GLOBAL EQUITY | MARCH 2022

Natural Resources
Energy Transition

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ESG in the Natural Resources Industry

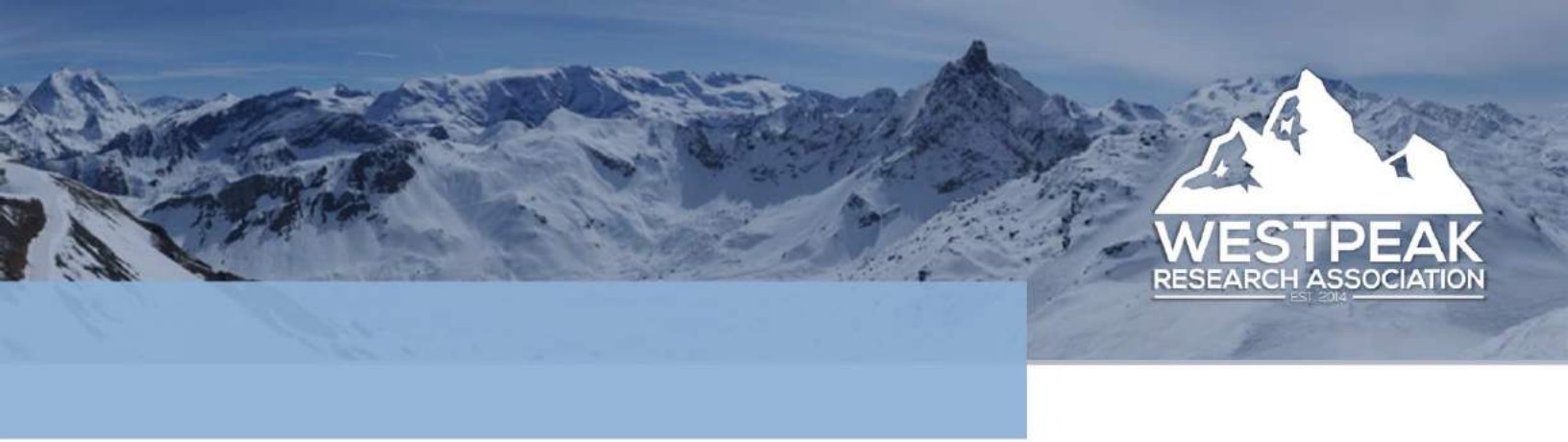
Introduction to ESG

Environmental, Social, and Governance (ESG) is a set of standards for a company's operations that investors use to screen potential investments. Environmental factors take into account conservation of the natural world, social factors consider people and relationships, and governance factors encompass standards for running a company. The purpose of ESG standards is to create value and illicit positive outcomes for investors, the general public, and internal stakeholders. To urge the awareness and utilization of ESG factors in company operations and investments, numerous intergovernmental disclosures and frameworks exist such as Principles of Responsible Investment (UN PRI), United Nations Sustainable Development Goals (UN SDGs), and Task Force on Climate-Related Financial Disclosures (TCFD). Additionally, CDP Global (CDP), Global Reporting Initiative (GRI), The Sustainability Accounting Standards Board (SASB), and The Climate Disclosure Standards Board (CDSB) have been created as non-governmental frameworks.

Material ESG Factors and Issues in Natural Resources

Sustainability Standards Accounting Board (SASB)

	Metals & Mining	Oil & Gas				Forestry Management	Pulp & Paper Products
		E&P	R&M	Midstream	Services		
Environment	• GHG Emissions • Air Quality • Energy Management • Water & Wastewater Management • Waste & Hazardous Materials Management • Ecological Impacts	• GHG Emissions • Air Quality • Water & Wastewater Management • Waste & Hazardous Materials • Ecological Impacts				• Ecological Impacts	• GHG Emissions • Air Quality • Energy Management • Water & Wastewater Management
Social/Human Capital	• Human Rights & Community Relations • Labour Practices • Employee Health & Safety	• Human Rights & Community Relations • Employee Health & Safety				• Human Rights & Community Relations	
Business Model & Innovation		• Product Design & Lifecycle Management • Business Model Resilience				• Physical Impacts of Climate Change	• Supply Chain Management
Leadership & Governanc	• Business Ethics • Critical Incident Risk Management	• Business Ethics • Management of the Legal & Regulatory Environment • Critical Incident Risk Management • Competitive Behaviour					



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Energy – ESG Analysis

Energy Transition 2021 Review

January 2022

The energy industry encompasses both oil and gas (O&G) and alternative energy sources. The O&G sector consists of crude oil and natural gas and can be broken down into upstream, midstream, and downstream. The alternative energy sector includes wind, solar, nuclear, biomass, etc. and is growing at a rapid rate. This report will analyze ESG initiatives and other relevant trends occurring in the energy industry.

Relevant News – Big Steps Towards Net-Zero

With COVID being the leading global issue in 2021, it took some focus off of energy transition and made it easy to miss important news. Along with COP26, many governments ramped up emission targets. Meanwhile, large E&P companies submitted proposals for carbon capture and storage (CCS), activist investors took major strides against companies that lagged in their ESG initiatives, and big global banks committed trillions in sustainable financing.

Industry Trends – Focus on Sustainable Growth

In recent years, the O&G sector witnessed a noticeable shift towards enhanced sustainability and emission reductions. A push for divestment, the development of carbon capture and storage, and products such as sustainability-linked bonds have culminated to bolster ESG considerations. Companies are conscious of what their actions signal to investors, and this has translated directly into M&A transactions where ESG is at the forefront of company's strategic objectives. The oilfield services industry has felt similar pressures and has been forced to revamp its business strategies to place greater emphasis on decarbonization strategies and offerings that service alternative energy companies. Finally, growth in the renewable energy space is accelerating faster than ever before.

Industry Research

Energy Consumption

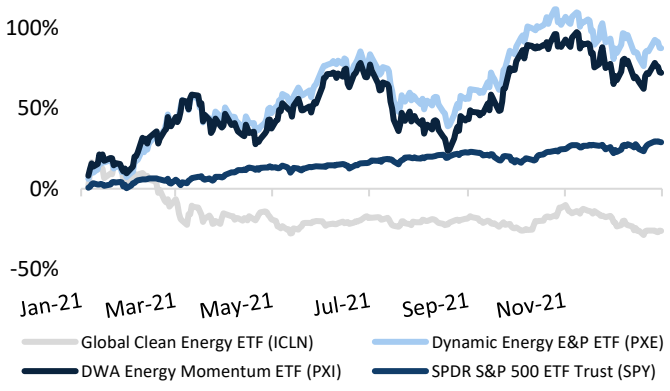
Global Revenue (2020)	$4,479B
Annual Growth (Past 5 Years)	2.9%
Annual Growth (Next 5 Years)	5.0%

Source: Business Wire & IBISWorld

Key Companies

Whitecap Resources	TSX: WCP
Enterprise Value	$6.0B
EV/2021 EBITDA	2.13x
S&P Global ESG Rank	48
Crescent Point Energy	TSX: CPG
Enterprise Value	$6.3B
EV/2021 EBITDA	3.78x
S&P Global ESG Rank	57
Pembina Pipeline Corp	TSX: PPL
Enterprise Value	$32.4B
EV/2021 EBITDA	13.63x
S&P Global ESG Rank	70
TC Energy	TSX: TRP
Enterprise Value	$112.2B
EV/2021 EBITDA	16.37x
S&P Global ESG Rank	85

1-Year Return



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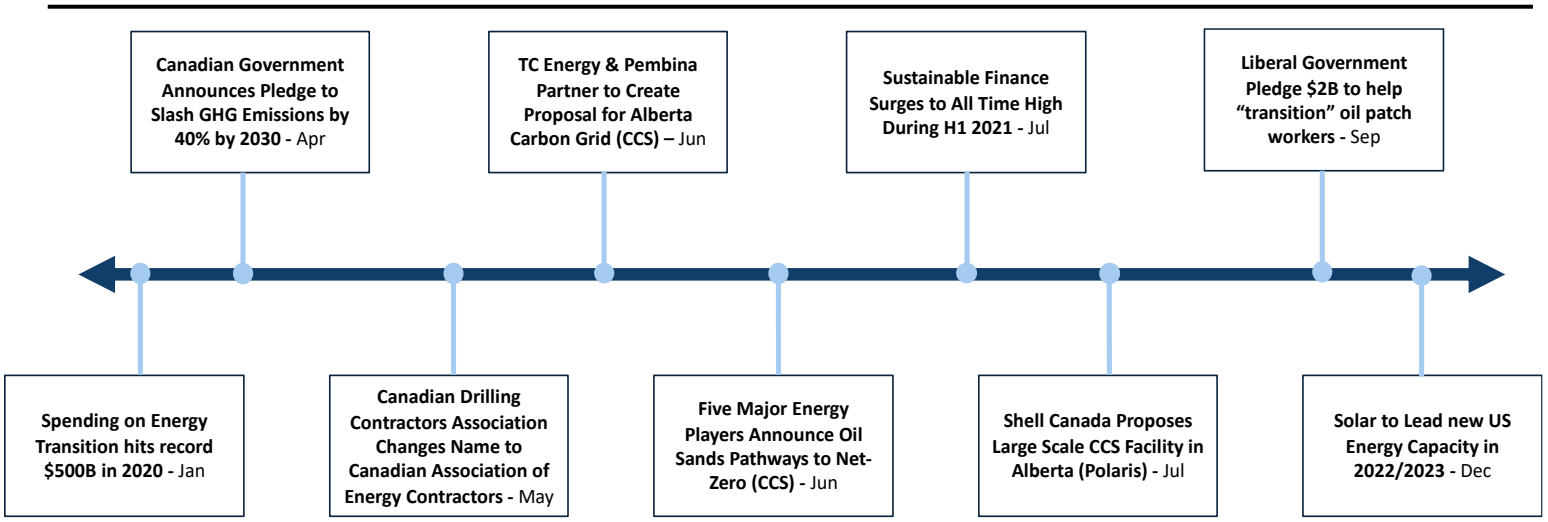
Energy Transition News & Events

Timeline of Notable News & Events

Exhibit 1: Timeline of Notable News Events

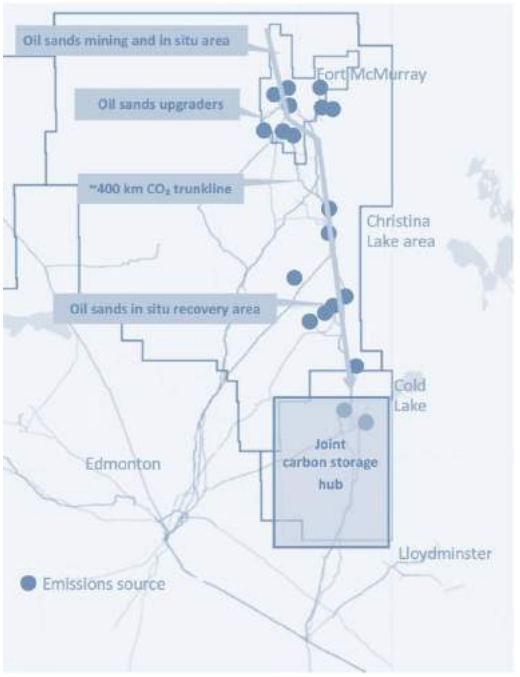


Source: IBIS World

Three Canadian Carbon Capture and Sequestration Projects

Oil Sands Pathways to Net Zero

In the spring of 2021, the Oil Sands Pathways to Net Zero Initiative was founded by five major Canadian energy producers: Canadian Natural, Cenovus Energy, Imperial, MEG Energy, and Suncor with Conoco Phillips Canada joining later. The companies combine to operate approximately 95% of Canada's oil sands production. The group's initiative aims to work collectively with the federal and provincial government to achieve net-zero GHG emissions from these companies oil sands operations by 2050, thus helping Canada achieve its 2030 climate goals.



The proposed projects' goal is to use carbon capture technology to capture emissions before, during, and after the combustion of hydrocarbons then store CO2 or make it available for use in other forms (Concrete). The foundation of the project will be a major CCUS system and transportation line connecting oil sands facilities in Fort McMurray and surrounding areas to a carbon storage hub near Cold Lake Alberta (*see right*). Along with the core CCUS facilities, the project's three phases rely on process improvements, energy efficiency, emerging tech, and other sub-projects to ultimately be net-zero by 2050. Overall, the project is expected to reduce oil sands emissions by 68 Mt of CO2e/yr.

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Shell Canada – Polaris

In June of 2021, Shell Canada announced a proposal for the Polaris Carbon Capture & Storage (CCS) project. The project, set to be built near the Shell-owned Scotford refinery and chemicals plant, will capture carbon produced while upgrading oil. The project is based on previous successes the company has had with the Quest CCS facility at Scotford which has successfully sequestered 6M tonnes of carbon in the past six years. In its initial phase, Polaris would capture and store approximately 750K tonnes of carbon a year from the refinery and would reduce Shell's scope 1 and 2 emissions by up to 40%.

The project's second phase proposes the creation of a CO2 storage hub in Alberta that would capture and store emissions on behalf of third-party industry sources. Once fully built, the project could store upwards of 10M tonnes of CO2 per year. Polaris is further supported by a partnership between Shell Canada and RETI (Reconciliation Energy Transition Inc.) which gives the opportunity for First Nation's Partners to acquire an equity stake in the project thus making the project not only environmentally beneficial but also socially.

Pembina & TC Energy – Alberta Carbon Grid

In June of 2021, similar to the Pathways to Net Zero Initiative, Pembina & TC Energy partnered to propose the Alberta Carbon Grid (ACG). The ACG is a carbon transportation system aimed at reducing Alberta's largest sources of industrial emissions. It is meant to serve as the backbone of Alberta's CCUS industry connecting the Fort McMurray Region, the Alberta Industrial Heathland, and the Drayton Valley to key sequestration locations across the province. The plan is unique compared to the other two proposals in that it will leverage existing pipelines and infrastructure paired with a new sequestration hub.

The project is not only targeted at the oil and gas industry but also for use in multi-sector solutions including farming and industrials. Once approved and completed, the ACG will be able to scale to sequester 60K tonnes of CO2 per day or 20M tonnes per annum. This represents 10% of Alberta's industrial emissions. TC and Pembina have also tried to expand the grid through partnering with Shell and The Pathways Initiative to further strengthen Alberta's position as a CCS leader globally and talks about the partnership are ongoing.

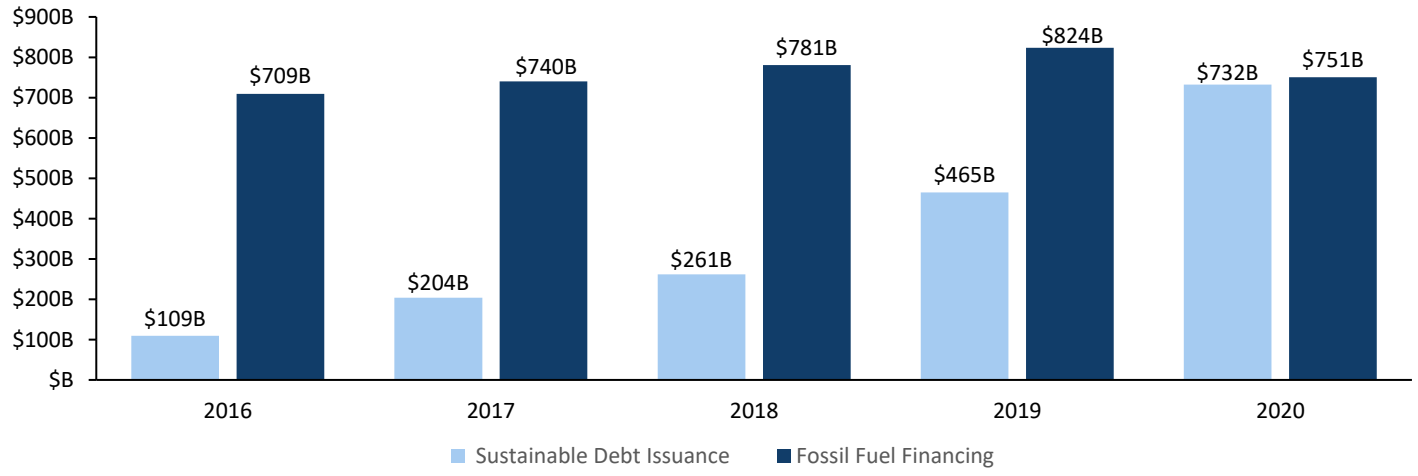
Engine No. 1 Wins ExxonMobil Board Seats

In May 2021, ExxonMobil (NYSE:XOM), a major US integrated oil company, held a board member vote. In a surprising turn of events, Activist Hedge Fund Engine No.1 nominated 4 candiates and secured not one but three board seats. Exxon has previously lagged competitors in adjusting its business strategy for a low carbon future and many thought changes needed to be made. Engine No 1 successfully rallied support from institutional investors to the likes of BlackRock (Exxon's 2nd largest shareholder) and the New York State Pension Fund. Shareholders like BlackRock expect the three new "activist" board members to bring a fresh perspective and previous experience with regard to energy transition. Holding 3 out of 12 board seats, the new board members should be able to lobby for change and transition a board that has historically been known to lag in considering a low carbon strategy for ExxonMobil. The question now remains how much change the new members can actually bring with some fund managers saying the change will be slow given the history of Exxon.

Major Banks Pledge Trillions in Green Financing

The International Energy Agency estimates that the annual $5T annual investment into energy needs to at least double by 2030 to meet the 2050 net-zero emissions goal set by governments. In 2020, global investment into renewable energy exceeded $520B, an all-time record. As well, financing costs for solar and onshore wind projects were 15-20% lower while costs for fossil fuel projects became riskier and more expensive. With green financing becoming cheaper and fossil fuel financing becoming more expensive, large banks like JP Morgan, Citi, and Bank of America have pledged to finance or facilitate $2.5T, $1T, and $1T, respectively, in sustainable finance by 2030. Although not all funding will directly finance alternative energy, overall the over $130T pledge by banks around the world will surely contribute substantially to the energy transition mandates of many countries. Although 2020 broke records in sustainable financing, 2021 crushed them. In the first half of 2021, green financing surged 76% to $552B, an all-time record. The commitments by banks and other private capital firms to finance projects in the next 10 years will be a large catalyst for energy transition and a net-zero world as a whole.

Exhibit 2: Sustainable Debt Issuance & Financing Fuel Financing (2016-2020)



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Industry Trends - ESG

Divestment

Divestment in the energy space has gained remarkable traction in recent years with over a thousand major investors, pension plans, and endowments committed to it. The goal of divestment is to stigmatize fossil fuels and raise uncertainty around their continued use and make it difficult for these companies to raise capital. In Canada, the funding well hasn't run dry, but the flow of money into the oil industry is certainly slowing down. In September 2021, Caisse de dépôt et placement du Québec — Canada's second-biggest pension fund — announced it was divesting all of its oil production investments by 2022, citing environmental concerns. Many were unpleased with this decision, as economists believe continued divestment will harm the Canadian economy severely and cost many Canadian's jobs. However, supporters of divestment, praised this behaviour as it continues to make it harder for Canadian oil and gas producers to raise money for new wells and oil sands projects.

Despite the accelerating growth of the divestment movement, capital has continued to flow into fossil fuels industry globally. Although some may argue that this indicates divestment isn't working it is important to consider that the biggest threat to fossil fuel companies is increased social and political stigmatization of their activities. This is exactly what divestment aims to do and has been leading to uncertainties about the long-term viability of the industry. In terms of avoided emissions, the divestment movement's impact will continue to grow, but it has already succeeded in putting the fossil fuel sector on notice.

Exhibit 3: Major Investors who have divested from O&G

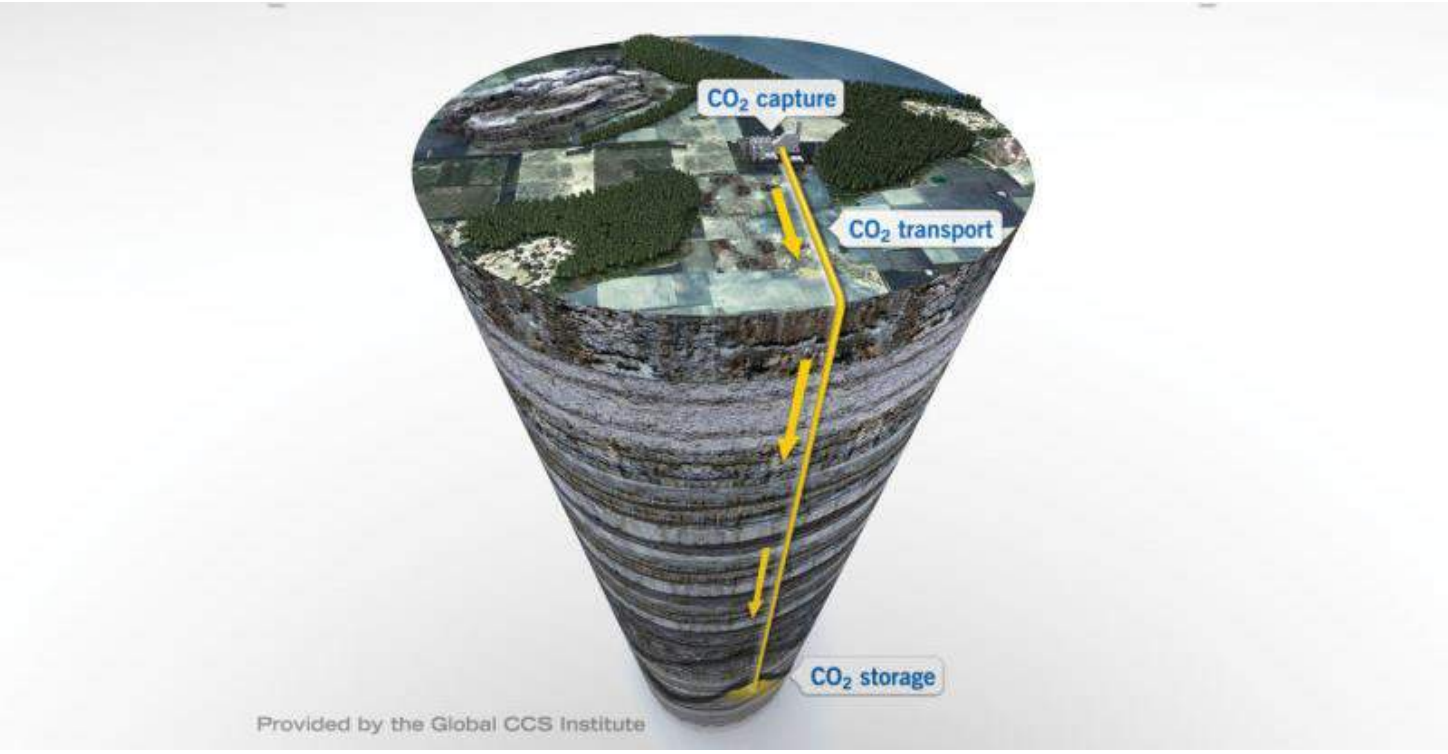
Source: Divestment Database

Carbon Capture and Storage

Carbon capture and storage (CCS) is a climate change technology that can prevent large quantities of CO2 from being released in the atmosphere from the use of fossil fuels. CCS involves three major steps; capturing CO2 at the source, compressing it for transportation and then injecting it deep into a rock formation where it is permanently stored. It is a key,

proven technology in reducing GHG emissions around the world and can be used in a variety of different ways. CCS is extremely important in the oil industry and many companies have begun to deploy it as it is one of the best ways to reduce carbon emissions and is a core part of company's ESG strategies. In June 2021, Pembina and TC Energy announced a partnership to create a world-scale carbon transportation and sequestration solution: The Alberta Carbon Grid. When fully constructed, the system will leverage existing pipelines and a newly developed sequestration hub to transport more than 20 million tonnes of CO2 annually. The project represents the infrastructure platform needed for Alberta-based industries to effectively manage their emissions and contribute positively to Alberta's lower-carbon economy and create sustainable long-term value for Pembina and TC Energy stakeholders. ACG will pave the way for Canada to successfully meet its emissions reduction objectives and provides a tangible example of Pembina and TC Energy's commitment to energy diversification, industry collaboration and a lower carbon future.

Exhibit 4: The Carbon Capture and Storge Process

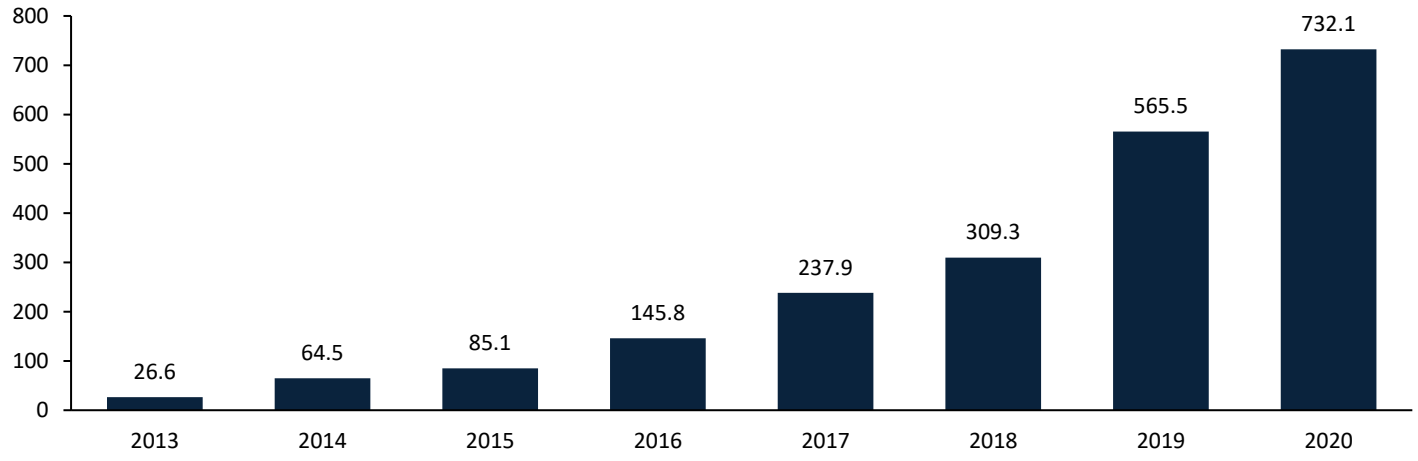


Sustainability Linked Bonds (SLBs)

Investor demand for ESG products spiked as the pandemic put more focus on climate change and diversity issues and businesses and governments looked for ways to fund their transitions to cleaner and more equitable operations. Issuers had sold $13.6 billion in ESG-linked bonds as of July 21 — almost as much as the $15.8 billion sold all of last year, according to Financial Post data. Although sustainability-linked bonds (SLBs) may not fundamentally change the risk of investing in the energy industry, they are worth exploring as a way for companies to attract new capital, achieving measurable ESG-related goals and allowing some institutional investors to satisfy their own ESG mandates. While some investors are wary

of the energy industry, SLBs appear capable of motivating investor engagement and tapping into new pockets of capital. From an investment perspective, more appetite for energy market exposure creates downward pressure on pricing and reduces the cost of capital for companies, diminishing risk of future financial distress. While this all looks great on paper, securing value from SLBs requires nuanced discussion of an issuer's strategic ESG-related goals, how to realistically achieve them on a discrete time frame and how to avoid claims of "greenwashing." Calibrating appropriate key performance indicators (KPIs) and sustainability performance targets (SPTs) is key to success and require collaboration among the issuer, its advisors and second party opinion (SPO) providers.

Exhibit 5: Global sustainable debt annual issuance, 2013-2020



Source: BloombergNEF, Bloomberg L.P.

ESG playing a larger role in M&A transactions

Companies pursuing their net-zero goals are looking to acquire either low-carbon intensity barrels or divest high-intensity ones through M&A transactions in the oil and gas space. A continued focused on ESG among key players has resulted in companies pursuing deals that are not only accretive from a financial point of view but also help the buyer meet their net-zero targets. However, according to Deloitte "only 12% of all upstream deals in the United States during 2021 listed a reduction in emissions, realization of decarbonization synergies, or improving ESG performance as one of their primary reasons." A lack of standardized reporting practices and inexperience in modelling ESG risks are two of the key reasons causing this situation. In the coming years, uniform reporting standards and guidelines, as well as increased clarity about the impact of ESG reporting, will continue to bolster the accelerating adoption of ESG in M&A. Moving forward, companies will be able to use a strong ESG profile to defend themselves against hostile takeover bids from buyers with weaker ESG profiles and use acquisitions to achieve ESG goals more quickly and efficiently.

Exhibit 6: Major M&A transactions citing ESG as strategic rationale

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ConocoPhillips *Acquires* CONCHO **USD $9.7B**

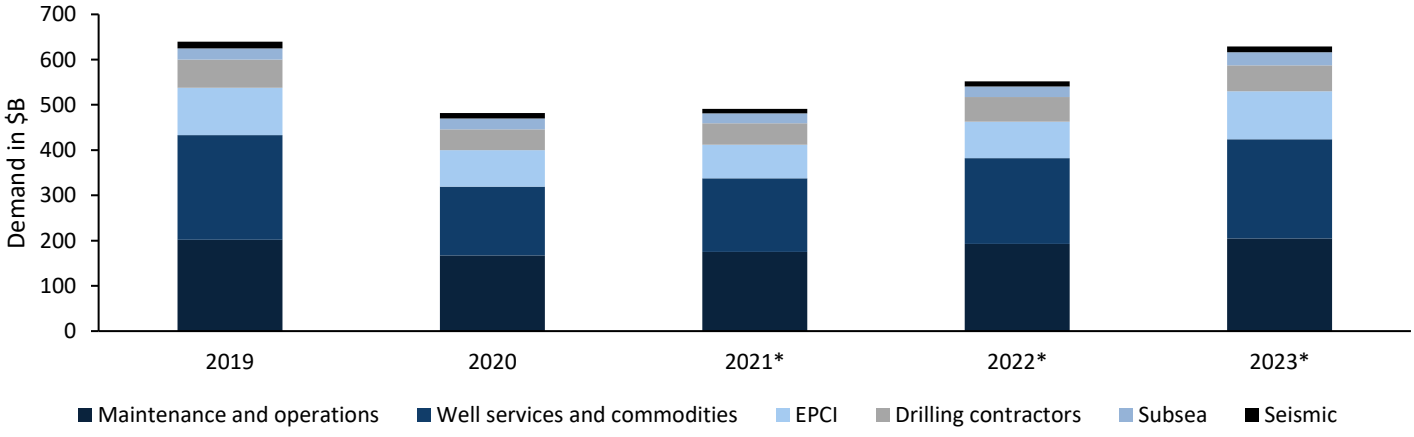
PIONEER NATURAL RESOURCES *Acquires* PARSLEY **USD $4.5B**

cenovus ENERGY *Acquires* Husky **USD $3.8B**

Business model shift in the Oilfield Services space

The oilfield services sector (OFS) had slashed costs and leaned out operations to stay afloat prior to the pandemic. With the pandemic causing a decrease in OFS spending of almost 25%, OFS companies have been forced to create new business strategies focused on the future of energy. Providing integrated solutions for decarbonizing upstream projects, implementing subscription-based revenue models, and diversifying into the low-carbon space will be key strategies for OFS companies moving forward. According to Rystad Energy, companies could even diversify some oil & gas capabilities and replace up to 40% of their revenue by servicing renewable markets. To bring about fundamental transformation, partnerships, alliances, and consolidation have been gaining importance. This is depicted by the fact that 20% of OFS deals in 2021 involved a target company with operations in renewable energy, as compared with 5% between 2017 and 2020.

Exhibit 7: Oilfield service yearly demand forecast by segment worldwide 2019-2023*



Source: Statista

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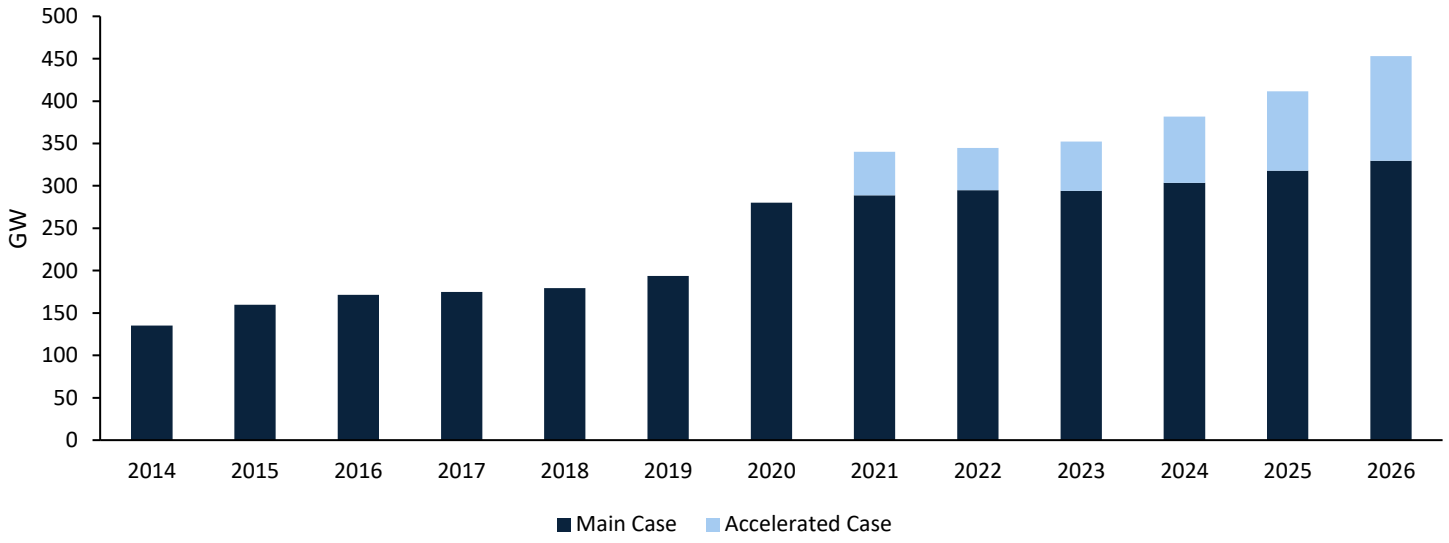
Renewable electricity growth is accelerating faster than ever

The growth of the world's capacity to generate electricity from solar panels, wind turbines and other renewable technologies is on course to accelerate over the coming years, with 2021 setting a record for new installations, according to a report from the IEA. By 2026, global renewable electricity capacity is forecast to rise more than 60% from 2020 levels to over 4 800 GW – equivalent to the current total global power capacity of fossil fuels and nuclear combined. Renewables are set to account for almost 95% of the increase in global power capacity through 2026, with solar PV alone providing more than half. The amount of renewable capacity added over the period of 2021 to 2026 is expected to be 50% higher than from 2015 to 2020. This is driven by stronger support from government policies and more ambitious clean energy goals announced before and during the COP26 Climate Change Conference.

Exhibit 8: Annual renewable energy capacity additions, main and accelerated cases, 2014-2026



Source: IEA

Industry Analysis

Industry Value Chain

The Canadian & US Energy Industry value chain is broadly classified into three key segments: (1) Upstream, (2) Midstream, (3) Downstream.

The **upstream** segment consists primarily of the exploration and production of oil and natural gas. This is normally conducted by companies who identify where reserves are located (exploration) and then extract (production) the resource to be refined further down the supply chain. This segment also includes related services such as oil rig operations companies, machinery rental companies, and chemical supply companies (Oil Field Services).

The **midstream** segment is the intermediary between upstream and downstream companies. Companies in the midstream segment transport natural gas, NGLs, and crude oil from extraction sites to refineries "downstream". This is primarily done

through extensive pipeline infrastructure networks but can also be done with trucks, rails, or tankers. Other services considered to be midstream include processing, storing, and marketing carbon-based products.

The **downstream** segment includes all activities after production up until the consumer buys the product. Downstream services include refining crude oil into more commonly used products like gasoline which is then sold through retail, commercial, or wholesale channels.

Industry key metrics

EV/DACF

adjusts for the Enterprise value to debt-adjusted cash flow is one of the most common multiples to use in Oil and Gas valuation. Debt-adjusted cash flow is a metric that represents pre-tax operating cash flow adjusted for financing expenses after taxes. Other adjustments for exploration expenses may also be used. This multiple is common because it effects of a company's capital structure since other multiples can indicate a company is cheap if it uses a lot of debt.

P/CFPS

Price to cash flow per share is another common multiple used in oil and gas company valuation. The multiple compares the price of the company's stock to the operating cash flow generated per share. Since it uses operating cash flow, the multiple does not reflect exploration expenses but it does include non-cash expenses, depreciation, amortization, deferred taxes, and depletion. A benefit of P/CFPS is that it can allow for better comparison across the sector but be careful because it can be misleading because of a company's financial leverage compares to peers.

EV/EBITDAX

EV/EBITDAX is a variation on the EV/EBITDA multiple. The X stands for exploration costs and this multiple is often used by upstream companies where a major expense is the exploration, where they find reserves before developing them. Given that exploration costs are capitalized over many years since exploration results in multi-year assets on the balance sheet, EBITDAX gives a more accurate EBITDA for oil E&P companies. EBITDAX also helps compare companies of different sizes by adjusting for any depreciation or amortization accounting differences.

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Pembina Pipeline Corporation (TSX: PPL)

Midstream – Energy

Pembina is pumping out sustainability

January 2022

Pembina Pipeline is a Canadian corporation that operates transportation and storage infrastructure delivering oil and natural gas to and from parts of Western Canada. The Company also owns gas gathering and processing facilities; an oil and natural gas liquids infrastructure and logistics business; and is growing an export terminals business.

Internal ESG Strategy Analysis

Pembina is committed to a 30% GHG emission intensity reduction target by 2030, relative to baseline 2019 emissions. Under the umbrella of operational opportunities, they are aiming to optimize pipeline capacity and modernize compression facilities to reduce the amount of energy consumed. They are increasing the use of renewable energy through their purchase agreement with TransAlta on the Garden Plain Wind Power Project. On top of this, they are developing the Alberta Carbon Grid to effectively manage emissions and contribute to a lower carbon economy.

Midstream Sector - ESG Analysis

The members of the Alerian Midstream Energy Index are continuing to make strides on the ESG front, building the case for midstream energy infrastructure as an ESG conscious investment. Notable projects include Pembina and TC Energy's plan to develop the Alberta Carbon Grid, The Williams Company's collaboration with Microsoft to explore digital technology and innovation to help assess renewable opportunities, and Enlink's formation of the Enlink Carbon Solutions Group. On top of this, sustainability reporting and the disclosure of ESG-related metrics has become a norm among midstream companies.

Risks

The COVID-19 pandemic presents a risk both to Pembina as a company and their ESG initiatives. The pandemic has cause increased volatility in the commodity markets and disruptions in global supply chains, making Pembina's cash flows and operations unstable. This in turn makes it difficult for Pembina to devote their cash towards ESG initiatives, rather than focusing on the core operations of the business.

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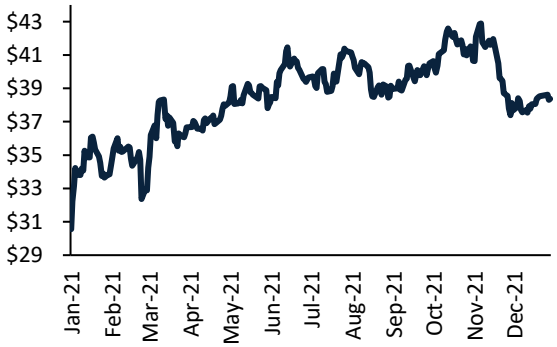
Trading Statistics	
Current Price	**USD$ 38.37**
EV/EBITDA	13.63x
EV/Revenue	4.06x
Price/Book Value	1.42x
MBOE/d	3464

Key Statistics	
52 Week H/L	$43.0/$30.5
Market Capitalization	$20.7B
Average Daily Trading Volume	$2.18M
Net Debt	$11.7B
Enterprise Value	$32.4B
Net Debt/EBITDA	4.91x
Shares Outstanding	$550.4M
Free Float	99%
Dividend Yield	6.57%

Sustainability Comparables – Risk Ratings

	PPL	TRP	ENB
Environment	9.5	11.5	8.5
Social	5.8	7.9	7.9
Governance	3.2	3.6	3.7
Overall	**19**	**23**	**20**

1-Year Price Performance



Whitecap Energy Inc. (TSX: WCP)

Exploration & Production – Energy

Whitecap is Putting the Cap on Emissions

January 2022

Whitecap Resources' is a Calgary-based intermediate Exploration & Production company operating in Western Canada since 2009. The Company focuses on the development of the Montney play in Northern Alberta and BC, Cardium play in Alberta, and Viking and SE SK plays in Saskatchewan. The Company is also a Canadian leader in Carbon Capture, Utilization, and Sequestration (CCUS).

Internal ESG Strategy Analysis

Whitecap Resources environmental strategy is largely based around their Weyburn CCUS facility. The facility sequestered 2M tonnes of CO2E in 2020 which helped make Whitecap net negative across scope 1 and 2 emissions by -800K tonnes CO2E. Whitecap's sustainability strategy also involves the newly acquired Joffre Viking CCUS unit acquired during the NAL acquisition in early 2021. Moving forward, the company's management have expressed their continued commitment to be a leader in CCUS and environmental leadership in the Canadian E&P space which places it in a strong position to capitalize on a low-carbon future.

Upstream Sector - ESG Analysis

With oil demand expected to peak around 2025, and strong demand expected for many years beyond that, leading producers in the E&P space are looking for ways to continue to produce with less GHG emissions. The best way right now is using CCS technology to capture carbon before, during, and after resources are used by consumers. With leading companies like those in the Oil Sands Pathway to Net-Zero proposing large-scale carbon capture projects, CCS should be on the radar for most intermediate and large-scale E&P companies in Canada.

Risk

With COVID-19 bringing a lot of demand uncertainty that is hyper-volatile, the progress made using CCS technology could be reversed if sudden drops in demand force producers to flare oil as it comes out of the well. Also, CCS technology takes funding away from other alternative energy sources (solar, wind, etc.) which means investing in the technology could lock larger producers like Suncor or Cenovus into a less diversified portfolio than it could have gained from investing in alternative energy.

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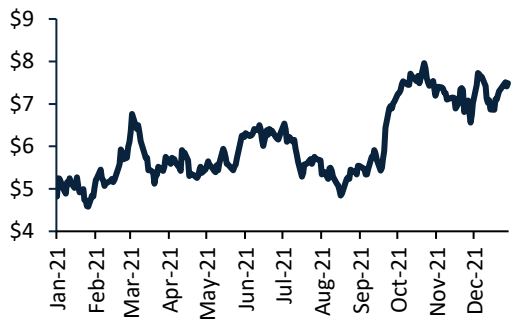
Industry Statistics	CAD
Current Price	**CAD$ 7.49**
2020A Production (boe/d)	68,662
2020A 2P Reserves (mboe)	506,654
2020A Corporate Netback	$18.20
2020A DACF	$483,103
2020A CFPS	$1.06

Key Statistics	
52 Week H/L	$8.00/$4.46
Market Capitalization	$4,754M
Average Daily Trading Volume	3.23M
Net Debt	$1,255M
Enterprise Value	$6,009M
Diluted Shares Outstanding	634.7M
Free Float	98.6%
Dividend Yield	3.60%

Sustainability Comparables

TSX Ticker	WCP	TOU	ARX
Environment	40	43	56
Social	21	31	37
Governance	43	54	55
S&P ESG Score	35	44	50

1-Year Price Performance



Analyst: Adam Parolin, BCom. '23

Husky Energy Inc. – Target (TSX:HSE)

Cenovus Energy Inc. – Acquirer (TSX:CVE)

Natural Resources - Energy

Cenovus Creates an Integrated Energy Powerhouse

January 5, 2021

Cenovus Energy Inc (Cenovus) announced on 10/15/2020 their intent to acquire competitor Husky Energy Inc (Husky) for $13.2B. The deal creates a resilient vertically integrated energy leader that provides superior returns for investors while placing a strong focus on ESG performance. The transaction closed on January 4th, 2021 and the companies were fully amalgamated on March 31st, 2021.

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Cenovus's acquisition of Husky was beneficial for two main reasons. Firstly, the company now has a fully integrated value chain with refining activities in the US that are capable of supporting almost all Canadian heavy crude production. This means less exposure to WCS prices and more opportunities for selling oil in stronger markets. Secondly, the deal provides Cenovus with diversified stable cash flows to continue with their goal of reaching $10B of net debt over the next couple of years.

Synergies

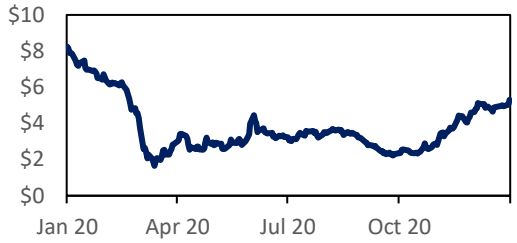
The deal could realize an estimated $1.2B of synergies from the cost and capital efficiencies in the combined company. Through workforce optimization and IT system consolidation, Cenovus has the potential to realize $600B of cost synergies. The combined company could also benefit from an estimated $600B in sustaining capital efficiencies.

Industry Analysis

Oil and Gas companies have just been through one of the most active M&A years in history. In 2020 and 2021, the industry saw major consolidations with small, medium, and large players. Although initially hit hard by the pandemic, oil companies have mostly recovered from the pandemic as oil and gas prices have hit recent highs. The industry is expected to continue recovering from the pandemic and turn its focus to energy transition as more and more governments enact mandates surrounding climate change.

Key Statistics - Target	
52 Week H/L	$10.7/$2.4
Market Capitalization	6.795M
Average Daily Trading Volume	3.07M
Net Debt	$5,395.1M
Enterprise Value	$11,471.6M
Net Debt/EBITDA	N/A
Diluted Shares Outstanding	1,005M
Dividend Yield	0.074%

1-Year Price Performance



Key Statistics - Acquirer	
52 Week H/L	$13.5/$5.5
Market Capitalization	$25,897.5M
Average Daily Trading Volume	9.903M
Net Debt	$11,074.1M
Enterprise Value	$260M
Net Debt/EBITDA	38.5x
Diluted Shares Outstanding	2,017.7M
Dividend Yield	10%

1-Year Price Performance

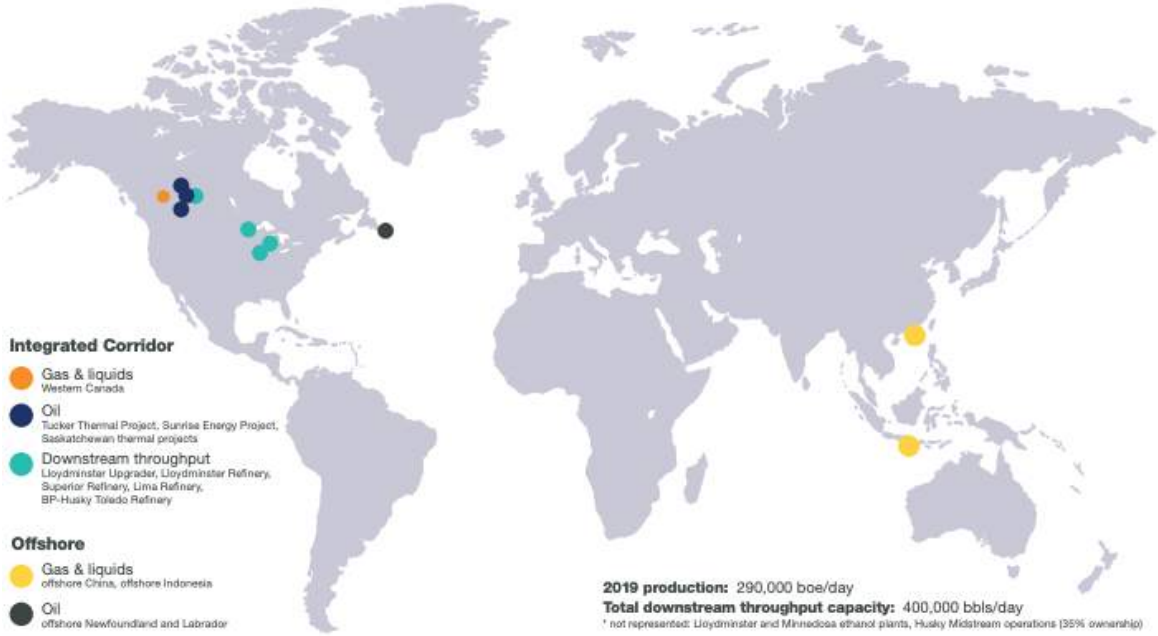
Adam Parolin & Logan Hale | contact@westpeakresearch.com

Business Overview – Husky Energy Inc *(pre-acquisition)*

Company Overview

Husky Energy Inc. was involved in the explorations, development, and production of Oil and Natural Gas. The company also has business lines in pipeline operations, downstream refining and retailing, and commodity trading. Before the merger, they were one of Canada's largest oil and gas companies focused primarily within Alberta and Saskatchewan. The company operated 2 main segments: (1) Integrated Corridor Operations and (2) Offshore Operations

Exhibit 9: Husky Energy Asset Map



Integrated Corridor Operations

The integrated corridor operations consisted of 5 main business segments: (1) Lloydminster Heavy Oil Value Chain, (2) Oil Sands, (3) Western Canada Production, (4) U.S Refining, and (5) Canadian Refined Products. The Lloydminster segment included the explorations for and the development and production of heavy crude oil and bitumen, as well as the production of ethanol. The segment also includes a key upgrading facility to turn heavy crude into more valuable synthetic crudes. The operation was complemented by the midstream infrastructure and marketing divisions that transport and market both the Company's and third-party commodities. The segment produces 124 mboe/d.

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The U.S Refining business segment included the refining of crude oil at the Lima Refinery, jointly owned BP-Husky Toledo Refinery, and the Superior Refinery. The major outputs were diesel fuel, gasoline, jet fuel, asphalt, and other carbon-based products. Lastly, the Canadian Refined Products business segment included the marketing of Husky's own and third-party volumes of refined petroleum products like gasoline and diesel through the operation of 549 retail gas stations and other petroleum outlets.

Offshore Operations

Offshore Operations for Husky made up 25% of total production (68 mboe/day) in 2020. The operation consisted of production from the Asia Pacific region and Atlantic region. The Asia Pacific segment operated offshore production in China and Indonesia (50.4 mboe/day). The Atlantic segment was primarily focused in Newfoundland and Labrador, Canada (17.6 mboe/day).

Company Strategy

Prior to the acquisition, Husky Energy Inc's corporate strategy focused on three key pillars: (1) Improving Safety, Reliability, & ESG Performance, (2) Business Resilience, and (3) being positioned for value capture.

Improving Safety, Reliability, & ESG Performance

The company placed a lot of value on the safety and reliability of its operations. In 2019, the company had no major incidents and improved their lost-time incidence rate by 55%. The Company's success continued into 2020 with again, no major incidents and another 20% reduction in the lost time incident rate. The Company had set a target to be a global top quartile safety performer by the end of 2022 through promoting a safety culture and extensive systems, processes and continued learning to prevent employee and contractor injuries. With strong performance in safety and reliability over the past year, Husky had turned its focus to ESG performance. This would be done through (1) Defined carbon intensity targets and (2) Diversity targets. The Company has set a target to reduce scope 1 greenhouse gas emissions by 25% through 2025 with 2015 as the base year and Husky aspired to be net-zero by 2050. The plan to become net-zero and to achieve the 25% GHG emission reduction goal will be achieved through the generation of carbon offsets through beyond compliance emission reductions as well as continued contributions to joint industry air emissions management initiatives.

Business Resilience

Since 2019, the funding priorities of the company had remained unchanged. With no debt maturing until 2022 the company has a strong balance sheet and plans to prioritize early debt reduction and balance sheet resilience. This would be performed through capital spending cuts to ensure ample liquidity through the pandemic (management deferred 2 capital projects and planed to put other CAPEX projects on hold), reducing the dividend through the pandemic to retain cash, optimizing production to reduce cash-negative margin production, and continued construction of current oil field projects

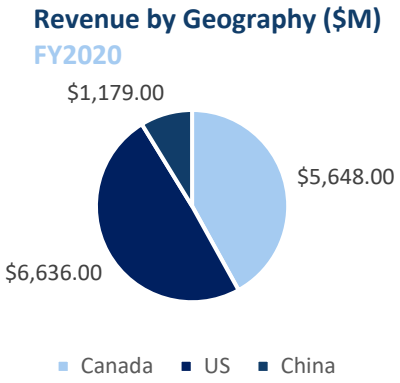
to increase production. This combined with the existing stable cash flow through integrated upstream, midstream, and downstream channels positioned the company well to weather the pandemic.

Positioned For Value Capture

The Company's third pillar of its strategy was to continually position itself for full value chain capture. On the upstream side, the Company was supported by long-life SAGD (Steam Assisted Gravity Drainage) assets with a large resource base. The size of the operation allowed the company to have low operating and sustaining capital costs. The strategy of shutting or reducing uneconomic production also ref into the Company's long-term value capture plan of prioritizing value over volume. In the midstream segment, the company had 5.6M barrels of storage assets and a 75,000 bbls/day capacity on existing pipelines allowing Husky to capture value based on both time and location arbitrage. On the downstream side, the Company had competitive margins and cost structure allowing for efficient and competitive operations. Their 355,000 bbls/day Downstream processing capacity also complemented their upstream production to allow for an almost fully integrated operation from well to consumer.

Revenue Breakdown

Husky Energy Inc much like other oil and gas companies has 2 main ways to segment revenue. For the year ending 2020, 41.95% of revenue came from Canadian operations, 49.29% came from US operations, and the remaining 8.76% came from Chinese operations. Looking at the value chain revenue segmentation, 32.88% of revenue came from upstream E&P operations primarily focused in Canada, 60.34% came from downstream refining or upgrading operations, and the final 6.78% came from other operations such as offshore drilling and eliminations.

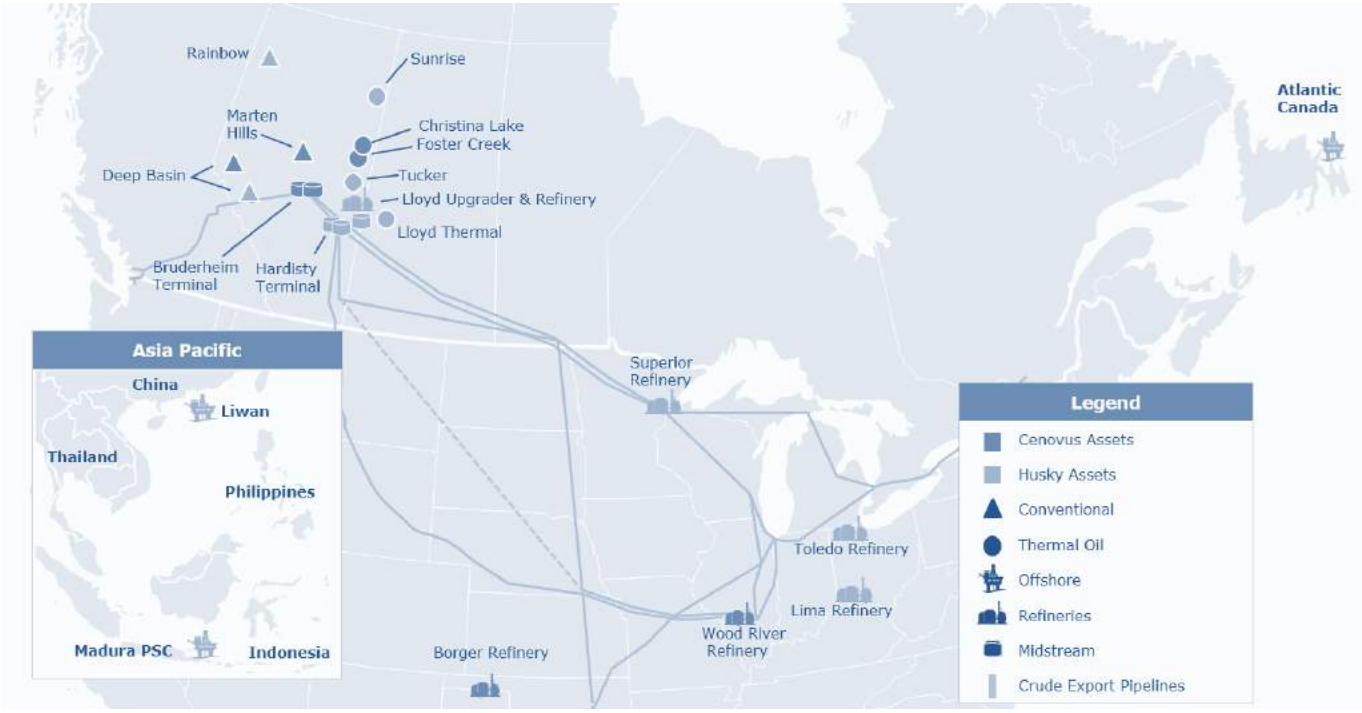


Business Overview – Cenovus Energy Inc.

Company Overview

Cenovus Energy Inc is an integrated Canadian oil company. Similar to Husky, the company produces, transports, and refines oil and natural gas through their upstream, midstream, and downstream segments. The production portion of the company is focused in Alberta and Saskatchewan and the refining portion of the business is primarily located in Illinois and Texas (acquired from Husky). Operations for Cenovus Energy Inc. are divided into two segments: (1) Upstream Operations and (2) Downstream Operations.

Exhibit 10: Cenovus Energy Asset Map



Upstream Operations

The upstream segment of Cenovus consists of 3 subsegments: (1) Oil Sands, (2) Conventional, (3) Offshore. The Oil Sands business includes the development and production of bitumen and heavy oil in Saskatchewan and Alberta. The primary assets include Foster Creek, Christina Lake, Sunrise, and Tucker Oil Sands projects along with the Lloydminster thermal and enhanced oil recovery assets acquired from Husky Energy Inc. The Oil Sands business also includes company-owned pipeline infrastructure and terminals (some pipelines are partly owned by Husky Midstream Limited Partnership). Excess production is transported through access to third-party pipeline capacity.

The Conventional business segment includes assets rich in NGLs and natural gas. The primary locations are within the Elmworth-Wapiti, Kaybob-Edson, Clearwater, and Rainbow Lake operating areas in Alberta and British Columbia. NGLs and natural gas are transported with third-party products through access to third-party pipelines, export terminals, and storage facilities. Finally, the Offshore business was acquired in the Cenovus/Husky merger and as described above includes operations off the coast of China, Indonesia, and Atlantic Canada. In total, upstream operations had production volumes of 804.8 mboe/day YTD.

Downstream Operations

The downstream segment of Cenovus consists of 3 subsegments: (1) Canadian Manufacturing, (2) U.S manufacturing, (3) Retail. The Canadian Manufacturing business includes the Lloydminster upgrading and asphalt refining complex acquired in the Husky acquisition. Other parts of the segment include the Bruderheim crude-by-rail terminal and two ethanol plants. The segment also performs marketing activities for synthetic crude oil, asphalt, and ancillary products. The U.S. Manufacturing business includes the refining of crude oil to produce diesel fuel, gasoline, jet fuel, asphalt, and other carbon-based products. The business includes the Lima Refinery, the Superior Refinery, the Wood River and Border Refineries

(partly owned by Phillips 66), and the Toledo Refinery (partly owned by BP Products North America Inc). Finally, the retail subsegment includes the marketing of Cenovus's own and third-party carbon products through retail, commercial, and bulk petroleum outlets. This includes wholesale channels in Canada. The downstream operations of Cenovus have a total throughput of 561.4 mbbls/d YTD.

Company Strategy

Cenovus Energy Inc's strategy is to maximize shareholder value through cost leadership and realizing the best margins for their products. The statement can be further broken down into 3 main pillars: (1) Market Diversification & Integration, (2) Resilient Balance sheet and a focus on Free Funds flow, (3) A commitment to ESG leadership.

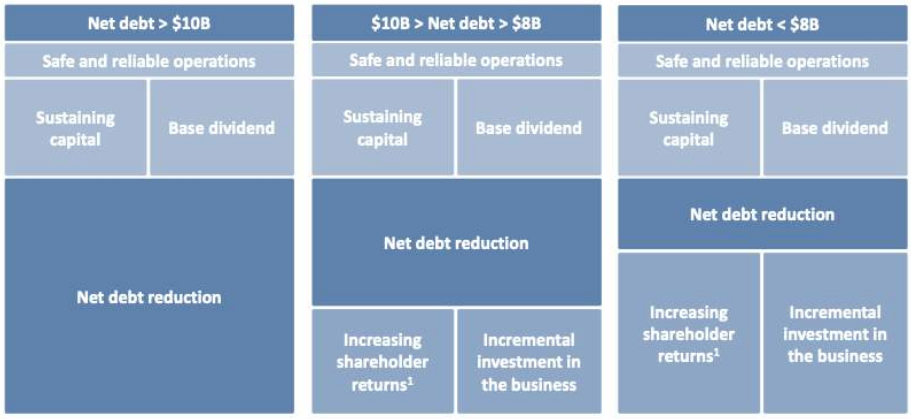
Market Diversification & Integration

The first pillar of Cenovus's strategy revolves around having an integrated portfolio of high-quality assets to ensure strong operations. This pillar of the strategy is driven by 4 main portfolios. First, top-tier heavy oil assets will allow the Company to sustain current production at low costs for 30 or more years. They also have oil sand assets with large long-life reserves. Secondly, the company is integrated vertically with extensive midstream and downstream assets to complement its upstream production. The strategic location of different midstream and downstream assets also provides Cenovus with enhanced access to different markets to capture margins. The Company also has a strategic interest in natural gas development opportunities in the liquids-rich Montney and Deep Basin regions.

Balance Sheet Strength

Cenovus is committed to continued balance sheet strength. The Company plans on strategically reducing debt over the next couple of years while maintaining its investment-grade credit profile. This is supported by growing cash balances at current commodity prices and undrawn credit facilities. The company also has time to strategically plan debt repayment with the average bond maturity being 12.5 years and bonds maturing the soonest being due in 2023. Overall, the company strategy to have disciplined capital allocation and a strong balance sheet will allow increased shareholder returns and re-investment into the business.

Exhibit 11: Cenovus Energy Balance Sheet Plan

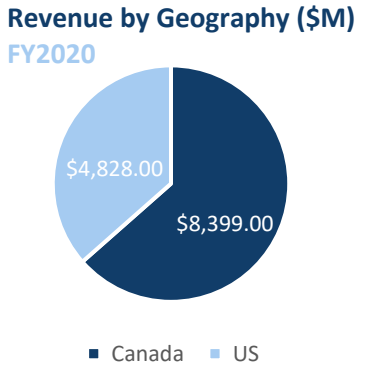


ESG Commitments

Cenovus has started to incorporate ESG strategy into all its business lines. Some key areas of focus for the company are GHG emissions, water stewardship, biodiversity, indigenous reconciliation, and inclusivity & diversity. The Company's strategy for ESG includes being an initial member of the Oil Sands Pathways to Net Zero Initiative. This is an alliance between Canada's six largest producers to reduce total oil sands greenhouse gas emissions to net-zero by 2050. A large part of this ESG strategy involves Cenovus investing in technology and innovations to make oil & gas production carbon neutral. Cenovus's ESG commitment strategy is to use Canada's well-known high ESG-ranked barrels to displace lower ESG-ranked barrels while maintaining steady cash flows to bring value to investors

Revenue Breakdown (pre-acquisition)

Looking at the same breakdown for Cenovus Energy Inc. as with Husky Energy Inc. For the year ending 2020, 63.50% of revenue came from Canadian operations and the remaining 36.50% of revenue came from US operations. For the value chain revenue segmentation, 58.86% of revenue came from upstream E&P operations primarily focused in Canada, 35.79% came from downstream refining or upgrading operations, and the final 5.35% came from other operation eliminations.



M&A Rationale

Strategic Objective

Balanced Portfolio of Assets across the Value Chain

Prior to the acquisition of Husky, Cenovus was seen to be heavily exposed to Canadian oil prices which are known to be cheaper and more volatile than U.S. prices due to egress capacity and commodity quality. The Husky acquisition creates a much more balanced company across upstream, midstream, and downstream segments.

Exhibit 12: Acquisition Production Summary

	Standalone Cenovus[1]	Standalone Husky[1]	**Pro forma company[1]**
Production (BOE/d)	~475,000	~275,000	~750,000
Upgrading & refining capacity (BOE/d)	~250,000	410,000	~660,000
2P reserves (mmBOE)	~7,000	~2,000	~9,000
Takeaway capacity from Alberta (bbls/d)			
Current pipelines	~135,000	~130,000	~265,000
Planned pipelines/expansions	~275,000	~30,000	~305,000
Crude oil storage (mmbbls)	~10	~6	~16
Sustaining capital ($billion per year)	1.2	1.8	2.4

The combined company will have almost equivalent upstream production and downstream refining capacity. Also, the combined companies' pipeline infrastructure allows for more consistent egress to the U.S. Through the extensive downstream infrastructure in the United States acquired through Husky, Cenovus also has reduced exposure to lower

Alberta WCS prices. Additionally, the combined company will have the opportunity to use heavy crude (which is cheaper) in their refineries to boost margins there while selling Husky's lighter crude (more expensive) to the market. This all leads to ultimately higher and more stable cash flows and more value for shareholders.

Boosted Cash Flow to Pay Down Debt

One of the key corporate strategies for Cenovus Energy Inc is to create a resilient balance sheet by paying down debts. Through the all-stock merger with Husky, Cenovus has the opportunity to use the cash flow from refining activities and the higher profit margins achieved from access to better market hubs to pay off debt at an accelerated rate. This could ultimately lead to the company achieving its $10B net debt target much sooner than expected. Achieving this debt target earlier will free up cash flow later on, allowing for the Company to perform more accretive acquisitions or have some buffer room for any downturns arising from the energy transition.

Synergies

The Cenovus Husky deal was most likely completed for the strong integrated company it creates as well as the 2 large synergy opportunities it could realize. The Cost Synergy from operational efficiency and the Capital Synergy from capital investment efficiency will allow for approximately $1.2B in annual cost savings.

Cost Synergy - Operational Efficiency

$600M in synergies is expected to come in the form of annual corporate and operating cost synergies. The costs are going to be cut through workforce reductions within redundant divisions of Husky as well as overhead cost savings from a streamlined IT system. Other less quantifiable synergies are also expected once the best practices of both companies can be analyzed and implemented. The most notable best practice could be the application of Cenovus's operating expertise to Husky's oil sands assets (Cenovus currently has a lower cost per barrel than Husky).

Capital Synergy - Capital Investment Efficiency

The combined company will also benefit from a capital synergy in upstream assets. In the earnings call, Cenovus representatives pointed out $600M in synergies from the upstream assets of both companies. This will be realized through pivoting capital from lower-margin production to high-margin production and development opportunities. Corporate sustaining capital for both companies will also be allocated between the upstream and downstream segments of the larger combined company. Standalone, Cenovus and Husky had sustaining capital allocation costs of $1,200M and $1,800M, respectively. After the merger, sustaining capital costs should be $2,400M which is approximately $600M in savings.

Valuation

Precedent Transactions

Cenovus Energy Inc.'s acquisition of Husky Energy Inc. was priced at a 6.8x EV/EBITDA (NTM) forward multiple based on a final purchase price of $11,179M CAD and Husky's NTM consensus mean EBITDA of $1647M CAD. Compared to other recent deals, we see that Cenovus completed this acquisition at a similar multiple to its peers which had an average of 6.9x

EV/EBITDA (NTM). One note for this precedent set is that these are all similar sized deals but the 4 deals are all acquisitions of primarily upstream companies. Given the similar geographic location, size, and industry, they should reasonably compare with the Cenovus deal.

Exhibit 13: Precedent Transaction Comparables

Date	Target	Buyer	Transaction Value ($M)	EV/EBITDA (NTM)
15-Jan-21	Concho Resources Inc.	ConocoPhillips	$ 17,173.81	6.9x
01-Oct-21	Cimarex Energy Co.	Coterra Energy Inc.	$ 10,408.45	6.2x
05-Oct-20	Noble Energy Inc	Chevron Corp	$ 12,823.90	8.4x
07-Jan-21	WPX Energy Inc.	Devon Energy Corp	$ 8,451.24	6.0x
Average				**6.9x**
Median				**6.5x**

Risks

Commodity Pricing

Valuation in the Oil and Gas industry is based on cash flows that are derived from predictions on commodity prices and the predicted production from oil and gas producing assets. If future commodity prices take a steep downturn, the stock price will be affected, and the company's valuation could drop. With oil and natural gas prices at 10-year highs, any major price drop could bring lower cash flows for the combined company making it harder to break even.

Failure to Realize Synergies

The acquisition was primarily driven by the integration of Husky into Cenovus's value chain to create a truly integrated oil and gas company. If the company fails to integrate easily, cost synergies related to corporate efficiencies might not be realized and an assumed $600M in synergies could be lost. Additionally, if sustaining capital allocation cost synergies are not as realistic as management thinks, the $600M a year savings from efficient capital allocation could also be lost.

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RESEARCH ASSOCIATION

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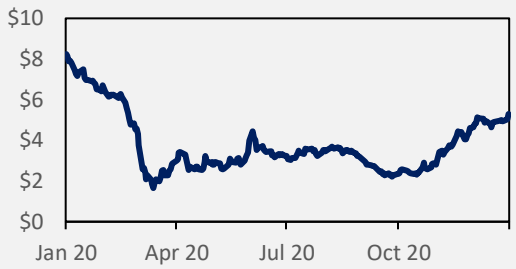

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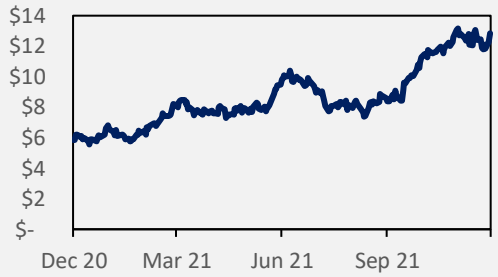

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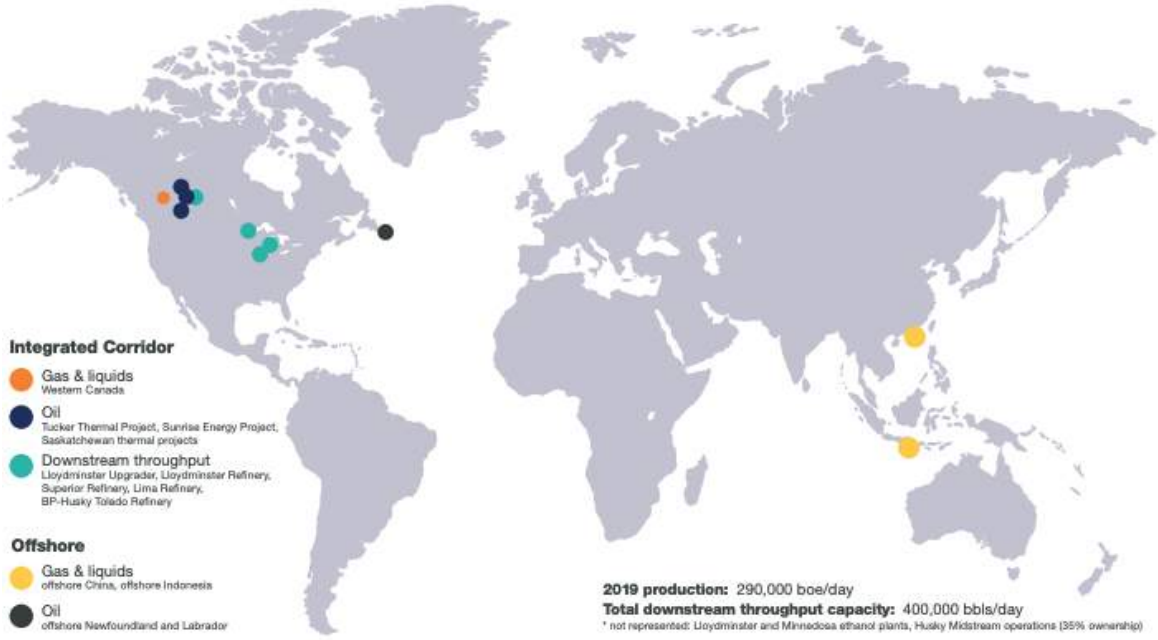

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The company placed a lot of value on the safety and reliability of its operations. In 2019, the company had no major incidents and improved their lost-time incidence rate by 55%. The Company's success continued into 2020 with again, no major incidents and another 20% reduction in the lost time incident rate. The Company had set a target to be a global top quartile safety performer by the end of 2022 through promoting a safety culture and extensive systems, processes and continued learning to prevent employee and contractor injuries. With strong performance in safety and reliability over the past year, Husky had turned its focus to ESG performance. This would be done through (1) Defined carbon intensity targets and (2) Diversity targets. The Company has set a target to reduce scope 1 greenhouse gas emissions by 25% through 2025 with 2015 as the base year and Husky aspired to be net-zero by 2050. The plan to become net-zero and to achieve the 25% GHG emission reduction goal will be achieved through the generation of carbon offsets through beyond compliance emission reductions as well as continued contributions to joint industry air emissions management initiatives.

Business Resilience

Since 2019, the funding priorities of the company had remained unchanged. With no debt maturing until 2022 the company has a strong balance sheet and plans to prioritize early debt reduction and balance sheet resilience. This would be performed through capital spending cuts to ensure ample liquidity through the pandemic (management deferred 2 capital projects and planed to put other CAPEX projects on hold), reducing the dividend through the pandemic to retain cash, optimizing production to reduce cash-negative margin production, and continued construction of current oil field projects

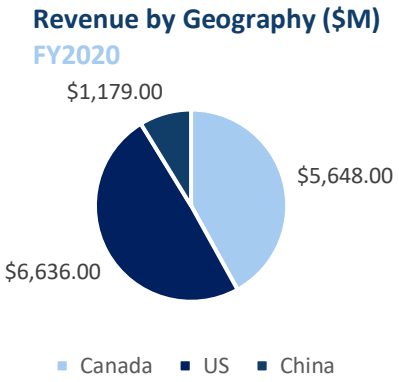
to increase production. This combined with the existing stable cash flow through integrated upstream, midstream, and downstream channels positioned the company well to weather the pandemic.

Positioned For Value Capture

The Company's third pillar of its strategy was to continually position itself for full value chain capture. On the upstream side, the Company was supported by long-life SAGD (Steam Assisted Gravity Drainage) assets with a large resource base. The size of the operation allowed the company to have low operating and sustaining capital costs. The strategy of shutting or reducing uneconomic production also ref into the Company's long-term value capture plan of prioritizing value over volume. In the midstream segment, the company had 5.6M barrels of storage assets and a 75,000 bbls/day capacity on existing pipelines allowing Husky to capture value based on both time and location arbitrage. On the downstream side, the Company had competitive margins and cost structure allowing for efficient and competitive operations. Their 355,000 bbls/day Downstream processing capacity also complemented their upstream production to allow for an almost fully integrated operation from well to consumer.

Revenue Breakdown

Husky Energy Inc much like other oil and gas companies has 2 main ways to segment revenue. For the year ending 2020, 41.95% of revenue came from Canadian operations, 49.29% came from US operations, and the remaining 8.76% came from Chinese operations. Looking at the value chain revenue segmentation, 32.88% of revenue came from upstream E&P operations primarily focused in Canada, 60.34% came from downstream refining or upgrading operations, and the final 6.78% came from other operations such as offshore drilling and eliminations.

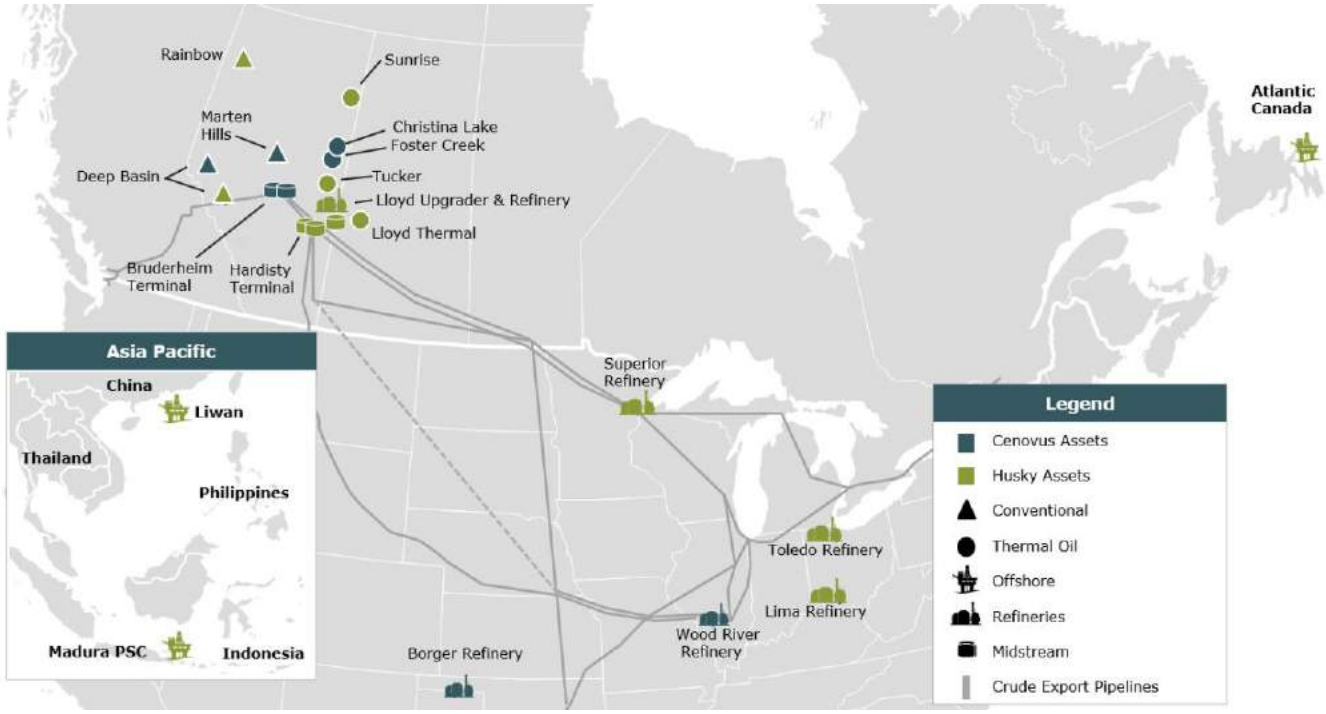


Business Overview – Cenovus Energy Inc.

Company Overview

Cenovus Energy Inc is an integrated Canadian oil company. Similar to Husky, the company produces, transports, and refines oil and natural gas through their upstream, midstream, and downstream segments. The production portion of the company is focused in Alberta and Saskatchewan and the refining portion of the business is primarily located in Illinois and Texas (acquired from Husky). Operations for Cenovus Energy Inc. are divided into two segments: (1) Upstream Operations and (2) Downstream Operations.

Exhibit 10: Cenovus Energy Asset Map



Upstream Operations

The upstream segment of Cenovus consists of 3 subsegments: (1) Oil Sands, (2) Conventional, (3) Offshore. The Oil Sands business includes the development and production of bitumen and heavy oil in Saskatchewan and Alberta. The primary assets include Foster Creek, Christina Lake, Sunrise, and Tucker Oil Sands projects along with the Lloydminster thermal and enhanced oil recovery assets acquired from Husky Energy Inc. The Oil Sands business also includes company-owned pipeline infrastructure and terminals (some pipelines are partly owned by Husky Midstream Limited Partnership). Excess production is transported through access to third-party pipeline capacity.

The Conventional business segment includes assets rich in NGLs and natural gas. The primary locations are within the Elmworth-Wapiti, Kaybob-Edson, Clearwater, and Rainbow Lake operating areas in Alberta and British Columbia. NGLs and natural gas are transported with third-party products through access to third-party pipelines, export terminals, and storage facilities. Finally, the Offshore business was acquired in the Cenovus/Husky merger and as described above includes operations off the coast of China, Indonesia, and Atlantic Canada. In total, upstream operations had production volumes of 804.8 mboe/day YTD.

Downstream Operations

The downstream segment of Cenovus consists of 3 subsegments: (1) Canadian Manufacturing, (2) U.S manufacturing, (3) Retail. The Canadian Manufacturing business includes the Lloydminster upgrading and asphalt refining complex acquired in the Husky acquisition. Other parts of the segment include the Bruderheim crude-by-rail terminal and two ethanol plants. The segment also performs marketing activities for synthetic crude oil, asphalt, and ancillary products. The U.S. Manufacturing business includes the refining of crude oil to produce diesel fuel, gasoline, jet fuel, asphalt, and other carbon-based products. The business includes the Lima Refinery, the Superior Refinery, the Wood River and Border Refineries

(partly owned by Phillips 66), and the Toledo Refinery (partly owned by BP Products North America Inc). Finally, the retail subsegment includes the marketing of Cenovus's own and third-party carbon products through retail, commercial, and bulk petroleum outlets. This includes wholesale channels in Canada. The downstream operations of Cenovus have a total throughput of 561.4 mbbls/d YTD.

Company Strategy

Cenovus Energy Inc's strategy is to maximize shareholder value through cost leadership and realizing the best margins for their products. The statement can be further broken down into 3 main pillars: (1) Market Diversification & Integration, (2) Resilient Balance sheet and a focus on Free Funds flow, (3) A commitment to ESG leadership.

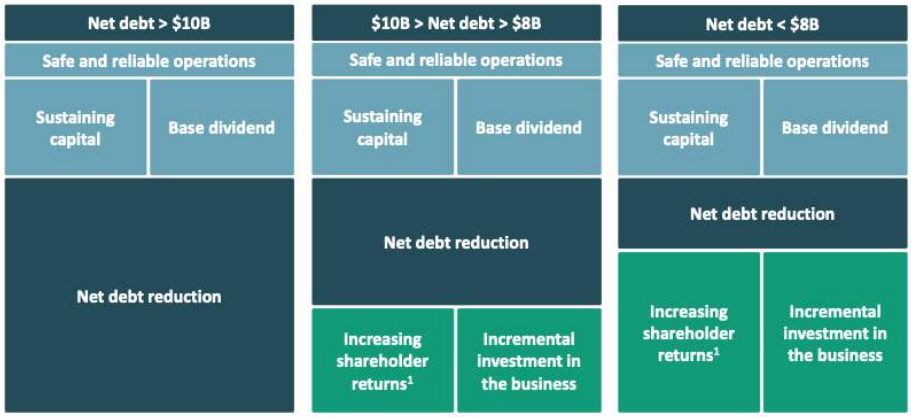
Market Diversification & Integration

The first pillar of Cenovus's strategy revolves around having an integrated portfolio of high-quality assets to ensure strong operations. This pillar of the strategy is driven by 4 main portfolios. First, top-tier heavy oil assets will allow the Company to sustain current production at low costs for 30 or more years. They also have oil sand assets with large long-life reserves. Secondly, the company is integrated vertically with extensive midstream and downstream assets to complement its upstream production. The strategic location of different midstream and downstream assets also provides Cenovus with enhanced access to different markets to capture margins. The Company also has a strategic interest in natural gas development opportunities in the liquids-rich Montney and Deep Basin regions.

Balance Sheet Strength

Cenovus is committed to continued balance sheet strength. The Company plans on strategically reducing debt over the next couple of years while maintaining its investment-grade credit profile. This is supported by growing cash balances at current commodity prices and undrawn credit facilities. The company also has time to strategically plan debt repayment with the average bond maturity being 12.5 years and bonds maturing the soonest being due in 2023. Overall, the company strategy to have disciplined capital allocation and a strong balance sheet will allow increased shareholder returns and re-investment into the business.

Exhibit 11: Cenovus Energy Balance Sheet Plan



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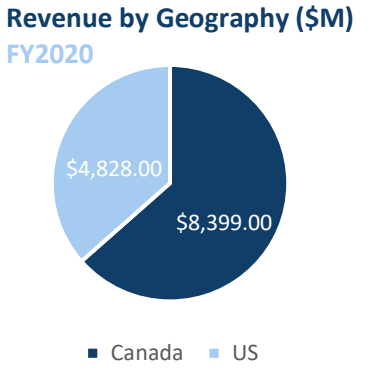
ESG Commitments

Cenovus has started to incorporate ESG strategy into all its business lines. Some key areas of focus for the company are GHG emissions, water stewardship, biodiversity, indigenous reconciliation, and inclusivity & diversity. The Company's strategy for ESG includes being an initial member of the Oil Sands Pathways to Net Zero Initiative. This is an alliance between Canada's six largest producers to reduce total oil sands greenhouse gas emissions to net-zero by 2050. A large part of this ESG strategy involves Cenovus investing in technology and innovations to make oil & gas production carbon neutral. Cenovus's ESG commitment strategy is to use Canada's well-known high ESG-ranked barrels to displace lower ESG-ranked barrels while maintaining steady cash flows to bring value to investors

Revenue Breakdown (pre-acquisition)

Looking at the same breakdown for Cenovus Energy Inc. as with Husky Energy Inc. For the year ending 2020, 63.50% of revenue came from Canadian operations and the remaining 36.50% of revenue came from US operations. For the value chain revenue segmentation, 58.86% of revenue came from upstream E&P operations primarily focused in Canada, 35.79% came from downstream refining or upgrading operations, and the final 5.35% came from other operation eliminations.



Industry Analysis

Industry Value Chain

The Canadian & US Energy Industry value chain is broadly classified into three key segments: (1) Upstream, (2) Midstream, (3) Downstream.

The **upstream** segment consists primarily of the exploration and production of oil and natural gas. This is normally conducted by companies who identify where reserves are located (exploration) and then extract (production) the resource to be refined further down the supply chain. This segment also includes related services such as oil rig operations companies, machinery rental companies, and chemical supply companies (Oil Field Services).

The **midstream** segment is the intermediary between upstream and downstream companies. Companies in the midstream segment transport natural gas, NGLs, and crude oil from extraction sites to refineries "downstream". This is primarily done through extensive pipeline infrastructure networks but can also be done with trucks, rails, or tankers. Other services considered to be midstream include processing, storing, and marketing carbon-based products.

The **downstream** segment includes all activities after production up until the consumer buys the product. Downstream services include refining crude oil into more commonly used products like gasoline which is then sold through retail, commercial, or wholesale channels.

Industry key metrics

EV/DACF

adjusts for the Enterprise value to debt-adjusted cash flow is one of the most common multiples to use in Oil and Gas valuation. Debt-adjusted cash flow is a metric that represents pre-tax operating cash flow adjusted for financing expenses after taxes. Other adjustments for exploration expenses may also be used. This multiple is common because it effects of a company's capital structure since other multiples can indicate a company is cheap if it uses a lot of debt.

P/CFPS

Price to cash flow per share is another common multiple used in oil and gas company valuation. The multiple compares the price of the company's stock to the operating cash flow generated per share. Since it uses operating cash flow, the multiple does not reflect exploration expenses but it does include non-cash expenses, depreciation, amortization, deferred taxes, and depletion. A benefit of P/CFPS is that it can allow for better comparison across the sector but be careful because it can be misleading because of a company's financial leverage compares to peers.

EV/EBITDAX

EV/EBITDAX is a variation on the EV/EBITDA multiple. The X stands for exploration costs and this multiple is often used by upstream companies where a major expense is the exploration, where they find reserves before developing them. Given that exploration costs are capitalized over many years since exploration results in multi-year assets on the balance sheet, EBITDAX gives a more accurate EBITDA for oil E&P companies. EBITDAX also helps compare companies of different sizes by adjusting for any depreciation or amortization accounting differences.

M&A Rationale

Strategic Objective

Balanced Portfolio of Assets across the Value Chain

Prior to the acquisition of Husky, Cenovus was seen to be heavily exposed to Canadian oil prices which are known to be cheaper and more volatile than U.S. prices due to egress capacity and commodity quality. The Husky acquisition creates a much more balanced company across upstream, midstream, and downstream segments.

Exhibit 12: Acquisition Production Summary

	Standalone Cenovus[1]	Standalone Husky[1]	**Pro forma company[1]**
Production (BOE/d)	~475,000	~275,000	~750,000
Upgrading & refining capacity (BOE/d)	~250,000	410,000	~660,000
2P reserves (mmBOE)	~7,000	~2,000	~9,000
Takeaway capacity from Alberta (bbls/d)			
Current pipelines	~135,000	~130,000	~265,000
Planned pipelines/expansions	~275,000	~30,000	~305,000
Crude oil storage (mmbbls)	~10	~6	~16
Sustaining capital ($billion per year)	1.2	1.8	2.4

The combined company will have almost equivalent upstream production and downstream refining capacity. Also, the combined companies' pipeline infrastructure allows for more consistent egress to the U.S. Through the extensive downstream infrastructure in the United States acquired through Husky, Cenovus also has reduced exposure to lower Alberta WCS prices. Additionally, the combined company will have the opportunity to use heavy crude (which is cheaper) in their refineries to boost margins there while selling Husky's lighter crude (more expensive) to the market. This all leads to ultimately higher and more stable cash flows and more value for shareholders.

Boosted Cash Flow to Pay Down Debt

One of the key corporate strategies for Cenovus Energy Inc is to create a resilient balance sheet by paying down debts. Through the all-stock merger with Husky, Cenovus has the opportunity to use the cash flow from refining activities and the higher profit margins achieved from access to better market hubs to pay off debt at an accelerated rate. This could ultimately lead to the company achieving its $10B net debt target much sooner than expected. Achieving this debt target earlier will free up cash flow later on, allowing for the Company to perform more accretive acquisitions or have some buffer room for any downturns arising from the energy transition.

Synergies

The Cenovus Husky deal was most likely completed for the strong integrated company it creates as well as the 2 large synergy opportunities it could realize. The Cost Synergy from operational efficiency and the Capital Synergy from capital investment efficiency will allow for approximately $1.2B in annual cost savings.

Cost Synergy - Operational Efficiency

$600M in synergies is expected to come in the form of annual corporate and operating cost synergies. The costs are going to be cut through workforce reductions within redundant divisions of Husky as well as overhead cost savings from a streamlined IT system. Other less quantifiable synergies are also expected once the best practices of both companies can be analyzed and implemented. The most notable best practice could be the application of Cenovus's operating expertise to Husky's oil sands assets (Cenovus currently has a lower cost per barrel than Husky).

Capital Synergy - Capital Investment Efficiency

The combined company will also benefit from a capital synergy in upstream assets. In the earnings call, Cenovus representatives pointed out $600M in synergies from the upstream assets of both companies. This will be realized through pivoting capital from lower-margin production to high-margin production and development opportunities. Corporate sustaining capital for both companies will also be allocated between the upstream and downstream segments of the larger combined company. Standalone, Cenovus and Husky had sustaining capital allocation costs of $1,200M and $1,800M, respectively. After the merger, sustaining capital costs should be $2,400M which is approximately $600M in savings.

Valuation

Precedent Transactions

Cenovus Energy Inc.'s acquisition of Husky Energy Inc. was priced at a 6.8x EV/EBITDA (NTM) forward multiple based on a final purchase price of $11,179M CAD and Husky's NTM consensus mean EBITDA of $1647M CAD. Compared to other recent deals, we see that Cenovus completed this acquisition at a similar multiple to its peers which had an average of 6.9x EV/EBITDA (NTM). One note for this precedent set is that these are all similar sized deals but the 4 deals are all acquisitions of primarily upstream companies. Given the similar geographic location, size, and industry, they should reasonably compare with the Cenovus deal.

Exhibit 13: Precedent Transaction Comparables

Date	Target	Buyer	Transaction Value ($M)	EV/EBITDA (NTM)
15-Jan-21	Concho Resources Inc.	ConocoPhillips	$ 17,173.81	6.9x
01-Oct-21	Cimarex Energy Co.	Coterra Energy Inc.	$ 10,408.45	6.2x
05-Oct-20	Noble Energy Inc	Chevron Corp	$ 12,823.90	8.4x
07-Jan-21	WPX Energy Inc.	Devon Energy Corp	$ 8,451.24	6.0x
Average				**6.9x**
Median				**6.5x**

Risks

Commodity Pricing

Valuation in the Oil and Gas industry is based on cash flows that are derived from predictions on commodity prices and the predicted production from oil and gas producing assets. If future commodity prices take a steep downturn, the stock price will be affected, and the company's valuation could drop. With oil and natural gas prices at 10-year highs, any major price drop could bring lower cash flows for the combined company making it harder to break even.

Failure to Realize Synergies

The acquisition was primarily driven by the integration of Husky into Cenovus's value chain to create a truly integrated oil and gas company. If the company fails to integrate easily, cost synergies related to corporate efficiencies might not be realized and an assumed $600M in synergies could be lost. Additionally, if sustaining capital allocation cost synergies are not as realistic as management thinks, the $600M a year savings from efficient capital allocation could also be lost

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Concho Resources Inc. – Target (NYSE: CXO)

ConocoPhillips – Acquirer (NYSE: COP)

Natural Resources – Oil & Gas

ConocoPhillips Consumes Concho

December 7, 2021

On October 19, 2020, ConocoPhillips Inc. (NYSE:COP) announced their plans to conduct a friendly acquisition of Concho Resources (NYSE: CXO) for USD $9.68 billion. As of January 15, 2021, Concho Resources was officially taken over in an all-stock acquisition for USD $13.72 billion, where each Concho common share was converted to the right to receive 1.46 common shares of ConocoPhillips.

Target Company Strategic Objectives

Concho stakeholders were in overall concurrence that they were supportive of the acquisition, with 97.85% of Concho shareholders voting in favour of the merger proposal. Given Concho was a pure player in Permian exploration, concerns regarding the long-term longevity of demand for fossil fuels, and increasing ESG requirements, management felt this acquisition would reduce the impact of these headwinds by diversifying its portfolio and gaining lower costs to capital.

Acquirer Company Strategic Objectives

ConocoPhillips frequently makes acquisitions and divestitures with the sole objective of becoming the largest independent oil and gas company in the world. The company management saw an opportunity with this deal to improve its financial and operational efficiencies, through incorporating more low cost of supply resources, ultimately improving overall scalability.

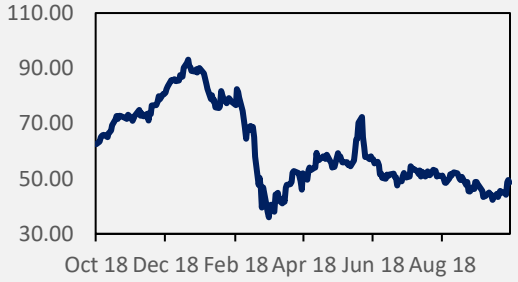
Synergies

The two companies estimated that the acquisition would result in major cost synergies after a revised exploration approach, which considered shared assets, geographical presence, as well as general and administrative expenses. From achieving a lower cost of supply, they also expected to enhance their ability to scale and fund strategic projects addressing industry headwinds, such as growing pressures towards diversifying away from fossil fuels.

Analyst: Jeffrey Low, BCom. '24
contact@westpeakresearch.com

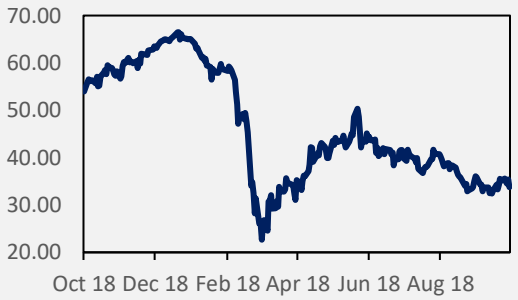
Key Statistics – Concho Resources Inc.	
52 Week H/L (Oct-16-2020)	$93.34/$33.13
Market Capitalization	$9.36B
Average Daily Trading Volume	1.99M
Net Debt	$3.45B
Enterprise Value	$12.9B
Net Debt/EBITDA	1.3x
Diluted Shares Outstanding	198M
Dividend Yield	1.7%

1-Year Price Performance



Key Statistics – ConocoPhillips	
52 Week H/L (Oct-16-2020)	$67.13/$20.84
Market Capitalization	$36.22B
Average Daily Trading Volume	8.07M
Net Debt	$8.06B
Enterprise Value	$42.36B
Net Debt/EBITDA	1.2x
Diluted Shares Outstanding	1.07B
Dividend Yield	1.24%

1-Year Price Performance

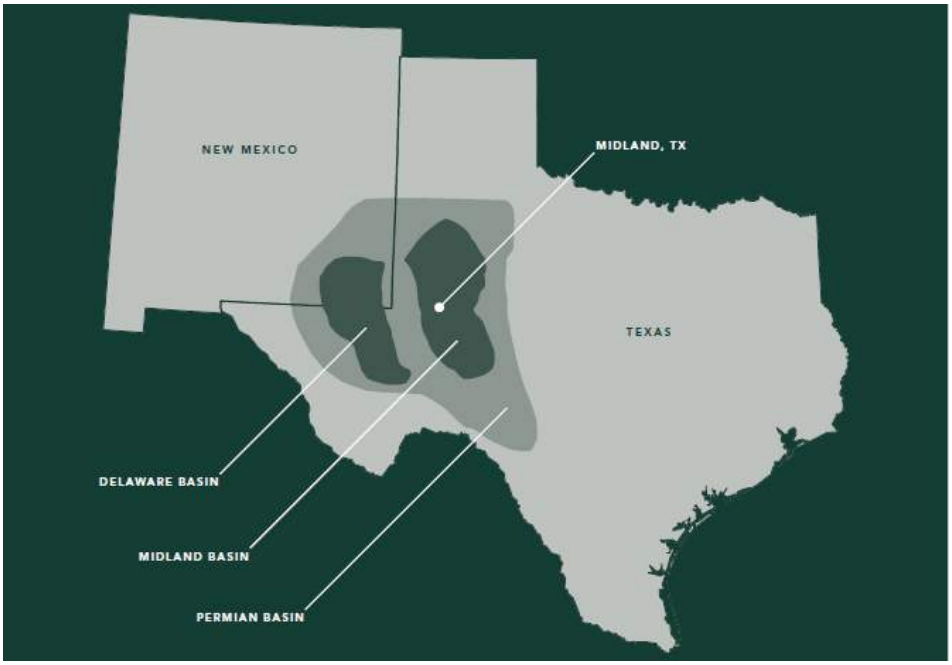


Business Overview – Concho Resources Inc. (Target)

Company Overview

Prior to its acquisition by ConocoPhillips, Concho Resources was an independent an oil and gas company headquartered in Midland, Texas. Their operations were centred around the Permian basin (Exhibit 1), particularly in the Delaware and Midland Basins, a combined total area of approximately 250 miles wide and 300 miles long. In December 2019, Concho had estimated proved reserves of 556 million barrels of oil equivalent in its Delaware Basin, 55% of its total proved reserves, and 446 million barrels of oil equivalent in its Midland Basin, representing 45% of its total proved reserves.

Exhibit 1: Locations of Operations



Source: Concho Resources FY19 Annual Report

Business Overview – ConocoPhillips (Acquirer)

Company Overview

Headquartered in Houston, Texas, ConocoPhillips is an independent exploration and production company with global operations in 15 countries. ConocoPhillips engages in the production, transportation, and advertisement of natural gas, crude oil, LNG, NGL and bituminate. The company was incorporated in November 2001, when Conoco Inc. and Phillips Petroleum Company agreed to merge. As of September 30, 2020, they have a presence in six distinct geographical regions: Alaska; Lower 48 (all states in the US excluding Alaska and Hawaii); Canada; Europe, Middle East, and North Africa; Asia Pacific. They have since expanded their global presence following the acquisition of Concho (Exhibit 2).

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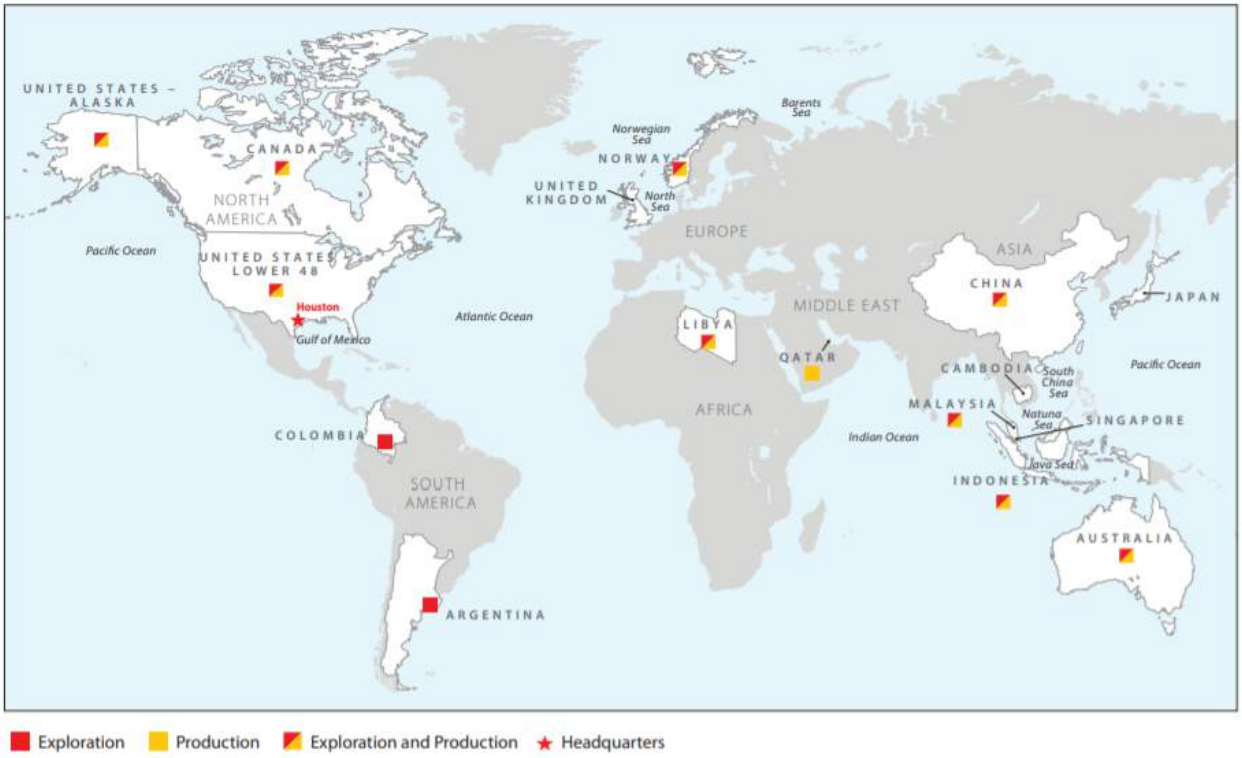
Exhibit 2: Worldwide Operations and Locations



Source: ConocoPhillips Online Fact Sheet

Industry Analysis

Permian Basin

The Permian Basin, located across West Texas and Southeast New Mexico of the United States, is one of the most highly investigated geological regions on the planet, due to its prominent natural gas, potassium, and petroleum deposit scattered across 75,000 square miles of land. In essence, the Permian Basin is divided into three geographical zones: the Delaware Basin on the west, Central Basin Platform in the centre, and Midland Basin on the east. Most producers, notably Concho Resources, are focused on conducting operations in the Delaware and Midland Basins, which together represent the United States' largest crude oil-producing basin. According to estimates from *Enverus*, since the 1920s when exploration had first begun in the Permian Basin, 30 billion barrels of oil and 75 trillion cubic feet of natural gas have been produced.

Value Chain

Companies in the oil and gas industry are categorized into three main segments: upstream, midstream, and downstream. Depending on where companies fall under these segments, this will indicate what they fall under the value chain. In the upstream, companies focus on the exploration and production of crude oil and natural gas, including oil rig operators, pressure pumpers, and engineering firms. Next, midstream companies support the transportation of the extracted oil and

gas from the upstream to the downstream operations, through offering pipeline development, trucking, and oil tanker services. At the end of the value chain, the downstream companies, such as petroleum distributors, natural gas distributors, and retail outlets, focus on preparing and marketing these products for their retail clients.

Energy Transition – Leaner and Greener

During the pandemic, oil and gas companies were already fighting to minimize costs and optimize operations to survive. In tandem with financial considerations, companies in the oil and gas sector need to adapt to offering diversified portfolios of services apart from oil and gas, so they can capture the needs of shifting consumer demand. Many oil and gas giants are attempting to evolve their business models to become integrated energy players, where they need to balance standing their ground in their current markets, while also making efforts to enter new low-carbon energy arenas. According to *Mckinsey* in their report "The Big Choices for Oil and Gas in Navigating the Energy Transition," the giants' initial steps towards becoming integrated energy players should be to quickly adapt their operating models to integrate carbon management capabilities, which entails quantifying how much carbon their products and services produce, developing plans to reduce their emissions, and communicating these processes to stakeholders.

ESG Considerations in M&A Activity

In view of the changes in investor sentiment towards fossil fuels, there has been a significant change in how companies are operating in accordance with ESG requirements in their respective industries. Presently, companies are pressured to meet net-zero targets by their stakeholders, so it is becoming increasingly important that companies consider approaching mergers and acquisitions of companies that meet a standard of ESG criteria. Particularly for companies in the oil and gas industry, it is pivotal that ESG is considered in valuation since the market is already hyper competitive, otherwise a loss in stakeholder support because of a regretful deal could be detrimental to a company's survival.

M&A Rationale

Strategic Objectives

The main objective of ConocoPhillips is to become the largest player in the oil and gas industry globally. Their management stated that their strategy is to undergo frequent transactions to improve operational and financial efficiencies as they expand their global presence into different markets.

Cost Synergies

The main synergies that ConocoPhillips aimed to gain from their acquisition of Concho Resources were cost synergies, specifically on the production side. It was estimated that ConocoPhillips' acquisition would result in $500 million in realized cost synergies by 2022, where $400 million will come from ConocoPhillips and $100 million will come from Concho. Among the $400 million in savings from ConocoPhillips, $250 million would be a result of a revised exploration strategy, reducing overall general and administrative expenses, geological and geophysical costs, and the exploration capital budget.

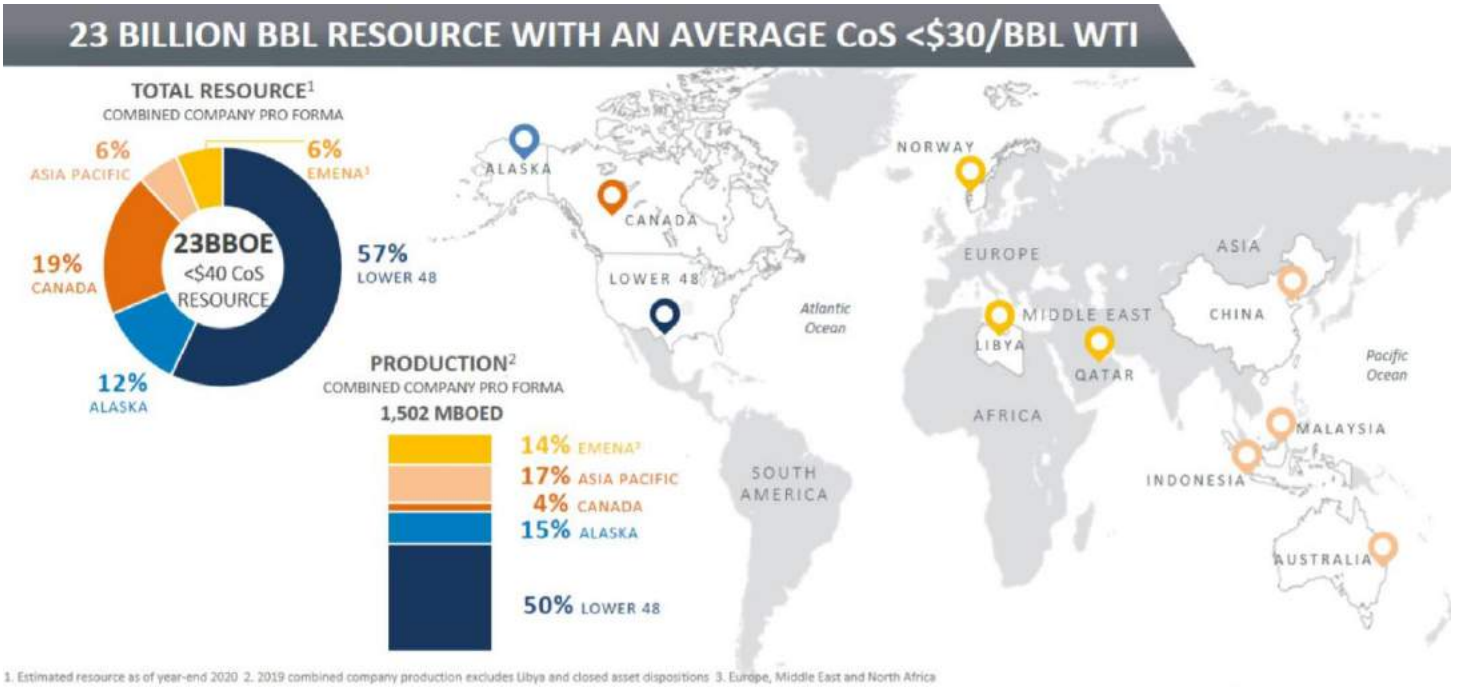
Scaling Potential

Additionally, ConocoPhillips had great scaling potential because of Concho's prominence in the Permian Basin. Prior to the deal, Concho had access to a large plot of the Permian Basin, so combining those with ConocoPhillips' existing wells (Exhibit 3) was anticipated to create economies of scale. Concho could share existing technologies, transportation, and expertise in the Permian with ConocoPhillips to extract the companies' combined resource base of 23 billion barrels of oil equivalent (Exhibit 4) more efficiently, leading to increased free cash flow generation. They hoped to employ this free cash flow to fund future initiatives to further adapt to headwinds causing the decline in fossil fuels and defend against commodity price volatility.

Exhibit 3: The Combined Operating Areas of ConocoPhillips and Concho

Source: ConocoPhillips & Concho Resources Transaction Announcement

Exhibit 4: Map of ConocoPhillips and Concho Resources' Combined Presence



Source: ConocoPhillips & Concho Resources Transaction Announcement

Lower Cost of Capital

Through the merger, the companies were projected that the acquisition would materially decrease their combined cost of capital. It was expected that due to their diversified portfolio of operations and broad geographical scope, they would be less vulnerable to price inflections of any single resource alone, such as oil, gas, or LNG. Taking in consideration their low cost of supply from cost synergies and diversified operations, the combined company was anticipated to gain higher credit ratings and thus superior access to capital markets, developing a more robust ability to fund future projects.

Common Visions for ESG Management

ConocoPhillips stated their target is to reduce operation emissions by 35% to 40% by 2030 and reach net-zero by 2050. As stated in several instances in their *schedule 14A* release, a joint merger proxy statement from ConocoPhillips and Concho, one of the shared reasons for the acquisition was their shared values of ESG. According to ConocoPhillips' Board of Directors, the companies " have similar cultures and values of safety, execution, people and a strong commitment to environmental, social and governance excellence, which serve as a platform to lead the independent sector into an energy transition and low-carbon future." In addition, Concho's Board of Director's highlighted how, " ConocoPhillips was expected to announce that it would be the first U.S.-based oil and gas company to adopt a Paris-aligned climate risk strategy to meet an operational net-zero emissions ambition by 2050." Undoubtedly, without these ESG-oriented reasons from both companies, there could have been skepticism from their respective stakeholders about the cohesiveness of the companies, potentially resulting in stakeholders voting against the acquisition.

Valuation

Precedent Transactions Analysis

In our precedent transactions model, we compared 10 other acquisition deals within the oil and gas space. These transactions were chosen based on their recency being within around two years of the Concho acquisition, the targets' operations primarily in the United States, and the targets' relatively similar enterprise values. The multiples we compared the transactions with were enterprise value to the last twelve months of revenue until the acquisition announcement date (EV/LTM Revenue) and enterprise value to the last twelve months of EBITDA until the acquisition announcement date (EV/LTM EBITDA). Relative to the other transactions, Concho's EV/Revenue multiple was calculated to be 4.0x, which fell exactly around the mean and above the median. Additionally, Concho's EV/EBITDA multiple was determined to be 4.8x, falling under the median of 5.4x and mean of 6.7x. Observing Concho's premiums in comparison to the other transactions, ConocoPhillips offered a low initial price, with a premium of 1.44% 1-day before, 10.24% 1-week before, and 2.52% 1-month before the announcement date.

Risks

Fruitless Integration of Concho Resources

There are countless risks associated with acquiring businesses, therefore it is challenging to achieve each of the potential upsides regarding a deal. Under a relationship frame of view, it is possible that there will be challenges integrating relationships among employees and industry connections, despite both companies sharing "similar cultures and values," as argued by ConocoPhillips management in their list of reasons for the acquisition. Furthermore, from a financial standpoint, there was a risk of ConocoPhillips being unable to realize the entirety of their projected costing savings and revenue magnifications, and instead realizing unforeseen liabilities and expenses. Lastly, from an operational outlook, there could be potential difficulties gaining momentum if the businesses operate with varying procedures, policies, controls, and standards, as these could disrupt supply chain synergies.

High Combined Debt Obligations Impede Financial Flexibility

In ConocoPhillips Q3 2021 earnings, they reported USD $15.39 billion of outstanding indebtedness, streaming from its unsubordinated notes and commercial paper program in its current credit facility. Meanwhile, Concho reported $3.9 billion of outstanding indebtedness in Q3 2021, consisting of mainly Senior Notes due from the years 2027 to 2047, depending on the note. While ConocoPhillips intends to clear Concho's credit facility with this acquisition, by exchanging new ConocoPhillips notes in exchange for existing Concho notes or issuing cash, this deal still leads ConocoPhillips to take on $19.95 billion in debt, more than what they have historically taken on. Consequently, this significant possession of debt leaves ConocoPhillips more vulnerable to defaulting on their debt obligations and economic downturns, in addition to reducing their ability to engage in strategic transactions soon.

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Appendix 1: Precedent Transactions Analysis

Precedent Transactions Analysis

(Figures in mm USD)	Acquirer		Target					EV/Revenue Multiple		EV/EBITDA Multiple			Premium Paid to Undisturbed Share Price		
Announcement Date	**Company Name**	**Ticker**	**Company Name**	**Ticker**	**Percentage Acquired**	**Equity Value**	**Enterprise Value**	**LTM Revenue**	**EV/ LTM Revenue**	**LTM EBITDA**	**EV/ LTM EBITDA**	**Offer Price**	**1-Day Prior**	**1-Week Prior**	**1-Month Prior**
May 24, 2021	Cabot Oil & Gas Corporation	(NYSE: CTRA)	Climarex Energy Co.	(NYSE: XEC)	51%	7,133.2	8,777.1	1750.75	5.0 x	644.73	13.6 x	71.5	0.44%	-3.70%	14.18%
September 28, 2020	Devon Energy Corporation	(NYSE: DVN)	Noble Energy, Inc.	(NYSE: NBL)	97%	4,631.5	12,797.5	3887	3.3 x	2356	5.4 x	10.38	7.45%	19.72%	3.80%
August 12, 2020	Southwestern Energy Company	(NYSE: SWN)	Jagged Peak Energy Inc.	(NYSE: JAG)	77%	1,455.4	2,968.5	564.95	5.3 x	620.17	4.8 x	7.59	11.29%	11.13%	1.47%
July 20, 2020	Chevron Corporation	(NYSE: CVX)	Newfield Exploration Company	(NYSE: NFX)	100%	4,001.3	6,173.3	2479	2.5 x	1165	5.3 x	27.41	35.69%	32.67%	-4.03%
October 14, 2019	Parsley Energy, Inc.	(NYSE: PE)	WPX Energy, Inc.	(NYSE: WPX)	57%	3,375.8	6,579.8	4784	1.4 x	1940	3.4 x	4.56	2.70%	1.11%	-22.32%
August 26, 2019	PDC Energy, Inc.	(NASDAQ: PDCE)	SRC Energy Inc.	(NYSE: ARCA)	100%	1,580.6	2,267.2	703.38	3.2 x	717.07	3.2 x	3.99	-3.86%	-14.01%	6.40%
July 15, 2019	Callon Petroleum Company	(NYSE: CPE)	Carrizo Oil & gas, Inc.	(NASDAQ: CRZO)	100%	1,458.6	3,276.3	977.72	3.4 x	862.54	3.8 x	7.81	-25.62%	-18.90%	-14.36%
April 24, 2019	Occidental Petroleum Corporation	(NYSE: OXY)	Energen Corporation	(NYSE: EGN)	100%	6,956.3	8,165.2	1256.51	6.5 x	775.13	10.5 x	84.95	19.04%	15.05%	14.09%
November 1, 2018	Ovintiv USA Inc.	(NYSE: OVV)	Montage Resources Corporation	(NYSE: MR)	100%	1,646.1	2,334.7	561.51	4.2 x	258.76	9.0 x	5.67	-5.03%	10.74%	58.38%
August 14, 2018	Diamondback Energy, Inc.	(NASDAQGS: FANG)	Andarko Petroleum Corporation	(NYSE: APC)	71%	46,637.7	65,907.7	13006	5.1 x	8202	8.0 x	76	18.77%	18.69%	74.31%
October 19, 2020	**ConocoPhillips**	**(NYSE: COP)**	**Concho Resources**	**(NYSE: COX)**	**79%**	**9452.7**	**12906.7**	**3260**	**4.0 x**	**2717**	**4.8 x**	**49.3**	**1.44%**	**10.24%**	**2.52%**
Median									**3.8 x**		**5.4 x**	**9.10**	**5.08%**	**10.93%**	**5.10%**
Mean									**4.0 x**		**6.7 x**	**29.99**	**6.09%**	**7.25%**	**13.19%**
High									**6.5 x**		**13.6 x**	**84.95**	**35.69%**	**32.67%**	**74.31%**
Low									**1.4 x**		**3.2 x**	**3.99**	**-25.62%**	**-18.90%**	**-22.32%**

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Vivint Solar – Target (NYSE: VSLR)

Sunrun Inc – Acquirer (NASDAQ: RUN)

Natural Resources – Renewable Energy

Creation of a Rising Solar Giant

January 5, 2021

On Oct 8, 2020, Sunrun Inc ("Sunrun"), a leading provider of residential solar, battery storage and energy services, announced that it has completed the $3.2 billion acquisition of Vivint Solar ("Vivint"), a fellow producer in the same industry. The combined company now operates as a leader in home solar and energy services across the United States, with more than three gigawatts of solar energy and more than 500,000 customers across 22 states.

Target Company Strategic Objectives

As an offshoot of Vivint Smart Home, Vivint Solar differentiates itself from other residential solar providers with its technological innovations and data-driven services. With Sunrun's investment, Vivint will have more flexibility for its R&D investments and be able to leverage Sunrun's customer stream and operation system to maximize the impact of its technology.

Acquirer Company Strategic Objectives

By acquiring Vivint Solar, a similar company in business model and revenue source as Sunrun, the buyer company can capture additional market share, reduce competition, and gain further brand recognition. The 2020 pandemic tempered the growth of Vivint Solar and provided an accretive opportunity for Sunrun to capture the synergies at a reasonable price.

Synergies

Sunrun estimates annual synergies of approximately $90 million to be realized over 12 to 18 months. The most significant source of synergy would be from the cost-saving side with the streamlined operations and reduced headcount, making solar power more affordable and competitive against the traditional sources of energy. Sunrun will also have increased price-setting capacity with reduced rivalry within the industry.

Analyst: Anna Feng, BCom. '23
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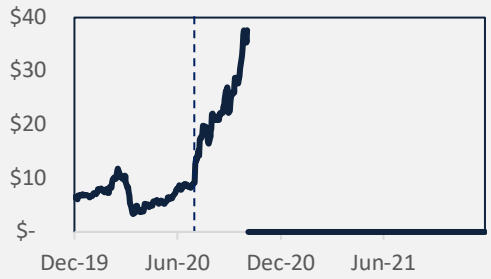
Key Statistics – Vivint Solar	
52 Week H/L	$12.99/$3.17
Market Capitalization	$1325M
Average Daily Trading Volume	$1.7M
Net Debt	$1634M
Enterprise Value	$3108M
EV/Revenue	8.6x
Diluted Shares Outstanding	$125M
Dividend Yield	N/A

2-Year Price Performance



Key Statistics – Sunrun Inc	
52 Week H/L	$23.66/$7.84
Market Capitalization	$2568M
Average Daily Trading Volume	$1.9M
Net Debt	$2717M
Enterprise Value	$6026M
EV/Revenue	6.9x
Diluted Shares Outstanding	$120M
Dividend Yield	N/A

2-Year Price Performance

Business Overview – Vivint Solar

Product Coverages

Founded in 2011 as an offshoot of Vivint Smart Home Inc, Vivint Solar is an American solar energy company headquartered in Lehi, Utah, that designs, installs, and maintains photovoltaic systems. Vivint Solar is a green energy provider and a green home technology company that helps its customer lower their energy consumption. Their business model allows for maximum flexibility with solar-power access with plans like Solar Lease, Solar Purchase, Solar PPA and Solar Loan that fits the client's budget and needs. They also provide energy solutions for portable batteries, EV charging stations, rooftop solar and custom-designed solar systems beyond what is offered by a typical retail solar provider.

Projects and Partnership

Putting innovation and technology at the centre of their competitive advantage, Vivint Solar has created numerous successful partnerships with companies in various industries. In 2018, the company collaborated with Mercedes-Benz for a customizable home energy storage system. The two companies will introduce a joint offering that will provide customers with the German engineering and performance of Mercedes-Benz batteries coupled with Vivint Solar's expertise in designing, installing and servicing solar energy systems. This is the first collaboration to integrate batteries with Vivint's offering and Mercedes's first collaboration with a U.S. solar provider.

Business Overview – Sunurn Inc

Company Highlights

Sunrun Inc. ("Sunrun") is an American provider of residential solar panels and home batteries. Headquartered in San Francisco, California, Sunrun Inc. provides solar panels and batteries to residential homeowners within the United States. Sunrun was co-founded in January 2007 by Lynn Jurich, Ed Fenster, and Nat Kreamer and quickly assumed a leadership position in the residential solar sector. Sunrun's "solar-as-a-service" business model offers its customers either a lease or a Power Purchase Agreement similar to those issued between an independent power producer and the public sector. This allows homeowners to pay for electricity usage only and bypass the heavy initial capital outlay to purchase the solar panels and the installation, maintenance, monitoring and repair costs that the company also covers.

Accelerated Growth

In their most recent quarterly report, Sunrun reported that they expect to accelerate the growth rate to 30%, an increase from the prior guidance of 25% to 30%. This growth is from a baseline scale that's already twice the next competitor. Sunrun's expanding customer value proposition, growing brand strength, and increasing competitive advantages deliver share gains. Externally, the vulnerabilities of the traditional power grid under extreme weather conditions and favourable legislative decisions are also contributing to this growth and will be discussed further in the following sections.

ESG Considerations

Sunrun has 550,000 customers across the United States and 16,000 solar-powered rechargeable batteries. Since 2007, Sunrun has produced 11.4 billion KWh of clean energy and cumulatively deployed 3,885 MW of solar power, making it one of the largest solar companies in the world. With its significant size comes the considerable sustainable impact with its operation. Sunrun has offset 8.1 million metric tons of carbon since 2007, an equivalent of negating 908 million gallons of gasoline or 1.3 million homes' annual electricity use.

Industry Analysis

Solar power developers and producers own and operate photovoltaic panels or solar thermal power stations that use mirrors or lenses to concentrate the sun's heat and energy. In the United States, there are currently 327 solar energy providers, generating a combined revenue of USD 10.88 billion. The industry's average annual growth for the past five years is 21.8%, and the forecasted growth rate for the next five years is 11.0% per year. The leading players in the industry are NextEra Energy, a Florida-based green-energy giant with an estimated 48,400.0 MW of electricity-generating capacity, and Consolidated Edison Inc, a 198-year-old New York energy producer. The two businesses occupy 12% and 7.3% of the market, respectively. The key drivers of the industry are governmental policies towards energy efficiency, power consumption, and prices of natural gas, coal, and semiconductors.

Key Trends

- Government legislation that removes access barriers, provides financial incentives, and promotes technological innovation has been a vital force in the industry both in the commercial expansion and the scientific improvement side of the growth factors.
- The rise of innovative financing mechanisms from the private sector also contributed to the revenue growth of small-to-medium-sized solar providers. ESG and sustainable investing firms provide capital to these companies for long-term goals beyond a pure financial return.
- Community solar, shared solar or residential solar is an emerging trend that will likely grow more than the traditional interconnection mechanisms, bypassing the public power grid and delivering value to remote, microscopic or indigenous communities.

Because of these factors above, the price of solar power has been continuously decreasing due to lowered capital requirements and increased energy efficiency. What was a novel immature idea of turning sunlight into force is becoming increasingly competitive against the nonrenewable, traditional sources of energy.

Competitive Landscape

Being a young and relatively small industry compared to other energy providers on the market, the Solar Power industry has a low concentration level and a high growth potential. Geographically, many areas receive an ample amount of solar light each year without a provider of solar technologies within the United States and beyond. While individual solar power facilities are getting larger, there appears to be little movement toward owning facilities across many areas. Over the five years to 2021, market share concentration has declined as many players enter the industry to benefit from the growing opportunities and existing operators scale their solar energy production.

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M&A Rationale

Strategic Objectives

Market Expansion - Sunrun and Vivint Solar are very similar in their market space, target customers, and business models. The acquisition serves mainly as a step in Sunrun's strategy to increase its market share and become the residential solar giant in terms of US customer base and geographic coverages. Purchasing Vivint Solar allows it to do so without deviating from its original vision and industry.

Leveraged technologies - Sunrun can take advantage of Vivint's R&D pipeline and leverage its business partners to create the most significant impact and innovative power solutions with the consolidated operation. Vivint's focus on innovation differentiates itself from just another smaller Sunrun with the same features in a developing industry where efficiency and new technological development are crucial to outperforming competitors.

Synergies

Revenue

- With the increase in market share, Sunrun is now more likely to become the go-to solar producer for large community or residential power projects, bringing considerable revenue from the increased brand recognition. It also attracts more attention from geographic areas previously occupied by Vivint Solar only.
- While Vivint Solar is much smaller in size, its fast growth and comparable services make it a potential competitor of Sunrun in the future. With reduced competitors in the market, the combined new business gains additional power to set a higher price for their service and increase the top-line revenue by taking advantage of the growing demand for solar energy on the market.

Cost

- **Sunrun estimates annual cost synergies of approximately $90 million to be realized over 12 to 18 months.**
- The homogeneous products that the two companies offer indicate that their internal company structure would also be interchangeable. The combined company can reduce headcount for overlapping departments such as sales and marketing, human resources, regional management, and general administrative teams with the acquisition.
- While Sunrun produces solar panels and batteries in-house, it still has lots of external suppliers for services like delivery and installation essential to its business. With the increased market share and reduced competitors on the market, Sunrun will negotiate with the suppliers with greater power and bring energy to its clients with further reduced costs.
- Unlike a traditional solar power producer that signs interconnection agreements with the public sector, retail companies like Sunrun and Vivint deal with thousands of customers individually. The quality of their customer service dramatically impacts their sales. With a streamlined internal communication, production, and delivery process, the new company would expect fewer issues arising from the clients and save spending on additional costs.

Valuation

For the acquisition, Sunrun will buy Vivint for about $1.46 billion in an all-stock deal, valuing the entire company at $3.2 billion, including debt. Vivint Solar's stockholders are entitled to receive 0.55 shares of Sunrun common stock for each share of the former's stock owned. The exchange ratio implies a 10% premium based on closing prices on July 6, 2020, and a 15% premium to the exchange ratio indicated by the three-month volume-weighted average price of Vivint Solar and Sunrun shares. Vivint Solar stockholders are expected to own approximately 36%, and Sunrun stockholders are expected to own 64% of the fully diluted shares of the combined company. The enterprise value of the combined clean energy company is estimated at $22 billion.

Comps

Nine companies are selected for the comparable company analysis, all of which are solar energy producers that operate in the United States and within Canada. Companies with different market capitalization and capital structures are selected to represent an emerging industry's diverse and dynamic nature. As a result, the EV/Revenue multiple calculated based on market information on the announcement date of the deal and the last twelve-month financial performance displays an extensive range of data that is positively screwed. Using the median of the data set, the intrinsic share price of Vivint Solar is $22.11, a 108% incrxease compared to its market price of $10.63, or an estimated 90% premium over that Sunrun is paying for the company.

Precedent Transactions

Acquisition transactions that happened within the year of the announcement date provide adequate comparisons to vivant Solar’s intrinsic value. Acquisitions of both private and public solar providers around the world are noted and analysis of their EV/Revenue multiple based on the transaction price returned a median intrinsic share price of $14.19, a 33% premium of the company’s market price.

Risks

Vivint’s Legal Issue

A few years earlier, in 2017 and 2018, Vivint Solar received multiple lawsuits from its customers and state governments for its marketing tactic that allegedly convinces its customers to sign harmful long-term contracts without providing them with enough information beforehand. The issue was later resolved, and there have been no more conflicts in recent years. However, Sunrun should still be cautious of adopting Vivint’s operation and take extra steps to ensure all business practices are lawful.

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Geographic Coverage too Broad

While previously mentioned as an advantage, expanding the geographic area of the newly formed business might propose challenges to the operation. Vivint Solar and Sunrun were initially based far apart from each other. With the new company now servicing customers in 22 states in the US, careful management of the supply chain is required to prevent a decrease in customer satisfaction.

Appendix

Comparable Company Analysis

As of 07/06/2020

Company	Ticker	Share Price	Diluted Shares Outstanding	Equity Value	Cash	Debt	Other EV Adjustments	Enterprise Value	Multiple: LTM Revenue	Multiple: EV/Revenue
NRG Energy Inc	(NYSE: NRG)	$ 36.02	244.8	8,817.7	3,905.0	8,538.0	3,906.4	17,357.1	21,970.0	0.8 x
First Solar Inc	(NASDAQ: FSLR)	$ 103.60	106.3	11,012.7	1,227.0	(1,455.7)	1,229.8	9,559.8	2,625.3	3.6 x
Just Energy Group Inc	(TSXV: JE)	$ 1.10	48.1	52.9	168.7	336.6	168.5	389.3	2,054.1	0.2 x
SunPower Corp	(NASDAQ: SPWR)	$ 28.65	173.0	4,956.5	232.8	1.2	233.3	4,958.1	1,280.8	3.9 x
Canadian Solar Inc	(NASDAQ: CSIQ)	$ 37.94	63.6	2,413.0	1,178.8	1,354.3	1,500.7	4,089.2	4,789.1	0.9 x
Enphase Energy Inc	(NASDAQ: ENPH)	$ 250.00	134.9	33,725.0	679.4	(351.1)	682.5	33,377.0	1,234.2	27.0 x
Azure Power Global Ltd	(NYSE: AZRE)	$ 20.60	48.2	992.9	147.8	1,480.5	166.4	2,492.0	209.5	11.9 x
SunNova Energy International Inc	(NYSE: NOVA)	$ 36.97	112.3	4,151.7	209.9	2,660.2	605.7	7,207.7	214.8	33.6 x
UGE International Inc	(TSXV: UGE)	$ 1.29	32.2	41.5	1.0	8.2	0.9	49.6	1.9	26.1 x
Vivint Solar Inc	**(NYSE: VSLR)**	**$ 10.63**	**124.7**	**1,325.6**	**166.0**	**1,634.1**	**314.5**	**3,108.2**	**378.5**	**8.2 x**
Median		**36.0**	**106.3**	**4,151.7**	**232.8**	**336.6**	**605.7**	**4,958.1**	**1,280.8**	**3.9**
Mean		**57.4**	**107.0**	**7,351.5**	**861.2**	**1,396.9**	**943.8**	**8,831.1**	**3,820.0**	**12.0**
High		**250.0**	**244.8**	**33,725.0**	**3,905.0**	**8,538.0**	**3,906.4**	**33,377.0**	**21,970.0**	**33.6**
Low		**1.1**	**32.2**	**41.5**	**1.0**	**(1,455.7)**	**0.9**	**49.6**	**1.9**	**0.2**

	Implied Price
Median	-$ 2.55
Mean	**$ 22.11**
High	$ 87.56
Low	-$ 13.72

Precedent Transaction Analysis

Announcement Date	Buyer Company	Target Company	Ticker	Segment	Location	Transaction Value	Adjusted Enterprise Value	Multiple: LTM Revenue	Multiple: EV/Revenue
11/17/21	ADT Inc	Sunpower Corp	(NASDAAQ: SPWR)	Solar	US & Canada	825.0	825.0	334.4	2.5 x
10/20/21	JP Morgan Investment Mgmt	Falck Renewables Spa	(BIT: FKR)	Various Renewables	Europe	1,780.1	2,966.8	434.0	6.8 x
10/8/21	Sunpower Corp	Blue Raven Solar	-	Solar	US & Canada	165.0	165.0	135.0	1.2 x
6/17/21	Iberdrola	Infigen Energy Limited	(ASX: IFN)	Wind/Solar	Australia	1,106.2	1,133.4	209.7	5.4 x
3/14/21	Mercury NZ and PowAR	Tilt Renewables Ltd	(ASX: TLT)	Wind/Solar	Australia	2,634.8	2,634.8	95.9	27.5 x
11/4/19	CPP Investments	Pattern Energy Group Inc	(NASDAQ: PEGI)	Wind/Solar	US & Canada	6,414.3	6,414.3	497.0	12.9 x
7/6/20	**Sunrun Inc**	**Vivint Solar**	**(NYSE: VSLR)**	**Solar**	**US & Canada**	**3,638.2**	**3,108.2**	**378.5**	**8.2 x**
Median								**272.1**	**6.1**
Mean								**284.3**	**9.4**
High								**497.0**	**27.5**
Low								**95.9**	**1.2**

	Implied Price
Median	$ 4.28
Mean	**$ 14.19**
High	$ 69.10
Low	-$ 10.59

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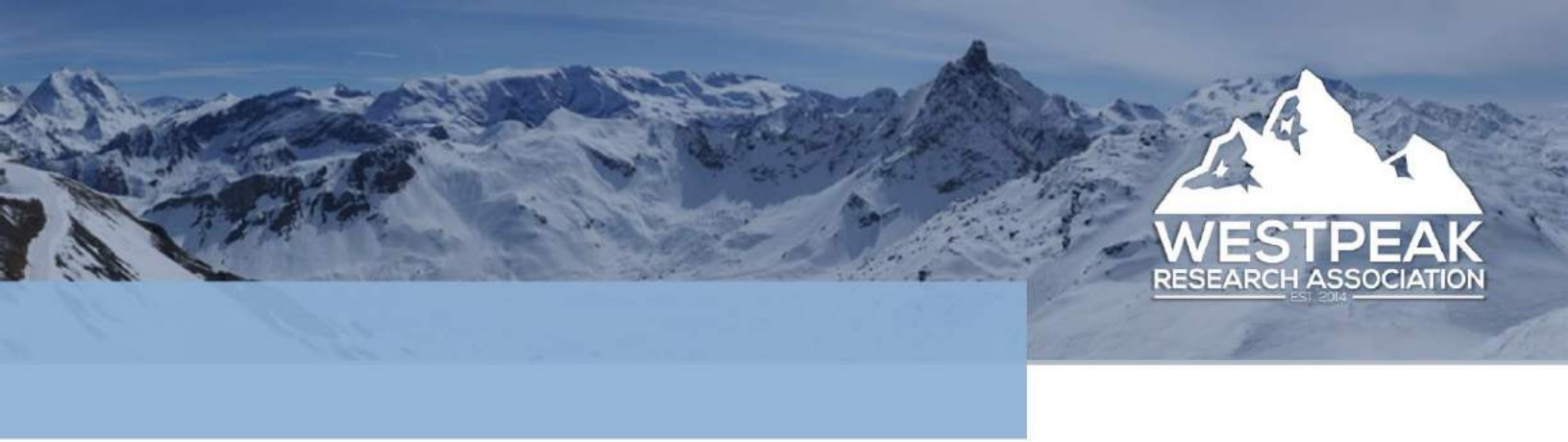

GLOBAL EQUITY | MARCH 2022

Natural Resources

I. Forestry

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WESTPEAK RESEARCH ASSOCIATION

Forestry – ESG Analysis

Energy Transition 2021 Review

January 2022

The forestry & forest products subsector encompasses businesses that manage, harvest, plant and use wood to create primary products such as lumber and secondary products such as pulp, paper, and energy. Forests are essential economic and social resources that are vital to billions of people's livelihood.

Industry Overview and Key drivers

The North American forestry market is heavily influenced by legislative policies governing forestry management, conversation, and forest product trading. Law and regulations have been passed in recent years in collaboration with local communities and indigenous representations, changing how businesses and societies interact with our forests. Updated on forestry 2.0 doc
Aside from political and social factors, the industry's performance is most significantly impacted by the recent surge in housing and construction activities, which heavily rely on the supply of lumber and other wooden building materials. Aside from solid products, there is also a rise in demand for sustainable forest fuel that is more carbon-neutral than many traditional sources of energy.

Industry-Related ESG Trends

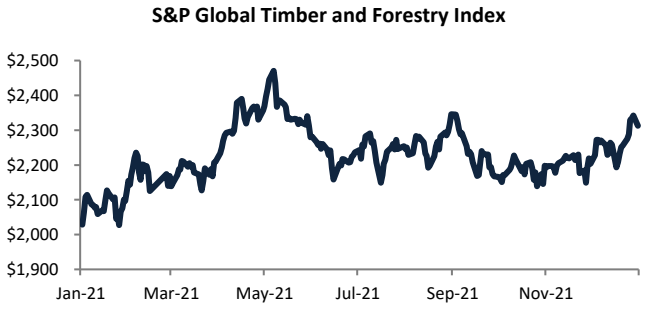
The increased focus on environmental impacts of forestry-related business activities led to a raise in sustainable forestry management practices. Mentioning of forest certification, selective logging and forestry plantation can be frequently observed in forestry company's ESG policies. Social factors such as land rights and governance factors such as Grievance mechanisms available to key stakeholders are also increasingly impacting companies' overall performance.

Industry Research	
Forestry & Forestry Products	
Global Revenue (2020)	$535.96B
Annual Growth (Past 5 Years)	0.8%
Annual Growth (Next 5 Years)	6.3%

Source: Business Wire & IBISWorld

Key Companies	
Weyerhaeuser Co.	**(NYSE: WY)**
Enterprise Value	$32.92B
EV/2021 EBITDA	8.07x
S&P Global ESG Rank	59
Universal Forest Products Inc.	**(NASDAQ: UFPI)**
Enterprise Value	$5.85B
EV/2021 EBITDA	8.07x
S&P Global ESG Rank	14
West Fraser Timber Co. Ltd	**(TSE: WFG)**
Enterprise Value	$7.91B
EV/2021 EBITDA	1.79x
S&P Global ESG Rank	36
Canfor Co.	**(TSE: CFP)**
Enterprise Value	$2.62B
EV/2021 EBITDA	0.92x
S&P Global ESG Rank	27

1-Year Return



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Timeline of Forestry Milestones

December 14, 2020 – Canada Plants 2B Trees

The Government of Canada launched the two billion tree planting program, a major contributor to help achieve Canada's net-zero by 2050 target and other climate change goals.

May 20, 2021 –Largest Forest Experiment

Ohio State University launched a research project at Elliott State Research Forest to test forest management strategies, an experiment that would occupy 33,000 hectares of land.

June 21, 2021 – UNDRIP is Canadian Law

The Government of Canada enacts the *UNDRIP Act* as law, officially committing to achieving true Indigenous reconciliation.

October 18, 2021 – N.S. Funds Forestry

Through its Forestry Trust Fund, Nova Scotian government invests $12.4 million in innovative provincial forestry projects.

November 2, 2021 – Old Growth Deferrals

Government of British Columbia defers the deforestation of old growth for 2 years and 200 First Nations have 30 days to respond.

November 3, 2021 – Deforestation Pledge

At COP26, P.M. Trudeau along 100 other nations pledge to end deforestation by 2030, devoting US$19 billion to achieve this.

November 14, 2021 – Disastrous Flooding

The Pacific Northwest is hit by an irregularly monstrous rainstorm, causing mass flooding, and destroying major infrastructure.

November 25, 2021 – US Doubles Tariffs

The U.S. government raises duties imposed on Canadian softwood from 8.99% to 17.9%, encouraging U.S. consumers to buy local.

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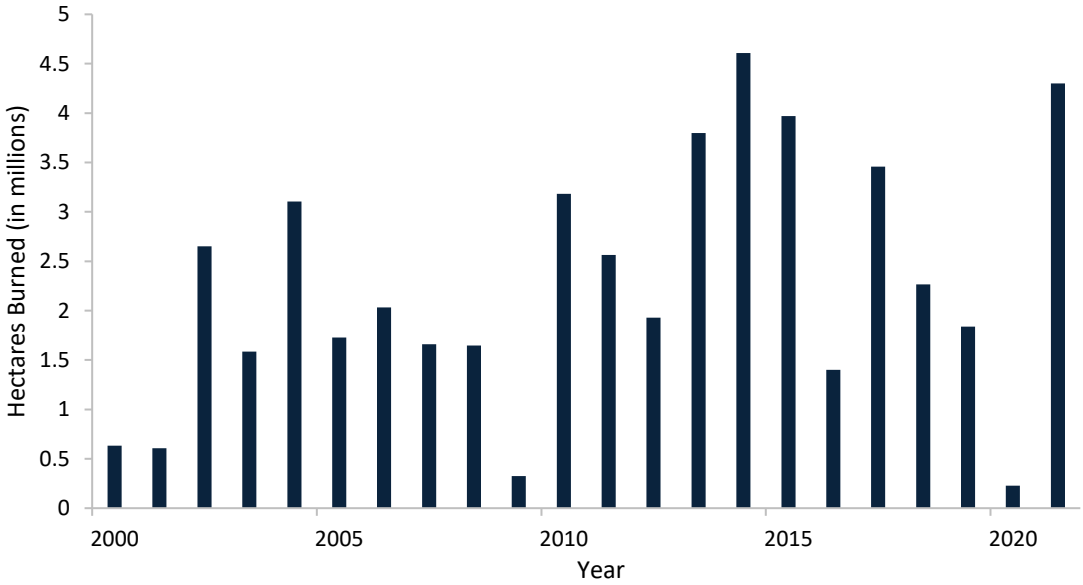
Current Events

Climate Change's Impact on Forestry

In terms of political movements, commercial investments, social experiments and natural disasters, many vital events occurred in the past year that shaped both the natural forestry landscape and the commercial sector of businesses that produces and trades forestry products; many of those events happened in Canada and in the province of British Columbia. British Columbia is one of the world's largest exporters of wood products. As a province with nearly 20% of Canada's forested lands, it is the home of treasured plants, diverse animals, and many of North America's leading forestry companies. In 2021, however, extreme weather events and natural disasters have demonstrated the urgent need for people to adapt to the impact caused by climate change. Since April 1, 2021, British Columbia forests have gone through 1,556 wildfires, with over 800,000 hectares of area burned. Moreover, a mid-November storm that caused the flooding of many BC roads and houses is one of the world's most financially devastating climate events in 2021.

These disasters are detrimental to the wildlife and communities that rely on the forest for their livelihood, but they have an equally profound impact on forestry businesses. The reduced supply of forestry products is causing uncertainties in the market, forcing multiple local companies to halt their business activities and lay off skilled labourers when it is impossible to harvest or transport their products to the rest of Canada. The upward pressure on lumber pricing, as a result, further encourages unethical mass logging, contributing to the deforestation process and the acceleration of climate change. Today, more than 98% of BC's forests have achieved sustainable forest management certification, but the threat posed by these unforeseen disasters serves as a solemn reminder of nature's impact on the industry and the need to limit deforestation in the future.

Exhibit 1: Annual Area Burned in Canada Due to Wildfires



Source: Canadian Interagency Forest Fire Centre

Cutting Back from Cutting – Critical Forestry Policies Come into Effect

During recent times, federal governments have been put under immense scrutiny by environmental activists, such as Greta Thunberg and David Suzuki, to carry out actionable tasks to reduce the effects of climate change. During the last year, the Government of Canada and the Government of British Columbia had introduced several climate-related initiatives and policies that aim to address climate change in Canada, particularly with its forests. According to *Natural Resources Canada*, the forestry sector contributed approximately $23.7B to Canada's gross domestic product (GDP) in 2019 and the value of forest product exports was estimated to be $33B in 2019. Given the apparent influence, the forestry sector has on Canada's GDP, the federal government has prioritized projects that protect the industry as much as it can.

2 Billion Trees Program (2BT)

At the end of 2020, the Government of Canada officially launched an initiative called the 2 Billion Trees program (2BT), backed by $3.16B in funding. This initiative is the government's main outlet for accomplishing tangible achievements in its efforts to address climate change. Organizations can register to receive funding for planting these trees, but commercial forestry businesses are not eligible to partake in the 2BT program, since the government states these businesses already have a legal obligation to regenerate forests after harvesting trees. Therefore, this program is likely to have a larger direct impact on grassroots organizations and communities at large, rather than businesses in the forestry sector. Instead, forestry businesses will likely garner indirect benefits from the 2BT program, like improved biodiversity and wildlife habitats.

Exhibit 2: Government of Canada 2 Billion Trees Campaign

Source: Government of Canada

Canada's 26th UN Climate Change Conference (COP26) Pledges

In early November 2021, Canadian Prime Minister Justin Trudeau pledged at the 26th UN Climate Change Conference (COP26) that Canada would aim to end deforestation by 2030. As apart of the pledge, the nations and some private companies announced that they would dedicate $19B in funds to back upcoming projects. This is a pivotal moment for both the federal government and the Canadian forestry industry, as this may spark discussion and accelerate the mandatory adoption of more sustainable forest management practices.

British Columbia's Two-Year Old-Growth Logging Deferral

In early November 2021, the Government of British Columbia enacted a two-year deferral on the logging of old-growth trees within the province. Bearing in mind that the government wanted to consult with Indigenous communities prior to making the final decision, they requested that more than 200 First Nations in the province accept their proposal or decline with their own suggested plans within 30 days. At the time of this announcement, forestry companies and Indigenous communities alike were displeased to be overloaded with such a detrimental policy, with such little time to react. On December 15, 2021, Canfor CEO, Don Kayne, released a public letter calling upon the BC government to reconsider the old-growth deferral process, as the policy would directly disrupt their harvesting operations (Exhibit 3). As of December 16, 2021, 161 nations responded, but almost three-quarters of responding nations demanded that they receive more time to review the technical information and make edits to the government's plan using local Indigenous knowledge.

Exhibit 3: Canfor CEO's Response to BC Old-Growth Logging Deferral

Dear British Columbians,

At Canfor, we're proud to have been operating in the province for over 80 years.

We take our role very seriously to help responsibly manage BC's forests. Like all British Columbians, we want our forests to be diverse, thriving ecosystems. We employ hundreds of professionals, like foresters and biologists, who work hard every day to ensure our activities are environmentally responsible and will contribute to healthy forests for generations to come.

Around the world BC is respected for our leading sustainable harvesting and forest management practices. We follow rigorous environmental standards and get permits from the government for all of our activities we undertake in the forest. BC's Chief Forester sets the volume of trees that can be harvested. Each year this amounts to less than 1% of the harvestable area. We also plant three trees for each one that is harvested.

In addition, we greatly respect the rights and title of First Nations on whose traditional territories we operate and their valued roles in stewarding the forests.

That's why we're deeply concerned that the BC government has decided to defer 2.6 million hectares of old forests based on the advice of only five people. Government has not engaged with a broad group of Indigenous leaders, labour leaders, forest professionals and communities. Many important voices have been left out of this critical discussion.

"Many important voices have been left out of this critical discussion."

Industry estimates that nearly 18,000 workers could be impacted. These are good people from communities across the province who care about the future and the environment in the place they call home. We directly employ over 4,000 people in BC. The more than 2,000 contractors, suppliers and Indigenous companies we partner with also employ thousands of people who work in the forest sector and, along with their families, contribute to our local communities.

This should be a time for unity. We can choose a path that brings First Nations, labour leaders, forestry professionals and communities together to develop a sustainable old growth management plan that protects our forests and ensures sustainable employment for our communities. We can build on the 75% of old growth forests that are already protected or outside harvesting areas.

To develop that plan, we are asking government, on behalf of our employees, Indigenous partners, contractors and communities, to immediately take the following steps:

1. Use the facts, based on objective and transparent science and Indigenous traditional knowledge, to identify potential old growth areas and deferrals.
2. Undertake a collaborative process that includes Indigenous leaders, labour leaders, forest professionals and communities to develop the old growth plan.

As the world comes together to fight climate change, carbon-storing, renewable forestry products from BC's sustainably managed forests are in growing demand. This is BC's opportunity to help support the transition to a low carbon world. Now more than ever, the world needs BC's forestry products. And that's something we can each be proud of.

"Let's work together."

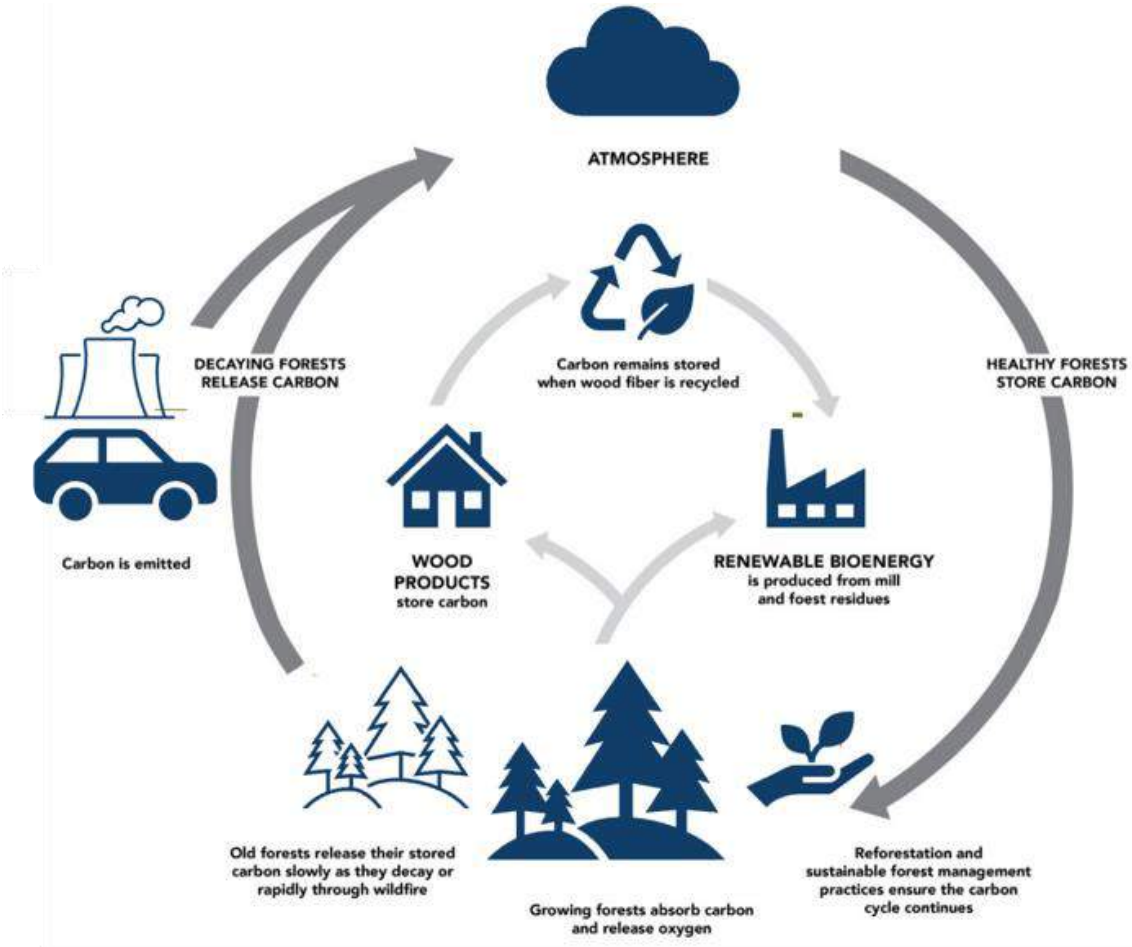
Don Kayne
President & CEO
Canfor

Source: Canfor News Release

Sustainable Forest Management

As trees grow, they feed on carbon dioxide in the atmosphere and trap it in the form of wood: as long as the wood exists, the carbon is captured and not released back into the atmosphere. This characteristic makes wood not just a carbon-neutral building material, but a vital carbon-negative resource that helps reverse the impact caused by high carbon emission. Sustainable forest management is a dynamic and evolving concept aiming to maintain and enhance the economic, social, and environmental values of all types of forests for the benefit of present and future generations. Forests and trees, when sustainably managed, make vital contributions both to people and to the planet, bolstering livelihoods, providing clean air and water, conserving biodiversity, and responding to climate change. Consensus on the need to combat climate change has resulted in increased attention to the role of forests in carbon storage, biodiversity and providing livelihoods for billions of people worldwide. To protect and enhance the regeneration ability of this renewable resource while respecting its commercial value in providing materials for energy, construction and many other uses, several legislations have been introduced in recent years to promote sustainable forest management in the private sector, focusing on forest certification, plantation and many other aspects of how businesses and communities interact with our forests.

Exhibit 4: Sustainably Managed Forest Cycle



Source: Government of Ontario

Forest Certification

Forest certification is a soft policy instrument that seeks to use assessments of forest management, the verification of legality, chains of custody, eco-labelling, and trademarks to promote the sustainable management, conservation, and development of forests holistically without compromising the rights, resources, or requirements of present and future generations. It aims to encourage ethical trade and commerce and improve market access through the economically viable, environmentally appropriate, and socially beneficial management of trees, forests, and related renewable resources. Certification can ensure the maintenance of ecologically essential forests as safety nets that conserve gene pools, support food security, and as sustainable sinks to capture and store carbon dioxide. It can help ensure the provision of forest biomass as a renewable, carbon-neutral energy source and as a substitute for carbon-intensive building materials, such as steel and cement, thereby lowering the carbon footprint and contributing to a greener economy.

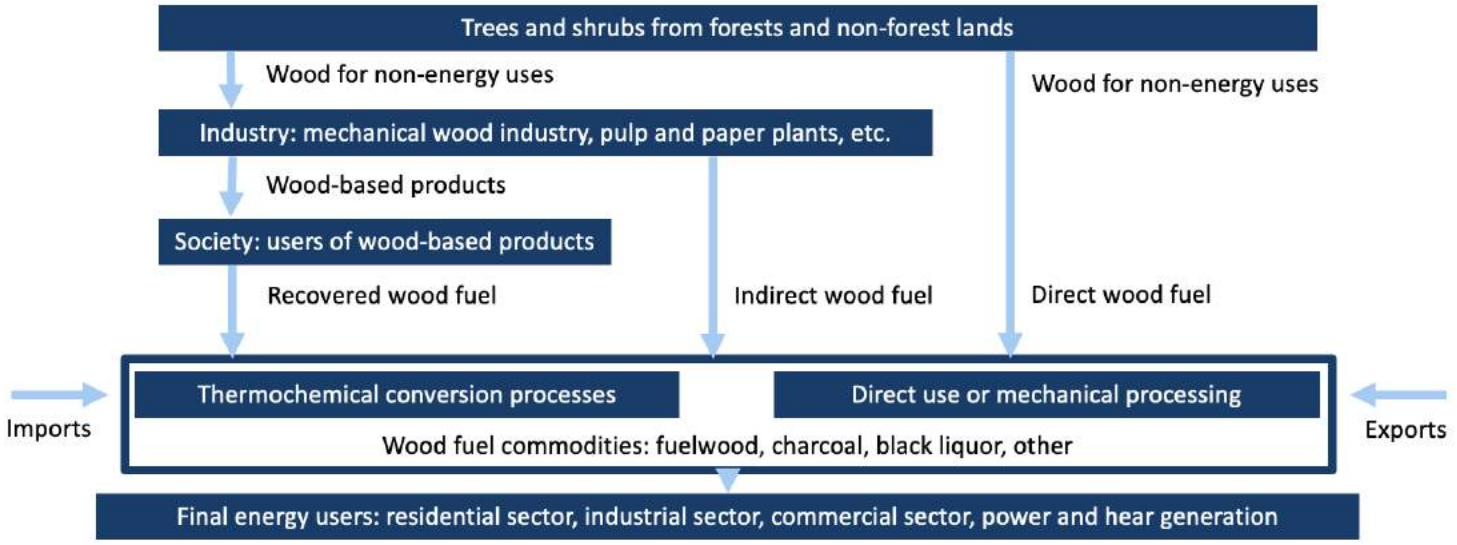
Forest Plantation

Similar to how agriculture creates mass-produced vegetables on farmland, forest plantation is the planting and managing of high-volume production of wood, usually by planting one type of tree as a monoculture forest. Plantation forests can provide most goods and services provided by natural forests. These include commercial forest products, clean water and clean air protection, soil erosion control, biodiversity, esthetics, carbon sequestration, and climate control. Several initiatives have been proposed to mitigate forest loss and climate change through tree planting as well as maintaining and restoring forest ecosystems. These initiatives have inspired and been inspired by global assessments of tree and forest attributes and their contributions to offset carbon dioxide emissions.

Wood as a Renewable Source of Energy and Emerging Future Fuel

In its forms of firewood, charcoal, pellets and sawdust, wood is considered humankind's first energy source. Today it is still the most important single source of renewable energy providing about 6% of the global primary energy supply. Pellets and agglomerates are currently the most economical way of converting biomass into fuel and are a fast-growing energy source. They can be used for electricity production or directly for combustion in residential and commercial heating. Today wood energy has entered a new phase of high importance and visibility with climate change and energy security concerns. Substituting a fossil fuel with sustainably produced wood offsets 2–3 kilograms of carbon dioxide for each kilogram of fossil fuel. Consumption of sustainably sourced wood energy is likewise carbon-neutral since burning wood does not release any more CO2 than was absorbed during a tree's life cycle. Wood-fuel is an environmentally friendly, low-risk energy carrier; it fosters safe handling and storage and has short transport distances. Sustainably sourced wood fuel can be promoted through carbon funding instruments, making it more competitive against non-renewable energy sources and providing an economic basis for taking care of the land in forests.

Exhibit 5: Wood Fuel Supply Sources



Source: Food and Agriculture Organization of the United Nations

Indigenous Peoples' Role in Canadian Forestry

Canada's Commitment to Protecting and Supporting Indigenous Peoples

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) is an international human rights instrument, containing 46 articles that proclaim the basic rights that Indigenous peoples are obligated to receive for their survival, dignity, and wellbeing. On June 21, 2021, the UNDRIP Act ("the Act") became federal law in Canada, cementing the Government of Canada's official responsibility to carry out to meet the objectives outlined in the Act, including the furtherance of economic participation of Indigenous peoples, and creating economic equality.

Indigenous-Held Land in Canada

Presently, some Indigenous nations have direct rights to a portion of the forested land in most provinces and territories. Exhibit 5 breaks down by region the amount of forested land allocated to Indigenous peoples. Based on this analysis, Indigenous peoples living in Canada hold the direct rights to 9.1% of total forested land and more than twice the amount of land Indigenous peoples in the United States have direct rights to, as displayed in Exhibit 6. Nevertheless, the Canadian government providing direct rights to forested land is a first step at engaging Indigenous peoples in economic participation, but additional efforts must also be made to ensure the land is leveraged accordingly.

Exhibit 6: Indigenous-Held Forestry Tenures in Canada

	Allocation	Indigenous Allocation	% of Jurisdiction Allocation	% of National Indigenous Allocation
(Name)	(m^3/yr)	(m^3/yr)	(%)	(%)
Newfoundland and Labrador	2,532,784	215,700	8.5%	1.1%
Prince Edward Island	460,000	0	0.0%	0.0%
Nova Scotia	5,750,000	0	0.0%	0.0%
New Brunswick	9,075,000	252,558	2.8%	1.3%
Québec	46,872,300	1,235,486	2.6%	6.4%
Ontario	30,764,813	5,256,963	17.1%	27.1%
Manitoba	2,504,370	58,902	2.4%	0.3%
Saskatchewan	8,364,393	2,401,118	28.7%	12.4%
Alberta	33,872,266	1,057,910	3.1%	5.5%
British Columbia	71,479,655	8,710,908	12.2%	44.9%
Northwest Territories	213,600	213,600	100.0%	1.1%
Yukon	212,000	0	0.0%	0.0%
National	212,101,181	19,403,145	9.1%	100.0%

Source: National Aboriginal Forestry Association 2020 Report

Exhibit 7: North American Comparison of Indigenous Forestry Tenures

	Canada	United States
Indigenous-held tenure area (hectares)	17,000,000	7,400,000
Tenure land status	Mainly off-reserve	Mainly on-reserve
Commercial forestry type	Natural	Natural
Ownership structure	Mainly partnership groups of multiple Indigenous Nations	Mainly individual Indigenous Nations through wholly owned entities

Source: National Aboriginal Forestry Association 2020 Report

Indigenous Forestry Initiative

Indigenous nations in Canada have a deep connection to their lands, as according to Chief Dr. Robert Joseph of the Gwawaenuk First Nation, "Traditional knowledge, languages, cultural practices and oral traditions built up over the millennia are all connected to the land." Thus, they embrace opportunities to maintain and improve their lands' health.

Through the Indigenous Forestry Initiative (IFI), Natural Resources Canada has dedicated $13B to invest in Indigenous forestry projects in Canada, from 2020 to 2023. IFI aims to bolster Canada's bioeconomy, generate more opportunities for Indigenous participation in the Canadian forestry industry, and stimulate job growth for Indigenous communities across Canada. As a result of inviting Indigenous participation in the forestry sector, the Canadian government hopes to develop Indigenous self-determination, bridge socio-economic gaps, and transition Canada's economy to become low carbon.

Projects eligible for funding from the IFI must fall under one of three key pillars: clean technology and participation in the forest bioeconomy, environmental stewardship, and use and management of forest resources. Thus far, the IFI has invested in 45 different projects, six of which exceeded $1M in funding each:

- **The Cree First Nation of Waswanipi ($2.46M):** to upgrade a local sawmill to support sustainable production lines.
- **Gitxsan Development Corporation ($1.17M):** to implement scans and activities to allow the Gitxsan people to participate in major resource projects.
- **Meadow Lake Tribal Council ($3.4M):** to enhance the energy efficiency of the NorSask Forest Products facility.
- **Wahkohtowin Development GP ($1.05M):** to modernize their forestry operations through equipment upgrades and forest management planning.
- **Whitesand First Nation ($1.12M):** to devise new sustainable forest management practices and establish a foundation for green energy production.
- **Yukon Government ($1.43M):** to aid Indigenous communities in the Yukon find local bioenergy solutions, through forest biomass projects.

Valuation

Despite the outbreak of the coronavirus, the forestry industry exhibited strong growth as a result of significant demand for residential construction, fueled by low-interest rates and government stimulus; but as inventory has been snapped up and the national home supply is near record lows, demand for new residential construction has surged, fueling demand growth for lumber as a construction material and associated industry services. Overall, industry revenue has grown an estimated annualized 10.0% over the five years to 2021 to $4.0B, which includes expected growth of 20.7% in 2021 alone as sawmill lumber prices rise even faster than observed.

These growths are unlikely to continue in the outlook, especially when considering that residential construction and housing starts are expected to decline over the next five years, inhibiting industry revenue growth. At the same time, timber, and logging operations, both of which are critical markets for this industry, are anticipated to increasingly opt to contain operations within their integrated structures, thereby reducing their outsourcing to third parties, such as industry operators. However, forest support service providers are expected to generate revenue from renewable energy generations and ESG-related carbon market participation. Over the five years to 2026, as the economy recovers from the shocks caused by the coronavirus pandemic, industry growth is anticipated to decline as the pandemic abates. Overall, key drivers of industry activity, namely housing starts and the value of residential construction, are expected to decline during the outlook period. As a result, upward price pressure on sawmill lumber as a building material will deflate due to a rapid deceleration in demand. Overall, industry revenue is anticipated to fall an annualized 4.1% over the five years to 2026 to reach an estimated $3B.

WESTPEAK RESEARCH ASSOCIATION

Canfor Corporation (TSX: CFP)

Natural Resources – Forestry

Take One and Give Three Back

January 2022

Canfor Corporation (Canfor) is a dominant player in the integrated forest products market, with operations in Western Canada, the United States, and Sweden. They strive to offer sustainable lumber, and pulp and paper products on a global scale, in North America, Europe, Asia, and Australia.

ESG Consideration

As disclosed in the Canfor 2020 Sustainability Report, their approach to sustainability is defined by its conduct towards three pillars of People, Planet and Products. Under these pillars, Canfor tackles five different Sustainable Development Goals (SDGs): Gender Equality (5), Decent Work and Economic Growth (8), Climate Action (13), Life on Land (15), and Responsible Consumption and Production (12). The company is an industry leader in reforestation efforts, as they own a seedling nursery that grows nine million trees annually, are part owners of two seedling orchards, and plant three seedlings for every tree harvested. Nevertheless, Canfor revealed in their 2020 Sustainability Report that in 2022 they would introduce definitive targets for reducing carbon emissions and improving supply chain practices, demonstrating a desire for continuous progress.

Valuation

Canfor is projected to trade at an EV/EBITDA multiple of 2.1x and PE multiple of 6.6x in 2022, meanwhile, their peers are estimated to trade at a median EV/EBITDA multiple of 4.2x and median PE multiple of 5.6x. The company's higher than industry PE of 6.6x demonstrates investors' expectation of higher earnings growth in the future and their sub-industry EV/EBITDA multiple is due to their substantial amount of cash on hand. On December 16, 2021, Canfor announced it entered an agreement to acquire Millar Western for $420M and would pay via cash financing, hence requiring large cash reserves. Moreover, the company is subject to rapid economic and environmental uncertainty, including recent soaring inflation rates and mass flooding, also leading to excess cash. Considering these factors, we project a moderate upside potential for Canfor over a 5-year time horizon, after Canfor's acquisition synergies and the short-term volatility of the post-covid world have come into full effect.

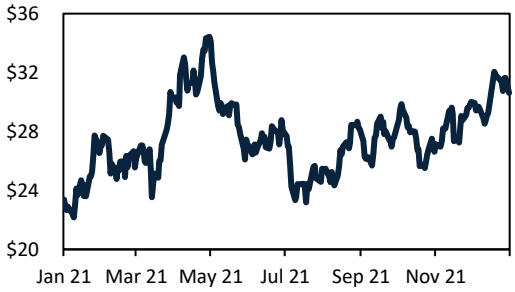
Analyst: Jeffrey Low, BCom. '23
contact@westpeakresearch.com

Industry Statistics	CAD
Current Price	**CAD$ 31.27**
2020A Production (NBSK/tonnes)	1.02M
2020A Production (Timber/m^3)	12.38M
Certified Wood Sources	99%
Annual Water Reduction	N/A
Annual Waste Reduction	5.17%

Key Statistics	
52 Week H/L	$35.53/$21.92
Market Capitalization	$3.81B
Average Daily Trading Volume	0.227M
Net Debt	-$1.38B
Enterprise Value	$3.24B
Diluted Shares Outstanding	129.49M
Free Float	48.7%
Dividend Yield	N/A

Sustainability Comparables			
Ticker	**CFP**	**WY**	**WFG**
Environment	55	58	41
Social	12	58	30
Governance	32	63	36
S&P ESG Score	**27**	**59**	**36**

1-Year Price Performance



Mercer International Inc. (NASDAQ : MERC)

Natural Resources – Forestry

Paper with Energy

January 2022

Analyst: Anna Feng, BCom. '23
contact@westpeakresearch.com

Mercer International Inc is a producer of market pulp and a growing leader in the solid wood products space. They produce electrical and thermal energy from biomass by-products created from the pulping and sawmilling processes, reducing waste in the mills, and maximizing the end-value for forest resources.

ESG Considerations

Sustainability is a core value in Mercer. Their effort to integrate a stakeholder approach into their strategy and behaviour has been recognized by the Forest Products Association of Canada as an award winner for years. Mercer has been transparent about their data and effort in becoming greener and more sustainable in their production process from various areas such as wastewater management, effluent treatment systems, and greenhouse gas emissions. Notably, the surplus power generated by the pulp mills and exported to the regional power grid reached a record performance at 2.24 million MWh, enough to support more than 300,000 Vancouver homes for a year.

Valuation

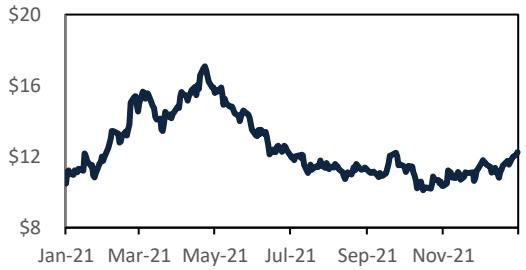
Mercer is well into the maturity stage as a company with over five decades of operating history. Its stock price has had a low-volatility behavioural pattern, with a 3-year price increase of 4.4%. Mercer went from making a loss to reporting a profit in the last year, and the increase in earnings per share and shareholder return surpassed its performance over the past years. However, a closer look reflected a capital structure problem indicating that their operating cash flow does not cover Mercer's debt well. The company has a cash ratio of 0.83 and a debt-to-equity ratio of 140.47; combined with its unstable dividend track record, Mercer has received mixed recommendations from analysts on the market despite its promising performance. A comparative analysis confirms the "hold" recommendation Mercer is receiving on the market, with an EV/EBITDA implied price of $10.88 compared to its trading price of $11.77.

Industry Statistics	USD
Current Price	**CAD$ 11.77**
2020A Production (NBSK/tonnes)	1.97M
2020A Production (Timber/m^3)	0.18M
Certified Wood Sources	66.2%
Annual Water Reduction	3%
Annual Waste Reduction	22%
Key Statistics	
52 Week H/L	$18.14/$9.51
Market Capitalization	$776.8M
Average Daily Trading Volume	0.32M
Net Debt	$1,220M
Enterprise Value	$1,650M
Diluted Shares Outstanding	66.04M
Free Float	96%
Dividend Yield	2.15%

Sustainability Comparables

Ticker	MERC	WY	WFG
Environment	46	58	41
Social	15	58	30
Governance	15	63	36
S&P ESG Score	**15**	**59**	**36**

1-Year Price Performance



Appendix 1: Canfor Corporation Comparable Companies Analysis

Comparable Company Analysis

Figures in mm, USD

Company	Ticker	Equity Value	Enterprise Value	EV/EBITDA Multiple: 2021A EV/EBITDA	EV/EBITDA Multiple: 2022E EV/EBITDA	P/E Multiple: 2021A P/E	P/E Multiple: 2022E P/E
Clearwater Paper Corporation	(NYSE: CLW)	618.4	1,284.4	7.2 x	5.7 x	(41.1 x)	10.9 x
ENCE Energia y Celulosa, S.A.	(BME: ENC)	690.8	923.5	6.0 x	5.2 x	(3.5 x)	71.3 x
Interfor Corporation	(TSX: IFP)	1,915.8	1,840.6	1.8 x	3.2 x	2.9 x	5.5 x
Rayonier Advanced Materials Inc.	(NYSE: RYAM)	391.8	1,038.8	4.8 x	6.5 x	(30.8 x)	(19.8 x)
Resolute Forest Products Inc.	(NYSE: RFP)	1,227.7	1,475.2	1.6 x	2.6 x	3.3 x	3.6 x
Verso Corporation	(NYSE: VRS)	780.8	618.7	7.0 x	2.7 x	(8.1 x)	6.9 x
West Fraser Timber Co. Ltd.	(TSX: WFG)	9,855.1	8,277.5	1.8 x	4.1 x	3.1 x	5.5 x
Western Forest Products Inc.	(TSX: WEF)	558.4	467.3	1.9 x	2.7 x	3.8 x	5.8 x
WestRock Company	(NYSE:WRK)	11,992.1	20,632.0	7.1 x	5.9 x	14.6 x	9.8 x
Mercer International Inc.	(NASDAQ: MERC)	776.8	1,662.9	4.6 x	4.2 x	-	-
Canfor Corp.	**(TSX: CFP)**	**3,812.2**	**3,236.1**	**1.2 x**	**2.1 x**	**2.5 x**	**6.6 x**
Median					**4.2 x**		**5.6 x**
Mean					**4.3 x**		**9.9 x**
High					**6.5 x**		**71.3 x**
Low					**2.6 x**		**(19.8 x)**

	EV/EBITDA Impliled Price	P/E Implied Price
Median	$ 55.10	$ 26.16
Mean	**$ 56.61**	**$ 46.07**
High	$ 82.79	$ 330.60
Low	$ 36.57	-$ 92.05

Adam Parolin & Logan Hale | contact@westpeakresearch.com

Appendix 2: Mercer International Inc. Comparable Companies Analysis

Comparable Company Analysis

Figures in mm, USD

Company	Ticker	Equity Value	Enterprise Value	EV/EBITDA Multiple: 2021A EV/EBITDA	EV/EBITDA Multiple: 2022E EV/EBITDA	P/E Multiple: 2021A P/E	P/E Multiple: 2022E P/E
Canfor Pulp Products Inc.	(TSX: CFX)	3,812.2	3,236.1	1.2 x	2.1 x	2.5 x	6.6 x
Clearwater Paper Corporation	(NYSE: CLW)	618.4	1,284.4	7.2 x	5.7 x	(41.1 x)	10.9 x
ENCE Energia y Celulosa, S.A.	(BME: ENC)	690.8	923.5	6.0 x	5.2 x	-	71.3 x
Interfor Corporation	(TSX: IFP)	1,915.8	1,840.6	1.8 x	3.2 x	(38.4 x)	5.5 x
Rayonier Advanced Materials Inc.	(NYSE: RYAM)	391.8	1,038.8	4.8 x	6.5 x	0.6 x	(19.8 x)
Resolute Forest Products Inc.	(NYSE: RFP)	1,227.7	1,475.2	1.6 x	2.6 x	(78.9 x)	3.6 x
Verso Corporation	(NYSE: VRS)	780.8	618.7	7.0 x	2.7 x	5.7 x	6.9 x
West Fraser Timber Co. Ltd.	(TSX: WFG)	9,855.1	8,277.5	1.8 x	4.1 x	(27.8 x)	5.5 x
Western Forest Products Inc.	(TSX: WEF)	558.4	467.3	1.9 x	2.7 x	0.1 x	5.8 x
WestRock Company	(NYSE:WRK)	11,992.1	20,632.0	7.1 x	5.9 x	103.6 x	9.8 x
Mercer International Inc.	**(NASDAQ: MERC)**	**776.8**	**1,662.8**	**4.6 x**	**4.2 x**	**9.3 x**	**5.6 x**
Median					**3.7 x**		**6.2 x**
Mean					**4.1 x**		**10.6 x**
High					**6.5 x**		**71.3 x**
Low					**2.1 x**		**(19.8 x)**

	EV/EBITDA Impliled Price	P/E Implied Price
Median	$ 8.43	$ 13.10
Mean	**$ 10.88**	**$ 22.45**
High	$ 24.99	$ 151.05
Low	-$ 0.65	-$ 42.06

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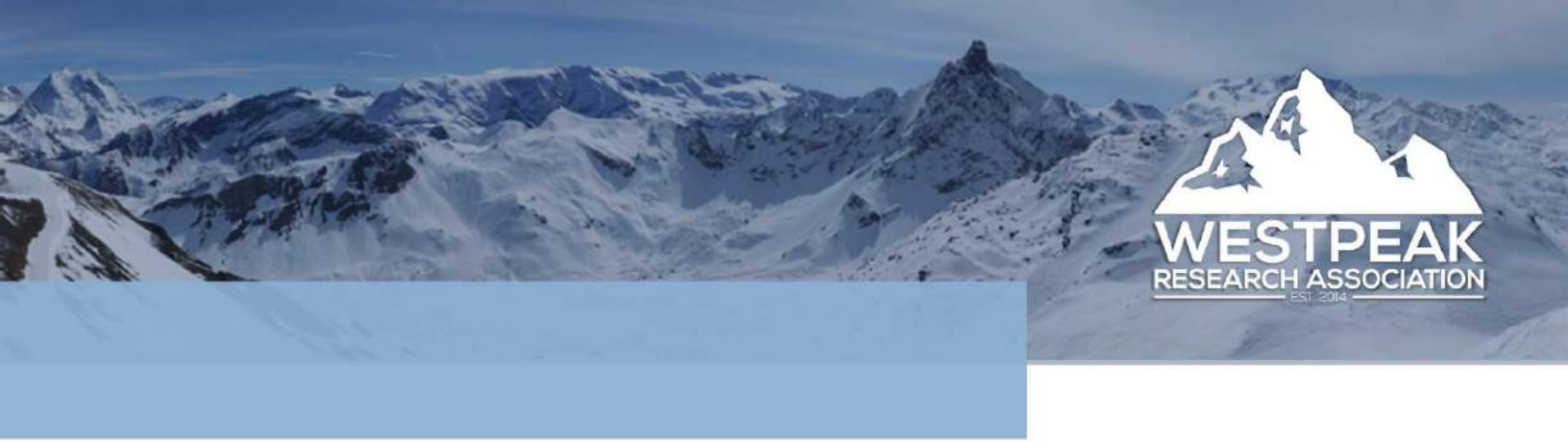

GLOBAL EQUITY | MARCH 2022

Natural Resources

I. Mining

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Mining – ESG Analysis

Energy Transition 2021 Review

January 2022

The metals & mining industry consists of companies that locate and extract metal and mineral reserves. Generally speaking, the industry classified metals into two broad categories: precious metals and base metals. Precious metals, such as gold and silver, have more economic value due to their scarcity. Base metals, such as aluminium and copper, are less scarce, and are primarily used for industrial purposes.

Industry Overview and ESG Trends

Mining is an extremely globalized industry with companies based out of all corners of the world. Most of these companies are based out of areas like Canada, The United States of America, Australia, China, and The UK. These developed regions participated in The Paris Agreement in 2015 and COP 26 this year and there is a large focus on putting a stop to emissions and environmental damage. The M&M industry is no different, with companies needing to change their practices to conform with not only environmental standards but also stakeholder expectations. Green mining will be a major focus for companies looking to become more environmentally conscious.

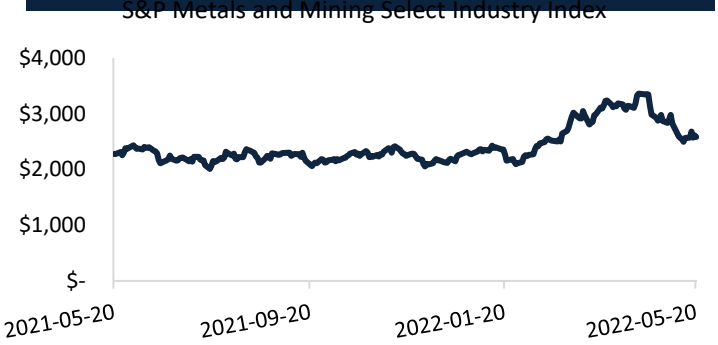
Along with making companies practice more sustainable operations, the global path to Net-Zero and the Energy Transition industry really pays off for the metals & mining sector. The Energy Transition brings along higher demand for metals such as lithium or cobalt which are used in the production of batteries and other technology.

Industry Research	
Metals & Mining	
Global Revenue (2021)	US$1.25T
Annual Growth (Past 5 Years)	3.8%
Annual Growth (Next 5 Years)	3.0%

Source: Bloomberg

Key Companies	
Lundin Gold	**(TSX: LUG)**
Enterprise Value	$2.92B
Sustainalytics ESG Risk Rating	44.3
Sustainalytics Industry Ranking	71/122
Fortuna Silver Mines	**(TSX: FVI)**
Enterprise Value	$1.1B
Sustainalytics ESG Risk Rating	28.2
Sustainalytics Industry Ranking	20/122
Barrick Gold Corp.	**(TSX: ABX)**
Enterprise Value	$37.0B
Sustainalytics ESG Risk Rating	34.6
Sustainalytics Industry Ranking	41/122
Newmont Corp.	**(TSX: NGT)**
Enterprise Value	$54.32B
Sustainalytics ESG Risk Rating	23.5
Sustainalytics Industry Ranking	9/122

1-Year Return



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Industry Trends - ESG

Overcoming Social Stigma and Regaining Trust of Communities

COVID-19 has spurred a shift in balance between government and business across the world. Mining companies are often called upon to play the role of government in remote regions, which gives them the opportunity to create value by playing a large role in rural communities. A recent report by the World Economic Forum states that mining companies have acknowledged that their single biggest risk is the trust deficit with local communities. The mining industry is often judged as a collective, meaning that there must be unified buy in from industry leaders to overcome this trust deficit. As the balance between governments and businesses continues to evolve along with the pandemic, the industry's approach to community investments will need to become increasingly sophisticated. This means investing in initiatives that deliver long-term sustainable outcomes to surrounding communities. To create meaningful change, companies should work with all stakeholders to agree upon goals that will cause meaningful change. Rather than focusing on financial metrics such as taxes and royalties, mining companies must focus on return to shareholders, return to country, and return to citizens. Many companies have stepped up to the plate and undergone initiatives that have provided immediate benefit to the greater community. BHP established a $36.3M fund to bring critical health services to communities across Australia and made further investments to assist health authorities in Chile. Newmont set up a $20M fund to bolster community health, food security, and local economic resilience. De Beers made a $2.5M donation to support governments and local communities in both Botswana and Namibia to help supply medical equipment, provide vulnerable populations with food and water, and increase awareness about the pandemic. (Other companies can be found below)

Exhibit 1: Mining Companies who have stepped up with community investment

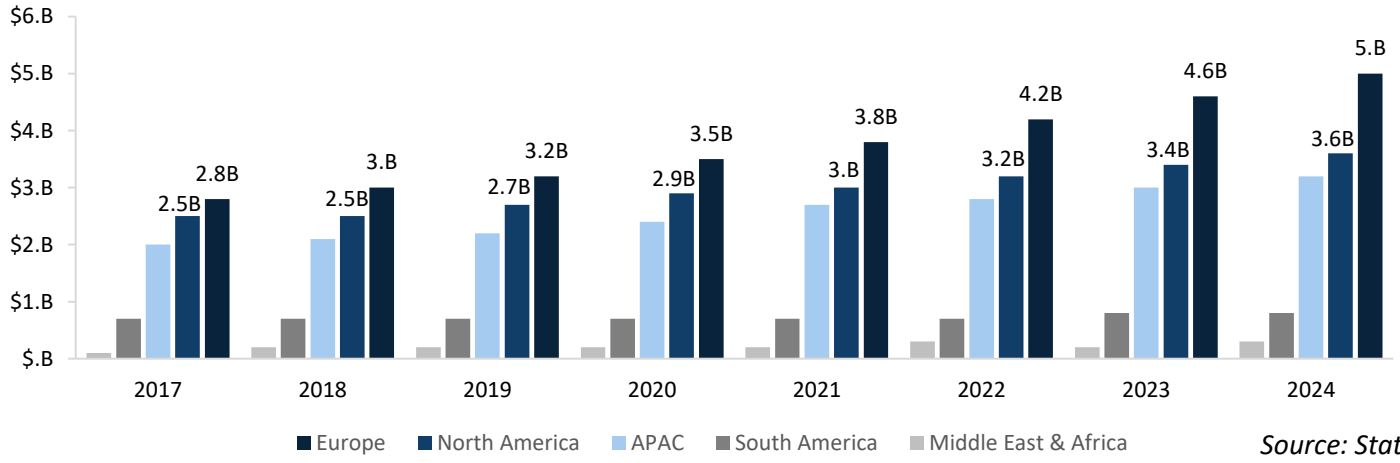
Source: Deloitte Insights

The "E" in ESG: How the Metals & Mining Industry is Focusing on the Environment

Mining is an extremely globalized industry with companies based out of all corners of the world. Most of these companies are based out of areas like Canada, The United States of America, Australia, China, and The UK. These developed regions participated in The Paris Agreement in 2015 and COP 26 this year and there is a large focus on putting a stop to emissions and environmental damage. The M&M industry is no different, with companies needing to change their practices to conform with not only environmental standards but also stakeholder expectations. Green mining will be a major focus for

companies looking to become more environmentally conscious. The green mining industry is currently valued at $9.7B and is expected to grow at a 6% CAGR through 2024. The first way mining will become greener is through the changes to site power. Mining involves a lot of electricity to run different processing tasks and buildings. By changing to renewable energy, much like BHP did by entering into new renewable energy contracts for its mines in Chile, companies can reduce energy prices while displacing millions of tons of CO2 through the non-use of coal-fired electricity production. Another trend for companies to protect the environment will be to utilize clean fuels like electricity, hydrogen, or clean natural gas to run their heavy machinery like loaders and haul trucks. Lastly, a trend one can expect is the increased focus on cleaning the water used in the mining process so that toxic chemicals and waste don't end up in scarce water sources, especially in already susceptible communities in third-world countries. In closing, mining professionals should ultimately expect change with regards to companies' environmental focus which will be driven by increased ESG disclosure by companies.

Exhibit 2: Expected Growth of Green Mining Market Value (2017-2024)



Source: Statista

Capitalizing on Energy Transition and the Global Shift to Batteries

Along with making companies practice more sustainable operations, the global path to Net-Zero and the Energy Transition industry really pays off for the metals & mining sector. Although the costs of producing green materials is more expensive, the revenue from the materials produced are also higher. A study by S&P Global Platts' showed that this past year the price of Good Western-origin premium duty paid in-warehouse Rotterdam aluminum was nearly 11% higher for a zero-carbon product. This points to a trend in downstream customers demanding suppliers like metals and mining companies shrink their carbon footprint, and the M&M companies are responding in kind. Energy Transition also brings along higher demand for metals such as lithium or cobalt which are used in the production of batteries and other technology. In fact, the World Bank has estimated more than three billion tonnes of material will be needed to deploy sufficient renewable power and energy storage to keep the rise in mean global temperatures below two degrees. More specifically, global production for many minerals and metals is expected to rise by 2050 (965% for lithium, 585% for cobalt, 383% for graphite, 241 for indium, and 173% for vanadium). M&M companies can also expect significant opportunities in the recycling and reuse of the minerals that are mentioned above since a lot of the technology they are used in has fairly rapid turnover rates. Lithium for example is forecasted to have around 1 to 4 million tons of waste per year by 2030. Overall, companies in the mining space are positioned for a unique opportunity to capitalize on other

industries' transitions to renewable energy and clean operations. Companies that successfully navigate global demand for energy transition metals while focusing on their own sustainability will have a strong advantage over lagging peers.

Exhibit 3: Mineral Production and 2050 Projected Annual Demand for Energy Transition

Mineral	2018	2019	2020e	2050 projected annual demand from energy technologies	2050 projected annual demand from energy technologies as percentage of 2018 annual production
Aluminum	60,000	63,200	65,200	5,583	9%
Chromium	36,000	44,800	40,000	366	1%
Cobalt	140	144	140	644	460%
Copper	21,000	20,400	20,000	1,378	7%
Graphite	930	1,100	1,100	4,590	494%
Indium	0.75	0.968	0.9	173	231%
Iron	1,200,000	1,520,000	1,500,000	7,584	1%
Lead	4,400	4,720	4,400	781	18%
Lithium	85	86	82	415	488%
Manganese	18,000	19,600	18,500	694	4%
Molybdenum	300	294	300	33	11%
Nickel	2,300	2,610	2,500	2,268	99%
Silver	27	26.5	25	15	56%
Titanium	6,100	8,400	8,200	3	0%
Vanadium	73	86.8	86	138	189%

Source: US Geological Services & Whitecase

Current Events

Major Mining Companies declaring Net Zero Policy

On Oct 5, 2021, the International Council on Mining and Metals published an open letter signed by the 28 chiefs of the world's largest miners, committing to a goal of net-zero carbon emissions by2050 or sooner. The announcement comes before the U.N. climate gathering, aiming to achieve more ambitious climate action from the nearly 200 countries that signed the 2015 Paris Agreement to limit global warming. Previously, many mining companies, including Anglo American, Rio Tinto, and BHP, under pressure from environmental activists and shareholders, have already committed to net-zero by 2050 in direct and indirect emissions (Exhibit 4). The collective commitment represents a joint ambition from companies that make up one-third of the global mining and metals industry. Its 28 members, whose operations span 650 sites over 50 countries, will report annually on their decarbonization progress.

Exhibit 4: Environmental Policies of Major Mining Companies

	Market Cap ($B USD)	Climate Goal

BHP	120.34	BHP has committed to reaching net-zero emissions by 2050
Rio Tinto	100.05	Rio Tinto has committed to reaching net-zero emissions by 2050
VALE	53.97	Vale has committed to reaching net-zero Scope 1 and 2 emissions by 2050 and set out plans to reduce Scope 3 emissions by 15% by 2035
Newmont	51.01	Newmont committed to carbon neutrality by 2050, including a 30% reduction in GHG emissions by 2030
AngloAmerican	29.94	Anglo American target carbon neutrality by 2040, including a 30% reduction in GHG emissions by 2030
GLENCORE INTERNATIONAL plc	27.52	Glencore committed to reducing its total emissions by 40% by 2035 and reaching net-zero by 2050

Source: Reuters

Challenge in Indigenous Consent in BC Mining Laws

In October of 2021, Gitxaała Nation took the province of British Columbia to court for its failure to consult before granting mineral tenures on its territory, calling into question the foundation of BC's mining laws, which permit any individual or company to stake a claim without consulting or acquiring consent from Indigenous communities. The Gitxaala claim they never consented to the issuance of claims, were not consulted and were never notified of the pending decisions.

Calvin Sandborn, the Senior Counsel with the University of Victoria Environmental Law Centre, commented on the issue, saying that "for more than a century, mining claims have taken undue priority over private landowner rights, municipal land use plans, and the right of Indigenous peoples. For years, environmentalists and First Nations have called on the government to bring BC's gold rush era mining laws into the 21st century; the Gitxaala Nation is arguing that mining claim laws are unconstitutional and inconsistent with BC's 2019 Declaration on the Rights of Indigenous Peoples Act. If successful, this case could be the beginning of a long-awaited reform."

Other examples of First Nations communities against unauthorized mining actives include the Tahltan Nation evicting Doubleview Gold for not respecting their Indigenous laws and the Stellat'en and Nadleh Whut'en First Nations. They had to go to court to get the government to recognize their rights to regulate the impacts of surface waters on their territories from the leaking Endako Mine. While several years of conflicts and negotiations have led to several government-to-government agreements, there remain core inconsistencies between the Declaration on the Rights of Indigenous Peoples Act and BC's mining laws and practices. To avoid future conflicts and uncertainty for all parties, the BC government must prioritize reforming these laws to be aligned with the rights and traditions of indigenous communities throughout the lifecycle of mines.

Imperial Metals Surrenders Mining Rights to Ecologically Sensitive Land in B.C.

Event Summary

On January 19, 2022, after three years of negotiations, Imperial Metals (TSX: III) had surrendered its remaining mining claims of Giant Copper to the province of B.C. in a $24M buyout funded by the B.C. government, Washington State, the Skagit Environmental Endowment Commission, and Nature Conservancy of Canada.

In a news release from Imperial Metals, President Brian Kynoch said, ”Our objective as a mining company would have been to proceed with the exploration of our claims. But as a company that is responsive to the aspirations of Indigenous communities, government, and neighbours, we support this agreement.“

Catalysts that Led to Imperial Metals’ Eventual Surrender

The Birth of Giant Copper

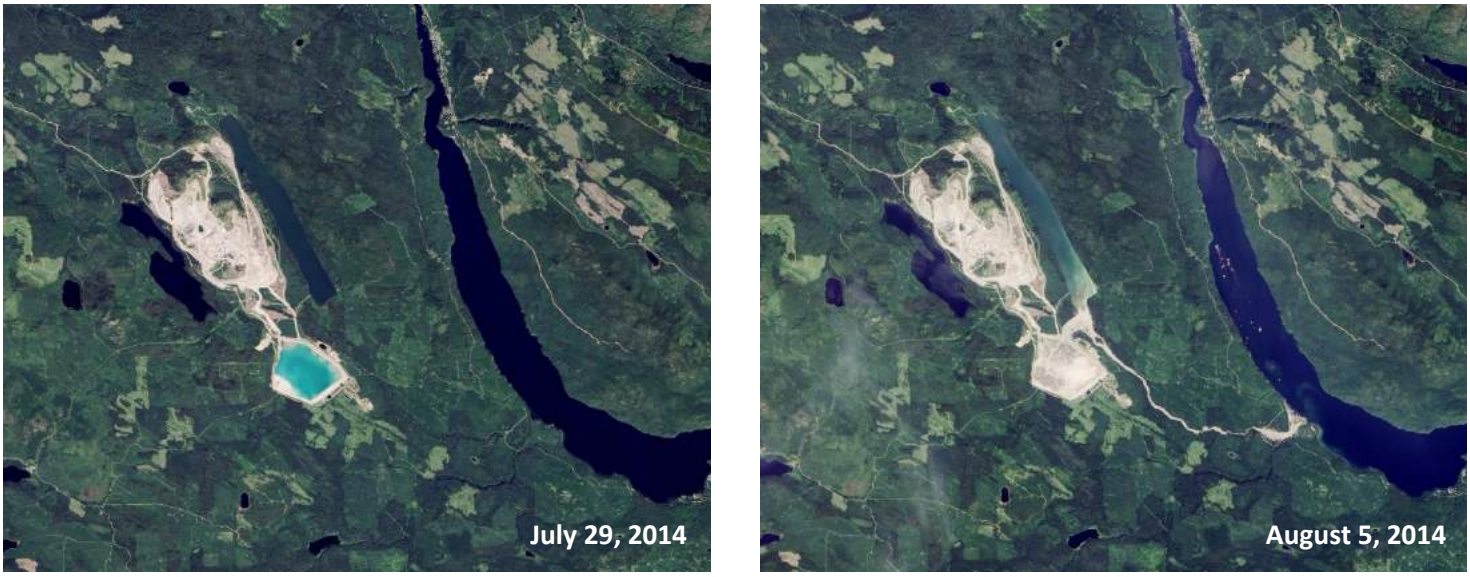
In 1988, Imperial Metals acquired the mining rights to Giant Copper, a plot of copper, silver, and gold-rich land 37 kilometres east of Hope, B.C. However, in 1995, the B.C. government dedicated 30,000 hectares of that land to create Skagit Valley Provincial Park and Manning Park, leaving 2,500 hectares of the mineable area for the company. At this point, the provincial government realized the value in its nature lands beyond resource extraction, so their objectives began pivoting from nature exploitation to nature conservation.

Largest Mine Waste Disaster in Canadian History - The Mount Polley Disaster

On August 4, 2014, the tailings dam of the Mount Polley mine, owned by Imperial Metals, was breached and released 25M cubic metres of toxic mine waste and wastewater into Polley Lake, Hazeltine Creek, and Quesnel Lake (Exhibit 5). These lakes were spawning grounds for sockeye salmon and a new source of drinking water, relied heavily upon by nearby communities, especially the Traditional Territories of the Secwepemc te Qelmucw (NStQ), T'exelc Williams Lake Indian Band, and the Xat'sull Soda Creek First Nations. After the event, a local state of emergency was called to caution the usage of drinking water in the area and in the years following, $40M in B.C. tax subsidies were granted to Imperial Metals to support the cleanup efforts. Later investigations found that the dam was built under erodible glacial silt, causing structural inefficiencies and ultimately the breach. In August 2021, two engineers who were designing the dam were charged, and Imperial Metals was compensated with $100M from the engineering firm that hired the engineers.

The event left a sour taste in the mouths of various stakeholders, including B.C. residents, Indigenous communities, and local companies, which further magnified pushback on mining projects. Mount Polley is now an archetypical case for corporate-caused environmental destruction, and international nature conservationists present its story as a means of challenging upcoming plans for natural resource extraction.

Exhibit 5: Before and After Satellite Images of the Mount Polley Disaster



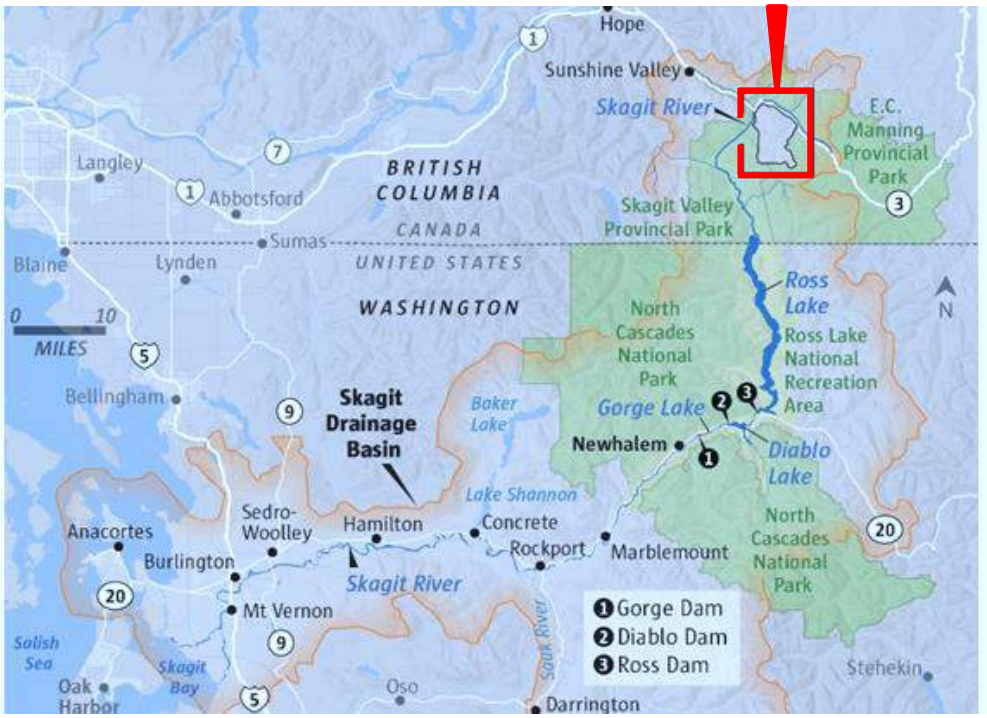
Source: USGS/NASA

Striking Gold in Giant Copper

Fast forward to March 2019, after discovering the potential for gold mining within the Skagit River Donut Hole region of Giant Copper (Exhibit 6), Imperial Metals applied for a permit from the provincial government to conduct full mining operations there. The Skagit River flows from the Southern Interior of B.C. to the heart of Washington, notably through North Cascades National Park, Skagit River Valley, and ending at Puget Sound. These lands are inhabited by endangered wildlife populations, such as chinook salmon, grizzly bears, and the northern spotted owl.

With concerns for the mining operation's severe environmental impact, local companies, recreation and conservation organizations, and Indigenous communities formed an international coalition to pressure the B.C. government into opposing the permit request. Coupled with Imperial Metals' record of facilitating the upbringing of the Mount Polley disaster, the opposition did not want to gamble on losing any more ecologically sensitive land.

Exhibit 6: Map of Skagit River Donut Hole



Source: Seattle Times

Takeaways from Imperial Metals

The surrendering of Imperial Metals' Giant Copper tenure rights was foreshadowed through a combination of unsurprising yet grievous events that often occur in the mining industry. After a devastating disaster pollutes the areas around a company's operations, the company loses trust and credibility from stakeholders, which are exceptionally difficult to earn back after they are lost. Moreover, society is increasingly interested in conserving the environment; therefore, mitigating substantial environmental damage to sensitive ecosystems is now of the highest importance for all companies. To garner stakeholder support, a mining company must be ultra-cognizant of the wildlife inhabitants and waterways surrounding prospective mining locations, propose concrete strategies to minimize the risk of destroying neighbouring ecosystems, and ensure developed infrastructure for the projects are secure by conducting rigorous assessments prior to, during, and the following construction. If a company's stakeholders are not convinced that these requirements are met, the company will follow a similar fate to Imperial Metals, having to discontinue plans for exploration.

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Roxgold – Target (TSX: ROXG)

Fortuna Silver Mines – Acquirer (TSX: FVI)

Natural Resources – Oil & Gas

Fortuna acquires Roxgold: Was this the right call?

December 7, 2021

Fortuna and Roxgold combine to create a global premier growth-oriented intermediate gold and silver producer. Fortuna acquires all the issued and outstanding securities of Roxgold and expands their operations into West Africa. Investor confidence and share price fall as a result …

Strategic Objectives

Fortuna Silver Mines aimed to achieve two main goals through completing this acquisition: diversification / expansion into West Africa and a strengthening of their balance sheet. The combined company looked to be in a stronger position to accelerate development of Roxgold's Séguéla gold project, and ramp-up exploration in West Africa and Latin America. Alongside this, the acquisition looked to create an enlarged company with a strong balance sheet, significantly higher liquidity, greater scale, and enhanced capital markets relevance.

Synergies

There is an apparent lack of synergies associated with this deal and Fortuna's subpar stock performance goes to show this. The word "synergy" is not included in the press release, and it is difficult to identify how this deal made sense from a financial point of view apart from a strengthened balance sheet and lower cost of capital.

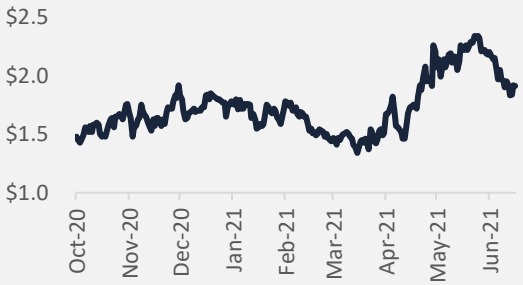
Industry Analysis

Mining companies have been increasingly focused on bolstering their ESG initiatives and reducing carbon footprints as investors have become increasingly focused on ESG. In addition, mining companies must work to win back the trust they lost during the peak of the last cycle when numerous deals destroyed value rather than creating it.

Analyst: Logan Hale, BCom. '23
contact@westpeakresearch.com

Key Statistics - Roxgold	
52 Week H/L	$1.34/$2.35
Market Capitalization	$712M
Average Daily Trading Volume	2.5M
Net Debt	-27.3M
Enterprise Value	684.7M
Net Debt/EBITDA	-0.25x
Diluted Shares Outstanding	375M
Dividend Yield	N/A

1-Year Price Performance



Key Statistics – Fortuna	
52 Week H/L	$12.6/$4.36
Market Capitalization	$1.3B
Average Daily Trading Volume	1.05M
Net Debt	$83.2M
Enterprise Value	$1.45B
Net Debt/EBITDA	0.17x
Diluted Shares Outstanding	291.6M
Dividend Yield	N/A

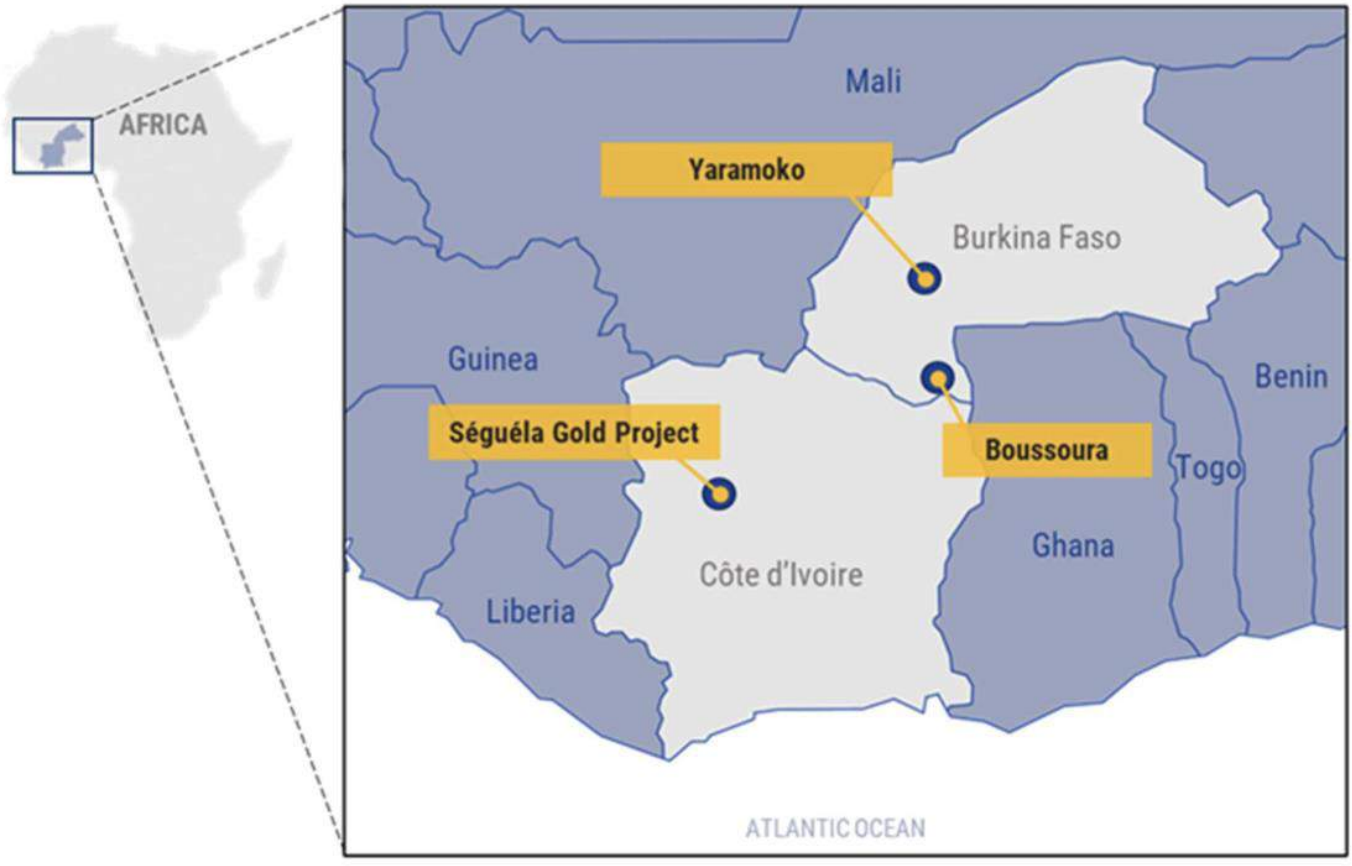
1-Year Price Performance

Business Overview – Roxgold

Company Overview

Roxgold is a Canadian-based gold mining company with assets located in West Africa. They own and operate the high-grade Yaramoko Gold Mine located on the Hounde greenstone belt in Burkina Faso and are also advancing the development and exploration of the Séguéla Gold Project located in Cote d'Ivoire. These mines and projects are now under the control of Fortuna Silver Mines because of the acquisition.

Overview of Mines and Projects: Roxgold took over ownership of the *Yaramoko Gold Mine* in September 2012 and have been operating it ever since. The mine is located in Burkina Faso and comprises of two deposits, with the main deposit referred to as the 55 Zone and the satellite deposit known as the Bagassi South zone. In 2020, Yaramoko produced 133,940 ounces of gold. Roxgold acquired the *Séguéla Gold Project* in April 2019 and have been exploring and drilling various areas of the project since. As of November 2020, they estimated there to be approximately 12,780 tonnes of gold spread across 5 different locations because of their exploration efforts. Roxgold also held the permit to explore the *Boussoura* property located in the southern portion of the Hounde Greenstone Belt, where they conducted a drilling program in early 2020.



Source: Company Filings

Logan Hale | contact@westpeakresearch.com

Company Strategy

Creating Long Term Sustainable Value

A key part of Roxgold's corporate strategy is reinvesting into the business to advance projects, grow resource production, and have successful explorations. In terms of project advancement, Roxgold had initial production 5 years after the initial discovery of Yaramoko and is continuing to expand the Yaramoko processing plant and Bagassi South deposit. Along with this they successfully acquired their Séguéla property in April 2019 for $20M in cash which had a PEA (preliminary economic assessment) NPV of $268M at $1,450/oz Au as of April 2020. Since 2016, they have spent $140M in accretive growth expenditures on projects such as Séguéla drilling and studies, Greenfield Exploration, and the expansion of the Yaramoko project.

VALUE ACCRETIVE GROWTH SPEND

	2016	2017	2018	2019	2020	Total
Acquisition of Séguéla				$21		
Séguéla drilling and study costs				$6	$25	
Yaramoko resource drilling	$3	$1	$8	$3	$4	
Yaramoko expansion - Bagassi South		$10	$27	$18		
Greenfield exploration		$1	$3	$5	$5	
Total Growth spend	**$3**	**$12**	**$38**	**$54**	**$34**	**$140**

Source: Company Presentation

Strong Focus placed on ESG

Roxgold's ESG strategy stems around 3 main pillars: employee health and safety, community development, and environmental stewardship. Between 2017-2019, they provided 51,709 hours of training to their contractors and employees and only suffered one Lost Time Injury (LTI) in 7.16M hours worked. On top of this, 91% of Roxgold employees are from Burkina Faso and they have devoted $1.9M towards investment in community activities. Finally, Roxgold has planted 100,000 trees in their reforestation campaign since 2015 and recycled 570,000 m^3 of water from their tailing's facility between 2017 to 2019. Roxgold's impressive ESG strategy was one of the few attractive pieces of this acquisition, directly in line with an industry shift towards ESG.

Business Overview – Fortuna Silver Mines

Company Overview

Fortuna Silver Mines is a Vancouver based, Canadian precious metals and mining company with four operating mines in Argentina, Mexico, Peru, Burkina Faso, and a development project in Cote d'Ivoire. Their focus is on producing silver and gold to generate shared value over the long term for their stakeholders.

Overview of Mines and Projects: As mentioned previously, Fortuna's portfolio consists of four operating mines and one development project. Their *Caylloma Mine* in Arequipa, Peru, has produced silver, gold, lead and zinc since 2006. The

Lindero Mine in Salta, Argentina, poured its first gold in October 2020 and is Fortuna's leading producer, and the *San Jose Mine* in Oaxaca, Mexico, has produced silver and gold since 2011. The *Yaramoko Mine* in Burkina Faso has been producing gold since 2016. The *Séguéla Gold Project* in Côte d'Ivoire is an advanced development project with near-surface defined Mineral Reserves.

Source: Company Website

2020 Highlights

Source: Company Website

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Company Strategy

Growth-Oriented Intermediate Mining Company

Fortuna Silver Mines has a growth-oriented asset portfolio based out of two premier mining regions. The company is led by a highly experienced management team that has a track record of value creation in West Africa's and the Americas focused on driving sustainable growth. The integration of Roxgold's executive leadership has bolstered the company's existing management team and added unique experience and perspective in the West Africa region. Fortuna is well positioned to capitalize on their existing operating mines and fully funded development and exploration pipeline in the surrounding areas.

Source: Company Presentation

Sustainability

Fortuna Silver Mines is committed to integrating sustainability into their business strategy, organizational culture, and day-to-day operations. In 2019, they developed a five-year sustainability plan containing short, medium, and long-term commitments and integrated key performance indicators (KPIs) related to sustainability into the management of our business. Some of these goals include achieving a target of zero fatalities, improving their OHS programs, and reducing the freshwater collection rate by identifying opportunities for improvement. They have been very successful in achieving many of the goals they set in 2019 and are continuing to set an example for the rest of the industry.

The core to their approach to is Governance, Their People, and Their Environment. Along with this they have six pillars to support their core fundamentals: financial performance, human rights and ethics, communities, occupational health and safety, human resources, and the environment. Fortuna received a 27.9 ESG risk rating score from Sustainalytics, placing them 17th out of 125 rated precious metals peers and well ahead of close peers such as Osisko Mining and Silvercorp Metals.

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Industry Analysis

Market Size & Growth

As of December 7, 2021, the global top 25 metals and mining companies had a cumulative value of $995.7B. This represents an increase of $87.34B (8.8%) since December 2020. The top 25 companies represent a large percentage of the total industry's market capitalization due to strong operational value attained through economies of scale. Fortuna Silver Mines ranks 65th in the world with a market capitalization of approximately 1B.

Key Industry Metrics

Price to Cash Flow (P/CF): Valuation in the mining industry is heavily dependent on commodity prices which leads to high earnings volatility and frequent impairment expenses which can cause the typical price-earnings (P/E) multiple too often be misleading. P/CF is a more commonly used multiple in the space as it tells investors how much cash flow is generated relative to the share price. Prior to the acquisition of Roxgold, Fortuna traded at a P/CF multiple of 5.76x as of March 2021 and are currently trading at a 3.99x multiple as of December 2021. They are trading at a much lower multiple than industry peers such as First Majestic Silver (12.74x) and Pan American Silver Corp (8.19x). This provides me with some hope that investors may have overreacted to the lack of synergies present in the deal and that Fortuna may be undervalued compared to industry peers.

Price to Net Asset Value (P/NAV): P/NAV is a very common multiple in the mining and metals space and assesses the current trading price of a mining company relative to their implied intrinsic value (NAV). As of November 2021, Fortuna was trading at a 1.3x P/NAV multiple and is currently trading at even lower multiple given the recent drop in their share price. If they can regain investor confidence and execute succesufly at their various sites they have the potential for multiple expansion as they currently trade at a discount to many industry peers.

Key Industry Trends

Environmental, Social, and Corporate Governance (ESG)

Mining companies have been increasingly focused on bolstering their ESG initiatives and reducing carbon footprints as investors have become increasingly focused on ESG. High-profile investors such as BlackRock and Goldman Sachs have been divesting from select natural resource companies, reflecting the increased pressure for the mining industry to meet ESG targets. As mentioned previously, sustainability is a at the forefront of Fortuna's company strategy and something they view with the upmost importance. Roxgold also places a strong emphasis on ESG, making this deal accretive from an ESG standpoint and offering one of the few benefits to this deal.

M&A in an altered world

As mining companies look to strengthen their portfolios and grow in a semi-post pandemic world, merger and acquisition activity has picked up. However, to finance these M&A deals, companies must work to win back the trust they lost during the peak of the last cycle when numerous deals destroyed value rather than creating it. To win back investor confidence,

miners must participate in deals that deliver constant shareholder returns, enhance ESG performance, and improve capital and operational discipline. In the case of this acquisition, this is far from the case. There was an immediate negative reaction upon the announcement of the deal as investors believed Fortuna overpaid for Roxgold and that this acquisition brings no value or synergies to Fortuna. Investor confidence has remained extremely negative and Fortuna's share price has plummeted.

Competitive Landscape

The global mining industry is dominated by large players, with Rio Tinto and BHP standing out as clear leaders in the space. Larger mining companies of this nature benefit from diverse product offerings, economies of scale in production, and vertically integrated operations. Smaller mining companies are typically considered a riskier investment as they lack the economies of scale and vertical integration seen in larger players. They typically rely on the success of a few mining operations and if these fail the companies value sees a sharp decline. In relation to this deal, I believe it would have made more sense for Roxgold to have combined with another smaller mining company in the West Africa region which could have created more synergies that would have improved operational efficiency.

M&A Rationale

Strategic Objectives

Diversification / Expansion into West Africa

Upside: One of the main objectives of this acquisition was to diversify jurisdictions into Burkina Faso and Cote d'Ivoire, located in West Africa, approximately 8,000 kilometers from Fortuna's current operations. This placed the combined company in a stronger position to accelerate development of Roxgold's Séguéla gold project, and ramp-up exploration in West Africa and Latin America. Along with this, the acquisition brought together two highly experienced management teams with track records of value creation in the Americas and in West Africa, allowing Fortuna to benefit from the in-region operating experience of key members of Roxgold's team. Lastly it provided Fortuna with a robust pipeline of high-upside exploration assets: Boussoura, a gold exploration project with a maiden resource expected in the second half of 2021, over twenty satellite targets identified at Séguéla, and an extensive portfolio of early-stage exploration assets in Côte d'Ivoire and Mexico.

Potential Criticisms:

- Roxgold is successful in West Africa, but this is considered a second-tier jurisdiction and ranks below Mexico and Peru in several categories on the 2020 Fraser Institute Annual Survey of Mining Companies.
- Fortuna is a leading precious metals miner in the Americas, operating the San Jose Mine in Mexico, the Caylloma Mine in Peru, and the Lindero Mine in Argentina, producing both gold and silver, as well as zinc and lead. It is confusing why they would not continue to build assets in this part of the world, such as Peru, Brazil, the United States or Canada.

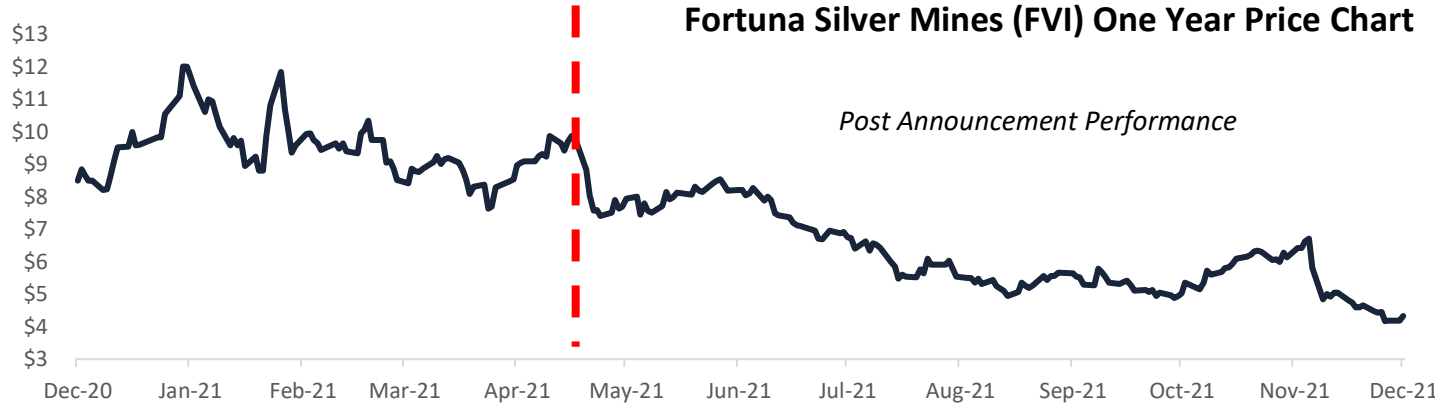
- Roxgold could have found a better acquirer, that would have created synergies between the two and the opportunity for accelerated growth. A potential option could have been a junior gold miner with experience in West Africa, or perhaps in a different part of the continent.
- It's simply a merger of two miners located in completely different parts of the world, and it's difficult to see how this merger adds value, other than creating a larger company which will have greater access to capital and higher trading liquidity.

Enlarged Company with Strong Balance Sheet

The other main benefit of this acquisition is the creation of an enlarged company with a strong balance sheet, significantly higher liquidity, greater scale, and enhanced capital markets relevance. The lower cost of capital and stronger balance sheet will help to fund Séguéla construction and Boussoura's development. Along with this, the combined company has the flexibility to pursue other organic and external growth opportunities.

Synergies

There is an apparent lack of synergies associated with this deal and Fortuna's subpar stock performance goes to show this. Their share price has dropped from $9.64 on April 23rd, 2021 (day before deal was announced) to $4.32 as of December 6th, 2021. Investors have lacked confidence in this acquisition since day one and it is clear that this sentiment has remained. The word "synergy" is not included in the press release, and it is difficult to identify how this deal made sense from a financial point of view apart from a strengthened balance sheet and lower cost of capital.



Source: Yahoo Finance

Valuation

Precedent Transactions Analysis

Fortuna Silver Mines acquisition of Roxgold was priced at a 6.4x EV/EBITDA multiple based on a purchase price of $884M CAD and Roxgold's EBITDA of 138M CAD. Compared to other recent deals, we see that Fortuna completed this acquisition at a discount to its peers which had an average of 8.2x EV/EBITDA. Much of this can be attributed to Roxgold's abnormally high EBITDA compared to industry peers of a similar size.

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Date	Target	Buyer	Transaction Value ($M)	EV/EBITDA
14-Mar-21	Battle North Gold Corporation	Evolution Mining	343	14.3x
11-Nov-21	Pretium Resources	Newcrest	3500	9.2x
11-Feb-21	Teranga Gold	Endeavour Mining	2440	9.4x
06-Jan-21	TMAC Resources	Aginco Eagle Mines	287	3.3x
25-Oct-21	Fiore Gold	Calibre Mining	178	4.6x
Average				**8.2x**
Median				**9.2x**

Risks

Commodity Price Risk

Valuation in the metals and mining industry is based off cash flows that are derived from predictions on commodity prices. If future commodity prices take a steep drop, company's valuation's drop severely and this presents a risk for all acquisitions in the industry. Gold prices saw a sharp increase in 2020 reaching a high of around $1900/oz, and industry professionals are forecasting prices to decrease to around $1500/oz by 2025. This means that any acquisitions that were valued based off higher forecasts of commodity prices may have overvalued their target.

Failure to execute on exploration and development projects

A key part of this acquisition was acquiring further property to accelerate Fortuna's growth pipeline, with the major project being the Séguéla Gold project in Cote D'Ivoire. If Fortuna is unable to execute at this location and at other exploration sites, they will have greatly overpaid for Roxgold and fail to deliver value to shareholders.

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