



CANADIAN METALS & MINING

DIGGING INTO CANADIAN MINING

The Metals and Mining (M&M) industry serves a fundamental role in Canadian business and finance. Canada is a world leader in the production of many precious and base metals. The Toronto Stock Exchange (TSX) also serves as the #1 listing venue for mining companies across the globe with a total market capitalization of \$253.9 billion of mining equity. Overall, the industry is globalized with Canadian assets and mineral projects all around the world. Developments such as ESG standards, technology, and capital markets have changed, improved, and driven the operations and nature of the business. COVID-19 has recently disrupted the operations of mining companies, however, in the long-term the industry is expected to rebound and recover to its natural course. This report will analyze the Canadian M&M industry from a business and financial perspective along with its recent developments.

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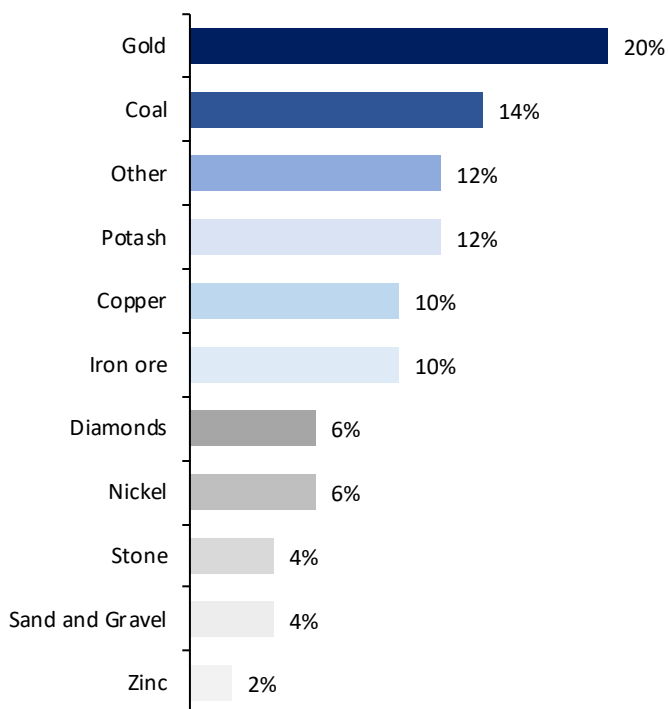
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Canadian Metals & Mining

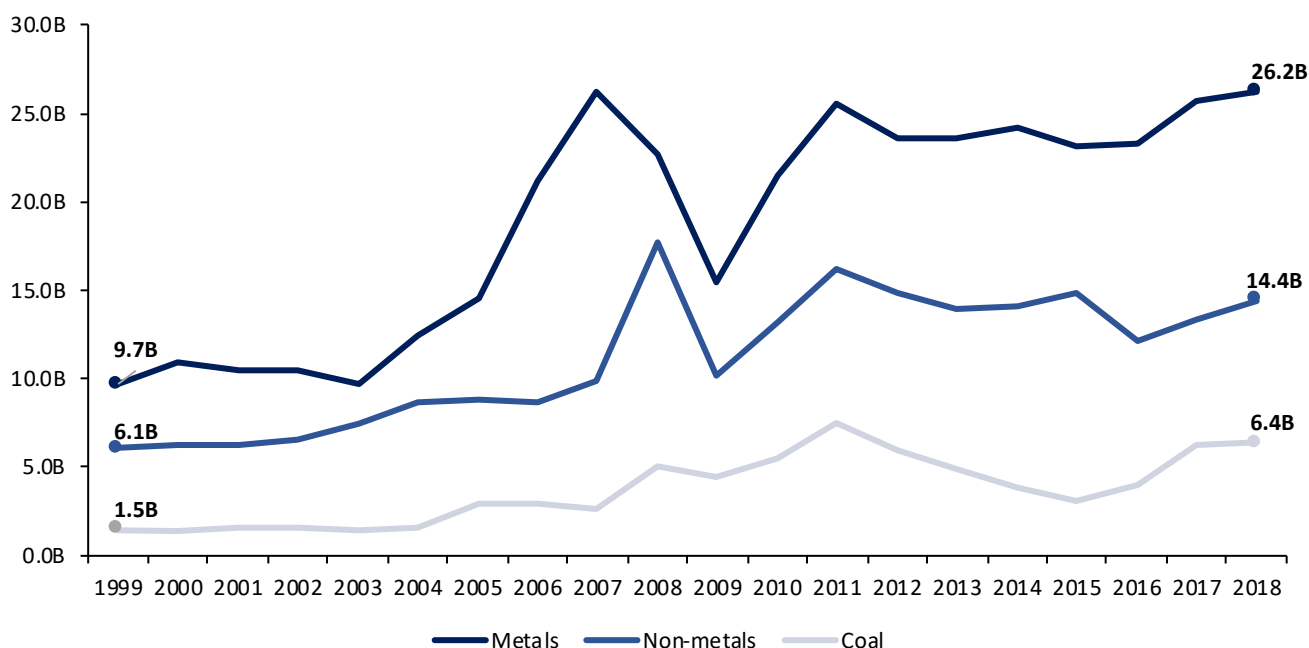
Industry Overview

The Canadian Metals and Mining industry (M&M) is an integral part of the Canadian economy and a prominent space within Canadian finance. M&M companies focus on the extraction and refinement of metals and minerals for industrial and commercial use through exploration and development processes. Within Canada, there are 1060 metal and non-Metal Canadian mines. M&M has contributed \$97 billion (5%) to Canada's total nominal GDP. In addition, the Toronto Stock Exchange (TSX) is the number one mining and exploration listing venue in the world. In fact, 34%, or \$6.5 billion of all mining equity capital was raised on the TSX in 2018. The M&M space is very cyclical due to pressure from commodity prices, as well as, high capital intensity. Overall, Canada is a leader in the production of gold, coal, potash, copper and iron.

Leading Minerals, by value of production (2018)



Value of Canadian Mineral Production (in billions of CAD)



Key Facts and Figures

Overview

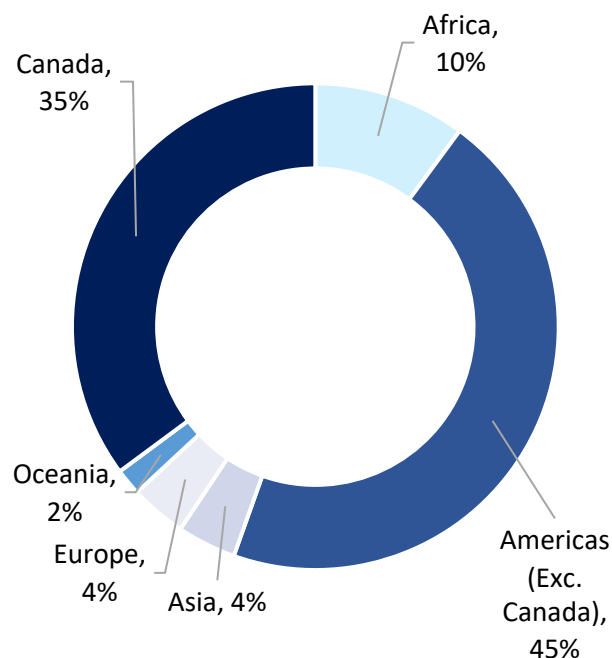
Canadian Mining Assets

In 2017, the total value of Canadian mining assets (CMA) amounted to \$260.1 billion held amongst 1,364 companies. CMA's are subject to variations in valuation. 2016 marked the first year over year 1.4% decline in the value of CMA's. However, in 2017, CMA's rebounded in value by 1.2%. These variations can be a result of asset development, construction, write-offs, impairments, depreciation, sales, and mine closures.

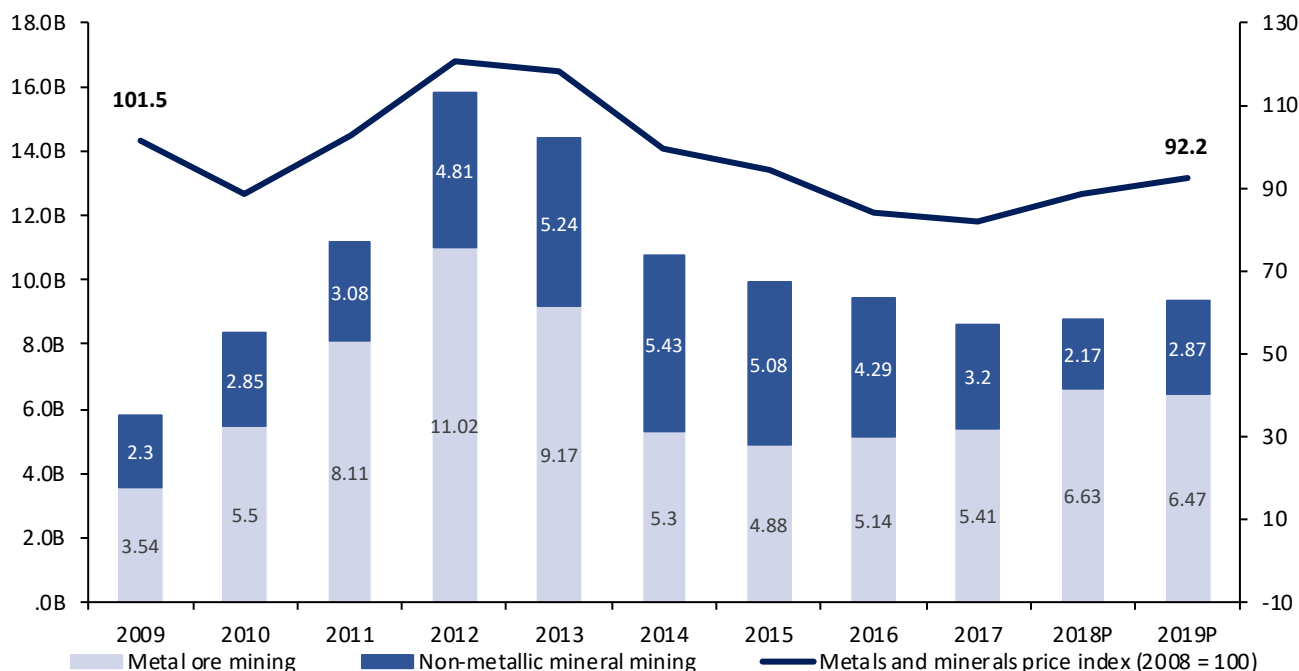
Capital Expenditures

M&M is highly capital-intensive; over the past ten years, capital expenditures have grown at a rate of 4.5%. Capital expenditures are affected by the price of metals and minerals, which is why some companies delay expenditures when prices are weak.

Canadian Mining Assets, by Region



Capital expenditures, by subsector with respect to the metals and minerals price index



Precious Metals

Gold

Gold is a versatile precious metal most commonly used for jewelry. It is mined in 9 Canadian provinces and is the highest valued commodity by production in Canada. In 2018, Canada produced 183 tonnes of gold, ranking fifth in total world production and accounting for 5.5% of global production. Canadian production is forecasted to increase at an annual rate of 2.7% until 2023. In 2018, Canada opened four new gold mines. Most of Canada's gold production is from Ontario and Quebec, amounting to over 75% of total production.

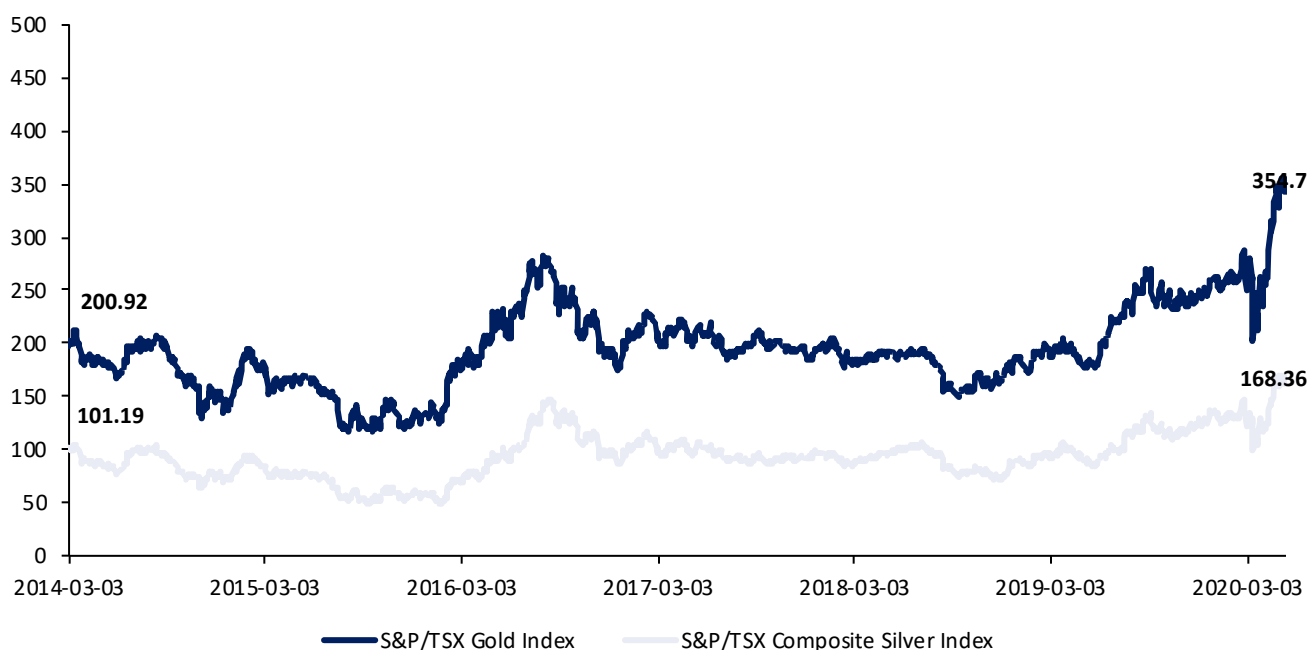
Gold is a safe-haven asset because of its ability to hedge against inflation. In times of economic uncertainty, recessions, and bear markets gold outperforms other investments and retains its value. Recent times have also proven gold's capability to be a safe-haven asset. Its YTD return, on its price per Oz, has increased by 13.6%. Meanwhile, the YTD return on the S&P 500 Index has been -12.1%.

Silver

Much like other precious metals, silver is comparable to gold as an investment. However, it is often used today as a vital metal. The properties of silver make it virtually impossible to substitute as it is used in a range of applications. The majority of its demand is derived from industrial applications such as electronics, photography, and coins. In 2018, global physical silver demand increased by around 4% percent from 2017. The increase can be attributed to jewelry and coin manufacturing.

In 2018, Canada ranked eleventh in global silver production, with 24.8 million ounces produced. Most Canadian silver production stems from mines in Ontario, Quebec and British Columbia. These provinces make up over 75% of total silver production. Also, over half of silver's production is a by-product of mining other metals, such as zinc, lead, and copper. In 2017, 72% of silver production came as a result of mining other metals.

S&P/TSX Gold and Silver Price Indices



Base & Other Metals

Base Metals & Bulk Commodities

Copper is predominantly used in manufacturing equipment (31% of its total global use) and building construction (28%). Over half of 2018's copper production in Canada came from British Columbia. Zinc is used to coat iron or steel products to protect them from rusting. It is primarily sourced from mines across Canada, the largest being Manitoba. Canada is the 9th largest producer of Zinc in the world, making up 2.2% of total production. However, in global lead production, Canada ranks 8th. Due to the rise in usage of recycled lead, total lead production in Canada has fallen (68,839 tons in 2009 compared to 13,897 in 2018). Overall, Base metals are relatively inexpensive when compared to gold and other precious metals.

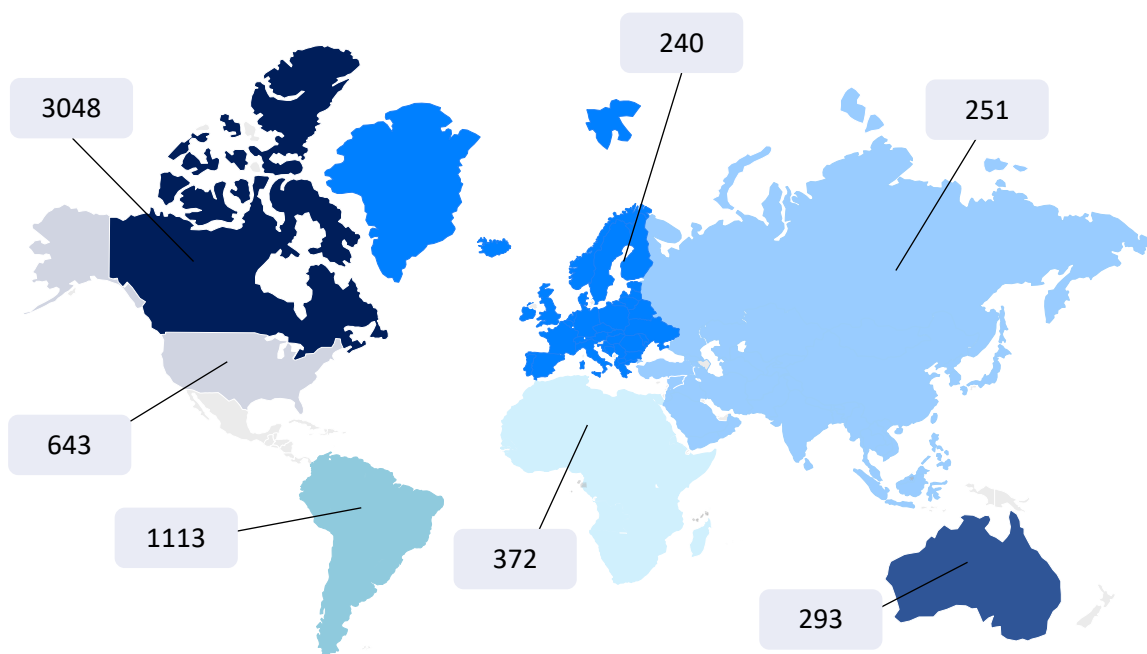
Canada ranked 8th and 13th in the world's iron ore and coal production 2.1% and 1% respectively. Iron production has not slowed down in Canada despite being 100% recyclable.

Potash

About 95% of the potash is put towards the fertilization of crops, allowing them to grow in more significant sizes, improve their strength, and become more resistant towards diseases. Potash possesses a property that enables plants to preserve more water. Besides its plant-based applications, potash is also known to be used in other activities. Potash is used in manufacturing ceramic, detergent, and pharmaceutical practice products.

Also, Canada is a global leader in potash production. Canadian production of potash leads the world in terms of volume at 22.6 million tons (33.3% of total global production). Production in Canada has been on the rise steadily since 2010, measuring at 15.6 million tons and rising to 22.7 million tons by 2018.

Number of Mineral Projects by TSX-Listed companies (Geographic reach)



Methods of Mining and Processing Metals

Methods of Mining

Open-pit Mining

Open-pit mining is mining above the surface where craters are made into the ground for mineral extraction. It is one of the most common mining methods. These mines are typically circular with many levels. It is generally the cheapest way to extract ore because it does not require expensive tools such as ventilation and communications, unlike underground mines. A significant advantage of this method is the ability to mine with more efficient larger equipment. These mines generally serve best for low-grade ore and bulk operations (requiring a large amount of ore to be extracted). The design of pit walls in open-pit mines also creates a safer method of mining. However, open-pit mining has proven to cause environmental damage.

Underground Mining

The process of underground mining begins through the construction of tunnels and ramps heading directly underground. These mines are much more challenging to engineer and require high-grade ore to decide on initiating high capital expenditures during the process. These mines are more costly due to the tunnels, water storage and removal, power communications, and ventilation systems that are all required. There are many types of methods for underground mining, and the method chosen depends on the characteristics of the orebody. Underground mines can be very unsafe due to the high risk of tunnel collapses and land subsidence. Underground mining can release toxic substances into the air and water.

Methods of Processing Metals

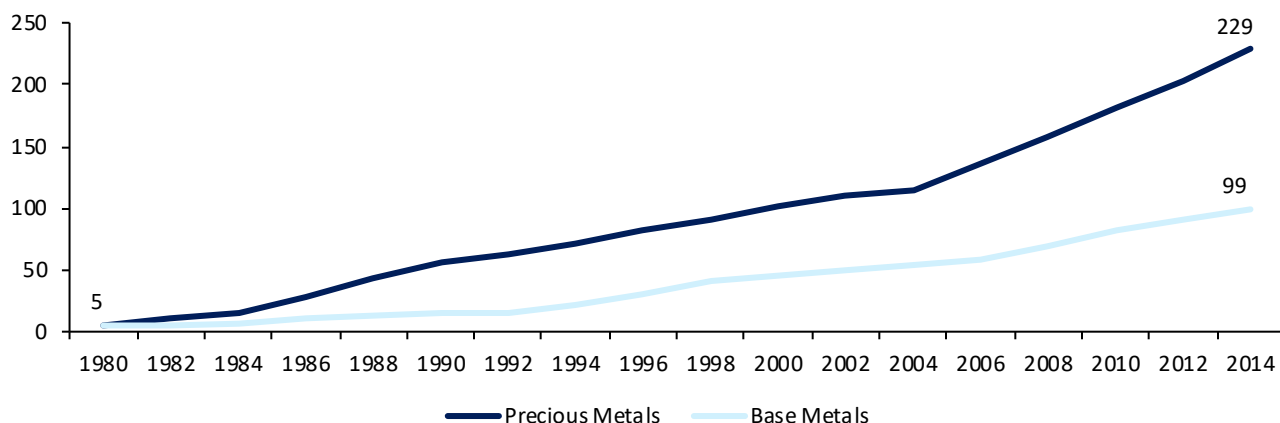
Heap Leaching

Heap leaching is a flexible process that uses chemicals to extract metals from the ore. This method brings several cost advantages as well as requires a lower amount of capital expenditures. It is currently used to extract gold, silver, copper, uranium, and iodine.

Ore Milled

The ore milled process involves sending ore to a mill and then crushing and grinding it through steel balls and rods. It is then separated into a more purified mixture of the metal. This method is more costly and typically used when there is high-grade ore being processed.

Global Growth in Major Heap Leaching Mines



Environmental, Social & Governance (ESG) Principles

ESG Explained

Environmental

Mining on its own presents many hazards to the environment through its ability to release toxic substances into the air, water or soil. If the containment process is not thorough enough, open-pit and underground mining can have negative effects on ecosystems, through the crushing and treatment of large amounts of ore. Other methods of mining, such as heap leaching, use toxic liquids such as cyanide and sulfuric acid; if these are leaked into the environment, the effect can be catastrophic and affect credit ratings.

Social

Safety management plays a significant role in social risk for M&M companies. The use of large and dangerous equipment, coupled with mine locations, can create hostile environments. These factors together are the primary reason behind this concept. Companies usually establish a method to monitor and manage incidents by educating employees in safety programs. Mining is also prone to causing land use and disruption issues for local communities that may be in proximity to mines. However, regulation has increasingly been working to reduce this impact through license suspension/termination and adverse litigation for companies that do not comply.

Governance

The main principle for governance is long-term business continuity, which ensures alignment between stockholders and stakeholders. Larger companies are more likely to focus on long-term sustainability, whereas smaller companies participate in the industry to reap their short-term gains.

Notable Canadian ESG Disasters

1. Mount Polley Mine Disaster (Imperial Metals)

On August 4, 2014, an estimated 25 billion litres of contaminated materials were spilled into Polley lake in British Columbia. The lake served as an essential source of drinking water and an area for salmon fishing. This open-pit copper and gold mine had released 326 tonnes of nickel, 400+ tonnes of arsenic, 177 tonnes of lead, and 18,400 tonnes of copper.

2. Obed Mountain (Prairie Mines & Royalty)

On October 31, 2013, an estimated 670 million litres of wastewater and sediment spilled into the Athabasca River. Prairie was fined \$3.5 million and pleaded guilty to charges on the fishery act.

3. Westray Mine (Curragh Resources Inc.)

On May 9, 1992, methane gas that had exploded in the Westray Mine in Nova Scotia had killed 26 miners.

Select Company ESG and Credit Ratings (0 – 100)

Company	Credit Rating	Environmental Risk	Social Risk	Governance Risk	Total ESG Risk	Controversy Risk (0 - 5)
Nutrien	BBB	19.5	18.2	8.7	46	3
Barrick Gold	BBB	14.3	12.4	5.9	33	4
Teck Resources	BBB-	10.3	6.1	4.7	21	3
Agnico Eagle Mines	BBB	13.5	9.1	5.7	28	2
First Quantum Minerals	B-	18.5	13	10.2	42	3
Mean	N/A	15.22	11.76	7.04	34	3
Median	N/A	14.3	12.4	5.9	33	3

Technology

Overview

Technology has a critical role in mining to optimize operations. There has been innovation through automation, simulation, artificial intelligence and more. Its rapid development can reshape the mining sector and improve companies bottom lines'. The development of these technologies can help reduce the ecological footprint, improve worker safety, turn uneconomical reserves economical and manage resources effectively.

Companies such as BHP have implemented these elements in their operations. Real-Time Resource Management is used to identify a mine's geology, optimizing any decisions prior to mining. Artificial intelligence and machine learning have also been used by BHP to simulate data points and pit operators to assess and improve the quality of certain commodities. This is considered a risk-free hypothesis and is beneficial to determine methods to improve efficiency. Implementing these innovations can improve and reduce the risk of future explorations.

Barrick Gold's Innovation

Barrick Gold Corporation intends to pursue the development of new robust power maps. They plan on setting it up over mining areas and pits. As a result, the trucks below will have greater coverage, system uptime, and an increase in overall performance while also experiencing fewer drops in connection.

In addition, there have been new trucks with greater automation capabilities introduced into the company's fleet (came with high availability), ushering in the need for more alterations to Barrick's normal operations.

A necessary change was made to maximize the utility of the trucks by ensuring that the only time they stop is for gas. Hot-changing personnel at shovel areas were implemented along with changes to blast sizes while mining to decrease blast delays to as great of an extent as possible.

Types of Technology in Mining

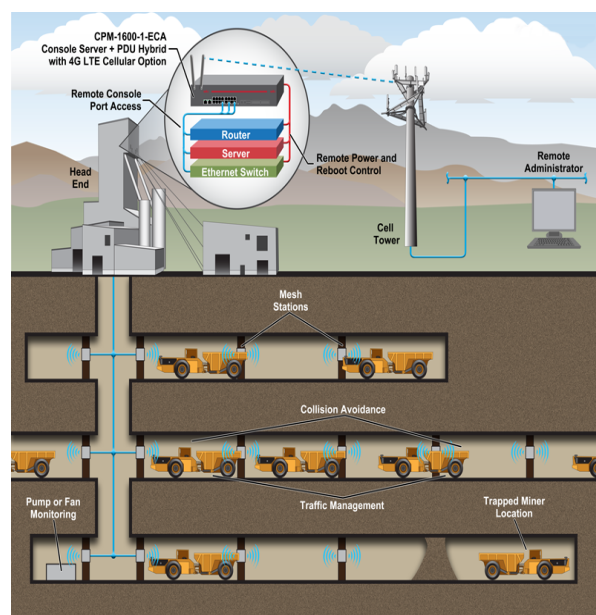
Technology transformation has the ability to increase output, reduce risk, and drive success. Some samples of new technology in the M&M space include autonomous vehicles, automated drilling equipment, smart sensors, and machine learning.

Automation

Autonomation has enabled companies to remove staff from dangerous conditions. Automating operations can reduce the number of people working in hazardous areas by more than 50 percent. Lowering wages, labour costs and skill shortages, while improving efficiency.

Smart Solutions

Recent innovations include hyperspectral imaging, which identifies the geology before mining to improve decision-making. Machine learning and AI has been used to detect hazards and determine the condition of equipment to enhance daily operations.



Capital Markets

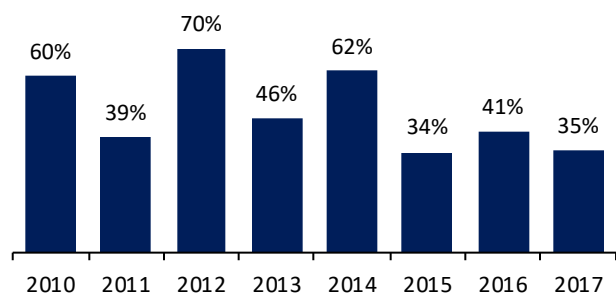
Equity Capital Markets

Canada is at the forefront when it comes to mining finance. The Toronto Stock Exchange and the Toronto Stock Exchange Venture Exchange list half of the world's publicly traded mining companies. The companies' combined, account for 34% of the global equity raised. More than any other exchange in the last 5 five years. Furthermore, 30% of the overall listings of companies on the TSX in 2018 were mining companies. They had a combined market value of \$271.8 billion and raised \$6.5 billion in equity that year. The TSX-V gives emerging companies access to capital while offering investors a regulated market for venture capitalism. According to the Mining Association of Canada in 2018, 971 companies were listed on the TSX-V that had a market value of \$17.3 billion and raised over \$3 billion in equity capital.

Benefits of Listing on the TSX

1. Investor community willing to evaluate riskier and international exploration projects
2. Tailored listing requirements for more established and less established issuers
3. Access to Capital – \$44 billion raised in the past 5 years and 6500+ transactions
4. Experienced Exchange Staff – Relevant mining practice and in-house geologists

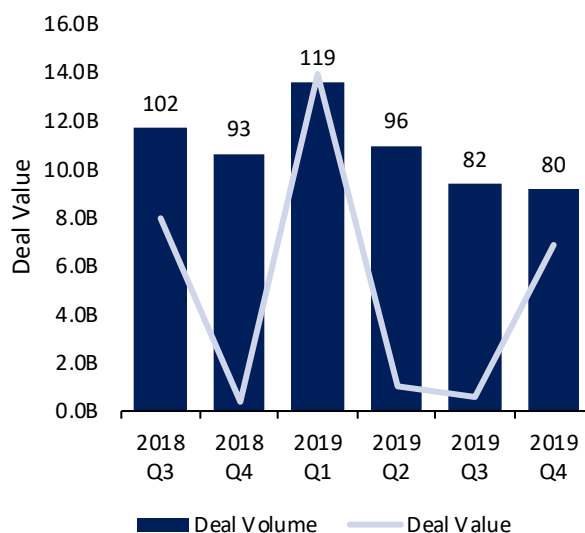
Mining Equity Raised on TSX (% of Global Total)



Mergers & Acquisitions

The circumstances of mining companies have made it a popular industry for M&A transactions. The most recent one is Cleveland-Cliffs acquiring Ak Steel Holdings (December 2019) for \$3 billion that took place in the United States of America. However, the Canadian mining industry has also experienced increased activity. In September 2018, Barrick Gold Corporation acquired Randgold Resources Ltd for \$6 billion. That acquisition gave Barrick access to additional resource bases and the experience of senior management teams. Another notable transaction that took place last year was Newmont Mining Corporation's acquisition of Goldcorp (January 2019) in a full stock transaction valued at \$10 billion. Newmont paid a 17 percent premium, which was considered modest based on precedent transactions. Industry participants are watching to see if the transaction activity is similar to what was seen in the mid-2000s. Newmont acquiring Goldcorp could be seen as early evidence of such trends. Another common theme in the M&M industry is the divestiture of non-core assets for cash flow or ownership in mines.

Recent Canadian Deal Volume vs Value



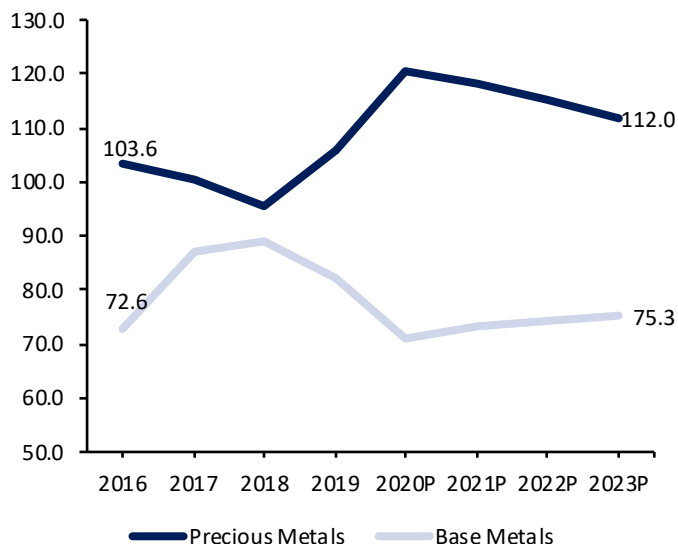
Metals Prices and Demand from End Markets

Metals Prices

Minerals and metal prices are heavily affected by daily global economic results. The prices are driven by the strength and performance of major economies such as China, which buys roughly 50% of the world's base metals. It becomes hard to forecast how the supply and demand dynamics affect the prices for minerals since China stockpiles iron ore, aluminum, copper, nickel, tin, zinc, oil, and other commodities. Rising incomes and increased prosperity in developing countries such as India will drive global demand. As well, future innovations will require the use of certain metals increasing demand as a result.

Furthermore, lower-carbon energy will result in significant demand for certain minerals and metals, including copper, nickel, lithium, and cobalt. Base metal prices declined in the first quarter of 2020, reflecting a collapse in global industrial demand due to the COVID-19 pandemic. However, gold prices rose in the first quarter of 2020 as a result of elevated uncertainty amongst central banks. Overall, certain metal prices depend and are impacted by the end market demand, as shown by most base metal prices and indices.

Metals and Minerals Price Index



Demand from End Markets

Agriculture

The main mineral of focus contained within potash is potassium due to its importance to the composition of fertilizer and overall plant health. The greatest demand for potash in the world comes from India, who has consistently imported more than four million tons every year. Some of the biggest sellers in India include Uralkali, Nutrien, and K+S. Nutrien is the only Canadian firm among the major players in India. However, demand in India is under speculation as government subsidies have lowered.

Industrial

Both iron ore and nickel are used to make stainless steel. 98% of the iron mined goes towards steel production compared to 69% of nickel production going towards steel. Canada exported \$2.1 billion of nickel in 2018 (115,000 tons). China imported 19% of it while the US imported 37%. When looking at iron, Canada exported 47.7 million tons in 2018, equivalent to \$5.3 billion. ArcelorMittal SA is undoubtedly the largest integrated steel producer in the industry, with an accumulated 42.7% of market share. In 2019, the company produced just under 120 million tons of steel. Although they are a Canadian company, they do operate in 19 countries globally and have sold their product in more than 150 countries.

Apparel Manufacturing

About 51% of the global use of gold goes towards the production of precious jewelry. Canada exported \$17.3 billion of gold in 2018 (304 tons). Jewelry manufacturing predominantly takes place in the United States and China. Gold prices are expected to rise, which will cause issues to their bottom line, however, due to the nature of the product, it is easy for manufacturers to pass on the additional cost to the customer as a part of the final price.

Short-term Outlook

Ramifications of COVID-19

To no surprise, the COVID-19 pandemic is expected to decrease the demand of many end products of the mining industry. However, this crisis is very different from those of previous years. When the equity capital markets crashed, the mining industry would have issues with liquidity, funding exploration and the termination of many mines. As seen in the 2008 Great Recession when BHP Billiton Ltd (the world's largest diversified miner cut 2,000 jobs from just its operations in Chile. While the markets are down in this recession, they are also being affected on another front, as the overall production that once took place within the industry is coming to a halt. Expectations are that there will be a certain lag within the industry as employers will be implementing new and improved safety measures for dealing with the virus as well as, asking employees to stay home if they are feeling any symptoms

related to the virus. The slowdown of production will likely increase prices until operations can return to normal capacities. In addition, the mining industry is very global. For gold and silver alone, exports accounted for over half of its total revenues. As borders across the globe become more restrictive for what is coming in and out of its nation, the revenues of markets such as these will begin to dwindle and underperform. For Canada specifically, gold is the nation's largest mining export (as mentioned previously, accounts for 20% of Canada's production by value). As policies regarding COVID-19 (workplace safety, closed borders, etc.) begin to return to a pre-COVID state, all fingers point to normal production levels returning.

Short-Term Effects on Mining Commodities

Base Metals

The S&P/TSX Global Base Metal Index is down 24% YTD. Attributed to demand dropping 8% for aluminum and other base metals. In addition, Anglo American forecasts that iron ore and copper to be the biggest losers from the base metals industry. 50% of the world's copper demand originates from China, and according to Barclays, a 1% hit to Chinese demand reduces global copper demand by 0.5-0.6%. It is forecasted that global copper demand will drop by 5.4%. As a result, companies' bottom lines are impacted. Organizations such as Anglo American and Rio Tinto are in a poor state as most of their EBITDA is from commodities such as iron ore and copper; 45% of these goods make up Anglo American's EBITDA, and iron ore makes up 70% of EBITDA for Rio Tinto. Thus, the base metals have undergone a steep fall in the short-term.

Precious Metals

Gold has been a beneficiary of macroeconomic downturns as it proves its safe-haven status. Yet gold is a globalized commodity used all over the world, and exports comprise over half of the industry revenue. The pandemic has weakened global trade and heavily impacted the jewelry industry. In fact, the jewelry industry accounts for 48.4% of global gold demand. Coronavirus caused first-quarter gold jewelry demand to plunge 39%, a record low according to the quarterly report by the World Gold Council. Silver has been hit hard due to the Covid-19 breakout, and as of May 1, 65% of global silver production was on hold. Yet, the outlook for silver could benefit as the virus subsides. Industrial demand can recover, and critical silver mining operations can reopen. The outcome led to silver experiencing a -2.4% change in its YTD value.

Long-term Outlook

Equity Capital Markets

The mining industry raised \$16.1 billion in 2018, which is more than 33% down than what it was the previous year. That has been the second-biggest drop in equity raised since 2011-2012. Remarkably, 49% of the mining equity raised globally were on the TSX and TSXV. The global financing represented 33% of the capital raised the same year. However, both exchanges experienced a \$2.4 billion drop in value compared to the previous year, which shows a reoccurring pattern. The pattern specifies that whenever there is a significant drop in the global equity raised, Canada's decline is fractional. That suggests the TSX and the TSXV are both protected from the extreme volatility in the capital markets, which has been shown to us in 2011-2012. According to Canada's mining association, this trend is headed in the same direction as 2011-2012 and 2018. It has been forecasted that financing activities will be at the lowest level since mines are obsolete.

Mergers & Acquisitions

The total value of metals & mining industry deals in Q4 of 2019 were worth \$6.2 billion. Canada's share of global deals was 33.7%, that amounted to \$20.22 billion. The activity was affected in Q4 as Canada had only 80 deals, a drop of 7% over the previous quarter, and a 19.2% drop over the last year average. The top 5 metals and mining M&A deals accounted for 93.2% of the overall value during Q4. Companies have begun to invest in new markets such as battery minerals. Deals involving lithium reached US\$905 from US\$200 in the first half of 2019. Along with that, M&A activity has been increasing in the original equipment manufacturer space to cater to mining companies that are increasing their focus on technology and innovation. Companies are aiming to deploy nearly 24% of their annual investment capital towards technology compared to 5% the year before.

The International Market

Canadian mining companies operate in 100+ countries around the globe to mine and collect the metals and minerals valued by society. The push and strides that modern technologies make in recent times do signal the need for a greater presence of base metals such as nickel and copper (widely used in various pieces of everyday tech such as smartphones). In addition to the expected rise in technology manufacturing, the amount of construction is also expected to increase due to the growing global economy and overall population (especially with the great development of urban landscapes underway in India and China). Prices are expected to rise in the future, affecting nickel and copper, as well as their other base metal acquaintances. Aside from typical technology manufacturing, as global economies transition towards green energy

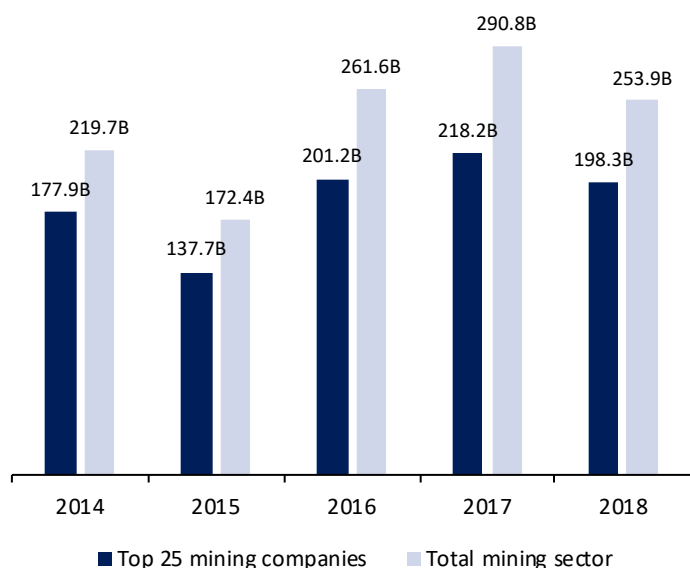
resources, both copper and nickel (more so copper) has a huge impact on solar panel and wind turbine manufacturing, being key components to electric vehicles, as well as being the best electrical conductor available when considering its price point. Though there are many uses for these metals, there is an adequate supply in mines, which will limit the potential increases in prices from all the previously mentioned greater demands for metals. The possibility for further issues mainly rises from the profitability of current mines as they begin to fall. Companies will be forced into funding exploration in order to find new metal deposits within the Earth. All signs point to a bleak increase in revenue over the next four years of 0.1%, bringing the revenue to roughly \$8.7 billion by 2024 (up from \$8.65 billion in 2019).

Overview of Performance

Financial Performance

Mining companies grew at a steady pace in 2018 as they increased their revenues and cash reserves even though prices for most commodities fell. Shareholders were rewarded in 2016 and 2017, as the median total shareholder return of 63 leading mining companies was 41% and 23%, respectively. In 2017, revenues, margins and cash flows grew simultaneously, and this was the first occurrence in seven years. This occurred once again in 2018. Since then, the M&M industry has experienced turmoil. Q1 2020 felt the ramifications of coronavirus as industry gross margins fell by around 19% compared to Q4 2019. Yet, the industry average for EBITDA margin increased to 16.22% in Q1 2020. Despite the contraction of overall mining, a reduction in operating costs helped. EY's Canadian Mining Eye Index dropped 29% in Q1 2020, compared to an 11% gain in the previous quarter. Government mandates and supply chain disruptions impacted Canadian mining.

TSX mining sector market capitalization

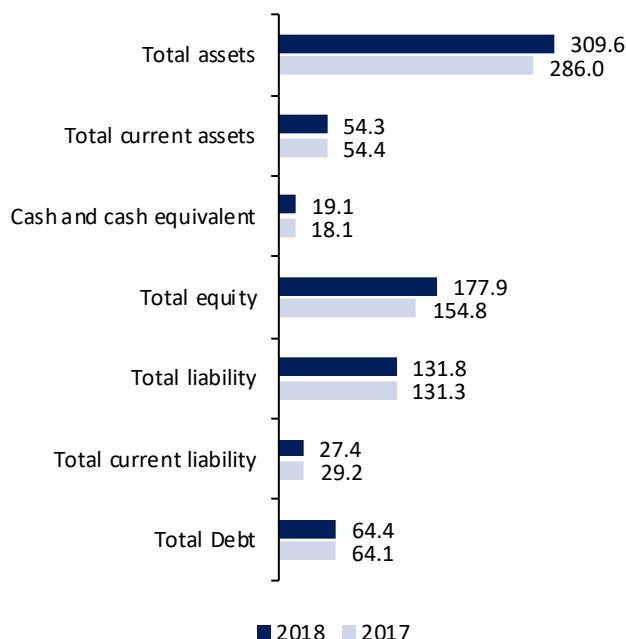


Valuation Performance

Mining companies are complex and operate in cyclical environments, making valuations volatile. An important valuation metric is the price to net asset value (P/NAV). This model forecasts the end of the mine life and is discounted back today and gives an expected future cash flow. The EV/EBITDA ratio is also an essential metric.

According to S&P Global Market Intelligence, the aggregate market value for the top 100 companies in the industry was down 15% in one month. This was the lowest the sector has been since May 2016. However, some equities have performed well; Barrick Gold shares have risen 28.6% YTD. Yet, Nutrien Ltd stock has experienced a 23.5% drop due to coronavirus creating a challenging environment. Driven by gold and precious metals, the TSX mining industry market value was up 40% year-over-year at the end of 2019 and total market capitalization on the TSX was \$381 billion.

Top 25 Mining Companies: Balance Sheet



Valuation

Comparable Companies (Operational Metrics)

Comparable Company Analysis							
Metals and Mining							
Company Name	Ticker <i>(TSE)</i>	Market Data			Valuation		
		Price <i>(\$/share)</i>	Market Cap <i>(\$M)</i>	EV <i>(\$M)</i>	P/E <i>TTM x</i>	EV/EBITDA <i>TTM x</i>	P/NAV <i>TTM x</i>
Precious Metals							
Newmont Corporation	NGT.TO	80.91	64,818.23	70,582.63	42.4x	8.9x	1.3x
Barrick Gold Corporation	ABX.TO	33.11	58,871.32	63,095.32	13.7x	8.2x	1.6x
Franco-Nevada Corporation	FNV.TO	193.26	36,706.85	36,042.32	68.9x	35.4x	3.0x
Kirkland Lake Gold	KL.TO	38.43	10,653.60	10,135.60	8.8x	6.3x	1.3x
Wheaton Precious Metals Corporation	WPM.TO	59.32	26,697.68	27,493.23	48.4x	33.1x	2.2x
Precious Metals Mean			39,549.54	41,469.82	36.4x	18.4x	1.9x
Precious Metals Median			36,706.85	36,042.32	42.4x	8.9x	1.6x
Base and Other Metals							
Labrador Iron Ore Royalty Corporation	LIF.TO	16.23	1,038.90	1,023.50	8.8x	7.0x	0.8x
Turquoise Hill	TRQ.TO	0.75	1,501.30	2,846.70	15.7x	10.5x	0.3x
Teck Resources	TECK.TO	15.26	7,046.32	13,755.32	14.0x	4.7x	0.5x
First Quantum Minerals	FM.TO	8.07	6,968.37	16,364.32	26.8x	8.2x	0.6x
Lundin Mining	LUN.TO	6.37	5,568.56	4,965.23	24.8x	8.5x	0.7x
Base and Other Metals Mean			4,424.69	7,791.01	18.0x	7.8x	0.6x
Base and Other Metals Median			5,568.56	4,965.23	15.7x	8.2x	0.6x

Comparable Companies (Valuation)

Comparable Company Analysis							
Metals and Mining							
Company Name	Ticker <i>(TSE)</i>	Market Data			Operational		
		Price <i>(\$/share)</i>	Market Cap <i>(\$M)</i>	EV <i>(\$M)</i>	ROE <i>TTM %</i>	ROA <i>TTM %</i>	ROIC <i>TTM %</i>
Precious Metals							
Newmont Corporation	NGT.TO	80.91	64,818.23	70,582.63	18.0%	9.5%	13.6%
Barrick Gold Corporation	ABX.TO	33.11	58,871.32	63,095.32	27.6%	11.9%	20.0%
Franco-Nevada Corporation	FNV.TO	193.26	36,706.85	36,042.32	7.1%	6.7%	6.9%
Kirkland Lake Gold	KL.TO	38.43	10,653.60	10,135.60	36.4%	26.3%	36.2%
Wheaton Precious Metals Corporation	WPM.TO	59.32	26,697.68	27,493.23	1.6%	1.3%	1.4%
Precious Metals Mean			39,549.54	41,469.82	18.2%	11.1%	15.6%
Precious Metals Median			36,706.85	36,042.32	18.0%	9.5%	13.6%
Base and Other Metals							
Labrador Iron Ore Royalty Corporation	LIF.TO	16.23	1,038.90	1,023.50	36.4%	27.3%	36.3%
Turquoise Hill	TRQ.TO	0.75	1,501.30	2,846.70	-1.6%	-1.2%	-1.1%
Teck Resources	TECK.TO	15.26	7,046.32	13,755.32	-2.7%	-1.5%	-2.2%
First Quantum Minerals	FM.TO	8.07	6,968.37	16,364.32	-0.6%	-0.2%	-0.3%
Lundin Mining	LUN.TO	6.37	5,568.56	4,965.23	4.5%	2.6%	4.3%
Base and Other Metals Mean			4,424.69	7,791.01	7.2%	5.4%	7.4%
Base and Other Metals Median			5,568.56	4,965.23	-0.6%	-0.2%	-0.3%