer significant value to Glencore at the expense of Teck shareholders," stated Jonathan Price (Teck Resources, 2023e).

In a statement published on the same day, Dr. Norman Keevil, Chairman Emeritus of Teck, expressed full support for the Board's decision and emphasized his commitment to Teck's proposed separation into two independent companies. He underlined that it was not the right

time for such a transaction and expressed confidence in the strategy to maximize shareholder value post-separation (Teck Resources, 2023f).

Due to Teck's disclosure, Glencore publicly released its merger and simultaneously demerger proposal on the same day. Glencore's proposal envisaged the creation of two independent companies by splitting up the combined metals and coal activities. The plan would create MetalsCo, which would focus on base metals such as copper, cobalt and nickel, and CoalCo, a highly cash-generative coal and carbon steel business. Unlike Teck's proposed spin-off, CoalCo would have no financial obligations to MetalsCo. Glencore offered a share exchange ratio representing a 20-22% premium to Teck's share price at the time of the proposal, with Glencore and Teck's shareholders owning approximately 76% and 24% of the new companies, respectively. The merger was expected to generate synergies of USD 4.25-5.25 billion after tax, including savings in marketing, operations, and overheads (Glencore, 2023c).

Glencore committed to maintaining significant Canadian representation on the boards of both companies, to designate either Vancouver or Toronto as MetalsCo's industrial headquarters, and to continue Teck's commitment to local and Indigenous communities. Glencore also reaffirmed its support for Teck's net-zero climate strategy and committed to overseeing a responsible decline in CoalCo's thermal coal production (Glencore, 2023c).

5.5. Teck reaffirms Benefits of its Separation Proposal

The developments pressured Teck to publicly reaffirm the benefits of its original separation proposal. According to Teck, the pending spin-off, which will be voted on at the Annual Shareholder Meeting on 26 April 2023, provides shareholders with the opportunity to realize significant value that would create a broad range of opportunities for both Teck Metals Corp. and EVR (Teck Resources, 2023g).

The pending separation of Teck minimizes execution risk as Teck's plan provides a responsible exit from steelmaking coal at a fair value and in the best interests of all stakeholders. In addition,

there are no competitive or regulatory hurdles to the Teck separation, and completion is expected by the end of May 2023 (Teck Resources, 2023g).

Teck's Board of Directors stated that Glencore's proposal is not viable as it would reduce Teck's exposure to the copper business and introduce exposure to thermal coal and oil trading. In addition, Glencore has not presented a coherent plan for its proposed coal business. In the view of Teck's board, there is no future for a giant company focused on thermal coal. Glencore's unethical business practices in recent years would also severely damage Teck's reputation (Teck Resources, 2023g).

In 2022, Glencore pleaded guilty to bribery and commodity price manipulation and agreed to pay a fine of over USD 1.1 billion. Furthermore, the company will employ an independent compliance monitor for three years (US Department of Justice, 2022).

5.6. Glencore submits revised Proposal

On April 11, Glencore announced that it had submitted a response to Teck's Board of Directors regarding concerns raised on April 3 about the proposed merger and demerger structure. Glencore suggested adjustments to the proposal and emphasized that combining the thermal and metallurgical coal assets under CoalCo would create a leading cash-generative commodity company that would attract investor interest due to its return potential. Recognizing that some Teck shareholders might prefer to avoid coal exposure, Glencore proposed adding a cash option. Under this revised plan, Teck shareholders would receive 24% of MetalsCo and USD 8.2 billion in cash to buy out their coal exposure (Glencore, 2023d).

5.7. Canadian Stakeholders oppose Glencore's Merger Ambitions

Following Glencore's merger proposals in April 2023, the Canadian government expressed strong concerns about Glencore's unsolicited takeover bid, citing Teck's critical role in the Canadian economy, particularly its involvement in sectors that are vital to the country's shift to a decarbonized economy. In April 2023, Canada's Minister of Industry François-Philippe

Champagne stated, "Our message has been very clear that we like Teck as a Canadian company." (BIV, 2023).

The Greater Vancouver Board of Trade (GVBOT), a leading Canadian trade association, echoed these concerns in a letter to the Canadian government, highlighting Teck's economic contributions, including more than 5,700 Canadian jobs and CAD 1.5 billion in benefits and wages. The board emphasized Teck's leadership in sustainability and the company's roadmap to achieve net-zero emissions by 2050 and warned that a takeover by Glencore could disrupt these efforts, jeopardize innovation and jobs, and impact Canada's supply of key minerals. The committee urged the federal government to review the proposal and to protect local and national interests (GVBOT, 2023).

The proposed merger with Glencore raised complex issues for Teck's key stakeholders. Addressing these various concerns would require a transparent, proactive strategy from Jonathan Price. How could Teck balance the different stakeholder priorities and ensure that the interests of all stakeholders are considered? What steps should Teck take to uphold its environmental and social responsibility commitments in light of the merger proposal? Would Teck's independent spin-off plan provide a valid alternative that meets stakeholder interests more closely?

6. Outlook

As Jonathan Price considered Glencore's revised merger proposal, the weight of the decision was unmistakable. The offer promised shareholders an immediate premium and a cash payment option to address concerns about coal exposure. However, the implications went far beyond the financials and raised critical questions about the future of Teck's strategy, operational priorities, and relationships with key stakeholders.

The merger presented a complex trade-off for Teck. While Glencore's diversified portfolio included key minerals such as copper and zinc, its heavy reliance on fossil fuels threatened to undermine Teck's ESG-focused identity. The integration of the two companies could lead to

potential governance conflicts, operational misalignments, and reputational damage, and jeopardize the trust of stakeholders who had supported Teck's sustainable mining practices. The stakes were raised by reservations from the Canadian government and concerns about potential harm to partnerships with local communities and employees.

A rejection of the offer could provoke a hostile takeover, prolonging uncertainty and undermining stakeholder confidence - a scenario that would test Jonathan Price's ability as CEO to steer Teck through turbulence and protect his strategic vision. On the other hand, an independent spin-off of Teck's coal and metals business would require Price to make a compelling case for long-term value creation, which would involve Teck's various stakeholders uniting around a common vision.

This decision would not only shape Teck's strategic direction but would also test Price's leadership skills as he sought to balance short-term financial benefits with long-term sustainability, stakeholder trust, and resource sovereignty. The path he chose would have far-reaching consequences - not only for Teck's legacy but also for the mining sector's evolving role in the global energy transition. As Price prepared his response to Glencore's board, he was unwavering in his commitment to Teck's vision: a company that responsibly delivers critical resources while prioritizing the well-being of its employees, communities, and the environment.

Strategic & Organizational Fit

1. Case Synopsis

In April 2023, Teck faced a critical decision: to accept Glencore's unsolicited merger and demerger proposal or continue with its independent plan to spin off its coal business. Glencore's revised proposal included \$8.2 billion in cash and the promise of synergies through combining the metals and coal operations. This case study takes the perspective of Teck in the decision-making process. It delves into strategic and organizational implications, ESG pressures and Glencore's motivations for this merger offer. Furthermore, the case shows the importance of M&A bolstering growth, but leaves the Board with the following doubt: Is it strategically advantageous for Teck to accept this deal?

2. Pedagogical Objectives

This case analysis helps students understand the possible downsides of a merger, balancing with the expected benefits that would arise from such a deal. It requires critical thinking and knowledge about how the companies would combine businesses, with such distinct work ethics and strategies, into a new entity. Furthermore, this case conducts a thorough analysis of the Porter's Five Forces framework to determine the industry's profit potential and understand the need for M&A. It identifies the reasoning behind Glencore's decision to offer Teck a merger and demerger deal. With the support of theoretical concepts and by analyzing the background on the deal, students should be able to come up with an answer on the problem the company was facing in April 2023.

3. Target Audience

This case study is tailored to being used as an academical tool to help understanding different angles of an M&A deal. It should be used as an analysis instrument for a regular class of 90 minutes of programs at a Master's level. Due to the concepts used, it is designed for Strategy,

Advanced Strategy or Mergers, Acquisitions and Restructuring courses. The analysis considers topics such as ESG, Post-Merger Integration, Operational Synergies, Corporate Strategy, Porter's Five Forces framework, RBV model and CAGE framework.

4. Teaching Plan

- Identification of industry profitability: Analyze the key forces in the industry and understand why M&A is a vital part of firm's strategies.
- Understand Glencore's motivation: Analyze the strategic need for Glencore to target Teck.
- Evaluate options: Assess the expected benefits and risks of the merger and demerger vs. the spin-off for Teck.
- Develop a recommendation: Compare the scenarios and decide which option Teck should pursue according to the company's corporate strategy.

5. Case Analysis Questions

- What motivated Glencore to propose the merger and subsequent demerger with Teck?
- How do the risks and benefits of the merger compare to Teck's spin-off strategy?
- From a strategic perspective, should Teck's board prioritize their ESG reputation or immediate financial gains?

6. Case Analysis

6.1 Industry Context

This section provides an overview of the mining industry, examining profitability and why firms pursue M&A over organic growth. Using Michael E. Porter's "Five Forces" framework, it analyses competitive dynamics influencing Glencore's strategy. The mining industry will be divided into Metals and Minerals, and Coal, highlighting differences in force intensity, value and cost factors, and profitability.

6.1.1 Industry Overview

Michael E. Porter developed in 1979 the “Five Forces” framework that defines the “competitive forces that shape strategy”. The model aims to express the long-term profitability of an industry based on the strength of these forces. After analyzing the industry’s competitive environment, a firm can design a strategy to position itself in the competitive landscape. Porter’s 5 forces are composed of Bargaining Power of Buyers, Bargaining Power of Suppliers, Threat of New Entrants, Threat of Substitutes and Existing Rivalry (Harvard Business School n.d.).

Bargaining Power of Buyers

The Bargaining Power of Buyers refers to customers' ability to influence price reductions. This power is strongest when buyers are large compared to the number of firms in the industry; few but making substantial purchases; products or services are undifferentiated; or switching costs are low (Harvard Business School n.d.).

Metals and Minerals

Minerals have a “unique chemical composition” and are inorganically substances found in solid state. Metals are elementary substances that can work as electricity and heat conductors (ICMM n.d.). Suppliers offer minerals and metals with varying levels of impurities to meet buyers' specific purity requirements for different applications, implying a differentiation of these products. The sector includes many buyers and numerous suppliers (McKinsey & Company 2023). Prices are primarily determined by global supply and demand dynamics, with exchange market rates serving as benchmarks in negotiations (IGF n.d.). Buyers have limited bargaining power because of market-driven pricing, but due to product heterogeneity this force can be considered low to moderate.

Coal

Coal is a fossil fuel composed of hydrocarbons and is classified into four types based on its carbon content and energy-producing potential (U.S. Energy Information Administration n.d.). Buyers need different grades (amount of carbon) of coal for distinct uses, and higher-grade

types of coal produce more CO₂ (U.S. Department of Energy n.d.). As regulatory pressure increases, companies look for different levels of purity of coal, and the supply shifts accordingly (U.S. Energy Information Administration n.d. a). Coal is also largely used for industrial applications, such as steelmaking (Government of Canada n.d.). Coal supply is relatively large and it's one of the primary sources of energy (SME n.d.) The intensity of this force for coal can be considered medium to high, as buyers have a large pool of suppliers with differentiated products.

Bargaining Power of Suppliers

The Bargaining Power of Suppliers reflects their ability to negotiate with industry firms, enabling them to charge higher prices or impose terms that reduce profitability. This power increases when the number of suppliers is limited and switching costs are high (Harvard Business School n.d.).

Metals, Minerals and Coal

The mining supply chain encompasses exploration, extraction, processing, refining, and distribution of materials for industrial applications, primarily as energy sources (Mining Digital 2024). While coal, metals, and minerals share some machinery, specialized equipment tailored to extraction methods is essential for safety and efficiency (Empire Cat n.d.). Despite significant capital expenditures (CAPEX) in machinery, a few key players, such as Caterpillar Inc., Komatsu Ltd., and Liebherr Group, dominate the supply of these technologies (Mining Digital 2024; Mining Equipment Procurement Intelligence Report n.d.). High switching costs arise from system incompatibilities and reliance on IoT (Internet of Things) and standardized processes (Mining Equipment Procurement Intelligence Report n.d.). The intensity of this force can be considered high for both metals and minerals, and coal, with CAPEX expected to continue rising (Exhibit 20) (Statista 2024).

Threat of New Entrants

The Threat of New Entrants is significant in globalized industries with reduced physical and cultural barriers (Singapore Institute of Management 2020). It hinges on entry barriers like economies of scale and government restrictions. New entrants pressure prices, capturing market share, reducing profitability, and potentially displacing smaller firms. The threat intensifies if the entrant is a well-established player from another industry or market (Harvard Business School n.d.).

Metals and Minerals

This sector relies on large-scale, capital-intensive projects, often costing billions and taking years to complete. CAPEX decisions for metals and minerals of a company depend on demand and prices. When demand decreases, firms tend to save more money (Government of Canada n.d. a). Another barrier to entry is resource scarcity, which challenges the ability to meet the growing demand for clean energy minerals. Production is heavily concentrated in a few countries and controlled by large corporations, which the IEA (International Energy Agency) warns could lead to shortages and slow the energy transition. Companies operating in resource-rich nations have privileged access to reserves, and any disruption can impact global markets (CNN 2024). Large firms can take advantage of economies of scale and scope, which are hard to achieve for a new entrant, as production levels depend on their demand capture. The intensity of this force can be considered low, due to high capital requirements, scarcity of resources, and difficulty to achieve economies of scale and scope.

Coal

Governmental pressures to reduce coal's environmental impact, such as the IEA's Net Zero Emission by 2050 (IEA 2023), reduce the attractiveness for a new entrant, as there would be regulatory risks and capital expenditures are also high for coal extraction (S&P Global 2023). Furthermore, new entrants face challenges in achieving economies of scale and scope in this sector, as well as in minerals and metals. With rising consumption of coal (Exhibit 21), there is

increasing competition between the incumbent firms to tap this surge in demand, increasing barriers to entry. The intensity of this force can also be considered low, especially for environmental pressures.

Threat of Substitutes

The Threat of Substitutes measures the impact of alternative products, that meet the same consumer need, on industry profitability. This threat is high when substitutes offer better prices or performance and when switching costs are low (Harvard Business School n.d.).

Metals and Minerals

Minerals and metals are vital to the energy transition, but supply shortages pose significant risks. Substitution and recycling are potential solutions (European Commission n.d.). Recycling offers sustainability benefits but remains underdeveloped, costly, and hindered by incomplete product data. While viable for some metals, like cobalt, certain raw materials cannot be recycled (DW 2021). Governments worldwide are investing heavily in substitution initiatives, but progress is slow due to the industry's complexity and limited data on substitutability (European Commission 2016). The intensity of this force can be considered low, as there is low substitutability for minerals and metals.

Coal

Metallurgical coal used in steelmaking can be potentially substituted with lignin, a “complex organic polymer” (Britannica n.d.), and can also be reduced by waste compact disks and macadamia nut shells, though with limited supply potential (IEA Bioenergy n.d.). Renewable energy can substitute the use of coal as an energy source, with environmental benefits outweighing the high upfront costs incurred in production, but often with higher prices (IMF 2022). The intensity of this force can be considered medium to high for coal, as there are substitutes, but they can be pricier.

Existing Rivalry

Existing Rivalry within an industry depends on the number and size of firms and their influence on pricing strategies. Rivalry intensifies when firms are of similar size, industry growth is slow, or fixed costs and exit barriers are high. High rivalry often leads to price wars and market share battles, eroding industry value (Harvard Business School n.d.).

Metals, Minerals and Coal

“Mining underpins almost half of the global economy” and its products are being heavily explored supporting the world’s energy transition (Deloitte 2023). Although there are many firms competing for market share, global companies have the resources to thrive in this fierce competitive landscape (The Mining Association of Canada n.d.). Most of the largest companies in the industry, such as the BHP Group, Rio Tinto, Glencore and Vale, have differentiated portfolios and operate globally (Mining.com 2024). Operating costs, especially labor costs, are becoming more expensive, as inflation increases (Mining.com 2023). The intensity of this force for metals, minerals and coal is high, because of the intense competition and fixed costs.

6.1.2 M&A and the Mining Industry

With the previous industry analysis, guided by the Five Forces framework, the market for minerals and metals can be considered relatively stable and well established, characterized by high capital requirements (both CAPEX and operating costs), intense competition, limited substitutability and a scarcity of resources concentrated in a few countries. This market is expected to grow in response to the increasing demand for cleaner energy sources driven by the energy transition. Coal has a market positioned for growth (increasing consumption), especially due to emerging economies, that represent almost 70% of the global demand for coal (IEA 2023a). Coal also has a high CAPEX, but with elevating environmental pressures and a higher degree of substitutability. Firms that seek to grow in both sectors face shortages of reserves, derived from resource control and strategic location.

While organic growth can drive innovation, companies pursuing strong expansion often turn to

strategic M&A to capture synergies that may be difficult to achieve independently (McKinsey & Company 2022). Reflecting industry trends, as demand for minerals and metals rises (PWC 2023), companies seek targets to expand and diversify their resource base and strengthen market position. Copper, a critical mineral for the energy transition, is predominantly concentrated in Latin America, Australia, and Africa (Exhibit 22) (BHP 2024). In 2022, copper accounted for 56% of the total Top 40 M&A deals (PWC 2023).

The need for M&A to satisfy resource and positioning needs is one of the reasons that drove Glencore to pose an unsolicited offer on Teck Resources, Canada's largest diversified miner. As a global powerhouse, Glencore seeks consolidation of its footprint in Canada, a country with one of the largest mining sectors in the world.

6.2 Strategic Analysis: Merger Demerger Proposal

This section seeks to explain the motivation behind Glencore's unsolicited bid to Teck Resources, and the potential benefits and risks of this merger and demerger. The Resource-Based View (RBV) framework will be used as a tool to justify Glencore's reasoning and to explain the expected synergies after accepting the deal. Both points addressed can be supported by the previous analysis of Porter's Five Forces. The CAGE framework will be used as a complementary instrument to analyze the implicit risks of this potential partnership.

6.2.1 Glencore's motivation

The Resource-Based View (RBV) framework, introduced by Jay Barney in 1991, explains why some firms outperform competitors by viewing a company as a bundle of resources and capabilities. These factors provide a sustainable competitive advantage when they are valuable, rare, durable, hard to imitate, and difficult to substitute (Journal of Management 1991).

Resources

Glencore is committed to reducing its total emissions footprint, aiming to achieve net-zero emissions by 2050 (Glencore 2023e). Its decision to merge with Teck and demerge coal and

metals businesses reflects pressure to reduce thermal coal exposure while advancing its energy transition strategy and leadership in critical minerals. Teck is a strategic target for Glencore, particularly due to its extensive copper operations and strong presence in Canada (Reuters 2023). Teck's metals portfolio is a valuable resource, complementing Glencore's existing operations. Its scarcity makes it rare and durable, providing a competitive edge amid rising demand for these metals. The portfolio is hard to replicate, given Teck's established operations and expertise, and difficult to substitute, as viable alternatives in the market are limited.

The Swiss company would also benefit from strengthening the coal business, that would be integrated with Teck's high-quality metallurgical coal, enhancing Glencore's operational efficiency and broaden the customer base. The integration would increase Glencore's resource control and strategic flexibility, enabling optimized coal portfolio management while aligning production with climate targets (Glencore 2023d). Increasing global demand makes it a durable resource, while the high-quality capacity makes it rare and reduces the imitability. This type of coal, mostly used for steelmaking, is hard to replace, since there are only a few alternatives. Green Hydrogen can serve as a substitute for coal in the production of steel, although potentially at higher costs (Forbes 2021).

Teck has received numerous ESG awards as a mining company focused on sustainable practices. In 2017, the Canadian company received an Excellence Award in Sustainability Reporting. In 2022, Teck achieved "Prime status" on the ISS ESG Corporate Ranking, which implies the company met or exceeded the industry's sustainability performance requirements (Teck n.d. a). This ESG reputation is a valuable intangible resource that Glencore can leverage in case Teck accepts to merge and demerge, improving the Swiss company's standing among sustainability-focused investors. In an industry that is considered extremely polluting (BBC 2023), such a reputation can be valued as rare and durable, as the company has been developing it for years. This intangible resource is hard to imitate and difficult to substitute, as substantial

investments in sustainability projects are required long term.

Teck's metals portfolio and ESG reputation represent sustainable competitive advantages, aligned with resilient, long-term industry trends. In contrast, the coal portfolio is a source of competitive advantage, facing challenges due to sustainability concerns and the potential for metallurgical coal to be replaced by emerging alternatives.

Capabilities

Teck's investments in decarbonization of its operations results in continuous technological improvements that helps the company to achieve its greenhouse gas emissions reduction goals (Teck 2024). This low-carbon innovation strategy is a capability that can support Glencore's own sustainable goals. The Swiss company expressed intentions to reduce their Scope 1, 2 and 3 industrial emissions by 15% until 2026 (Glencore 2023e). Scope 1 Green House Gas (GHG) emissions include emissions from company-owned or controlled sources. Scope 2 is associated with the company's indirect GHG emissions from the production of electricity, heating, etc. Scope 3 refers to the indirect emissions of the company's value chain caused by suppliers and buyers. (Deloitte 2021). Teck's capabilities can support Glencore to reach its Scope 1 emission goals, capturing value from this low-carbon innovation strategy. Due to high capital investments in these improvements, the capability can be considered rare, hard to imitate and durable, requiring continuous advancements in technology. This capability can also be considered hard to substitute, as alternatives like punctual carbon offsets do not provide the same reputational advantages for a company. The low-carbon innovation strategy would become a source of sustainable competitive advantage for Glencore.

6.2.2 Potential Benefits

This analysis evaluates the potential benefits of the proposed merger and subsequent demerger, assuming Teck accepts the deal. It considers advantages for the two demerged entities, CoalCo and MetalsCo, as well as Teck's shareholders.

The merger is structured as a two-stage process: first, combining Glencore and Teck's operations, followed by a demerger into CoalCo and MetalsCo. This approach seeks to maximize synergies while addressing investor concerns over coal exposure. Post-tax synergies are estimated at US\$4.25–5.25 billion, driven by shared marketing, operational efficiencies, and overhead optimization. Financially, Teck's shareholders would receive a 20–22% cash premium above the current share price, making the deal more attractive (Glencore 2023d). The option to receive a mix of cash and/or up to 24% of CoalCo shares addresses thermal coal exposure concerns, while shareholders would retain 24% of MetalsCo shares (Glencore 2023c). MetalsCo's portfolio would combine Teck's metals and mineral assets with Glencore's metals, energy marketing, recycling, and distribution operations, offering significant diversification benefits (Glencore 2023d), potentially leveraging economies of scale and scope. The demerger also separates coal from metals operations, improving the ESG profiles of the two entities and attracting sustainability-focused investors (Glencore 2023c).

Additionally, the new entities could potentially benefit from reduced risk exposure to market volatility due to a more diversified commodity portfolio. The merged entities would be less dependent on the price fluctuations of a single product. Given the historical price volatility and low-price visibility of critical minerals, the merged company could offset declines in the price of one commodity with increases in another. Furthermore, with extensive operations, the new firm could potentially face reduced risks from geopolitical impacts on the supply chain (PWC 2022). This larger entity, with enhanced capital access, could also benefit from leveraging their increased bargaining power with suppliers of equipment.

6.2.3 Potential Risks

The CAGE Framework, introduced by Pankaj Ghemawat in 2001, examines potential misalignments in international expansion by analyzing cultural, administrative, geographical, and economic differences between a company and its target (Harvard Business Review 2001).

This model will be used to assess potential risks of the deal from the perspective of Teck.

Most M&A deals fail in the integration phase, according to Harvard Business Review studies the number ranges from 70% to 90% of failure. Many believe that this happens for varying reasons. Firms usually conduct thorough financial performance analysis on the target, but most times leave out the cultural and organizational fit between both institutions. This is considered to be one the main sources of problems to integrate companies (Forbes 2022). The following section will focus on the cultural distances between Teck and Glencore.

Cultural

Teck Resources prioritizes sustainability and the preservation of local communities in its business model. The company is committed to supporting the global transition to cleaner energy through investments in critical metals, particularly copper and zinc, to reduce reliance on fossil fuels like coal. While Teck aims to improve its coal operations and achieve net-zero emissions by 2050, coal remains a significant revenue driver, accounting for 60% of the company's revenues in 2022 (Teck 2023c).

Teck is building its company towards becoming more sustainable with a variety of measures. The company is accelerating the introduction of electric vehicles to replace combustion engine vehicles in its fleet by 2025. In addition, Teck targets to reduce carbon intensity in its operations by 33% by 2030. The company is building a variety of partnerships to establish a lower-emission supply chain corridor for the transportation of steelmaking coal and reduce its transportation emissions by 40% by 2030 (Teck 2023d). These are just some of the measures the company prioritizes to meet their environmental and social agenda.

On the other side of the deal, Glencore committed in 2019 to capping coal production to 150 million tons per year (Glencore 2023e). However, the company remains significantly tied to thermal coal, oil, and gas, which are key revenue sources (Glencore 2023a). Additionally, Glencore's reputation has been impacted by corruption and bribery allegations, admitted by

management in 2022 (U.S. Department of Justice 2022).

Teck stakeholders' exposure to thermal coal and Glencore's tainted reputation for unethical managerial behavior are key integration challenges. Diverging business strategies, particularly regarding sustainability and transparency of operations, could create significant post-merger integration misalignments. Furthermore, Teck's shareholders would be exposed to oil trading in MetalsCo, which runs counter to the company's plans to separate metals from coal and other commodities that raise concerns among investors (Teck 2023a).

6.3 Strategic Analysis: Spin-Off Proposal

This section provides an understanding of the proposed spin-off by Teck and the potential benefits and risks for the separate entities and Teck's shareholders.

Teck's spin-off proposal represents another option for the company, focusing on preserving its ESG commitments while capitalizing on the growth potential for each entity. By separating its businesses into Teck Metals Corp. (Teck Metals) and Elk Valley Resources Ltd. (EVR), the company aims to cater to sustainability-focused investors and align its operations with global ESG trends. This strategy enables Teck to maintain its position in critical minerals while distancing from the reputational risks associated with steelmaking coal (Teck 2023b).

Financially, Teck Metals would benefit from an 87.5% interest in a gross revenue royalty, plus preferred shares of EVR, during a transition period. Teck's shareholders would receive common shares at a ratio of 0.1 EVR share for each Teck share, plus some cash per share. Teck leaves shareholders the option to choose an appropriate level of shares and cash (Teck 2023b).

By spinning off the coal business, Teck can focus on expanding its metals portfolio, as each company would have the opportunity to allocate capital investments according to its strategy (Teck 2023b). Post separation, each company should utilize organic growth options to increase shareholder returns as there is the potential to generate more value than if each company decided to pursue lengthy and difficult to execute M&A options (McKinsey & Company 2017).

However, the spin-off proposed by Teck poses a risk to Teck Metals' ESG reputation, as the new entity would continue to receive cash flows from EVR's operations. This financial reliance on metallurgical coal undermines the company's intent to fully separate the businesses into two distinct entities. While coal demand is expected to grow, EVR could face reduced investor support due to environmental concerns, indirectly impacting Teck Metals' revenue streams. Furthermore, Teck Metals would remain linked to EVR, even if only for some years. Additionally, this separation could lead to the loss of synergies related to shared operations and diversification benefits, such as economies of scope.

7. Final Recommendation

This section provides a recommendation for Teck's board, based on the previous sections' analysis on the mining industry, its threats and dynamics, alongside the balance between the benefits and risks for the merger and demerger versus the spin-off. This Teaching Note derives a conclusion for the Case Study's main question: From a strategic perspective, should Teck accept Glencore's deal or reject it and pursue its independent spin-off?

Accepting Glencore's offer would provide Teck shareholders with short-term financial gains through the share price premium. The merged company could achieve cost synergies of up to US\$5.25 billion through shared activities and economies of scale. The demerged entities might benefit from asset diversification and economies of scope operating independently without relying on each other's cash flows.

Although Glencore offers a significant cash premium and operational synergies, the merger presents notable risks. Strategic misalignments, particularly in sustainable practices, could lead to post-merger integration issues if Teck accepts the deal. The integration challenges could impact on talent retention and leadership, due to uncertainty regarding job security, consequently reducing employee's motivation. Teck's shareholders would face exposure to thermal coal in CoalCo and oil trading in MetalsCo, which could become major sources of

conflict. Additionally, Glencore's history of unethical practices poses reputational risks to Teck, potentially diluting its ESG-driven vision. These challenges, combined with stakeholder resistance and regulatory scrutiny, could jeopardize the success of the merger.

If Teck decides to reject Glencore's deal, thus pursuing its spin-off plans, the separation of metals and coal would capitalize on future strategic capital investments. Teck would have the opportunity to focus more on growth in the metals business by distancing from coal's reputation, arguably attracting investors concerned with sustainability and following industry's environmental pressures. Teck Metals and EVR would remain dedicated to ESG goals and would not rely on Glencore's commitment to achieve their goals.

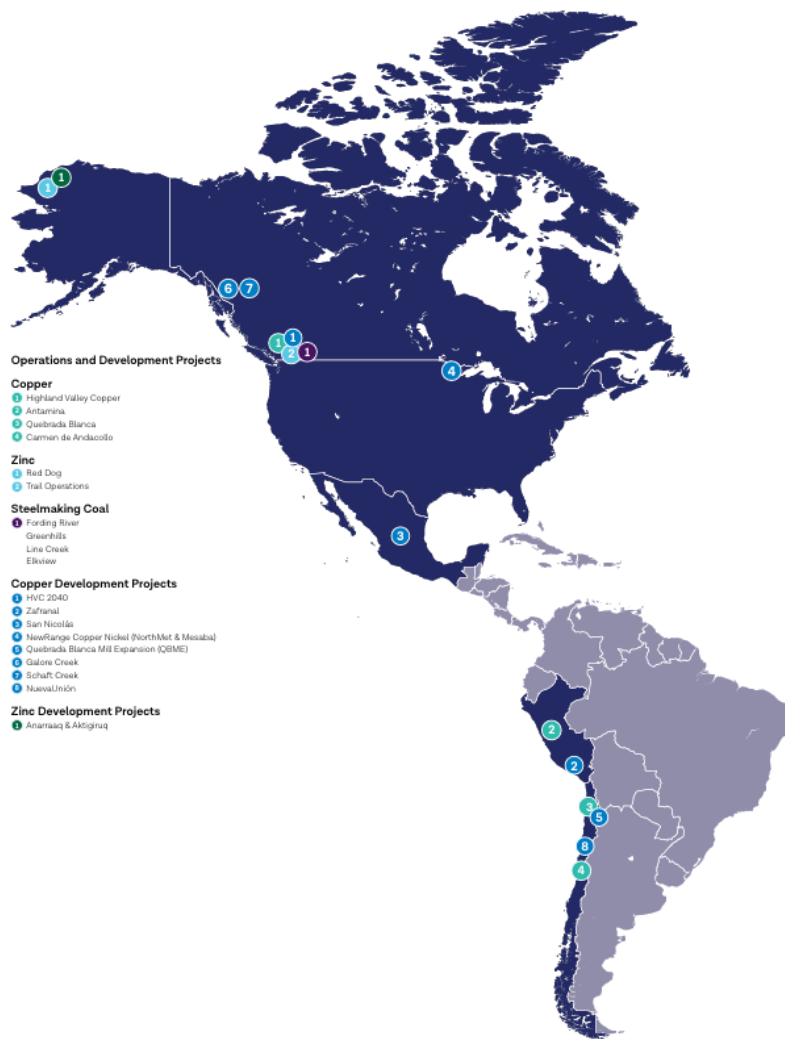
Nonetheless, Teck Metals would rely on EVR's cash flows for the next years, during the proposed transition period. This financial dependence creates cause for concern, as Teck Metals would not be totally autonomous, thus not entirely separating the coal and metals' businesses. This could negatively impact shareholder's concern on distancing away from coal.

The spin-off strategy prioritizes long-term sustainability goals and strengthens stakeholders' confidence. By focusing on critical minerals, Teck aligns itself with the energy transition's demands while maintaining its reputation as a value-driven company. Although the transition involves financial and operational risks, the spin-off preserves Teck's autonomy and positions it for sustainable growth. For these reasons, this Teaching Note ends with a recommendation for Teck not to accept Glencore's merger and simultaneously demerger offer submitted on 11 April 2023 and advises Teck to pursue its independent spin-off.

For the Canadian company to effectively transition to its spin-off plans, it is crucial to determine the next steps, by designing a comprehensive plan and communicating it to the shareholders. It is essential to maintain its ESG focus and commitment to sustainable operations.

Appendix – Case Study

Exhibit 1: “Teck’s Operations Worldwide”



Source: Teck Annual Report, 2022

Exhibit 2: “Teck Production Record and Estimated Production in 2023”

Principal Products		2017	2018	2019	2020	2021	2022	2023 estimate
Copper	thousand tonnes	287	294	297	276	287	270	418
Zinc								
Contained in concentrate	thousand tonnes	659	705	640	587	607	650	665
Refined	thousand tonnes	310	303	287	305	279	249	280
Steelmaking Coal	million tonnes	26.6	26.2	25.7	21.1	24.6	21.5	25.0

Source: Teck Annual Reports, 2021 & 2022

Exhibit 3: “Historic Development of Coal Prices (USD/T)”



Source: <https://tradingeconomics.com/commodity/coal>

Exhibit 4: “Historic Development of Zinc Prices (USD/T)”



Source: <https://tradingeconomics.com/commodity/zinc>

Exhibit 5: “Historic Development of Copper Prices (USD/Lbs)”



Source: <https://tradingeconomics.com/commodity/copper>

Exhibit 6: “Teck Financial Performance by Business Unit”

CAD\$ in millions	Revenue			Gross Profit (Loss)		
	2020	2021	2022	2020	2021	2022
Copper	2,419	3,452	3,381	859	1,741	1,399
Zinc	2,700	3,063	3,526	523	688	771
Steelmaking Coal	3,375	6,251	10,409	277	2,785	6,401
Energy	454	-	-	(326)	-	-
Total	8,948	12,766	17,316	1,333	5,214	8,571

Source: Teck Annual Report, 2022

Exhibit 7: “Teck Income Statement”

Income Statement (CAD\$ in millions)	2017	2018	2019	2020	2021	2022
Copper	2,400	2,714	2,469	2,419	3,452	3,381
Zinc	3,496	3,094	2,968	2,700	3,063	3,526
Steelmaking Coal	6,014	6,349	5,522	3,375	6,251	10,409
Energy	-	407	975	454	-	-
Revenue	11,910	12,564	11,934	8,948	12,766	17,316
Cost of sales	(7,343)	(7,943)	(8,594)	(7,615)	(7,552)	(8,745)
Gross profit	4,567	4,621	3,340	1,333	5,214	8,571
General and administration	(116)	(142)	(161)	(132)	(172)	(236)
Exploration	(58)	(69)	(67)	(45)	(65)	(90)
Research and innovation	(55)	(35)	(67)	(97)	(129)	(157)
Impairment reversal and (asset impairments)	163	(41)	(2,690)	(1,244)	215	-
Other operating income (expense)	(230)	450	(505)	(725)	(80)	(1,102)
Profit from operations	4,271	4,784	(150)	(910)	4,983	6,986
Finance income	17	33	48	10	5	53
Finance expense	(229)	(252)	(266)	(278)	(190)	(203)
Non-operating income (expense)	(151)	(52)	(97)	43	(107)	(275)
Share of profit (loss) of associates and joint ventures	6	(3)	(3)	(1)	(3)	4
Profit from continuing operations before taxes	3,914	4,510	(468)	(1,136)	4,688	6,565
Recovery of (Provision for) income taxes	(1,425)	(1,365)	(120)	192	(1,518)	(2,495)
Profit from continuing operations	2,489	3,145	(588)	(944)	3,170	4,070
Loss from discontinued operations	-	-	-	-	(255)	(772)
Profit (loss) for the year	2,489	3,145	(588)	(944)	2,915	3,298
Basic EPS	4.26	5.41	(1.08)	(1.62)	5.39	6.30
Diluted EPS	4.19	5.34	(1.08)	(1.62)	5.31	6.19
Weighted average shares and diluted shares outstanding (millions)	-	-	559.8	534.4	-	-
Weighted average shares outstanding (millions)	577.5	573.9	-	-	532.3	526.7
Weighted average diluted shares outstanding (millions)	586.4	582.1	-	-	540.3	535.9
Shares outstanding at EoY (millions)	573.3	570.7	547.3	531.1	534.2	513.7

Source: Teck Annual Reports

Exhibit 8: “Teck Balance Sheet”

Balance Sheet (CAD\$ in millions)	2017	2018	2019	2020	2021	2022
Current assets						
Cash and cash equivalents	952	1,734	1,026	450	1,427	1,883
Current income taxes receivable	48	78	95	14	6	92
Trade and settlement receivables	1,419	1,180	1,062	1,312	1,981	1,527
Inventories	1,669	2,065	1,981	1,872	2,390	2,685
Prepays and other current assets	310	260	331	352	299	540
Assets held for sale	350	-	-	-	-	1,566
Total current assets	4,748	5,317	4,495	4,000	6,103	8,293
Non-current assets						
Non-current assets held for sale					-	173
Financial and other assets	1,051	907	1,109	1,269	1,571	1,466
Investments in associates and joint ventures	943	1,071	1,079	1,067	1,060	1,139
Property, plant and equipment	29,045	31,050	31,355	33,578	37,382	40,095
Deferred income tax assets	154	160	211	271	161	75
Goodwill	1,087	1,121	1,101	1,093	1,091	1,118
Total non-current assets	32,280	34,309	34,855	37,278	41,265	44,066
Total Assets	37,028	39,626	39,350	41,278	47,368	52,359
Current liabilities						
Trade accounts payable and other liabilities	2,290	2,333	2,498	2,909	3,255	4,367
Current portion of debt	55	32	29	115	213	616
Current portion of lease liabilities	-	-	160	119	127	132
Current income taxes payable	268	151	89	102	165	104
Liabilities associated with assets held for sale	-	-	-	-	-	645
Total current liabilities	2,613	2,516	2,776	3,245	3,760	5,864
Non-current liabilities						
Debt	6,314	5,487	4,133	6,140	7,161	6,551
Lease liabilities		-	512	573	567	439
QB2 advances from SMM/SC		-	912	934	1,263	2,279
Deferred income tax liabilities	5,579	6,331	5,902	5,383	5,973	6,778
Retirement benefit liabilities	552	482	505	564	517	420
Provisions and other liabilities	1,977	1,792	2,536	3,731	4,354	3,517
Total non-current liabilities	14,422	14,092	14,500	17,325	19,835	19,984
Total liabilities	17,035	16,608	17,276	20,570	23,595	25,848
Equity						
Attributable to shareholders of the company	19,851	22,884	21,304	20,039	23,005	25,473
Attributable to non-controlling interests	142	134	770	669	768	1,038
Total equity	19,993	23,018	22,074	20,708	23,773	26,511
Total Liabilities + Equity	37,028	39,626	39,350	41,278	47,368	52,359

Source: Teck Annual Reports

Exhibit 9: “Teck Cash Flow Statement”

Cash Flow Statement (CAD\$ in millions)	2017	2018	2019	2020	2021	2022
Operating activities						
Profit for the year from continuing operations	2,489	3,145	(588)	(944)	3,170	4,070
Depreciation and amortization	1,492	1,483	1,619	1,510	1,487	1,674
Provision for income taxes	1,425	1,365	120	(192)	1,518	2,495
Asset impairment and (Impairment reversal)	(163)	41	2,690	1,244	(215)	-
Gain on sale of investments and assets	(51)	(892)	(17)	(75)	-	-
Foreign exchange gains	(5)	(16)	-	-	-	-
Loss on debt redemption, purchase or repurchase	216	26	224	11	-	58
Loss (Gain) on debt prepayment option	(51)	42	(105)	-	-	-
Net finance expense	212	219	218	268	185	150
Income taxes paid	(879)	(780)	(595)	(233)	(849)	(1,217)
Remeasurement of decommissioning and restoration provisions for closed operations	-	-	104	169	35	83
QB2 variable consideration to IMSA and ENAMI	-	-	-	-	141	188
Other	195	(166)	(26)	46	185	147
Net change in non-cash working capital items	169	(29)	(160)	(241)	(884)	(107)
Net cash provided by continuing operating activities	5,049	4,438	3,484	1,563	4,773	7,541
Net cash provided by (used in) discontinued operating activities	-	-	-	-	(35)	442
	5,049	4,438	3,484	1,563	4,738	7,983
Investing activities						
Expenditure on property, plant and equipment (CAPEX)	(1,621)	(1,906)	(2,788)	-3129	(3,966)	(4,423)
Capitalized production stripping costs	(678)	(707)	(680)	-499	(667)	(1,042)
Expenditures on investments and other assets	(309)	(284)	(178)	-190	(160)	(199)
Proceeds from investments and assets	126	1,292	80	146	54	113
Net cash used in continuing investing activities	(2,482)	(1,605)	(3,566)	(3,672)	(4,739)	(5,551)
Net cash used in discontinued investing activities	-	-	-	-	(80)	(129)
	(2,482)	(1,605)	(3,566)	(3,672)	(4,819)	(5,680)
Financing activities						
Proceeds from debt	-	-	-	2,426	1,639	569
Revolving credit facilities	-	-	-	363	(335)	-
Redemption, purchase or repayment of debt	(1,929)	(1,410)	(835)	(457)	(155)	(1,323)
Debt interest and finance charges paid	(495)	(407)	-	-	-	-
Repayment of lease liabilities	-	-	(150)	(163)	(130)	(138)
QB2 advances from SMM/SC	-	-	938	41	326	899
QB2 equity contributions by SMM/SC	-	-	797	-	-	-
QB2 partnering and financing transaction costs paid	-	-	(113)	(8)	-	-
Interest and finance charges paid	-	-	(386)	(355)	(380)	(459)
Issuance of Class B subordinate voting shares	26	54	10	1	50	234
Purchase and cancellation of Class B subordinate voting shares	(175)	(189)	(661)	(207)	-	(1,392)
Dividends paid	(344)	(172)	(111)	(106)	(106)	(532)
Contributions from non-controlling interests	-	-	-	-	113	307
Distributions to non-controlling interests	(56)	(40)	(26)	(7)	(57)	(78)
Other liabilities	-	-	-	-	120	(46)
Net cash provided by (used in) continuing financing activities	(2,973)	(2,164)	(537)	1,528	1,085	(1,959)
Net cash used in discontinued financing activities	-	-	-	-	(29)	(31)
	(2,973)	(2,164)	(537)	1,528	1,056	(1,990)
Increase (Decrease) in cash and cash equivalents	(406)	669	(619)	(581)	975	313
Effect of exchange rate changes on cash and cash equivalents	(49)	113	(89)	5	2	178
Cash balance related to assets held for sale	-	-	-	-	-	(35)
Cash and cash equivalents at beginning of year	1,407	952	1,734	1,026	450	1,427
Cash and cash equivalents at end of year	952	1,734	1,026	450	1,427	1,883

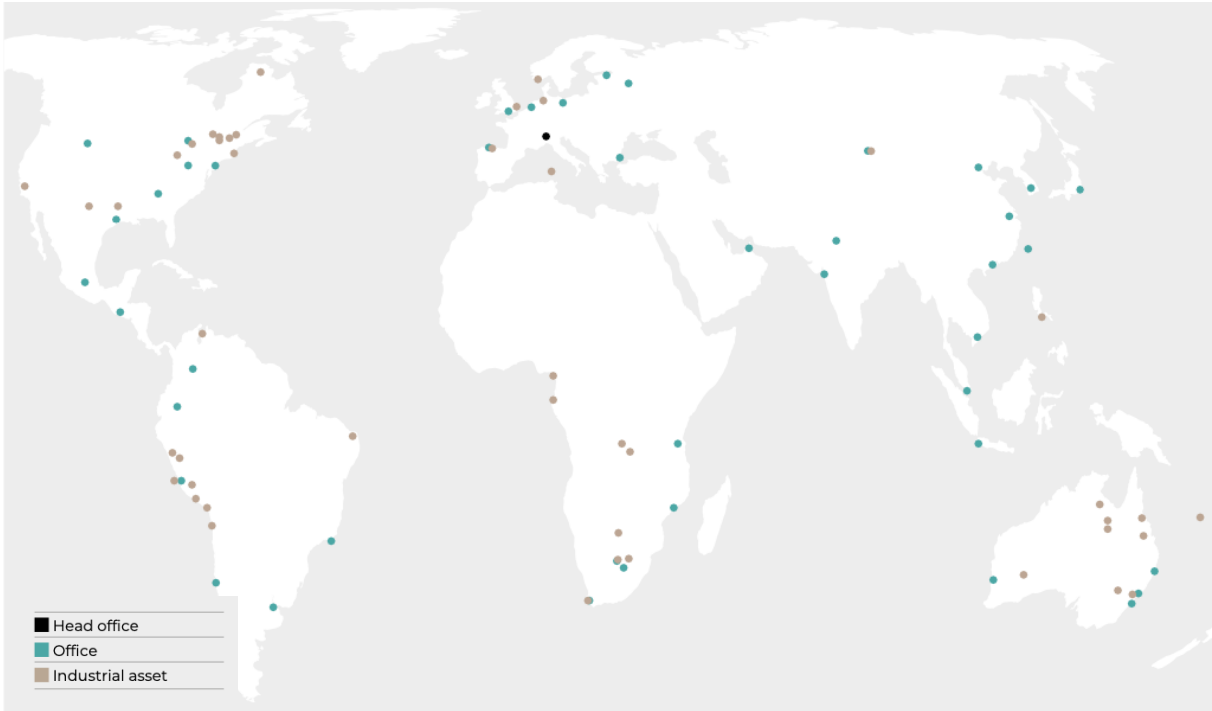
Source: Teck Annual Reports

Exhibit 10: “Teck Class B Stock Price Development”



Source: Barron's

Exhibit 11: “Glencore’s Operations Worldwide”



Source: Glencore Annual Report, 2022

Exhibit 12: “Glencore’s Production Record”

Principal Products		2017	2018	2019	2020	2021	2022
Copper	thousand tonnes	1,310	1,454	1,371	1,258	1,196	1,058
Cobalt	thousand tonnes	27.4	42.2	46.3	27.4	31.3	43.8
Zinc	thousand tonnes	1,090	1,068	1,078	1,170	1,118	939
Coal	million tonnes	120.6	129.4	139.5	106.2	103.3	110.0
Oil	mboe	5,053	4,626	5,518	3,944	5,274	6,131

Source: Glencore Annual Reports

Exhibit 13: “Glencore Income Statement”

Income Statement (US\$ in millions)	2017	2018	2019	2020	2021	2022
Revenue	205,476	219,754	215,111	142,338	203,751	255,984
Cost of goods sold	(197,695)	(210,698)	(210,434)	(138,640)	(191,370)	(228,723)
Gross profit	7,781	9,056	4,677	3,698	12,381	27,261
Selling and administrative expenses	(1,310)	(1,381)	(1,391)	(1,681)	(2,115)	(2,430)
Share of income from associates and joint ventures	1,158	1,043	114	444	2,618	2,300
Gain (loss) on acquisitions and disposals of non-current assets	1,309	(139)	(43)	(36)	(607)	1,287
Other income	34	0	372	438	186	365
Other expense	-	(764)	(545)	(611)	(2,133)	(1,276)
Impairments of non-current assets	(479)	(1,452)	(2,322)	(5,715)	(1,905)	(3,285)
(Impairments) or Reversal of impairments of financial assets	(149)	(191)	(86)	(232)	67	(52)
Dividend income	28	21	49	32	23	45
Interest income	168	228	227	120	208	435
Interest expense	(1,619)	(1,742)	(1,940)	(1,573)	(1,348)	(1,771)
Income before income taxes	6,921	4,679	(888)	(5,116)	7,375	22,879
Income tax (expense or) credit	(1,759)	(2,063)	(618)	1,170	(3,026)	(6,368)
Income for the year	5,162	2,616	(1,506)	(3,946)	4,349	16,511
Basic EPS	0.41	0.24	(0.03)	(0.14)	0.38	1.33
Diluted EPS	0.40	0.24	(0.03)	(0.14)	0.37	1.32
Weighted average number of shares for the purposes of <u>basic</u> earnings per share (millions)	14,256	14,152	13,684	13,217	13,204	13,042
Weighted average number of shares for the purposes of <u>diluted</u> earnings per share (millions)	14,423	14,254	13,684	13,217	13,337	13,141

Source: Glencore Annual Reports

Exhibit 14: “Glencore Balance Sheet”

Balance Sheet (US\$ in millions)	2017	2018	2019	2020	2021	2022
Current assets						
Inventories	24,084	20,564	19,936	22,852	28,434	33,460
Accounts receivable	20,359	17,666	16,671	15,154	19,493	24,565
Other financial assets	2,311	3,230	1,953	1,998	4,636	6,109
Income tax receivable	-	121	350	444	364	401
Prepaid expenses	416	389	315	220	287	325
Cash and cash equivalents	2,124	2,046	1,899	1,498	3,241	1,923
Total current assets	49,294	44,016	41,124	42,166	56,455	66,783
Non-current assets						
Property, plant and equipment	57,046	56,770	55,357	47,110	43,159	39,564
Intangible assets	6,787	6,971	7,006	6,467	6,235	6,160
Investments in associates and joint ventures	13,998	13,909	12,984	12,400	12,294	11,878
Other investments	2,958	2,067	2,387	1,733	1,620	456
Advances and loans	2,976	2,555	2,427	3,042	3,527	2,654
Other financial assets	-	303	453	1,106	458	206
Inventories	369	353	575	678	662	605
Deferred tax assets	1,733	1,728	1,477	2,252	1,779	1,837
Total non-current assets	85,867	84,656	82,666	74,788	69,734	63,360
Assets held for sale	432	-	286	1,046	1,321	2,440
Total Assets	135,593	128,672	124,076	118,000	127,510	132,583
Current liabilities						
Borrowings	9,402	8,570	7,976	8,252	7,830	9,926
Accounts payable	28,826	26,484	26,193	24,038	29,313	29,726
Deferred income	410	412	558	1,070	1,573	1,060
Provisions	477	554	489	693	2,093	1,425
Other financial liabilities	4,522	2,152	2,872	4,276	6,077	4,882
Income tax payable	618	1,109	764	927	1,785	4,660
Total current liabilities	44,255	39,281	38,852	39,256	48,671	51,679
Non-current liabilities						
Borrowings	24,532	26,424	29,067	29,227	26,811	18,851
Deferred income	2,561	2,301	2,670	2,590	2,088	1,547
Deferred tax liabilities	7,024	6,839	6,094	4,721	4,469	3,651
Other financial liabilities	513	1,620	1,229	688	710	2,055
Provisions including post-retirement benefits	7,094	6,824	6,772	6,931	7,056	7,840
Total non-current liabilities	41,724	44,008	45,832	44,157	41,134	33,944
Liabilities held for sale	159	-	156	185	788	1,741
Total Liabilities	86,138	83,289	84,840	83,598	90,593	87,364
Equity						
Share capital	146	146	146	146	146	141
Reserves and retained earnings	49,609	45,592	40,128	37,491	39,785	49,269
Non-controlling interests	(300)	(355)	(1,038)	(3,235)	(3,014)	(4,191)
Total equity	49,455	45,383	39,236	34,402	36,917	45,219
Total Liabilities + Equity	135,593	128,672	124,076	118,000	127,510	132,583

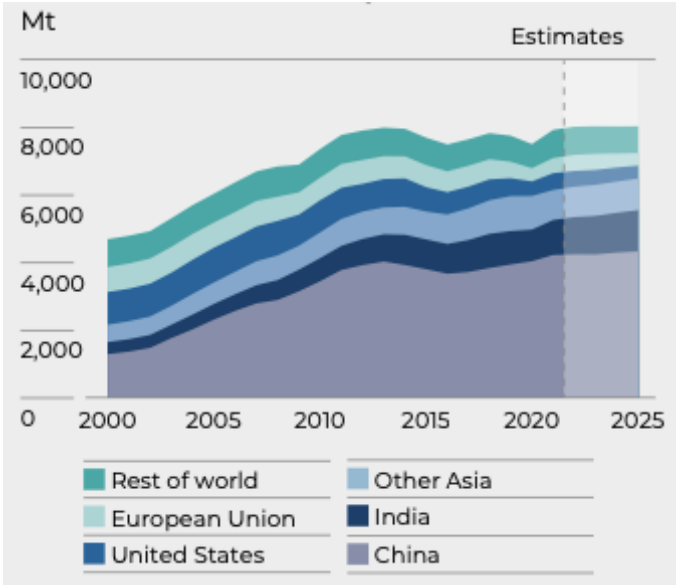
Source: Glencore Annual Reports

Exhibit 15: “Glencore Cash Flow Statement”

Cash Flow Statement (US\$ in millions)	2017	2018	2019	2020	2021	2022
Operating activities						
Income before income taxes	6,921	4,679	(888)	(5,116)	7,375	22,879
Adjustments for:						
Depreciation and amortisation	5,398	6,325	7,160	6,671	6,335	6,987
Share of income from associates and joint ventures	(1,158)	(1,043)	(114)	(444)	(2,618)	(2,300)
Streaming revenue and other non-current provisions	(187)	(647)	(296)	(205)	(280)	65
Loss/(gain) on disposals and investments	(1,321)	139	43	36	607	(1,287)
Unrealised mark-to-market movements on other investments	(290)	(139)	(47)	(59)	(64)	106
Impairments	628	1,643	2,408	5,947	1,838	3,337
Other non-cash items – net	424	739	367	285	2,392	1,792
Interest expense – net	1,451	1,514	1,713	1,453	1,140	1,336
Cash generated by operating activities before working capital changes	11,866	13,210	10,346	8,568	16,725	32,915
Working capital changes						
Decrease/(increase) in accounts receivable	(1,165)	2,734	1,211	(385)	(5,888)	(4,942)
Decrease/(increase) in inventories	(5,614)	3,539	678	(3,189)	(5,660)	(5,035)
(Decrease)/increase in accounts payable	1,814	(4,948)	199	(436)	6,423	(3,292)
Total working capital changes	(4,965)	1,325	2,088	(4,010)	(5,125)	(13,229)
Income taxes paid	(921)	(1,740)	(2,301)	(820)	(1,837)	(4,881)
Interest received	106	183	200	100	100	234
Interest paid	(1,269)	(1,419)	(1,604)	(1,174)	(1,003)	(1,340)
Net cash generated by operating activities	4,817	11,559	8,729	2,664	8,860	13,659
Investing activities						
Increase in long-term advances and loans	-	-	-	-	-	(200)
Net cash received (used) in acquisition of subsidiaries	(674)	(2,922)	(123)	-	-	321
Net cash (used in)/received from disposal of subsidiaries	706	88	5	(222)	252	455
Exchangeable loan provided for a conditional acquisition of an oil refinery/downstream businesses	-	(1,044)	-	-	-	-
Purchase of investments	(378)	(19)	(125)	(122)	(86)	(476)
Proceeds from sale of investments	36	16	119	135	194	604
Purchase of property, plant and equipment	(3,586)	(4,687)	(4,712)	(3,569)	(3,618)	(4,177)
Proceeds from sale of property, plant and equipment	282	136	178	52	342	63
Dividends received from associates and joint ventures	1,081	1,139	942	1,015	2,375	1,691
Net cash used by investing activities	(2,533)	(7,293)	(3,716)	(2,711)	(541)	(1,719)
Financing activities						
Proceeds from issuance of capital market notes	2,026	185	3,866	3,362	4,877	-
Proceeds from issuance of non-dilutive convertible bonds	-	576	-	-	-	-
Purchase of call options on non-dilutive convertible bonds	-	(95)	-	-	-	-
Repayment of capital market notes	(4,539)	(3,650)	(3,167)	(4,017)	(2,807)	(2,850)
Repurchase of capital market notes	-	-	-	(72)	(125)	(103)
Proceeds (Repayment) from revolving credit facility	501	4,624	(29)	(870)	(2,244)	(2,563)
Proceeds from other non-current borrowings	19	15	291	392	231	430
Repayment of other non-current borrowings	-	-	(325)	(44)	(493)	(73)
Repayment of lease liabilities	(105)	(72)	(358)	(560)	(634)	(577)
Margin (calls)/receipts in respect of financing related hedging activities	1,255	(507)	529	1,040	(970)	(1,824)
(Repayment of)/proceeds from U.S. commercial papers	1,180	(634)	(682)	217	675	(1,407)
Proceeds from/(repayment of) current borrowings	(1,266)	439	79	415	(2,016)	3,306
Proceeds received on acquisition of non-controlling interests in subsidiaries	-	-	-	-	55	-
Payments on acquisition of non-controlling interests in subsidiaries	(561)	(58)	(24)	(56)	(45)	-
Return of capital/distributions to non-controlling interests	(194)	(343)	(305)	(127)	(163)	(442)
Purchase of own shares	-	(2,005)	(2,318)	-	(746)	(2,503)
Disposal of own shares	17	27	6	-	-	238
Distributions paid to equity holders of the Parent	(998)	(2,836)	(2,710)	-	(2,115)	(4,832)
Net cash used by financing activities	(2,665)	(4,334)	(5,147)	(320)	(6,520)	(13,200)
Increase (Decrease) in cash and cash equivalents	(381)	(68)	(134)	(367)	1,799	(1,260)
Effect of foreign exchange rate changes	21	(33)	(11)	(36)	11	(50)
Cash and cash equivalents, beginning of year	2,507	2,147	2,046	1,901	1,498	3,308
Cash and cash equivalents, end of year	2,147	2,046	1,901	1,498	3,308	1,998
Cash and cash equivalents attributable to assets held for sale	23	-	2	-	67	75
Cash and cash equivalents reported in the statement of financial position	2,124	2,046	1,899	1,498	3,241	1,923

Source: Glencore Annual Reports

Exhibit 16: “Global Coal Production Development and Forecast”



Source: International Energy Agency

Exhibit 17: “Historic Global Copper Production”

Year	Mine* Production	Refined* Production	Refined* Usage
2010	15,987	18,981	19,136
2011	15,960	19,601	19,709
2012	16,678	20,194	20,479
2013	18,173	21,058	21,408
2014	18,420	22,490	22,906
2015	19,152	22,838	23,046
2016	20,396	23,356	23,481
2017	20,065	23,553	23,686
2018	20,601	24,105	24,466
2019	20,672	24,162	24,316
2020	20,746	24,656	24,948
2021	21,262	24,936	25,211
2022	21,922	25,306	25,830

*in Thousand Metric Tonnes Copper

Source: The World Copper Factbook 2024

Exhibit 18: “Historic Zinc Production Worldwide”

Year	Mine* Production
2010	12,347
2011	12,585
2012	12,892
2013	13,039
2014	13,418
2015	13,622
2016	12,668
2017	12,683
2018	12,723
2019	12,799
2020	12,224
2021	12,757
2022	12,427

*in Thousand Metric Tonnes Zinc

Source: Statista

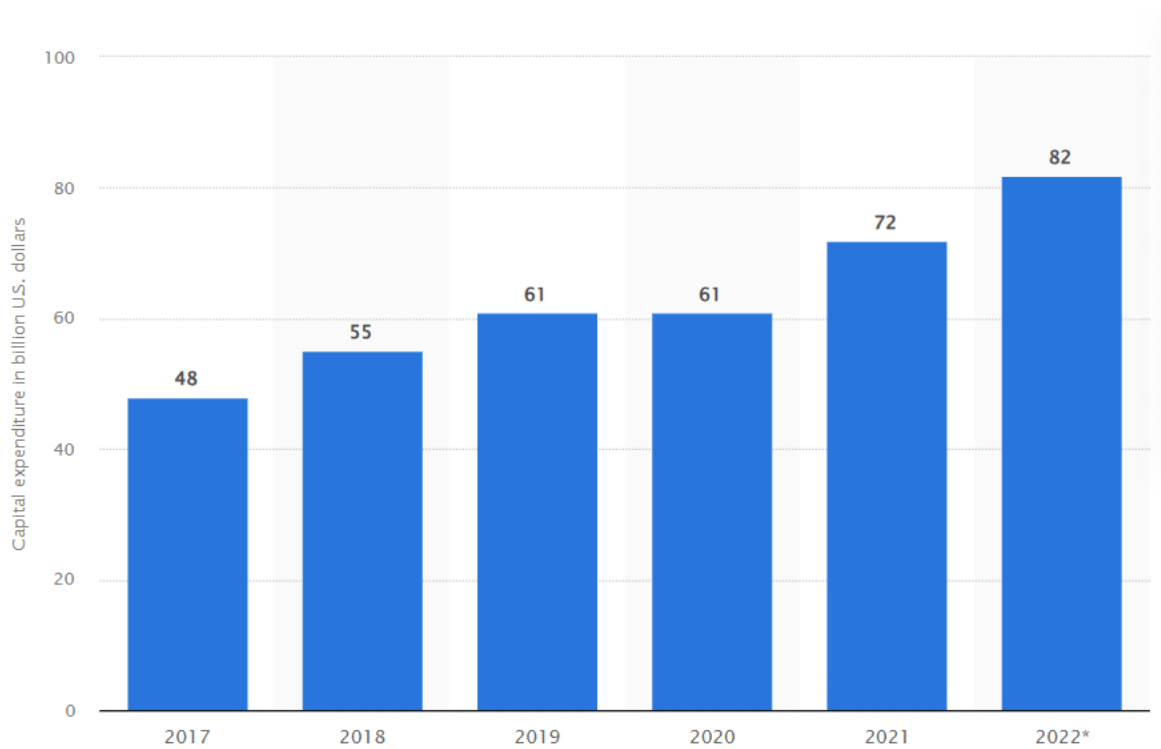
Exhibit 19: “Competitor Benchmarking”

Company - in millions (2022)	Glencore	Rio Tinto	BHP Group	China Shenhua Energy	Vale
(currency)	(USD)	(USD)	(USD)	(CNY)	(BRL)
Revenue	255,984	55,554	65,098	344,533	226,508
Gross Profit	27,261	30,262	43,765	199,256	102,313
Operating Income	22,879	19,731	34,106	98,264	90,326
Net Income	17,320	12,420	21,300	69,626	86,106
Gross Margin	10.65%	54.47%	67.23%	57.83%	45.17%
Operating Margin	8.94%	35.52%	52.39%	28.52%	39.88%
Net Profit Margin	6.77%	22.36%	32.72%	20.21%	38.01%
Basic EPS	1.43	7.59	3.92	3.60	19.15
Diluted EPS	1.42	7.54	3.91	3.60	19.13

Source: Refinitiv

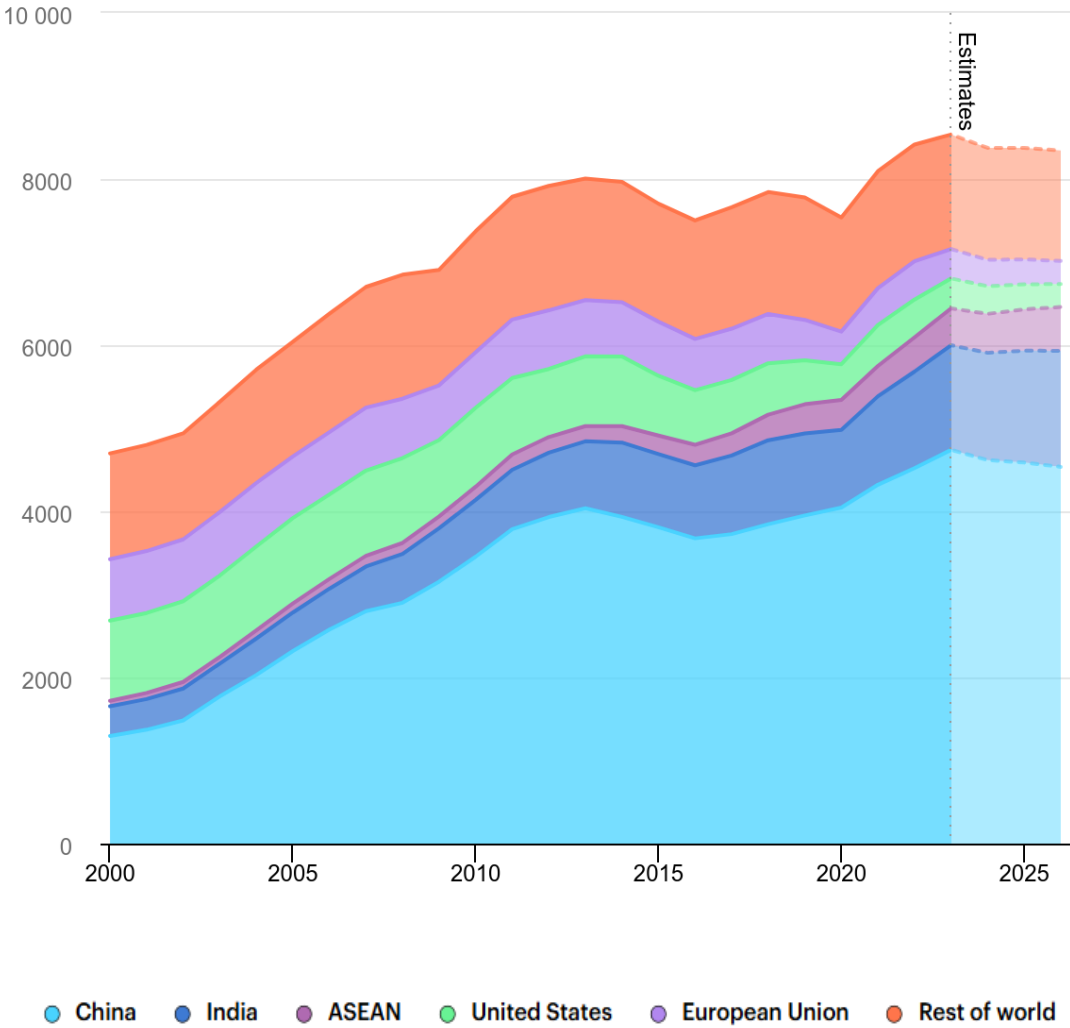
Appendix - Strategic & Organizational Fit

Exhibit 20: “CAPEX of the leading mining companies worldwide from 2017 to 2021, with a forecast for 2022”



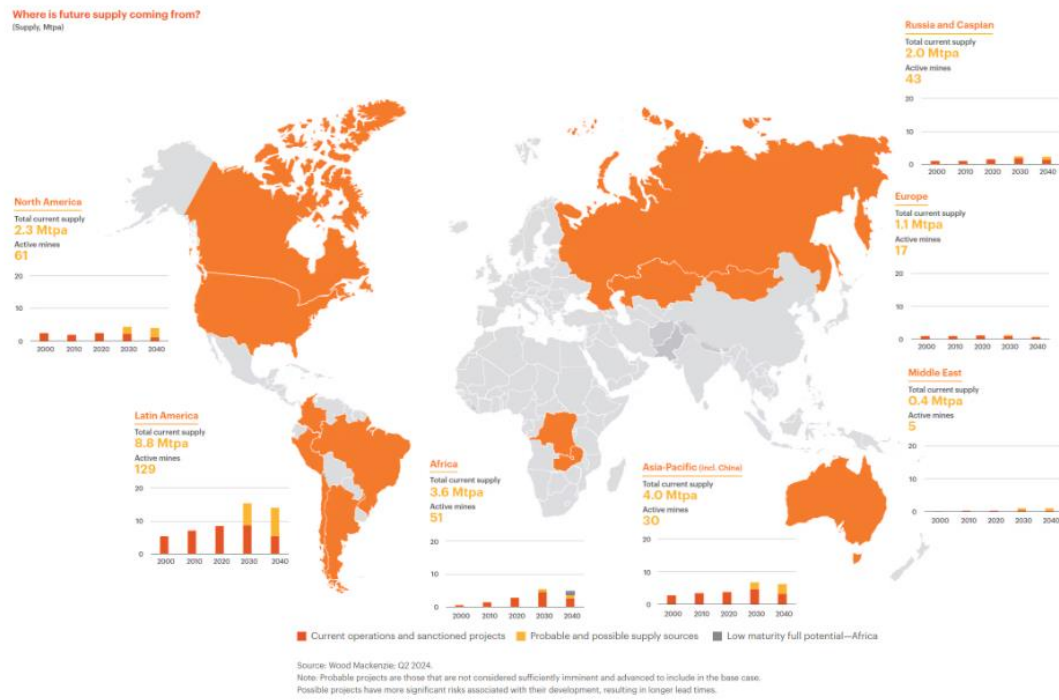
Source: Statista 2022

Exhibit 21: “Global Coal Consumption, 2000-2026”



Source: IEA 2023

Exhibit 22: “Global Copper Concentration”



Source: BHP 2024

Literature References – Case Study

BBC, *Australia challenges China in mining for essential elements*. 2022, published on October 18, 2022. Retrieved from: <https://www.bbc.com/news/business-62760354>

BHP Group, *Annual Report 2022*. Retrieved from: <https://www.bhp.com/investors/annual-reporting/annual-report-2022>

Britannica, *Lignite*. 2024, accessed on October 10th, 2024. Retrieved from: <https://www.britannica.com/science/fossil-fuel>

Business in Vancouver (BIV), *'We like Teck as a Canadian company,' industry minister says as fate remains unclear*. 2023, published on April 28, 2023. Retrieved from: <https://www.biv.com/news/resources-agriculture/future-teck-remains-unclear-after-tumultuous-week-8271442>

Companies Market Cap, *China Shenhua Energy*. 2024, accessed on October 4th, 2024. Retrieved from: <https://companiesmarketcap.com/china-shenhua-energy/earnings/>

CSEC, *New Energy*. 2021, accessed on October 4th, 2024. Retrieved from: <http://www.csec.com/zgshwwEn/NewEnergy/ywtXListContent.shtml>

Deloitte, *Tracking the trends 2023: The indispensable role of mining and metals*. 2023, Retrieved from: <https://www.deloitte.com/na/en/Industries/mining-metals/about/tracking-the-trends.html>

Fitch Ratings, *Global Mining M&A to Continue on Consolidation and Energy Transition*. 2023, published on September 15, 2023. Retrieved from: <https://www.fitchratings.com/research/corporate-finance/global-mining-m-a-to-continue-on-consolidation-energy-transition-15-09-2023>

Geoscience Australia, *Coal*. 2024, accessed on October 10th, 2024, Retrieved from: <https://www.ga.gov.au/digital-publication/aecr2021/coal#:~:text=There%20are%20two%20main%20types,is%20used%20for%20electricity%20production>

Glencore, *Glencore submits reply to Teck and proposes modifications to offer cash in respect of value of coal business. 2023a*, published on April 11, 2023, Retrieved from: <https://www.glencore.com/media-and-insights/news/glencore-submits-reply-to-teck-and-proposes-modifications-to-offer-cash-in-respect-of-value-of-coal-business>

Glencore, *Glencore's proposed Teck merger and coal demerger, "The superior proposal for all stakeholders"*. 2023b, published on April 19, 2023, Retrieved from: <https://www.glencore.com/.rest/api/v1/documents/35781d04d3a36e74ddcdeb1dd65a9d27/GL+--+Teck+Proposal+Update+presentation.pdf>

Glencore, *Proposal for a merger between Glencore and Teck and simultaneous demerger of combined coal business. 2023c*, published on April 3, 2023, Retrieved from: <https://www.glencore.com/media-and-insights/news/Proposal-for-a-merger-between-Glencore-and-Teck-and-simultaneous-demerger-of-combined-coal-business>

Glencore, *Glencore submits reply to Teck and proposes modifications to offer cash in respect of value of coal business. 2023d*, published on April 11, 2023, Retrieved from: <https://www.glencore.com/media-and-insights/news/glencore-submits-reply-to-teck-and-proposes-modifications-to-offer-cash-in-respect-of-value-of-coal-business>

Glencore, *Acquisition of a 77% interest in Teck's steelmaking coal business for US\$6.93 bn. 2023e*, published on November 14, 2023, Retrieved from: <https://www.glencore.com/media-and-insights/news/acquisition-of-a-77-percent-interest-in-tecks-steelmaking-coal-business-for-USd6-93-bn>

Glencore, *Glencore Sustainability Report 2022*. Retrieved from: https://www.glencore.com/.rest/api/v1/documents/static/63d21a4e-30f6-40ca-b0f6-00ec64a718cf/GLEN_2022_sustainability_report.pdf

Glencore, *Our History. 2024a*. Retrieved from: <https://www.glencore.com/who-we-are/our-history>

Glencore, *What we do, Marketing. 2024b*, accessed on October 2nd, 2024, Retrieved from: <https://www.glencore.com/what-we-do/marketing#:~:text=We%20market%20to%20a%20broad,fabricators%2C%20power%20generation%20and%20oil>

Glencore, *Glencore completes acquisition of Caracal*. 2014, published on July 8, 2014, Retrieved from: <https://www.glencore.com/dam/jcr:9d3b7a73-8f84-4e4d-9b6d-21a1e90b84d9/201407081600-announcing-completion-of-acquisition.pdf>

Glencore, *Glencore Annual Report 2022*. Retrieved from: <https://www.glencore.com/.rest/api/v1/documents/ded10fa92974aa388a43aa9f86f483e9/GLEN-2022-Annual-Report.pdf>

Glencore, *Glencore Annual Report 2021*. Retrieved from: <https://www.glencore.com/.rest/api/v1/documents/ce4fec31fc81d6049d076b15db35d45d/GLEN-2021-annual-report-.pdf>

Glencore, *Glencore Annual Report 2020*. Retrieved from: https://www.annualreports.com/HostedData/AnnualReportArchive/g/LSE_GLEN_2020.pdf

Glencore, *Glencore Annual Report 2018*. Retrieved from: <https://www.glencore.com/dam/jcr:f4835816-c37b-45d6-ab75-18e9bff2c65c/glen-2018-annual-report-corporate-governance-report.pdf>

Glencore, *Glencore Annual Report 2016*. Retrieved from: https://www.annualreports.com/HostedData/AnnualReportArchive/g/LSE_GLEN_2016.pdf

GlencoreXstrata, *GlencoreXstrata Annual Report 2013*. Retrieved from: https://www.annualreports.com/HostedData/AnnualReportArchive/G/LSE_GLEN_2013.pdf

Greater Vancouver Board of Trade (GVBOT), *Re: Glencore's Proposed Takeover Bid of Teck Resources*. 2023, published on April 20, 2023. Retrieved from: <https://www.teck.com/media/GVBOT-Letter-Teck.pdf>

International Energy Agency (IEA), 2022. *Global coal production, 2000-2025*, published on 16th of December 2024, Retrieved from: <https://www.iea.org/data-and-statistics/charts/global-coal-production-2000-2025>

International Zinc Association, 2024. *ZINC essential for modern life*, accessed on October 12th, 2024, Retrieved from: <https://www.zinc.org>

MEI Online, 2024. *Non-Metallic Ores*, accessed on October 13th, 2024, Retrieved from: <https://www.min-eng.com/commodities/nonmetallic/index.html>

MET Group, 2022. *Composition of Natural Gas: Understanding its Key Elements*, accessed on October 13th, 2024, Retrieved from: <https://group.met.com/en/media/energy-insight/composition-of-natural-gas>

Mining Association of Canada, 2023. *The Canadian Mining Story: Economic Impacts and Drivers for the Global Energy Transition*. Retrieved from: <https://mining.ca/flippingbooks/mac-report-2023/>

Natural Resources Canada, 2023. *10 Key Facts on Canada's Minerals Sector*. Retrieved from: https://natural-resources.canada.ca/sites/nrcan/files/emmc/pdf/2019/10_key_facts_mineral_sector_august_2023_e_access.pdf

PwC, *Mine 2022 A critical Transition*. 2022, Retrieved from: <https://www.pwc.com.au/mining/global-mine.html>

PwC, 2023. *Mine 2023: The era of reinvention*. Retrieved from: <https://www.pwc.com/id/en/pwc-publications/industries-publications/energy--utilities---mining-publications/mine-2023.html>

Reuters, *Canada's Teck eyes spinoff or divestment of Fort Hills oil sands stake*. 2022, published on September 29, 2022. Retrieved from: <https://www.reuters.com/markets/deals/canadas-teck-eyes-spinoff-or-divestment-fort-hills-oil-sands-stake-2022-09-29/>

Reuters, *Copper miner Teck Resources rejects Glencore's \$22.5 bln offer*. 2023, published on April 3, 2023. Retrieved from: <https://www.reuters.com/markets/deals/teck-resources-rejects-unsolicited-acquisition-proposal-glencore-2023-04-03/>

Reuters, *Canada approves Glencore takeover of Teck coal unit, with conditions*. 2024, published on July 5, 2024. Retrieved from: <https://www.reuters.com/markets/deals/canada-set-approve-glencore-takeover-teck-coal-business-globe-mail-reports-2024-07-04/>

Rio Tinto, 2022. *Annual Report 2022*, Retrieved from: <https://www.riotinto.com/en/invest/reports>

Rio Tinto, 2022, *Rio Tinto completes acquisition of Turquoise Hill, published on 16th of December 2022*, Retrieved from: <https://www.riotinto.com/en/news/releases/2022/rio-tinto-completes-acquisition-of-turquoise-hill>

ScienceDirect, 2024. *Subbituminous Coal, accessed on October 10th, 2024*, Retrieved from: <https://www.sciencedirect.com/topics/engineering/subbituminous-coal>

Statista, 2024a. *Market Insights: Mining Worldwide, Production, accessed on October 10th, 2024*, Retrieved from: <https://www-statista-com.eu1.proxy.openathens.net/outlook/io/mining/worldwide?currency=usd#production>

Statista, 2024b. *Crude Petroleum – Worldwide, accessed on October 12th, 2024*, Retrieved from: <https://www.statista.com/outlook/io/mining/crude-petroleum/worldwide>

Statista, 2024c. *Mine production of zinc worldwide from 2005 to 2023, accessed on October 12th, 2024*, Retrieved from: <https://www-statista-com.eu1.proxy.openathens.net/statistics/264882/world-mine-production-of-zinc/>

Statista, 2024d. *Mine production of cobalt worldwide from 2010 to 2023, accessed on October 13th, 2024*, Retrieved from: <https://www.statista.com/statistics/339759/global-cobalt-mine-production/>

Statista, 2024e. *Leading mining companies worldwide in 2024, based on revenue, published on May 21st, 2024*, Retrieved from: <https://www-statista-com.eu1.proxy.openathens.net/statistics/272707/ranking-of-top-10-mining-companies-based-on-revenue/>

S&P Global, 2022. *Metals and Mining Outlook, published on December 27, 2022*. Retrieved from: <https://www.spglobal.com/market-intelligence/en/news-insights/research/infographic-2023-metals-and-mining-outlook>

Teck Resources Limited, *Investor Resources*. 2024a, accessed on October 23rd, 2024. Retrieved from: <https://www.teck.com/investors/investor-resources/#:~:text=Teck%20is%20authorized%20to%20issue,Exchange%20under%20the%20symbol%20TECK>

Teck Resources Limited, *About*. 2024b, accessed on October 25th, 2024. Retrieved from: <https://www.teck.com/about/>

Teck Resources Limited, *Teck Annual Report 2011*, Retrieved from: https://www.teck.com/media/Investors-Teck_2011_Annual_Report_T5.1.2.pdf

Teck Resources Limited, *Teck Annual Report 2012*, Retrieved from: https://www.teck.com/media/Investors-Teck_2012_Annual_Report_T5.1.1.pdf

Teck Resources Limited, *Teck Annual Report 2015*, Retrieved from: <https://www.teck.com/media/2015-Teck-Annual-Report.pdf>

Teck Resources Limited, *Teck Annual Report 2018*, Retrieved from: <https://www.teck.com/media/2018-Teck-Annual-Report.pdf>

Teck Resources Limited, *Teck Annual Report 2021*, Retrieved from: <https://www.teck.com/media/2021-Annual-Report.pdf>

Teck Resources Limited, *Teck Annual Report 2022*, Retrieved from: <https://www.teck.com/media/2022-Annual-Report.pdf>

Teck Resources Limited, *Sustainability Report 2022*, Retrieved from: <https://www.teck.com/media/2022-Sustainability-Report.pdf>

Teck Resources Limited, *Teck To Spin Off Steelmaking Coal Business To Shareholder. 2023a*, published on February 21, 2023. Retrieved from: <https://www.teck.com/news/news-releases/2023/teck-to-spin-off-steelmaking-coal-business-to-shareholders>

Teck Resources Limited, *Teck Responds to Market Rumours. 2023b*, published on February 16, 2023. Retrieved from: <https://www.teck.com/news/news-releases/2023/teck-responds-to-market-rumours>

Teck Resources Limited, *Teck to Spin Off Steelmaking Coal Business to Shareholders. 2023c*, published on February 21, 2023. Retrieved from: <https://www.teck.com/news/news-releases/2023/teck-to-spin-off-steelmaking-coal-business-to-shareholders>

Teck Resources Limited, *Teck Introduces Sunset for Dual Class Share Structure. 2023d*, published on February 21, 2023. Retrieved from: <https://www.teck.com/news/news-releases/2023/teck-introduces-sunset-for-dual-class-share-structure>

Teck Resources Limited, *Teck Board of Directors Rejects Unsolicited Acquisition Proposal. 2023e*, published on April 3, 2023, Retrieved from: <https://www.teck.com/news/news-releases/2023/teck-board-of-directors-rejects-unsolicited-acquisition-proposal>

Teck Resources Limited, *Dr. Norman Keevil's Statement In Response To Teck's Rejection Of Unsolicited Proposal. 2023f*, published on April 3, 2023, Retrieved from: <https://www.teck.com/news/news-releases/2023/dr.-norman-keevil's-statement-in-response-to-teck's-rejection-of-unsolicited-proposal>

Teck Resources Limited, *Teck Reaffirms Benefits Of Pending Separation. 2023g*, published on April 10, 2023, Retrieved from: <https://www.teck.com/news/news-releases/2023/teck-reaffirms-benefits-of-pending-separation>

The World Copper Factbook, 2024, Retrieved from: <https://icsg.org/copper-factbook/>

United Nations, *The Paris Agreement. 2024*, accessed on October 28th 2024, Retrieved from: <https://unfccc.int/process-and-meetings/the-paris-agreement>

University of Queensland, 2021. *BHP's offloading of oil and gas assets shows market has turned on fossil fuels*, published on August 18th, 2021, Retrieved from: <https://economics.uq.edu.au/article/2021/08/bhp-offloading-oil-and-gas-assets#:~:text=The%20announcement%20by%20BHP%2C%20the,been%20offloading%20thermal%20coal%20assets>

US Department of Justice, Office of Public Affairs, *Glencore Entered Guilty Pleas to Foreign Bribery and Market Manipulation Schemes. 2022*, published on May 24, 2022, Retrieved from: <https://www.justice.gov/opa/pr/glencore-entered-guilty-pleas-foreign-bribery-and-market-manipulation-schemes>

US Department of State, *Minerals Security Partnership. 2022*, accessed on October 28th 2024, Retrieved from: <https://www.state.gov/minerals-security-partnership/>

US Energy Information Administration (EIA), 2024. *Coal explained*, accessed on October 10th, 2024, Retrieved from: <https://www.eia.gov/energyexplained/coal/#:~:text=Coal%20is%20classified%20into%20four,energy%20the%20coal%20can%20produce>

Vale, 2023. *Financial Results 4Q22 and 2022*, accessed on October 4th, 2024, Retrieved from: <https://vale.com/w/financial-results-4q22-and-2022>

World History Encyclopedia, *Coal mining in the British Industrial Revolution*. 2023. Retrieved from: <https://www.worldhistory.org/article/2201/coal-mining-in-the-british-industrial-revolution/>

Yahoo Finance, 2024a. *Glencore plc (GLEN.L)*, accessed on October 2nd, 2024, Retrieved from: <https://finance.yahoo.com/quote/GLEN.L/profile/>

Yahoo Finance, 2024b. *Rio Tinto Group (RIO)*, accessed on October 2nd, 2024, Retrieved from: <https://finance.yahoo.com/quote/RIO/profile/>

Yahoo Finance, 2024c. *BHP Group Limited (BHP)*, accessed on October 2nd, 2024, Retrieved from: <https://finance.yahoo.com/quote/BHP/profile/>

Yahoo Finance, 2024d. *China Shenhua Energy Company Limited (601088.SS)*, accessed on October 4th, 2024, Retrieved from: <https://finance.yahoo.com/quote/601088.SS/profile/>

Yahoo Finance, 2024e. *Vale S.A. (VALE)*, accessed on October 4th, 2024, Retrieved from: <https://finance.yahoo.com/quote/VALE/profile/>

Literature References – Strategic & Organizational Fit

BBC, *Metal-mining pollution impacts 23 million people worldwide*. 2023, published on September 22, 2023, Available at: <https://www.bbc.com/news/science-environment-66880697>

BHP, *BHP Insights: how copper will shape our future*. 2024, published on September 30, 2024, Available at: <https://www.bhp.com/news/bhp-insights/2024/09/how-copper-will-shape-our-future>

Britannica, *Lignin*. (n.d.). Retrieved December 01, 2024, from: <https://www.britannica.com/science/lignin>

CNN, *The world faces a shortage of minerals needed for the energy transition*. 2024, published on May 17, 2024, Available at: <https://edition.cnn.com/2024/05/17/business/critical-minerals-shortage-clean-energy/index.html>

Deloitte, *Zero in on... Scope 1, 2 and 3 emissions*. 2021, published on May 12, 2021, Available at: <https://www.deloitte.com/uk/en/issues/climate/zero-in-on-scope-1-2-and-3-emissions.html>

Deloitte, *Have your say in the future of mining*. 2023, published on March 16, 2023, Available at: <https://www.deloitte.com/au/en/Industries/mining-metals/perspectives/future-of-mining-competition.html>

DW, *Reuse and substitutes of critical resources*. 2021, published on April 13, 2021, Available at: <https://www.dw.com/en/rare-rocks-reuse-and-substitutes-of-critical-resources/a-57148472>

Empire Cat, *Common Types Of Mining Equipment*. (n.d.). Retrieved on December 05, 2024, from: <https://www.empire-cat.com/company/news/common-types-of-mining-equipment>

European Commission, *Critical raw materials*. (n.d.) Retrieved on November 24, 2024, from: https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en

European Commission, *Substitution of critical raw materials in low-carbon technologies: lighting, wind turbines and electric vehicles*. 2016, Retrieved on November 24, 2024, from: https://setis.ec.europa.eu/system/files/2021-02/crm_substitution_online_report.pdf

Forbes, *We Could Be Making Steel From Green Hydrogen, Using Less Coal*. 2021, published on January 25, 2021, Available at: <https://www.forbes.com/sites/kensilverstein/2021/01/25/we-could-be-making-steel-from-green-hydrogen-using-less-coal/>

Forbes, *The Value Of Post-Merger Integration Planning*. 2022, published on November 01, 2022, Available at: <https://www.forbes.com/councils/forbesbusinessdevelopmentcouncil/2022/11/01/the-value->

of-post-merger-integration-planning/

Glencore, *Annual Report 2022. 2023a*, published on March 22, 2023, Available at: <https://www.glencore.com/rest/api/v1/documents/ded10fa92974aa388a43aa9f86f483e9/GLEN-2022-Annual-Report.pdf>

Glencore, *Glencore publishes 2022 Sustainability Report. 2023b*, published on May 22, 2023, Available at: <https://www.glencore.com/media-and-insights/news/glencore-publishes-2022-sustainability-report>

Glencore, *Glencore submits reply to Teck and proposes modifications to offer cash in respect of value of coal business. 2023c*, published on April 11, 2023, Available at: <https://www.glencore.com/media-and-insights/news/glencore-submits-reply-to-teck-and-proposes-modifications-to-offer-cash-in-respect-of-value-of-coal-business>

Glencore, *Proposal for a merger between Glencore and Teck and simultaneous demerger of combined coal business. 2023d*, published on April 03, 2023, Available at: <https://www.glencore.com/media-and-insights/news/Proposal-for-a-merger-between-Glencore-and-Teck-and-simultaneous-demerger-of-combined-coal-business>

Glencore, *Sustainability Report 2022. 2023e*, published on May 22, 2023, Available at: https://www.glencore.com/rest/api/v1/documents/static/63d21a4e-30f6-40ca-b0f6-00ec64a718cf/GLEN_2022_sustainability_report.pdf

Government of Canada, *Coal facts. (n.d.)*. Retrieved on November 24, 2024, from: <https://natural-resources.canada.ca/minerals-mining/mining-data-statistics-and-analysis/minerals-metals-facts/coal-facts/20071>

Government of Canada, *Capital Expenditures.(n.d.) a*. Retrieved on November 24, 2024, from: <https://natural-resources.canada.ca/maps-tools-and-publications/publications/minerals-mining-publications/capital-expenditures/17980>

Harvard Business Review, *Distance Still Matters. The Hard Reality of Global Expansion. 2001*, published in October, 2001, Available at: https://www.researchgate.net/publication/11796185_Distance_Still_Matters_The_Hard_Reality_of_Global_Expansion

Harvard Business School, *The Five Forces. (n.d.)* Retrieved on November 27, 2024, from: <https://www.isc.hbs.edu/strategy/business-strategy/Pages/the-five-forces.aspx>

ICMM, *Metals and Minerals. (n.d.)* Retrieved on December 01, 2024, from: <https://www.icmm.com/en-gb/mining-metals/metals>

IEA Bioenergy, *Alternative sustainable carbon sources as substitutes for metallurgical coal. (n.d.)*. Retrieved on December 01, 2024, from: <https://www.ieabioenergy.com/wp->

[content/uploads/2020/01/IEA-Bioenergy-Task-Lignin-as-a-met-coal-substitute-December-2019-Final-191218-1.pdf](#)

IEA, *Coal 2023*. 2023a, published in December 2023, Available at: <https://www.iea.org/reports/coal-2023/>

IEA, *Tracking Clean Energy Progress 2023*. 2023, published in July 2023, Available at: <https://www.iea.org/reports/tracking-clean-energy-progress-2023>

IGF, *Determining the Price of Minerals*. (n.d.) Retrieved on December 01, 2024, from: <https://www.iisd.org/system/files/2023-11/determining-the-price-of-minerals-framework.pdf>

IMF, *How Replacing Coal With Renewable Energy Could Pay For Itself*. 2022, published on June 08, 2022, Available at: <https://www.imf.org/en/Blogs/Articles/2022/06/08/how-replacing-coal-with-renewable-energy-could-pay-for-itself>

Journal of Management, *Firm Resources and Sustained Competitive Advantage*. 1991. Retrieved on November 27, 2024, from: <http://diglib.globalcollege.edu.et:8080/xmlui/bitstream/handle/123456789/704/00483.pdf?sequence=1&isAllowed=y>

McKinsey & Company, *Buy and scale: How incumbents can use M&A to grow new businesses*. 2022, published on December 21, 2022, Available at: <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/buy-and-scale-how-incumbents-can-use-m-and-a-to-grow-new-businesses>

McKinsey & Company, *Metals and mining: Unleashing the power of technology in commodities trading*. 2023, published on January 11, 2023, Available at: <https://www.mckinsey.com/industries/metals-and-mining/our-insights/metals-and-mining-unleashing-the-power-of-technology-in-commodities-trading>

McKinsey & Company, *The value premium of organic growth*. 2017, published on January 19, 2017, Available at: <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/the-value-premium-of-organic-growth>

Mining Digital, *Top 10: Mining Equipment Manufacturers*. 2024, published on August 08, 2024, Available at: <https://miningdigital.com/top10/top-10-mining-equipment-manufacturers>

Mining Equipment Procurement Intelligence Report, *Mining Equipment Category Overview*. (n.d.). Retrieved on December 01, 2024, from: <https://www.grandviewresearch.com/pipeline/mining-equipment-industry-procurement-intelligence-report>

Mining.com, *Labour costs will soon beat oil as mine's biggest expense, new data indicate*. 2023, published on June 6, 2023, Available at: <https://www.mining.com/labour-costs-will->

[soon-beat-oil-as-mines-biggest-expense-new-data-indicate/](#)

Mining.com, *The top 50 biggest mining companies in the world. 2024*, published on October 05, 2024, Available at: <https://www.mining.com/top-50-biggest-mining-companies/>

PWC, *Miners capitalise on energy transition commodities, despite challenging road to net zero: PwC's 20th annual Mine report. 2023*, published on June 22, 2023, Available at: <https://pwc.com/gx/en/news-room/press-releases/2023/global-mine-report.html>

PWC, *Mine 2022: A critical transition. 2022*, published on June 30, 2022, Available at: https://www.pwc.com/gx/en/energy-utilities-mining/assets/global_mine_report_2022.pdf

Reuters, *Glencore raises pressure on Teck Resources with promise of sweeter bid. 2023*, published on April 19, 2023, Available at: <https://www.reuters.com/markets/deals/glencore-raises-pressure-teck-resources-with-promise-higher-bid-2023-04-19/>

S&P Global, *Capex for 30 biggest-spending miners to rise 6.2% in 2023. 2023*, published on October 19, 2023, Available at: <https://www.spglobal.com/market-intelligence/en/news-insights/research/capex-for-30-biggest-spending-miners-to-rise-6-2-in-2023>

Singapore Institute of Management, *A Critical Analysis of Porter's 5 Forces Model of Competitive Advantage. 2020*, published in July, 2020, Available at: https://www.researchgate.net/publication/348550277_A_Critical_Analysis_of_Porter's_5_Forces_Model_of_Competitive_Advantage

SME, *Coal's Importance to the World. (n.d.)*. Retrieved on December 05, 2024, from: <https://www.smenet.org/What-We-Do/Technical-Briefings/Coal-s-Importance-in-the-US-and-Global-Energy-Supp>

Statista, *Capital expenditure of the leading mining companies worldwide from 2017 to 2021, with a forecast for 2022. 2024*, published on May 22, 2024, Available at: <https://www.statista.com/statistics/1317455/capital-expenditure-of-the-leading-mining-companies-worldwide/>

Teck, *Awards and Indices. (n.d.) a.* Retrieved on December 02, 2024, from: <https://www.teck.com/about/awards/>

Teck, *Our Approach to Climate Change. 2024*, published in January 2024, Available at: <https://www.teck.com/media/Teck-Approach-to-Climate-Change.pdf>

Teck, *Re: Glencore Proposal. 2023a*, published on April 3, 2023, Available at: <https://www.teck.com/media/Letter-April4-2023.pdf>

Teck, *Teck to Spin Off Steelmaking Coal Business to Shareholders. 2023b*, published on February 21, 2023, Available at: <https://www.teck.com/news/news-releases/2023/teck-to-spin-off-steelmaking-coal-business-to-shareholders>

Teck, 2022 *ANNUAL REPORT*. 2023c, published on February 21, 2023, Available at: <https://www.teck.com/media/2022-Annual-Report.pdf>

Teck, 2022 *SUSTAINABILITY REPORT*. 2023d, published on March 16, 2023, Available at: <https://www.teck.com/media/2022-Sustainability-Report.pdf>

Teck, *Understanding Global Demand for Steelmaking Coal*. (n.d.) b. Retrieved on November 27, 2024, from: <https://www.teck.com/media/Understanding-Global-Demand-for-Steelmaking-Coal.pdf>

The Mining Association of Canada, *Economic Competitiveness*. (n.d.). Retrieved on November 25, 2024, from: <https://mining.ca/our-focus/economic-competitiveness/>

U.S. Department of Energy, *Coal Fact Sheet*. (n.d.) Retrieved on December 05, 2024, from: https://www.energy.gov/sites/default/files/2024-04/Coal%20Factsheet_4.18.24.pdf

U.S. Department of Justice, *Glencore Entered Guilty Pleas to Foreign Bribery and Market Manipulation Schemes*. 2022, published on May 24, 2022, Available at: <https://www.justice.gov/opa/pr/glencore-entered-guilty-pleas-foreign-bribery-and-market-manipulation-schemes>

U.S. Energy Information Administration, *Coal explained*. (n.d.). Retrieved on November 10, 2024, from: <https://www.eia.gov/energyexplained/coal/>

U.S. Energy Information Administration, *Coal explained, Coal and the environment*. (n.d.) a. Retrieved on November 10, 2024, from: <https://www.eia.gov/energyexplained/coal/coal-and-the-environment.php>