

Economic Analysis

Energy: Independent Upstream Oil and Gas Exploration and Production

NYSE: PXD

11/8/2023

Current Price: 231.69 Target Price: \$230 - 240 Recommendation: **HOLD**

Company Overview

Pioneer Natural Resources (PXD) is a leading Upstream Oil Company with their primary operations in Permian Basis of West Texas. The company is involved in the exploration, development, and production of oil and natural gas reserves. Pioneer is known for its focus on technology innovation in the industry to improve efficiency and environmental performance.

***Pioneer is being acquired by ExxonMobil (XOM) for a price of 59.5 billion or \$253 per share. Pioneer shareholders will receive 2.3234 shares of Exxon Mobil for each Pioneer share at closing. The expected transaction date is in the first half of 2024. The research and findings in this report reflect the assumption that Pioneer will continue as a separate

Stock Performance Highlights

52 week High	\$262.42
52 week Low	\$177.27
Beta Value	1.045
Average Daily Volume (3 month)	2.76 M

Share Highlights

Market Capitalization	\$54.09 B
Shares Outstanding	233.31 M
Book Value per share	\$97.38
EPS (FY '23 through Q3)	\$15.53
P/E Ratio	11.13
Dividend Yield	6.02%
Dividend Payout Ratio	78.6%

Company Performance Highlights

ROA	11.44%
ROE	22.36%
Sales (FY '23 total at time of model)	\$14,184 B

Financial Ratios

Current Ratio	0.85
Debt to Equity	23.44%



PIONEER

NATURAL RESOURCES

Analysts:

Bailey Shafer: bailey-shafer@uiowa.edu Sraavika Vaddadi: sraavika-vaddadi@uiowa.edu

Investment Thesis

Based on our analysis, we are issuing a hold rating for Pioneer with a target price of \$230-240.

- Strong Production: Pioneer is the largest producer in the Permian Basin, one of the most prolific oil producing regions of the United States. If consumers are buying oil, NGLs, and gas, Pioneer will have the resources to supply their demand.
- Advantageous Capital Structure: The flexibility of Pioneer's capital structure being primarily equity financed is an important advantage for the company. Historically, Pioneer has generated sufficient Free Cash Flow (FCF) to cover all necessary capital expenditures and make dividend payouts. If in the future they are in a tight financial position, they will be able to cut some of the dividends and not worry as much about defaulting on debt.
- Positive ESG Practices: Pioneer is among the most highly rates exploration and production companies for ESG responsibility. We believe that this will work to Pioneer's advantage as investors focus more on sustainability in the coming years.
- Acquisition of XOM Stock: When being acquired, a company's price often trends upward towards the purchase price of the company. We believe Pioneer's stock price will increase as the acquisition details solidify, and we also believe Exxon will be a valuable company to be held in the portfolio.
- Risks: Commodity prices are the primary determinant of Pioneer's revenue, so volatility in prices can have a hugely negative impact on total revenue. Pioneer also faces the risk that consumers will turn to more renewable resources, mitigating the need for oil, NGLs, and gas.

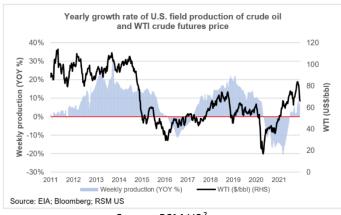
One Year Stock Performance

Source: Yahoo Finance²⁶
(Dark Blue = S&P 500, Light Blue = PXD)

Economic Analysis

Supply and Demand

A commodity market, such as the oil market, is inherently prone to volatility, primarily influenced by the interplay of supply and demand dynamics, which serve as pivotal economic drivers within the industry. The period spanning the onset of the pandemic and the subsequent years proved exceptionally tumultuous for oil prices, but 2023 has marked a notable shift towards relative stability. Amid the unprecedented challenges brought by the COVID-19 pandemic, individuals found themselves constrained within their homes, leading to a dramatic decline in the demand for gasoline. Consequently, oil prices experienced a staggering plummet, sinking to levels below \$17 per barrel. Selling oil at such low rates is unprofitable, so oil companies curtailed production. Since that tumultuous phase, there has been a gradual resurgence in demand, which has subsequently propelled oil prices to well over \$110 per barrel. Presently, these prices have steadied within the range of \$70-80 per barrel³.



Source: RSM US²

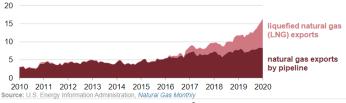
It is critical to recognize that global events, such as conflicts and political tensions, have a substantial impact on the supply and demand dynamics of the oil market. The onset of the Russian-Ukrainian and Israel-Palestine conflicts created uncertainty in the oil markets, affecting prices. Beyond international conflicts, groups such as the Organization of Petroleum Exporting Countries (OPEC) who control over 80 percent of the world's crude oil reserves (2021) can also impact the price of oil¹³. If member countries are collectively unhappy with oil prices, they can limit the supply of oil, which will result in higher prices. The geopolitical implications of the oil industry will be discussed further in the "Geopolitical Considerations" segment.

To combat US dependence on outside oil sources, some have called for the US to bolster domestic drilling efforts, or pivot towards alternative sources of energy. In the US, oil supply can be increased, but it will take time. Finding, developing, and producing new oil supplies takes years and

costs billions. Additionally, many refineries are struggling to find workers, making them unable to operate at max capacity¹⁶. Another factor to consider is that oil is a nonrenewable resource, so our world's supply is limited. It is challenging to know when we should expect our oil reserves to be depleted, but governments and corporations are assessing new clean energy sources. In 2023, oil demand is expected to increase by 2.4 mmb/d, but that annual increase shrinks to .4 mmb/d in 2028¹⁵. The decrease in demand is mirrored in our model, as our annual projected production of oil and natural gas decreases incrementally.

Supply and demand implications for natural gas and natural gas liquids (NGLs) differ slightly from oil as these commodities are driven by regional factors. Natural gas is primarily transported through pipelines because it is in gaseous form. Despite its high price, it is possible to convert the gas to liquid for easier international shipping, a practice that has become more common in recent years. However, natural gas continues to be dominated by regional events, including production, weather events, and overall demand⁶.

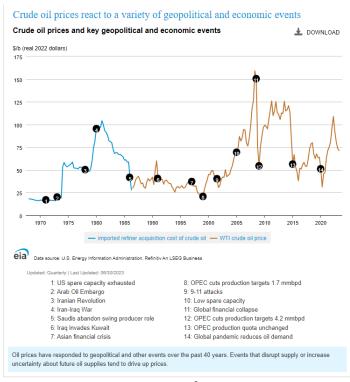
US natural gas export prices (Jan 2010-Jan 2020)



Source: EIA6

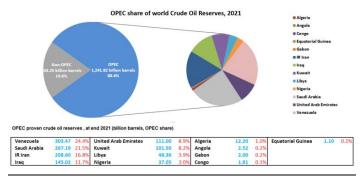
Geopolitical Considerations

Geopolitics exerts a multifaceted influence, with wideranging implications that significantly shape aspects of oil supply, pricing, and demand. Three of the main oil producers in the world, the US, Suadi Arabia, and Russia, have vastly different political ideals, making the oil industry dependent on foreign policy and international relations. Furthermore, many of the world's oil reserves are in regions that traditionally have lacked political stability, such as the Middle East. In the past, unplanned political events have drastically increased or decreased the price of oil. Examples include the Iran-Iraq war in the late 1970s and early 1980s, the Iraq invasion of Kuwait in 1990, the 9/11 attacks, and more recently the global pandemic, the Russian-Ukrainian War and the Israel and Palestinian Conflict⁸. The unpredictability of geopolitical events makes it challenging to determine how they will affect the oil market, and more specifically Pioneer. In the coming months, the evolution of the Israel-Palestine conflict will be significant in determining regional stability and its broader repercussions on the oil industry.



Source: EIA8

As alluded to previously, OPEC impacts and controls 80.4% of the world's cruede oil supply¹³. There are 13 member countries that comprise OPEC, with the founders being Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. The purpose of OPEC is to regulate the supply of oil so member countries can set the price on the world market. The US and OPEC have had a historically tumultuous relationship, with OPEC being formed essentially to combat the US dominance of the oil markets. Previously, OPEC has cut production and banned oil exports to the United States, resulting in the drastic increase of oil prices. OPEC's impact on the industry pricing will affect commodity prices, and in turn, Pioneer's revenues.

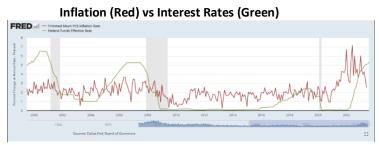


Source: OPEC18

Interest Rates

Interest rates wield significant influence within the oil industry, primarily because substantial capital expenditures are often financed through loans. These expenditures predominantly serve purposes such as leasing land and equipment, as well as funding long-term growth initiatives.

The specific nature of these essential investments hinges on a company's position within the industry's sectors, namely the Upstream, Midstream, or Downstream segments. In the case of Pioneer, long-term debt is strategically employed to secure financing for critical endeavors such as leasing drilling equipment, facilitating oilfield development, and supporting other extensive projects.



Source: CFRA5

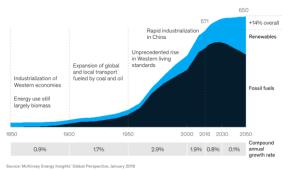
The United States is currently in a high interest rate period which has resulted from efforts to combat high inflation. Federal interest rates hit a low of .05% in April of 2020, and highs of over 5% in 2023¹². When borrowing money for large projects, lower interest rates require less payments on loans. High interest rates make new capital expenditures more expensive as higher interest payments will be required on the loan. In our WACC calculation for Pioneer, we used the current 10-Year Treasury Bond rate of 4.52%, which is the rate used by Pioneer for their long-term debt. Compared to its industry peers, Pioneer is less levered, making it less susceptible to changes in interest rate prices¹¹. Despite this, the firm has lowered full-year 2023 capital guidance from \$4.475 billion to \$4.375 billion to reduce costs associated with borrowing²⁰.

Economic Growth

Economic growth, measured by Gross Domestic Product (GDP) is an economic indicator used by oil and gas companies because of how heavily reliant modern economies are on energy. The three primary sectors of consumption in an economy include transportation, industrialization, residential, and commercial²⁵. Energy is a significant contributor to the efficiency and growth of the overall economy. The following chart shows the positive correlation between energy demand and economic growth. We can also see that usage of renewable energy is projected to increase, while fossil fuels decrease. The decrease in fossil fuels is reflected in our model with decreasing oil production and prices in the coming years.

After a century of rapid growth, energy demand is likely to plateau around 2030, primarily driven by the penetration of renewable energy sources into the energy mix.

Global primary energy demand, millions of terajoules



Source: McKinsey & Company¹⁷

Industry Analysis

Oil and Gas Industry Value Chain

The oil and gas industry is comprised of three main value verticals: upstream, midstream and integrated downstream. Upstream firms, also referred to as exploration and production companies, operate in the geographical survey of proven and unproven reserves as well as in the extraction of hydrocarbons and water. Pioneer Natural Resources operates in this segment, specifically with unconventional shale production. Major companies in this segment and Pioneer's direct competitors are EOG Resources, Chesapeake Energy and Devon Energy. Midstream operating companies deal with storage and inventory facilities and transporting hydrocarbons to a central distribution center via pipelines, trucks, railways, or maritime shipping. Companies operating in this segment are Energy Transfer, Morgan and Enterprise Product Partners. Kinder Downstream companies are the last stage in the value chain and are responsible for refining or cracking hydrocarbon chains to create the final products used by households and industries. Downstream firms also market the produced oil to retail and commercial users. Companies in this value chain either operate independently within their segment like Pioneer or derive vertical integration benefits and are called supermajors which include key players like Exxon Mobil, Royal Dutch Shell, and BP.

Exploration and Production Industry Landscape

According to Enverus, in 2020 there were about 400 exploration and production companies operating solely within the Permian Basin⁹. E&P companies are very capital intensive and face the highest risk along the value chain due to the high costs of drilling a single well. That said, E&P companies also earn the highest margins compared to other verticals. Growth and profitability within this industry is measured by several key metrics. They are as follows:

Realized Prices and Volumes

Prices of oil and gas are a key determinant of current and future oil and gas production levels. Higher prices incentivize new exploration efforts and producing more, whereas lower prices are not commercially viable resulting in companies slowing production or in the case of gas, flare it off which is dangerous and harmful to the environment. While this volatility is influenced by several economic factors, E&P companies are more concerned with their individual realized prices and their breakeven margins. From the WTI spot price typically, certain differentiators such as location and grade are subtracted to determine the realized price. Pioneer has the highest realized prices in Q3 2023 among its peers indicating lower costs to transport the produced hydrocarbons to a central delivery point.

Realized Prices of Upstream Operators

Company	Oil	NGL	Gas
Pioneer	81.33	24.79	2.48
Devon	79.81	20.72	2.01
Marathon	64.3	1	0.24
Occidental	80.7	21.04	1.92

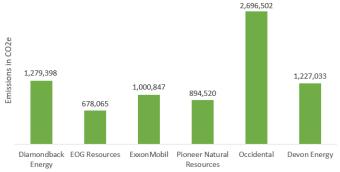
Source: Yahoo Finance²⁶

Proven and Unproven Reserves

Reserves are a significant component of assets on an E&P company's balance sheet. Proven reserves are geographically surveyed oil reserves that have a 90 percent confidence level of existence. Unproven reserves break down into probable and possible reserves with a 50 and 10 percent certainty respectively. Pioneer has strong reserve growth and geographical research capabilities. In just the past three years, Pioneer has growth its proven reserves by 21 percent. We forecast that growth will rise over the next three years before it steadies out.

Environmental, Social, Governance (ESG)

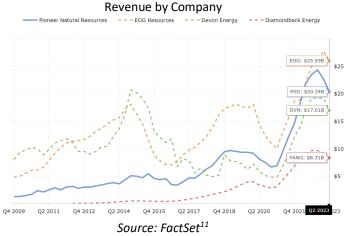
In recent years, there has been an increased emphasis placed on implementing the use of renewable resources to combat the ongoing climate crisis. This has caused investment focus to shift away from the oil and gas sector towards renewable energy projects, or oil and gas companies that have strong ESG practices. With a growing emphasis on the environment and being a responsible producer, ESG is a key metric to evaluate among exploration and production companies. Components of ESG include greenhouse emissions, methane intensity, flaring, water use/disposal, worker safety and protection, operating location responsibility, and others. Compared to its peers, Pioneer is among the lowest greenhouse gas emitters and has set a 2030 target to reduce emissions by 50 percent and reach a net zero emissions target by 2050²¹. Pioneer's conscientious approach to environmental concerns will encourage individuals to continue investing in the company.



Source: ERM Sustainability Institute¹⁰

Current Competitive Climate

The oil and gas industry is a highly competitive market as it can be very profitable, and the commodities produced and sold are challenging to differentiate. Upstream oil companies must compete with integrated, independent, and alternative energy companies. The integrated companies (such as Exxon or Royal Dutch) often have more financial resources than upstream companies, making it challenging to compete. Competition begins with trying to acquire suitable properties for exploration and development and continues with marketing the company's oil and gas production and seeking to purchase the best equipment and recruit the most qualified personnel¹⁹.



Competitors

EOG Resources (EOG), based in Houston, TX, is the next leader in the Permian Basin after Pioneer. It is an independent oil and gas shale play company with operations across several locations in the US including the DJ Basin, Bakken Region and Powder River Basin, in addition to an international presence in Trinidad. It has the highest revenue among its peers at 25 billion. EOG has a reserve of 4.2 million BOE²⁶.

Devon Energy (DVN) based in Oklahoma City, OK, is an independent pure shale play exploration and production company with onshore operations mainly in the Eagleford region, Delaware Basin, Powder River and Williston Basin. Devon Energy reported 2022 proven reserves 1.8 million BOE²⁶.

Diamondback Energy (FANG) headquartered in Midland, TX, is an independent shale exploration and production company with operations solely in the Permian Basin. Relative to its peers, Diamondback has the lowest revenue and net income. In 2022, it has reported 2 million BOE in reserves²⁶.

Marathon Oil (MRO) headquartered in Houston, TX, is a major oil and gas company with exploration and productions efforts across the US and offshore in Equatorial Guinea. Marathon Petroleum, originally part of Marathon Oil, split into a separate entity with a focus on refining and midstream operations. Marathon Oil reported reserves at 1.3 million BOE²⁶.

Occidental Petroleum (OXY) based in Houton, TX, is a major exploration and production company with operations in the Permian, Powder River and DJ basins, offshore in the Gulf of Mexico and has international presence in the Middle East. Oxy has 3.8 million BOE in reserves globally²⁶.

Company Description

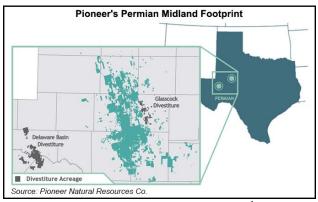
Company Overview

Pioneer Natural Resources is a major upstream oil and gas exploration and production company headquartered in Irving, Texas. Their exploration, development, and production activities take place in the Midland Basin which is part of the Permian Basin in West Texas. Pioneer aims to be America's leading shale independent energy company. To realize this vision, Pioneer has crafted a strategic approach that underscores robust financial health and balance sheet flexibility. Their strategic priorities encompass channeling free cash flow back to shareholders and harnessing cuttingedge technological advancements to drive cost reductions and enhance operational efficiency. In addition, Pioneer places significant emphasis on delivering economic production while maintaining an unwavering commitment to employee safety, setting high performance standards within a secure work environment. Furthermore, they champion sustainable development and environmental stewardship as integral components of their operational efforts.

Permian Basin

The Permian Basin, located in West Texas, is one of the most well-known and prolific oil producing regions within the US. It is also the second largest oil field in the world after the Ghawar Field in Saudi Arabia. The Permian Basin consists of three sub-basins: the Central, Delaware and Midland. Pioneer primarily operates in the Midland Basin, with more than 850,000 net acres. In addition, they have a smaller presence in the Delaware Basin. Pioneer is currently the leading producer in the Permian Basin with a rig count of 26 rigs in the Midland Basin and three joint ventures in the

Delaware basin. Just in 2023, around 530 new wells are expected to be put online²³.



Source: Natural Gas Intelligence¹

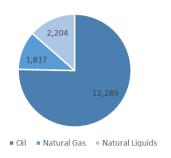
Financial Summary

Through the first three quarters of 2023, Pioneer has seen a significant decrease in growth, with year-to-date total revenue of \$14.15 billion. This number is 26 percent lower than the revenue through the first three quarters in 2022. The net income year to date is 43 percent lower than last year. The primary reason for the lower revenue year to date is the average price of oil. In 2022, Pioneer sold oil for an average price of \$99.72 through three quarters, while the statistic for this year is \$76.53. To compensate for lost revenue, Pioneer has increased average daily sales volumes by nearly 60,000 BOE year to date. It is also important to note that Pioneer has decreased production costs and production and ad valorem taxes to help increase the margin. Despite diminished growth, Pioneer generated strong third quarter free cash flow that allowed them to declare a dividend of \$3.20 per share²⁰. Due to the impending acquisition, Pioneer has discontinued providing quarterly guidance. Moving forward we predict production will continue to increase through year end as Pioneer increased its targets, while prices will increase slightly to hit the WTI futures spot rate curve⁴.

Revenue Decomposition and Segment Analysis

Pioneer primarily sells the Oil, Natural Gas Liquids (NGLs), and Natural Gas that they produce. The following graph shows revenues from the sale of each commodity.

Pioneer Revenue Segements (EOY 2022)
In Millions of \$



Source: Pioneer 10-K, 2022¹⁹

Oil is Pioneer's primary revenue source, making up 75 percent of total production revenue. In the first three quarters of 2023, the company placed 100 wells with lateral lengths of 15,000+ feet into production, allowing for higher daily production of oil. Wells with longer laterals provide capital savings on a per foot basis and have increased the internal rate on return to comparable 10,000-foot lateral wells²⁰. We project that the increased production made possible by new wells will allow production to grow at 3.5 percent in 2023. In the following years, we forecast that production will continue to rise, but at a decreasing rate due to the oil price futures.

Natural Gas Liquids (NGLs) comprise 13.5 percent of Pioneer's production revenue and are byproducts of natural gas and oil production. NGL production is expected to rise 12.5 percent between 2023 and 2030, so our model forecasts steady growth over this period¹⁹. As production of oil and natural gas increases, the creation of byproducts will naturally rise as well. The appeal of NGLs to companies is that they are easier to export than natural gases that must be transferred through pipelines. Due to the greater ease of export, we project the growth in NGL production will lead to increased revenues for Pioneer, and that it will become a larger percentage of overall production revenue.

Natural Gas is Pioneer's lowest production area, making up 11 percent of total production revenue. We forecast that natural gas production will rise by eight percent between now and 2030. Our assumption is that natural gas production will grow at a slower rate than NGLs because it is difficult to export. In the United States, natural gas consumption has risen by 68 percent over the past 30-years, as more Americans utilize the resource to heat their homes⁷. We forecast that consumption of natural gas will continue to rise due to the increase in construction of houses.

Net Sales of Purchased Commodities

Similar to other oil companies, Pioneer engages in various agreements to buy and sell commodities. They have commitments to secure the of pipelines to transport oil, NGLs, and natural gas from their production areas, and to

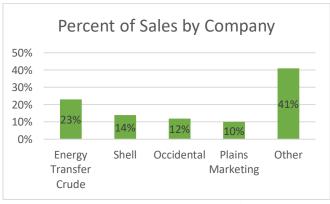
secure diesel supply from the Gulf Coast. Furthermore, they have commitments to buy sand for their operations in the Midland basin. If, upon the completion of the agreement, there is excess sand or diesel, they will sell the excess to other companies in the Permian Basin. Pioneer also enters into purchase and sale transactions with third parties to diversify a portion of their sales to Gulf Coast refineries, Gulf and West Coast gas markets, and international markets¹⁹.

The net effect of third party purchases and sales of commodities is as follows:					
	Year Ended December 31,				
	2022		2021		Change
		(in i	millions)		
Sales of purchased commodities	\$ 8,074	S	6,367	\$	1,707
Purchased commodities expense	8,235		6,560		1,675
	\$ (161)	S	(193)	S	32

Source: Pioneer 10-K 2022

Major Customers

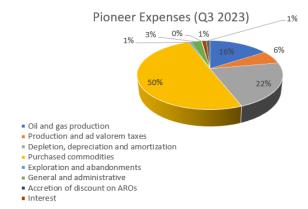
In 2022, 59 percent of oil, NGLs, and gas produced by Pioneer were purchased by four companies. The primary purchasers are Energy Transfer Crude Marketing LLC, Shell Trading US Company, Occidental Energy Marketing Inc. and Plains Marketing L.P. Pioneer has ongoing contractual commitments with these companies, and a loss of one of them as a customer would have a material adverse effect on Pioneer's ability to produce and sell its oil production¹⁹.



Source: Pioneer 10-K, 2022¹⁹

Expense Forecast

Analyzing Pioneer's expenses provides valuable insights into their financial performance and strategic priorities. Pioneer has four major areas of expense that account for 95 percent of the company's total costs and expenses. Each major expense category is discussed below:



Source: Pioneer 10-Q, 2023²⁰

Oil and gas production expenses include lease operating expenses, gathering, processing, and transportation expense, and workover costs. In 2022, the total production cost per BOE was \$8.09 with a 44 percent increase from 2021. The rising costs were attributed to the high inflation that was experienced in 2022. Through the first three quarters of 2023, the average cost per BOE fell slightly to \$7.83. In our model, we forecast production expense by multiplying the total production volume by the predicted cost per BOE that is increasing by projected inflation rate.

Production and ad valorem taxes are directly related to commodity price changes, although Texas ad valorem taxes are based on the commodity prices of the prior year. The high commodity prices of 2022 meant that production taxes increased. The combined taxes rose 41 percent from \$2.89 (2021) to \$4.08 (2022). In 2023, we project an increase in ad valorem taxes because the prior year commodity prices were high, while production taxes will decrease because of lower 2023 commodity prices. Through 2030, the model forecasts decrease in total production and ad valorem taxes due to decreasing commodity prices.

The nature of Pioneer's commodity driven business creates large expenses for **depletion**, **depreciation**, **and amortization** (**DD&A**). Depletion is calculated using estimates of proved oil and gas reserves using the unit-of-production method. Equipment is a major component of Pioneer's production, and this calls for annual depreciation. Improved commodity prices extend the economic life of producing wells, so depreciation expense fell by four percent in 2022¹⁹. In our model, we calculate DD&A by multiplying the PP&E asset by the historical depreciation percentage.

Purchased commodities were discussed previously in the "Net Sales of Purchased Commodities" section. Essentially, purchased commodity expenses are contractual agreements established to secure pipeline capacity for Pioneer's transport of produced commodities. Although it seems like a high expense, it is offset by the revenue from sale of purchased commodities, so it nets to an expense of \$161. In 2022, the purchased commodities expense was 1.02 percent of the sales of purchased commodities, so to calculate future

values we projected the current year expense to be 1.02 percent of purchased commodities revenue¹⁹.

Capital Expenditure Forecast

Capital expenditures are critical for expansion and growth in Pioneer's business. Recovery of undeveloped proved reserves requires successful drilling that is made possible by equipment and land funded through capital expenditures. In adherence with SEC rules, proved undeveloped reserves must be written off if they are not developed in a timely manner¹⁹. Through the first three quarters of 2023, Pioneer invested 3.5 billion dollars in various capital expenditures including drilling and completion activities, construction of tank batteries, saltwater disposal facilities and water infrastructure, and exploration for wells. In the quarterly report for Q3 2023, Pioneer decreased spending targets for capital expenditures resulting from the continued elevated interest rates²⁰. The high commodity prices of 2022 created significant Free Cash Flow (FCF), allowing Pioneer to fund their capital ventures and redistribute income to shareholders. With decreasing prices over the next few years that will lower FCF, the company may need to be more selective in choosing which capital projects to pursue.

Free Cash Flow Outlook

Free Cash Flow (FCF) is a non-GAAP financial measure that is calculating using net cash provided by operating activities, adjusted for changes in operating assets and liabilities, less capital expenditures. FCF is an important measure of overall financial wellbeing because it is utilized to internally fund acquisitions, debt maturities, dividends, and share repurchases. Capital expenditures typically take priority over redistributing cash to shareholders because it is essential to Pioneer's growth. One of the highlights of Pioneer's 10-Q report for quarter three of 2023 was the generation of 1.2 billion in FCF. Based on this cash flow, management decided to declare a dividend of \$3.20 per share²⁰. As FCF decreases over the coming years due to lower commodity prices, Pioneer will need to find a way to maintain positive shareholder sentiment and fund necessary capex projects.



Source: FactSet¹¹

Capital Structure

Pioneer's capital structure is more heavily weighted with equity that comprises 91 percent of the firm's market value. Total debt is significantly lower at 9 percent. In the current

high interest environment, having low leverage is working to Pioneer's advantage as they are not required to pay as much on high interest loans.

Debt Maturity Schedule

Debt is an important financing component for Pioneer's operations. A sizable portion of Pioneer's debt is held by institutional investors, with Vanguard, Lord Abbett, and Pacific Investment Management holding the highest percentages. Currently, Pioneer does not have notes maturing until 2025. In February of 2022, the company used excess FCF to redeem the 2024 outstanding senior notes. There were also senior notes of 750 million that matured and were redeemed in May of 2023. The high current FCF of 1.2 billion provides a positive affirmation that Pioneer will have the ability to repay the notes upon their maturity²⁰. However, as FCF decreases, it will be important to retain sufficient cash to be able to repay the debts as they mature, otherwise Pioneer may need to consider refinancing options.

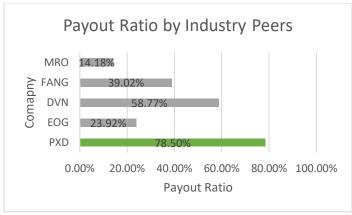
	_	As of June 30, 2023	As of December 31, 2022	
		(in millions)		
Outstanding debt principal balances:				
Revolving corporate credit facility	S	240	s =	
0.550% senior notes due 2023		<u>240</u>	750	
0.250% convertible senior notes due 2025		789	962	
5.100% senior notes due 2026		1,100	\$ = \frac{750}{962} = \frac{750}{241}	
1.125% senior notes due 2026		750	750	
7.200% senior notes due 2028		241	241	
4.125% senior notes due 2028		138	138	
1.900% senior notes due 2030		1,100	1,100	
2.150% senior notes due 2031		1,000	1,000	
		5,358	4,941	
Issuance costs and discounts, net		(37)	(37)	
Total debt	_	5,321	4,904	
Less current portion of debt		311	779	
Long-term debt		5,010	\$ <u>4,125</u>	

Source: Pioneer Q2 10-Q, 2023²⁰

S&P ranks Pioneer's credit with a BBB ranking and stable outlook. There have been no recent changes in credit ratings¹¹. Pioneer is comparable to its peers credit-rating wise, with EOG at A- (stable), DVN at BBB (stable), FANG at BBB (positive), and MRO BBB- (stable). Overall, we believe Pioneer has a strong credit rating that reinforces our belief that the company will have capacity to repay its debts¹¹.

Payout Policy: Dividends

Oil and gas companies traditionally offer shareholders generous payout policies. Pioneer is no different, with one of the company's main strategic priorities being to channel free cash flow back to shareholders through dividends. Currently, Pioneer has a dividend payout ratio of 78.60percent which is extremely high compared to its industry peers. The high payout ratio can be attributed to Pioneer's strong FCF. Year to date, Pioneer has announced \$13.96 in dividends, with an annual dividend yield of 7.10 percent²⁶. Looking forward, we expect dividends to rise in 2024 and 2025 before decreasing through 2030.



Source: Yahoo Finance²⁶

SWOT Analysis

Strengths:

Largest Permian Producer: Pioneer has established itself as the largest oil and gas producer in the Permian Basin, with production well over its immediate competitor at 76 mil bbl and 256 mil mcf respectively²². Through its recent acquisition of DoublePoint Energy, Pioneer has achieved great economies of scale and acreage within the Permian.

Emissions Goals Nearly every upstream oil and gas company is ensuring that their operations are responsible and have set goals over the next few decades to reach net zero. Pioneer has been the most committed to their goals and has the lowest routine flaring intensity at 0.19 percent among its peers.

Nine of ten of the top ten gas producers in the Permian Basin have a zero routine flaring goal, and all ten producers have reduced their flaring intensity relative to 2019

BTU Analytics

Company	Zero Routine Flaring Goal	2019 Average Flare Intensity	2021 Average Flare Intensity	Change in Average Flare Intensity (2019 to 2021) (pp)
Apache	Zero Routine Flaring Reportedly Achieved	1.98%	0.32%	-1.66
ExxonMobil	2022	3.30%	1.11%	-2.18
Diamondback	2025	1.93%	0.46%	-1.47
EOG	2025	0.69%	0.30%	-0.39
Chevron	2030	0.54%	0.23%	-0.31
ConocoPhillips	2030	1.19%	0.66%	-0.53
Devon Energy	2030	4.36%	0.87%	-3.50
Occidental	2030	1.21%	0.40%	-0.82
Pioneer	2030	0.68%	0.19%	-0.49
Coterra Energy	No formal public goal, but has pledged to reduce flaring activity	1.62%	0.47%	-1.16

Note: Flaring intensity is calculated by taking flaring as a percentage of both operated gross gas and oil production, table is ordered by flaring goal dat

Source: BTU Analytics14

Weaknesses:

Pureplay oil and gas company: Pioneer's only source of revenue and operations is from oil and gas production. While this is perceived as its competitive advantage presently, we forecast total production to grow year over year by less than three percent as the energy transition takes the forefront in the energy landscape. Pioneer faces long-term risk if it doesn't explore diversification strategies.

Limited geographical footprint: While the Permian is expected to have reserves lasting for several decades,

depending on the speed of the renewable transition and production levels, there is always going to be looming threat for longevity if Pioneer is solely operating within the Permian Basin.

Opportunities:

Lithium: Over the past three years, Pioneer has been testing wastewater produced from the fracking process for the presence of lithium which has recently been confirmed. Lithium is a critical component to manufacturing batteries and can place Pioneer at a competitive advantage to supply the electric vehicle transition and their charging stations²⁴.

Emission Offsets: Pioneer has entered into two renewable electricity sourcing projects that will be used to power Pioneer's electrification efforts. Targa Resources, a subsidiary of NextEra Energy, and Pioneer are developing a 140-MW wind generation facility on Pioneer owned surface acreage in Midland in addition to a 160- MW solar power plant in Concho Valley²¹. These projects will allow Pioneer to supply renewable power to its operations starting 2024 and are in par with their scope two emissions reduction efforts.

Threats:

Energy Transition: Pioneer's most immediate threat is the ongoing energy transition moving away from fossil fuels and towards renewable energy sources such as wind, solar and hydrogen. Supermajor oil companies, due to their vast capital reserves, have been able to diversify and invest in new technologies and projects. While fossil fuels are still crucial to today's world, Pioneer could fall behind if it chooses to remain only within the oil and gas space.

Valuation Methodology

Based on our economic, industry, and company analyses, we developed several valuations for Pioneer with the DCF/Economic Profit, Relative Valuation, and Dividend Discount Models. Our calculations led us to a company estimated price range between \$230 and \$240.

Production and Revenue Growth

Production revenue is based on how much oil, NGLs, and gas we produce coupled with the price of each. To determine revenue in each segment, we multiplied production volume by the WTI futures spot price of each commodity. In 2023, we project oil, NGL, and gas prices to grow by 3.5, 1.5, and .88 percents respectively. To arrive at the oil growth rate, we found the 2022 price to production percentage, and applied this rate to future prices. For the NGL and gas growth, we used company guidance on expected growth through 2030 (12.5 and 8 percent respectively) and divided total growth by year to arrive at our expected annual growth¹⁹. The production volume and price are perhaps the two most important factors in our revenue projection, but they are

also the most uncertain due to their susceptibility to changes in the market.

Purchased Commodities Revenue

We calculated the revenue from purchased commodities as a percentage of total production revenue based on historical averages. Our assumption is that as production revenue grows, so will the revenue from sales of purchased commodities. From 2016 to 2022, the percentage of production revenue was 70.87 percent. The percentage has ranged from 49.51 percent to 96.72 percent over the timeframe. Moving forward, we predict more volatility, so we forecasted 70.87 percent as a constant throughout the forecasting period. We selected this percentage because it includes years with higher and lower percentages of production revenue, allowing for the assumption of high volatility in future years.

Company Expenses

A thorough explanation of Pioneer's four primary expense categories can be found in the "Expense Forecast" section of the Company Description. To summarize, oil and gas production expenses are calculated by multiplying the total production volume by the predicted cost per BOE that is increasing by forecasted inflation rate (3.7 percent for 2023 and 2024 and 2 percent beyond). Production and ad valorem taxes are calculated in a similar manner by taking the expense per BOE and multiplying it by the production volume. Production and ad valorem taxes are directly related to the commodity's price, so as prices decrease in coming years, we also anticipate lower taxes per BOE. DD&A is calculated by multiplying the PP&E asset from the balance sheet by the historical depreciation percentage. Lastly, in 2022, the purchased commodities expense was 1.02 percent of purchased commodities revenue, so we forecasted the future expense by taking the purchased commodities revenue multiplied by 1.02.

Company Debt

Debt is a vital component of Pioneer's financing and capital structure. It is essential for growth projects and funding day-to-day operations. We forecast that debt will increase substantially at an average rate of 31 percent over the next seven years. While oil and gas companies generally have high cash reserves, debt is widely used to fund capital intensive projects as the reserves are subject to volatility based on market oil and gas prices. We used the 10-year corporate bond rate and the YTM on Pioneer's 7-year corporate bond to calculate our cost of debt of 4.82 percent.

Capital Expenditures

Capital expenditures are a significant expense on an E&P company's cash flow statement driven by investments towards exploration of proven and unproven reserves. They are also the leading driver behind an upstream company's growth. Along the oil and gas value chain, upstream companies are subject to the highest capital expenditures leading to bearing the highest risk as well. We forecast that

capital expenditure will continue to rise with more investment and production in the Permian in the coming years.

Dividends

Pioneer shareholders have historically been privy to a lucrative payout ratio. In our model, dividends are calculated by taking EPS multiplied by the two-year historic average payout ratio of 66.49 percent. We decided to use the two-year average because the pandemic caused a very low 2020 payout ratio. We believe the 2020 amount is an outlier that would have skewed the data.

Weighted Average Cost of Capital (WACC)

Based on our calculations, Pioneer's WACC is 9.40percent. To find this number, we used the market value weights of equity (91.09%) and debt (8.91%). We then multiplied the respective numbers by the cost of equity and after-tax cost of debt, 9.85 and 4.82 percent respectively.

Cost of Equity was calculated by taking the 10-year treasury bond rate (the risk-free rate) of 4.52 percent and adding it to the product of the company's raw beta (1.045) and the historical geometric average premium of 5.10 percent (equity risk premium).

After-tax Cost of Debt was determined by finding the difference between the company's yield to maturity on its 7-year corporate bond (pre-tax cost of debt) and the risk-free rate of 4.52 percent. We then multiplied the sum of these numbers by one minus the marginal tax rate to arrive at the after-tax cost of debt of 4.82 percent.

Discounted Cash Flow

Our Discounted Cash Flow (DCF) (and Economic Profit) are the primary valuation models we used to value Pioneer's stock. To calculate DCF, we first found the value of operating assets by discounting the company's FCF and continuing value (CV) to 2023. To calculate the CV, we used a NOPLAT growth estimate of 2.5 percent and ROIC of 14.02 percent. We then added excess cash and investment in affiliate, before subtracting outstanding debts, and dividing the sum by the shares outstanding. These calculations gave us an implied current price of \$235.08.

Economic Profit

Our Economic Profit (EP) Model for Pioneer matched the DCF model, as we would expect. To find our EP valuation, we discounted the EP values to the current year, and calculated the carrying value using WACC, NOPLAT growth, and ROIC. From there, we added excess cash and investment in affiliate, before subtracting out debts. This brought us to the value of equity, which we divided by shares outstanding to arrive at our target price of \$235.08.

Dividend Discount Model

The target price that is calculated from the DDM valuation

model was not considered in our overall target price calculation. The DDM model discounts forecasted dividends by the cost of equity to their present-day value. As we have seen in the past several years, Pioneer's dividend payouts can vary dramatically, so they are challenging to predict. Our thought is that target price should be based on factors that include more components of the company, such as the FCF and EP. That said, our DDM valuation was significantly lower at \$112.27 because we are forecasting lower commodity prices and decreasing production volume growth.

Relative P/E Model

The relative P/E valuation technique was not considered in the target price calculation because Pioneer's P/E ratio was higher than most of the company's industry peers. To find the relative valuation, we took the average P/E of comparable firms multiplied by Pioneer's EPS, which gave us a target price of \$117.18. For 2023 and 2024, this gave us a significantly lower price target than our DCF/EP model. The lower price can also be attributed to the fact that 2023 and 2024 revenues are projected to be lower, so in turn, the relative valuation would be lower.

Sensitivity Analysis

Risk Free Rate and the Pre-Tax Cost of Debt

These two factors are a critical component to calculating the WACC in the DCF and EP models. The risk-free rate and the pre-tax cost of debt have an indirect relationship with the intrinsic stock value. This implies that an increase in either rate will result in a lower price. With the ongoing federal budget delay, it is likely that the risk-free rate will increase and have a heavier weight on our valuation model relative to debt.

			Risk Free Rate								
	235.08	1.52%	2.52%	3.52%	4.52%	5.52%	6.52%	7.52%			
Ħ	3.10%	394.93	324.84	276.82	241.77	215.26	194.34	177.43			
of Debt	4.10%	388.43	320.54	273.77	239.50	213.50	192.93	176.29			
5	5.10%	382.16	316.36	270.79	237.27	211.77	191.54	175.16			
Cost	6.10%	376.10	312.30	267.88	235.08	210.06	190.18	174.04			
	7.10%	370.24	308.34	265.04	232.94	208.39	188.84	172.94			
Pre-Tax	8.10%	364.57	304.50	262.26	230.84	206.75	187.52	171.86			
Δ.	9.10%	359.08	300.75	259.54	228.78	205.13	186.22	170.79			

Equity Risk Premium and Beta

These drivers play an indirect role with the intrinsic stock value. Both the equity risk premium and beta are used in the CAPM and WACC calculation. A higher beta indicates stock volatility in the market and greater systematic risk resulting in a lower stock price. Similarly, a higher equity risk premium indicates the more risk an investor will need to take on compared to the risk-free rate.

			Equity Risk Premium									
	235.08	2.10%	3.10%	4.10%	5.10%	6.10%	7.10%	8.10%				
	1.030	389.28	319.46	271.84	237.27	211.03	190.42	173.80				
	1.035	388.40	318.61	271.05	236.54	210.35	189.79	173.21				
	1.040	387.53	317.76	270.26	235.81	209.68	189.16	172.63				
Beta	1.045	386.66	316.92	269.47	235.08	209.00	188.54	172.05				
_	1.050	385.80	316.09	268.69	234.36	208.34	187.92	171.47				
	1.055	384.94	315.26	267.92	233.64	207.67	187.31	170.90				
	1.060	384.08	314.43	267.15	232.93	207.02	186.70	170.34				

CV Growth of NOPLAT and Cost of Equity

Changes in both factors have an indirect relationship with the intrinsic stock value. When the CV growth rate increases, assuming the economy is growing at a similar rate, the stock price inflates while a greater cost of equity implies higher risk affecting the DCF EP value negatively.

			CV Growth of NOPLAT									
	235.08	-0.50%	0.50%	1.50%	2.50%	3.50%	4.50%	5.50%				
	6.85%	300.86	317.76	341.19	375.86	432.40	541.01	835.06				
≿	7.85%	266.47	277.39	291.91	312.14	342.28	391.97	489.40				
of Equity	8.85%	239.17	246.31	255.51	267.77	284.94	310.70	353.69				
5	9.85%	216.99	221.66	227.52	235.08	245.20	259.44	280.99				
Cost	10.85%	198.62	201.64	205.35	210.00	216.01	224.10	235.54				
ō	11.85%	183.18	185.07	187.34	190.13	193.64	198.20	204.35				
	12.85%	170.03	171.12	172.43	174.00	175.93	178.38	181.55				

CV Growth of NOPLAT and WACC

Changes in either of these drivers has a significant effect on the intrinsic stock value. A higher WACC results in a lower intrinsic value while an increase in CV growth rates results in a significant increase in prices.

		CV Growth of NOPLAT										
	235.08	-0.50%	0.50%	1.50%	2.50%	3.50%	4.50%	5.50%				
	6.40%	321.77	341.64	369.62	411.96	483.49	630.31	1,103.42				
WACC	7.40%	277.81	289.94	306.18	329.04	363.64	422.09	542.06				
	8.40%	243.94	251.48	261.19	274.20	292.52	320.23	367.06				
	9.40%	216.99	221.67	227.53	235.08	245.20	259.45	280.99				
>	10.40%	195.29	198.16	201.67	206.07	211.75	219.35	230.05				
	11.40%	177.27	178.95	180.97	183.44	186.54	190.54	195.89				
	12.40%	162.14	163.04	164.09	165.36	166.91	168.86	171.37				

Normal Cash and Purchased Commodities

These drivers, specifically purchased commodities, are an important measure for oil and gas companies but reflect very subtlety back on the intrinsic price of Pioneer. Both these indicators result in lower prices as they increase as purchases commodities is an expense on the income statement and normal cash is deducted from the balance sheet account to find the excess cash used in the DCF EP model.

				1	Normal Cash			
	235.08	1.25%	2.25%	3.25%	4.25%	5.25%	6.25%	7.25%
	16.72%	237.99	237.21	236.43	235.66	234.88	234.10	233.33
d ies	21.72%	237.95	237.12	236.29	235.46	234.64	233.81	232.98
E E	26.72%	237.91	237.03	236.15	235.27	234.40	233.52	232.64
Purchæed Commoditie	31.72%	237.87	236.94	236.01	235.08	234.15	233.22	232.30
P E	36.72%	237.83	236.85	235.87	234.89	233.91	232.93	231.95
Ö	41.72%	237.79	236.76	235.73	234.70	233.67	232.64	231.61
	46.72%	237.75	236.67	235.59	234.51	233.43	232.35	231.26

Oil Production Volume and Cost per Barrel

These two factors are reflective of how the oil market is expected to perform and how this will affect revenue generation and Pioneer's bottom line. An increase in production volume paired with a lower cost of production

results in a higher intrinsic value and vice versa. This table also reflects Pioneer's cost efficiency where even an increase in production costs up to thirteen dollars per barrel only affects the stock price by sixty cents.

				Produ	ction Volume	(Oil)		
	235.08	117,321	122,321	127,321	132,321	137,321	142,321	147,321
	78.7	218.21	223.93	229.65	235.37	241.09	246.81	252.53
<u>-</u>	80.7	218.13	223.84	229.56	235.27	240.99	246.70	252.42
Barrel	82.7	218.04	223.76	229.47	235.18	240.89	246.60	252.31
per	84.7	217.96	223.67	229.37	235.08	240.79	246.50	252.20
Cost p	86.7	217.87	223.58	229.28	234.99	240.69	246.39	252.10
ő	88.7	217.79	223.49	229.19	234.89	240.59	246.29	251.99
	90.7	217.70	223.40	229.10	234.79	240.49	246.19	251.88

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Revenue Decomposition

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Total Revenue	6,685	14,643	24,294	23,151	22,058	22,596	22,675	21,969	21,718	21,748	21,619
Production Revenues:											
Oil											
Total Volume (MBbls)	77,095	130,300	128,467	132,321	136,952	141,061	144,587	147,479	148,954	149,699	148,950
% Growth	-0.53%	69.01%	-1.41%	3.00%	3.50%	3.00%	2.50%	2.00%	1.00%	0.50%	-0.50%
Average Price per Bbl	37.24	67.60	95.66	84.70	72.67	69.31	66.79	64.68	62.00	60.21	58.41
% Growth	-30.74%	81.53%	41.51%	-11.46%	-14.20%	-4.62%	-3.64%	-3.16%	-4.14%	-2.89%	-2.99%
Total Oil Revenue	2,871	8,808	12,289	11,208	9,952	9,777	9,657	9,539	9,235	9,013	8,700
NGLs											
Total Volume (MBbls)	31,376	52,204	58,507	59,385	60,275	61,180	62,097	63,029	63,974	64,934	65,908
% Growth	18.86%	66.38%	12.07%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Average Price per Bbl	15.62	32.70	37.67	24.76	25.65	28.52	29.84	27.99	28.81	29.51	30.79
% Growth	-19.19%	109.35%	15.20%	-34.27%	3.59%	11.19%	4.63%	-6.20%	2.93%	2.43%	4.34%
Total NGLs Revenue	490	1,707	2,204	1,470	1,546	1,745	1,853	1,764	1,843	1,916	2,029
Gas											
Total Volume (MMcf)	155,662	256,931	301,156	303,806	306,480	309,177	311,897	314,642	317,411	320,204	323,022
% Growth	16.82%	65.06%	17.21%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%
Average Price per Mcf	1.73	3.85	6.03	2.77	4.28	4.62	4.89	4.16	4.30	4.43	4.57
% Growth	-3.35%	122.54%	56.62%	-54.06%	54.62%	7.75%	5.96%	-14.93%	3.37%	3.02%	3.16%
Total Gas Revenue	269	989	1,816	842	1,313	1,427	1,525	1,309	1,365	1,419	1,476
Total Production											
Total Volume (MBOE)	134,415	225,326	237,167	242,340	248,308	253,770	258,667	262,948	265,830	268,000	268,695
% Growth	6.58%	67.63%	5.25%	2.18%	2.46%	2.20%	1.93%	1.65%	1.10%	0.82%	0.26%
Average Price per MBOE	27.01	51.05	68.77	55.79	51.59	51.03	50.39	47.96	46.81	46.07	45.43
% growth	-30.71%	89.00%	34.71%	-18.88%	-7.52%	-1.10%	-1.24%	-4.82%	-2.41%	-1.57%	-1.41%
Total Production Revenue	3,630	11,505	16,309	13,519	12,811	12,949	13,035	12,612	12,443	12,348	12,206
Sales and Purchased Commodities	Revenue										
Total Revenue	3,394	6,367	8,074	9,581	9,079	9,177	9,238	8,938	8,818	8,751	8,650
% of Production Revenue	93.49%	55.34%	49.51%	70.87%	70.87%	70.87%	70.87%	70.87%	70.87%	70.87%	70.87%
% of Production Revenue	50.77%	43.48%	33.23%	31.72%	41.16%	40.61%	40.74%	40.69%	40.60%	40.24%	40.01%
% Growth	-28.62%	87.60%	26.81%	18.67%	-5.24%	1.07%	0.67%	-3.25%	-1.34%	-0.76%	-1.15%
Interest and Other Income	-67	23	119	54	168	471	402	418	456	649	763
% Growth	-188.16%	-134.33%	417.39%	45.79%	307.74%	280.63%	85.39%	104.15%	109.08%	142.17%	117.63%
Derivative Gain (Loss)	-281	-2183	-315	-1	0	0	0	0	0	0	0
% Growth	-610.91%	676.87%	-85.57%	-99.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gain on Sale of Assets	9	-1067	106	-3	0	0	0	0	0	0	0
% Growth	-101.89%	-11955.56%	-109.93%	-102.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Income Statement

in millions

in millions											
Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Oil & gas revenue	3,630	11,503	16,310	13,519	12,811	12,949	13,035	12,612	12,443	12,348	12,206
Sales of purchased commodities	3,394	6,367	8,074	7,344	9,079	9,177	9,238	8,938	8,818	8,751	8,650
Interest and other income (loss), net	(67)	23	119	54	168	471	402	418	456	649	763
Derivative gain (loss), net	(281)	(2,183)	(315)	(1)	-	-	-	-	-	-	-
Gain (loss) on disposition of assets, net	9	(1,067)	106	(3)	-	-	-	-	-	-	
Total revenues & other income	6,685	14,643	24,294	20,914	22,058	22,596	22,675	21,969	21,718	21,748	21,619
Oil & gas production expense	682	1,267	1,922	1,898	2,016	2,102	2,185	2,266	2,336	2,403	2,457
Production & ad valorem taxes	242	651	965	754	744	732	718	703	685	665	642
Depletion, depreciation & amortization	1,639	2,498	2,530	2,942	2,893	2,864	3,392	3,613	3,716	3,650	3,691
Purchased commodities	3,633	6,560	8,235	9,773	9,261	9,360	9,423	9,117	8,995	8,926	8,823
Impairment Expenses	-	-	-	11	-	-	-	-	-	-	-
Exploration & abandonments expense	47	51	41	153	145	147	148	143	141	140	138
General & administrative expense	244	292	334	636	603	610	614	594	586	581	575
Accretion of discount on asset retirement obligations	9	7	15	132	93	42	20	20	20	20	20
Interest expense	129	161	128	461	544	501	682	724	692	753	758
Other costs & expenses	321	410	173	781	740	748	753	729	719	714	705
Total costs & expenses	6,946	11,897	14,343	17,542	17,039	17,106	17,935	17,908	17,889	17,850	17,809
Income (loss) before income taxes	(261)	2,746	9,951	3,372	5,018	5,490	4,740	4,061	3,829	3,898	3,810
Income tax provision (benefit)	(61)	628	2,106	725	1,079	1,180	1,019	873	823	838	819
Net income (loss) attributable to common stockhol	(200)	2,118	7,845	2,647	3,939	4,310	3,721	3,188	3,006	3,060	2,991
Year End Shares Outstanding	165	246	252	240	251	251	251	251	251	251	251
Weighted average shares outstanding - basic	165	233	240	246	246	251	251	251	251	251	251
EPS	(1.21)	9.09	32.61	10.76	16.04	17.15	14.80	12.68	11.96	12.17	11.90
Dividends declared per share	2.20	6.83	25.44	8.92	10.66	11.40	9.84	8.43	7.95	8.09	7.91
Dividends Paid	367	1,127	6,258	2,248	2,559	2,866	2,474	2,119	1,999	2,034	1,989

Balance Sheet

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
ASSETS											
Current assets:											
Cash and cash equivalents	1,442	3,847	1,032	3,176	8,913	7,611	7,926	8,646	12,292	14,458	18,813
Restricted cash	59	37	-	=	-	-	-	-	-	-	-
Accounts receivable, net	695	1,685	1,853	2,230	2,352	2,410	2,418	2,343	2,316	2,319	2,305
Income taxes receivable	-	1	164	34	22	-	-	-	-	-	-
Inventories	224	369	424	628	662	678	680	659	652	653	649
Derivatives	-	-	-	-	-	-	-	-	-	-	-
Investment in affiliate	123	135	172	158	158	158	158	158	158	158	158
Short-term investments, net	-	-	-	-	-	-	-	-	-	-	-
Other current assets	52	41	81	86	91	93	94	91	90	90	89
Total current assets	2,595	6,115	3,726	6,312	12,198	10,950	11,276	11,896	15,507	17,678	22,014
Proved properties	23,934	34,454	38,465	41,041	42,954	50,698	55,985	59,311	61,460	64,962	68,176
Unproved properties	576	6,063	6,008	5,883	6,568	7,008	7,334	8,657	9,559	10,127	10,494
Accumulated depletion, depreciation and amortization	(10,071)	(12,335)	(14,843)	(17,785)	(20,679)	(23,543)	(26,935)	(30,548)	(34,264)	(37,914)	(41,605)
Total oil and gas properties, net	14,439	28,182	29,630	29,139	28,843	34,163	36,384	37,419	36,755	37,175	37,066
Other property and equipment, net	1,584	1,694	1,658	1,624	2,860	3,376	3,728	3,949	4,093	4,326	4,540
Operating lease right-of-use assets	197	348	340	366	362	429	457	470	462	467	466
Goodwill	261	243	243	243	243	243	243	243	243	243	243
Long Term Investments	-	-	-	-	-	-	-	-	-	-	-
Other assets	150	171	143	170	174	178	181	186	190	194	198
Total Assets	19.229	36,811	35,740	37,854	44,679	49,338	52,269	54,164	57,250	60,083	64,526
Accounts payable: Trade	928	2,380	2,487	2,380	2,948	3,020	3,031	2,936	2,903	2,907	2,890
Due to affiliates	102	179	150	383	404	414	416	403	398	399	396
Interest payable	35	53	33	150	158	162	162	157	156	156	155
Income taxes payable	4	45	63	25	6	2	3	3	3	2	2
Current portion of long-term debt	140	244	779	750	-	962	750	-	379	-	1,100
Derivatives	234	538	44	85	85	90	95	100	105	110	116
Operating leases	100	121	125	151	147	214	242	255	247	252	251
Other Current Liabilities	363	513	206	572	603	618	620	600	594	594	591
Total Current Liabilites	1,906	4,073	3,887	4,496	4,352	5,482	5,318	4,455	4,783	4,420	5,501
Long-term debt	3,160	6,688	4,125	5,031	5,329	6,289	6,945	7,358	7,624	8,059	8,458
Derivatives	66	25	96	101	106	112	118	124	131	138	145
Deferred income taxes	1,366	2,038	3,867	4,102	8,757	9,936	11,275	12,793	14,517	16,472	18,691
Operating leases	110	243	236	262	258	325	353	366	358	363	362
Other liabilities	1,052	907	988	1,072	1,867	1,913	1,919	1,859	1,838	1,841	1,830
Total Liabilities	7,660	13,974	13,199	15,063	20,669	24,057	25,928	26,956	29,251	31,293	34,986
Equity:											
Common Stock	9,323	19,125	18,781	18,781	18,781	18,781	18,781	18,781	18,781	18,781	18,781
Treasury Stock	(1,234)	(248)	(1,925)	(2,074)	(2,235)	(2,409)	(2,595)	(2,797)	(3,014)	(3,247)	(3,499)
Retained earnings	3,478	3,960	5,685	6,084	7,465	8,909	10,156	11,224	12,231	13,256	14,258
Noncontrolling interest in consolidated subsidiaries			-	-	-	-		-			
Total Equity	11,569	22,837	22,541	22,791	24,011	25,281	26,341	27,208	27,998	28,790	29,540
Total Liabilities and Equity	19,229	36,811	35,740	37,854	44,679	49,338	52,269	54,164	57,250	60,083	64,526
· · ·											

Historical Cash Flow Statement

n Millions							
Fiscal Years Ending Dec. 31	2016	2017	2018	2019	2020	2021	2022
0.15050							
Cash Flows From Operating Activities:	(550)	000	075	750	(000)	0.440	7.045
Net income (loss)	(556)	833	975	756	(200)	2,118	7,845
Adjustments to reconcile net income (loss) to net cash provided by operating activities:							
Depletion, depreciation & amortization	1,480	1,400	1,534	1,711	1,639	2,498	2,530
Exploration expenses	42	22	27	8	11	4	7
Deferred income taxes	(379)	(519)	274	236	(52)	583	1,807
Loss (gain) on disposition of assets, net	(2)	(208)	(290)	477	(9)	1,067	(106)
Loss on early extinguishment of debt, net	-	-	-	-	27	2	39
Accretion of discount on asset retirement obligations	18	19	14	10	9	7	15
Interest expense	13	5	5	9	51	10	10
Derivative related activity	851	174	(270)	13	325	(451)	(96)
Amortization of stock-based compensation	89	79	85	100	72	106	78
Investment valuation adjustments	-	-	-	-	-	(1)	(54)
South Texas contingent consideration valuation adjustment	-	_	_	45	42	-	` -
South Texas deficiency fee obligation, net	_	_	_	-	80	(10)	(18)
Other adjustments	66	74	658	105	125	163	144
Changes in operating assets and liabilities, net of effects of acquisitions:	00		000	100	120	100	
Accounts receivable	(134)	(122)	(52)	(227)	309	(607)	(171)
Income taxes receivable	40		(32)	(221)	508	(001)	(171)
Inventories	(32)	(4) (35)	(70)	(20)	(20)	(125)	(59)
Other assets	(32)	(33)	(10)	(33)	(20)		(113)
	- 58	404	-	. ,		(73)	, ,
Accounts payable		134	321	(7)	(179)	1,059	(274)
Interest payable	3	(9)	(5)	-	(19)	(53)	(20)
Income taxes payable	(2)	-	-			41	18
Other liabilities	-	-	-	(91)	(219)	(276)	(70)
Other current liabilities	(44)	(45)	(55)	-	-	-	-
Net cash flows from operating activities	1,498	2,090	3,242	3,115	2,083	6,059	11,348
Cash flows from investing activities:	507	352	469	149	60	3,244	367
_	307	332	403	143	00	5,244	1,100
Proceeds from disposition of assets	-	-	-	-	-	-	
Proceeds from short-term investments	- (400)	-	-	-	-		(1,020)
Purchases of short-term investments, net	(428)	-	-	-	-	(826)	-
Cash used in acquisitions, net of cash acquired	(1,857)	(2,365)	(3,520)	(2,988)	(1,602)	(3,169)	(3,920)
Additions to oil & gas properties	(203)	(336)	(263)	(232)	(125)	(118)	(113)
Additions to other assets & other property & equipment	(3,820)	(1,783)	(2,610)	(2,447)	(1,668)	(869)	(3,586
Net cash flows from investing activities	(3,820)	(1,783)	(2,610)	(2,447)	(1,668)	(869)	(3,586)
Cash flows from financing activities:							
Proceeds from issuance of senior notes, net of discount	_	_	_	_	1091	3247	
Purchase of derivatives related to issuance of convertible senior notes		_	_	-	-113	-	
ductions of derivatives related to issuance of conventible senior notes	=	-	-	-	800	650	
	-	-	-	-	-800	-1287	
ensyment of credit facilities						-1207	-
	-	-	-	•		2274	
epayment of senior notes, including tender offer premiums	- -	-	-	-	-1198	-3371	2570
epayment of senior notes, including tender offer premiums epayment of long-term debt	- -455	- -485	- -450	-	-1198 -	-	
epayment of senior notes, including tender offer premiums epayment of long-term debt roceeds from capped call on convertible notes	- -455 -	- -485 -	-	-	-1198 - -	-	-2576 103
epayment of senior notes, including tender offer premiums epayment of long-term debt roceeds from capped call on convertible notes ayments of other liabilities	-	-	- -23	- -14	-1198 - - -173	- -164	103
epayment of senior notes, including tender offer premiums epayment of long-term debt roceeds from capped call on convertible notes ayments of other liabilities xercise of long-term incentive plan stock options & employee stock purchases	- -455 - - - 7	- -485 - - - 6	- -23 8	-	-1198 - - -173 9	- -164 -	103
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Roceeds from capped call on convertible notes Rayments of other liabilities Revisee of long-term incentive plan stock options & employee stock purchases Rayments of financing fees	- - 7 -	- - 6	-23 8 -4	-14 6	-1198 - - -173 9 -36	- -164 - -32	103 -192
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Roceeds from capped call on convertible notes Rayments of other liabilities Revisee of long-term incentive plan stock options & employee stock purchases Rayments of financing fees	-	-	- -23 8	- -14	-1198 - - -173 9	- -164 -	103 -192
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Proceeds from capped call on convertible notes Reyments of other liabilities Exercise of long-term incentive plan stock options & employee stock purchases Payments of financing fees Purchases of treasury stock Exercise of stock options & employee stock options & exercise of stock options & employee	- - 7 -	- - 6	-23 8 -4	-14 6	-1198 - - -173 9 -36	- -164 - -32	103 -192 -1925
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Proceeds from capped call on convertible notes Reyments of other liabilities Exercise of long-term incentive plan stock options & employee stock purchases Payments of financing fees Purchases of treasury stock Exercise of stock options & employee stock options & exercise of stock options & employee	- - 7 -	- - 6	-23 8 -4	-14 6	-1198 - - -173 9 -36	- -164 - -32 -248	103 -192 -1925
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Proceeds from capped call on convertible notes Payments of other liabilities Exercise of long-term incentive plan stock options & employee stock purchases Payments of financing fees Purchases of treasury stock Exercise of stock options & employee stock purchases Exercise of long-term incentive plan stock options	- - 7 -	- - 6	-23 8 -4	-14 6	-1198 - - -173 9 -36 -1234	- -164 - -32 -248	103 -192 -1925
Repayment of credit facilities Repayment of senior notes, including tender offer premiums Repayment of long-term debt Proceeds from capped call on convertible notes Payments of other liabilities Exercise of long-term incentive plan stock options & employee stock purchases Payments of financing fees Purchases of treasury stock Exercise of stock options & employee stock purchases Exercise of long-term incentive plan stock options Dividends paid Net cash flows from financing activities	- 7 - -218 -	- 6 - -249 -	-23 8 -4 -423	- -14 6 - -1069 -	-1198 - - -173 9 -36 -1234	- -164 - -32 -248 - 13	
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Proceeds from capped call on convertible notes Payments of other liabilities Exercise of long-term incentive plan stock options & employee stock purchases Payments of financing fees Purchases of treasury stock Exercise of stock options & employee stock purchases Exercise of stock options & employee stock purchases Exercise of long-term incentive plan stock options Dividends paid Net cash flows from financing activities	- 7 - -218 - - -13 2049	- 6 - -249 - - - -14	-23 8 -4 -423 - -55 -703	-14 6 -1069 -127	-1198 - -173 9 -36 -1234 - -346 381	-164 -32 -248 -13 -1594	-1925 -1926 -6266 -10614
Repayment of senior notes, including tender offer premiums Repayment of long-term debt Proceeds from capped call on convertible notes Payments of other liabilities Exercise of long-term incentive plan stock options & employee stock purchases Payments of financing fees Purchases of treasury stock Exercise of stock options & employee stock purchases Exercise of long-term incentive plan stock options Exercise of long-term incentive plan stock options	- 7 - -218 - - -13	- 6 - -249 - - -	- -23 8 -4 -423 - - - -55	-14 6 - -1069 - -	-1198 - -173 9 -36 -1234 - - -346	-164 -32 -248 -13	-192 -192 -1925 -6268

Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Cash Flows From Operating Activities:								
Net income (loss)	2,647	3,939	4,310	3,721	3,188	3,006	3,060	2,991
Depletion, depreciation & amortization	2,942	2,893	2,864	3,392	3,613	3,716	3,650	3,691
Changes in operating assets and liabilities, net of effects of acquisitions:								
Deferred income taxes	235	4,655	1,180	1,338	1,519	1,723	1,956	2,219
Restricted cash	-	-	-	-	-	-	-	-
Accounts receivable	(377)	(122)	(57)	(8)	75	27	(3)	14
Income taxes receivable	130	13	22	- '	-	-	-	-
Inventories	(204)	(34)	(16)	(2)	21	8	(1)	4
Other Current Assets	(5)	(5)	(2)	(0)	3	1	(0)	1
Accounts payable	126	589	82	12	(107)	(38)	5	(20)
Interest payable	117	8	4	1	(5)	(2)	0	(1)
Income taxes payable	(38)	(19)	(4)	1	0	(0)	(0)	(0)
Other current liabilities	366	31	15	2	(19)	(7)	1	(4)
Net cash flows from operating activities	5,938	11,949	8,396	8,456	8,287	8,433	8,666	8,895
Cash flows from investing activities:								
Investment in affiliate	14	-	-	-	-	-	-	-
Short Term Investments, Net	-	-	-	-	-	-	-	-
Additions to oil & gas properties	(2,451)	(2,597)	(8,185)	(5,613)	(4,648)	(3,052)	(4,070)	(3,582)
Additions to other assets & other property & equipment	34	(1,236)	(516)	(352)	(221)	(143)	(233)	(214)
Operating Lease Rou assets	(26)	4	(67)	(28)	(13)	8	(5)	1
Goodwill	-	-	-	-	-	-	-	-
Other Assets	(27)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Derivatives	46	6	10	11	11	12	12	13
Operating Leases	52	(7)	134	56	26	(17)	11	(3)
Other Liabilities	84	795	46	7	(60)	(21)	3	(11)
Net cash flows from investing activities	(2,274)	(3,040)	(8,582)	(5,924)	(4,909)	(3,217)	(4,287)	(3,799)
Cash flows from financing activities:								
Short term debt (current portion of L-T debt)	(29)	(750)	962	(212)	(750)	379	(379)	1,100
Long term debt	906	298	961	656	413	267	434	399
Common stock	-	-	-	-	-	-	-	-
Stock repurchase	(149)	(161)	(173)	(187)	(201)	(217)	(234)	(252)
Dividends paid	(2,248)	(2,559)	(2,866)	(2,474)	(2,119)	(1,999)	(2,034)	(1,989)
Net cash flows from financing activities	(1,520)	(3,172)	(1,116)	(2,217)	(2,658)	(1,570)	(2,213)	(742)
Net increase (decrease) in cash, cash equivalents & restricted cash	2,144	5,737	(1,302)	316	720	3,646	2,167	4,354
Cash, cash equivalents & restricted cash, beginning of period	1,032	3,176	8,913	7,611	7,926	8,646	12,292	14,458
Cash, cash equivalents & restricted cash, end of period	3,176	8,913	7,611	7,926	8,646	12,292	14,458	18,813

Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ASSETS											
Current assets:											
Cash and cash equivalents	21.57%	26.27%	4.25%	15.19%	40.41%	33.68%	34.96%	39.36%	56.60%	66.48%	87.02%
Restricted cash	0.88%	0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accounts receivable, net	10.40%	11.51%	7.63%	10.66%	10.66%	10.66%	10.66%	10.66%	10.66%	10.66%	10.66%
Income taxes receivable	0.00%	0.01%	0.68%	0.16%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inventories	3.35%	2.52%	1.75%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Derivatives	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investment in affiliate	1.84%	0.92%	0.71%	0.76%	0.72%	0.70%	0.70%	0.72%	0.73%	0.73%	0.73%
Short-term investments, net	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other current assets	0.78%	0.28%	0.33%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%	0.41%
Total current assets	38.82%	41.76%	15.34%	30.18%	55.30%	48.46%	49.73%	54.15%	71.40%	81.29%	101.83%
Proved properties	358.03%	235.29%	158.33%	196.24%	194.73%	224.37%	246.90%	269.98%	282.99%	298.70%	315.35%
Unproved properties	8.62%	41.41%	24.73%	28.13%	29.78%	31.01%	32.35%	39.40%	44.02%	46.57%	48.54%
Accumulated depletion, depreciation	-150.65%	-84.24%	-61.10%	-85.04%	-93.75%	-104.19%	-118.79%	-139.05%	-157.77%	-174.33%	-192.44%
Total oil and gas properties, net	215.99%	192.46%	121.96%	139.33%	130.76%	151.19%	160.46%	170.33%	169.24%	170.94%	171.45%
Other property and equipment, net	23.69%	11.57%	6.82%	7.77%	12.97%	14.94%	16.44%	17.98%	18.84%	19.89%	21.00%
Operating lease right-of-use assets	2.95%	2.38%	1.40%	1.75%	1.64%	1.90%	2.02%	2.14%	2.13%	2.15%	2.15%
Goodwill	3.90%	1.66%	1.00%	1.16%	1.10%	1.08%	1.07%	1.11%	1.12%	1.12%	1.12%
Long Term Investments	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other assets	2.24%	1.17%	0.59%	0.81%	0.79%	0.79%	0.80%	0.84%	0.87%	0.89%	0.92%
Total Assets	287.64%	251.39%	147.11%	181.00%	202.56%	218.35%	230.52%	246.55%	263.60%	276.27%	298.47%
Trade	13.88%	16.25%	10.24%	11.38%	13.37%	13.37%	13.37%	13.37%	13.37%	13.37%	13.37%
Accounts payable:											
Due to affiliates	1.53%	1.22%	0.62%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%
Interest payable	0.52%	0.36%	0.14%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%
Income taxes payable	0.06%	0.31%	0.26%	0.12%	0.03%	0.01%	0.01%	0.02%	0.01%	0.01%	0.01%
Current portion of long-term debt	2.09%	1.67%	3.21%	3.59%	0.00%	4.26%	3.31%	0.00%	1.75%	0.00%	5.09%
Derivatives	3.50%	3.67%	0.18%	0.41%	0.39%	0.40%	0.42%	0.45%	0.48%	0.51%	0.54%
Operating leases	1.50%	0.83%	0.51%	0.72%	0.67%	0.95%	1.07%	1.16%	1.14%	1.16%	1.16%
Other	5.43%	3.50%	0.85%	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%	2.73%
Total current liabilities	28.51%	27.82%	16.00%	21.50%	19.73%	24.26%	23.45%	20.28%	22.03%	20.33%	25.44%
Long-term debt	47.27%	45.67%	16.98%	24.06%	24.16%	27.83%	30.63%	33.49%	35.11%	37.06%	39.12%
Derivatives	0.99%	0.17%	0.40%	0.48%	0.48%	0.50%	0.52%	0.57%	0.60%	0.63%	0.67%
Deferred income taxes	20.43%	13.92%	15.92%	19.61%	39.70%	43.97%	49.72%	58.23%	66.84%	75.74%	86.46%
Operating leases	1.65%	1.66%	0.97%	1.25%	1.17%	1.44%	1.56%	1.67%	1.65%	1.67%	1.67%
Other liabilities	15.74%	6.19%	4.07%	5.12%	8.46%	8.46%	8.46%	8.46%	8.46%	8.46%	8.46%
Total Liabilities	114.58%	95.43%	54.33%	72.03%	93.70%	106.47%	114.35%	122.70%	134.69%	143.89%	161.83%
Equity:											
Common Stock	139.46%	130.61%	77.31%	89.80%	85.14%	83.12%	82.83%	85.49%	86.48%	86.36%	86.87%
Treasury Stock	-18.46%	-1.69%	-7.92%	-9.92%	-10.13%	-10.66%	-11.45%	-12.73%	-13.88%	-14.93%	-16.19%
Retained earnings	52.03%	27.04%	23.40%	29.09%	33.84%	39.43%	44.79%	51.09%	56.32%	60.95%	65.95%
Noncontrolling interest in consolidate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total equity	173.06%	155.96%	92.78%	108.98%	108.85%	111.88%	116.17%	123.85%	128.92%	132.38%	136.64%
Total Liabilities and Equity	287.64%	251.39%	147.11%	181.00%	202.56%	218.35%	230.52%	246.55%	263.60%	276.27%	298.47%

Pioneer Natural Resources
Common Size Income Statement

Fiscal Years Ending Dec. 31	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total revenues & other income	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Oil & gas production expense	10.20%	8.65%	7.91%	9.07%	9.14%	9.30%	9.64%	10.31%	10.76%	11.05%	11.36%
Production & ad valorem taxes	3.62%	4.45%	3.97%	3.60%	3.37%	3.24%	3.17%	3.20%	3.15%	3.06%	2.97%
Depletion, depreciation & amortizatic	24.52%	17.06%	10.41%	14.07%	13.12%	12.68%	14.96%	16.45%	17.11%	16.78%	17.08%
Purchased commodities	54.35%	44.80%	33.90%	46.73%	41.98%	41.42%	41.56%	41.50%	41.42%	41.04%	40.81%
Exploration & abandonments expens	0.70%	0.35%	0.17%	0.73%	0.66%	0.65%	0.65%	0.65%	0.65%	0.64%	0.64%
General & administrative expense	3.65%	1.99%	1.37%	3.04%	2.73%	2.70%	2.71%	2.70%	2.70%	2.67%	2.66%
Accretion of discount on asset retirer	0.13%	0.05%	0.06%	0.63%	0.42%	0.19%	0.09%	0.09%	0.09%	0.09%	0.09%
Interest expense	1.93%	1.10%	0.53%	2.21%	2.46%	2.22%	3.01%	3.29%	3.19%	3.46%	3.51%
Other costs & expenses	4.80%	2.80%	0.71%	3.74%	3.36%	3.31%	3.32%	3.32%	3.31%	3.28%	3.26%
Total costs & expenses	103.90%	81.25%	59.04%	83.88%	77.25%	75.70%	79.10%	81.52%	82.37%	82.08%	82.38%
Income (loss) before income taxes	-3.90%	18.75%	40.96%	16.12%	22.75%	24.30%	20.90%	18.48%	17.63%	17.92%	17.62%
Income tax provision (benefit)	-0.91%	4.29%	8.67%	3.47%	4.89%	5.22%	4.49%	3.97%	3.79%	3.85%	3.79%
Weighted average shares outstandin	-2.99%	14.46%	32.29%	12.66%	17.86%	19.07%	16.41%	14.51%	13.84%	14.07%	13.83%

Value Driver Estimation

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030
NOPLAT:											
Oil and Gas Revenue	3,630.00	11,503.00	16,310.00	13,519.49	12,811.03	12,948.61	13,035.15	12,612.03	12,443.10	12,348.05	12,205.69
Sale of Purchased Commodities	3,394.00	6,367.00	8,074.00	7,343.58	9,079.18	9,176.68	9,238.01	8,938.15	8,818.42	8,751.06	8,650.17
Net Operating Income	7,024.00	17,870.00	24,384.00	20,863.07	21,890.21	22,125.30	22,273.15	21,550.17	21,261.52	21,099.12	20,855.86
Oil & gas production expense	682.00	1,267.00	1.922.00	1.897.52	2,016.19	2,101.75	2,185.16	2.265.75	2,336.39	2,402.57	2.456.98
Production & ad valorem taxes	242.00	651.00	965.00	753.68	743.66	731.90	718.42	703.29	684.69	664.74	641.81
Depletion, depreciation & amortization	1,639.00	2,498.00	2,530.00	2,942.26	2,893.48	2,864.07	3,392.40	3,612.90	3,715.72	3,649.81	3,691.50
Purchased commodities	3,633.00	6,560.00	8,235.00	9,772.89	9,260.76	9,360.22	9,422.77	9,116.91	8,994.79	8,926.09	8,823.17
Impairment	3,033.00	0,300.00	0,233.00	11.00	5,200.70	5,300.22	5,422.11	3,110.31	0,554.75	0,520.05	0,023.17
Exploration & abandonments expense	47.00	51.00	41.00	153.25	145.22	146.78	147.76	142.96	141.05	139.97	138.35
General & administrative expense	244.00	292.00	334.00	636.43	603.08	609.56	613.63	593.71	585.76	581.29	574.59
Other Operating expenses	9.00	7.00	15.00	132.00	93.00	42.00	20.00	20.00	19.50	19.50	19.50
Interest on Operating Leases	(12.02)	(21.23)	(20.74)	(22.33)	(22.10)	(26.18)	(27.88)	(28.67)	(28.16)	(28.48)	(28.40
Net Operating Expense	6,483.98	11,304.77	14,021.26	16,276.70	15,733.29	15,830.10	16,472.26	16,426.85	16,449.74	16,355.48	16,317.49
T. B. 151-10-150	(04.00)	000.00	0.400.00	704.07	4.070.00	4 400 07	4 040 00	070.00	000.04	000.00	040.40
Income Tax Provision (benefit)	(61.00)	628.00	2,106.00	724.97	1,078.96	1,180.37	1,019.00	873.02	823.24	838.03	819.16
+ Tax Shield on Implied Lease Interest	2.75	4.71	4.46	4.80	4.75	5.63	5.99	6.16	6.05	6.12	6.11
- Tax Shield on Interest and other income (loss), net	15.36	(5.11)	(25.59)	(11.72)	(36.05)	(101.17)	(86.39)	(89.98)	(98.15)	(139.54)	(164.13
- Tax Shield on Derivative gain (loss), net	64.41	484.63 236.87	67.73	0.22	-	-	-	-	-	-	-
- Tax Shield on Gain (loss) on disposition of assets, net	(2.06)		(22.79)		-	-	- 0.00	-	4.55	-	-
+ Tax Shield on Accretion of discount on asset retireme	2.06	1.55	3.23	6.35	6.90	3.08	2.22	2.06	1.55	3.23	6.35
+Tax Shield on Interest Expense + Other costs & expenses	29.57 73.57	35.74 91.02	27.52 37.20	73.07 101.66	55.52 88.55	27.72 186.78	26.89 99.55	29.57 73.57	35.74 91.02	27.52 37.20	73.07 101.66
+ Other costs & expenses	13.51	91.02	37.20	101.00	00.00	100.70	99.55	13.51	91.02	37.20	101.00
EBITA	540.02	6,565.23	10,362.74	4,586.37	6,156.92	6,295.20	5,800.90	5,123.32	4,811.79	4,743.64	4,538.36
Less Total Adjusted Taxes	124.66	1,477.42	2,197.75	900.01	1,198.62	1,302.40	1,067.25	894.41	859.46	772.56	842.22
Plus Change in Deferred Taxes	(27.00)	672.00	1,829.00	235.00	4,654.57	1,179.58	1,338.48	1,518.79	1,723.38	1,955.53	2,218.96
NOPLAT:	388.36	5,759.81	9,993.99	3,921.36	9,612.87	6,172.38	6,072.13	5,747.70	5,675.71	5,926.61	5,915.10
										-	
Invested Capital (IC):											
Operating Current Assets											
Normal Cash	284	622	1,032	889	937	960	964	934	923	924	919
Accounts receivable	695	1,685	1,853	2,230	2,352	2,410	2,418	2,343	2,316	2,319	2,305
Inventories	224	369	424	628	662	678	680	659	652	653	649
Income tax receivable	-	1	164	34	22	-	-	-	-	-	-
Other current assets	52	41	81	86	91	93	94	91	90	90	89
Total Operating Current Assets	1,255	2,718	3,554	3,867	4,064	4,141	4,156	4,026	3,980	3,986	3,962
O											
Operating Current Liabilities	928	2.380	2.407	2.380	2.040	3.020	3,031	2.936	2.903	2.007	2.890
Accounts payable	928	2,380 45	2,487 63	2,360	2,948	3,020	3,031	2,930	2,903	2,907	2,890
Income tax payable Other current liabilities	363	45 513	206	572	603	618	620	600	594	594	591
Total Operating Current Liabilities	1,295	2,938	2.756	2,977	3,557	3,640	3,654	3,540	3,499	3,504	3,483
Total Operating current Liabilities	1,233	2,330	2,730	2,377	3,337	3,040	3,034	3,540	3,433	3,304	3,403
Operating Working Capital	(40)	(220)	798	891	507	501	502	486	481	482	479
Total oil and gas properties, net	14,439	28,182	29,630	29,139	28,843	34,163	36,384	37,419	36,755	37,175	37,066
Other property and equipment, net	1,584	1,694	1,658	1,624	2,860	3,376	3,728	3,949	4,093	4,326	4,540
Net PP&E	16,023	29,876	31,288	30,763	31,703	37,539	40,112	41,369	40,848	41,501	41,605
Operating lease right-of-use assets	197	348	340	366	362	429	457	470	462	467	466
Other current assets	150	171	143	170	174	178	181	186	190	194	198
Total Other Current Assets	347	519	483	536	536	607	638	656	651	661	664
Invested Capital	16,330	30,175	32,569	32,190	32,746	38,647	41,252	42,510	41,980	42,644	42,748
							•				
Free Cash Flow (FCF): NOPLAT	388	5.760	9,994	3.921	9.613	6.172	6.072	5,748	5.676	5.927	5,915
Change in IC	(293)	13.845	2,394	(380)	9,613 557	5,901	2,605	1,258	(530)	5,927	5,915
	(293) 682	(8,085)	7,600	4,301	9,056	5,901 271	3,467	4,490	6,206	5,263	5,810
	002	(0,003)	7,000	7,301	3,030	2/1	3,407	4,430	0,200	3,203	3,310
FCF											
Return on Invested Capital (ROIC):											
Return on Invested Capital (ROIC): NOPLAT	388	5,760	9,994	3,921	9,613	6,172	6,072	5,748	5,676	5,927	5,915
Return on Invested Capital (ROIC): NOPLAT Beginning IC	16,623	16,330	30,175	32,569	32,190	32,746	38,647	41,252	42,510	41,980	42,644
Return on Invested Capital (ROIC): NOPLAT											42,644
Return on Invested Capital (ROIC): NOPLAT Beginning IC ROIC	16,623	16,330	30,175	32,569	32,190	32,746	38,647	41,252	42,510	41,980	42,644
Return on Invested Capital (ROIC): NOPLAT Beginning IC	16,623	16,330	30,175	32,569	32,190	32,746	38,647	41,252	42,510	41,980	
Return on Invested Capital (ROIC): NOPLAT Beginning IC ROIC Economic Profit (EP):	16,623 2.34%	16,330 35.27 %	30,175 33.12%	32,569 12.04%	32,190 29.86 %	32,746 18.85%	38,647 15.71%	41,252 13.93%	42,510 13.35%	41,980 14.12%	42,644 13.87%

Weighted Average Cost of Capital (WACC) Estimation

	Estimated WACC	9.40%
Market Value of the Firm	61,043.60	100.00%
MV of Total Debt	5,438.00	8.91%
PV of LT Operating Leases	236	
LT Derivatives	96	
Long-Term Debt	4125	
PV of ST Operating Leases	125	
ST Derivatives	44	
Interest Payable	33	
Current Portion of LTD	779	
Market Value of Debt: Short-Term Debt	0	
MV of Equity	55,605.60	91.09%
Current Stock Price	\$231.69	
Total Shares Outstanding	240	-
Market Value of Common Equity:		MV Weights
After-Tax Cost of Debt	4.82%	
Marginal Tax Rate	21%	
Pre-Tax Cost of Debt	6.10%	YTM on company's 7 year corporate bond (Bloomberg
Implied Default Premium	1.58%	
Risk-Free Rate	4.52%	10-year corporate bond
Cost of Debt:		
Cost of Equity	9.85%	
Equity Risk Premium	5.10%	1928-2022 Geometric Average Premium
Beta	1.05	Raw Beta from Bloomberg on 11/8/23 (5 year)
Risk-Free Rate	4.52%	10-Year Treasury Bond
Cost of Equity:		ASSUMPTIONS:

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key Inputs:	
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CV Growth of NOPLAT	2.50%
CV Year ROIC	13.87%
WACC	9.40%
Cost of Equity	9.85%

Fiscal Years Ending Dec. 31	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
DCF Model:								
Free Cash Flow (FCF)	4,301	9,056	271	3,467	4,490	6,206	5,263	
Continuing Value (CV)	,	·		,	,	,	,	70,234
PV of FCF	3,932	7,566	207	2,420	2,865	3,619	2,805	37,438
Value of Operating Assets:	60,852							
Non-Operating Adjustments:								
Excess Cash	2,287							
Investment in affiliate	172							
Current Portion of LT Debt	779							
Interest Payable	33							
ST Derivatives	44							
ST Operating Leases	125							
LT Debt	4,125							
LT Derivatives	96							
LT Operating Leases	236							
Value of Equity	F7 972							
Value of Equity Shares Outstanding	57,873 251							
Intrinsic Value of Last FYE	230							
Implied Price as of Today	\$ 235.08							
implied Price as of Today	\$ 255.06							
EP Model:								
Economic Profit (EP)	858	6,586	3,093	2,438	1,868	1,678	1,979	
Continuing Value (CV)	030	0,500	3,033	2, .50	2,000	2,070	2,373	27,590
PV of EP	785	5,502	2,362	1,702	1,192	979	1,055	14,707
Total PV of EP	28,282							
Invested Capital (last FYE)	32,569							
Value of Operating Assets:	60,852							
Non-Operating Adjustments:								
Excess Cash	2,287							
Investment in affiliate	172							
Const Builting (LT Buly	770							
Current Portion of LT Debt	779							
Interest Payable	33							
ST Derivatives	44 125							
ST Operating Leases LT Debt	4,125							
LT Debt	96							
LT Operating Leases	236							
Li Operating Leases	230							
Value of Equity	57,873							
Shares Outstanding	251							
Intrinsic Value of Last FYE	230							
Implied Price as of Today	\$ 235.08							
piica i iice as si i catay	+ 255.55							

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

Fiscal Years Ending Dec. 31		2023E	2024E	2025E	2026E	2027E	2028E	2029E		2030E
		1	2	3	4	5	6	7		8
EPS	\$	10.76	\$ 16.04	\$ 17.15	\$ 14.80	\$ 12.68	\$ 11.96	\$ 12.17	\$	11.90
Key Assumptions										
CV growth of EPS		2.50%								
CV Year ROE		10.39%								
Cost of Equity		9.85%								
Future Cash Flows										
P/E Multiple (CV Year)										10.33
EPS (CV Year)									\$	11.90
Future Stock Price									\$:	122.89
Dividends Per Share		8.92	10.66	11.40	9.84	8.43	7.95	8.09		
Discounted Cash Flows		8.12	8.84	8.60	6.76	5.27	4.52	4.19		63.66
Intrinsia Value on of Lost EVE	۲.	100.00								
Intrinsic Value as of Last FYE	\$	109.96								
Implied Price as of Today	\$	112.27								

Relative Valuation Models Prices

Prices as of 11/8/2023

			EPS		EPS		
Ticker	Company	Price	2023E		2024E	P/E 23	P/E 24
EOG	EOG Resources	\$ 121.21	\$ 11.68	\$	13.18	10.38	9.20
OXY	Occidental Petroleum	\$ 61.15	\$ 3.99	\$	5.17	15.33	11.83
FANG	Diamondback Energy	\$ 155.97	\$ 18.27	\$	21.60	8.54	7.22
MTDR	Matador Resources	\$ 55.44	\$ 7.08	\$	9.44	7.83	5.87
DVN	Devon Energy	\$ 44.18	\$ 5.96	\$	6.72	7.41	6.57
MRO	Marathon Oil	\$ 24.85	\$ 2.70	\$	3.65	9.20	6.81
CHK	Chesapeake Energy	\$ 81.40	\$ 4.64	\$	5.40	17.54	15.07
				Ανε	rage	10.89	8.94
PXD	Pioneer Natural Resource	\$ 231.69	10.76		16.04	21.5	14.4

Implied Relative Value:

P/E (EPS23) \$ 117.18 P/E (EPS24) \$ 143.34

Key Management Ratios

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Monthly Busham											_
Liquidity Ratios:	4.26	4.50	0.00	4.40	2.00	2.00	2.42	2.67	2.24	4.00	4.00
Current Ratio (Current Assets/Current Liabilities)	1.36	1.50	0.96	1.40	2.80	2.00	2.12	2.67	3.24	4.00	4.00
Quick Ratio (Current Assets - Inventory)/Current Liabilities	1.24	1.41	0.85	1.26	2.65	1.87	1.99	2.52	3.11	3.85	3.88
Cash Ratio (Cash/Total Liabilities)	0.79	0.95	0.27	0.71	2.05	1.39	1.49	1.94	2.57	3.27	3.42
Asset-Management Ratios: (Efficiency)											
Asset Turnover Ratio (Net Sales/Avg. Total Assets)	18.9%	31.2%	45.6%	35.7%	28.7%	26.2%	24.9%	23.3%	21.7%	20.6%	18.9%
Inventory Turnover Ratio (COGS/Avg. Inventory)	3.04	3.43	4.53	3.02	3.05	3.10	3.21	3.44	3.59	3.68	3.79
Days in Sales Inventory Ratio (365/Inventory Turnover)	119.88	106.30	80.52	120.71	119.82	117.75	113.65	106.19	101.81	99.14	96.37
Financial Leverage Ratios:											
Debt to Equity Ratio (Total Debt/Total Equity)	66.2%	61.2%	58.6%	66.1%	86.1%	95.2%	98.4%	99.1%	104.5%	108.7%	118.4%
Debt to Asset Ratio (Total Debt/Total Assets)	39.8%	38.0%	36.9%	39.8%	46.3%	48.8%	49.6%	49.8%	51.1%	52.1%	54.2%
Interest Coverage Ratio (EBITA/Interest Expense)	54.45	110.99	190.50	45.24	40.27	44.15	32.66	29.78	30.73	28.03	27.52
Profitability Ratios:											
Return on Equity (NI/Shareholder's Equity)	-1.6%	18.3%	34.4%	11.7%	17.3%	17.9%	14.7%	12.1%	11.0%	10.9%	10.4%
Gross Margin Ratio (Gross Profit/Net Sales)	-3.9%	18.8%	41.0%	16.1%	22.8%	24.3%	20.9%	18.5%	17.6%	17.9%	17.6%
Return on Assets (NI/Total Assets)	-1.0%	11.0%	21.3%	7.4%	10.4%	9.6%	7.5%	6.1%	5.5%	5.3%	5.0%
Payout Policy Ratios:											
Dividend Payout Ratio (Dividends/EPS)	-181.5%	75.1%	78.0%	82.9%	66.5%	66.5%	66.5%	66.5%	66.5%	66.5%	66.5%
Total Payout Ratio ((Dividends + Repurchases)/NI)	4.33	0.41	0.55	0.07	0.08	0.11	-0.03	-0.21	-0.34	-0.40	-0.51
Retention Ratio (Retained Earnings/ NI)	281.5%	24.9%	22.0%	17.1%	33.5%	33.5%	33.5%	33.5%	33.5%	33.5%	33.5%

Sensitivity Tables

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			R	isk Free Rat	te		
235.08	1.52%	2.52%	3.52%	4.52%	5.52%	6.52%	7.52%
3.10%	394.93	324.84	276.82	241.77	215.26	194.34	177.43
4.10%	388.43	320.54	273.77	239.50	213.50	192.93	176.29
5.10%	382.16	316.36	270.79	237.27	211.77	191.54	175.16
6.10%	376.10	312.30	267.88	235.08	210.06	190.18	174.04
7.10%	370.24	308.34	265.04	232.94	208.39	188.84	172.94
8.10%	364.57	304.50	262.26	230.84	206.75	187.52	171.86
9.10%	359.08	300.75	259.54	228.78	205.13	186.22	170.79

WACC

CV Growth of NOPLAT

235.08	-0.50%	0.50%	1.50%	2.50%	3.50%	4.50%	5.50%
6.40%	321.77	341.64	369.62	411.96	483.49	630.31	1,103.42
7.40%	277.81	289.94	306.18	329.04	363.64	422.09	542.06
8.40%	243.94	251.48	261.19	274.20	292.52	320.23	367.06
9.40%	216.99	221.67	227.53	235.08	245.20	259.45	280.99
10.40%	195.29	198.16	201.67	206.07	211.75	219.35	230.05
11.40%	177.27	178.95	180.97	183.44	186.54	190.54	195.89
12.40%	162.14	163.04	164.09	165.36	166.91	168.86	171.37

Pre-Tax Cost of Dek

Equity Risk Premium

235.08	2.10%	3.10%	4.10%	5.10%	6.10%	7.10%	8.10%
1.030	389.28	319.46	271.84	237.27	211.03	190.42	173.80
1.035	388.40	318.61	271.05	236.54	210.35	189.79	173.21
1.040	387.53	317.76	270.26	235.81	209.68	189.16	172.63
1.045	386.66	316.92	269.47	235.08	209.00	188.54	172.05
1.050	385.80	316.09	268.69	234.36	208.34	187.92	171.47
1.055	384.94	315.26	267.92	233.64	207.67	187.31	170.90
1 060	384 08	314 43	267 15	232 93	207 02	186 70	170 34

Normal Cash

	235.08	1.25%	2.25%	3.25%	4.25%	5.25%	6.25%	7.25%
	16.72%	237.99	237.21	236.43	235.66	234.88	234.10	233.33
_ s	21.72%	237.95	237.12	236.29	235.46	234.64	233.81	232.98
Purchased Commodities	26.72%	237.91	237.03	236.15	235.27	234.40	233.52	232.64
cha	31.72%	237.87	236.94	236.01	235.08	234.15	233.22	232.30
מ ה	36.72%	237.83	236.85	235.87	234.89	233.91	232.93	231.95
F 9	41.72%	237.79	236.76	235.73	234.70	233.67	232.64	231.61
	46.72%	237.75	236.67	235.59	234.51	233.43	232.35	231.26

Beta

CV Growth of NOPLAT

235.08	-0.50%	0.50%	1.50%	2.50%	3.50%	4.50%	5.50%
6.85%	300.86	317.76	341.19	375.86	432.40	541.01	835.06
7.85%	266.47	277.39	291.91	312.14	342.28	391.97	489.40
8.85%	239.17	246.31	255.51	267.77	284.94	310.70	353.69
9.85%	216.99	221.66	227.52	235.08	245.20	259.44	280.99
10.85%	198.62	201.64	205.35	210.00	216.01	224.10	235.54
11.85%	183.18	185.07	187.34	190.13	193.64	198.20	204.35
12.85%	170.03	171.12	172.43	174.00	175.93	178.38	181.55

Production Volume (Oil)

		1 Toddetion Volume (Oil)										
	235.08	117,321	122,321	127,321	132,321	137,321	142,321	147,321				
	78.7	218.21	223.93	229.65	235.37	241.09	246.81	252.53				
ē	80.7	218.13	223.84	229.56	235.27	240.99	246.70	252.42				
Barrel	82.7	218.04	223.76	229.47	235.18	240.89	246.60	252.31				
perl	84.7	217.96	223.67	229.37	235.08	240.79	246.50	252.20				
st p	86.7	217.87	223.58	229.28	234.99	240.69	246.39	252.10				
Cost	88.7	217.79	223.49	229.19	234.89	240.59	246.29	251.99				
	90.7	217.70	223.40	229.10	234.79	240.49	246.19	251.88				

Cost of Equity

Important Disclaimer

This report was created by students enrolled in the Security Analysis (6F:112) class at the University of Iowa. The report was originally created to offer an internal investment recommendation for the University of Iowa Krause Fund and its advisory board. The report also provides potential employers and other interested parties an example of the students' skills, knowledge and abilities. Members of the Krause Fund are not registered investment advisors, brokers or officially licensed financial professionals. The investment advice contained in this report does not represent an offer or solicitation to buy or sell any of the securities mentioned. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Krause Fund may hold a financial interest in the companies mentioned in this report.