

Leader To Laggard—ExxonMobil's Financial Troubles Intensify

Performance Metrics Declined From 2017-2019 Under CEO Darren Woods

Executive Summary

For decades, ExxonMobil has defined itself as *the* oil industry's global leader, which all others followed. It shaped corporate culture by bringing data and metrics to the oil industry. It was a highly stable, proudly "by the numbers" company that built its reputation for market dominance by emphasizing success indicators and "no-excuses" performance. As Darren Woods, the current CEO, once declared, "We always go back to the fundamentals."

However, the Institute for Energy Economics and Financial Analysis (IEEFA) finds that in the short span of three years (2017-2019), Woods has presided over a significant deterioration in the company's finances. By both short- and long-term financial measures, ExxonMobil has shown significant signs of slippage against past performance. Faced with the same market challenges as its peer-competitors (Shell, Total, BP and Chevron), Woods's tenure has been marked by a faster rate of decline or deeper losses in profits, cash and shareholder value. Based on actual performance, IEEFA recommends that the board of directors move to replace Woods.

XOM falters under Woods's tenure: Company standard for CEO performance is industry leadership					
Before Woods:During Woods:During Woods:10-year average10-year averageAnnualleadership rankingleadership rankingleadership ranking					
Profits	Leader	Lead slipping	Laggard		
Cash	Leader	Lead marginal	Laggard		
Shareholder returns	Leader	Laggard	Laggard		

The board assesses CEO performance based on long-term, 10-year indicators as well as annual one-year measures of progress in meeting strategic goals and objectives. IEEFA's analysis is based exclusively on pre-pandemic financial performance.

In IEEFA's view, long-time board members appear to be ignoring the company's own well-established performance measurements that show ExxonMobil falling

behind, presenting a real risk to the company's financial health. It is unclear why this board is accepting Woods's troubling performance.

Based on a critical evaluation of the company's own data and standards, IEEFA concludes that the board should explain to shareholders why Exxon's pronounced slide from its long-touted leadership position—and the accompanying earnings risk —is acceptable in the face of competitors' stronger performance. They should also explain how the current CEO is able to remain in place while his performance continues to miss pre-established objectives and goals.

This conclusion is based on the following factors:

- ExxonMobil scores its CEO's performance based on two of three financial metrics:
 - Return on Capital Employed (ROCE), considered by ExxonMobil to be its most important long-term financial performance indicator.
 - Cash Flow from Operations and Asset Sales (CFOAS), on which the company scores as the industry leader.
 - Total Shareholder Return (TSR), on which the company acknowledges that its results lag peers
- Under Woods, ExxonMobil's **10-year ROCE** average and historic leadership have both deteriorated. ROCE has declined from 17.6% in 2017 to 14.1% in 2019. While companies in its peer group posted losses during this period, ExxonMobil's losses were sharper and deeper than Total or Shell's.
- During Woods's tenure, the *annual ROCE* declined from a high of 9.2% in 2018 to a low of 6.5% in 2019.
- Under Woods, ExxonMobil's industry-leading **10-year CFOAS average** also weakened. It has dropped from \$46.7 billion to \$44.5 billion, a 4.7% decline. In 2019, ExxonMobil disclosed that it now leads Shell by \$1 billion on the 10-year average, down from \$6.5 billion in 2017. Chevron also posted gains to its 10-year CFOAS average during these years.
- Shell exceeded ExxonMobil's *annual CFOAS* in each year of Woods's tenure and posted a gain of 8% to its 10-year average during these years.
- During Woods's tenure, ExxonMobil's *10-year Total Shareholder Return* (TSR) lagged its peers in all three years. During his first year in office, ExxonMobil's TSR lagged its peers for the first time in decades. The company has continued to lag its peers in each year of Woods's tenure.

Despite these falling numbers, Woods has been given high marks by the board's Compensation Committee for making "significant progress in advancing strategic objectives."

Even in the two metrics in which ExxonMobil claims industry-leading financial performance, ROCE and CFOAS, IEEFA's review finds significant deterioration and concludes that this trend warrants action now, lest the company slip further into laggard status.

Our research acknowledges the significant 10-year decline in the oil and gas sector. The past decade has seen the industry go from global economic leadership dominating financial markets to last place—while the global economy and stock markets posted robust growth.

Woods's performance is assessed in this analysis separate and apart from overall industry decline. Such decline was faced by each of ExxonMobil's peers. Some posted gains in areas where ExxonMobil lagged and posted losses, and some were more effective at stanching losses than ExxonMobil.

The focus of this analysis is on financial issues and specifically, the company's declining profitability under Woods. The three financial benchmarks covered in this report are used by ExxonMobil in its annual executive compensation review that is distributed in company proxy materials. The benchmarks help to justify how the board sets the annual compensation level for the CEO (Woods has received direct compensation increases of 16% during his three-year tenure). These same financial benchmarks are also used to:

- 1. Inform the evaluation of other directors' contributions to long-term performance
- 2. Assess the wisdom of company investments
- 3. Compare the company to its peers
- 4. Tell the story of ExxonMobil's financial leadership.

The board of directors also rests its annual judgment of the CEO on other qualitative benchmarks that are both financial and nonfinancial. In 2019, for example, the board concluded Woods's performance demonstrated "strong leadership." The board points to many operational achievements. In IEEFA's view, ExxonMobil continues to demonstrate long-term, industry-leading performance in the area of project execution. The technical, scientific and engineering expertise of the company and its staff has earned a well-earned, global reputation for excellence.

In Appendix I, IEEFA offers financial observations on the board of directors' qualitative assessment of these achievements. IEEFA's observations are generally designed to supplement the board's assessment with a more concentrated focus on specific business outcomes of the operational achievements. IEEFA finds the judgment on organizational strengths in these times is overshadowed by changing market forces and weak management that have fed the company's severe, downward financial spiral.

ExxonMobil's board has a choice. It can continue to rest on its claim of long-term, industry-leading performance under Woods's leadership. This leadership, however,

has grown more tenuous each year, and we find that the company's recent performance has suffered. The current trajectory points to ExxonMobil lagging not only in the Total Shareholder Return metric, but also in the Return on Capital Employed and the Cash Flow from Operations and Asset Sales.

Methodological Considerations

As an unintended consequence of this research, IEEFA identified certain methodological anomalies with ExxonMobil's financial benchmark comparisons to its peers. The methodological issues have a material impact on ExxonMobil's claims to industry leadership. ExxonMobil's annual exercise of using data from public filings of its peers and then applying this data to fit ExxonMobil's definitions of financial leadership is problematic.

IEEFA sought the assistance of ExxonMobil management in resolving these anomalies. (See Appendices II and III.) The company's response did not clarify how they calculated specific financial metrics of its peers. IEEFA concludes, absent this input, that the board of directors should adopt measures that are recognized by those peers on comparable terms. IEEFA tried to replicate ExxonMobil's comparative methodologies that were used to align ExxonMobil's metric definitions with its peers on ROCE and CFOAS. The lack of transparency made this review difficult to complete and, thus, we conclude that the quantitative comparisons could not be authenticated.

IEEFA's conclusions regarding the methodological anomalies are contained in Appendices II and III, and are provided after assessing Woods's performance based solely on ExxonMobil's own data and standards. Substantively, IEEFA's methodological analysis affirms ExxonMobil's snapshot of its current leadership but also the erosion of its long-term ROCE performance. IEEFA's analysis also challenges claims to annual ROCE leadership under Woods. IEEFA also concludes, based on its assessment of the data, that Shell is now equal to—or perhaps even displaces— ExxonMobil as the industry leader on the 10-year CFOAS metric.

I. How ExxonMobil Judges Itself: Performance Standards for the CEO

ExxonMobil's Corporate Governance guidelines require that at least once every year,¹ the board's independent directors work with the Compensation Committee to review the CEO's performance against the company's goals and objectives.²

ExxonMobil discloses in its annual proxy materials its overall approach to executive compensation: "The Compensation Committee considers progress toward the

¹ ExxonMobil. Corporate Governance Guidelines, visited July 23, 2020. See: CEO Performance Review.

² ExxonMobil's Compensation Committee has four members: Angela F. Braly, Kenneth C. Frazier, Steven A. Kandarian, and Samuel J. Palmisano, and is chaired by Mr. Palmisano. ExxonMobil. 2020 Proxy Statement. p. 30.

Company's strategic objectives, Company performance relative to industry peers over the investment lead times of the business, individual performance, and the results of annual benchmarking, taking into account experience in the position."³

The Committee uses four quantitative performance measures that are prominently displayed in the annual executive compensation discussion. These measures constitute the Performance Share program component of compensation. This component (which constitutes 50% of the Committee's decision) is intended to link pay to "returns of long-term shareholders and encourage a long-term view through the commodity price cycle."⁴ The company measures the CEO against a 10-year benchmark but also reports one-year performance.^{5,6} The company measures performance against past years and relative to its peers. These metrics are complemented by a written assessment, in the form of summary points that chart ExxonMobil's progress toward strategic objectives for the year.⁷

The four operational and financial metrics and one qualitative assessment are:

- 1. **Safety and Operations Integrity** is measured in terms of worker lost time due to injury and illness rates compared to the U.S. petroleum industry.⁸
- 2. **Return on Average Capital Employed (ROCE)** is a financial metric that measures net income against the capital employed by the company to generate that income. The ROCE metric is viewed by ExxonMobil as the best measure of capital productivity. This allows the board and its investors to evaluate management performance and to demonstrate that shareholder dollars have been used wisely over the long term.⁹
- 3. **Cash Flow from Operations and Asset Sales (CFOAS)** measures the net income of revenue from operations, plus the sale of property, plant and

³ ExxonMobil. 2020 Proxy Statement. p. 38.

⁴ ExxonMobil. 2020 Proxy Statement. p. 36.

⁵ There is also an Annual Bonus component to compensation related to shorter term performance and constitutes ten percent of the compensation decision. In 2018 Woods received \$2.2 million, a decrease of \$250,000 from the prior year. ExxonMobil. 2020 Proxy Statement. p. 50.

⁶ ExxonMobil. 2020 Proxy Statement. p. 38

⁷ ExxonMobil. 2020 Proxy Statement, p. 40.

⁸ ExxonMobil. 2020 Proxy Statement. p. 41.

⁹ Exxon's description of ROCE, based on 2019 Summary Annual Report, p. 49. See narrative accompanying chart entitled "Return on Average Capital Employed (ROCE)": "ROCE is a performance measure ratio. From the perspective of the business segments, ROCE is annual business segment earnings divided by average business segment capital employed (average of beginning and end-of-year amounts). These segment earnings include ExxonMobil's share of segment earnings of equity companies, consistent with our capital employed definition, and exclude the cost of financing. The Company's total ROCE is net income attributable to ExxonMobil, excluding the after-tax cost of financing, divided by total corporate average capital employed. The Corporation has consistently applied its ROCE definition for many years and views it as the best measure of historical capital productivity in our capital-intensive, long-term industry, both to evaluate management's performance and to demonstrate to shareholders that capital has been used wisely over the long term. Additional measures that are cash flow-based are used to make investment decisions. "

equipment from ExxonMobil and subsidiaries, as well as sales and returns of investments.¹⁰

- 4. **Total Shareholder Returns (TSR)** measures the change in a stock's value over time, assuming dividend reinvestment.¹¹ The calculation is driven in part by the change in value of ExxonMobil's stock at the beginning and end of the year.¹² ExxonMobil specifically notes that "TSR is subject to many different variables, including factors beyond the control of management."¹³
- 5. Progress Toward Strategic Objectives,¹⁴ which the company defines as "demonstrated leadership and accomplishments in progressing strategic goals and objectives."¹⁵ The company cited "significant" 2019 accomplishments in Upstream, Downstream, Chemicals, Environment and Investment.¹⁶

Taken together, these measures constitute the "Performance Dimension" of the annual executive compensation review presented to shareholders.¹⁷

For purposes of this analysis, IEEFA focuses primarily on ExxonMobil's business performance on the three financial metrics discussed earlier in this report that are quantified in the executive compensation discussion in the company's proxy materials and related reports.

These three benchmarks serve as the basis for IEEFA's conclusions regarding financial performance under Woods's leadership. According to ExxonMobil's current business model, ROCE is the company's most important measure related to assessing management performance and whether company resources are being deployed wisely. All three financial metrics are quantified and provide clarity and consistency as a measure of the company's performance on a year-to-year and 10-year basis.

IEEFA does not discuss the Safety and Operations Integrity performance standard, as the health and safety of ExxonMobil's workers is an operational metric. (For clarity, IEEFA uses the term "Worker Safety" to denote this metric.) And the company's assessment of the CEO's progress toward advancing strategic objectives is largely an all-things-considered judgment by the board. IEEFA offers some observations on this component of the proxy disclosures in Appendix I.

In evaluating ExxonMobil's financial performance, ExxonMobil compares itself to

- ¹¹ ExxonMobil. 2019 Summary Annual Report. p. 48.
- ¹² *Ibid*.
- ¹³ *Ibid*.

¹⁰ ExxonMobil. 2019 Summary Annual Report. p. 50.

¹⁴ ExxonMobil. 2020 Proxy Statement. p. 40.

¹⁵ ExxonMobil. 2020 Proxy Statement. p. 38.

¹⁶ ExxonMobil. 2020 Proxy Statement. p. 40.

¹⁷ ExxonMobil. 2020 Proxy Statement. p. 38.

four industry peers: Royal Dutch Shell (Shell), Chevron, Total and BP.¹⁸ The company describes its peer group selection:

"Financial and operating performance is assessed relative to industry peers, which operate similar integrated businesses, share commodity price cycles, and with whom ExxonMobil competes for resources, customers, and opportunities. These oil and gas companies are similar to ExxonMobil in scale and complexity, and are therefore appropriate comparators when assessing relative business performance."¹⁹

When comparing itself to its competitors, ExxonMobil notes that the standard used to judge company performance (on ROCE, CFOAS and TSR) is industry leadership and it is "required in each pre-established metric."20 [Emphasis in the original.] Industry leadership means that ExxonMobil's score on each of the individual metrics is superior to all four of the members of the peer group. According to ExxonMobil's standards, the company is leading only if it leads all of its industry peers. It is a laggard if it is anything but first among its competitors.21

II. ExxonMobil's Return on Capital Employed (ROCE): 10-Year and Annual Performance During CEO Woods's Tenure (2017-2019)

Return on Capital Employed (ROCE) is the metric ExxonMobil uses to measure its year-over-year return on capital invested in projects. It is designed to demonstrate to investors how efficiently the company's capital is deployed over time in relation to the income the company is producing annually.

ExxonMobil uses a simple, 10-year average to judge its CEO, emphasizing the longterm, capital-intensive nature of the industry. This 10-year average is considered the most important measure of ExxonMobil's financial performance in the executive compensation process and is the key measure of how it assesses its performance in relation to its peers: "Industry leadership over investment lead times (10 years)

¹⁸ ExxonMobil. 2020 Proxy Statement. p. 42. For the purposes of its corporate benchmarking, ExxonMobil makes a distinction between Company Performance and Compensation Benchmarking. ExxonMobil compares itself on company performance to its peers in the oil and gas industry based on similar scale and complexity that operate in the same industry. When reviewing compensation levels, ExxonMobil compares itself with a broader range of companies based on scale, complexity, global operations and capital intensity across the economy. This paper focuses on three company performance benchmarks that are financial.

¹⁹ ExxonMobil. 2020 Proxy Statement. p. 41.

²⁰ ExxonMobil. 2020 Proxy Statement. p. 38. Note that the word "each" is in bold in the company's 2020 Proxy statement.

²¹ For example, in the 2020 Proxy Statement, p. 41. ExxonMobil declares that the company is lagging on the TSR. ExxonMobil lags the Industry Group Average, Shell, Total and Chevron on the 10-year measure. ExxonMobil leads BP which has the weakest performance. Leadership means being first and demonstrating stronger performance than each member of the peer group. There is no second place.

required in each pre-established metric."22

ExxonMobil management has emphasized the importance of ROCE since 1987 "to show how well a particular Exxon business unit—and overall, the corporation—used the cash it borrowed or recycled from earnings to reap returns from new projects."²³ Lee Raymond, Exxon's chairman and CEO from 1993-2005, tried to persuade Wall Street to use ROCE as the "premiere number by which oil corporations should be judged."²⁴

ROCE's importance as a metric is highlighted in annual proxy statements and annual reports, including its most recent 2019 annual report, which noted: "The Corporation... views it [ROCE] as the best measure of historical capital productivity in our capital-intensive, long-term industry, both to evaluate management's performance and to demonstrate to shareholders that capital has been used wisely over the long term."²⁵ Along with safety and operations integrity, and progress toward strategic objectives, it is viewed as the highest priority when judging the company's performance.²⁶

The ROCE serves several important purposes as a metric that is used to:

- Set executive compensation levels for its CEO²⁷
- Evaluate the CEO and management more broadly²⁸
- Assess the wise use of ExxonMobil's capital resources²⁹
- Allow for comparison with other companies in ExxonMobil's peer group³⁰
- Provide more general information regarding industry leadership to investors³¹

A. 10-Year Average and Annual ROCE Performance Under CEO Woods

In 2019, ExxonMobil continued to lead its peers on the 10-year average metric during the three years of Woods's tenure (Figure 1). Despite this leadership, the long-term, 10-year ROCE average of ExxonMobil declined during this three-year

²⁴ Ibid.

²² ExxonMobil. 2020 Proxy Statement. p. 38.

²³ Coll, Steve. *Private Empire: ExxonMobil and American Power*. 2012, p. 49.

²⁵ ExxonMobil. 2019 Summary Annual Report. p. 49.

²⁶ ExxonMobil. 2020 Proxy Statement. p. 39.

²⁷ ExxonMobil. 2020 Proxy Statement. p. 38.

²⁸ ExxonMobil. 2019 Summary Annual Report. p. 49.

²⁹ ExxonMobil. 2019 Summary Annual Report. p. 49.

³⁰ ExxonMobil. 2020 Proxy Statement. p. 41.

³¹ ExxonMobil. Investor Day Presentations 2017, 2018, 2019 and 2020. See Treatment of ROCE throughout the presentations.

period, from approximately 20% in 2016 (the last year of former CEO Rex Tillerson's tenure) to 14.1% in 2019 (Figure 2). ExxonMobil's 10-year ROCE average declined in absolute terms by more than any of its peers, a sharper and deeper decline. (Figure 1).

In 2019, ExxonMobil posted its lowest annual ROCE, at 6.5%, of Woods's tenure.³²

During the three years of Woods's tenure, ExxonMobil has continued to lead its peers on the 10-year average ROCE financial metric (see Figure 1).

Year	XOM	CVX	тот	RDS	BP
2017 10 yr. average	17.6%	12.6%	9.1%	9.2%	7.0%
2018 10 yr. average	15.1%	10.8%	7.9%	8.0%	5.5%
2019 10 yr. average	14.1%	9.9%	7.8%	8.1%	4.8%
% Decline	-19.9%	-21.40%	-14.20%	-11.90%	-31.40%
Absolute Decline	-3.5%	-2.7%	-1.3%	-1.1%	-2.2%

Figure 1: Comparison of Rolling 10-Year ROCE Averages (2017 to 2019)^{33,34,35}

During this period, each member of the industry group posted a decline in ROCE. Total and Shell, however, experienced less deterioration than ExxonMobil. ExxonMobil's 10-year average metric declined from 17.6% to 14.1%, a decrease of 19.9%. Total and Shell saw declines of 14.2% and 11.9% respectively.

In each of the three years of Woods's tenure, the ROCE 10-year rolling average declined from 2016, the last year of Tillerson's tenure (Figure 2). In 2016, the 10-year ROCE average was approximately 20%.³⁶ By 2019, the third year of Woods's tenure, the 10-year ROCE average had declined to 14.1%.

Figure 2: ExxonMobil Return on Capital Employed (ROCE): Change in 10-Year Average From 2016 Through 2019

Year	Tenure	ROCE 10-Year Average
2016	Final Year of Tillerson	20.0%
2017	Woods Year I	17.6%
2018	Woods Year II	15.1%
2019	Woods Year III	14.1%

³² See Appendix II of this report for more detailed discussion of the ROCE annual performance.

³³ ExxonMobil. 2018 Executive Compensation Overview, p. 6.

³⁴ Ibid.

³⁵ ExxonMobil. 2020 Proxy Statement. p. 41

³⁶ ExxonMobil. 2017 Executive Compensation Overview. p. 2.

In 2017 and 2018, ExxonMobil continued to lead the industry on annual ROCE returns (Figure 3).

Figure 3: 2017-2019 Annual Return on Capital Employed (ROCE), ExxonMobil
Versus Peers, as Reported by ExxonMobil

	Five Oil Majors						
Year	ХОМ	XOM CVX TOT RDS BP					
2017	9.0%	5.0%	6.0%	5.0%	2.5%		
2018	9.2%	8.0%	8.0%	9.0%	6.0%		
2019	6.5%	N/A	N/A	N/A	N/A		

In the 2020 executive compensation presentation for the year ending 2019, ExxonMobil departed from its past practice of providing a graphic that depicted the one-year annual ROCE for itself and its peers along with the 10-year ROCE average (see Appendix IV). The company did not provide the one-year annual ROCE for itself or its peers in the executive compensation section of the proxy statement, so, Figure 3 shows N/A for 2019.

The annual ROCE figure for ExxonMobil (6.5%) is included by reference in both ExxonMobil's 2019 Summary Annual Report and the supporting financial materials.³⁷ The annual figures from each of the peer companies are not provided in the proxy materials for 2019 (see Appendix II).

III. Cash Flow From Operations and Asset Sales Policy (CFOAS)

Under Woods, ExxonMobil has posted industry-leading results for the 10-year average of the Cash Flow from Operations and Asset Sales (CFOAS), a financial performance metric that is an important component of the company's investment capability.

³⁷ ExxonMobil. 2019 Annual Summary. p. 2 and 2019 Financial Statements and Supplemental Information. p. 2.

Year	хом	CVX	тот	RDS	BP
2017	46.7	31.3	28.6	40.2	29.5
2018	44.1	31.4	28.6	41.2	28.2
2019	44.5	32.5	29.1	43.5	27.9
Percent Change: 2017-2019	-4.7%	3.8%	1.7%	8.2%	-5.4%

Figure 4: 10-Year Average Cash Flow From Operations and Asset Sales (CFOAS),
2017-2019 as Reported by ExxonMobil (in \$ billions) ^{38,39,40}

During Woods's tenure, ExxonMobil's 10-year average for CFOAS has declined from \$46.7 billion to \$44.5 billion, a decline of 4.7%. Chevron, Total and Shell have each posted increases in their 10-year averages of 3.8%, 1.75% and 8.2%, respectively, during the same period.

According to ExxonMobil's account in its 2020 proxy statement, ExxonMobil now leads Shell by \$1 billion for the position of industry leadership on the 10-year average metric.⁴¹ In 2017, ExxonMobil led Shell by \$6.5 billion.⁴²

Figure 5: Annual Cash Flow From Operations and Asset Sales (CFOAS), 2017 to
2019 (in \$ billions) ^{43,44,45,46}

	2017	2018	2019
ExxonMobil	33.2	40.0	33.4
Shell	46.6	60.0	45.0
Chevron	25.4	32.0	30.0
Total	26.3	28.8	25.0
BP	22.3	25.5	28.0

In each year of Woods's tenure, ExxonMobil lagged Shell's CFOAS. Shell has improved its comparative position relative to ExxonMobil's CFOAS during this time.

³⁸ ExxonMobil. 2018 Executive Compensation Overview. p. 6.

³⁹ ExxonMobil. ExxonMobil 2019 Executive Compensation Overview. p. 7.

⁴⁰ ExxonMobil. 2020 Proxy Statement. p. 41.

⁴¹ Appendix III: From IEEFA's estimate based on its replication of the company filings of the peer group, it appears that Shell is either equal to or slightly higher on the 10-year metric.

⁴² Comparing 10-year CFOAS with Exxon Mobil versus RDS in 2013 (XOM \$57.4 billion and RDS \$43.5) based on IEEFA Appendix III, Table I and 2017 (XOM \$46.7 billion and RDS \$40.2) based on Figure 4 above.

⁴³ The annual CFOAS values in 2017, 2018 and 2019 are presented on a graph in the executive compensation section of the proxy materials. The annual performance levels are presented as hyphenated or lightly defined bars as compared to the fully colored 10-year averages which are the basis of the formal executive compensation calculation. The annual performance level data are not presented but readers are given a sense of the actual numbers for the year. IEEFA has estimated those numbers based on a close read of the graphs.

⁴⁴ ExxonMobil. 2018 Executive Compensation Overview. p. 6.

⁴⁵ ExxonMobil. ExxonMobil 2019 Executive Compensation Overview. p. 7.

⁴⁶ ExxonMobil. 2020 Proxy Statement. p. 41.

During the three years, ExxonMobil's CFOAS annual average was \$35.6 billion and Shell's annual average was \$51.0 billion. ExxonMobil's CFOAS under Woods lagged its 10-year average and pulled it down, while Shell's exceeded its 10-year average and drove the average up.

IV. Total Shareholder Return (TSR)

ExxonMobil's 10-year TSR average lags three of its four industry peers and the 10-year industry group average. The company acknowledged that its 10-year TSR is not leading the average of industry peers.⁴⁷ ExxonMobil continues to lag its peers despite some improvement in 2019.

Figure 6: Comparison of Industry Peers 10-Year Rolling Average of Total Shareholder Return Percentage (2016-2019)^{48,49,50,51}

	2016	2017	2018	2019
ExxonMobil	4.1%	1.7%	1.5%	3.5%
Chevron	N/A ⁵²	6.8%	7.8%	8.5%
Shell	N/A	3.6%	7.3%	6%
Total	N/A	1.4%	4.9%	4%
BP	N/A	-0.2%	3.3%	0.9%
Industry Group Average	3.8%	3.2%	6.1%	5.1%

In 2016, the final year of Tillerson's tenure, ExxonMobil led the "industry in TSR in all performance periods" (five, 10, 20 and 30 years).⁵³

⁴⁷ ExxonMobil. 2018 Executive Compensation Overview. p.6-7.

⁴⁸ ExxonMobil. 2017 Executive Compensation Overview. p. 3.

⁴⁹ ExxonMobil. 2018 Executive Compensation Overview. p. 7.

⁵⁰ ExxonMobil. 2019 Executive Compensation Overview. p. 7.

⁵¹ ExxonMobil. 2020 Proxy Statement. p. 41.

⁵² In ExxonMobil's 2017 Executive Compensation Overview, the company used an Industry Group Average as the benchmark measure against ExxonMobil's performance. It did not provide individual peer companies' annual data. The group, however, is comprised of Chevron, Shell, Total and BP. See Footnote 3, p. 2.

⁵³ ExxonMobil. 2017 Executive Compensation Overview. p. 3.

- crecintage (2010 2013)						
	2017 ⁵⁴	2018 ⁵⁵	2019 ⁵⁶			
ExxonMobil	-3.5	-15	7.8			
Chevron	10	-10	15			
Shell	28	-7.5	6.5			
Total	15	-1	12			
BP	19	-4	5.7			
Industry Group Average	17.5	-6.5	10			

Figure 7: Comparison of Industry Peers Annual Total Shareholder Return Percentage (2016-2019)

ExxonMobil has lagged its peers in annual TSR in each year of Woods's three-year tenure. ExxonMobil also lagged the industry group average⁵⁷ in all three years.

V. IEEFA's Principal Analytical Observation on CEO Performance at ExxonMobil

The 2020 proxy statement asserts that ExxonMobil leads its peers on the 10-year average in three of four financial and operational benchmarks. Those measures are identified as Safety and Operations Integrity, which is measured by worker safety; Return on Capital Employed (ROCE); Cash Flow from Operations and Asset Sales (CFOAS); and Total Shareholder Return (TSR). It is clear from ExxonMobil's presentation that it leads on the 10-year average on Worker Safety, CFOAS and ROCE, but not on TSR.

ExxonMobil's statement to its shareholders is technically correct. According to the company's standard, using the 10-year average, ExxonMobil leads its industry competitors in Worker Safety, ROCE and CFOAS. ExxonMobil acknowledges that it lags its competitors on the financial benchmark of TSR.

However, what the company is *not* saying is that its annual performance and leadership position under Woods has nevertheless slipped. The slippage in annual financial performance has driven down its 10-year averages in the critical areas of ROCE and CFOAS. Significant deterioration has occurred in ExxonMobil's

⁵⁴ ExxonMobil. 2018 Executive Compensation Overview. p. 7. The annual TSR for 2017 is shown on the TSR chart for ExxonMobil as a light red highlighted bar and the peers and Industry Group Average are a light grey highlighted bar. None of the annual bars have an express data point. IEEFA researchers estimated the annual TSR amounts.

⁵⁵ ExxonMobil, 2019 Executive Compensation Overview, p. 7. The annual TSR for 2018 is shown on the TSR chart for ExxonMobil as a red hyphenated bar and the peers and Industry Group Average are a light grey hyphenated bar. None of the annual bars have an express data point. IEEFA researchers estimated the annual TSR amounts.

⁵⁶ ExxonMobil, 2020 Proxy Statement. p. 41. The annual TSR for 2019 is shown on the TSR chart for ExxonMobil as a red hyphenated bar and the peers and Industry Group Average are a light grey hyphenated bar. None of the annual bars have an express data point. IEEFA researchers estimated the annual TSR amounts.

performance during a period of general industry decline at a time when some of its competitors have actually improved, and others have managed to stanch deterioration more than ExxonMobil.

ExxonMobil's 10-year averages in most areas continue to lead the industry, but Woods's financial performance is not industry-leading.

In the last three years, ExxonMobil's industry-leading 10-year average Return on Capital Employed (ROCE) has declined from 17.6% in 2017 to 14.1% in 2019, a 19.9% decline. The industry as a whole was experiencing a general decline in profitability and loss of value even before the onset of the coronavirus pandemic. All of ExxonMobil's peers posted losses, but Shell and Total's were respectively 11.9% and 14.2% less than ExxonMobil's losses during the same period. BP and Chevron's losses were greater than ExxonMobil's.

In 2017 and 2018, ExxonMobil led its peers on the annual ROCE. In 2019, the company did not report an annual comparison with its peers. It did report a 6.5% ROCE for itself.⁵⁸ In all three years of Woods's tenure, the ROCE was below ExxonMobil's 10-year average, a factor that accounts for the more general 19.9% overall decline during the period.

On the second financial benchmark analyzed in this report, the 10-year average Cash Flow from Operations and Asset Sales (CFOAS) during Woods's tenure has declined 4.7%, from \$46.7 billion to \$44.5 billion. Three of ExxonMobil's peers—Shell, Total and Chevron—posted gains on this metric, according to ExxonMobil's proxy statement.

In each year of Woods's tenure, ExxonMobil has lagged Shell on the annual CFOAS metric. Shell's average during this three-year period was \$51.0 billion and accounts for a portion of its overall increase in its 10-year average. ExxonMobil's CFOAS averaged \$35.6 billion over three years and accounts for a portion of the decline in the company's 10-year average.

On the third financial benchmark, Total Shareholder Return (TSR), ExxonMobil now clearly lags its competitors on the 10-year average measure and in each year of CEO Woods's tenure. As ExxonMobil states, this measure tracks the company's stock value which is subject to market forces beyond ExxonMobil's control. These market factors effectively discount the ROCE and CFOAS indicators that ExxonMobil chooses to emphasize as its more significant metrics. The ROCE may be a metric that measures ExxonMobil's assessment of how well it is serving its shareholders, but the market price of the stock is an independent measure.

The board of directors has seen fit to increase CEO Woods's total direct compensation in each of the three years of his tenure. That compensation has increased from \$13.9 million in 2017 to \$16.1 million in 2019, a 15.8% increase.⁵⁹ The compensation increases appear to denote that a certain level of leadership has

⁵⁸ Based on IEEFA's research (Appendix II Figure 12) ExxonMobil cannot claim leadership for the 2019 ROCE annual ranking.

⁵⁹ ExxonMobil. 2020 Proxy Statement. p. 50.

been achieved. However, IEEFA finds that there has been substantial deterioration in critical financial benchmarks on which the board assesses the CEO's leadership.

The board has a prerogative to make an all-things-considered judgment regarding the performance of the CEO. The company also is judged in a similar all-things-considered way by its stock price. On January 3, 2017, ExxonMobil stock opened at \$90.94 per share. By December 31, 2019, the stock had declined to \$69.02 per share. Also, in 2019, ExxonMobil fell out of the list of top 10 companies in the Standard & Poor's 500, a position it had occupied since the inception of the index.⁶⁰ The company has also recently been dropped from the Dow Jones Industrial Average (DJIA).⁶¹

This analysis acknowledges the general downward trend in industry profitability as measured by the ROCE (Figure 1). During this difficult period, ExxonMobil's annual ROCE declined from 9.0% in 2017 to 6.5% in 2019.

The company has also lagged its peers on the annual measure of CFOAS in each year of Woods's tenure. Shell has recorded substantially higher numbers than ExxonMobil for this metric. And, as ExxonMobil's annual tallies have declined, two of the smaller companies in the peer group have posted gains on a year-to-year basis.

Finally, ExxonMobil lagged the industry group average on the TSR in each year.

The ExxonMobil board of directors has a choice. It can continue to claim that it has a long-term industry leading performance. But its position is getting more tenuous by the year, and its long-term metrics are suffering for it. This can continue until ExxonMobil lags, not only in the TSR metric but also, eventually, in ROCE and CFOAS. It can continue on this path, or the board can recognize the challenges to its financial health and choose to take action.

⁶⁰ IEEFA. ExxonMobil's Fall from the S&P 500 Top Ten: A Long Time Coming. August 2019.

⁶¹ Barron's, Exxon and Pfizer just got booted from the Dow Jones industrial average here's what's replacing them. August 25, 2020

Appendix I: Progress Toward Strategic Objectives: 2019 Highlights⁶²

ExxonMobil's board of directors summed up its decision on the CEO's 2019 performance:

"2019 CEO pay decisions reflect strong leadership in progressing the Company's strategic objectives and continued industry leadership in 3 of 4 financial and operating performance metrics. This is balanced against lagging TSR performance, and takes account of annual benchmarking given experience in position."⁶³

The board of directors has concluded that Woods's performance has demonstrated "strong leadership," including in the area of progress toward advancing strategic objectives. The board's list of key highlights and its summary judgment supports the "strong leadership" characterization.

The board's position is explained by a one-page series of summary points.⁶⁴ The points cover Upstream, Downstream, Chemical, Environmental and Investment items. In general, the points cover important scientific, technical and engineering achievements. With few exceptions, the highlights emphasize operational accomplishments.

ExxonMobil's achievements in the science, technical and engineering field are longstanding and world-class. Its solid reputation in these areas is richly deserved. While the specific highlights cited are not detailed, IEEFA finds no basis to challenge them.

This analysis, however, is not about operational execution, climate change, environmental policy or law. It is about corporate finance—company profits and shareholder value.

The financial observations below supplement the key highlights section of the 2020 proxy materials. Each point highlights a financial risk facing ExxonMobil:

 ExxonMobil faces the loss of investor confidence. When Woods assumed his leadership role in January 2017, ExxonMobil's stock price was \$90.94 per share.⁶⁵ By December 31, 2019, the price was \$69.02 per share. On September 1, 2020, it opened at less than one-half the 2017 amount, at \$39.76 per share.⁶⁶ In 2019, ExxonMobil also lost its leadership position as part of the top 10 companies in the S&P 500 index.⁶⁷ In the 1980s, the

⁶² ExxonMobil. 2020 Proxy Statement. p. 40.

⁶³ *Ibid.,* p. 43.

⁶⁴ Ibid., p. 40.

⁶⁵ ExxonMobil. Historic Stock Price January 3, 2017 and Historic Stock Price July 23, 2020.

⁶⁶ Google.com, ExxonMobil Stock Price, (last checked September 2, 2020).

⁶⁷ IEEFA. ExxonMobil's Fall from the S&P 500 Top Ten: A Long Time Coming. August 2019.

energy sector represented 28% of the S&P 500.⁶⁸ Today, the energy sector commands less than a tenth of that amount—only 2.6% of the index.⁶⁹

- ExxonMobil is facing deterioration in its long-term financial fundamentals. IEEFA published its first report on ExxonMobil in October 2016.⁷⁰ It examined selected financial data from the company, surveyed a number of key initiatives and posed a series of questions to investors about the company's red flags, noting the deterioration of Exxon's financial metrics.
- 3. ExxonMobil's reserve levels have become a point of constant controversy, starting with tar sands holdings in 2016 and extending through the present. New development in the Canadian sands is all but frozen due to weak market conditions. IEEFA published a number of analyses on Canadian oil sands development,^{71,72} a topic that was central to the material risks identified in IEEFA's October 2016 ExxonMobil report. These reports and the recent cancellation of Teck Resources' proposed Frontier oil sands mining project remain stubborn facts that raise questions about the validity of ExxonMobil's claim that its 3.5 billion barrels of oil sands reserves are economically extractable.⁷³

In February 2017, early in Woods's tenure, ExxonMobil de-booked 3.5 billion barrels of its oil sands reserves.^{74,75} ExxonMobil's disclosure at the time suggested that the reserves would be rebooked. The company rebooked the assets with the release of their 2018 annual filing in February 2019.⁷⁶ After several years of oil company sell-offs in the region, in August 2019, Koch Brothers announced the sale of its oil sands assets for an undisclosed price.^{77,78} ExxonMobil raised investor concerns with its failure to declare any impairments in its Q2 2020 filing at a time when most of the companies in the industry were doing so.⁷⁹ Recent objections focus on the size and value of the company's shale oil and other holdings.⁸⁰ The company

⁶⁸ Sibilis Research. S&P 500/Sector Weightings. December 31, 1980. (Proprietary Research behind paywall).

⁶⁹ S&P 500, Documents/Factsheet/S&P Factsheet (CNH), August 31, 2020.

⁷⁰ IEEFA. Red Flags on ExxonMobil: A Note to Institutional Investors. October 2016.

⁷¹ IEEFA and Oil Change International. Material Risks: How Public Accountability is Slowing Tar Sands Development. October 2014.

 ⁷² IEEFA. Teck Resources: Rough Road on Oil Sands Investments. April 2015. See also IEEFA. Teck Resources' Frontier Oil Sands Project Shows Reckless Disregard for Financials. January 2020.
 ⁷³ ExxonMobil. 2019 Form 10-K, p. 6.

⁷⁴ Ibid.

⁷⁵ Financial Times. ExxonMobil forced to make cuts to reported oil and gas reserves. February 22, 2017.

⁷⁶ IEEFA. ExxonMobil's Prodigal Reserves Return: Company Rebooks 3.2 Billion Barrels of Previously De-Booked Canadian Oil Sands Reserves. March 2019.

⁷⁷ Globe and Mail. Koch Industries sells its oil-sands properties to Paramount. August 14, 2019.

⁷⁸ Environmental Defence. Seven oil multinationals that are pulling out of Canada's tar sands. March 14, 2017.

⁷⁹ S&P Global. More Q2 impairments to come for oil majors; Exxon could be next. July 8, 2020.

⁸⁰ Wall Street Journal. ExxonMobil resists write-downs as oil, gas prices plummet. June 30, 2020.

has broadly acknowledged the potential for a 20 percent write-down in its reserves in 2020 if low prices continue through the second half of the year.⁸¹

- 4. The viability of ExxonMobil's foray into Vaca Muerta in Argentina also is uncertain.⁸² IEEFA has published a number of reports and commentaries on Argentinian oil and gas development in Vaca Muerta, a region where ExxonMobil has initiated a modest play.⁸³ The financial prospects of Vaca Muerta for the government of Argentina, ExxonMobil and the host of international companies invested in the basin are weak, at best.
- 5. ExxonMobil's heavy investment in the Permian Basin has yet to perform to expectation. IEEFA has published a number of reports and analyses on oil and gas development in the Permian Basin, including one directly related to ExxonMobil's performance and future prospects and two related to current market issues in the basin.^{84,85} IEEFA published a commentary related to a change instituted by the then-newly appointed CEO Darren Woods regarding the strategic significance of the Permian Basin.⁸⁶ In early 2017, Woods announced that the Permian would be among ExxonMobil's short-cycle cash generators over the next three years. By late 2019, the company had abandoned this quick-cash scenario, and an announcement was made that the Permian Basin was going to be a long-term investment with no precise revenue projections or timeframes. IEEFA noted that the cash had not materialized during the period set out by Woods in his March 2017 announcement. The company has acknowledged a downward revision in its unconventional reserves of 1 billion barrels in 2020 filings.⁸⁷
- 6. ExxonMobil also considers the development of its Guyanese reserves to be a key project in the coming years.⁸⁸ The company is leading a joint venture with Hess and the Chinese National Offshore Oil Corporation (CNOOC). The exploration and development are designed to boost the revenue outlook for the joint venture companies and the government of Guyana. The project, however, faces environmental litigation,⁸⁹ an unresolved flaring issue,⁹⁰ and concerns expressed by a newly elected administration regarding expansion

⁸¹ ExxonMobil. Form 10-Q Second Quarter 2020. August 5, 2020, p. 21.

⁸² IEEFA. Pandemic, price collapse may be final straw that sends Argentina's ailing "Dead Cow" to slaughter. June 24, 2020.

⁸³ IEEFA. Financial Risks Cloud Development of Argentina's Vaca Muerta Oil and Gas Reserves. March 2019.

 ⁸⁴ IEEFA. ExxonMobil abandons goal of "quick cash" from Permian fracking. November 13, 2019.
 ⁸⁵ IEEFA. Flaring Burns Texas Economy. June 2020. Also see: IEEFA. Comments to the Texas Railroad Commission. April 14, 2020.

⁸⁶ IEEFA. ExxonMobil abandons goal of "quick cash" from Permian fracking. November 13, 2019.

⁸⁷ ExxonMobil. Form 10-Q Second Quarter 2020. August 5, 2020, p. 20.

⁸⁸ ExxonMobil. ExxonMobil 2020 Investor Day. March 5, 2020.

⁸⁹ Kaiteurnewsonline. RamonGaskin says CJUS Ruling on Oil Producing Licenses unjustifiable disproportionate. February 2, 2020. And Kaiternewsonline. EPA sued for breaking law to grant permits to oil company. August 29, 2020.

⁹⁰ Stabroeknews.com. ExxonMobil continuing to flare 12-15m cubic feet per day – EPA. August 21, 2020.

of drilling and production on the Payara phase of the plan.⁹¹ ExxonMobil has warned that delays on the Payara phase will cause a material change from its planned production schedule and could result in a decline in value from the project for Guyana.^{92,93} ExxonMobil planned to have the flaring issue resolved by mid-August and the government initially promised a resolution on Payara by end of August. Both issues were unresolved in early September 2020.

- 7. Various statements by large oil concerns that they will be able to acquire smaller, independent producers in the U.S. to rationalize the markets are uncertain.⁹⁴ IEEFA's reports on the independent producers identify weak cash flow trends in most of the 33 companies monitored.⁹⁵ No compelling rationale has been advanced by large oil majors like ExxonMobil to justify these prospective investments.
- 8. ExxonMobil's growth agenda includes an aggressive set of investments in the petrochemical sector.⁹⁶ The strategy of adding more investment in the petrochemical sector to bolster oil and gas company outlooks is producing lower returns than initially planned for the industry. IEEFA has published two recent studies on the outlook for specific petrochemical investments in the U.S., using pre-pandemic financial assumptions.⁹⁷ The key findings in these reports are that oil and gas interests that are increasing capital expenditure allocations to petrochemical investments do so in an environment of declining returns, an oversupplied market, and a slow-growth outlook. ExxonMobil faces the same set of risks.

The above risk factors cover a few critical investment projects undertaken by ExxonMobil and identify significant problems related to the company's financial underperformance. Several IEEFA reports identified above also place ExxonMobil's weak financial performance against the backdrop of overall energy industry and broader market trends.

⁹¹ Argus Media. Guyana Poised to Clear ExxonMobil's Payara Project. August 2020.

⁹² Stabroeknews.com. ExxonMobil still holding out for speedy approval of Payara Project. August 13, 2020.

⁹³ ExxonMobil. ExxonMobil begins oil production in Guyana. December 20, 2019.

⁹⁴ IEEFA. Fracking companies' 2019 performance signals ongoing crisis. March 19, 2020.

⁹⁵ IEEFA. Red Flags on U.S. Fracking: Disappointing Financial Performance Continues. October 2018.

⁹⁶ Business Wire. ExxonMobil Outlines Aggressive Growth Plans to More than Double Earnings. March 7, 2018. The company continues to present a robust picture of its petrochemical opportunities. Also see: ExxonMobil. Investor Day 2020. March 2020. Also: ExxonMobil's proxy materials include reference to strategic achievements in this area in 2019. ExxonMobil. 2020 Proxy Statement, p. 40.

⁹⁷ IEEFA. Financial risks loom for Shell's Pennsylvania petrochemicals complex. June 4, 2020. Also see: IEEFA. Proposed PTTGC Petrochemical Complex in Ohio Faces Risks. March 2020.

Appendix II: Methodological Anomalies with the Performance Metric, ROCE, Used by ExxonMobil in its Proxy Materials and Executive Compensation Materials

I. Introduction

The Return on Capital Employed (ROCE) measure was championed by ExxonMobil to explain its capital productivity to investors and the public with one presumably simple metric.⁹⁸ Applied consistently, the metric is the principal measure of ExxonMobil's long-term capital investment and serves as part of the key financial data prominently reported by the company in its annual summary and investment day presentations.^{99,100}

Company management, most notably during the 1993-2005 tenure of Lee Raymond,¹⁰¹ tried to establish the metric as a measure for other oil and gas companies. ExxonMobil's annual proxy disclosures take the metric one step further and compare ExxonMobil to its peer-competitor group—Chevron, Total, BP and Shell.

ExxonMobil compares itself to its peers based on its own definition of how it judges itself. Each of the peer-group companies provides an annual ROCE-like metric in company filings and reports to shareholders.¹⁰² ExxonMobil controls for the differences in definition by applying its *own* definition of ROCE to calculate ROCE for its peers. As a result, peer group companies reported data for their respective annual ROCE that is different from the figures attributed to the company by ExxonMobil in its disclosures.

Stated another way, if an investor decided to check whether ExxonMobil's portrayal of the annual ROCE of its peer-competitors agreed with what each company reported about its own ROCE, the investor would find unexplained variances. ExxonMobil alludes to its methodological judgments in a footnote (see below), but one could easily mistake ExxonMobil's portrayal of peer-company ROCE reports for those provided by the companies. They are not the same, making it significantly more difficult to judge the accuracy of company claims about its financial performance.

⁹⁸ Steve Coll. *Private Empire: ExxonMobil and American Power.* 2012, pp. 49-51.
⁹⁹ ExxonMobil. 2019 Summary Annual Report. p. 2.

¹⁰⁰ ExxonMobil. Investor Day Presentations 2017, 2018, 2019 and 2020.

¹⁰¹ ExxonMobil management emphasized ROCE, since 1987. See: Steve Coll. *Private Empire: ExxonMobil and American Power.* 2012, pp. 49-51. Also, Lee Raymond, Exxon's former chairman and CEO, served from 1993-2005.

¹⁰² The term "ROCE-like" is a term used in this report by IEEFA to refer to the ROCE methodologies deployed by peer group companies and adjusted by ExxonMobil for the purposes of its disclosure documents.

An investor would also not find a 10-year ROCE average among the peer-company reporting. This, too, is created by ExxonMobil for presentation materials destined for its shareholders.

The following analysis explores the variances and the materiality of those variances when assessing Woods's performance and the closely related issue of ExxonMobil's profitability.

II. ExxonMobil Comparison With Its Peers—Significant Variances Emerge Between ExxonMobil's Adjustments To Peer Group and Individual Company Peer Group Reporting of ROCE

As a result of the research conducted for this analysis, IEEFA learned that ExxonMobil has adjusted the definition of ROCE used by its peers to afford what it deems an apples-to-apples comparison with ExxonMobil's own standard for the metric.

Each individual company has created its own internal, working definition that it consistently applies on an annual basis. (None of the peer companies disclose a 10-year rolling average for ROCE as part of their company proxy materials).

Each company has adopted a ROCE standard, but there is *no* uniform standard for this financial metric, raising questions about the usefulness of claims based on intercompany comparisons of ROCE. A uniform standard would afford the type of market comparisons that form the basis of federally regulated financial data supplied to the U.S. Securities and Exchange Commission (SEC) and other nationally recognized securities regulators in financial statements, such as 10-Ks and 20-Fs.

ExxonMobil has applied its definition of ROCE to the public filings of BP, Total, Shell and Chevron to control for the differences.¹⁰³ The adjustments made by ExxonMobil to each peer's filings purportedly yield an apples-to-apples comparison regarding the ROCE metric.

ExxonMobil assures shareholders in a footnote in its proxy materials that "Competitor data estimated on a consistent basis with ExxonMobil and based on public information."¹⁰⁴ Other than this footnote, there is no disclosure to investors that makes clear that the ROCE figures used by ExxonMobil for the peer companies are a result of adjustments made by ExxonMobil and do not reflect the disclosures of

¹⁰³ The annual ROCE adjustments for 2017 and 2018 are presented on a graph in the executive compensation section of the proxy materials. The annual performance level is presented as a hyphenated or lightly defined bar as compared to the fully coloured 10- year average which is the basis of the formal executive compensation calculation. The annual performance level data is not presented but readers are given a sense of the actual number for the year. IEEFA has estimated that number based on a close read of the graphs.

¹⁰⁴ ExxonMobil. 2020 Proxy Statement. p. 49.

the company identified.¹⁰⁵

IEEFA's researchers set out to test the relationship between the annual and 10-year rolling average data reported in peer company public information and ExxonMobil's own ROCE estimates based upon those public filings.

1. Comparison of Peer Group Company Reported 10-Year ROCE Average and ExxonMobil's Estimates

IEEFA researchers developed Table I by reviewing ExxonMobil's annual statements and those of peer companies for reported annual ROCE levels from 2009. IEEFA researchers constructed a simple average of each company for the 10-year period. The data for ExxonMobil in IEEFA's calculation was the same as the companyreported data (see Figure 8).

IEEFA researchers then compared ExxonMobil's adjusted 2019 10-year average ROCE data contained in its 2020 proxy statement with the IEEFA simple average for each company. Figure 8 notes the variances that ranged from a low 1.0% (Chevron) to a high of 52% (BP). The variance is expressed as the percent adjustment between the peer company's disclosure and ExxonMobil's adjustment. For example, Total's disclosures show a 10-year average of 12%, but ExxonMobil's data shows 7.8%. ExxonMobil has adjusted Total's ROCE by 4.2%, a variance of 35%.

Figure 8: Comparison of ExxonMobil Adjusted and Company Reported 2019 ROCE 10-Year Average (IEEFA Simple Average, 2009-2019)¹⁰⁶

Company	Company Reported	ExxonMobil Adjusted	Variance
ExxonMobil	14.12%	14.12%	0%
Chevron	10.0%	9.9%	1.0%
Total	12.0%	7.8%	35%
Shell	8.4%	8.1%	3.6%
ВР	10.0%	4.8%	52%

ExxonMobil represents in its 2020 proxy materials that in 2019, its 10-year average for the ROCE metric with adjustments to peer company data is industry-leading. Figure 8 shows the following:

- ExxonMobil's 2019 10-year ROCE performance was 14.12% and leads its peers without ExxonMobil's adjustments.
- ExxonMobil's adjustments widen the perceived gap between ExxonMobil's

¹⁰⁵ IEEFA wrote to BP, Shell, Chevron and Total. Shell took no position on ExxonMobil's adjustments and provided additional information on how best to understand their calculations. (See the full text of IEEFA's letters to ExxonMobil and its peers).

¹⁰⁶ See Appendix V: Simple Average of Company Reported ROCE Data 2010-2019.

leadership position and its lagging peers.

2. Comparison of Peer Group Company and ExxonMobil Adjusted Reporting of 2017, 2018 and 2019 Annual ROCE Performance

The following Figures (9, 10, 11, 12) compare the as-reported ROCE-like disclosures of ExxonMobil's peers with ExxonMobil's adjustment to the one-year, annual ROCE statement for 2017, 2018 and 2019. Figure 10 provides a direct link to each of the company reported data included in Figures 9, 10 and 11.

3. ROCE 2017 Comparison

Figure 9: Comparison Peer Group Company Annual ROCE Reporting to ExxonMobil Adjustments for 2017

Year	Data Source	ХОМ	CVX	тот	RDS	BP
2017	Company Calculations	9.0%	5.0%	9.4%	5.8%	5.8%
2017	XOM Calculations	9.0%	5.0%	6.0%	5.0%	2.5%

Figure 10: Links to Company Pages for 2017, 2018 and 2019 ROCE Reporting

CVX	тот	RDS	ВР
Page 41 ¹⁰⁷	Page 23 ¹⁰⁸	Page 18 ¹⁰⁹	Page 345/349 ¹¹⁰
CVX 2019	TOT 2019 AR	RDS 2019 AR	BP 2019 AR

In 2017 ExxonMobil adjusted annual ROCE company-reported data in three of the four companies in the peer group. The net effect of Total's adjustment moved ExxonMobil from laggard to leadership status.

4. ROCE 2018 Comparison

Figure 11: Comparison Peer Group Company ROCE Reporting to ExxonMobil Adjustments for 2018

Year	Data Source	ХОМ	CVX	тот	RDS	BP
2018	Company Calculations	9.2%	8.2%	11.8%	9.4%	11.2%
2018	XOM Calculations	9.2%	8.0%	8.0%	9.0%	6.0%

¹⁰⁷ Chevron refers to the metric as Return on Average Capital Employed on page 41 of its 2019 Annual Report. (See Figure 11).

¹⁰⁸ Total refers to the metric as Return on Average Capital Employed (ROACE) on page 23 of 2019 Universal Registration Document. (See Figure 11).

¹⁰⁹ Shell refers to the metric as Return on Average Capital Employed (ROACE) on page 24 of 2019 Form 20-F. (See Figure 11).

¹¹⁰ BP refers to the metric as Return on Average Capital Employed (ROACE) on page 345 of 2019 Form 20-F. (See Figure 11).

In 2018, ExxonMobil made adjustments to each peer group company's annual ROCE filing. The variances ranged from 0.2% (Chevron) to 5.2% (BP).

The net effect of the adjustments made to Total, Shell and BP moved ExxonMobil from laggard to leader status.

5. ROCE 2019 Comparison

ExxonMobil did not provide annual ROCE data for its competitors in its 2020 review of executive compensation, so the data from Woods's tenure in the body of this report is limited to 2017 and 2018.

IEEFA researchers reconstructed the 2019 annual ROCE reporting for the peer companies and ExxonMobil. ExxonMobil's reporting on annual ROCE was found in its 2019 Annual Financial Summary, which was incorporated by reference in the 2020 proxy statement.¹¹¹

Figure 12: Comparison of Peer Group Company Annual ROCE Reporting and ExxonMobil for 2019 and IEEFA's Adjustments

Year	Source	ExxonMobil	Chevron	Total	Shell	BP
2019	Company	6.5%	2.0%	9.8%	6.7%	8.9%
2019	10-Year Average – Variance ¹¹²		1.0%	35%	3.5%	52%
2019	IEEFA-Adjusted	6.5%	1.98%	6.37%	6.47%	4.3%

IEEFA obtained the annual ROCE data for peer companies from their annual filings (see Figure 10). To establish a 2019 ROCE annual performance number that would resemble ExxonMobil's historical adjustments, IEEFA researchers used the historical variances that were derived from the differences in the 10-year average (see Figure 8).

Based on IEEFA's adjusted ROCE for 2019, it appears that ExxonMobil's leadership would be shared with Shell, with Total only marginally lower.

6. IEEFA's Conclusion From This Level of Analysis and Additional Phase of Research

IEEFA's researchers found:

• With or without ExxonMobil's adjustments, the company's 2019 10-year average ROCE still leads its competitors. The adjustments increase the gap and improve ExxonMobil's leadership position in relation to its peers.

¹¹¹ ExxonMobil. 2020 Proxy Statement, Cover Letter. April 9, 2020.

¹¹² See Figure 8 Variance, Comparison of ExxonMobil Adjusted and Company Reported 2019 ROCE 10-Year Average (IEEFA Simple Average, 2009-2019).

- The annual ROCE data under Woods's tenure shows that these adjustments have a substantial impact on the leader/laggard standard. Based on the 2017 and 2018 annual ROCE data, the ExxonMobil adjustments show particularly wide variation with Total and BP's ROCE disclosures. ExxonMobil's adjustments effectively reduced BP and Total's reported ROCE data by an estimated 52% and 35%. In both instances, the adjustments moved the leader/laggard measurement for ExxonMobil from laggard to leader.
- In 2019, ExxonMobil changed its reporting protocol and did not report 2019 annual ROCE data for peer group companies. IEEFA researchers reconstructed the data and conclude that with or without ExxonMobil's adjustments, the company was either a laggard (without adjustments) or shared leadership with Shell (with historically comparable adjustments)

IEEFA researchers selected Total as the first candidate for a deeper analysis of the variances, using public financial data to attempt to account for the variations. After reviewing Total's detailed disclosures that form the basis of Total's ROCE presentation, IEEFA concluded that it could not determine from the publicly available information what adjustments ExxonMobil made to either or both of Total's average capital employed or adjusted net operating income disclosures, the two financial metrics required to calculate ROCE.¹¹³

IEEFA's researchers decided to contact ExxonMobil for further clarification regarding their use of the public information in the four peer group company filings to adjust for the final numbers ExxonMobil presented to its shareholders and the public in its proxy materials. The company responded to the letter, directing IEEFA to its definitions of ROCE, but did not clarify how it calculated the ROCE of its peers.¹¹⁴

7. Conclusion

ExxonMobil is likely to have sound accounting reasons for making its adjustments to the ROCE calculations of its peers. It should explain them and let investors decide for themselves whether its comparisons about the respective profitability of each company are valid.

With or without the adjustments, ExxonMobil continues to lead on the 10-year ROCE average, the critical measure of company performance.

With the adjustments, Woods appears to have guided ExxonMobil to additional years of industry-leading ROCE performance, albeit with considerable diminution to ExxonMobil's ROCE in each of the three years of his tenure.

During the first two years of Woods's tenure, ExxonMobil would lag its peers without the adjustments to the peer group for the 2018 and 2017 ROCE annual

¹¹³ Total. Universal Registration Document 2019 Including the Annual Financial Report. pp. 296-302.

¹¹⁴ See the full text of IEEFA's letters to ExxonMobil and the company response.

reports. During 2019, Woods's third year, ExxonMobil may have reported that it no longer held a clear leadership position, absent the change in reporting protocols for the ROCE metric.

Appendix III: Methodological Anomalies With the Performance Metrics, CFOAS, Used by ExxonMobil in Proxy Materials and Executive Compensation Materials

I. Introduction: Cash Flow from Operations and Asset Sales (CFOAS)

As with the ROCE metric, ExxonMobil has apparently compiled from publicly reported data of its peer group comparative equivalents for Cash Flow from Operations and Asset Sales (CFOAS).

To develop Table I IEEFA first concluded that none of the peer companies reports a CFOAS combined figure. The CFOAS is used by ExxonMobil exclusively to judge itself, and the company applies this measure when making comparisons to its peers.

IEEFA researchers derived an annual Cash Flow from Operations and Asset Sales presentation for each company from their respective financial filings. The categories transferred from those filings and the values assigned to them by each company comprise the "Total" row in Table 6. IEEFA then compiled a 10-year rolling average of CFOAS for each peer company. This is recorded in Table I as the 10-year average "Company Reported Data." IEEFA researchers then compared this 10-year rolling average with ExxonMobil's 10-year rolling average. This is reported in Table I as the 10-year average ExxonMobil calculation.

Table 1: Comparison of ExxonMobil and Peers: Annual and 10-Year CashFlow From Operations and Asset Sales Metric 2010-2019¹¹⁵

Company Accounting	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
in millions of dollars	2010	2011	2012	2015	2014	2015	2010	2017	2018	2019
хом										
Net cash provided by operating activities	48,413	55,345	56,170	44,914	45,116	30,344	22,082	30,066	36,014	29,710
Proceeds associated with sales of subsidiaries,	3,261	11,133	7,655	2,707	4,035	2,389	4,275	3,103	4,123	3,69
property, plant and equipment, and sales and										
returns of investments										
Total	51,674	66,478	63,825	47,621	49,151	32,733	26,357	33,169	40,137	33,408
10-year average Company Reported Data	43,223	47,475	51,451	53,134	53,719	51,575	48,974	46,670	44,113	44,455
cvx										
Net cash provided by operating activities	31,354	41,095	38,812	35,002	31,475	19,456	12,690	20,338	30,618	27,314
Proceeds and deposits related to asset sales and	1,995	3,517	2,777	1,143	5,729	5,739	3,476	5,096	2,392	2,95
returns of investment										
Total	33,349	44,612	41,589	36,145	37,204	25,195	16,166	25,434	33,010	30,265
10-year average Company Reported Data	21,866	25,150	28,081	30,353	32,237	32,478	31,564	31,275	31,464	32,29
10-year average ExxonMobil calculation								31,300	31,400	32,50
RDS										
Cash flow from operating activities	27,350	36,771	46,140	40,440	45,044	29,810	20,615	35,650	53,085	42,178
Proceeds from sale of property, plant and	3,325	6,990	6,346	1,212	9,873	4,720	2,072	8,808	4,366	4,803
equipment and businesses								-		
Proceeds from sale of joint ventures and	3,591	468	698	538	4,163	276	1,564	2,177	1,594	2,59
associates										
Total	34,266	44,229	53,184	42,190	59,080	34,806	24,251	46,635	59,045	49,580
10-year average Company Reported Data				39,639	42,248	42,055	41,121	41,380	42,213	44,72
10-year average ExxonMobil calculation								40,200	41,200	43,50
BP										
Net cash provided by operating activities	13,616	22,218	20,479	21,100	32,754	19,133	10,691	18,931	22,873	25,770
Proceeds from disposals of fixed assets	7,492	3,504	9,992	18,115	1,820	1,066	1,372	2,936	940	500
Proceeds from disposals of businesses, net of cash disposed	9,462	-663	1,606	3,884	1,671	1,726	1,259	478	1,911	1,70
Total	30,570	25,059	32,077	43,099	36,245	21,925	13,322	22,345	25,724	27,97
10-year average Company Reported Data	,	,	30,945	32,989	33,779	32,180	30,069	29,406	28,076	27,834
10-year average ExxonMobil calculation				,		,		29,500	28,200	27,90
тот										
CASH FLOW FROM OPERATING ACTIVITIES	24,516	27,194	28,858	28,513	25,608	19,946	16,521	22,319	24,703	24,68
Proceeds from disposals of intangible assets and	2,034	2,003	1,822	1,766	3,442	2,623	1,462	1,036	3,716	52
property, plant and equipment	_,+	_,000	_,	_,	_,	_,=25	_,	_,	_,, _0	
Proceeds from disposals of subsidiaries, net of	411	800	452	2,654	136	2,508	270	2,909	12	15
cash sold				,		,		, .		
Total	26,961	29,997	31,132	32,933	29,186	25,077	18,253	26,264	28,431	25,37
10-year average Company Reported Data		-	-	22,544	24,023	24,604	26,375	26,500	26,567	27,36
10-year average ExxonMobil calculation								28,600	28,600	29,100

The ExxonMobil calculation varied from company reported data using IEEFA's categories to capture a comparable CFOAS. IEEFA researchers wrote to ExxonMobil for an explanation of the variances. The company responded to this request by

¹¹⁵ In 2017, ExxonMobil changed its metric from Free Cash Flow (FCF) to Cash Flow from Operating Activities and Asset Sales (CFOAS). No other peer company uses the CFOAS metric for either annual or 10-year comparisons. The categories used under company accounting represent IEEFA's best estimation using ExxonMobil's CFOAS definition. Also see: ExxonMobil. 2019 Summary Annual Report. p. 50.

directing IEEFA to its definitions of CFOAS but did not detail how it calculated the CFOAS of its peers.¹¹⁶

IEEFA's researchers make the following observations:

- 1. ExxonMobil has held a clear leadership position in the CFOAS 10-year average for every year in the last decade.
- 2. It is unlikely that the company currently holds the leadership position in the 10-year CFOAS as of 2019. Shell has posted three strong years of CFOAS, from 2017-2019,¹¹⁷ driving up its 10-year average. ExxonMobil, by contrast, has seen three weak years where its annual totals are well below the 10-year average.
- 3. IEEFA's researchers suggest that Shell has a slight edge over ExxonMobil (see Table I). ExxonMobil therefore does not have a clear claim to leadership on this metric.

¹¹⁶ See the full text of IEEFA's letters to ExxonMobil and the company response.

¹¹⁷ In 2019, ExxonMobil's chart for CFOAS provides an annual CFOAS by IEEFA's estimation of \$45.0 billion. (See description and Table I in Section III on annual CFOAS). IEEFA researchers compared this with Shell's own representation of its 2019 CFOAS, which was \$49.5 billion. For 2018 and 2017, when IEEFA researchers compared ExxonMobil estimates from its Proxy Materials to Shell's own disclosures of its CFOAS, the numbers were comparable. This wide variation suggests a change in method in the 2019 ExxonMobil disclosure.

Appendix IV: Copy of Actual 10-Year ROCE Bar Chart Graphic Provided by ExxonMobil in Its Annual Proxy Materials, 2017-2019

Figure 13: 2017 Return on Capital Employed ExxonMobil Versus Peers¹¹⁸



Figure 14: 2018 Return on Capital Employed ExxonMobil Versus Peers¹¹⁹



Figure 15: 2019 Return on Capital Employed ExxonMobil Versus Peers¹²⁰



¹¹⁸ ExxonMobil. 2018 Executive Compensation Overview. p. 6.

¹¹⁹ ExxonMobil. 2019 Executive Compensation Overview. p. 6.

¹²⁰ ExxonMobil. 2020 Proxy Statement. p. 41.

Note: Unlike the 2017 and 2018 charts, the 2019 chart does not contain the annual ROCE average.

Appendix V: Simple Average of Company Reported ROCE Data 2010-2019

Table 2: Simple 10-Year Average of Company Reported ROCE Data (2010through 2019)

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10-year Average
XOM	21.7	24.2	25.4	17.2	16.2	7.9	3.9	9	9.2	6.5	14.12
CVX	17.4	21.6	18.7	13.5	10.9	2.5	0.1	5.0	8.2	2.0	10.0
тот	16	16	16	13	11.1	9.4	7.5	9.4	11.8	9.8	12.0
RDS	11.5	16.6	13.6	7.9	7.1	1.9	3.0	5.8	9.4	6.7	8.4
BP	16.4	16.3	13.4	10.2	9.6	5.5	2.8	5.8	11.2	8.9	10.0

Table 3: Sources and Links

Source	Link					
XOM	AR 2019, page no 41/136 (2019, 2018, 2017)					
	AR 2016, page no 42/136 - (2016, 2015, 2014)					
	AR 2013, page number 38/ (2013, 2012					
	<u>AR 2011, p. 39 (2011, 2010)</u>					
CVX	AR 2019, page no.33/100 - (2019, 2018, 2017)					
	AR 2016, page no.9/92 - (2016, 2015, 2014)					
	AR 2013, page no.6/88 - (2013, 2012)					
	Downloaded from this source - (2011, 2010)					
RDS	AR 2019, page no.284/316 - (2019, 2018, 2017)					
	AR 2016, page no.198/228 - (2016, 2015, 2014)					
	AR 2013, page no.53/200 - (2013, 2012, 2011)					
	AR 2012, page no.47/192 - (2010)					
тот	Registration Doc 2019 page no.25/486 - (2019,2018,2017)					
	Registration Doc 2016 page no.59/388 - (2016,2015,2014)					
	Registration Doc 2013 page no.65/392 - (2013,2012,2011)					
	Registration Doc 2012 page no.63/374 - (2010)					
BP	AR & Form 20F 2019, page no.347/352 - (2019 - 2015)					
	Annual Report 2016, page no.289/294 - (2014 - 2012)					
	Financial and Operational Information 2011, page no.33/96 - (2011,2010)					

Appendix VI: IEEFA Analyses of the Oil & Gas Sector (2014-Present)

Reports

- The Narrabri Gas Project Supplementary Submission to the Independent Planning Commission, September 2020.
- Pandemic Accelerates Dismal Financial Performance of U.S. Fracking Companies, September 2020.
- Despite Capex Cuts, Appalachian Frackers Report Negative Free Cash Flow in Second Quarter 2020, September 2020.
- Reviewing Key Proposals by the COVID-19 Advisory Board To Subsidise the Gas Industry: The Government Is Attempting To Pick Winners but Has Chosen a Loser, August 2020.
- Major Oil Companies' Ongoing Struggle to Pay Shareholders Out of Cash Flows from Operations Accelerates in Dismal Second Quarter, August 2020.
- No Upside: The U.S. LNG Buildout Faces Price Resistance from China, July 2020.
- Vaca Muerta Update: Faltering Development Plans for Argentina's Shale Reserves Will Accelerate Without Foreign Investment, June 2020.
- Is Puerto Rico's Energy Future Rigged? Examining the New \$1.5 billion Fortress-PREPA Deal, June 2020.
- Cuts in Capex and Cash from Hedging Give Appalachian Frackers Positive Free Cash Flow in First Quarter, June 2020.
- Flaring Burns Texas Economy: Commission's Failure to Stop Waste Runs Risk of Letting the State's Financial Future Go Off the Rails, June 2020.
- Shell's Pennsylvania Petrochemical Complex: Financial Risks and a Weak Outlook, June 2020.
- Gas Cannot Stimulate the Economy, Reduce Emissions, or Provide Cheap Power, June 2020.
- In Q1, Four of Five Oil Majors Paid More Cash than They Made from Operations, May 2020.
- Proposed NESE Gas Pipeline in New York: A Bad Bargain for Ratepayers and Taxpayers, April 2020.
- The Australian LNG Industry's Growth and the Decline in Greenhouse Gas Emissions Standards, April 2020.
- IEEFA Comments to the Texas Railroad Commission, April 2020.
- Beyond Their Means: Oil Majors Pay More to Shareholders Than They Earn by Selling Oil and Gas, April 2020.
- ExxonMobil's Planned Assets Sales: Another Strategic Misstep, April 2020.
- Santos' Accounts Are Not "True and Fair", Oil Price Assumptions Are Too High, March 2020.
- In Extremis: Crisis Mounts for Appalachian Shale Producers, March 2020.
- Proposed PTTGC Petrochemical Complex in Ohio Faces Significant Risks, March 2020.
- Shale Producers Spilled \$2.1 Billion in Red Ink Last Year, March 2020.
- Is the Gas Industry Facing its Volkswagen Moment? Gas Is More Emissions Intensive Than the Gas Industry's Marketing Arm Suggests, March 2020.

- Oil Majors' Shrinking Capital Expenditures (Capex) Signal a Mature Industry in Decline, February 2020.
- Norden is Leading the World on Fossil Fuel Divestment, February 2020.
- Santos Racked Up Nearly \$7bn in Unconventional Gas and LNG Losses in 5 Years, February 2020.
- California Schemin': California Resources Corporation's Financial Distress Raises Questions About Cleanup, February 2020.
- Bankruptcies in Fracking Sector Mount in 2019, January 2020.
- Living Beyond Their Means: Cash Flows of Five Oil Majors Can't Cover Dividends, Buybacks, January 2020.
- Teck Resources' Frontier Oil Sands Project Shows Reckless Disregard for Financials, January 2020.
- Oil and Gas Production in Argentina's Vaca Muerta Awaits Direction from New President, December 2019.
- Cleaned Out by Bankruptcy: A Primer on Environmental Cleanup Duties in Bankruptcy, December 2019.
- Mounting Negative Cash Flows Highlight Struggles of Appalachian Fracked Gas Producers, November 2019.
- Trans Mountain Pipeline Financials Suggest Taxpayer Dollars at Risk, November 2019.
- U.S. Fracking Sector Spills More Red Ink—Again, November 2019.
- Letter to the Legislative Assembly Regarding Restructuring Agreement for PREPA, October 2019.
- Political and Economic Crisis Throws Argentina's Energy Market into Disarray, October 2019.
- GE's Q3 Loss, Write-off Likely to be \$9+Billion, October 2019.
- Political and Economic Crisis Throws Argentina's Energy Market into Disarray, October 2019.
- GE's \$7.4 Billion Loss, Write-off on Baker Hughes: Another Bad Bet on Fossil Fuels, October 2019.
- Bombing Saudi Oilfields: The Risk to Collective Action on Climate Change from State-Owned Oil Interests, September 2019.
- A Silver Lining in Argentina's Financial Crisis An Opportunity to Rethink its Energy Plan, September 2019.
- U.S. Fracking Sector Disappoints Yet Again, August 2019.
- Exxon Mobil's Q2 2019 Earnings: Eleven Facts the Company Would Like Investors to Forget, August 2019.
- Inaction is BlackRock's Biggest Risk During the Energy Transition: Still Lagging in Sustainable Investing Leadership, August 2019.
- Risks to Fracking Companies in Appalachia Mount, July 2019.
- Towards a Domestic Gas Reservation in Australia, July 2019.
- General Electric Misread the Energy Transition: A Cautionary Tale, June 2019.
- Red Ink Keeps Flowing for U.S. Fracking Sector, June 2019.
- Massive Gas Subsidy Will Further Gas Cartel Profits at Australian Gas Consumers' Expense, April 2019.

- Testimony by Tom Sanzillo, U.S. House Natural Resources Committee hearing on The Status of the Rebuilding and Privatization of the Puerto Rico Electric Power Authority (PREPA)," April 2019.
- Trans Mountain Pipeline Financials: Built on Quicksand and Clear as Mud, April 2019.
- ExxonMobil's Prodigal Reserves Return: Company Rebooks 3.2 Billion Barrels, March 2019.
- Financial Risks Cloud Development of Argentina's Vaca Muerta Oil and Gas Reserve, March 2019.
- More Red Flags on Fracking: Cash Flows Still Negative, March 2019.
- Falling Short Shale Development in West Virginia Fails to Deliver on Economic Promises. February 2019.
- IEEFA Response to the U.S. Chamber of Commerce Analysis of the "Keep it in the Ground" Movement, February 2019.
- Fossil Fuel Investments: Looking Backwards May Prove Costly to Investors in Today's Market, February 2019.
- PREPA Privatization Will Hurt Consumers and Slow Economic Recovery, January 2019.
- The Vanishing Need for the Atlantic Coast Pipeline, January 2019.
- More Red Flags on Fracking: Weak Third-Quarter Results as Cash Losses Persist Even With Production and Price Increases, December 2018.
- Energy Market Update: Red Flags on Fracking, October 2018.
- Significant Financial Risks Confront Teck's Frontier Oil Sands Mine Project, August 2018.
- Multibillion-Dollar Oil Scandal Goes Unaddressed in PREPA Contract Reform and Privatization, July 2018.
- The Financial Case for Fossil Fuel Divestment, July 2018.
- Canada's Folly: Government Purchase of Trans Mountain Pipeline Risks an Increase in National Budget Deficit by 36%, Ensures a 637% Gain by Kinder Morgan, June 2018.
- ExxonMobil's Climate Risk Report Defective and Unresponsive, March 2018.
- Toward Electric System Sustainability in Puerto Rico, February 2018.
- Australia's Export LNG Plants at Gladstone: The Risks Mount, June 2017.
- ExxonMobil Investor Note, April 2017.
- The High-Risk Financing Behind the Dakota Access Pipeline: A Stranded Asset in the Making in the Bakken Region of North Dakota, November 2016.
- IEEFA Comments on Northern Gas Pipeline Environmental Impact Statement, October 2016.
- IEEFA Filing: Testimony to the Puerto Rico Energy Commission, October 2016.
- Red Flags on ExxonMobil (XOM): A Note to Institutional Investors, October 2016.
- The Northern Gas Pipeline Submission to the EIS, October 2016.
- Pipe Dreams: A Financial Analysis of the Northern Gas Pipeline, May 2016.
- Risks Associated With Natural Gas Pipeline Expansion Across Appalachia, April 2016.
- Teck Resources: Rough Road on Oil Sands Investments, April 2015.
- 'A Constellation of Risks': How Public Accountability Is Slowing Tar Sands Development, October 2014.

Commentary

- Gas and electricity prices will rise if Narrabri gas fields approved. September 29, 2020.
- Ohio cancels permits for controversial Mountaineer storage facility. September 28, 2020.
- When investors won't back gas, why should taxpayers? September 16, 2020.
- Weakness of fracking accentuated by plunging cash flows during pandemic quarter. September 15, 2020.
- Capex cuts fail to stem gusher of red ink for Appalachian frackers. September 10, 2020.
- COVID-19 Advisory Board wants government to subsidise failing gas industry. August 27, 2020.
- The state of New South Wales should not sponsor a loss-making, wealth destroying industry. August 26, 2020.
- Another pipeline tripped up by failure to obtain a Clean Water Act approval. August 13, 2020.
- Australia sponsors a failing gas industry. July 23, 2020.
- Renewables or gas which will we choose? July 21, 2020.
- Three major pipeline projects are scrapped in short order. July 8, 2020.
- Dubbo's new renewables zone shows the path away from fossil fuels. July 7, 2020.
- FERC orders New Fortress Energy to explain lack of permission for San Juan LNG facility. June 22, 2020.
- Washington and San Juan hid from the public actual spending on Puerto Rico's electric power system. June 15, 2020.
- Here's why the Texas Railroad Commission should regulate flaring in the oil fields. June 12, 2020.
- The markets won't respond to Australia's proposed "gas-fired recovery". June 9, 2020.
- IEEFA podcast: Banking on oil, gas and petrochemicals is a defensive strategy unlikely to work. June 4, 2020.
- The glut of cheap gas and lack of capital to restart projects mean a gas-led strategy won't lead to economic recovery. May 20, 2020.
- Gov. Cuomo denied Williams pipeline project saving ratepayers millions. May 18, 2020.
- IEEFA Gas Chat: Even before COVID-19, the oil and gas industry's model was broken (PODCAST). May 13, 2020.
- IEEFA podcast: Greenhouse emissions from gas higher than industry estimates. May 4, 2020.
- Texas should cap oil and gas production to restore free market principles. May 1, 2020.
- Federal lending to the oil and gas sector would be a complete waste of money. April 27, 2020.
- Financial prospects falter for LNG projects. April 24, 2020.
- IEEFA podcast: What's the 'new normal' post coronavirus? Australia says gas. April 24, 2020.
- Swimming in oil and nowhere to put it? April 22, 2020.

- IEEFA Director of Finance urges oil production cuts at Texas Commission Hearing. April 15, 2020.
- IEEFA urges Texas Railroad Commission to curtail state oil production. April 7, 2020.
- With COVID-19, energy markets are turning towards clean energy investments. April 6, 2020.
- Loan program for coronavirus-impacted businesses excludes oil and gas companies. Or does it? March 31, 2020.
- Fracking companies' 2019 performance signals ongoing crisis. March 19, 2020.
- Mountaineer NGL storage project loses its environmental permit. March 10, 2020.
- Rebound from collapsed oil prices will be low and slow. March 9, 2020.
- Teck's withdrawal from Frontier oil sands project has extraordinary implications. February 27, 2020.
- Oil majors' shrinking capital expenditures (capex) signal ongoing decline of sector. February 26, 2020.
- IEEFA statement on Teck Resources decision to withdraw Frontier Mine proposal. February 24, 2020.
- Teck Resources, wisely, casts doubt on Frontier Oil Sands mine project. February 7, 2020.
- ExxonMobil reaches deeper into its bag of tricks to pay shareholder dividends. January 31, 2020.
- BlackRock to investors: sustainable portfolios provide stronger risk-adjusted returns. January 30, 2020.
- ExxonMobil confronts shrinking financial status. January 29, 2020.
- Bankruptcies multiply for fracking sector. January 28, 2020.
- BlackRock decision on climate change–it's about business. January 22, 2020.
- The terrible, horrible, no good, very bad year for oil and gas. January 21, 2020
- Oil majors live beyond their means can't pay for dividends, buybacks. January 16, 2020.
- BlackRock takes first step towards aligning US\$7 trillion fund with Paris Agreement. January 16, 2020.
- Teck Resources' Frontier Oil Sands project shows reckless disregard for financials. January 16, 2020.
- Oil and gas stocks place dead last in 2019, again, despite 30% price rise. January 9, 2020.
- PREPA debt deal hurts consumers, dodges underlying crisis. December 19, 2019.
- Evaluating Puerto Rico's energy transformation, an opportunity to define and promote the public interest. December 9, 2019.
- Norway's 2020 budget signals hard choices ahead. December 6, 2019.
- Oil and gas production in Vaca Muerta, Patagonia awaits direction from new leadership. December 5, 2019.
- Appalachia fracking industry faces uphill battle for earnings. November 27, 2019.
- IEEFA testimony: Support for Massachusetts bills allowing fossil fuel divestment. November 27, 2019.
- Moody's adjusts ExxonMobil credit outlook to negative. November 21, 2019.

- Additional \$320 million in subsidies used to finance Trans Mountain Pipeline in first half of 2019. November 19, 2019.
- Court examiner finds PREPA bond deal fees are out of control. November 14, 2019.
- ExxonMobil abandons goal of "quick cash" from Permian fracking. November 13, 2019.
- IEEFA letter to Puerto Rico's Legislative Assembly: Secure more viable PREPA debt deal. October 29, 2019.
- Fiduciary duty and fossil fuel divestment. October 22, 2019.
- CAMBIO and IEEFA gain unprecedented access to PREPA's documents and electrical system data. October 17, 2019.
- Political and economic crisis throws Argentina's energy market into disarray. October 9, 2019.
- PREPA utility debt deal repeats mistakes of the past. October 7, 2019.
- GE's Q3 loss, write-off likely to be \$9+billion. October 4, 2019.
- Aftermath of Saudi oilfield bombings sound warnings for future volatility. September 24, 2019.
- Oilfield bombings in Saudi Arabia lift oil and gas stocks, for a fleeting moment. September 20, 2019.
- Low natural gas prices a negative outlook for energy sector. September 18, 2019.
- Argentina's financial crisis is an opportunity to rethink its energy plan and fracking in Patagonia. September 12, 2019.
- Argentina's financial crisis offers chance to rethink national energy plan. September 10, 2019.
- ExxonMobil's slide from the Top Ten of the S&P 500 historic turning point for the company. August 30, 2019.
- Governor Vázquez needs to scrutinize new natural gas contracts in Puerto Rico. August 27, 2019.
- Puerto Rico Electric Power Authority debt deal weak and plagued by scandal. August 21, 2019.
- U.S. fracking sector disappoints again. August 19, 2019.
- Federal government needs to stop the magical gas merry-go-round. August 19, 2019.
- Eleven facts ExxonMobil would like investors to forget. August 8, 2019.
- Argentina would be wise not to replicate the broken U.S. shale industry model. August 8, 2019.
- Exxon's Q2 report marks another signpost on the long road downwards. August 5, 2019.
- BlackRock's fossil fuel investments wipe US\$90 billion in massive investor value destruction. August 1, 2019.
- Risk factors multiply for GE as California power plant shutters—20 years early. July 29, 2019.
- Fracking companies in Appalachia struggle financially. July 17, 2019.
- The staggering cost of gas in Australia. July 15, 2019.
- Early performance suggests shortfall in 2019 oil and gas production. July 11, 2019.

- Gas reservation policy would reduce electricity prices in Australia. July 8, 2019.
- Commercial need for Trans Mountain Pipeline no longer holds if it ever did. June 13, 2019.
- GE made a massive bet on the future of natural gas and thermal coal, and lost. June 6, 2019.
- U.S. fracking sector bleeds red ink in Q1. June 4, 2019.
- Vaca Muerta railway, essential for development plans, placed on hold. May 9, 2019.
- ExxonMobil's drill, drill, drill strategy earns a "D-" May 3, 2019.
- Vaca Muerta development stalled? April 29, 2019.
- New policy for massive subsidies for Australian gas industry is a poor decision. April 29, 2019.
- Rich Uncle Chevron swoops in to save fracking industry. But at a 39% premium? April 23, 2019.
- Canada Trans Mountain Pipeline financials provide few clues on actual price tag and future costs. April 10, 2019.
- Financing lags for critical infrastructure to meet Vaca Muerta Patagonia fracking goals. April 5, 2019.
- ExxonMobil rebooking Canadian oil sands reserves. March 29, 2019.
- IEEFA Puerto Rico: Bad gas deal hurts PREPA chances for a turnaround. March 28, 2019.
- Argentina's Vaca Muerta Patagonia fracking plan is financially risky, fiscally perilous. March 22, 2019.
- New York State pension fund should divest from fossil fuels. March 20, 2019.
- U.S. fracking industry posts disappointing Q4 results. March 20, 2019.
- Get out now—Norway's fossil fuel epiphany. March 14, 2019.
- Chevron's Permian refrain "Wait 'til next year". February 26, 2019.
- Andrew Cuomo got it right on New York's fracking ban. February 12, 2019.
- The fracking depreciation dodge. February 11, 2019.
- Government cannot afford subsidies for Vaca Muerta oil and gas producers. February 8, 2019.
- Financial case builds for fossil fuel divestment. February 8, 2019.
- Frackers continue to underperform December 5, 2018.
- New natural gas deal fits same old pattern for choosing contractors. January 22, 2019.
- Setbacks in plan to use Vaca Muerta oil and gas reserves to kickstart economy. January 9, 2019.
- 2018 ends with energy sector in last place in the S&P 500. January 2, 2019.
- Norway's recognition of a declining oil and gas sector sends a message. December 21, 2018.
- Frackers continue to underperform. December 5, 2018.
- Backroom natural gas deals threaten to displace public renewable energy plans. December 3, 2018.
- ExxonMobil goes back large into risky Canadian oil sands. November 29, 2018.
- Oil and gas industry caught in a capex conundrum. November 13, 2018.
- How should shareholders react to New York's ExxonMobil lawsuit? October 29, 2018.

- In need of a domestic gas reservation policy to bring electricity bills down. October 26, 2018.
- In Exxon lawsuit, another indication of growing oil-industry peril. October 25, 2018.
- More red flags on fracking-focused companies. October 17, 2018.
- Ill-advised oil sands project faces rough future. October 10, 2018.
- Whether prices are high or low, the oil and gas industry is freighted with risk. September 25, 2018.
- Colorado's pension fund shouldn't bank on the future of oil and gas. September 18, 2018.
- Six real-world rebuttals to divestment naysayers. September 12, 2018.
- Divestment 101. August 31, 2018.
- The investment rationale for fossil fuels falls apart. August 27, 2018.
- Plan to turn to imported natural gas will cost Puerto Rico dearly. August 17, 2018.
- Gas oligopoly is gouging Australia. August 7, 2018.
- U.S.-Canada trade tensions could scuttle Kinder Morgan sale of Trans Mountain Pipeline. August 3, 2018.
- Effects of long-running oil-purchase scandal undermine privatization and contract-reform initiatives at PREPA. July 18, 2018.
- A gas cartel run amuck. July 13, 2018.
- Fund trustees face growing fiduciary pressure to divest from fossil fuels. July 10, 2018.
- 'Canada's Folly' could drive national budget deficit 36% higher while ensuring Houston-based Kinder Morgan a 637% gain. June 26, 2018.
- Looking for innovation in the wrong place, ExxonMobil opens an energy-trading desk. June 22, 2018.
- Fund managers who acquiesce to ExxonMobil's climate-risk denial do their investors a disservice June 12, 2018.
- How Gas and Oil Companies Are Starting to Look Like the Yellow Pages (Remember Those?) May 30, 2018.
 New Oil Price Volatility Will Help Drive Transition From Fossil Fuels. May 16, 2018.
- As ExxonMobil Doubles Down on Oil and Gas, Investors Go Elsewhere. May 11, 2018.
- ExxonMobil's Empty Climate-Risk Report. April 3, 2018.
- The Time to Reason With Oil Majors Has Passed. March 8, 2018.
- Shareholders Need Not Be in Denial Like ExxonMobil Is. February 26, 2018.
- Red Flags Around ExxonMobil's Q4 and 2017 Earnings. February 6, 2018.
- Cuomo Is Right on Fossil Fuel Divestment. January 4, 2018.
- 'Pension Funds, Sell Your Gas and Oil Stock'. December 4, 2017.
- The Many Risks in Rising Oil Prices. December 1, 2017.
- Norway Shows What to Do With Fading Oil and Gas Holdings. November 22, 2017.
- Australia's National Natural-Gas Scandal. October 11, 2017.
- Renewable Energy Opportunity Now for Norway's \$976 Billion Pension Fund as Global Institutional Capital Migrates Out of Fossil Fuels. August 30, 2017.

- To Avoid Heavy Losses, Insurance Companies Must Wake Up to Risks of Fossil Fuel Projects. July 13, 2017.
- Climate Risk, the Oil Industry, ExxonMobil, Rex Tillerson... June 9, 2017.
- As Australia Fights a Domestic Gas Shortage, New Export Plants Are at Risk of Closure. June 5, 2017.
- Shareholder Vote on Exxon Mobil's Climate-Risk Transparency Suggests a Larger Opening. May 31, 2017.
- Exxon Sends Investors Down a Russian Rabbit Hole. April 20, 2017.
- IEEFA Investor Memo ExxonMobil (XOM): Company Is an 'Outlier' in How It Reports Write-offs on Canadian Oil Sands Assets. April 17, 2017.
- The Emperor Exxon Isn't Wearing Very Much. April 11, 2017.
- Wall Street Gets the Exxon Heebie-Jeebies. March 3, 2017.
- Questions, More Questions. February 23, 2017.
- Investors Should Steer Clear of the Keystone Pipeline. January 31, 2017.
- Exxon Trouble. January 31, 2017.
- An Oil-Industry Bailout Is in the Works in Washington. December 16, 2016.
- The Puerto Rico Electric Power Authority Would Starve Its Electric Grid to Pay Its Bondholders. December 14, 2016.
- Dakota Access Pipeline Driven by 'High-Risk Financing' in Overbuilt Region; Little-Known Economic Weaknesses in Controversial Project. November 15, 2016.
- A Company in Need of More Accountability at the Top. November 11, 2016.
- Why the Abrupt Revision on Reserves? November 10, 2016.
- The Problems Are More Than Cyclical November 9, 2016.
- Telltale Crossover in Late 2014 Marks Where a Major Oil Stock Began to Go South. October 27, 2016.
- Red Flags on ExxonMobil: Core Financials Show a Company in Decline. October 26, 2016.
- Australia's Natural-Gas Cartel Is Bleeding Australia. August 29, 2016.
- NYC Pension Funds Begin to Craft a Fossil-Fuel Divestment Path Others Can Follow. July 25, 2016.
- Investment Bank Blindness to Risk in Fossil-Fuel Sector. June 14, 2016.
- IEEFA 'Pipe Dream' Report Questions Rationale for North East Gas Interconnector in Australia. May 19, 2016.
- Audio: Our Comments on Pipeline-Overbuild Risks in Appalachia. April 29, 2016.
- Two Pipelines Proposed for Construction From West Virginia Into Virginia and North Carolina Show Overbuilding by Natural Gas Industry. April 27, 2016.
- For Canada's Teck Resources, a Tough Road on Oil Sands Investments. April 20, 2015.
- Teck Resources, a Major Canadian Oil Sands Promoter, Faces Difficulties. April 20, 2015.
- Rough Road on Oil Sands Investments. April 20, 2015.
- A Shakeout Begins for U.S. Shale-Oil Producers. January 12, 2015.
- Our Tar-Sands Outlook, Part 1: Costly Opposition, in Perpetuity. November 3, 2014.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

About the Authors

Tom Sanzillo

Tom Sanzillo, director of finance for IEEFA, is the author of numerous studies on the oil, gas, petrochemical and coal sectors in the U.S. and internationally, including company and credit analyses, facility development, oil and gas reserves, stock and commodity market analysis and public and private financial structures. Sanzillo has experience in public policy and has testified as an expert witness, taught energy industry finance and is quoted frequently in the media. He has 17 years of experience with the City and the State of New York in senior financial and policy management positions. As the first deputy comptroller for the State of New York Sanzillo oversaw the finances of 1,300 units of local government, the annual management of 44,000 government contracts, and over \$200 billion in state and local municipal bond programs as well as a \$156 billion global pension fund.

Kathy Hipple

Kathy Hipple, a financial analyst at IEEFA, teaches the finance sequence at Bard's MBA in Sustainability and is the founding partner of Noosphere Marketing. Hipple has written extensively about sustainable, responsible and impact finance and investing. As Vice President at Merrill Lynch for 10 years, she placed fixed income securities with international institutional clients, and advised international life insurance companies and pension funds. She later founded Ambassador Media, a local search firm in New York City, and served as its CEO. She has served on several boards, including the national Local Search Association and Bennington County's Meals on Wheels.

This report is for information and educational purposes only. The Institute for Energy Economics and Financial Analysis ("IEEFA") does not provide tax, legal, investment, financial product or accounting advice. This report is not intended to provide, and should not be relied on for, tax, legal, investment, financial product or accounting advice. Nothing in this report is intended as investment or financial product advice, as an offer or solicitation of an offer to buy or sell, or as a recommendation, opinion, endorsement, or sponsorship of any financial product, class of financial products, security, company, or fund. IEEFA is not responsible for any investment or other decision made by you. You are responsible for your own investment research and investment decisions. This report is not meant as a general guide to investing, nor as a source of any specific or general recommendation or opinion in relation to any financial products. Unless attributed to others, any opinions expressed are our current opinions only. Certain information presented may have been provided by third-parties. IEEFA believes that such third-party information is reliable, and has checked public records to verify it where possible, but does not guarantee its accuracy, timeliness or completeness; and it is subject to change without notice.